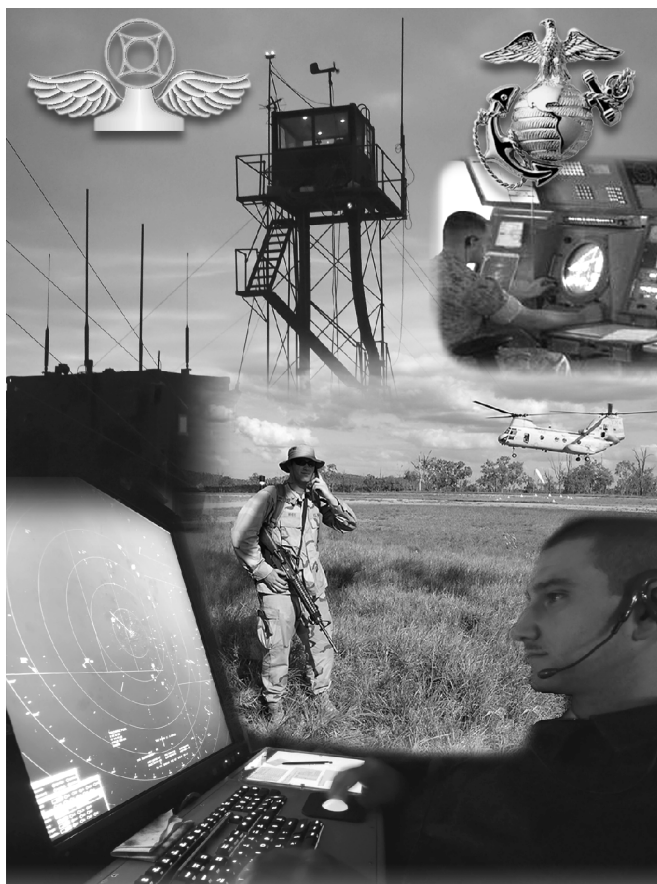


NAVAIR 00-80T-114

# NATOPS AIR TRAFFIC CONTROL MANUAL

THIS MANUAL SUPERSEDES NAVAIR 00-80T-114  
DATED 15 SEPTEMBER 2006.



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DEPARTMENT OF THE NAVY  
NAVAL AIR SYSTEMS COMMAND  
RADM WILLIAM A. MOFFETT BUILDING  
47123 BUSE ROAD, BLDG 2272  
PATUXENT RIVER, MD 20670-1547

01 JULY 2009

### LETTER OF PROMULGATION

1. The Naval Air Training and Operating Procedures Standardization (NATOPS) Program is a positive approach toward improving combat readiness and achieving a substantial reduction in the aircraft mishap rate. Standardization, based on professional knowledge and experience, provides the basis for development of an efficient and sound operational procedure. The standardization program is not planned to stifle individual initiative, but rather to aid the Commanding Officer in increasing the unit's combat potential without reducing command prestige or responsibility.
2. This manual standardizes ground and flight procedures but does not include tactical doctrine. Compliance with the stipulated manual requirements and procedures is mandatory except as authorized herein. In order to remain effective, NATOPS must be dynamic and stimulate rather than suppress individual thinking. Since aviation is a continuing, progressive profession, it is both desirable and necessary that new ideas and new techniques be expeditiously evaluated and incorporated if proven to be sound. To this end, Commanding Officers of aviation units are authorized to modify procedures contained herein, in accordance with the waiver provisions established by OPNAVINST 3710.7, for the purpose of assessing new ideas prior to initiating recommendations for permanent changes. This manual is prepared and kept current by the users in order to achieve maximum readiness and safety in the most efficient and economical manner. Should conflict exist between the training and operating procedures found in this manual and those found in other publications, this manual will govern.
3. Checklists and other pertinent extracts from this publication necessary to normal operations and training should be made and carried for use in naval aircraft.
4. Per NAVAIRINST 13034.1 series, this flight clearance product provides NAVAIR airworthiness certification subsequent to design engineering review. It does not authorize aircraft system modification, nor does it satisfy NAVAIR requirements for configuration management. Refer to OPNAVINST 4790.2 series for policy guidance on configuration management and modification authority.

A handwritten signature in black ink, appearing to read "D. E. Gaddis", is positioned above the typed name and title.

D. E. GADDIS  
Rear Admiral, United States Navy  
By direction of  
Commander, Naval Air Systems Command



<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>INTERIM CHANGE SUMMARY</b> </div>
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*The following Interim Changes have been cancelled or previously incorporated into this manual.*

INTERIM CHANGE NUMBER(S)	REMARKS/PURPOSE
1 thru 7	Previously Incorporated.

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8	PAR Alignment Verification
9	Wireless Headsets Guidance

*Interim Changes Outstanding — To be maintained by the custodian of this manual.*

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COMNAVSURFPAC SAN DIEGO CA//N42//  
COMMARFORCOM//DSS//  
COMMARFORPAC//SAFETY//  
CMC WASHINGTON DC//APX25//  
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CG FIRST MAW//G3//  
CG FOURTH MAW//DOSS/G3//  
CG MCI WEST  
CG SECOND MAW//G3//  
CG THIRD MAW//G3//  
CNATRA CORPUS CHRISTI TX//N3//  
CNIC WASHINGTON DC//N3//  
COMFAIRWESTPAC ATSUGI JA  
COMMARCORBASESPAC CAMP H M SMITH HI  
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USS RONALD REAGAN  
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GENTEXT/REMARKS/1. THIS MESSAGE IS ISSUED IN RESPONSE TO REFS A AND  
B. THIS MESSAGE ISSUES INTERIM CHANGE (IC) NUMBER 10 TO REF C.

2. SUMMARY.

- A. THIS MESSAGE ISSUES MULTIPLE ERRATA CHANGES TO REF C.
- B. REPLACEMENT PAGES CONTAINING THESE CHANGES WILL BE INCORPORATED BY NATEC INTO THE NEW NATOPS CONFERENCE REVISION (DATED 01 JUL 2009) PRIOR TO PAPER DISTRIBUTION OF THE NM TO THE FLEET. THIS INTERIM CHANGE MESSAGE WILL ALSO BE POSTED ON THE NATEC AND AIRWORTHINESS WEBSITES (SEE LAST PARA BELOW) AND AN ELECTRONIC VERSION OF THE NM WITH THE INCORPORATED REPLACEMENT PAGES WILL BE AVAILABLE FOR DOWNLOAD.
- C. THIS CHANGE ONLY APPLIES TO THE NEW 01 JULY 09 VERSION OF THE NATOPS. DO NOT INCORPORATE INTO THE 15 SEP 06 VERSION.

3. THE REPLACEMENT PAGES IMPACT THE FOLLOWING NATOPS MANUAL.

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- A. REF C (ATC NM), PAGES 5/(6 BLANK), 1-3, 1-4, 2-9, 2-10, 2-13, 2-14, 3-1, 3-2, 3-15, 3-16, 4-5 THRU 4-8, 10-1, 10-2, B-1 THRU B-6, B-9 THRU B-12, B-21, B-22, B-25, B-26, B-27, B-28, B-35, B-36, B-39, B-40, P-1, P-2, P-3 AND P-4.

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  - (1) MARTY SCANLON, NATOPS IC COORDINATOR, TEL DSN 757-6045 OR COMM (301) 757-6045, EMAIL: MARTIN.SCANLON(AT)NAVY.MIL
  - (2) MARIO COON, PMA-213, ATC CLASS DESK OFFICE TEL DSN 995-7715, OR COMM (301) 995-7715, EMAIL: MARIO.COON(AT)NAVY.MIL
  - (3) LCDR BEN KELSEY, 4.0P NATOPS OFFICER, TEL DSN 995-2052, COM 301-995-2052, EMAIL: BEN.KELSEY@NAVY.MIL.
  - (4) AIRWORTHINESS GLOBAL CUSTOMER SUPPORT TEAM, (301) 757-0187, EMAIL AIRWORTHINESS(AT)NAVY.MIL.

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- C. INFORMATION REGARDING THE AIRWORTHINESS PROCESS, INCLUDING A LISTING OF ALL CURRENT INTERIM FLIGHT CLEARANCES, NATOPS AND NATIP PRODUCTS ISSUED BY NAVAIR 4.0P, CAN BE FOUND AT OUR WEBSITE: [HTTPS:\(SLASH\)\(SLASH\)AIRWORTHINESS.NAVAIR.NAVY.MIL](https://airworthiness.navair.navy.mil).
  - D. EPOWER FOLDER ID 886317, TRACKING NUMBER 35592.//

Paul Dolinar, Senior Airworthiness Engineer, 4.0P, 12/03/2009





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# LIST OF ABBREVIATIONS AND ACRONYMS

## A

**AAFIF.** Automated air facilities information file.

**AAO.** Assistant air operations officer.

**AATCC.** Amphibious air traffic control center.

**AATCFO.** Assistant air traffic control facility officer.

**AC.** Assault control; air controller.

**ACA.** Airspace control authority.

**ACA1.** Air traffic controller course.

**ACDS.** Advanced combat direction system.

**ACE.** Air combat element.

**ACO.** Air control order.

**ACU.** Air control unit.

**ACWS.** Air traffic control watch supervisor (USN SDAP).

**ADC.** Air defense commander.

**ADCS.** Air defense coordination section.

**ADSI.** Air defense systems integrator.

**AGL.** Above ground level.

**AICUZ.** Air installations compatible use zones.

**AIM.** Aeronautical information manual.

**AIP.** Aeronautical information publication.

**AIRNAV.** Air navigation.

**AirOps.** Air operations.

**AISR.** Aeronautical Information system replacement.

**ALF.** Auxiliary landing field.

**ALPA.** Air line pilots association.

**ALS.** Approach lighting system.

**ALTRV.** Altitude reservation.

**AMIS.** Aircraft movement information service.

**AMLIP.** Airfield marking and lighting improvement Program.

**AMS.** Aircraft management system.

**ANA.** Association of naval aviation.

**AO.** Air operations officer.

**AOA.** Amphibious operating area.

**AOPA.** Aircraft owners and pilots association.

**AOR.** Area of responsibility.

**AOWO.** Air operations watch officer.

**AP.** Approach control.

**APA.** Allied pilots association.

**APC.** Approach control (ATCS Rating).

**AR.** Arrival control.

**ARSR.** Air route surveillance radar.

**ARTCC.** Air route traffic control center.

**ASC.** Assistant sector control;  
air support coordinator.

**ASCS.** Air support control section.

**ASR.** Airport surveillance radar.

**ASTAB.** Automatic status board.

**ATA.** Air Transport Association of America.

**ATC.** Air traffic control.

**ATCA.** Air traffic control association.

**ATCAA.** Air traffic control assigned airspace.

**ATCF.** Air traffic control facility.

**ATCFO.** Air traffic control facility officer.

**ATCFTSO.** Air traffic control facility training and standardization officer (USMC).

**ATCFWO.** Air traffic control facility watch officer (USMC).

**ATCNCOIC.** Air traffic control non-commissioned officer-in-charge (USMC).

**ATCRBS.** ATC radar beacon system.

**ATCS.** Air traffic control specialist;  
air traffic control section (TACC).

**ATCT.** Air traffic control tower.

**ATF.** Amphibious task force.

**ATIS.** Automatic terminal information service.

**ATO.** Air transfer officer; Air tasking order.

**ATPAC.** Air traffic procedures advisory committee.

**ATREP.** Air traffic representative.

**ATS.** Air traffic control training supervisor (USN SDAP).

**AWT.** Airman's written test (FAA).

## **B**

**BASEOPS.** Base operations (ATCS Rating).

**BASH.** Bird/wildlife aircraft strike hazard.

**BDA.** Battle damage assessment.

**BESEP.** Base electronic systems engineering plan.

**BRANDS.** Bright radar alphanumeric display system.

**BRC.** Base recovery course.

## **C**

**CA.** Conflict alert.

**CALO.** Command airspace liaison officer.

**CAS.** Close air support.

**CATCC.** Carrier air traffic control center.

**CATF.** Commander, amphibious task force.

**CCA.** Carrier controlled approach.

**CCSB.** Configuration control sub-board.

**CD.** Clearance delivery.

**CDC.** Combat direction center.

**CEB.** Controller evaluation board.

**CERAP.** Combined center and radar approach control.

**CFR.** Code of federal regulations.

**CGIP.** Commanding General Inspection Program.

**CHUM.** Chart updating manual.

**CIC.** Combat information center.

**CMC.** Commandant of the Marine Corps.

**CNO.** Chief of Naval Operations.

**COD.** Carrier onboard delivery.

**COMPLAN.** Communications plan.

**CONUS.** Continental United States.

**CP.** Command post.

**CTO.** Control tower operator.

**CV.** Aircraft carrier.

**CVIC.** Carrier intelligence center.



**D**

**DAIR.** Direct altitude identity readout.

**DASI.** Digital altimeter setting indicator.

**DASR.** Digital airport surveillance radar.

**DC.** Departure control.

**DH.** Decision height.

**DINS.** Defense internet NOTAM service.

**DME.** Distance measuring equipment.

**DOD.** Department of Defense.

**DOD FLIP.** Department of Defense flight information publication.

**DON.** Department of the Navy.

**DOT.** Department of Transportation.

**DP.** Departure procedure.

**DRR.** Departure reference radial.

**DUATS.** Direct user's access terminal system.

**DVMG.** Digital video map generator.

**E**

**EAf.** Expeditionary airfield.

**EAT.** Expected approach time.

**EAWS.** Enlisted aviation warfare specialist.

**ECM.** Electronic countermeasures.

**ECN.** En route change notice.

**EMCON.** Electronic emission control.

**EPDS.** Evaluation, proficiency and development specialist.

**ESG.** Expeditionary strike group.

**F**

**FAA.** Federal Aviation Administration.

**FAAO.** FAA order.

**FAC.** Forward air controller.

**FACMAN.** ATC facility manual.

**FACSFAC.** Fleet area control and surveillance Facility.

**FACTS.** FACS FAC Air control tracking system.

**FADIZ.** Fleet air defense identification zone.

**FAF.** Final approach fix.

**FAP.** Fleet assistance program.

**FC.** Final control.

**FCF.** Functional check flight.

**FCLP.** Field carrier landing practice.

**FD.** Flight data.

**FDIO.** Flight data input/output.

**FIFO.** Flight Inspection Field Office.

**FLIP.** Flight information publication.

**FLOLS.** Fresnel lens optical landing system.

**FOB.** Forward operating base.

**FOD.** Foreign object damage.

**FP.** Flight planning dispatcher.

**FS.** Flight planning supervisor.

**FSCC.** Fire support coordination center.

**FSS.** Flight Service Station.

**FWO.** Facility watch officer (USMC).

**FWS.** Facility watch supervisor.

**G**

**GC.** Ground control.

**GCA.** Ground controlled approach.

**GEMD.** Ground electronics maintenance division.

**GEMO.** Ground electronics maintenance officer.

**GENOTs.** General notices.

**GSIP.** Glide slope intercept point/altitude.

**H**

**HAi.** Helicopter Association International.

**HAZREP.** Hazard report.

**HCS.** Helicopter coordination section (TACC).

**HERO.** Hazards of electromagnetic Radiation to ordnance.

**HHQ.** Higher headquarters.

**HIDACZ.** High density airspace control zone.

**HR.** Helicopter request.

**HUMEVAC.** Humanitarian evacuation.

**I**

**IAP.** Instrument approach procedure.

**IAF.** Initial approach fix.

**ICAO.** International Civil Aviation Organization.

**ICLS.** Instrument carrier landing system.

**IFF.** Identification friend or foe.

**IFLOLS.** Improved Fresnel lens optical landing system.

**IFR.** Instrument flight rules.

**ILS.** Instrument landing system.

**IMC.** Instrument meteorological conditions.

**IR.** IFR military training route.

**IRAM.** Individual records administration manual.

**ISEA.** In-service engineering agent.

**ISIC.** Immediate senior/superior in command.

**ISIS.** Integrated shipboard information system.

**ITSS.** Individual training standards system.

**J**

**JAC2.** Joint Air Command and Control.

**JFACC.** Joint Forces Air Component Commander.

**JMCIS.** Joint Maritime Command Information System.

**JOTS.** Joint operational tactical system.

**JP.** Joint Publication.

**JQR.** Job qualification requirement.

**JTAR.** Joint tactical air request.

**L**

**LC.** Local control.

**LHA.** Amphibious assault ship.

**LHD.** Multi-purpose amphibious assault ship.

**LOA.** Letter of agreement.

**LOP.** Letter of procedure.

**LQS.** Local qualification standard.

**LSO.** Landing signal officer.

**LTG.** Lesson topic guide.

**M**

**MAP.** Missed approach point.

**MACCS.** Marine air command and control system.

**MACS.** Marine air control squadron.

**MAGTF.** Marine Air/Ground Task Force.

**MALSR.** Medium-intensity approach light system with runway alignment indicator lights.

**MANMED.** Manual of the medical department, U.S. Navy.

**MARSA.** Military assumes responsibility for separation of aircraft.

**MATCD.** Marine Air Traffic Control Detachment.

**MC.** Marshal control.

**MCAS.** Marine Corps Air Station.

**MCTFS.** Marine Corps Total Force Structure.

**MDA.** Minimum descent altitude.

**MDS.** Maintenance data system.

**MEDEVAC.** Medical evacuation flight.

**MOA.** Memorandum of agreement; military operations area.

**MOS.** Military occupational specialty.

**MOU.** Memorandum of understanding.

**MPR.** MACCS performance record.

**MRU.** Military radar unit.

**MSAW.** Minimum safe altitude warning.

**MSL.** (Altitude above) mean sea level.

**MTI.** Moving target indicator.

**MTR.** Military training route.

**MVA.** Minimum vectoring altitude.

**MVAC.** Minimum vectoring altitude chart.

**N**

**NAALS.** Naval air traffic control, air navigation aids and landing systems.

**NAATS.** National Association of Air Traffic Specialists.

**NAF.** Naval Air Facility.

**NAMI.** Naval Aerospace Medical Institute.

**NAS.** National airspace system; Naval Air Station.

**NATEC.** Naval Air Technical Data and Engineering Services Command.

**NATTC.** Naval Air Technical Training Center.

**NAVAID.** Navigational aid.

**NAVFIG.** Naval Flight Information Group.

**NAVREP.** DON representative to the FAA.

**NAWCAD.** Naval Air Warfare Center, Aircraft Division.

**NAWCWD.** Naval Air Warfare Center, Weapons Division.

**NBAA.** National Business Aircraft Association.

**NDB.** Nondirectional beacon.

**NEC.** Navy enlisted classification.

**NFDC.** National Flight Data Center.

**NFPA.** National Fire Protection Association.

**NGA.** National Geospatial-Intelligence Agency.

**NM.** Nautical mile.

**NMAC.** Near midair collision.

**NMCC.** National Military Command Center.

**NOISEMAP.** Noise contour development computer program.

**NORAD.** North American Aerospace Defense Command.

**NOTAM.** Notice to airmen.

**NOTEMAR.** Notice to mariners.

## NAVAIR 00-80T-114

**NPQ.** Not physically qualified.

**NS.** Naval Station.

**NSARC.** National Search and Rescue Committee.

**NSS.** National Search and Rescue Supplement.

**NTSP.** Navy training system plan.

**NTTP.** Navy tactics, techniques, and procedures.

**NWP.** Naval warfare publication.

### O

**OCC.** Operations control center.

**OCIR.** Operational capability improvement request.

**OIC.** Officer in charge.

**OJT.** On-the-job training.

**OJTI.** On-the-job training instructor.

**OLF.** Outlying field.

**OLS.** Optical landing system.

**OPAREA.** Operating area.

**OPTEMPO.** Operational tempo.

**OQR.** Officer qualification record.

**ORM.** Operational risk management.

**OS.** Operations specialist.

### P

**PALS.** Precision approach landing system.

**PAPI.** Precision approach path indicator.

**PAR.** Precision approach radar.

**PARROT.** Position adjustable range reference orientation transponder.

**PCN.** Planning change notice.

**PCS.** Permanent change of station.

**PE.** Permanent echo.

**PEB.** Procedure evaluation board.

**PIM.** Position of intended movement.

**PMC.** Passenger/mail/cargo (aircraft).

**PMS.** Preventive maintenance system.

**POA&M.** Plan of action and milestones.

**PQS.** Personnel qualification standard.

**PRF.** Pulse repetition frequency.

**PRIFLY.** Primary flight control.

**PRIM.** Personnel reporting instructions manual.

**PSD.** Personnel support detachment.

**PSS.** Plans and support section (TACC).

### R

**RAA.** Regional airline association.

**RAC.** Regional airspace coordinator.

**RAP.** Regional airspace plan.

**RAPCON.** Radar approach control.

**RATCF.** Radar air traffic control facility.

**RCC.** Rescue coordination center.

**RDO.** Runway duty officer.

**RDT&E.** Research, development, test and evaluation.

**RENOT.** FAA regional notice.

**RFC.** Radar final controller.

**ROC.** Radar operations center.

**ROCC.** Radar operations control center.

**RS.** Radar supervisor.

**RVR.** Runaway visual range.

**S**

**SACC.** Supporting Arms Coordination Center; Substance Abuse Counseling Center (USMC).

**SAR.** Search and rescue.

**SARP.** Substance abuse rehabilitation program (USN).

**SC.** Sector control.

**SCATANA.** Security control of air traffic and air navigation aids.

**SDAP.** Special duty assignment pay.

**SIAP.** Standard instrument approach procedure.

**SID.** Standard instrument departure.

**SINS.** Ship's inertial navigation system.

**SLEP.** Service life extension program.

**SM.** Statute mile.

**SOCC.** Surface operations control center.

**SOP.** Standard operating procedure.

**SPINS.** Special instructions.

**SRB.** Service record board.

**SS.** Surface supervisor.

**SSALR.** Simplified short approach lighting system with runway alignment indicator lights.

**STAR.** Standard terminal arrival route.

**STARS.** Standard terminal automation replacement System.

**SUA.** Special use airspace.

**SUD.** Site unique data.

**SVFR.** Special visual flight rules.

**SWAP.** Severe weather avoidance plan.

**T**

**TAC.** Tactical air controller.

**TACAN.** Tactical air navigation aid.

**TACC.** Tactical air control center.

**TACCWO.** TACC watch officer.

**TACP.** Tactical air control party.

**TACRON.** Tactical air control squadron.

**TAD.** Tactical air director.

**TAR.** Tactical air request.

**TATC.** Tactical air traffic controller.

**TCN.** Terminal change notice.

**TEAP.** Test equipment allowance process.

**TERPS.** Terminal instrument procedures.

**TFR.** Temporary flight restriction.

**T & R.** Training and readiness.

**TRACON.** Terminal radar approach control.

**TTH.** Total training hours.

**TYCOM.** Type commander.

**U**

**UCN.** Urgent change notice.

**UFC.** Unified facilities criteria.

**UHF.** Ultrahigh frequency.

**UTC.** Coordinated universal time.

**V**

**VDB.** Visual display board.

**VFR.** Visual flight rules.

**VHF.** Very high frequency.

**VIDS.** Visual information display system.

**NAVAIR 00-80T-114**

**VIP.** Very important person.

**VISCOM.** Visual communications.

**VLA.** Visual landing aid.

**VMC.** Visual meteorological conditions.

**VOD.** Vertical on-board delivery.

**VOR.** VHF omnidirectional range.

**VORTAC.** Co-located VOR and TACAN  
navigational aid.

**VR.** VFR military training route.

**VTOL.** Vertical takeoff and landing.

**V/STOL.** Vertical/short takeoff and landing.

# PREFACE

## SCOPE

NATOPS manuals are issued by the authority of the Chief of Naval Operations and under the direction of the Commander, Naval Air Systems Command in conjunction with the Naval Air Training and Operating Procedures Standardization (NATOPS) program. NATOPS publications provide the best available operating instructions for most circumstances. However, no manual can cover every situation or be a substitute for sound judgment; operational situations may require modification of the procedures contained therein. Read these publications from cover to cover. It is your responsibility to have a complete knowledge of their contents.

### Note

See [Chapter 1](#) for more information on the scope and purpose of this manual, and for any special requirements or procedures that compliment those contained in this preface.

## DETERMINING THE CURRENT VERSION OF THIS PUBLICATION

The current versions of NATOPS publications are listed in the NATOPS Status Report which is available online at <https://airworthiness.navair.navy.mil>. Upon receiving a copy of a NATOPS, consult the NATOPS Status Report to determine its current configuration (through the latest revision, change, and interim change). Before using this publication, users shall ensure that they have the current version of it.

## OBTAINING COPIES OF THIS PUBLICATION

**One-Time Orders.** Copies of this publication and the current changes thereto may be ordered from the Naval Logistics Library (NLL) using NAVICP Pub 2003, which is available online at <https://nll.ahf.nmci.navy.mil>, or procured through the supply system in accordance with NAVSUP P-409 (MILSTRIP/MILSTRAP). This manual is also available in pdf format and may be viewed on, and downloaded from, the NATEC or AIRWORTHINESS websites, [www.natec.navy.mil](http://www.natec.navy.mil) or <https://airworthiness.navair.navy.mil>, respectively.

### Note

- When the current revision of a publication is ordered through NLL or NAVSUP, copies of all active changes to the publication will be forwarded along with it. The printed changes to a revision need not be ordered in addition to ordering the revision.
- An order for a publication that exceeds the maximum order quantity posted on the NLL website will be filled not to exceed the maximum order quantity. Additional orders will be required in order for an activity to receive more than the posted maximum order quantity of a publication.
- Interim changes to NATOPS publications are not stocked within the NLL or NAVSUP systems and must be obtained separately. Active interim changes to NATOPS publications are published in electronic media only and most are available online at [www.mynatec.navair.navy.mil](http://www.mynatec.navair.navy.mil) and <https://airworthiness.navair.navy.mil> for viewing and downloading.

**Automatic Distribution.** NATEC automatically sends copies of new revisions and changes to users whose NAVAIR publication requirements are maintained within its Automatic Distribution Requirements List (ADRL) database. Detailed procedures for establishing and maintaining an ADRL account are contained in NAVAIR technical manual 00-25-100 work package (WP) 017-00, which is available online at [www.mynatec.navair.navy.mil](http://www.mynatec.navair.navy.mil).

### Note

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- To avoid the gross cost and delivery inefficiencies that have resulted from excessive or insufficient distributions, the NATOPS Program Manager has been granted authority to adjust the automatic distribution quantities of NATOPS publications. Units requiring large or unusual distribution quantities of NATOPS publications should confirm them with the NATOPS Program Manager in advance of distribution to ensure that the quantities they will receive will be acceptable.

### KEEPING THIS PUBLICATION CURRENT

To be effective, NATOPS publications must be kept current through an active manual change program. Corrections, additions to, deletions from, and suggestions for improvement of contents should be submitted as NATOPS change recommendations as soon as possible after discovery. Suggestions for improvement should avoid vague and generalized language and shall be worded as specifically as possible. Detailed standards for NATOPS publications are found in MIL-DTL-85025B(AS), which is available online at <https://airworthiness.navair.navy.mil>. Change recommendations may be submitted by anyone in accordance with OPNAVINST 3710.7-series. All users are encouraged to contribute to the currency, accuracy, and usefulness of this and other NATOPS publications by submitting timely change recommendations for these publications.

### SUBMITTING CHANGE RECOMMENDATIONS

**Types of Change Recommendations.** Change recommendations should be submitted as URGENT, PRIORITY or ROUTINE. *Urgent and Priority change recommendations are changes that cannot be allowed to wait for implementation until after the next review conference.* These usually involve safety-of-flight matters. Some priority change recommendations may be upgraded to URGENT by NATOPS Program Manager, Program Class Desk, or NAVAIR (AIR-4.0P) following receipt and initial review.

**Submitting Change Recommendations to NATOPS Publications.** While each type of change recommendation is processed and approved differently, the preferred means of submitting all of them is through the Airworthiness Issue Resolution System (AIRS) which may be accessed online at <https://airworthiness.navair.navy.mil>, or on SIPRNET at <https://airworthiness.navair.navy.smil.mil> for classified or otherwise sensitive change recommendations. AIRS provides the fastest and most efficient means of processing and resolving NATOPS change recommendations. It expedites distribution of the URGENT and PRIORITY change recommendations to those who need to act on them and compiles the ROUTINE change recommendations into their respective review conference agenda packages.

In the event that a worldwide web connection to AIRS is not available, PRIORITY change recommendations may be submitted via Naval message in accordance with OPNAVINST 3710.7-series. When AIRS is not accessible, ROUTINE change recommendations may be submitted on a NATOPS/Tactical Change Recommendation (Form OPNAV 3710/6), a copy of which is contained within the preface of this manual. The completed change recommendation forms for changes to this manual should be sent by U.S. Mail to the NATOPS Model Manager of this publication at:

Chief of Naval Operations  
N885F  
2000 Navy Pentagon  
Washington, D.C. 20350-2000



## ISSUING UPDATES TO NATOPS PUBLICATIONS

**Interim Changes.** Approved NATOPS urgent and priority change recommendations are issued via Naval messages and may involve making pen-and-ink entries and/or replacing pages. Copies of interim change messages and their replacement pages are posted on the NATEC website at [www.natec.navy.mil](http://www.natec.navy.mil), <https://airworthiness.navair.navy.mil>, or <https://airworthiness.navair.navy.smil.mil> for viewing and downloading. Interim change replacement pages are always issued in electronic format and are not distributed in paper format except under unusual circumstances. Following the incorporation of an interim change into this publication, its entry shall be recorded on the Interim Change Summary page within this publication.

**Revisions, Changes and Errata.** Routine change recommendations are compiled into a conference agenda and held for review at the next NATOPS review conference for this publication. Change recommendations approved by the review conference are published by the NATOPS Model Manager in a review conference report and then incorporated into a revision or change to this manual, copies of which are mailed on paper and/or electronic media to users that have a listed requirement for it in the NATEC ADRL system database. Copies of most unclassified publications are also posted on the NATEC and Airworthiness websites. When printing errors are found in publications, errata may also be prepared and posted and/or distributed in electronic or paper form in the same manner as for revisions and changes. After incorporating a change or errata into this publication, you should page check and record its entry on the Record of Changes page within this publication.

## CHANGE SYMBOLS

Revised text is indicated by a black vertical line in either margin of the page, like the one printed next to this paragraph. The change symbol shows where there has been a change. The change might be material added or information restated. A change symbol in the margin by the chapter number and title indicates a new or completely revised chapter. Change symbols are not normally used to mark the locations of deleted information.

## SPECIAL TERMINOLOGY IN NATOPS PUBLICATIONS

The following special terminology and meanings apply to the contents of this and other NATOPS publications.

**Warnings, Cautions, and Notes.** The following definitions apply to WARNINGS, CAUTIONS, and Notes:

### WARNING

An operating procedure, practice, or condition, etc., that may result in injury or death, if not carefully observed or followed.

### CAUTION

An operating procedure, practice, or condition, etc., that may result in damage to equipment, if not carefully observed or followed.

### Note

An operating procedure, practice, or condition, etc., that is essential to emphasize.

### Requirement for compliance.

“**Shall**” is used only when application of a procedure is mandatory.

“**Should**” is used only when application of a procedure is recommended.

**“May”** and **“need not”** are used only when application of a procedure is optional.

**“Will”** is used only to indicate futurity, never to indicate any degree of requirement for applicability of a procedure.

**Requirement for landing aircraft.**

**Land immediately** means execute a landing without delay. The primary consideration is to ensure the survival of the occupants. (Applicable to helicopters and other VTOL aircraft).

**Land as soon as possible** means land at the first landing site at which a safe landing may be made.

**Land as soon as practical** means extended flight is not recommended. The landing and duration of flight is at the discretion of the pilot in command.

## CHANGE RECOMMENDATIONS

NATOPS/TACTICAL CHANGE RECOMMENDATION  
OPNAV 3710/6 (4-90) S/N 0107-LF-009-7900

DATE \_\_\_\_\_

TO BE FILLED IN BY ORIGINATOR AND FORWARDED TO MODEL MANAGER

FROM (Originator)		Unit			
TO (Model Manager)		Unit			
Complete Name of Manual/Checklist	Revision Date	Change Date	Section/Chapter	Page	Paragraph

Recommendation (Be specific.)

☐ CHECK IF CONTINUED ON BACK

Justification

Signature	Rank	Title
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Address of Unit or Command

TO BE FILLED IN BY MODEL MANAGER (Return to Originator)

FROM	DATE
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TO

## REFERENCE

(a) Your Change Recommendation Dated \_\_\_\_\_

☐ Your change recommendation dated \_\_\_\_\_ is acknowledged. It will be held for action of the review conference planned for \_\_\_\_\_ to be held at \_\_\_\_\_

☐ Your change recommendation is reclassified URGENT and forwarded for approval to \_\_\_\_\_ by my DTG \_\_\_\_\_

/S/ _____ MODEL MANAGER	_____ AIRCRAFT
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**CHAPTER 1****Introduction****1.1 PURPOSE**

This manual contains information on administrative and operational procedures for all Navy and Marine Corps units providing air traffic control services and applies on a worldwide basis.

Marine forces tactical air traffic control is provided by Marine Air Traffic Control Detachments (MATCD). Each MATCD is organized and equipped to provide continuous all-weather air traffic control services to an independent and geographically separated main air base or air facility and/or remote air sites or points. These services include airport traffic control, low approach and landing, and terminal area control services. To the extent possible and consistent with the ATC requirements of the area to which deployed, the functions, training, qualification, and certification for Marine forces tactical ATC units shall be as prescribed in this manual.

**1.2 MISSION**

The mission of Navy and Marine Corps air traffic control facilities is to provide for the safe, orderly, and expeditious movement of air traffic. It includes aircraft movements on the airport surface and within airspace where control jurisdiction has been delegated. The complex functions, equipment, and personnel required to provide this service comprises an ATCF.

**1.3 CONTROL AUTHORITY**

The qualified air traffic controller at the control position has final authority for applying separation criteria to control of air traffic. Advice or instructions by other than ATC personnel may be issued through the air traffic controller, but controller authority for approval or denial of procedures as they pertain to separation of air traffic shall not be interfered with or abridged except by qualified supervisory personnel.

**1.4 OTHER SOURCES OF INFORMATION****1.4.1 Federal Aviation Administration Documents**

1. The following Federal Aviation Administration (FAA) directives are applicable to the Naval establishment:
  - a. FAAO JO 7100.9, Standard Terminal Arrival Route (STAR). Provides guidance and standardization for developing and managing the STAR program.
  - b. FAAO JO 7110.10, Flight Services. Prescribes procedures and phraseology for use by air traffic personnel providing flight services.
  - c. FAAO JO 7110.65, Air Traffic Control. Prescribes air traffic control procedures and phraseology for use by personnel providing air traffic control services.
  - d. FAAO 7130.3, Holding Pattern Criteria. Serves as a planning document for airspace planners by setting forth criteria for determining holding pattern airspace area dimensions and instructions for their use.
  - e. FAAO JO 7400.2, Procedures for Handling Airspace Matters. Specifies procedures for use by all personnel in the joint administration of the airspace program.
  - f. FAAO JO 7400.8, Special Use Airspace. Published yearly, provides a listing/legal descriptions of all regulatory and non-regulatory Special Use Airspace areas.

- g. FAAO JO 7400.9, Airspace Designations and Reporting Points. Published yearly, provides a listing/legal descriptions of terminal and en route airspace area designations and reporting points.
  - h. FAAO JO 7610.4, Special Military Operations. Addresses special military operations and is promulgated by OPNAVINST 3722.33.
  - i. FAAO 8000.90, Air Traffic Safety Oversight Service (AOV) Credentialing and Control Tower Operator (CTO) Certification Programs. Specifies procedures for CTO certificates, governed by 14 CFR Part 65; and AOV credentials authorized by FAAO 1100.161.
2. Advisory Circulars — Advisory Circulars do not set forth policy and the information contained therein is advisory in nature.
  3. General Notices (GENOTs) and Regional Notices (RENOTs) — GENOTs and RENOTs do not apply to the Naval establishment unless such procedures are promulgated by CNO (N885F).

#### 1.4.2 Department of the Navy Directives

ATC personnel shall be familiar with and operate in accordance with applicable naval directives. Some of the more pertinent directives are listed below. A more extensive list of directives can be found in [Appendix P](#).

1. NAVMETOCCOMINST 1500.3 — Provides basic guidelines and standardized procedures for those units of the Naval Meteorology and Oceanography Command charged with the responsibility to train and certify air traffic controllers in observing, recording, and disseminating tower visibility information.
2. OPNAVINST 3710.7 — NATOPS General Flight and Operating Instructions Manual. Provides guidance to aviation personnel regarding flight planning, flight plan approval, flight rules, emergencies, and ATC procedures.
3. OPNAVINST 3710.31 — Operational Procedures for Aircraft Carrying Hazardous Materials. Establishes policy and procedures for alerting aircraft crash-fire protection and other base support activities to the arrival/departure of aircraft carrying hazardous materials and outlines procedures that apply when CB munitions/agents are being transported on military or military contract aircraft. It specifies what action must be taken by the technical escort, air crewmember, and the aircraft commander, should an in-flight emergency involving these materials occur.
4. OPNAVINST 3721.5 — NAALS Program. Establishes policy and provides guidance for the planning, programming, budgeting, and management of NAALS assets. Provides shore ATC systems maintenance policy, prescribing standards and procedures for the safe, day-to-day operation and maintenance for DON ATC systems, equipment, and navigational aids.
5. NAVAIR 51-50AAA-2 — General Requirements for Shorebased Airfield Marking and Lighting. Provides the general requirements for airfield Visual Landing Aids for approaches, landings, takeoffs, taxiing, and surface maneuvering of aircraft on Navy and Marine Corps shorebased airfields.
6. OPNAVINST 3721.20 — DOD NOTAM System. Establishes policy, delineates responsibilities, and provides guidance for issuing NOTAMs.
7. OPNAVINST 3722.16 (FAAO 8260.3) — U.S. Standard TERPS. Establishes design minimums and obstacle clearance criteria for instrument approaches.
8. OPNAVINST 3722.33 (FAAO JO 7610.4) — Special Military Operations. Provides procedures for air traffic control planning, coordination, and services during defense activities and special military operations.
9. OPNAVINST 3722.35 — Baseline Planning Criteria for Naval Air Traffic Control Facility (ATCF) Resources Criteria. Provides a mechanism for defining ATCF resources locally and on an equitable basis.

10. OPNAVINST 3770.2 — Airspace Procedures and Planning Manual. Issues DON procedures and delineates responsibilities for airspace planning and administration.
11. SECNAVINST 3770.1 — Use of Department of the Navy Aviation Facilities by Other Than U.S. DOD Aircraft. Sets policy and procedures for the issuance of civil aircraft landing permits.
12. NAVAIR 16-1-520 (FAAO 8200.1) — U.S. Standard Flight Inspection Manual. Establishes procedures and criteria for flight check of navigational aids and instrument procedures.
13. NAVAIRINST 5400.137 — Designation of ATC and Combat Identification Program Manager (PMA 213). Contains the charter that provides the program's scope, operating relationships, organization, resources, and outlines the authority and responsibility of the ATC and Combat Identification program manager (PMA 213).
14. NAVFAC P-80.3 — Airfield Safety Clearances. Provides guidance for identifying obstructions to air navigation and establishes airfield safety clearances for fixed-wing aircraft and helicopter installations.
15. MCWP 3-25.8 — Marine Air Traffic Control Detachment Handbook. Focuses on the details of the Marine Air Traffic Control Detachment (MATCD) operations and the role it plays in MAGTF, joint, and multinational operations.
16. NAVMC DIR 3500.98 — Marine Air Traffic Control Aviation Training and Readiness Directive. Establishes procedures and standards regarding the training of Marine Corps Air Traffic Control Officers and Enlisted Controllers.
17. COMNAVAIRFORINST 3722.5 — ATC NATOPS Evaluation Program. Establishes policies and objectives of the ATC NATOPS Evaluation Program.
18. COMNAVAIRFORINST 3720.3 — CATCC Equipment Status Reporting Procedures. Establishes utilization and availability reporting requirements for aircraft carriers.
19. COMNAVSURFORINST 3720.1 — Precision Approach Landing System Reporting Procedures. Establishes utilization and availability reporting requirements for PALS-equipped L-Class ships.

### 1.4.3 FAA and DON Support Agreement

ATC and GEMD managers shall be familiar with the Memorandum of Agreement, identified as AAC-229, between FAA and DON (Naval Air Systems Command) concerning supply support, repair and return service, and exchange and repair items. AAC-229 provides details related to requisitioning; configuration management; assignment of priorities, response times, status reporting, shipments, and defective equipment returns; packing and shipping; reimbursement and billing; technical assistance; and failure under warranty.

### 1.4.4 Other Relevant Publications

The following NATOPS manuals complement the information contained within this NATOPS manual and should be referred to whenever additional information about their subjects is needed:

NAVAIR 00-80R-14 — NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual: Contains requirements for airfield facilities; and contains detailed requirements, information, and procedures for rescue and firefighting personnel.

NAVAIR 00-80T-104 — NATOPS Landing Signals Officer (LSO) Manual: Contains detailed information and procedures on use of OLA equipment and control of aircraft by LSOs.

NAVAIR 00-80T-105 — CV NATOPS Manual: Contains detailed information and procedures for support and control of aircraft aboard CV class ships for use by aircrew, tower (PriFly), and ATC personnel.

NAVAIR 00-80T-106 — LHA/LHD NATOPS Manual: Contains detailed information and procedures for support and control of aircraft aboard LHA and LHD class ships for use by aircrew, tower (PriFly), and ATC personnel.

NAVAIR 00-80T-115 — U.S. Marine Corps Expeditionary Airfields and Marine Corps Air Stations NATOPS Manual: Contains an airfield operations manual, and air traffic control information and procedures for aircraft operating from expeditionary airfields.

NAVAIR 00-80T-122 — Helicopter Operating Procedures For Air-Capable Ships NATOPS Manual: Contains air traffic control doctrine, information, and procedures for helicopters operating from air-capable (other than CV and LHA/LHD class) ships.

#### 1.4.5 ATC Schools at NATTC Pensacola

These schools maintain a comprehensive technical library that may be accessed by field activities for research of technical questions.

#### 1.4.6 Navy/Marine Corps ATC Web Site (<https://atc.navy.mil>)

This web site is designed to provide historical and current reference data to assist in all facets of Navy/Marine Corps ATC and Ground Electronics. Many of the forms referenced in this manual are available for download at this web site. CNO (N885F) has oversight for the contents of this web site which is maintained by SPAWARSYSCEN, Atlantic.

### 1.5 DUTIES AND RESPONSIBILITIES

#### 1.5.1 NATOPS Advisory Group

Membership of the NATOPS Advisory Group for this manual is listed below. NATOPS Advisory Group member relationships, responsibilities and procedures are contained in OPNAVINST 3710.7 series.

ADVISORY GROUP MEMBER	NATOPS COORDINATOR
Chief of Naval Operations	CNO (N885F)
Chief of Naval Operations	CNO (N885F3 USMC Expeditionary ATC)
Commandant of the Marine Corps	CMC (APX-25)
Commander, Naval Air Forces	COMNAVAIRFOR (N455)
Commander, Naval Air Force Atlantic	COMNAVAIRLANT (N74)
Commander Naval Air Force, U.S. Pacific Fleet	COMNAVAIRPAC (N74)
Commander, Naval Surface Force Atlantic	COMNAVSURFLANT (N42 ATC)
Commander, Naval Surface Force, U.S. Pacific Fleet	COMNAVSURFPAC (N42 ATC)
Commanding General, Marine Corps Installations East	MCIEAST ATC TR
Commanding General, Marine Corps Installations West	CG MCIWEST
Commanding General, Marine Corps Bases Japan	CG MCB JAPAN
Commander, Naval Installations Command	CNIC (N32)
Commander, Naval Safety Center	COMNAVSAFECEN (113)
Commander, Naval Air Systems Command	COMNAVAIRSYSCOM (AIR-4.0P)
Commander, Naval Air Systems Command	COMNAVAIRSYSCOM (4.5 Fleet Liaison)
Commanding Officer, Space and Naval Warfare Systems Center, Atlantic	SPAWARSYSCEN ATLANTIC (5.3.7.0.0)
Commanding Officer, Naval Air Technical Training Center	NATTC PENSACOLA FL (30)



## 1.5.2 Air Traffic Control Training and Readiness Office

Air traffic control officers and senior enlisted controllers, as well as senior enlisted/civil service maintenance managers, are assigned to the ATC Training and Readiness (T & R) Office on Navy Fleet type commander staffs and Navy and Marine Corps installation commander staffs to advise and assist the commanders/commanding generals concerning airspace, air traffic control, and air traffic control systems maintenance. These offices shall ensure standardized execution of airspace management; ATC plans and policies; NATOPS evaluations when designated by N885F to do so; ATC staffing, training, and management; Naval Air Traffic Control Air Navigation Aids and Landing Systems (NAALS) program management; maintenance staffing and training; TERPS formulation, maintenance and review; coordination with FAA/host nations as well as other airspace or ATC issues directed by higher authority. Responsibility and authority are detailed in the staff organization manual.

## 1.6 WAIVERS

This manual is not intended to cover every contingency which may arise nor every rule of safety and good practice. Waiver authorities are addressed in the applicable sections of this manual. When the need arises, special instructions or waivers to the requirements of this manual will be promulgated by the Chief of Naval Operations (N885F).

## 1.7 EXPLANATION OF TERMS

Explanation of terms and abbreviations commonly used in air traffic control are found in CFR, DOD FLIPs, AIM, Naval Meteorological Instructions, FAAOs, and military directives. No attempt to duplicate these terms has been made.

1. NAS/MCAS — An independent activity that provides aircraft operations, maintenance, training, and personnel facilities in accordance with organizational requirements.
2. NAWS — An independent activity that provides aircraft operations, maintenance, training, and personnel facilities in support of weapons research, development, test and evaluation (RDT&E).
3. NAF — An activity established to meet some special requirement of naval aviation. It may or may not be administratively dependent on a parent (air or nonair) activity in accordance with organizational requirements.
4. ALF — An airfield having limited facilities, additional to the landing area in operation. It is designated as such by the Chief of Naval Operations to provide an airfield that can serve as a staging base for gunnery, ordnance, or other training exercises; FCLP or other landing practice site; or emergency or “bingo” field in support of offshore carrier operations and/or a base with limited support for assigned aircraft or units. The facilities and/or services may include any or all of the following as appropriate to usage and/or user requirements: air traffic control communications; crash, fire, and rescue services; personnel berthing and messing; refueling and rearming equipment; ready issue stowage; line operations; line maintenance; high usage line maintenance spare parts; and limited support of assigned aircraft or units. An ALF is not a separately established activity, but is under the cognizance of a nearby parent (air or nonair) activity from which personnel, material, and funds for its support are allocated. The parent activity may maintain a caretaker detachment and/or service unit at the ALF for day-to-day operations.
5. OLF and Helicopter OLF — An airfield having no established facilities in operation except a landing area. It is designated as such by the Chief of Naval Operations to provide a landing area on which aircraft based elsewhere can conduct landing practice or other exercises. An OLF is not a separately established activity, but is under the cognizance of a nearby parent air station from which personnel, material, and funds for its support are allocated. However, required air traffic control and/or crash rescue personnel or others appropriate to support the operations to be conducted, along with mobile facilities as required to supplement existing facilities may be located at the OLF either on a “duration of the operation” or a “normal operating hours” basis.
6. Joint-Use Military Airfield — An installation where written agreement between the military department and a local government agency authorizes use of the military runway for a public airport. Per 14 CFR Part 139, a joint-use airport is an airport owned by the United States that leases a portion of the airport to a person operating an airport specified under 14 CFR Section 139.1(a). Per 14 CFR Part 139, a shared-use airport is a U.S. Government-owned airport that is co-located with an airport specified under 14 CFR Section 139.1(a) and at which portions of the movement areas and safety areas are shared by both parties.

7. Jointly Staffed Facility — A military air traffic control facility wherein operational responsibility is delineated between the military and another agency such as the FAA.
8. Naval Air Traffic Control Facility — The complex of functions, equipment, and personnel at a naval aviation shore facility that provides air traffic control service in a designated area of jurisdiction to aircraft, both airborne and on the airfield operating area.
9. Naval Aviation Shore Facility — Any station with an airfield that is operated by the naval establishment and is not designated as a FOB.
10. FOB — An airfield to support tactical aviation operations without establishing full support facilities. FOBs are characterized by the maintenance functions and sustainability provided. FOB classifications are: Main Air Base; Air Facility; Air Site; Air Point, which is further classified as a Forward Arming and Refueling Point and/or Lager Point.

## CHAPTER 2

# General

### 2.1 INTERFACE WITH NATIONAL AIRSPACE SYSTEM

#### 2.1.1 Background

##### 2.1.1.1 The Federal Aviation Act of 1958

The Federal Aviation Act of 1958 authorizes and directs the Administrator of the FAA to assign by rule, regulation, or order, the use of the navigable airspace under such terms, conditions, and limitations as may be deemed necessary in order to ensure the safety of aircraft and the efficient utilization of airspace. The administrator is also authorized to provide necessary facilities and personnel for the regulation and protection of air traffic. Under the same act, the Administrator may delegate certain functions to any other Federal department, subject to the concurrence of that department. The Administrator exercises control through the National Airspace System which is the common network of U.S. airspace, navigational aids, communications, and air traffic control facilities and equipment. The National Airspace System also includes aeronautical information and charts, weather information, FAA manpower and material, and system components jointly shared with the military. It does not include the system operated by the military entirely for military purposes. Domestically, air traffic facilities operated by the military are, in effect, extensions of the National Airspace System. Delegation of responsibility for the operation of military air traffic control facilities is the subject of a MOA between the FAA and the Navy, Army, and Air Force (see [Appendix A](#)). In foreign countries, similar arrangements for authority to control air traffic within sovereign airspace is a matter of formal agreement with appropriate military or foreign host government officials of the country involved. The Federal Aviation Act of 1958 (Public Law 85-726) was amended by Executive Order 10854 and Public Law 103-272.

##### 2.1.1.2 Military Responsibility

In general, the cognizant military service provides airport traffic control service (visual flight rules) at those military airports where it maintains a control tower. Where it is mutually agreed to be advantageous and subject to a LOA between the local military authority and the appropriate FAA ARTCC or foreign host government, approach control functions for the military terminal area may also be performed by the military authority. In some cases, air traffic control service may also be provided for air operations in restricted, warning, or other designated special use airspace.

##### 2.1.1.3 FAA Responsibility

Where a military facility is located near an FAA approach control facility, the FAA will normally provide approach control service for the military. If mutually agreed, the FAA may staff an approach control (surveillance radar) at facilities located on military installations. At military installations where FAA staffing is provided in whole or in part, a local memorandum of agreement shall be signed between appropriate FAA and local military authorities outlining the details of the staffing arrangement and shall include provisions for military personnel to cross-train on approach control positions. At naval aviation shore facilities, the function of PAR shall be provided by military personnel; however, FAA personnel may receive cross-training at PAR positions.

##### 2.1.1.4 Open Skies Treaty

The Treaty on Open Skies (OS) was ratified by the United States on 2 November 1993 and entered into force on 1 January 2002. This Treaty is a security and confidence building measure that establishes a regime of unarmed aerial observation flights over the territory of signatory states. As of 1 January 2002, there is no right of refusal for Open Skies overflights except for Safety of Flight reasons and those listed in FAAO JO 7110.65. Naval activities will be overflown by foreign countries, and any imagery collected may be obtained by any party to the treaty. Naval Treaty Implementation Program (NTIP) executes the Department of the Navy (DON) OS Notification Program, coordinates

high value event input, oversees the post-flight analysis, and provides assistance and training to commands as requested. Additional information on Open Skies may be found at <http://www.nawcwpns.navy.mil/~treaty/>.

### 2.1.2 FAA Monitoring of ATC Procedures

The FAA has been authorized to conduct in-flight monitoring of military facilities for the purpose of ensuring that uniform voice procedures are employed, to verify that procedures used to control air traffic are safe and practical, and to recommend corrective action to be taken should discrepancies be identified. These in-flight checks are separate and distinct from those specified in the U.S. Standard Flight Inspection Manual, which addresses inspection of navigational aids. After checking a naval aviation shore installation, FAA personnel will complete FAA Form 8240-13 and submit it to the station commanding officer or his authorized representative. In addition, if the flight terminates at the installation, the pilot will discuss the check informally with facility personnel. Discrepancies noted shall be reviewed and corrected as feasible.

### 2.1.3 FAA Air Traffic Representative

The FAA has been authorized to assign an Air Traffic Representative (ATREP) at ATC facilities where approach control authority has been delegated to the Navy and Marine Corps. ATREP functions are outlined in FAAO JO 7610.4 and Article IV of [Appendix A](#).

### 2.1.4 Department of the Navy Representative

Navy Representative (NAVREP) offices, under the sponsorship of CNO (N885F), are maintained at FAA Headquarters and at three of the FAA Service Area Headquarters. NAVREP functions are outlined in OPNAVINST 3770.2.

### 2.1.5 Suspension of Approach Control Authority

#### 2.1.5.1 ATREP

Article I of [Appendix A](#) provides that the ATREP or a representative of the FAA area manager may temporarily suspend the delegation of approach control authority in the interest of flight safety.

#### 2.1.5.2 Commanding Officer

If approach control authority is temporarily suspended, the commanding officer shall:

1. Attempt immediate resolution at the local level.
2. Notify by the fastest means available the ISIC/HHQ, cognizant NAVREP, and locally-based aircraft wing(s)/squadron(s).
3. Report details by message to the ISIC/HHQ within 2 working days. CNO (N885F), CMC (APX-25), CNAF (N3/5/8), and cognizant NAVREP shall be information addressees.
4. If unable to effect resolution within 10 days, the commanding officer shall request assistance from the ISIC/HHQ.

#### 2.1.5.3 ISIC/HHQ

The ISIC/HHQ shall:

1. When appropriate, request the Director FAA Service Area/Regional Administrator to aid in reestablishment of approach control authority.
2. If unable to effect resolution, request CNO (N885F)/CMC (APX-25) to act on the matter.

#### 2.1.5.4 NAVREP

The cognizant NAVREP shall be an information addressee on all correspondence.

### 2.1.6 Air Traffic Procedures Advisory Committee

Air Traffic Procedures Advisory Committee (ATPAC) is a formal committee established by DOT charter to advise the FAA on present ATC procedures and practices and to analyze new or significantly revised procedural concepts. ATPAC members include representation from the AOPA, ALPA, ATCA, ATA, APA, FAA, HAI, NAATS, NBAA, RAA, U.S. Air Force, U.S. Navy, and U.S. Army. CNO (N885F) provides DON representation.

#### 2.1.6.1 Action

Any user or provider of ATC services may submit an area of concern. Correspondence should be submitted via chain of command to CNO (N885F).

## 2.2 AIR TRAFFIC CONTROL NATOPS EVALUATION PROGRAM

CNO (N885F) shall designate NATOPS Evaluations Units to evaluate the effectiveness of shore, shipboard, or expeditionary air traffic control training and operations. For shore evaluations, [Appendix B](#) shall be used with particular attention placed on the compliance by management to the governing sections of this manual. Shipboard evaluations shall use checklists as described in [paragraphs 11.6 and 12.1.5](#) of this manual. Marine Corps NATOPS Evaluations Units shall ensure the conduct of evaluations is in accordance with this manual and applicable CGIP directives. MATCDs shall use [Appendix B](#) to evaluate air traffic control services and procedures. Additionally, the Marine Liaison Officer at SPAWARSYSCEN Pacific maintains a MATCD equipment evaluation checklist and may, if requested by appropriate authority, assist in performing detachment equipment Air Traffic Control NATOPS Evaluations.

Air traffic control NATOPS evaluation team visits will be performed biennially at all activities tasked to support ATC services. Evaluations shall measure facility ability to perform its mission in relation to operational tasking, special use airspace management, and flight activity. Evaluations in each of the functional areas including facility management, administration, training, control tower, flight planning, radar, and ground electronics maintenance shall be performed. Observations within each area will be in the form of subjective and objective remarks with an overview at the conclusion. Negative observations will require detailed explanation remarks.

### 2.2.1 Reports

A formal report will be forwarded by the reporting NATOPS Evaluation Unit to the evaluated facility, via the chain of command with copies to CNO (N885F) and CMC (APX-25), within 15 working days after the conclusion of the NATOPS evaluation. This report will delineate deficiencies and recommend corrective action for the commanding officer or higher authority as appropriate. Items of significant interest may require command situation reports. Normally, major deficiencies will require the establishment of a POA&M with monthly follow-up reports by the command until completion. Minor deficiencies will require a one-time correction report following the initial tasking of the NATOPS Evaluation Unit formal report.

## 2.3 ANNUAL AWARDS

### 2.3.1 Background

#### 2.3.1.1 Air Traffic Controller of the Year

The Vice Admiral Robert B. Pirie Naval Air Traffic Controller of the Year Award is symbolic of the outstanding contributions to operational readiness and safety of flight made by individual Navy and Marine Corps air traffic controllers. This perpetual award is named in honor of Vice Admiral Robert B. Pirie who, while serving as Deputy Chief of Naval Operations for Air Warfare (OP-05) from 1958–1962, was credited with maintaining the Navy's Air Controlman rating following the enactment of the Federal Aviation Act of 1958 which created the present National Airspace System.

### 2.3.1.2 Air Traffic Control Technician of the Year

The Vice Admiral William P. Lawrence Naval Air Traffic Control Technician of the Year Award is symbolic of the outstanding maintenance contributions to operational readiness and safety of flight made by individual Navy and Marine Corps technicians. This perpetual award is named in honor of Vice Admiral William P. Lawrence who made significant contributions to the growth and stability of Naval Air Traffic Control while serving in OP-05 from 1975 to 1978.

### 2.3.1.3 Awards

Both awards are sponsored by Telephonics Corp., Command Systems Division. The primary trophies are maintained on display at NATTC Pensacola ATC schools. Replicas are presented to each recipient.

### 2.3.1.4 Nomination Criteria

Specific criteria for determining E-6 or below nominees for the Pirie and Lawrence awards are not delineated in order to permit the full range of professional judgment by reporting seniors. However, one or more of the following categories is considered appropriate:

1. An individual whose introduction or development of an air traffic control or maintenance concept has led to overall improvements in the efficiency and/or safety of naval aviation.
2. A controller or technician whose sustained outstanding performance has significantly contributed to the efficiency or flight safety of naval aviation.
3. A controller personally responsible for executing lifesaving action in response to an emergency situation.
4. A technician who has improved significantly the reliability or maintenance of Navy air traffic control systems or reduced the cost associated with maintaining or replacing these systems.
5. Outstanding leadership or other individual achievement in the field of air traffic control or systems maintenance.

## 2.3.2 Action

### 2.3.2.1 Command Nominations

Commands with air traffic controllers and air traffic control technicians assigned are strongly encouraged to select and recognize individuals whose performance embodies the spirit of these awards. Nominations, accompanied by substantiating rationale, shall be submitted to their cognizant reviewing command by 31 January. Commands with multiple UICs (e.g., NAS Oceana and Air Det Norfolk) should submit nominations from each ATC facility. Period of consideration is the previous calendar year.

### 2.3.2.2 Format

A sample format for nominations is contained in [Appendix S](#). Substantiating justification shall be included in the cover letter of the nomination package and shall not exceed two pages. The following enclosures shall be submitted with the nomination letter:

1. Professional History — A complete chronological listing of all billets held by the nominee during the preceding two calendar years, prepared in five-column landscape format under the following headings: Date/Month/Year; Grades/Rates Held; Command; Professional Qualifications/Ratings/Designations; Awards Received.
2. Biography — Contains, at a minimum, date/place of birth; hometown; date of initial enlistment; family members; and the nominee's ring size. Shall not exceed one page in length.

3. Personal Award Recommendation — Completed, but unsigned OPNAV 1650/3 (with summary of action and proposed citation) recommending the nominee for the Navy and Marine Corps Commendation Medal. The following shall be used in completing the form:
  - a. Originator: CNO (N885F).
  - b. Awarding Authority: CNO (N88).
  - c. Name, grade, title of originator: Blank.
  - d. Signature: Blank.
  - e. Forwarding Endorsements (block 23): Blank.
  - f. Summary of Action narrative: May be virtually the same as the nomination cover letter.
  - g. Award Citation: Must mention the Vice Admiral Robert B. Pirie Naval Air Traffic Controller of the Year/Vice Admiral William P. Lawrence Naval Air Traffic Control Technician of the Year Award.

### 2.3.2.3 Reviewing Commands

CNAF ATLANTIC, COMNAVAIRPAC, COMNAVSURFLANT, COMNAVSURFPAC and CNIC shall review the command nominations and forward their selections to reach CNO (N885F) by 28 February each year. MCIWEST, MCIEAST, MCBJ, CG 1MAW, CG 2D MAW, CG 3D MAW, and CG 4MAW shall review the command nominations and forward their selections to CMC (APX-25) by 15 February. CMC (APX-25) shall forward no more than four nominations to reach CNO (N885F) by 28 February.

Although reviewing commands are limited to one nomination (for each award) for submission to CNO (N885F), nothing in this paragraph precludes them from establishing intermediate recognition at their level (i.e., type commander sea duty controller/technician of the year, installation commander shore duty controller/technician of the year, etc.).

### 2.3.2.4 Selection

The Chief of Naval Operations (N885F) shall convene a board that should consist of senior enlisted who will recommend selection of the awardees. The Chief of Naval Operations (Director Air Warfare) will approve and announce awardees.

### 2.3.2.5 Presentation

Presentation of the Award should be made at the Navy/Marine Corps ATC Symposium. In recognition of the achievement as controller or technician of the year, each awardee will be presented the Navy and Marine Corps Commendation Medal.

### 2.3.2.6 Funding

The awardees' command, at the time of award presentation, should provide necessary funding and arrangements for the award presentation and other travel or activities, as appropriate.

## 2.4 REQUESTS FOR CHANGES IN OPERATIONAL CAPABILITY

Requests for addition, removal, or replacement (exclusive of maintenance replacements) of NAALS/ATC equipment or systems that would alter the operational capability of a facility shall be initiated by submitting a NAALS OCIR in accordance with OPNAVINST 3721.5.

Commanding officers shall notify the cognizant NAVREP when any change in utilization of military airports and/or landing areas is intended and such change has the potential for affecting the use of airspace. FAAO 8260.19, OPNAVINST 3770.2 and sections 307 and 308 of the FAA Act of 1958 (as amended), apply.

For VLA, special project requests should be submitted to Commander Naval Air Systems Command (COMNAVAIRSYSCOM) (PMA 251) for inclusion in the AMLIP.

## **2.5 RUNWAY CLOSURE AND THRESHOLD DISPLACEMENT**

### **2.5.1 Runway Closure**

Permanent runway closures shall be properly staffed through locally-based aircraft wing(s)/squadron(s). Requests for permanent runway closures indicating CNAF (N3/5/8)/CMC (APX-25) concurrence shall be forwarded via the chain of command and COMNAVAIRSYSCOM (PMA 251) to CNO (N885F) for approval. Section 308(b) of the FAA Act of 1958 (as amended) is applicable.

### **2.5.2 Threshold Displacement**

Information regarding permanent and temporary threshold displacements may be found in the NAVAIR 51-50AAA2 (General Requirements for Shore-based Airfield Marking and Lighting), NAVFAC P80.3 (Facility Planning Factor Criteria for Navy and Marine Corps Shore Installations), and this manual. Permanent displacements shall be properly staffed through locally-based aircraft wing(s)/squadron(s). Requests for permanent threshold displacement indicating CNAF (N3/5/8)/CMC (APX-25) concurrence shall be forwarded via the chain of command to COMNAVAIRSYSCOM (PMA 251) for approval. Copies of each approval shall be forwarded to CNO (N885F). USMC units shall also forward copies of each approval to CMC (APX-25).

## **2.6 AIRPORT FACILITIES**

### **2.6.1 Air Navigational Aids**

#### **2.6.1.1 Basis for Assignment**

##### **2.6.1.1.1 Background**

VORTACs comprise the primary U.S. en route navigational system. The FAA owns and operates most en route VORTAC facilities. In the terminal area, the primary electronic landing aids for naval aviation shore facilities are TACAN for non-precision approaches and PAR for precision approaches. Additionally, automatic landing systems are installed where required for use and training by aircrews flying compatibly equipped fleet aircraft. Other terminal area navigational aids (e.g., UHF NDB or VOR) may be authorized for installation when users are dependent on these systems either as the primary aid to navigation or for a backup system. Terminal navigational aids established solely to serve military terminals are generally operated and maintained by the cognizant military service.

##### **2.6.1.1.2 Naval Policy**

It is the policy of the Department of the Navy to:

1. Make maximum use of FAA VORTAC facilities.
2. Use FAA and other military service navigational aids to the maximum extent in establishing standard instrument approach procedures to naval aviation shore facilities when such use meets operational requirements.
3. Transfer operational responsibility to the FAA or decommission USN/USMC operated navigational aids when their usefulness has been served.

##### **2.6.1.1.3 Requests for Installation of Navigational Aids**

Requests for installation of navigational aids are initiated in accordance with OPNAVINST 3721.5 by submitting an OCIR.

##### **2.6.1.1.4 Requests for Decommissioning of Navigational Aids**

Requests shall be submitted to the CNO (N885F). Prior to requesting decommissioning of navigational aids, the facility shall determine if:

1. The NAVAID forms part of the Federal airway system.
2. Airspace assignment is predicated upon the NAVAID.



3. NAVAID is used for military or civil instrument procedure.
4. The NAVAID is included in ICAO plans. The findings shall be addressed in the facility requests for authority to decommission.

**Note**

When a navigational aid is found to be a part of the National Airspace System or included in ICAO plans, coordination must be effected with the FAA via the appropriate NAVREP.

## **2.6.1.2 Interruptions to Service**

### **2.6.1.2.1 Published Outages**

No NOTAM action is required when scheduled routine preventive maintenance is performed on radars and NAVAIDs provided the following conditions are satisfied:

1. Time periods do not exceed these specified limits:
  - a. For radar systems (PAR, ASR, etc.) that are a part of the National Airspace System — 30 minutes.
  - b. For NAVAIDs (TACAN, VOR, etc.) that are a part of the National Airspace System — 1 hour.
  - c. For all radars and NAVAIDs that are not part of the National Airspace System — 4 hours.

**Note**

For the purposes of this section, radars and NAVAIDs which form part of a Federal airway/route system, or define an airspace designation or are used for a published civil instrument procedure, are considered part of the National Airspace System.

2. Extension of the specified time period is not authorized and a NOTAM must be initiated at or before the end of that period.
3. One hour (5 hours if part of NAS) prior notice is given to FAA flight service facilities and each concerned ATC facility.
4. Weather conditions are at and are forecast to remain equal to or better than the following:
  - a. Airfields with two or more approach aids: ceiling 3,000 feet, visibility 5 SM.
  - b. Airfields with a single approach aid: sky condition scattered, visibility 5 SM.

**Note**

More restrictive weather minimums may be imposed at any aviation facility for unique climatology or for other safety considerations.

5. Weather Deterioration or Maintenance Delay. If the weather deteriorates to below the minimums stated in subparagraph 4 of [paragraph 2.6.1.2.1](#) or the facility is not returned to service during the applicable time period, a NOTAM will be immediately initiated.
6. To the maximum extent possible, scheduled maintenance should be accomplished during hours of least traffic activity.

### **2.6.1.2.2 Unscheduled Outages**

Per OPNAVINST 3721.20, timeliness of NOTAM information is critical to the safety of flight operations. Coordinate and submit NOTAM information within 15 minutes of discovery of malfunctions of radar systems, landing systems and NAVAIDs. For radar systems, landing systems and NAVAIDs that are not part of the National Airspace System, NOTAMs may be delayed for up to 2 hours if the following conditions are met:

1. Daylight hours.
2. Ceiling at least 3,000 feet.
3. Visibility at least 5 SM.

### **2.6.1.2.3 Unreliable Operation**

If maintenance is performed which could affect the reliability of the navigational aid or if the navigational aid is not operating according to flight operation standards (excluding published restrictions), the aid shall be put in a nonradiating status. Radiate without identification when required for corrective maintenance. A NOTAM shall be initiated in accordance with the conditions specified above.

### **2.6.1.3 Monitoring Navigational Aids**

#### **2.6.1.3.1 Responsibility**

Commanding officers shall ensure that all navigational aid equipment for which they have cognizance is monitored in accordance with applicable technical orders, instruction books, and standards. Normally, authority for monitoring navigational aids is delegated to approach control or, at locations not possessing approach control authority, to the control tower.

#### **2.6.1.3.2 Site Monitoring**

When a navigational aid is to be used for ATC or navigation and cannot be monitored from the primary (remote) monitor facility, it shall be monitored at the navigational aid site. Monitoring at the site shall be conducted when the remote or automatic monitor is inoperative because of either equipment malfunction or line difficulties. Further, the following conditions must exist for site monitoring:

1. Monitor equipment at the navigational aid site is operating properly.
2. Reliable two-way communications are available between the site and the primary monitor facility.

#### **2.6.1.3.3 Frequency of Inspections**

Monitors not providing automatic visual and/or aural alarms shall be checked at least hourly and the results logged.

#### **2.6.1.3.4 Periods When Airfield Is Closed**

When the facility delegated monitoring responsibility is not manned continuously and it is desired or necessary to keep navigational aids on the air, naval aviation shore facility commanders may delegate monitoring responsibilities to any on-station agency provided:

1. Continuous manning is maintained.
2. Automatic visual and aural alarms are installed.
3. Maintenance personnel are readily available in the event of malfunction.

4. NOTAM responsibilities can be met.
5. When the above conditions cannot be complied with, the periods of operation shall be published in the appropriate FLIP products and the navigational aid shall be monitored during those periods. The aid shall be put in a nonradiating status or the identification feature removed when the aid cannot be monitored.

#### **2.6.1.3.5 Performance Criteria**

Technical performance standards and essential equipment parameters are set forth by the respective ISEA and are incorporated in the Shore ATC Systems Maintenance Policy contained in OPNAVINST 3721.5. Conditions that require a special flight inspection as set forth in the U.S. Standard Flight Inspection Manual (NAVAIR 16-1-520).

#### **2.6.1.4 Flight Inspection**

##### **2.6.1.4.1 General**

By Executive Order 11047 of 28 August 1962, the FAA is designated as the authority for inspecting military navigational aids. Procedures for requesting and conducting flight inspections of navigational aids are contained in FAAO 8240.32, Request for Flight Inspection Report. Consult NAVAIR AE-TACAN-GYD-000 for procedures relating to shipboard TACAN certification/flight inspection.

##### **2.6.1.4.2 Responsibility**

The FAA flight programs division AMS is the primary method for managing navigational aid status and inspection due dates for navigational aids. The FAA is responsible for flight inspecting (excluding classified sites and mobile deployments/exercises). Commanding officers having cognizance of a navigational aid that is either commissioned or decommissioned shall transmit a routine message to FAA/AJW within 24 hours of commissioning/decommissioning.

##### **2.6.1.4.3 Applicability**

The commissioning notification message establishes the AMS database, keying the requirement for the follow-on navigational aid data, the commissioning flight inspection report, and incorporation of the navigational aid into the follow-on periodic flight inspection schedule/workload assigned to the Flight Inspection Field Office. The decommissioning notification message removes the navigational aid from active status, places the flight inspection reports into a 5-year retention file, and deletes future periodic flight inspection due dates.

##### **2.6.1.4.4 Procedures**

The commissioning/decommissioning notification message shall conform to the following format:

From: (Naval aviation shore facility)

To: FAA AERO CNTR OKLA CITY OK//AJW//

Info: CNO WASHINGTON DC//N885F//

CNIC WASHINGTON DC//N3//

Regional Commander

Fleet Type Commander/Marine Corps Installations

Navy Representative to FAA region

**NAVAIR 00-80T-114**

Subj: (Commissioning/Decommissioning) NOTICE

1. (NAVAID identifier)
2. (NAVAID location)
3. (NAVAID type)
4. (Date commissioned/decommissioned)
5. (Pertinent remarks)

**2.6.2 Wind Indicators (Wind Tees and Wind Cones)**

Wind indicators shall be installed per NAVAIR 51-50AAA-2.

**2.6.3 Airport Lighting and Visual Aids****2.6.3.1 Requirements**

Requirements for airport rotating beacon, obstruction lighting and marking, runway lighting, taxiway lighting, parking and service area lighting, approach lighting, and other airport lighting are set forth in NAVAIR 51-50AAA-2. Consult UFC-2-000-05N, Facility Planning Criteria for Navy and Marine Corps Shore Installations.

**2.6.3.2 Procedures**

Procedures for operation of airport lighting are outlined in FAAO JO 7110.65. Operation of airport lighting is the responsibility of the control tower. During periods when the airfield is closed, all associated lighting shall be shut down with the following exceptions:

1. Navigable airspace obstruction lights as outlined in 14 CFR Part 77 which are not associated with the closed airport.
2. Rotating beacons if used as navigation reference points or visual land marks.

**2.6.3.3 Closed Runway**

Runway lights shall not be lighted for any runway for which a NOTAM is in effect which closes that runway.

**2.6.3.4 Optical Landing System**

Optical Landing System (OLS) installations are normally authorized at designated fleet support stations where field carrier landing practice training is to be provided. The OLS normally shall be turned on at all times the associated runway is in use. Local operating procedures shall be prescribed for rheostat positioning to facilitate setting the optimum intensity during varying light conditions. The OLS intensity shall be operated as requested by individual pilots making approaches.

**2.6.3.5 Closed/Danger/Hazard Markings and Lighting**

Use of standard danger/hazard markings and lighting is essential for promoting operational safety and makes it possible for a pilot to rapidly interpret and react to guidance information with a minimum amount of mental concentration.

1. Closed or nonoperational runway markings, lighted visual aids to indicate temporary runway closure, closed taxiway markings, and closed helipad markings as contained in NAVAIR 51-50AAA-2 shall be complied with.
2. Provide prominent, comprehensible warning indicators for any area with small holes, soft spots, etc. on the usable portion of airfields. Hazard marking and lighting must make specific hazards obvious to pilots, vehicle

drivers, and other personnel. Collapsible, highly-reflective barricades (marked with diagonal, alternating orange and white stripes with flashing or steady-burning red lights), orange traffic cones (weighted or sturdily attached to the surface), or red lights (flashing or steady-burning) are acceptable methods to identify and define the limits of danger/hazardous areas. All barricades and temporary markers must be as low as possible to the ground, of low mass, easily collapsible upon contact with an aircraft or any of its components, and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. Do not use nonfrangible hazard markings, such as concrete barriers and/or metal-drum-type barricades, in aircraft movement areas. Do not use railroad ties on runways.

3. Supplemental marking and lighting information, not prohibited by NAVAIR 51-50AAA-2, and contained in the following FAA Advisory Circulars may be used: AC 150/5340-1, Standards for Airport Markings; AC 150/5345-55, Lighted Visual Aid to Indicate Temporary Runway Closure; AC 150/5370-2, Operational Safety on Airports During Construction.

### 2.6.3.6 Waveoff Lights

Several different visual waveoff methods may be in use at DON air installations. The waveoff lights on the OLS and the runway waveoff lights are the principal systems in use. Both systems shall be operable from separate control points. When installed, the control tower shall have the ability to activate the runway waveoff lights. OLS waveoff lights shall only be operated by the LSO. Both systems are used to augment radio transmissions as appropriate. Waveoff lights are designed for intermittent use only and are not to be used to signal a closed runway. A wheels-up light bar consisting of a row of white lights situated off the approach end of the runway is a part of the wheels-up/runway waveoff system and serves to illuminate an aircraft's undercarriage during night operations.

### 2.6.3.7 Out of Battery Lights

Arresting gear "Out of Battery Lights" shall be visible from the ATCT. For periods when ATCT visibility precludes monitoring of the "Out of Battery" lights, a local procedure shall be established to verify "In Battery" status.

## 2.6.4 Mobile Air Traffic Control Facility Services

### 2.6.4.1 Background

Mobile air traffic control facilities are available to provide all-weather ATC service support to naval air stations through approval of the appropriate chain of command.

MATCD provide such support for Marine Force operations and exercises, as well as NAS/MCAS. MATCD routinely provide station support during ATC facility relocation, equipment site relocation, and equipment SLEP.

### 2.6.4.2 Request Procedures

1. The requesting station shall inform its ISIC concerning the need for mobile/transportable air traffic control facility services to include equipment/services required and date/duration required.
2. The requesting station shall then submit a message request to the ISIC, info CNO WASHINGTON DC//N885/N885F/N885F3//, CNIC WASHINGTON DC//N3//, CMC WASHINGTON DC//APX25//, the appropriate ATC T & R Office, COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA213//, SPAWAR-SYSCEN PACIFIC SAN DIEGO CA //71300//, SPAWARSYSCEN ATLANTIC //5.3.7// and COMNAIRWARCENACDIV PATUXENT RIVER MD//4.5.9//.
3. This message shall include the equipment/services required, date/duration required, estimated cost, a statement that command funding is available or a request for ISIC funding, and request for ultimate approval from COMMARFORCOM//G3/G5/G7// or COMMARFORPAC//G6//, as appropriate.
4. The ISIC shall review the request for funding availability, if required, and forward approved requests, via message, to COMMARFORCOM//G3/G5/G7// or COMMARFORPAC//G6// for final approval; info the requesting activity and those commands listed in subparagraph 2 above.

### **2.6.4.3 Funding**

Costs for mobile air traffic control facility services will normally be borne by base operating support funds. Costs include funding for a 2-day site survey and transportation/billeting/messing for the period of deployment.

### **2.6.4.4 Other Considerations**

Other considerations to be evaluated early in the process of obtaining mobile air traffic control facility services include:

1. Site selection.
2. Commercial/emergency power.
3. Frequency request/authorization.
4. Landlines.
5. Flight check.
6. ATC procedures.
7. Clear delineation of operational control.

## **2.7 AIRPORT PROCEDURES**

### **2.7.1 LSO/RDO Responsibilities**

#### **2.7.1.1 Landing Signal Officer**

A qualified Landing Signal Officer is required for the conduct of FCLP. In addition, it is highly desirable to have a qualified LSO with two-way voice communications at the scene when an emergency arresting gear engagement is to be made. The LSO NATOPS Manual (NAVAIR 00-80T-104) contains procedures for conducting FCLP and lists the necessary equipment which the air station is responsible for providing the LSO.

#### **2.7.1.2 Runway Duty Officer**

An Runway Duty Officer (RDO) may be required by certain commands to perform the following functions and should be provided with appropriate equipment:

1. Visually monitor arrival and departure of aircraft assigned to the command.
2. Issue advisory information relating to unsafe practices during runway, takeoff, landing, or in the traffic pattern.
3. Provide advice or assistance to pilots experiencing difficulties.

#### **2.7.1.3 Procedures and Responsibilities**

LSOs and RDOs are not classified as ATC personnel and shall not be used to provide ATC services. The responsibility for interval separation between FCLP aircraft and maintenance of pattern discipline is delegated to the LSO. However, the control tower retains final responsibility and authority for separation and control of all aircraft in the surface area. The following procedures apply regarding LSOs and RDOs:

1. LSOs shall be qualified in accordance with the LSO NATOPS Manual and RDOs qualified in accordance with local command directives.
2. A continuous monitor of the assigned frequency shall be maintained by the LSO and RDO. LSOs and RDOs shall use only assigned discrete frequencies unless otherwise authorized by the control tower.
3. Two-way direct communications must exist between the control tower and LSO/RDO during FCLP operations.

4. RDOs shall maintain radio silence at all times unless actual safety of flight is involved.
5. Mobile shelters or communication trailers which are used by the LSO and RDO are to be moved outside the 750-foot lateral clearance zone when operations have been completed or equipment is not in use.
6. Local directives will delineate coordination required to support FCLP operations.

### **2.7.2 ATC Course Rules Briefings**

Commanding officers of naval aviation shore installations shall establish a program requiring ATC supervisory personnel to provide an ATC course rules briefing for all flying units that operate at the airfield.

### **2.7.3 Airfield Vehicular Traffic**

#### **2.7.3.1 Airfield Vehicle Operators Course**

Commanding Officers shall establish an airfield vehicle operators course. Organizations with airfield vehicle operators who operate on the aircraft movement area shall ensure operators attend and successfully complete the course initially upon assignment and annually thereafter. Attendance at the course shall be documented and maintained by the course manager. Air traffic control should have course oversight. At a minimum, course shall contain:

1. General Rules of Operation.
2. Phraseology.
3. Airfield Lighting/Marking/Signage.
4. Light Gun Signals.
5. Definition of Airfield Terms.
6. Licensing Procedures.
7. Consequences of Rule Violation.
8. Vehicle Requirement (lights/flags/etc.).
9. Airfield Layout.
10. FOD Procedures.
11. BASH Reporting Responsibilities.
12. Speed Limits.
13. Emergency Procedures.
14. Night/Adverse Weather Driving.
15. Written Test to include labeling a blank airfield diagram.

Additional information and examples can be found on the Naval Safety Center web site at [www.safetycenter.navy.mil/aviation/operations](http://www.safetycenter.navy.mil/aviation/operations).

#### **2.7.3.2 Local Airfield Rules**

Local rules shall be established which minimize vehicle traffic on movement areas. Unnecessary vehicular traffic on the airfield is a safety hazard, which requires constant evaluation to develop alternative measures such as use of perimeter roads.

### 2.7.3.3 Movement Areas

All vehicles operating on movement areas shall be radio-equipped or escorted by radio-equipped vehicles using the frequency designated for vehicle control. Vehicle operators shall continuously monitor the vehicle control frequency while operating on any airfield movement area. Frequencies used for controlling aircraft shall not be used for the control of vehicle movement at any time. Vehicles shall receive specific clearance from the control tower on the designated vehicle control frequency prior to operating on runways, designated helicopter landing areas or any area designated as a movement area by local authority. Light gun signals shall not be used for controlling vehicles except when the control tower experiences a loss of two-way radio communication. Vehicle painting, markings, and lighting shall be in compliance with FAA Advisory Circular 150/5210-5 (series).

### 2.7.3.4 Other Than Airport Vehicles

All vehicles not regularly used on the airfield shall carry a flag 3 feet square attached to a staff and flying above the vehicle or be equipped with an amber rotating beacon whenever operations on aircraft operating areas are necessary. Flags shall consist of a checkered pattern of international orange and white squares not less than 1 foot on each side.

## 2.7.4 Service to Transient Aircraft

### 2.7.4.1 Transient Military Aircraft

#### 2.7.4.1.1 Policy

It is the policy of the Department of the Navy that naval airfields shall be available for the use of transient military aircraft to the extent possible and that the aircraft and crew shall be supported within the capabilities of such activities.

#### 2.7.4.1.2 Exceptions

Transient military aircraft shall not be prohibited from landing at any naval airfield except:

1. When an emergency situation exists at the field.
2. When repairs or other conditions render use of the field hazardous to all or certain types of aircraft.
3. In isolated instances where the situation justifies, and prior approval has been obtained via the chain of command from the Chief of Naval Operations (N885F).
4. When the field is in a caretaker status or inactivated.
5. When special operations or special mission activities are being conducted at the field.
6. When the field is closed.

#### 2.7.4.1.3 General Criteria

No restrictions shall be placed on the use of naval airfields for the sole reason that they are adjacent to major aircraft manufacturing facilities. Only aircraft on official orders in connection with duties which cannot be performed elsewhere shall be permitted to utilize contractor-owned fields.

Any restriction to transient military aircraft imposed for safety reasons, such as inspections, public demonstrations, or events, should be limited to only that period of time during which a hazard actually exists.

Permanent official business only restrictions shall not be imposed without the approval of the Chief of Naval Operations (N885F).

In local areas containing several naval airfields, the duplication of facilities at each of the airfields to fully accommodate transient aircraft is not desired if one of the airfields can provide for the needs of the transients. However, any restrictions imposed must be submitted through the chain of command and approved by the Chief of Naval Operations (N885F).



Commanding Officers of stations located on airfields which are used jointly with civil or other military agencies may impose only those restrictions which are applicable to naval facilities under their control.

Commanding Officers of naval airfields shall ensure that aeronautical data affecting naval airfields is accurately published in DOD FLIP. Corrections, additions, or deletions to USN/USMC FLIP data should be processed according to FLIP General Planning.

Commanding Officers of naval aviation shore installations shall not permanently restrict any transient military aircraft from landing at their facility unless such restriction has been approved by the Chief of Naval Operations (N885F). Emergency restrictions of a temporary (10 days or less) nature (e.g., "prior permission required") may be imposed by commanding officers without higher command authorization when landing of aircraft at their facility is considered unsafe. Notification of such restrictions shall be accomplished as follows:

1. Advise Navy and Marine Corps aviation activities by message as far in advance of the restriction as practicable.
2. Issue a NOTAM at least 24 hours prior to commencement of the restriction.

#### **2.7.4.2 Transient Civil Aircraft**

##### **2.7.4.2.1 Policy**

Use of USN/USMC airfields by civil aircraft shall be in accordance with SECNAVINST 3770.1. Practice approaches may be provided to civil aircraft for pilot familiarization or training provided:

1. A civil aircraft landing permit has been executed and
2. Local arrangements have been made in advance with the Commanding Officer of the air activity concerned.

##### **2.7.4.2.2 Emergency Service**

Emergency service shall be provided any aircraft upon request. When providing such emergency service to civil aircraft, no attempt should be made to execute a civil aircraft landing permit until after the aircraft has landed.

#### **2.7.5 Flight Inspection Aircraft**

##### **2.7.5.1 In-Flight Priority**

FAA aircraft engaged in flight inspection of navigation aids shall be provided maximum assistance by control facilities. Subject to other operational requirements, direct contact should be maintained between the flight inspection pilot and the control facility to provide for an exchange of information regarding the intention of the pilot and the known traffic in the area. Many flight inspections are accomplished using automatic recording equipment and an uninterrupted flight is necessary for successful completion of the flight mission. The work load for the limited number of aircraft engaged in flight inspection activities requires that these aircraft be given priority over all other normal air operations to the maximum extent possible.

##### **2.7.5.2 Ground Servicing**

Priority for servicing can be given to FAA flight inspection aircraft over normal or routine transient aircraft at all Navy and Marine Corps aviation facilities. Scheduled airlifts, MEDEVAC mission, VIP movements, and any operational flight will take precedence over FAA flight inspection aircraft.

## **2.8 PREPARATION OF AIR OPERATIONS MANUAL**

### **2.8.1 General**

The basic outline below should be adhered to in the preparation of air operation manuals. It is realized that local conditions will necessitate the addition of other material or the deletion of some headings. Attention shall be given to current OPNAV instructions and other applicable directives in preparing the manual.

## **2.8.2 Review**

An annual review shall be conducted and coordinated with all applicable organizations to ensure content is pertinent and up to date.

## **2.8.3 Distribution**

An electronic copy of new or revised manuals shall be forwarded to the ATC Community web site at [atcweb@navy.mil](mailto:atcweb@navy.mil). Distribution to other air activities utilizing local facilities is encouraged.

## **2.8.4 Airfield Name**

If applicable, the name of the individual for whom the field is named shall appear on the cover of the manual along with the geographic name. A short biography of the honoree, including an account of any heroic deeds, may be included in the text of the manual.

## **2.8.5 Outline**

### **2.8.5.1 General**

1. General rules.
2. Hangar and service facilities (include wheel load capacity of runways, taxiways, and parking aprons).
3. Lighting facilities.
4. Hours of operation.
5. Compass rose.
6. Average annual weather data.
7. Arresting gear (include configuration based on the active runway).

### **2.8.5.2 Flight Planning**

1. Instructions for filing and completing flight plans (VFR-IFR).
2. Weather minimums.

### **2.8.5.3 Course Rules**

1. Course rules briefing requirements.
2. Taxi instructions.
3. Takeoff instructions.
4. Landing instructions.
5. Ordnance/weapons handling.
6. Noise abatement procedures.
7. Definition of local flying areas.

8. MOAs, restricted areas, etc.
9. Local obstructions.
10. Designated parking areas for aircraft loading and offloading hazardous materials in accordance with OPNAVINST 3710.31.
11. Airport vehicular traffic procedures.

#### **Note**

Where appropriate, local course rules shall specify airspeeds based on information contained in the flight manuals applicable to the aircraft operated by the prime user(s) of the airfield concerned.

#### **2.8.5.4 Inspections**

Include guidelines for periodic self-administered inspections of runways, taxiways, and parking ramps. Include procedures for identifying to airport users, by NOTAM, ATIS, and other appropriate means, conditions that may affect the safe operation of aircraft. These conditions include, but are not limited to:

1. Construction or maintenance work on pavement or safety areas.
2. Rough or wavy portions of pavement or safety areas.
3. The presence and depth of snow, slush, ice, or water on runways or taxiways.
4. The presence of snow next to runways or taxiways in such height that it might come in contact with any part of the aircraft when on the runway or taxiway.
5. The presence of parked aircraft or other objects on or next to runways or taxiways.
6. The failure or irregular operation of all or part of the airport lighting system, including the approach, threshold, runway, taxiway, and obstruction lights operated by the operator of the airport.
7. The presence of a large number of birds.

#### **Note**

The centerline should be used as a reference when reporting runway/taxiway conditions.

#### **2.8.5.5 Air Traffic Control**

1. Description of ATC services provided.
2. Emergency procedures.
3. Procedures for civil operations which infringe upon the Class C/D/E airspace such as crop dusting, sign towing, forest fire fighting, etc.
4. Restrictions and pilot/controller advisories from PALS certification final report.

#### **2.8.5.6 Transient Aircraft**

1. Accommodations available.
2. Transportation available.

3. Instructions for clearance of passengers for flights.
4. Procedures for handling visiting VIPs.
5. Procedures for handling the orders of personnel authorized per diem.
6. Customs procedures, hours, and requirements (all stations on foreign soil and, when applicable, in CONUS).
7. Procedures for obtaining flight rations.
8. Procedures for obtaining required registered publications necessary for flight.
9. Procedures and facilities for temporary stowage of registered material and weapons.
10. FAA flight inspection aircraft shall be given priority for refueling and servicing over routine transient aircraft. Operational flights, MEDEVAC missions, scheduled airlifts, and VIP movements take precedence over FAA aircraft.

#### **2.8.5.7 Aircraft Crash and Rescue**

1. Crash and rescue bill.
2. Search and rescue bill.
3. Salvage bill.

#### **2.8.5.8 Illustrations**

1. Traffic pattern chart.
2. Taxi pattern charts.
3. Seaplane procedure chart, if applicable.
4. Prohibited, warning, or restricted area chart.
5. Target dropping and bombing area chart.
6. Scaled terrain/obstruction map.

### **2.9 AIR FACILITY REPORTING**

NGA is responsible for acquiring all air facilities data, maintaining an evaluated database, and providing analysis support services to all DOD elements. The AAFIF data file is an integral part of this responsibility.

NGA annually sends each USN/USMC air facility a printout of currently held AAFIF data with a request to update the information. Commanding Officers of air facilities that are owned, operated, or tenanted by the USN/USMC shall reply to NGA with a complete reconfirmation or correction of the data on the printout in accordance with the accompanying instructions.

## CHAPTER 3

# ATC Facility Management

## 3.1 GENERAL

The ATC facility includes personnel and equipment associated with the operation of the following: control tower, approach control, terminal radar, en route radar, special use airspace and scheduling, flight planning (USN only), and air navigational aids.

### 3.1.1 ATCF Classification Standard

This standard serves as the foundation for all other ATCF planning standards by establishing a common baseline for ATCF resource determinations. Addressed within the standard are the needs for ATCF classification, the concepts used for standard development, descriptions of the services provided by ATCFs, and definitions of the ATCF classes.

#### 3.1.1.1 Need for Classification

Development of a classification scheme which succinctly describes the various types of existing Navy and Marine Corps ATCFs has long been a goal of Navy ATC system planners. Such a scheme provides a mechanism for defining ATCF resources logically and on an equitable basis systemwide. Baseline Planning Criteria for ATCF Resources Criteria (OPNAVINST 3722.35) provides guidance in minimum baseline planning of Navy and Marine Corps ATCFs.

#### 3.1.1.2 Approach to Standard Development

By definition, classification is the process of arranging things into groups based upon systematic division of common traits and elements. The underlying principle for establishing a classification scheme is that each resultant class must encompass common traits and elements. Since Navy ATC is one of a large number of closely interrelated elements collectively supporting the naval aviation mission, the classification scheme must identify all traits and elements that bear upon the performance of ATC and analyze each for commonality across the spectrum of ATCFs. ATCF classification shall not be assigned based on an ATCF's interpretation of ATC services being provided, but shall be based on a standard utilized by CNO (N885F) to classify ATCFs. CNO (N885F) is the final approval authority for DON ATC facility classification.

1. Class I Flight Planning Facility — Provides only flight planning service.
2. Class II Control Tower Facility — Provides airport traffic control service. Unless modified by letter of agreement, ATC clearance authority is limited to VFR although IFR and special VFR clearances originated by authorized facilities may be relayed. Flight planning service may also be provided.
3. Class IIIA/IIIB Combined Control Tower and RATCF — Provides both airport traffic control and low approach and landing services. Class IIIA low approach and landing service is limited to control on the final approach course; Class IIIB includes full pattern control (i.e., arrival control) in addition to control on the final approach course. Flight planning service may also be provided.
4. Class IVA/IVB Approach Control Facility — Provides airport traffic control and terminal area control services. Class IVA facilities are not ASR equipped (manual approach control); class IVB facilities are ASR equipped (radar approach control). These facilities may originate IFR and special VFR ATC clearances. Low approach and landing and flight planning services may be provided.
5. Class V Joint Control Facility — A combined ATCF and ROC/FACSFAC that may provide airport traffic control, low approach and landing, terminal area control, and special use airspace control services.

6. Class VI Fleet Area Control and Surveillance Facility (FACSFAC) — Radar air traffic control facility certified to provide full range of special use airspace control service. Real-time scheduling of military operating areas may also be provided. En route control service may be provided.
7. Class VII Combined Center Radar Approach Control (CERAP) — An air traffic control facility which combines the functions of an ARTCC and a radar approach control facility.
8. CATCC — The agency responsible for status keeping of all CV air operations and control of all airborne aircraft except those under the control of CDC, or PriFly. CATCCs provide low approach and landing, and terminal area control service. A CATCC is analogous to a Class IVB facility.
9. AATCC — An air traffic control agency responsible for the approach and departure control of amphibious task force aircraft and, when directed by TACC, assumes tactical control of specified aircraft.
10. TACC — The agency responsible for control of all airborne assets assigned or in support of the amphibious task force. The TACC is analogous to a Class VA/VB facility.

### **3.1.1.3 ATC Service Descriptions**

Six distinct ATC services exist and are provided singularly or in combination at every ATCF:

1. Flight planning service.
2. Airport traffic control service.
3. Low approach and landing service.
4. Terminal area control service.
5. Special use airspace control service.
6. En route control service.

#### **3.1.1.3.1 Flight Planning Service**

The planning of a flight is the first element of an air operation. Safety of flight is dependent upon thorough flight planning covering itinerary, times, and weather. Flight planning service provides an interface between the flight crew and the ATC system and includes work space, personnel, equipment, and information related to:

1. Planning the flight.
2. Processing flight plans for entry into the ATC system.
3. Processing flight plans for closeout from the ATC system.

#### **3.1.1.3.2 Airport Traffic Control Service**

Airport traffic control encompasses those services provided to aircraft operating within Class B/C/D/E surface area/Class G airspace or on the airport surface. These include:

1. Issuing control instructions for sequencing and orderly/expeditious movement of approaching, landing, or departing aircraft.
2. Furnishing information to pilots concerning clearances to operate aircraft, weather and field conditions, and pertinent operating and procedural instructions.

3. Relaying aircraft operation and control messages between pilots and other air traffic facilities.
4. Notifying crash and rescue agencies during actual or potential mishaps on or in the vicinity of the airport. ■
5. Controlling ground vehicular traffic in or near aircraft operating area.

#### **3.1.1.3.3 Low Approach and Landing Service**

This service permits aircraft to be recovered when ceiling and/or visibility are less than the prescribed minimums for non-precision instrument approaches. This service encompasses:

1. Issuing control instruction to provide separation to aircraft approaching for landing under marginal weather conditions.
2. Providing information to guide the aircraft in azimuth and altitude to an optimum touchdown point on the landing surface.

#### **3.1.1.3.4 Terminal Area Control Service**

Terminal area control service provides separation and control of aircraft operating in the relatively dense air traffic environment surrounding major airports. Service is exclusive of those performed as part of airport traffic control and low approach and landing services. This service encompasses:

1. Separation and control of departing and arriving aircraft operating under instrument flight rules.
2. Separation and control of transiting aircraft operating under instrument flight rules.
3. Separation and control of aircraft operating under visual flight rules, but desire the added margin of safety afforded by such control.

#### **3.1.1.3.5 Special Use Airspace Control Service**

This service combines both air traffic control in the classic sense (i.e., separating aircraft from each other or obstructions) and the provision of combat direction and/or special use airspace surveillance and scheduling. Service is mission oriented and includes:

1. Providing direction and flight following of mission aircraft.
2. Providing advisory control to aircraft conducting VFR operations within radar surveillance areas, including navigational assistance to ensure integrity of adjacent controlled airspace.
3. Interfacing with the National Airspace System, including positive control of IFR aircraft arriving and departing SUA.

#### **3.1.1.3.6 En Route Control Service**

This service provides separation and control of aircraft operating between departure and destination terminal areas. Service is exclusive of terminal area control, airport traffic control, and low approach and landing services. This service encompasses:

1. Separation and control of transiting aircraft under instrument flight rules.
2. Separation and control of aircraft operating under visual flight rules, but desire the added margin of safety by such control when equipment, capabilities, and workload permit.

### **3.1.2 Billet Descriptions, USN**

The following billet descriptions pertain to the management of Navy ATC facilities and shall be used in identifying assignments within a facility. Additional billet descriptions are found in chapters addressing specific branches. (Marine Corps billet descriptions are identified separately.)

### **3.1.2.1 ATC Facility Officer**

The ATC Facility Officer (ATCFO) shall be a graduate of an ACA1 or equivalent DOD or DOT air traffic controller course, successfully complete the FAA Airman's Written Test (AWT) and possess an ATCS Certificate (FAA Form 7220-1). The function of the ATCFO is to perform the duties of division officer. Duties, responsibilities, and authority include the following:

1. Overall management of the ATCF.
2. Ensuring the proper coordination and control of the movement of air traffic within the ATCF area of jurisdiction.
3. Establishment of standard operating procedures for the activity in accordance with applicable military directives and FAA rules and regulations pertaining to air traffic control.
4. Initiating the collection and safeguarding of data relating to mishaps and infractions of regulations with which the ATCF is concerned.
5. Determining operational capability of ATC equipment.
6. Ensuring training, supervision, and assignment of ATC personnel.
7. Liaison with NAVREPs, FAA representatives, local base officials, and representatives of other agencies.
8. Determining qualification of ATC personnel and approving ratings and certification as appropriate.
9. Ensure proper management of SDAP program.
10. Initiating, in conjunction with the GEMO, requests for equipment replacement or enhancement required to accomplish the ATC-related mission.
11. Serving as a member of the Command Master Planning Board and Station Planning Board.

ATCF officers shall not be normally assigned duties outside their billet description. When unavoidable, they shall be limited to essential duties as determined by the commanding officer.

### **3.1.2.2 Assistant ATC Facility Officer**

The Assistant ATC Facility Officer (AATCFO) shall be a graduate of an ACA1 or equivalent DOD or DOT air traffic controller course, successfully complete the FAA Airman's Written Test (AWT) and possess an ATCS Certificate (FAA Form 7220-1). The AATCFO functions encompass assisting the ATCFO in the management and administration of the ATCF. Duties, responsibilities, and authority include the following:

1. Providing interface with FAA and other military facilities.
2. Developing, reviewing, and standardizing ATC procedures.
3. Other duties as may be prescribed or assigned.

### **3.1.2.3 ATC Leading Chief Petty Officer**

The ATC Leading Chief Petty Officer (LCPO) shall be a graduate of an ACA1 or equivalent DOD or DOT air traffic controller course, successfully complete the FAA Airmen's Written Test (AWT) and possess an ATCS certificate (FAA Form 7220-1). The ATC LCPO shall assist the ATCFO in administration, supervision, and training of assigned personnel. Duties, responsibilities, and authority include the following:

1. Coordinating assignments of assigned personnel.
2. Preparing and promulgating appropriate military and professional matters pertaining to the ATCF.



3. Providing input to the ATCFO with regard to changes to and interpretation of manpower documents.
4. Formulating and recommending policy and procedures for the administration and operation of the ATCF.
5. Assisting the ATCFO in matters related to AICUZ, noise abatement, and environmental procedures.
6. Providing assistance and making recommendations to the ATCFO concerning improvement of spaces, working conditions, and welfare and morale of enlisted personnel.
7. Ensuring operating initials are assigned to newly reported personnel.
8. Act as the ATCFO in the absence of the ATCF officer.

#### 3.1.2.4 Branch Chief

Standard branch organization of ATC facilities and individual billet descriptions pertaining to each operating position are delineated in separate chapters. Branch chief billets are established as a part of facility management and are not to be construed as a part of the facility standard watch organization.

#### 3.1.2.5 Facility Watch Supervisor

Each facility shall have a Facility Watch Supervisor (FWS) designated by the commanding officer on duty at the facility at all times during hours of operation. The FWS shall be qualified on all operating positions within the facility. The FWS shall be responsible to the commanding officer or his designated representative for operational performance of the watch crew on duty. At the discretion of the facility officer, the duties of the FWS may be combined with those of a branch supervisor, but should not be assigned to a control position. Duties, responsibilities, and authority include the following:

#### Note

When a facility has been officially authorized to operate periodically in reduced ATC service mode; i.e., a Class IV facility providing only airport traffic control services, the FWS position qualification requirements are correspondingly reduced to include only those positions of operation applicable to the facility in reduced mode. Commanding officer designation of the "Special Category FWS" is also required.

1. Assuring an equipment checkout is performed at the beginning of each shift, reporting any malfunction of equipment to electronics maintenance, and any derogation of essential services to appropriate agencies. Assures proper crew briefing and an orderly watch turnover.
2. Preparation of the operating position assignments.
3. Assuring position currency and accomplishment and documentation of training.
4. Assuring use of proper control procedures and techniques by assigned personnel; assuring effective coordination within the facility and between facilities; and assuring corrective action is taken whenever control deficiencies are found.
5. Receiving complaints from pilots, adjacent facilities, and the general public regarding services or procedures provided by the facility and accumulation of initial data for forwarding to the ATCF officer.
6. Accumulation and initial documentation of mishap and incident records and forwarding such records to the ATCF officer promptly. In the absence of the ATCF officer, AATCF officer, or ATC LCPO, the FWS shall make the necessary mishap and incident notification as required by local directives.

7. Checking and signing daily facility logs and forwarding them to the appropriate branch chief.
8. Physical security.

### **3.1.2.6 Training Chief**

The duties, responsibilities, and authority of the Training Chief are delineated in [Chapter 8](#) of this manual. At those facilities where this billet is staffed by civilian personnel, the billet title of evaluation, proficiency and development specialist (EPDS) may be utilized.

### **3.1.2.7 ATC Training Support Specialist**

The duties and responsibilities of the training support specialist are delineated in [Chapter 8](#) of this manual. If the Training Chief is staffed by a civilian (EPDS), the training support specialist should be a military controller.

### **3.1.2.8 TERPS Specialist**

Each ATC Facility/Detachment should have an individual trained and designated to implement and manage its TERPS program. The TERPS Specialist should complete training in a formal TERPS course. Duties, responsibilities, and authority include the following:

1. Act as a member of the base facility planning board to ensure awareness of proposed construction, special projects, and improvements that may affect instrument procedures.
2. Coordinate with NAVFIG, as required.
3. Maintain familiarity with obstruction database and submit corrections as necessary.
4. Create and submit instrument procedure packages to NAVFIG, ensuring compliance with applicable TERPS directives.
5. Ensure airfield surveys satisfy TERPS requirements.
6. Provide recommendations to the ATCFO in all matters pertaining to TERPS.

### **3.1.3 Billet Descriptions, USMC**

The following billet descriptions pertain to the management of Marine Corps ATC facilities and MATCDs during exercises and deployments and shall be used in identifying assignments within a facility. Additional billet descriptions are found in chapters addressing specific branches. (Navy billet descriptions are identified separately.)

#### **3.1.3.1 ATC Facility Officer**

The ATC Facility Officer (ATCFO) shall be a graduate of the air traffic controller (ACA1) or equivalent DOD or DOT air traffic controller course. The ATCFO shall have successfully completed the FAA Airman's Written Test (AWT), and possess an ATCS certificate (FAA Form 7220-1) and a current NAVMED 6410/2 (Clearance Notice (Aeromedical)). The ATCFO shall have attained the position qualifications and ATCS rating required to be MOS qualified. Responsibilities include the following:

1. Overall management of the ATCF.
2. Ensuring the proper coordination and control of the movement of air traffic within the ATCF area of jurisdiction.
3. Establishment of standard operating procedures for the activity in accordance with applicable military directives and FAA rules and regulations pertaining to air traffic control.

4. Initiating the collection and safeguarding of data relating to mishaps and infractions of regulations with which the ATCF is concerned.
5. Determining operational capability of ATC equipment.
6. Ensuring training, supervision, and assignment of ATC personnel.
7. Liaison with NAVREPs, FAA representatives, local base officials, and representatives of other agencies.
8. Determining the qualification requirements of ATC personnel in accordance with current manuals and approving ratings/certification as appropriate.
9. Initiating, in conjunction with the GEMO, requests for equipment replacement or enhancement required to accomplish the ATC-related mission.
10. Serving as required, as a member of the Command Master Planning Board and Station Planning Board.

ATCF officers shall not be normally assigned duties outside their billet description. When unavoidable, they shall be limited to essential duties as determined by the Commanding Officer.

### **3.1.3.2 Assistant Air Traffic Control Facility Officer**

The Assistant Air Traffic Control Facility Officer (AATCFO) shall be a graduate of the air traffic controller (ACA1) or equivalent DOD or DOT air traffic controller course. The AATCFO shall have successfully completed the FAA Airman's Written Test (AWT), and possess an ATCS certificate (FAA Form 7220-1) and a current NAVMED 6410/2 (Clearance Notice (Aeromedical)). The AATCFO shall have attained the position qualifications and ATCS ratings required to be MOS qualified. Responsibilities include the following:

1. Assist the ATCFO, as directed, in the management of the ATCF including matters relating to AICUZ, noise abatement, and environmental procedures.
2. Supervision of administrative matters pertaining to the ATCF.
3. Formulation and recommendations for implementation of policy and procedures for the administration and operation of the ATCF.
4. Providing preliminary interface with the FAA and military facilities on airspace matters.
5. Providing for ATCF airspace utilization.
6. Act as the ATCFO in the absence of the ATCF officer.

### **3.1.3.3 Air Traffic Control Facility Training and Standardization Officer**

The Air Traffic Control Facility Training and Standardization Officer (ATCFTSO) shall be a graduate of the air traffic controller (ACA1) or equivalent DOD or DOT air traffic controller course. The ATCFTSO shall have successfully completed the FAA Airman's Written Test (AWT), and possess an ATCS certificate (FAA Form 7220-1) and a current NAVMED 6410/2 (Clearance Notice (Aeromedical)). The ATCFTSO shall have attained the position qualifications and ATCS ratings required to be MOS qualified. The responsibilities of the ATCFTSO are to assist the ATCFO, in training and standardization of the facility programs and procedures. The duties of the ATCFTSO may be performed by the AATCFO, as directed by the ATCFO.

### **3.1.3.4 Air Traffic Control Facility Watch Officer**

The Air Traffic Control Facility Watch Officer (ATCFWO) shall be a graduate of the air traffic controller (ACA1) or equivalent DOD or DOT air traffic controller course. The ATCFWO shall have successfully completed the FAA

Airman's Written Test (AWT), and possess an ATCS certificate (FAA Form 7220-1) and a current NAVMED 6410/2 (Clearance Notice (Aeromedical)). The ATCFWO shall have attained the position qualifications and ATCS rating required to be MOS qualified. Each facility shall have a FWO designated in writing by the ATCFO on duty at the facility at all times during hours of operation. The ATCFWO shall be responsible to the ATCFO for the operational performance of the watch crew on duty. At the discretion of the ATCFO, those duties of the ATCFWO may be combined with those of a branch supervisor, but should not be assigned to a control position. Duties, responsibilities, and authority include the following:

1. Assuring an equipment checkout is performed at the beginning of each shift, reporting any malfunction of equipment to electronics maintenance, and any degradation of essential services to appropriate agencies. Assures proper crew briefing and orderly watch turnover.
2. Preparation of the operating position assignments.
3. Assuring position currency and accomplishment and documentation of training.
4. Assuring use of proper control procedures and techniques by assigned personnel: assuring effective coordination within the facility and between facilities; and assuring corrective action is taken whenever control deficiencies are found.
5. Receiving complaints from pilots, adjacent facilities, and general public regarding services or procedures provided by the facility and accumulation of initial data for forwarding to the ATCFO.
6. Accumulation and initial documentation of mishap and incident records and forwarding such records to the ATCFO promptly. In the absence of the ATCFO, AATCFO, or ATCNCOIC, the ATCFWO shall make the necessary mishap and incident notification as required by local directive.
7. Checking and signing daily facility logs and forwarding them to the appropriate branch chief.
8. Physical security.

#### **3.1.3.5 Air Traffic Control Facility Non-Commissioned Officer in Charge**

The Air Traffic Control Facility Non-Commissioned Officer in Charge (ATCNCOIC) shall be a graduate of the air traffic control (ACA1) or equivalent DOD or DOT air traffic controller course. The ATCNCOIC shall have successfully completed the FAA Airman's Written Test (AWT), and possess an ATCS certificate (FAA Form 7220-1) and a current NAVMED 6410/2 (Clearance Notice (Aeromedical)). The ATCNCOIC shall have previously attained the position qualifications and ATCS ratings required to be MOS 7291 qualified and be a graduate of the ATC facility management course. The ATCNCOIC shall assist the ATCFO in the administration, supervision, and training of assigned personnel. Duties, responsibilities, and authority include the following:

1. Coordinating assignments of assigned personnel.
2. Preparing and promulgating appropriate military and professional matters pertaining to the ATCF.
3. Providing input to the ATCFO with regard to changes to and interpretation of manpower documents.
4. Formulating and recommending policy and procedures for the administration and operation of the ATCF.
5. Assisting the ATCFO in matters related to AICUZ, noise abatement, and environmental procedures.
6. Providing preliminary interface with the FAA and military facilities on ATC and airspace matters.
7. Providing assistance and making recommendations to the ATCFO concerning improvement of spaces, working conditions, and welfare and morale of personnel.
8. Performing the duties of the ATCFO in the absence of the ATCFO and AATCFO.

### 3.1.3.6 Training Chief

The duties, responsibilities, and authority of the Training Chief are delineated in [Chapter 8](#) of this manual.

### 3.1.3.7 ATC Training Support Specialist

The duties and responsibilities of the training support specialist are delineated in [Chapter 8](#) of this manual. If the Training Chief is staffed by a civilian, the training support specialist should be a military controller.

### 3.1.3.8 TERPS Specialist

Each ATC Facility/Detachment shall have an individual trained and designated to implement and manage its TERPS program. The TERPS Specialist should complete training in a formal TERPS course. Duties, responsibilities, and authority include the following:

1. Act as a member of the base facility planning board to ensure awareness of proposed construction, special projects, and improvements that may affect instrument procedures.
2. Coordinate with NAVFIG, as required.
3. Maintain familiarity with obstruction database and submit corrections as necessary.
4. Create and submit instrument procedure packages to NAVFIG, ensuring compliance with applicable TERPS directives.
5. Ensure airfield surveys satisfy TERPS requirements.
6. Provide recommendations to the ATCFO in all matters pertaining to TERPS.

## 3.1.4 Training

### 3.1.4.1 Team Concept

The controllers at ATC facilities train and work as an integral team. Training as a watch team should not be used as a substitute for sound personnel management practices such as manning for demand.

### 3.1.4.2 Dialogue With Local Users of ATC Services

Each ATCF shall maintain an effective dialogue with locally-based aviation units. The ATCFO should actively pursue pilot/controller forums and participation in flying unit safety meetings/stand downs to review ATC procedures and practices as well as encouraging pilot orientation visits to the ATCF. Such dialogue enables early identification of potential problem areas and accelerated early corrective actions, thereby enhancing safety and confidence in the ATCF and its controllers.

### 3.1.4.3 Briefings

ATC personnel should have an understanding of problems encountered by flight crews. Accordingly, training lectures shall be conducted annually in the following areas:

1. Operational characteristics and limitations of aircraft normally served by the facility.
2. Physiological and psychological factors incident to flight.

### 3.1.4.4 Orientation and Indoctrination Flights

Provisions are made in OPNAVINST 3710.7 for air traffic controllers, military and FAA, to receive orientation and indoctrination flights for the purpose of better understanding operating problems and evaluating ATC procedures at the facility. When an opportunity is provided, controllers should be afforded the option to participate in these flights to facilitate the improvement of work performance.

### 3.1.4.5 Crosstraining

ATC facilities should conduct organized crosstraining on all positions and equipment.

### 3.1.4.6 Mixing Live and Simulated Targets

Mixing live and simulated aircraft operations within an operational environment can become a distraction to air traffic controllers actively engaged in or supervising ATC services. Careful consideration shall be given to mitigate any potential distractions and to not interfere with a controller's ability to safely provide ATC services. The ATCFO shall establish procedures for simulator utilization in the ATC Facility Manual.

Mixing live and simulated targets on the same indicator, except PAR, is permitted provided the command has determined that there is no derogation to safe air operations. Commands which determine that certain periods of high density air traffic preclude mixing live and simulated targets are encouraged to schedule the simulator during periods of light air traffic activity or when the field is closed. Refer to [paragraph 8.2.5](#).

#### Note

At facilities where the capability does not exist to mix live and simulated targets on the same indicator, the possibility of distractions may still occur due to close proximity of simulation scenarios to controllers performing duties at operating positions.

### 3.1.4.7 FAA Schools

The FAA Academy conducts many ATC, airspace, and equipment maintenance courses which may be beneficial to Navy/Marine Corps air traffic controllers and air traffic control maintenance technicians. A full list of available courses can be found on the FAA Academy's web page ([www.academy.jccbi.gov/catalog/](http://www.academy.jccbi.gov/catalog/)). NATTC Pensacola (Air Traffic Control School) is the coordinator for Navy/Marine Corps quotas. Requests for quotas must be submitted to the Training Officer, Operations Division, Air Traffic Control School, NATTC Pensacola no later than 1 April for requirements in the succeeding fiscal year. Short-fused requirements may be requested for the current fiscal year; however, quota availability is extremely limited. Individual commands are responsible for the cost of the course and all associated travel/per diem expenses.

### 3.1.5 Facility Directives

The ATC facility directive system consists of the local ATC facility manual and supplementary directives which will be promulgated to ensure timely dissemination of information necessary for effective implementation of ATC services.

### 3.1.6 Facility Manual

#### 3.1.6.1 General

Each command shall promulgate an ATC facility manual. This manual should address facility administration, organization, qualification requirements, training, and air traffic control matters concerning local procedures. Facility manuals shall be reviewed on a continuous basis and facility directives/interim changes incorporated annually. ATCFOs shall forward an electronic copy to the ATC Community web site at [atcweb@navy.mil](mailto:atcweb@navy.mil). The basic outline below should be adhered to in the preparation of manuals.

#### 3.1.6.2 Outline

##### 3.1.6.2.1 Introduction

Assigns applicability, procedures for changes, and other matters of a general nature.

**3.1.6.2.2 Administration**

Contains facility organization, mission and tasks, and billet descriptions.

**3.1.6.2.3 Safety**

Details requirements to safeguard personnel and property.

**3.1.6.2.4 Training Plan**

Provides position/facility training and qualification requirements.

**3.1.6.2.5 Flight Planning (USN only)**

Details policy and procedures available as functional guidelines for flight planning.

**3.1.6.2.6 Control Tower**

Details policy and procedures available as functional guidelines for control tower operations.

**3.1.6.2.7 Radar**

Details policy and procedures available as functional guidelines for radar operations.

**3.1.6.2.8 Facility Watch Supervisor (USN)/Facility Watch Officer (USMC)**

Details policies and procedures available as functional guidelines for facility watch supervisors (USN)/facility watch officers (USMC).

**3.1.6.2.9 Equipment**

Details equipment operational capability and utilization, including procedures for required alignment accuracy checks.

**3.1.6.2.10 Appendices**

Provides amplifying data/examples of information contained within the manual.

**3.1.7 Procedural Agreements****3.1.7.1 Letters of Agreement**

Commanding Officers shall negotiate an Letters of Agreement (LOA) when operational/procedural needs require the cooperation and concurrence of other agencies/organizations/ATC facilities/foreign host governments. LOAs are executed when it is necessary to:

1. Supplement established operational/procedural instructions.
2. Establish or standardize operating methods.
3. Delegate responsibility for ATC service; e.g., control boundary jurisdiction, and procedures for coordinating and controlling aircraft where two or more airports have conflicting traffic patterns.

**Note**

Modification (expansion or reduction) of ATC airspace responsibility shall not be executed without prior approval of CNO (N885F) via appropriate chain of command.

4. Define interfacility or interagency responsibilities and coordination requirements.
5. Specify special operating conditions or specific air traffic control procedures.
6. Describe procedures or minimums deviating from those contained in FAAO JO 7110.65 and other pertinent directives.
7. Define stereotyped flight plans used for special operations, such as training flights or flight test activities.
8. Describe airspace areas required to segregate special operations.

Specific subjects for LOAs are detailed in FAAO JO 7210.3.

#### **3.1.7.1.1 Development and Content**

A sample LOA template is contained in [Appendix C](#). In developing an LOA, the following guidelines apply:

1. Determine, through coordination, which facility is principally responsible for processing the LOA.
2. Confine the material in each agreement to a single subject or purpose.
3. Describe the responsibilities and procedures applicable to each facility and organization involved.
4. Delegate responsibility for control of IFR aircraft, where necessary, by taking the following action:
  - a. Describe the area within which responsibility is delegated. This area may be depicted in chart form.
  - b. Define the conditions governing use of the area. These include altitudes, routing configuration, and limitations or exceptions to the use of the applicable airspace.
  - c. Specify the details of control procedures to be used. These include clearance limits, reporting points, handoff points, and release points.
  - d. Identify clearance limits designated as Instrument Approach Fixes when they are to be used for holding aircraft.
  - e. Specify communications and coordination procedures.
5. Attach charts or other visual presentations, when appropriate, to depict the conditions of the LOA.
6. Coordinate with affected flying units if aircraft operations or pilot procedures will be affected.
7. Establish an effective date, acceptable to all parties involved, that permits sufficient time for distribution and for participating facilities and flying units to familiarize personnel, revise directives, flight charts, etc., and complete other actions.
8. Forward a copy of the approved/signed LOA to the appropriate NAVREP.

#### **3.1.7.1.2 Review**

Commanding Officers shall ensure LOAs are reviewed annually to ensure accuracy and conformance with current policy. Coordinate with signatories to revise contents or cancel the LOA, as necessary.

#### **3.1.7.2 Memorandums of Agreement**

Memorandums of agreement are prepared with FAA at jointly staffed ATC facilities when it is necessary to regulate and standardize the internal operation of a facility. They contain instructions pertaining to administrative or



operational practices and procedures, either temporary or permanent. A sample memorandum of agreement is shown in [Appendix D](#). A memorandum of agreement may also be used when necessary to prescribe procedures with other departments or commands and agencies aboard the same base.

### 3.1.8 Air Traffic Control Contingency Plan

A contingency plan has been developed in coordination with FAA to provide continuity of naval flight operations within the National Airspace System in the event of a significant disruption of ATC services. This plan is included in [Appendix E](#). Commanding officers having ATC facilities under their cognizance shall execute the coordinating action delineated in [paragraph E.4 of Appendix E](#), as appropriate.

#### 3.1.8.1 Facility Contingency Plan

Each ATCF shall develop and maintain a facility contingency plan containing operational and administrative instructions and procedures to be implemented when triggered by a major system failure, natural disaster, or other facility evacuation event that directly incapacitates the facility's ability to provide air traffic services (e.g., ATC Zero). All supervisors must maintain a working knowledge of the contingency plan to reduce the impacts and risks to the National Airspace System (NAS) in the event the facility is unable to safely and efficiently provide air traffic services. If necessary, the ATCFO should coordinate with the cognizant NAVREP if the facility contingency plan involves the temporary transfer of responsibilities to an adjacent FAA ATC facility. In such cases, a contingency transfer shall be the subject of an LOA.

## 3.2 FACILITY LOGS

### 3.2.1 Daily Operations Log

Each branch of an ATC facility shall maintain a daily operations log on the Visual Information Display System (VIDS). If VIDS is not available, a paper or electronic FAA Form 7230-4 shall be used. This log should be maintained by the supervisor on duty and shall contain the following:

1. Date.
2. Time of all entries in UTC.
3. Signature of supervisor on duty.

#### Note

When an electronic FAA Form 7230-4 is used, the supervisor assuming responsibility for the watch shall sign on with the time and his/her name, e.g., "1430 J. Smith on." Entering his/her name serves the same purpose as signing the certification statement at the bottom of the form. If printed, the supervisor responsible for the watch at the time of printing, shall sign and date the certification statement at the bottom of the form.

4. The first entry in the REMARKS section of each day's Daily Record of Facility Operation shall indicate the supervisor responsible for the watch and shall be used to specifically record the operational status of the facility (e.g., equipment outages, runway or airspace status, or coordinated routes/procedures). The use of carry over from previous log (CFPL), is not authorized. The last entry on each day's form shall indicate the close of business (COB). Consider midnight local time or facility closing time, if earlier, as the close of the day's business.

#### Note

At facilities which are closed prior to the beginning of the new business day, changes in status can occur during nonoperational hours. If the status of equipment or other facility operations has changed from status reported on previous day's Daily Record, changes shall be noted in Watch Checklist entry, as well as time of status change, if known (e.g., WCLC - ABC TACAN RTS 0700).

5. Emergencies.

6. Establish a list of equipment checks required during each watch; e.g., recorder checks, emergency generator checks, bail-out alarm checks, etc. Make an entry (“WCLC”) when the watch checklist has been completed. Notify the organization responsible for corrective action on equipment malfunctions. Record equipment malfunctions, equipment released for maintenance, notification information and/or course of action taken to correct problem, and return of equipment to service.

**Note**

ATCFO may assign ATC equipment to specific branches for log entry purposes to eliminate duplication.

Place a large letter “E” in the left hand margin beside entries on equipment malfunctions. The “E” shall also be used when equipment is restored to service.

The “E” is to be used on entries related to equipment problems which require maintenance involvement. The “E” is not required for routine maintenance items or for carry-over entries on previously entered equipment malfunctions.

7. Other items deemed appropriate by ATCFO.

**3.2.2 Position Logs**

A position log shall be maintained on the VIDS for each branch supervisor, operating position, and flight planning position in an ATC facility ashore. If VIDS is not available, a paper or electronic FAA Form 7230-10 may be used. The purpose is to ensure a formal turnover as relief occurs and establish a reliable record of position manning and accountability as well as controller currency. The position log shall contain the following:

1. Facility three-letter identification.
2. Branch.
3. Position Code as follows:

LC - Local Control.

CC - Coordinator Tower.

GC - Ground Control.

FD - Flight Data - In Tower Branch.

CD - Clearance Delivery.

TS - Tower Supervisor.

AP - Approach Control.

CI - Coordinator Radar.

AR - Arrival Control.

DC - Departure Control.

FC - Final Control.

RD - Flight Data - In Radar Branch and FACSFAC.

SC - SUA Sector Control.

AS - Assistant SUA Sector Control.

RS - Radar Supervisor.

FP - Flight Planning Dispatcher.

FS - Flight Planning Supervisor.

FWS - Facility Watch Supervisor.

FWO - Facility Watch Officer.

If there are duplicate control positions, the third field shall be used to provide finer position delineation (i.e., APE for Approach Control East; FC1 for Final Control 1). For “shadow positions”, the third field shall be used as follows: X for Simulation (i.e., APX); F for Trainee Familiarization (i.e., LCF).

The Position Code OT shall be used by management personnel to sign on to VIDS for administrative functions such as Branch Chief viewing Currency Reports or ATC LCPO/ATCNCOIC viewing Position Logs.

4. Date.

5. Time (UTC) on position.

6. Controller operating initials.

If the position is operated by a trainee, his/her initials shall be entered after those of the OJT Instructor responsible for the position.

7. Time (UTC) off position.

8. Appropriate code as follows:

C - Controller/flight planning dispatcher responsible for the position.

T - Trainee/Student.

I - OJT Instructor responsible for the position.

Q - Qualifier for trainee qualification/certification.

A - Controller/flight planning dispatcher responsible for the position receiving an Annual Evaluation.

F - Position Familiarization (only used on a “shadow position”).

9. Combined position. For VIDS position log currency tracking purposes, when combining an operating/flight planning position with supervisor, use the operating/flight planning code as primary and the FWS/FWO/RS/TS/FS code as secondary.

### 3.2.3 Operating Initials

Each controller shall be assigned two-letter operating initials in order to identify them for record purposes. Unless signatures are specifically requested, controllers shall use assigned operating initials for all operating forms, interphone contacts, and other records. A listing of controller operating initials shall be maintained to prevent duplication of assignment.

### 3.3 PERSONNEL MANAGEMENT

#### 3.3.1 Qualification and Certification

##### 3.3.1.1 General

Military and civilian personnel performing duties of an ATCS shall be certified in accordance with provisions of Chapter 4 of this manual.

Records of qualification at the various operating positions and the attainment of ratings to basic certificates shall be maintained in accordance with Chapter 8 of this manual. The extent of each controller qualification level shall be readily available to supervisory personnel.

##### 3.3.1.2 Service Record Entry

**USN.** A permanent record of air traffic controller qualifications and ratings shall be entered on page 4 of the service record.

**USMC.** A permanent record of the initial certification (PMOS 7220 (officer) or 7257 (enlisted)) shall be entered in the Officer Qualification Record (OQR)/Service Record Book (SRB) per MCO P1070.12 (IRAM), paragraphs 3005.3.h and 4006.3.i and in the MACCS Performance Record (NAVMC 2898).

##### 3.3.1.3 Medical Certification

All air traffic control personnel (USN, USMC, and civilian (DOD)) shall maintain a current annual physical examination in accordance with physical standards specified in the Manual of the Medical Department (MANMED), Chapter 15 Medical Examinations, Section IV Special Duty Examinations and Standards, Article 15-95 Aviation Duty, and shall have a current NAVMED 6410/2 (Clearance Notice (Aeromedical)) on file when providing or supervising ATC services. Civilians shall be examined in military medical treatment facilities by a naval flight surgeon as defined in Article 15-95.

Section I of the ATC Certification/Qualification Record shall contain the signed original of the current NAVMED 6410/1 (Grounding Notice (Aeromedical)) or NAVMED 6410/2 (Clearance Notice (Aeromedical)). Notices to be maintained include those covering annual flight physicals and most current "up chit" from any grounded period (the exception being the Grounding Notice that "expires automatically," in which case a Clearance Notice is not required). These notices shall be retained until the succeeding year's annual flight physical Clearance Notice is received. Medical waivers shall be retained in the record as long as they are in effect. If there are special conditions for the waiver, the enclosure(s) that list these conditions shall be attached to the waiver approval letter.

#### Note

Neither a waiver recommendation from a local military flight surgeon board nor a letter endorsement from Naval Aerospace Medical Institute (NAMI) constitute a permanent waiver approval.

#### 3.3.2 Boards

##### 3.3.2.1 Procedures Evaluation Board

Facilities shall establish a Procedures Evaluation Board (PEB) for the purpose of recommending to the ATCFO action to be taken regarding ATC procedures. ATCFO will decide composition of board. In certain circumstances, as defined by the ATCFO, the ATCFO may establish or change ATC procedures without convening the PEB.

##### 3.3.2.2 Controller Evaluation Board

Facilities (and MATCDs during exercises and deployments only) shall establish a Controller Evaluation Board (CEB) for the purpose of evaluating and recommending to the ATCFO action concerning the following:

1. Training status and progress of controllers who are not progressing satisfactorily or who have not been able to meet training schedules.

2. Controllers whose performance or training record indicates unsatisfactory performance or inability to master the complexities of the air traffic control rating.
3. Other matters deemed appropriate by either the ATCFO or ATC LCPO/ATCNCOIC.

CEB composition will be at the discretion of the ATCFO. The controller concerned shall be given the opportunity to provide oral/written comments to the CEB. Deliberations shall be documented to include ranks/names/positions of members and witnesses. CEB minutes, recommendations, and endorsements shall be included as an enclosure to ATCS revocation recommendations resulting from failure to qualify.

### **3.3.3 Operating Positions**

#### **3.3.3.1 General**

The number and types of operating positions at a facility are directly related to the ATC functions performed by the facility. While the volume of air traffic requiring facility services will influence the overall number of operating positions, certain positions may be combined without affecting the efficient provision of ATC services. Accordingly, during periods of light traffic activity, operating positions may be combined, provided the controller is facility rated or qualified in the combined positions. ATCFOs shall ensure that operating positions that may be combined are clearly specified in local ATC facility directives. Additionally, the specific circumstances under which operating positions may be combined shall be stipulated.

#### **3.3.3.2 Trainees**

When assigned to operating positions, trainees shall be under the direct and constant supervision of a controller qualified on the position concerned. The qualified controller retains ultimate responsibility for the position and shall utilize the same radio console as the trainee unless override capability exists from an adjacent console to ensure instantaneous radio communications with the aircraft by the qualified controller.

##### **3.3.3.2.1 RFC Trainees (Ashore)**

Except as noted below, trainees shall not be assigned to final controller positions (precision, surveillance, or PALS) under prevailing weather conditions below 1,000 feet or 3 miles. With written approval from the radar chief, trainees nearing qualification or who have achieved a prior RFC rating may be authorized to control aircraft conducting radar approaches under weather conditions as specified by the ATCFO in the ATC facility manual.

#### **3.3.3.3 Controller Qualifications**

During practical controller certification examinations, a qualified controller assigned to the position of operation is responsible for the control of air traffic.

### **3.3.4 Human Performance and Medical Qualifications**

#### **3.3.4.1 General**

Operational readiness and aviation safety are enhanced by ensuring that air traffic controllers achieve and maintain an optimal state of physical and emotional health. Conditions that reduce this state can decrease performance and increase mishap potential. This section outlines basic guidelines that individuals and all levels of supervision can use to attain and monitor personnel performance.

#### **3.3.4.2 Factors Affecting Personnel Readiness**

Numerous complex factors affect the readiness of air traffic controllers. These factors must be understood by all concerned and appropriate countermeasures must be established to ensure they do not reduce personnel readiness. Air traffic controllers shall report any physical indisposition to superiors and assume operational duties only when

fit to do so. The air traffic control facility officer shall ensure that air traffic control personnel are adequately observed and appropriate grounding action is taken when necessary. When, in the judgment of supervisory personnel, a controller's physical or mental health appears questionable, the controller shall be relieved of ATC duties and referred to a military flight surgeon for evaluation and ruling. Personnel temporarily suspended or relieved from performing ATC duties shall not control or supervise the control of aircraft from any position in the facility. They may, at the discretion of the ATCFO, be assigned to duties in the flight planning branch. (The following paragraphs apply: [3.3.4.3](#), [3.3.4.4](#), [3.3.5.2](#), [3.3.5.3](#), [3.3.6](#), [3.7.7](#).)

### 3.3.4.3 Physical Qualification and Examination

Physical qualification as certified by an appropriate physical examination is a prerequisite for all air traffic controllers. Air traffic control facility officers shall suspend from ATC duties all air traffic controllers who have not met physical examination requirements. Physical standards as established by COMNAVMEDCOM are to be met as a continuing requirement, not solely at the time of the required physical examination. Military flight surgeons shall conduct interviews and/or physical examinations for air traffic personnel as follows:

1. Physical examination annually.
2. Check-in — Upon reporting (including TAD) to a new command.
3. Postgrounding — Following grounding for medical reasons.
4. Posthospitalization — Following return to duty after any admission to the sick list/hospital (including medical boards). A clearance notice (NAVMED 6410/2) is required when ATC personnel return to duty.
5. Postaircraft mishap — As necessary to meet the requirements of [paragraph 3.7.7](#) and OPNAVINST 3750.6.
6. As directed by higher authority; competence for duty, etc.

The extent of the examinations shall be determined by the military flight surgeon or as directed by the Manual of the Medical Department. Notation of such examination shall be entered in the individual health record and reported as required to the commanding officer and COMNAVMEDCOM.

#### Note

Aviation eyeglass frames are authorized for personnel required to wear glasses and/or choosing to wear sunglasses on duty for air traffic control purposes. Non-aviation frames restrict field of view and negatively impact flight safety.

### 3.3.4.4 Waiver of Physical Standards

#### 3.3.4.4.1 Waiver Requests

Air traffic controllers who are classified NPQ; (i.e., long-term grounding) may be considered for a waiver of standards. The following procedures shall be followed:

1. Except in rare cases, the waiver request will begin at the controller's command either with the controller or the commanding officer. All waiver requests must be routed through the controller's commanding officer and contain a statement indicating that the commanding officer is aware of the request for a waiver, the aeromedical recommendation, and whether the commanding officer concurs with this recommendation. A formal command endorsement typed on command letterhead must accompany all waiver requests.
2. After review by the controller's commanding officer, all waiver requests shall be forwarded to Naval Aerospace Medical Institute (NAMI) (Code 342) for review and endorsement with copy to CMC (APX-25) for Marine Corps military/DOD-employed civilian air traffic controllers.

3. NAMI (Code 342) will forward their recommendation to the appropriate waiver granting authority via formal BUMED letter. Copies of this BUMED letter are also sent to the controller's command, the medical treatment facility that examined the controller and for Marine Corps military personnel/DOD-employed civilian air traffic controllers to CMC (APX-25). Copies of the BUMED letter shall be placed in the controller's health record along with the waiver request.
4. The waiver granting authority for Navy air traffic controllers is BUPERS (PERS-404DF). The waiver granting authority for Navy, DOD-employed civilian controllers is CNO (N885F). The waiver granting authority for Marine Corps military/DOD-employed civilian air traffic controllers, after approval from CMC (APX-25), is CMC (ASM).

More detailed information can be found in the U.S. Navy Aeromedical Reference and Waiver Guide, which is published as an adjunct to Article 15-95 of MANMED and provides elaboration on specific aviation standards, examination techniques and methods, and policies concerning waivers for disqualifying conditions. This guide may be accessed on the Naval Operational Medical Institute web site at [www.nomi.med.navy.mil](http://www.nomi.med.navy.mil).

#### **3.3.4.4.2 Waiver Status**

Controllers desiring to track their waiver requests should log on the Electronic Physical Examination System web site at <https://apps.nomi.med.navy.mil/NAMIEPE> and request a user account.

#### **3.3.4.4.3 Waiver Not Granted**

1. In cases where a waiver of standards has not been granted, revocation of ATCS certificate should be considered per [paragraph 4.6.4.2](#).
2. Military air traffic controllers are not eligible to be transferred to perform ATC duties until a waiver of standards is approved by BUPERS or CMC, as appropriate.
3. Advancement in the AC rating shall not be permitted if a waiver of standards is not granted (refer to the Advancement Manual and the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards).

### **3.3.5 Use of Intoxicating Drugs and Beverages**

#### **3.3.5.1 Use of Drugs and Sedatives**

The following policy shall apply in regard to the use of drugs and sedatives by air traffic control personnel:

1. Personnel may be assigned to their regular positions of operations within facilities even though they are taking innocuous medication such as aspirin derivatives, vitamin preparations, nose drops, skin ointments, etc.
2. Unless individual waivers are obtained, personnel taking either regular or prolonged-action antihistamines for the treatment of an ailment such as an allergy condition shall not be assigned to an operating position.
3. Obtaining waivers — Personnel taking either regular or prolonged-action antihistamines may be assigned to positions of operation provided individual waivers are obtained from a military flight surgeon which indicate that there are no deleterious effects caused by the antihistamine.
4. Restricted use of drugs — Personnel assigned to an operating position in a facility, including those personnel who have direct supervision of controllers within a facility, shall not use the types of drugs listed below within a 24-hour period before assumption of duty.
  - a. Sedative-type drugs.
  - b. Tranquilizers.

- c. Any drugs such as but not limited to anti-hypertensive agents or duodenal ulcer medications which have an effect on the central or autonomous nervous system.
  - d. Any other drug and/or medication likely to affect the alertness, judgment, vision, equilibrium, or state of consciousness.
5. ATC personnel shall not consume intoxicating beverages within 12 hours of scheduled ATC duties. Air traffic controllers shall not perform ATC functions or directly supervise personnel performing these functions within 12 hours after consuming intoxicating beverages.

### 3.3.5.2 Drug Abuse

Any Navy, Marine Corps or DOD-employed civilian air traffic controller charged with violating Federal, state, or local statutes, Navy or Marine Corps regulations relating to the growing, processing, manufacture, sale, disposition, possession, use, transportation, or importation of narcotic drugs, marijuana, and depressant or stimulant drugs or substances shall be immediately suspended from all controller duties identified as control positions and reassigned to noncontroller duties. This suspension shall remain in effect pending disposition of the charges.

Any military air traffic controller identified as a drug abuser, as defined in OPNAVINST 5350.4/MCO P1700.24, shall have their ATCS certificate and ratings permanently revoked in accordance with [Chapter 4](#) of this manual. All military air traffic controllers guilty of drug abuse shall be processed for separation in accordance with OPNAVINST 5350.4/MCO P1700.24.

DOD-employed civilian air traffic controllers will be handled in accordance with applicable law, rule or regulations.

### 3.3.5.3 Alcohol Abuse

Any Navy, Marine Corps or DOD-employed civilian air traffic controller suspected of using alcohol while in a duty status or reporting for duty under the influence of alcohol shall be suspended from all air traffic controller duties and referred to a military medical treatment facility for evaluation and determination in accordance with current instructions. Alcohol abuse by military air traffic controllers shall be handled per OPNAVINST 5350.4/MCO P1700.24. Information relating to disposition of rehabilitated alcohol-dependent/abuser air traffic controllers is contained in BUMEDINST 5300.8.

DOD-employed civilian air traffic controllers will be handled in accordance with applicable law, rule or regulations.

### 3.3.6 Blood Donors

ATC personnel who have donated blood shall not perform ATC functions or directly supervise personnel performing these functions unless at least 24 hours have elapsed since the blood was donated.

### 3.3.7 Work Load Planning

#### 3.3.7.1 Hours of Duty

ATC facility operational requirements will establish normal working periods and work schedules. A normal scheduled ATC watch should be 8 hours and not exceed 10 hours. A scheduled crew rest period of at least 8 to 12 hours should occur between ATC watches. In an emergency or contingency situation, normal working periods may necessarily be extended. 14 CFR Section 65.47 is quoted for guidance to ATCFs that interface with the National Airspace System:

*“Except in an emergency, a certificated air traffic control tower operator must be relieved of all duties for at least 24 consecutive hours at least once during each seven consecutive days. Such an operator may not serve or be required to serve:*

- a. For more than 10 consecutive hours, or*
- b. For more than 10 hours during a period of 24 consecutive hours, unless he has had a rest period of at least 8 hours at or before the end of the 10 hours of duty.”*



### 3.3.7.2 Collateral Assignments

Air traffic control is a demanding occupational field that requires continuous involvement to maintain proficiency. This dictates the assignment of all air traffic controllers to ATC billets whenever possible. Accordingly, air traffic controllers shall not normally be assigned extended duties outside their professional specialty. When such outside assignments are unavoidable, they shall be limited to essential military duties.

## 3.4 FACILITY OPERATION

### 3.4.1 Hours of Operation

Naval ATC facilities ashore shall be manned and equipped to ensure the capability of providing air traffic services without delay. Any extension or reduction to published operating hours may have an impact on the corresponding Class B/C/D/E airspace or Special Use Airspace. ATCFOs must be sensitive to FAAO JO 7400.2 requirements (i.e., communications, weather observation and reporting, and weather transmission). Changes in hours of operation bearing on any standing letters of agreement between Navy or Marine Corps facilities and FAA or host governments shall be brought to the attention of local FAA or host government authorities. Consult with the ATC T & R Office/NAVREP when necessary.

#### 3.4.1.1 Normal Operation

1. Towers shall provide staffing for associated surface areas and legal times of use (published operating hours) as defined in FAAO JO 7400.9 series and the Airport/Facility Directory.
2. FACSFACs/Approach Controls shall provide staffing for associated airspace as agreed upon in a local letter of agreement with the appropriate ARTCC.
3. Coordinate non-permanent changes with the appropriate TRACON/ARTCC per local letter of agreement and disseminate a NOTAM as necessary per FAAO JO 7930.2.

#### 3.4.1.2 Permanent Change of Operating Hours

Air traffic density, facility manning, and operating funds may make it advisable to change ATCF operating hours. Accordingly, commanding officers shall request permission to change operating hours provided such action is considered appropriate in relation to mission and tasks.

These requests, to include all pertinent facts and justifications, including aviation type commander/Marine aircraft wing commander comments, shall be forwarded via chain of command to CNO (N885F)/CMC (APX-25) for approval with copy to appropriate NAVREP and RAC.

#### 3.4.1.3 Temporary Change of Operating Hours

Commanding officers may temporarily change ATCF operating hours provided the following preparatory actions are taken:

1. Concurrence is obtained from locally-based and other affected aviation units.
2. Coordination is effected with other ATC facilities which may be affected.
3. Notification is provided to the appropriate ATC T & R Office, NAVREP, and RAC when the change exceeds 24 hours.

After preparatory actions have been completed, commanding officers shall:

1. Use the NOTAM system for notification.
2. If the extent of the change exceeds 24 hours, advise cognizant major claimant, fleet type commander, NAVREP, JOSAC, and other appropriate commands/agencies, via Naval message, at least seven days in advance.

#### 3.4.1.4 Closed Control Tower Airfield Operations

Per OPNAVINST 3710.7, airfield commanding officers may permit aircraft operations at the airfield outside control tower operating hours with prior/concurrent approval of the aircraft's reporting custodian.

ATCFOs shall provide their expertise in the conduct of the ORM assessment, ensuring the enhancement of safety of flight and giving consideration to the following topics:

1. Notification to local flying unit of the impact to affected surface area.
2. Impact to adjacent Class B/C/D/E airspace.
3. Communications, weather observation and reporting, and weather transmission requirements per FAAO JO 7400.2.
4. Operational impact to existing LOAs.

#### Note

Local LOAs may have to be modified.

5. Obtaining IFR clearances, if applicable.
6. Closing VFR or IFR flight plans, if applicable.
7. Arrival/departure corridors versus potential conflicting civil air traffic.
8. Standardized and predictable flying procedures.
9. Dissemination of applicable NOTAMS.
10. Uncontrolled ground vehicular airport traffic.
11. Noise abatement.

There are several sources of information that explain recommended procedures at closed control tower airfields. 14 CFR Section 91.113 cites basic right-of-way rules, and 14 CFR Sections 91.126 and 91.127 establish traffic-flow rules at closed control tower airfields. The Aeronautical Information Manual and Advisory Circular 90-66A expand on the regulations.

#### 3.4.2 Watch Team Briefing

A briefing, attended by the entire watch team, shall be conducted prior to assumption of the watch. Briefings should include but are not limited to:

1. Current/forecast weather.
2. Current/projected airport conditions.
3. Equipment status.
4. New facility directives.
5. Special operations.
6. Operating position/training assignments.

### **3.4.3 Time Standards**

#### **3.4.3.1 Time Source**

All ATCFs shall use UTC for entries on all forms, logs and written records, and radio and landline communications. Local time shall be used for facility work schedules, daily traffic counts, and administrative forms and correspondence.

#### **3.4.3.2 Time Checks**

A reliable accurate clock shall be visible from each position of operation in all ATCFs. Time checks shall be obtained at the start of each watch as follows:

1. In approach control facilities, clocks are set to agree with those of the en route facility responsible for the terminal facility.
2. In FACSFACs, clocks are set to agree with those of the host en route facility.
3. In all other facilities, clocks are set to agree with those of the approach control facility serving the airport.

### **3.4.4 Emergency Plan**

#### **3.4.4.1 Local Directives**

Operational instructions for providing emergency service at naval aviation shore facilities shall be promulgated by commanding officers. If applicable, procedures should include provisions for alerting personnel operating emergency equipment located at outlying fields served by the facility as well as the station where the facility is located.

#### **3.4.4.2 Alerting Procedures**

Procedures for alerting personnel operating emergency equipment (including equipment which may be located off the airfield) shall consist of:

1. Initiating the alert by any of the following when the opinion is that a potential or actual emergency exists:
  - a. The air traffic controller.
  - b. The pilot of the aircraft concerned.
  - c. The reporting custodian or representative of the aircraft.
  - d. The station commanding officer or representative.
2. Stating the nature and location of the emergency by means of a signaling system (such as a siren or telephone).
3. Specifying, when required, the category of alert applicable to the emergency.

#### **3.4.4.3 Responsibility for Handling an Emergency**

Prompt dispatch of emergency equipment is the joint responsibility of air traffic control personnel and the crash crew. After receiving the alert, and appropriate tower clearances, personnel operating the emergency equipment shall be responsible for handling the emergency.

### **3.4.5 Emergency Power**

#### **3.4.5.1 Responsibility**

Commanding officers are responsible for developing and maintaining plans and procedures for ensuring continuity of ATC services and navigational aids during emergency conditions such as power failure, fire, flood, storm damage, etc. In this regard, auxiliary power sources must be maintained in optimum operational condition. Accordingly, each facility shall establish a program of preventive maintenance and periodic load and no-load operation to ensure maximum continuity of ATC service.

### **3.4.5.2 Severe Weather Activity**

Weather reports, advisories, and radar shall be monitored to determine when severe weather activity is approaching the facility. At least 30 minutes before severe weather is anticipated, facilities shall shift to auxiliary power unless reliable automatic transfer equipment is installed. Auxiliary power generators for related facilities including navigational aids shall be operated as directed by the ATCF officer.

### **3.4.6 Communications**

#### **3.4.6.1 Emergency and Distress Frequencies**

##### **3.4.6.1.1 Limitations on Usage**

Emergency and distress frequencies 243.0 and 121.5 MHz will be used only to provide a communications channel to and from airborne and ground stations or surface craft involved in an actual emergency or distress. This includes immediate assistance by other aircraft or surface units in the vicinity acting to alleviate or avert the distress or emergency condition. It does not include communications incident to a coordinated SAR operation. SAR communications are to be conducted on the frequency 282.8 MHz or other appropriate frequency as directed. The usage limitations do not preclude brief operational equipment checks.

##### **3.4.6.1.2 Responsibility**

Judgment as to what constitutes an emergency requiring the use of these frequencies remains a responsibility of the individual operator. Time permitting, facilities shall identify that they are on guard frequencies (e.g., “Navy 43271, this is (facility name) on guard (message).”).

#### **3.4.6.2 Unauthorized Transmissions**

ATC personnel shall not knowingly transmit or permit to be transmitted over voice or data communications circuits:

1. Obscene, indecent, or profane language.
2. False or deceptive communications.
3. Identification not authorized or assigned.
4. Willful or malicious interference with other communications.
5. Superfluous or unauthorized transmissions of a personal nature.

#### **3.4.6.3 Authorized Transmissions Not Associated With Air Traffic Control**

In addition to normal ATC transmissions, occasions may arise when messages by a third party, pertaining to safety of aircraft operation or preservation of life or property, are necessary. Such messages are authorized for transmission on ATC communications channels. They may be transmitted by controller personnel or by certain individuals concerned with the emergency. These individuals shall be given access to facilities to personally issue such messages for their respective interests provided that control instructions shall not be issued and such transmissions can be interrupted when required to continue ATC services.

ATCFs may relay tactical instructions when no other source of communications is available.

#### **3.4.6.4 Safety of Flight Considerations**

The final approach, touchdown, landing roll, takeoff, and initial climb to the first turn away from the airfield are considered to be the most critical phases of flight — phases requiring the full attention of the pilot. Except during

radar approaches or departures, controllers shall refrain from transmitting to the aircraft during these phases of the operation unless conditions affecting safety of flight are observed or are known to exist. Safety of flight considerations, including airfield conditions, shall be transmitted at any time observed by or made known to the controller.

### 3.4.6.5 Phraseology

ATC procedures and phraseology are prescribed in FAAO JO 7110.65. Emphasis is on standardization, brevity, and reduction of frequency congestion. In no case should the flightpath of an aircraft be extended merely to permit completion of required voice transmissions. Broadcasting of information which is available to the pilot in flight information publications should be held to a minimum. At jointly staffed facilities and at facilities where an aircraft will be controlled by both FAA and naval ATCFs, information to be transmitted by each facility shall be the subject of written agreement and clearly understood by all concerned with a view toward eliminating redundancy.

### 3.4.6.6 Precision Approach Landing System Phraseology

At Precision Approach Landing System (PALS) equipped airfields, standard CCA phraseology may be used when a pilot specifically requests a PALS approach vice an ASR or PAR approach (see Carrier Air Traffic Control Handbook, NAVAIR-AE-CVATC-OPM-000).

### 3.4.6.7 Cell Phone Usage in ATC Operational Spaces

Cellular telephones can cause audio rectification interference to Air Traffic Controller headsets. This harmful interference has the possibility of seriously degrading, obstructing, or interrupting with radio frequency transmissions.

#### WARNING

Cellular phones shall be powered OFF in all operational areas, in any ATC environment where Ground-To-Ground or Ground-To-Air communication is conducted.

### 3.4.6.8 Wireless Headsets

Wireless headsets operate in unprotected frequency spectrum and may cause or receive interference from other sources. Per the National Telecommunications and Information Administration Manual of Regulations and Procedures for Federal Radio Frequency Management: To ensure adequate regulatory protection, Federal entities should rely only on devices with frequency assignments in the Government Master File as principal radio communications systems for safeguarding human life or property.

#### WARNING

Wireless headsets are not authorized for use in an ATC environment.

## 3.4.7 Recorders

### 3.4.7.1 Use

Facility recorders shall have the capability to record and playback synchronized voice, time, radar, and display set-up data. Recorders and reproducers are required to provide information for the following:

1. Determining adequacy and accuracy of ATC instructions, especially during emergencies or heavy traffic.
2. Conducting aircraft incident/mishap analysis.

3. Immediately playing back incidents/mishaps to aid search and rescue efforts.
4. Periodically evaluating circuit loads to determine the need for corrective measures.
5. Conducting training, evaluation, and quality control of air traffic controllers.

Recordings shall be synchronized with the facility common time source. For accurate incident/mishap analysis, reproducers shall have the capability to playback synchronized voice, time, radar, and display set-up data recordings.

#### **3.4.7.2 Definitions**

Archive media — initial data storage media for recordings. Data is usually stored on internal recorder magnetic tape or to a hard disk (hard disk drive).

Original recording — recordings that are automatically recorded to the archive media without manual intervention. Original recordings must be protected from tampering and unauthorized removal.

Certified copy — any partial or full copy of the original recording reproduced using the procedures in this section.

#### **3.4.7.3 Recording Operating Procedures**

All radio circuits, telephones, interphones, crash phone circuits, and data used for the control of air or vehicular traffic shall be recorded continuously during hours of operation. Position recording shall be used for flight planning and all operating positions; however, the following frequencies shall be recorded independently:

1. UHF emergency.
2. VHF emergency.
3. Primary local control frequency (if more than one local control position, each primary frequency shall be recorded independently).
4. Primary approach control frequency (if approach control is sectorized, each primary frequency shall be recorded independently).
5. Automatic Terminal Information Service (ATIS).

#### **3.4.7.4 Retention and Release of Original Voice and Video Recordings**

Original recordings shall be retained for at least 15 days where the archive media is magnetic tape, and 45 days for locations where the archive media is a hard disk. Original recordings for mishaps involving DON ATCFs or aircraft shall be retained until:

1. Claim/complaint has been adjudicated.
2. Two-year statute of limitations has expired.
3. Released or directed by higher authority.

CNO (N885F) shall be advised of all requests for reviewing or providing certified copies of original recordings that may be evidence in a non-U.S. Government investigation. In all cases, voice/data recordings or information thereon shall not be released to any party without consent of the appropriate commanding officer. A chain of custody with appropriate signatures obtained, indicating release and assumption of responsibility, shall be established for all voice/data recordings prior to release to appropriately authorized agencies or officials. The Freedom of Information Act as delineated in SECNAVINST 5720.42 series shall be referred to in all cases.

### 3.4.7.5 Joint Facilities

Policies concerning recording for FAA control functions within jointly operated facilities will be established by the FAA. At facilities where the FAA assumes recording responsibilities, specific procedures shall be established in local agreements between the FAA and the facility.

### 3.4.7.6 Recorder Failure

If recording equipment fails, all flight clearance and control data shall be entered on the appropriate flight progress strips. This information shall include:

1. Time control is assumed or aircraft handed off.
2. Position and time radar contact established or lost or radar service terminated.
3. Missed approach.
4. Altitude changes.
5. Other information pertinent to the traffic situation.

### 3.4.7.7 Maintenance and Custody of Voice/Data Recordings

Electronics maintenance personnel shall conduct the approved recorder performance check daily (not to exceed 26 hours) to ensure each recorder is operating and recording normally. Only maintenance technicians shall change/copy archive media. Unless PMS dictates, no requirement exists to make an external daily back-up of the archive media. Voice/data recording equipment shall be locked except when maintenance actions are performed; keys shall be under the custody of the electronics maintenance officer or equivalent. During the period of required retention, voice/data recordings shall be securely stored under the custody of the electronics maintenance officer or equivalent. Each recording medium (tape, disc, cartridge, etc.) shall be annotated with a unique identification. Voice/data recordings retained for normal retention period and for incident/mishap purposes shall be identified in a log maintained by the electronics maintenance officer or equivalent with recorder identification, date/timeframe of recording, and name of technician placing the media into storage. The log shall be used to maintain chain of custody for all retained recordings. Access to retained recordings shall be made available to ATCF supervisory personnel only as indicated in an authorization letter signed by the ATCFO.

### 3.4.7.8 Making Certified Copies of Recordings

Two certified copies of original recordings shall be made as soon as possible after an incident/mishap. Certified copies shall contain all data relevant to the incident/mishap and the time stamp, when available, from a period of 5 minutes before the initial contact to 5 minutes after the last contact.

#### Note

The term “contact” is not necessarily defined as two-way, completed communication and/or coordination with or about the subject aircraft. Certified copies must include all communications and/or coordination pertaining to the subject aircraft even if a completed (acknowledged) transmission is not accomplished. This definition may be extended to include transmissions and/or coordination involving search and rescue efforts, crash-fire rescue efforts (to the point when emergency vehicles reach the mishap scene), and “attention all aircraft” broadcasts (i.e., weather advisories, etc.). An example of a “contact” that would be included in the certified copy (either 5 minutes before or 5 minutes after) would be attempts by the air traffic controller to contact the subject aircraft. If the controller keeps calling the aircraft, the 5 minutes (either before or after) referred to begins either at the first or last attempt.

A voice announcement containing all information normally furnished at the beginning of a transcription (except abbreviations) shall preface certified copies or separate portions of the copy. If equipment permits, the original recording will be impounded; the certified copy will be used in transcribing or analyzing the incident/mishap data.

### 3.4.7.8.1 Certified Copies of Voice Recordings

To make certified copies of voice recordings:

1. Make an initial certified copy for facility use in preparing transcriptions or analysis of an incident/mishap. Additional copies of voice recordings should be made from this certified copy.
2. A voice announcement preceding a certified copy of an original recording shall be made using the following format.

This certified copy is being prepared by \_\_\_\_\_.  
(facility)

The subject concerns an aircraft (incident/mishap) involving \_\_\_\_\_ on \_\_\_\_\_  
(aircraft identification) (date)  
at approximately \_\_\_\_\_.  
(UTC)

The agencies involved in this (incident/mishap) are \_\_\_\_\_.  
(do not use abbreviations)

Positions of operation are recorded in the following sequence

\_\_\_\_\_.  
(local control, departure control, etc.)

I hereby certify that the following is a true certified copy of the original transmission pertaining to the subject (incident/mishap). My name is \_\_\_\_\_ and I am \_\_\_\_\_ at \_\_\_\_\_.  
(name) (position title) (facility)

3. The certified copy of each position of operation will be preceded by a statement identifying the specific position and the start/stop times in UTC.

This portion of the certified copy concerns communications at the \_\_\_\_\_  
(position)  
during the period \_\_\_\_\_ to \_\_\_\_\_.  
(UTC)

4. All cases/cartridges/disks on which certified copies are prepared shall be clearly identified (i.e., facility, aircraft identification, incident/mishap date and time, and incident/mishap number if appropriate). Cassette tapes shall have the recording-prevention tab(s) removed.
5. Conclude the certified copy with the following statement: "This is the end of the certified copy concerning the incident/mishap involving (aircraft identification)."

If equipment permits, use a direct electronic connection between playback and rerecording equipment to accomplish this certified copy. Only use the speaker-to-microphone method if direct electronic connection is not possible.

The individual supervising this operation shall include a brief written statement identifying the contents, specifying the date and time of the recording.



### 3.4.7.8.2 Certified Copies of Data Recordings

To make certified copies of data recordings:

1. If equipment configuration permits, make an initial certified copy for facility analysis of an incident/mishap. Additional copies of data recordings should be made from this certified copy.
2. All cases/cartridges/disks on which certified copies are prepared shall be clearly identified (i.e., facility, aircraft identification, incident/mishap date and time, and incident/mishap number if appropriate).

The individual supervising this operation shall include a brief written statement identifying the contents, specifying the date and time of the recording.

### 3.4.7.9 Transcriptions of Voice Recordings

Printed paper versions of transcriptions shall be prepared for all formal incident/mishap packages and shall contain all recorded communications concerning the subject aircraft for a period of 5 minutes before initial contact until 5 minutes after the last contact. Each operating position (i.e., ground control, local control, approach control, etc.) must be transcribed separately. Do not integrate different operating positions into the transcription unless requested by the investigating authority. The transcript must reflect all communications as described in [paragraph 3.4.7.8](#) Note. For those positions that provided normal services to the subject aircraft and did not either (1) work the aircraft just prior to or at the time of the incident/mishap and/or (2) have no pertinent transmissions, a statement certified by the ATCFO can be submitted stating that "...all services provided (by that position) were normal and there were no pertinent transmissions." A chronological summary of flight will accompany the certified statement and will include those services provided by that position.

Transcriptions shall be made from a certified copy. The original recording may be used to check the transcription after this recording has been reviewed by the investigators or otherwise released by them.

The first page of each transcription shall be on command letterhead and shall contain the following information:

1. Name of facility preparing the transcription.
2. Date transcription was certified.
3. Subject of the transcription.
4. Date and period of time covered by the transcription.
5. List of agencies making transmissions together with the standard abbreviation for each.
6. Certification in the following form by the person making the transcription (not the ATCFO unless he/she prepared the transcription).

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject (aircraft incident, aircraft mishap, near midair collision, etc.) involving (aircraft identification).

---

SIGNATURE

---

NAME

---

TITLE

---

NAME OF FACILITY

The transcription shall be single spaced. Each contact shall be separated by triple spacing. If a cardinal minute is indicated between contacts it must represent one of the triple spaces, and one blank line must be added (either prior to or after the cardinal minute) to meet the triple spacing requirement. If two or more cardinal minutes are indicated, the triple spacing requirement is met and no blank lines are required. If transmissions of more than one agency/facility (control tower, approach control, base operations office, etc.) are recorded, each transmission must be prefaced by the transmitting agency abbreviation. If breaks occur during any contact, indicate by three dashes.

Time entries including seconds must be entered to the left of each transmission. All cardinal minutes must be indicated unless:

1. A transmission beginning with or extending through a cardinal minute in which case the next cardinal minute must be indicated.
2. If four or more cardinal minutes have passed without any transmissions, the grouping of the times is optional. However, if used they must be indicated as follows: the minutes being grouped must be in parentheses and separated by a single dash. Example: (1708-1720). The grouped minutes must have a single cardinal minute on the line immediately above and below the grouped minutes.

The transcription must be lower case and verbatim. Abbreviations and punctuation (commas, periods, etc.) must not be used. An apostrophe must be used to indicate contractions (i've, i'm, i'll, etc.). For spoken numbers, spell the numbers out exactly as spoken. If the recording is unintelligible, insert "unintelligible" in parentheses in the proper location. When an interpretation of a garbled word or portion of a word is required, the interpretation must be closed in parentheses and preceded by an asterisk. An asterisked footnote following the transcription must read: "This portion of the re-recording is not entirely clear, but this represents the best interpretation possible under the circumstances."

#### **Note**

- The transcription must be verbatim. If questionable language or other improper verbiage is used, it is mandatory the transcript accurately reflect the voice recording(s). If necessary, and only after obtaining permission from the investigating authority, the language maybe redacted from copies, but not originals. When redacting language, do not "white out" so it appears as the information was never present. It must be obvious to the reader the document has been altered (i.e., black out).
- Additional pages shall have the incident/mishap identification and aircraft call sign in the upper left corner, with "page (number) of (number)" two lines below this entry. Center at the end of the transcript, "End of Transcript."
- An example of a transcription can be found in Appendix 2 of FAAO JO 8020.16.

#### **3.4.7.10 Transcriptions of Data Recordings Other Than Voice**

If equipment configuration permits, a data reduction (computer data reduced to printed form) shall be prepared as requested by the investigating authority. The data reduction shall be forwarded with command letterhead certifying the materials provided as a true data reduction of the incident/mishap. The cover letter shall include the following information:

1. Name of command preparing/providing the data reduction.
2. Date data reduction was prepared/certified.
3. Subject of the data reduction.

4. Date and period of time covered by the data reduction.
5. Certification in the following form by the person preparing the data reduction.

I hereby certify that the following is a true data reduction pertaining to the subject (aircraft incident, aircraft mishap, near midair collision, etc.) involving (aircraft identification).

---

SIGNATURE

---

NAME

---

TITLE

---

NAME OF COMMAND

If necessary, the ATCFO shall coordinate necessary assistance with the appropriate automation system or recorder ISEA. If the ISEA must prepare the data reduction, a chain of custody with appropriate signatures obtained, indicating release and assumption of responsibility, shall be established for all data recordings prior to release to the ISEA for data reduction.

### **3.4.8 Automatic Terminal Information Service (ATIS)**

Responsibility for updating and monitoring broadcasts and disseminating current messages shall be assigned to a specific pertinent position of operation. ATIS messages shall be made a matter of record on facility recorders. If not possible, a written record of each message shall be established and retained for a period of 15 days.

## **3.5 ELECTRONICS MAINTENANCE**

### **3.5.1 Air Traffic Control Facility Technicians**

#### **3.5.1.1 Responsibility**

Maintenance responsibilities for equipment used to accomplish the air traffic control mission of a command is vested in the Ground Electronics Maintenance Division. Maintenance personnel shall perform preventive and corrective maintenance in accordance with existing maintenance policies and philosophies.

#### **3.5.1.2 Duty Technician**

Duty Technician(s) assigned air traffic control maintenance responsibilities shall be present anytime the facility is open and available to provide ATC services. Responsibilities include:

1. Keeping ATCF supervisory personnel apprised of equipment status.
2. Confirming controller judgment regarding equipment malfunctions.
3. Authority to recall electronic maintenance personnel qualified to perform corrective maintenance should an after-hour outage adversely impact the fleet support provision capability of the ATCF and the specific technical specialty required to perform corrective maintenance if not a member of the duty section.
4. Respond to remote site (communication site, outlying field, etc.) casualties.
5. Performing other duties as assigned.

### 3.5.1.3 Training and Qualification

Maintenance personnel performing maintenance actions in support of ATC systems shall be trained (NEC/MOS or civilian equivalent) and qualified as specified in the Shore ATC Systems Maintenance Policy contained in OPNAVINST 3721.5.

### 3.5.1.4 Working Hour Limitations

Working hour limitations in effect for air traffic controllers ([paragraph 3.3.7](#)) should be imposed on electronic technicians maintaining ATC-related equipment unless operational requirements dictate otherwise.

### 3.5.1.5 Drug Abuse

Any Navy or Marine Corps air traffic control maintenance technician charged with violating Federal, state, or local statutes, Navy or Marine Corps regulations relating to the growing, processing, manufacture, sale, disposition, possession, use, transportation, or importation of narcotic drugs, marijuana, and depressant or stimulant drugs or substances shall be immediately suspended from all air traffic control maintenance duties. This suspension shall remain in effect pending disposition of the charges. Any military air traffic control maintenance technician guilty of drug abuse shall be processed for separation in accordance with OPNAVINST 5350.4/MCO P1700.24.

Civilian air traffic control maintenance technicians will be handled in accordance with applicable law, rule or regulations.

### 3.5.1.6 Alcohol Abuse

Any Navy or Marine Corps air traffic control maintenance technician suspected of using alcohol while in a duty status or reporting for duty under the influence of alcohol shall be suspended from all air traffic control maintenance duties and referred to a military medical treatment facility for evaluation and determination in accordance with current instructions. Alcohol abuse by military air traffic control maintenance technicians shall be handled per OPNAVINST 5350.4/MCO P1700.24.

Civilian air traffic control maintenance technicians will be handled in accordance with applicable law, rule or regulations.

## 3.5.2 Equipment Maintenance Criteria

Performance standards, tolerances, base line certification and recertification requirements for navigational aids, radars, and other applicable ATC systems are contained in the Shore ATC Systems Maintenance Policy contained in OPNAVINST 3721.5.

## 3.5.3 Equipment Reports

Accurate and timely reporting of equipment status is critical to the ATC mission and safety of flight. The following are reports required by the DON:

1. Casualty Report (CASREP). Requirements and reporting periods are outlined in NWP 1-03.1. Due to redundancy of channels in some ATC systems, the following classifications shall be reported:
  - a. Full System Capable: Both channels are fully operational and within prescribed specifications.
  - b. Partial System Capable: Any system degradation that would partially affect normal system operation (i.e., only one channel operational and within prescribed specifications, TACAN dual soft-fail).
  - c. Non-Operational System: Any system degradation that would cause the ATC system to be non-operational (i.e., loss of antenna).

2. Maintenance Data System (MDS). Policy and procedures are outlined in the Shore ATC Systems Maintenance Policy contained in OPNAVINST 3721.5. Supplemental information can be found on the Navy/Marine Corps ATC Community web site at <https://atc.navy.mil>.

### **3.5.4 Statistical/Historical Data**

GEMOs shall ensure the maintenance of a continuing SSIC formatted historical file containing data pertinent to the operation of GEMD, including but not limited to, the following:

1. Modernization/rehabilitation plans including modifications.
2. Correspondence pertaining to acceptance/nonacceptance of equipment installations.
3. Correspondence pertaining to agreements with other agencies/facilities within the preceding 6 years.
4. Manning level changes with justifications during the preceding 6 years.
5. Technician of the year nominations during the preceding 6 years.
6. Air Traffic Control NATOPS Evaluation reports during the preceding 6 years.

## **3.6 SECURITY OF FACILITIES**

### **3.6.1 Controlled Access**

To guard against the unnecessary distraction by unescorted visitors and observers in ATCFs and ATC equipment spaces, commanding officers shall ensure that the security of such areas is maintained.

### **3.6.2 Official Business Access to Other Than ATC Personnel**

It may become necessary for personnel with aircraft technical expertise to be present in the ATCF during aircraft emergencies or when aircraft are otherwise experiencing operating difficulties or malfunctions. In such instances, only those personnel absolutely necessary and required to provide technical advice shall be allowed within the facility. In no instance shall controller authority be abridged by personnel who are present for this purpose. Official business visits by other than the aforementioned personnel shall be approved by the ATCFO and such persons shall be escorted while in the facility.

### **3.6.3 Unofficial Visits and Tours**

Visits by pilots and other interested personnel and tours for civilian groups or individuals are encouraged. However, visitors shall be escorted at all times.

### **3.6.4 Commercial Telephones**

Telephones in the control tower shall be assigned unpublished numbers or modified so as not to ring in the control tower. The telephone number should be changed when deemed necessary by the ATCFO.

## **3.7 AIRCRAFT MISHAPS AND INCIDENTS**

### **3.7.1 Importance of Collecting Data**

The importance of collecting accurate data concerning aircraft mishaps and incidents in a timely manner cannot be overemphasized. Detection of faulty equipment and/or procedures must be accomplished as quickly as possible to reduce hazards to aviation. Additionally, timely collection of accurate information will in the long run serve to best protect the rights of pilots and controllers involved.

### 3.7.2 Guidance Concerning Investigation and Reporting

Guidance concerning investigation and reporting aircraft mishaps and incidents, including NMAC incidents, is contained in OPNAVINST 3750.6. Policy regarding the release of information and records pertaining to such mishaps is addressed in the same directive. Involvement of civilian aircraft or other major civilian property should be reported via OPREP 3 in accordance with OPNAVINST 3100.6.

### 3.7.3 ATC Involvement

Involvement of components of the ATC system in an aircraft mishap or incident may include:

#### 3.7.3.1 Priority

Pilot irregularities or deviations from established procedures which require special handling by controllers (i.e., giving priority that results in delay or sequence adjustment to other aircraft).

#### 3.7.3.2 Deviation

Operational errors involving failure of equipment, personnel, procedures, or other system components, individually or in combination, which result in a deviation from established ATC standards.

### 3.7.4 Involvement of a Facility or Navigation Aid

Whenever a facility, service, or navigational aid is or is suspected to have been involved in an aircraft mishap or incident, action shall be taken to provide for the continuing safe, orderly, and expeditious movement of air traffic operating under the jurisdiction of the facility. Accurate and complete information shall be obtained for use in investigations by the facility, other agencies, or higher authority.

### 3.7.5 ATC Procedures Following a Mishap/Incident

Following an aircraft mishap or incident, ATCF supervisory personnel shall notify appropriate personnel designated in local directives; request and obtain weather observation; and cause the removal and safeguarding of any tapes that are, or may be, pertinent to the mishap or incident unless relieved of this responsibility by proper authority. Statements shall be obtained from controller and supervisory personnel involved. These statements are in support of administrative action and may not be made the basis of subsequent legal or disciplinary proceedings unless provisions of Article 31 of the UCMJ have been observed ([Appendix G](#)). The operating characteristics and equipment condition shall be examined by technically qualified personnel who were not on duty at the time of the mishap/incident to determine whether equipment could have been a contributing factor. Prior to this examination, no equipment alterations or adjustments shall be made on equipment which might have contributed to the incident without consent of the ATCFO.

### 3.7.6 Radar Facility Involvement in a Mishap/Incident

When a radar facility is or is suspected to have been involved in a mishap or incident, the following action shall be taken: during VFR conditions, a check of scope, video map, and cursor alignment shall be made. If the equipment is considered by ATC supervisory personnel on watch to be satisfactory, radar operations may be resumed. During IFR conditions when arriving aircraft cannot land by use of other facilities or proceed to an alternate ATCF, supervisory personnel on watch may resume radar operations after conducting a check of scope, video map, and cursor alignment. However, safety of flight considerations are paramount and pilots must concur prior to use of equipment under these circumstances. If doubt exists that equipment performance is not satisfactory, such equipment shall be placed out of service until complete technical evaluation and appropriate flight checks can be accomplished.

### 3.7.7 ATC Personnel Involved in a Mishap/Incident

ATCF personnel who appear to have contributed to a mishap or an incident which jeopardizes safety of aircraft shall be temporarily relieved of operational duty and referred to a military flight surgeon for physical/psychological

evaluation. This action is not to be considered as disciplinary or punitive action or in any way indicative that the controller was responsible for the mishap/incident. This removal is to permit preparation of facts and supporting data for an immediate facility investigation of the mishap/incident. Further, removal at this time is for protection of the naval service and the controller in the event human error existed or was caused by the controller's incapacity such as illness or extreme pressure. The relief from operational duty shall remain in effect until the ATCFO has determined the probability of controller involvement. If after a preliminary investigation the controller is found not responsible for or contributory to the mishap/incident, the controller will be returned to operational duty. If subsequent in-depth investigation reveals that the controller was responsible for or contributory to the error, the following actions shall be taken as a minimum prerequisite to reassignment to operational duty:

1. Detailed and complete review of the mishap/incident with the controller including a discussion of circumstances related to the mishap/incident.
2. Reevaluation of the controller on the position(s) to determine necessity for additional training.
3. If retraining is required, it should be conducted with particular emphasis on weaknesses revealed during investigation of the mishap/incident.
4. Satisfactory completion and documentation of the action outlined in 2 and 3 above, including demonstration of skill level at least equal to that required for the appropriate portion of sector/position "checkout," is to be considered a recertification of control ability.

### **3.7.8 Disciplinary Action**

Disciplinary action is a possibility in some cases of carelessness or negligence. Therefore, because of the seriousness of such action to the controller, use of the terms "carelessness" or "negligence" must be carefully considered. Use these terms only in cases where the controller is careless or negligent beyond reasonable doubt. Instances involving a mishap or incident resulting in personal injury or property damage may result in lawsuits being filed. In such event, files and records relating to the investigation of the instance and any disciplinary or other actions taken may be subject to disclosure to the attorneys for the litigants and produced in court. The purpose of this action is not to minimize or restrict actions because of possible liability, but is to provide additional assurance that the findings upon which disciplinary or administrative action is taken will not contain any unwarranted language which might be misleading to persons outside the naval service and result in a possible unjustified liability to the service or the individual. If disciplinary action appears warranted, action must be initiated in accordance with appropriate military and/or Office of Personnel Management directives.

## **3.8 AIR TRAFFIC SYSTEM HAZARDS (OPERATIONAL ERRORS/DEVIATION)**

### **3.8.1 General**

The ATCFO, in order to maintain an effective ATC facility organization, must identify any and all deficiencies and take appropriate corrective action.

### **3.8.2 Severe Air Traffic System Hazard (Operational Error)**

A severe air traffic system hazard is an occurrence attributable to an element of the air traffic system, to include aircraft/vehicle operators and air traffic controllers in which:

1. Less than the applicable separation minima results between two or more airborne aircraft, or less than the applicable separation minima results between an aircraft and terrain or obstacles (e.g., operations below minimum vectoring altitude (MVA); aircraft/equipment/personnel on runways), as required by FAAO JO 7110.65 or other appropriate directive; or
2. An aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization; or
3. An aircraft lands or departs on a runway closed to aircraft operations, at an uncontrolled airport and it was determined that a NOTAM regarding the runway closure was not issued to the pilot as required.

### 3.8.3 Routine Air Traffic System Hazard (Operational Deviation)

A routine air traffic system hazard is an occurrence attributable to an element of the air traffic system in which applicable separation minima as required by FAAO JO 7110.65 or other appropriate directive was maintained, but:

1. Less than the applicable separation minima existed between an aircraft and adjacent airspace without prior approval; or
2. An aircraft penetrated airspace that was delegated to another position of operation or another facility without prior coordination and approval; or
3. An aircraft penetrated airspace that was delegated to another position of operation or another facility at an altitude or route contrary to the altitude or route requested and approved in direct coordination or as specified in a letter of agreement (LOA), pre-coordination, or internal procedure; or
4. An aircraft is either positioned and/or routed contrary to that which was coordinated individually or; as specified in a LOA/directive between positions of operation in either the same or a different facility; or
5. An aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another position of operation without prior coordination and approval.

### 3.8.4 Reporting Air Traffic System Hazards

The reporting of air traffic system hazards is an element of the Naval Aviation Safety Program. Reporting requirements and format are contained in OPNAVINST 3750.6.

## 3.9 HANDLING OF ALLEGED FLIGHT VIOLATIONS

### 3.9.1 Procedures

Commanding officers shall establish local procedures to be followed by ATC personnel observing violations of flying regulations. Alleged flight violations shall be handled in accordance with the applicable provisions of OPNAVINST 3710.7.

## 3.10 REPORTS

### 3.10.1 Air Traffic Activity Report

(See [Appendix H](#), Forms To Be Locally Reproduced.) Items apply to Navy/Marine Corps ATCFs (and MATCDs during exercises and deployments only). Activity report/traffic count is not required from forces afloat. The activity report consists of three parts: the control tower operations count, the approach control operations count, and the special use airspace operations count. One, two, or all three portions of the activity report may apply dependent upon class of ATC facility. Traffic count at satellite fields (OLF, ALF) shall be reported on a separate control tower operations sheet by the parent activity. USMC Class IIIB facilities shall use the approach control operations form to record arrival control operations count.

#### 3.10.1.1 Purpose and Applicability

Reports of air activity are required by CNO to assist in administration and manning and to support the operational costs of the ATC program ashore.

#### 3.10.1.2 Report Distribution and Time of Submission

Subject report shall be submitted annually to reach CNO (N885F) no later than 1 February; copies to chain of command and NAVREP.



### 3.10.1.3 Instructions for Preparation of the Report

1. Categorize air taxi operations as air carrier.
2. Categorize U.S. Coast Guard operations as other military.
3. An IFR operation is recorded for an aircraft operating on an IFR flight plan, a Special VFR clearance or is being provided standard separation while conducting practice instrument approaches.
4. A VFR operation is recorded for aircraft operating in accordance with visual flight rules.
5. Radar approaches are considered as any surveillance, or precision radar approach to a landing, missed approach, or waveoff. Each approach executed shall be counted regardless of the flight rules under which the aircraft is operating or the existing weather conditions.
6. PALS approaches (if applicable) shall be reported by modes.
7. Training Device Usage in the following format:
  - a. Number of hours used.
  - b. Number of radar approaches accomplished.
  - c. Number of hours arrival control, vector to outlying fields, etc.
  - d. Number of hours ground control.
  - e. Number of hours local control.
  - f. Number of hours not available because of maintenance outage.
8. Remarks. Report airport use by runway, NAVAID approaches by runway, and radar/PALS approaches by runway. Also, include any air activity-related items that in the judgment of the originator would be of interest to the report recipients or worthy of recording for historical perspective (i.e., periods of long duration runway closures/repairs, long duration outages of landing systems/NAVAIDs, etc.).

#### 3.10.1.3.1 Air Activity

Air traffic control-related activity supported by the facility during the preceding year shall be included in this report.

##### a. Control Tower Operations

The control tower operations count is maintained by the control tower. At Navy/Marine Corps approach control facilities, these statistics are recorded separately from the approach control operations count. For the purpose of the control tower operations count:

1. Count an arrival as one operation. Individual aircraft of a formation shall be counted separately.
2. Count a departure as one operation. Individual aircraft of a formation shall be counted separately.
3. Count touch and go, low approach, or stop and go as two airport operations. Individual aircraft of a formation flight shall be counted separately.
4. Count an approach followed by a waveoff as two operations (e.g., VFR tower traffic pattern, FCLP, or an instrument approach to minimum descent altitude or decision height). Formation flights that maintain flight integrity and execute a low approach or waveoff shall be counted as two operations. Whenever the integrity of a formation flight is not maintained (e.g., tower intervenes to ensure spacing, sequencing, or separation), each aircraft shall be counted individually.

5. Count aircraft that transit Class D airspace and are provided ATC service as one operation. Formation flights shall be considered as a single operation.
6. There is no need to differentiate between IFR and VFR operations.
7. At nonapproach control facilities, radar approaches and PALS approaches (if applicable), as well as ATC training device usage shall be included in the appropriate sections of the control tower operations report.

**b. Approach Control Operations**

The approach control operations count is maintained by Navy/Marine Corps approach control facilities only. These statistics are recorded separately from the control tower operations count. An ATCF control area of jurisdiction may be further subdivided into control sectors, but only one approach control count is accrued by an aircraft transiting internal sector areas/boundaries. For the purpose of the approach control operations count:

1. Count an arrival as one operation.
2. Count a departure as one operation.
3. Count a practice instrument approach as one operation. Do not take a second for the departure phase of the flight when the aircraft executes a planned missed approach, low approach, touch and go, or stop and go (e.g., an aircraft takes off to fly five practice instrument approaches, landing on the last one. Total instrument count would be six: one for the initial departure, plus one for each of the approaches).
4. Count an approach followed by an unplanned missed approach as two operations if approach control provides ATC services following the missed approach (e.g., an instrument approach unplanned missed approach to control tower jurisdiction is only one approach control operation.)
5. Count aircraft that transit or operate within the control area of jurisdiction and are provided ATC service as one operation. An aircraft departing a satellite airport, transiting the area, and arriving at a second satellite airport is considered one approach control operation.
6. Formation flights shall be considered a single aircraft.
7. Differentiate between IFR and VFR operations.
8. For approach control facilities, radar approaches and PALS approaches (if applicable) as well as ATC training device usage shall be included in the appropriate sections of the approach control operations report.
9. For approach control facilities that provide ATC service for satellite civil airports with instrument and approach procedures, two figures shall be recorded in the Remarks block:
  - a. The total number of instrument approaches by satellite airport and;
  - b. The total number of instrument approaches conducted when the visibility is less than 3 miles or the ceiling is at or below the minimum initial approaches altitude, by satellite airport.

This second figure is normally reported monthly to the parent ARTCC per FAAO JO 7210.3, Chapter 14.

**c. Special Use Airspace Operations**

The SUA operations count is maintained only by FACSFAC or FACSFAC like functions of Navy/Marine Corps ATC facilities. These statistics are recorded separately from the control tower operations and approach control operations counts. For the purpose of the SUA operations count:

1. Count aircraft that operate in the control area of jurisdiction and are provided special use airspace control services as one operation.
2. Individual aircraft of a formation shall be counted separately while operating within SUA. This corresponds with criteria for the annual restricted area/military operations area utilization report required by FAAO JO 7400.2.

3. Operations shall be reported for individual regulatory and non-regulatory special use airspace designations as defined by FAAO JO 7400.8. In addition, report operations in stand alone ATCAAs not used in conjunction with other special use airspace.
4. There is no need to differentiate between IFR and VFR.

### **3.10.2 Report of Annual Terminal Instrument Procedures Review**

#### **3.10.2.1 Annual Review**

Commanding officers of Navy/Marine Corps aviation shore installations shall annually conduct a local review of terminal instrument procedures, departure procedures, and minimum vectoring altitude chart (MVAC). This local review shall also include procedures published for local use or military use only, PALS, ICLS and CCA.

Specifically, this review shall include the following:

1. Validation of the necessity to retain existing procedures consistent with air installation/assigned flying units' operational and training mission requirements, aircraft mix, and tempo of activity.
2. Validation of the MVAC's operational compatibility and suitability with local ATC procedures/airspace structure.
3. Verification of the accuracy of all aeronautical information concerning the air station published in DOD FLIP products.
4. Verification of the accuracy of the NAVFIG-provided list of known obstacles within a 5 NM radius of the air station which have been constructed/alterd since the last annual local review.

Schedule for the annual review is based upon the station's geographical location, as follows:

Overseas Pacific – 1 March

AZ, CA (south of 36 deg N) – 1 April

NV, WA, CA (north of 36 deg N) – 1 May

LA, TX – 1 June

MS, FL (west of 84 deg W) – 1 July

MD, ME, NJ, PA – 1 August

NC, SC, VA – 1 September

Overseas Europe/Middle East – 1 October

FL (east of 84 deg W), Cuba – 1 November

#### **3.10.2.2 Station Report**

Within 30 days of the due dates stated above, commanding officers of Navy/Marine Corps aviation shore installations shall report completion of the annual local review to NAVFIG by official command letter addressing each of the items listed above.

If a new, revised, or cancelled procedure(s) and/or MVAC are required, the report shall include a specific, detailed request of NAVFIG to develop new/revised procedure(s) and/or MVAC or to cancel those procedures no longer necessary.

If changes to DOD FLIP are necessary, the station shall enclose a FLIP Revision Report ([Appendix Q](#)) to the report.

### 3.10.2.3 NAVFIG Action

Upon receipt of an annual report requesting new, revised, or cancelled procedure(s) and/or MVAC, NAVFIG shall collaborate with the ATCFO to make all reasonable and prudent efforts to implement these changes within 90 days. Stations shall cooperate with and actively support the needs of NAVFIG to expedite the formulation and implementation of the necessary changes.

#### Note

- The local annual review shall not preclude commanding officers of Navy/Marine Corps aviation shore installations from requesting new, revised, or cancelled procedure(s) and/or MVAC if a requirement arises between reporting dates.
- TERPS procedures are contained in [Chapter 9](#).

### 3.10.3 Statistical/Historical Data

There is a continuing need for data concerning airfield operations for use in supporting requests for improvements to equipment, manning, and procedures. Turnover of military personnel generally precludes recalling of pertinent information regarding not only tempo of operations but the spirit and intent of previously adopted procedures or installation of equipment. Accordingly, ATCFOs shall ensure the maintenance of a continuing SSIC formatted historical file containing data pertinent to the operation of their facility including, but not limited to, the following:

1. Modernization/rehabilitation plans including modifications.
2. Correspondence pertaining to acceptance/nonacceptance of equipment installations.
3. Correspondence pertaining to agreements with other agencies/facilities within the preceding 6 years.
4. Correspondence pertaining to airspace rule making proceedings within the preceding 6 years.
5. Manning level changes with justifications during the preceding 6 years.
6. Historical records pertaining to time to achieve all position qualifications (initial and subsequent) within preceding 6 years.
7. Memorandums for the Record pertaining to the establishment/revision of the ATCF's maximum allotted time to qualify within the preceding 6 years.
8. Controller of the year nominations during the preceding 6 years.
9. Data on any assigned research and development or test and evaluation from initiation to completion.
10. Operational impact statements prepared during the preceding 6 years.
11. Airport usage by runway during the preceding 6 years.
12. NAVAID approaches by runway during the preceding 6 years.
13. Radar/PALS approaches by runway during the preceding 6 years.
14. Air Traffic Control NATOPS Evaluation reports during the preceding 6 years.

#### Note

For those facilities equipped with an air traffic activity analyzer, maintenance of paper files to fulfill items 11. through 13. is not required.

#### **3.10.4 Retention/Disposal Standards**

Retention standards for records/data relating to daily management of air traffic are established as follows:

1. Daily record of facility operation and position logs — 6 months.
2. Flight plans — 6 months.
3. Flight progress strips — 6 months.

Records/data relating to mishaps involving Navy ATCFs or DON aircraft until:

1. Claim/complaint has been adjudicated.
2. Two-year statute of limitations has expired.
3. Released or directed by higher authority.



**CHAPTER 4****Naval Certification Procedures****4.1 GENERAL****4.1.1 Purpose**

This chapter provides policy guidance and general procedures for the naval air traffic control certification program. Procedures set forth in this chapter augment and amplify the certification procedures prescribed in FAAO 8000.90.

**4.1.2 Requirements for Control Tower Operator/Air Traffic Control Specialist Certification****4.1.2.1 Medical**

Meet the physical requirements of 14 CFR Part 67 and applicable naval directives.

**4.1.2.2 Training and/or Experience**

1. Satisfactorily complete the FAA Airman Written Test (AWT) for control tower operators.
2. Be a graduate of a U.S. military air traffic controller formal basic course of instruction that included PAR practical application.

**4.1.3 CTO Examiner**

The CTO Examiner shall be qualified and designated per FAAO 8000.90 and shall be guided by the responsibilities and duties contained therein. If a member of the ATC Facility is the designated CTO Examiner, they shall possess a CTO rating for the tower assigned.

**4.1.4 ATCS Examiner**

The ATCS Examiner shall be designated in writing by the Commanding Officer. The ATCS Examiner shall possess all ATCS ratings for the facility assigned.

**4.2 CTO CERTIFICATES****4.2.1 Authority**

The CTO Certificate (AC Form 8060-1) is issued by the FAA and authorizes the holder to act as an "airman" upon completion of the requirements specified in 14 CFR Part 65 and FAAO 8000.90.

**4.2.2 Issuance of Ratings**

The holder of an Airman Written Test Report for CTO (formerly AC Form 8080-2) may not exchange this form for a CTO Certificate without rating. This form is nonexpiring and an applicant must qualify for a rating prior to issuance of a CTO certificate.

**4.2.3 Position Qualifications**

During the period prior to completion of CTO rating requirements, individual position qualifications shall be entered in the controller's ATC Certification/Qualification Record. The individual may perform duties as a controller under general supervision only at those positions at which qualified; otherwise, training shall be under the direct supervision of a controller qualified at the position being worked.

### 4.3 ATCS CERTIFICATES

#### 4.3.1 Authority

The ATCS certificate (FAA Form 7220-1) is issued by authority of CNO/CMC and authorizes the holder to act as a naval air traffic controller. Each air traffic controller of the naval service shall be required to possess the ATCS certificate regardless of the capacity in which employed.

#### 4.3.2 Naval Air Technical Training Center

NATTC Pensacola shall document and issue the ATCS certificate (without ratings) upon satisfactory completion of the naval basic ATC controller course.

#### 4.3.3 Commanding Officer

The commanding officer or designated representative may issue ATCS certificates to individuals who meet the qualifications contained in [paragraph 4.1.2](#) and FAAO 8000.90.

### 4.4 ATCS RATINGS

#### 4.4.1 Position Qualifications

During the period prior to completion of facility rating requirements, individual position qualifications shall be entered in the controller's ATC Certification/Qualification Record. The individual may perform duties as a controller under general supervision only at those sectors or positions at which qualified; otherwise, training shall be under the direct supervision of a controller qualified at the position being worked.

#### 4.4.2 Issuance of Ratings

When it is determined that a controller is eligible for an ATCS rating, the ATCS examiner will administer appropriate examinations in accordance with the provisions of FAAO 8000.90 and this chapter. Upon successful completion of these examinations, the ATCS examiner shall recommend the issuance of an applicable rating for the facility concerned. When approved by the ATCFO, the rating shall be recorded on the ATCS certificate, the ATC Certification/Qualification Record, and the individual service record.

#### 4.4.3 Applicable ATCS Ratings

The ratings applicable for USN/USMC ATCS certification are as follows:

1. APC — Holder is qualified as an approach controller at a nonradar (manual) approach control facility.
2. CATCC — Holder is qualified at all positions of CCA.
3. FACSFAC — Holder is qualified at all ATC operating positions of the FACSFAC.
4. AATCC — Holder is qualified at all positions of AATCC.
5. TACC — Holder is qualified at all positions of TACC.
6. BASEOPS — Holder is qualified at all positions in base operations. This rating can only be issued at Class I ATC facilities.
7. TOWER — Holder is qualified at all positions in the tower.



8. RATCF — This rating is applicable to the following facilities:
  - a. Class IIIB — The holder is qualified on all operating positions within the radar branch.
  - b. Class IVB — The holder is qualified on all operating positions within the radar branch excluding approach control.
  - c. Class VII — The holder is qualified on all operating positions within the radar branch excluding approach control and en route.
9. RFC — Holder is qualified as a PAR, ASR, and, where applicable, precision approach landing system (PALS) final controller. At facilities where the TRACON, RATCF, CATCC, or AATCC rating is applicable, the radar final controller will normally be a position qualification and not an ATCS rating. Such facilities may, however, utilize the RFC rating when manning or experience levels prohibit continued training toward TRACON, RATCF, CATCC, or AATCC.
10. TRACON — This rating is applicable to the following facilities:
  - a. Class IVB — The holder is qualified on all operating positions within the radar branch.
  - b. Class VII — The holder is qualified on all operating positions within the radar branch excluding en route.
11. ARTCC — Holder is qualified at all positions in the radar branch of the Class VII CERAP, including the en route portion. This rating is applicable only at facilities designated as a Class VII CERAP by CNO (N885F).

### **Note**

Supervisory designations are not required for issuance of ratings.

## **4.5 AIR TRAFFIC CONTROL WATCH SUPERVISOR (ACWS) DESIGNATION (USN ONLY)**

The following designations are applicable to air traffic control supervisory positions ashore and afloat. Due to the greater authority and responsibility of these arduous positions, designation shall be in writing by the commanding officer.

### **4.5.1 Facility Watch Supervisor**

The Facility Watch Supervisor (FWS) is a designation indicating the controller is responsible for the operational performance of the watch team at an air traffic control facility ashore.

### **4.5.2 Carrier Air Traffic Control Center Supervisor**

The Carrier Air Traffic Control Center (CATCC) Supervisor is a designation indicating the controller is responsible for the operational performance of the air operations and carrier controlled approach watch team during Case III operations.

### **4.5.3 Amphibious Air Traffic Control Center Supervisor**

The Amphibious Air Traffic Control Center (AATCC) Supervisor is a designation indicating the controller is responsible for the operational performance of the amphibious air traffic control center watch team.

### **4.5.4 Tactical Air Control Center (TACC) Supervisor**

The Tactical Air Control Center (TACC) Supervisor is a designation indicating the controller is responsible for the operational performance of the tactical air control center watch team.

#### **4.5.5 Air Traffic Control Training Supervisor**

The Air Traffic Control Training Supervisor (ATS) is a designation indicating the controller (assigned to NATTC) is responsible for the initial FAA certification of air traffic controllers (under instruction) and meets all of the following requirements:

1. Assigned NEC-9502.
2. Qualified as an air traffic control basic course phase one instructor.
3. Qualified to instruct in any other phase of the air traffic control basic course, or an advanced course of ATC instruction.
4. Designated as a Master Training Specialist.

### **4.6 SUSPENSION AND REVOCATION**

#### **4.6.1 Introduction**

Supervisors at all levels in ATC facilities have the responsibility to continuously observe and evaluate controllers. Infrequently, it may be necessary to recommend suspension of a position qualification or rating or revocation of an individual's certification. Procedures are hereby established for standardized, definitive action in such instances. Cases that require disciplinary or other administrative action may be taken concurrently. Each case must be individually evaluated.

#### **4.6.2 Authority for Suspension of Control Tower Position Qualifications and CTO Ratings and Revocation of CTO Certificates**

##### **4.6.2.1 Control Tower Chief**

The Control Tower Chief may suspend a position qualification within the control tower after concurrence of the ATCFO.

##### **4.6.2.2 CTO Examiner**

The CTO Examiner may suspend a CTO facility rating after concurrence of the ATCFO.

##### **4.6.2.3 Federal Aviation Administration**

The FAA has final authority for the revocation of a CTO Certificate. After ATCS Certificate revocation and when appropriate, only CNO (N885F) for USN and CMC (APX-25) for USMC shall forward recommendations for CTO Certificate revocation to the FAA.

#### **4.6.3 Authority for Suspension of Radar Position Qualifications and ATCS Ratings and Revocation of ATCS Certificates**

##### **4.6.3.1 Radar Chief**

The Radar Chief may suspend a position qualification within the radar branch after concurrence of the ATCFO.

##### **4.6.3.2 ATCS Examiner**

The ATCS Examiner may suspend an ATCS rating after concurrence of the ATCFO.

##### **4.6.3.3 CNO/CMC**

CNO (N885F) and CMC (APX-25) are the final revocation authorities for ATCS certificates issued under authority of this manual.

NATTC is authorized to revoke initial entry level controllers who have not detached from NATTC. A copy of the revocation package shall be forwarded to CNO (N885F).

#### 4.6.4 Procedures for Suspension or Revocation

Procedures contained herein for suspension or revocation are administrative in nature. Revocation shall not be used in lieu of appropriate disciplinary measures, or to relieve the command of a substandard performer.

In every case of certificate revocation, the individual concerned shall be afforded an opportunity to submit a statement to accompany the recommendation for revocation.

##### 4.6.4.1 Suspension of CTO Facility Rating(s), ATCS Rating(s), and Position Qualification(s)

A CTO rating, ATCS rating, or position qualification shall be suspended when controller performance of duties adversely affects the facility efficiency or safety of flight. If the decision is made to suspend the CTO rating, ATCS rating, or position qualification, the individual shall be promptly notified in writing. The suspension shall be documented in the ATC Certification/Qualification Record/MPR as follows:

“(Date), (type) Rating/Qualification suspended.”

Facility management shall suspend controllers from participating in ATC duties when notified by competent authority (e.g., SARP (USN), SACC (USMC), military flight surgeon, clinical psychologist) of alcohol dependency. In cases where an individual CTO rating, ATCS rating, or position qualification has been suspended and ATCS certificate revocation is not contemplated, the CTO rating, ATCS rating, or position qualification, may be reissued after the individual requalifies on all applicable positions specified in the ATC Facility Manual.

#### Note

If an ATC Certification/Qualification Record/MPR entry was made to document a suspension, the ATCFO shall ensure an additional ATC Certification/Qualification Record/MPR entry is made to reflect reinstatement of qualifications/designations if/when reinstatement were to occur.

##### 4.6.4.2 Revocation of ATCS Certificate

###### 4.6.4.2.1 Considerations

Cases where certificate revocation should be considered include:

1. Negligence that has caused a mishap.
2. Medically diagnosed physical, character, or behavioral disorder or condition which renders an air traffic controller NPQ or not aeronautically adaptable for ATC duties and for which a waiver of standards has not been granted by COMNAVPERSCOM (PERS-404DF) or CMC (ASM).
3. Questionable moral character evidenced by documented recurrent antisocial behavior.
4. Diagnosed anxiety (fear of controlling).
5. Unable to qualify within the time limitations specified in the ATC Facility Manual or unable to meet training schedules. Refer to paragraph 8.2.7.2.

6. Alcohol or drug abuse in accordance with OPNAVINST 5350.4/MCO P1700.24.
7. Loss of commanding officer's trust and confidence in controller's ability to safely perform air traffic control duties as a direct result of documented air traffic control-related incidents.
8. Medical grounding anticipated to exceed 1 year.

#### 4.6.4.2.2 Recommendation

When the ATCFO determines that a recommendation for revocation of ATCS certificate is appropriate, the individual shall be promptly notified in writing using the format contained in Appendix T. All associated ATCS ratings and position qualifications shall be immediately suspended. USMC shall make record entries as follows:

**USMC.** The ATCFO shall cause an entry to be made in the controller's Officer Qualification Record (OQR)/Service Record Book (SRB) and in the MACCS Performance Record per MCO P1070.12 (IRAM), paragraphs 3005.3.h and 4006.3.1 when revocation is pending or being contemplated.

“(Date). ATC Rating(s) (type(s)) is/are suspended this date. I acknowledge this suspension as an administrative action authorized by the ATCFO and this action is not of a disciplinary nature.”

#### Note

If an OQR/SRB or MPR entry was made to document a suspension, the ATCFO shall ensure an additional OQR/SRB or MPR entry is made to reflect reinstatement of qualifications/designations if/when reinstatement were to occur.

The air traffic controller concerned shall be afforded 3 working days in which to submit a written statement concerning the recommendation for revocation or to decline the opportunity in writing.

Recommendations for revocation shall be submitted from the commanding officer via chain of command to CNO (N885F) or CMC (APX-25), as appropriate.

For USMC personnel assigned to FAP, the ATCS certificate and MOS 72XX revocation package shall be routed via ATC T & R Office to the parent Marine Air Control Squadron.

Complete concise documentation is essential. Consideration should be given to possible future actions by the controller. The following items should be included as appropriate; asterisked items are mandatory in all cases:

- \*1. Controller name, rate/rank, SSN (last four digits only), date ATCS certificate issued, date of birth, ASVAB (USN)/GCT (USMC), EAOS (USN)/EAS (USMC).
2. A listing of all previously held ATC ratings/qualifications (including dates and locations) is also mandatory if failure to make satisfactory progress or failure to obtain the rating is the reason.
3. In the event of unsatisfactory progress or failure to obtain a rating or position qualification, then CEB results and a summary of training pertinent to the case shall be included. The following shall be addressed in the training summary, if applicable:
  - a. Years of ATC experience.
  - b. Facility's average time to qualify on the position.
  - c. Facility's maximum allotted TTH for the position.
  - d. Controller's TTH, total number of work days, and average number of hours on position per OJT period at the time of training termination.

- e. Controller's TTH for all previous position qualifications within the facility compared to the facility average TTH for qualification.
- f. Number of unsatisfactory marks documented on ATC Training Evaluation Report Forms for the position.
- g. Number of OJT Instructors during the controller's training.
- h. Amount of training conducted on a simulator.
- i. Number and duration of medical grounding(s) during training.
- j. Number, duration, and explanation of interruptions in training longer than five working days.



- \*4. Statement of ATCFO, Branch Chief, supervisors, witnesses, etc. For USMC, ATCFO statement shall indicate if Marine is being processed for administrative discharge.
- 5. A permanent grounding notice and a statement from a military flight surgeon are mandatory if diagnosed anxiety (fear of controlling) is the basis for recommendation for revocation. If a medical grounding for any reason is anticipated to exceed one year and is the basis for recommendation for revocation, a statement from a military flight surgeon is required and shall include the expected duration of grounding.
- 6. Statements of NCIS investigations, or other authorities outside of the ATC facility, as required.
- \*7. Notification of recommendation to revoke ATCS Certificate. In cases where the member is diagnosed with a condition which renders an air traffic controller NPQ and a waiver of standards is not being pursued, the ATCFO notification shall state "no waiver of physical standards is being pursued."
- \*8. Controller statement or written indication that no statement was offered.

Upon receipt of CNO/CMC decision, the commanding officer shall notify the individual and make the appropriate entry in the member's service record.

**USN.** "(Date). ATCS Certificate revoked this date. I acknowledge this revocation as an administrative action authorized by CNO (N885F) and this action is not of a disciplinary nature. I understand that I am able to request ATCS reinstatement if I am found eligible at a later date."

**USMC.** "(Date). (PMOS) revoked this date. I acknowledge this revocation as an administrative action authorized by CMC (APX-25) and this action is not of a disciplinary nature. I understand that I am able to request reinstatement into the MOS if I am found eligible at a later date."

Upon receipt of CNO revocation approval, Sailors are not eligible for advancement in AC rating. If the individual is a "selectee," exam invalidation is directed. Revocations for Navy E4 and above personnel will require timely initiation of action for forced conversion to another Navy occupation rating. Revocations for Navy non-rated personnel will require removal of the striker designation. Provisions of MILPERSMAN 1440-010 and 1440-050 apply. Inquiries pertaining to these matters should be directed to PERS-4811 (Active Enlisted Advancement/Conversions/Incentive Section).

Upon receipt of CMC revocation approval, USMC air traffic control personnel are ineligible for promotion within MOS 72XX.

#### **4.6.5 Reinstatement of ATCS/Reentry into AC Rating or MOS 72XX**

Reinstatement of the ATCS certificate and reentry into the AC rating/MOS 72XX are two separate actions.

##### **4.6.5.1 ATCS Reinstatement**

Personnel who meet the following requirements for reinstatement may apply to CNO (N885F) or CMC (APX-25), as appropriate, via the chain of command. Cases in which reinstatement shall not be considered include negligence that has caused a mishap, diagnosed anxiety (fear of controlling), failure to make satisfactory progress to obtain rating, and drug abuse. Correspondence should include at a minimum:

1. Statement(s) from available ATCFO(s) or ATC LCPO(s)/ATCNCOIC(s) resulting from recent personal interview. Statement(s) should address apparent motivation and suitability for reinstatement as an air traffic controller.
2. Statement(s) from present division addressing performance, attitude, apparent suitability for the air traffic control vocation, etc.
3. Results of recent aviation medical exam by a military flight surgeon.

## 4. If revocation was alcohol related:

- a. A minimum of 12 months must elapse from the effective date of lateral conversion until date of request for reinstatement.
- b. Reevalutaion from SARP(USN)/SACC(USMC).
- c. An approved waiver of medical standards granted by COMNAVPERSCOM/CMC (ASM) must be included as an enclosure to the reinstatement package.

**4.6.5.2 Reentry into the AC Rating (USN)**

Personnel who gain reinstatement of the ATCS may apply for reentry into the AC rating. PERS-4811 (Active Enlisted Advancement/Conversions/Incentive Section) has the authority for reentry. Provisions of MILPERSMAN 1440-010 apply.

**4.6.5.3 Reentry into MOS 72XX (USMC)**

Personnel who gain reinstatement of ATCS may apply for reentry into MOS 72XX. Appropriate portions of the IRAM and PRIM apply.



**CHAPTER 5****Flight Planning****5.1 GENERAL****5.1.1 Function**

The Flight Planning Branch provides for flight guard, receiving and processing inbound and outbound flight information, and providing for planning, receiving, and processing flight plans.

**5.1.2 Application**

Functions and responsibilities set forth in this chapter are applicable to ATCFs that provide flight planning assistance to aircrews.

**5.1.3 Billet Descriptions, USN****5.1.3.1 Flight Planning Chief**

The flight planning chief shall be fully qualified in the flight planning branch and be designated in writing by the ATCFO. Duties, responsibilities, and authority include the following:

1. Procuring and maintaining required publications, directives, charts, and supplies for pilot and branch personnel reference and use.
2. Managing flight planning facilities and equipment including ensuring completion of watch equipment checklist and recording of outages/returns to service with action taken to correct discrepancies.
3. Reviewing the branch log daily and maintaining operational continuity between various watch teams. Ensuring completion of position relief checklists by branch personnel.
4. Qualifying personnel for appropriate branch positions.
5. Evaluating and recommending to the ATCFO operational readiness of branch equipment.
6. Providing technical assistance to the ATCFO on matters pertaining to flight planning activities.

**5.1.3.2 Flight Planning Supervisor**

The flight planning supervisor (FS) shall be on duty within the branch at all times during hours of operation and is responsible to the FWS for operational efficiency of the branch watch team. The flight planning supervisor shall be fully qualified in the branch and be designated in writing by the ATCFO. Duties, responsibilities, and authority include the following:

1. Dissemination of NOTAMs.
2. Ensuring that adequate aeronautical charts, publications, and flight planning materials are available to aircrews.
3. Assisting aircrews in planning and proper filing of flight plans.

4. Supervising the processing and transmitting of flight plans and movement messages.
5. Ensuring the FP equipment checklist is completed at the beginning of each shift.

### **5.1.3.3 Flight Planning Dispatch**

Duties of flight planning dispatch (FP) include:

1. Receiving, processing, posting, and transmitting flight plans and movement messages.
2. Coordinating with other air traffic control agencies and flight service stations regarding flight plans and movement messages.
3. Handling incoming and outgoing communications, aircraft flight guard, and initiating overdue actions.

### **5.1.4 Billet Descriptions, USMC**

#### **5.1.4.1 Flight Planning NCOIC**

The flight planning NCOIC should be fully qualified in the flight planning branch and be designated in writing by the Airfield Operations Officer. Duties, responsibilities, and authority include but are not limited to the following:

1. Procuring and maintaining required publications, directives, charts, and supplies for pilot and branch personnel reference and use.
2. Maintain flight planning facilities and equipment.
3. Review Operations log daily and ensure that watch relief checklists are completed by branch personnel.
4. Supervise the training and qualification of all personnel for appropriate branch positions.
5. Ensuring that qualification and certification records are maintained for assigned personnel.
6. Providing technical assistance to the Airfield Operations Officer on matters pertaining to flight planning activities.
7. Ensure aircraft flight guarding procedures are being adhered to.
8. Supervise the dissemination of NOTAMS.

#### **5.1.4.2 Flight Planning Watch Supervisor**

The flight planning watch supervisor is responsible to the flight planning NCOIC. Duties, responsibilities, and authority include but are not limited to the following:

1. Advise the Flight Planning NCOIC on matters pertaining to publications, directives, charts and supplies for aircrew and branch personnel reference and use.
2. Advise the Flight Planning NCOIC of outages and actions taken to correct discrepancies of airfield equipment.
3. Provide assistance to the Flight Planning NCOIC in qualifying personnel on appropriate branch positions.
4. Evaluate the operational readiness of branch equipment.
5. Dissemination of NOTAMS.
6. Ensuring that watch integrity is maintained.

### **5.1.4.3 Flight Planning Dispatcher**

The flight planning dispatcher is responsible to the flight planning watch supervisor. Duties of the flight planning dispatcher include but are not limited to the following:

1. Ensure that adequate aeronautical charts, publications, and flight planning materials are available to aircrews.
2. Assisting aircrews in planning and proper filing of flight plans.
3. Receive, process, and transmit flight plans and aircraft movement messages.

### **5.1.4.4 Flight Planning Clerk**

The flight planning clerk is responsible to the flight planning watch supervisor. Duties of the flight planning clerk include but are not limited to the following:

1. Coordinating with other air traffic control agencies and flight service stations regarding flight plans and aircraft movement messages.
2. Handling of incoming and outgoing communications, aircraft flight guard, and initiating overdue aircraft actions.

## **5.2 FLIGHT PLAN HANDLING**

### **5.2.1 Information Forwarded to FSS and ARTCC**

#### **5.2.1.1 Filing of a Flight Plan**

Flight plan information and flight movement messages shall be in accordance with the procedures outlined in FAAO JO 7110.10 or ICAO Doc 4444-RAC/501, as appropriate.

#### **5.2.1.2 Closing of Flight Plan**

When the pilot either verbally confirms closing the flight plan with the tower or flight planning personnel or delivers a copy of the flight plan to the base operations flight planning office, flight planning duty personnel shall ensure that the flight plan is closed out.

### **5.2.2 Modification of Flight Plan Form**

Modification of information on a written flight plan form shall be accomplished only with concurrence of the pilot in command.

### **5.2.3 Retention of Flight Plan Forms by Naval Activities**

Filed copies of all flight plan forms, flight schedules, OPS logs, aircraft clearance/arrival reports, and other associated forms filed with flight plans shall be retained on file in the operations department of the departure station for a period of 6 months. The U.S. Navy Flight Forecast Folder (NMOC 3140/25), if received, shall be turned over to the local Navy Meteorology and Oceanography Command activity for review. Flight plans forwarded to naval aviation shore activities by FAA flight service stations shall be retained in the operations department files for a period of 6 months from the date of flight.

## **5.3 TELECOMMUNICATIONS**

### **5.3.1 Equipment/Circuit Problems**

When an AISR equipment outage occurs or is anticipated, the Flight Planning Supervisor shall notify ARTCC, FSS, and the AISR Technical Support Help Desk.

## 5.4 FLIGHT PLANNING FACILITIES

### 5.4.1 Current Information

#### 5.4.1.1 Responsibility

It is the responsibility of commanding officers to ensure that their facility information in military flight information publications is current. They shall establish procedures that will ensure submission of appropriate information for accuracy and completeness. Changes affecting a naval air activity instrument approach procedure shall be processed in accordance with this manual. Information for inclusion in flight information publications as well as notification of errors, omissions, or recommended changes shall be submitted to NAVFIG. Such information may be submitted on FLIP correction forms. A FLIP correction form is contained in [Appendix Q](#) and should be locally reproduced for submission to NAVFIG.

#### 5.4.1.2 NOTAMs

NOTAMs shall be issued as required in accordance with provisions of OPNAVINST 3721.20.

#### 5.4.1.3 Change Notices

Military flight information publications are corrected by PCN, ECN, TCN, or UCN, which are distributed automatically to all addressees receiving the publications concerned. All publications on hand shall be corrected promptly and obsolete information shall be destroyed.

### 5.4.2 Flight Planning Areas

Flight planning areas shall be located, organized, and equipped in conformance with [subparagraphs 5.4.2.1 and 5.4.2.4](#) below. Standardized baseline position equipment configuration and quantity is detailed in OPNAVINST 3722.35. In providing flight planning areas, operations officers shall be governed by the mission of the activity and the scope of air operations.

#### 5.4.2.1 Location

The location should be convenient to the flight planning dispatcher desk and the weather office and should be clearly marked to guide transient aircrews.

#### 5.4.2.2 Monitoring of Spaces

Spaces should be monitored throughout working hours by qualified personnel.

#### 5.4.2.3 Size

Accommodations shall include wall space for the display of required aeronautical information, plotting tables, and storage for charts, publications, and forms required by aircrews.

#### 5.4.2.4 Availability of Information

Sufficient FLIPs, navigation equipment, and related information applicable to the mission of the activity shall be available.

1. FLIPs.
  - a. Planning.
  - b. Area charts.

- c. En route low altitude.
  - d. En route high altitude.
  - e. En route supplements.
  - f. Terminal low altitude.
  - g. Terminal high altitude.
  - h. DPs and STARs (East and West).
2. Base operations/flight planning shall have the ability to access the Defense Internet NOTAM Service (DINS) web site to view, query, and create NOTAMs in accordance with OPNAVINST 3721.20.
  3. The following publications are utilized occasionally for reference purposes and shall be available in limited quantities where required:
    - a. 14 CFR Part 91, General Operating and Flight Rules.
    - b. Aeronautical Information Manual (AIM).
    - c. Contractions Manual (FAAO JO 7340.1).
    - d. Location Identifiers (FAAO JO 7350.7).
    - e. Notice to Airmen (NOTAM) Publication.
    - f. Foreign Clearance Guide.
    - g. International Flight Information Manual.
    - h. International NOTAMs.
    - i. Air Almanac.
    - j. NGA Catalog of Maps, Charts and Related Products (Part 1 — Aerospace Products).
    - k. NGA Bulletin Digest/Bulletin.
    - l. NGA Chart Updating Manual (CHUM)/ CHUM Supplement.
    - m. Aeronautical Information Publication (AIP).
  4. The following information shall be prominently displayed as appropriate to the mission of the air activity to assist transient aircrews:
    - a. A general flight planning chart.
    - b. Local area flight planning charts of suitable scale showing VFR arrival and departure corridors.
    - c. A scaled terrain/obstruction map to include overlays depicting current SID courses and their proximity to known hazards.

## **5.5 PUBLICATION PROCUREMENT PROCEDURES**

### **5.5.1 National Geospatial-Intelligence Agency Products**

The National Geospatial-Intelligence Agency Catalog of Maps, Charts and Related Products (Part 1 — Aerospace Products; Part 2 — Hydrographic Products; Part 3 — Topographic Products) contains information necessary to obtain required publications. NGA Map Support Offices located in Norfolk, VA; San Diego, CA; Honolulu, HI; Tampa, FL; Atsugi, Japan; Naples, Italy; Garmersheim, Germany; and Manama, Bahrain provide customer assistance.

Additional information regarding the ordering of maps, charts, and related products as well as items related to FLIP accounts, map and chart allowances, and points of contact can be found in the Defense Logistics Agency, Mapping Customer Operations (MCO), Customer Assistance Handbook available at <http://www.dscr.dla.mil/rmf/policies/handbook.pdf>.

### **5.5.2 METOC Products**

Requests for meteorological publications, charts, and/or forms should be made to Commander, Naval Meteorology and Oceanography Command, 1002 Balch Blvd., Stennis Space Center, MS 39522-5001.

## CHAPTER 6

# Control Tower

### 6.1 GENERAL

#### 6.1.1 Function

The function of the control tower is to issue clearances and information to aircraft and vehicular traffic operating on runways, taxiways, and other designated areas of the airfield and to aircraft operating in assigned airspace areas. Airborne traffic controlled by the tower includes both VFR and IFR traffic released to local control jurisdiction. Manual (nonradar) approach control services may also be provided from the control tower. Functions and responsibilities set forth in this chapter are applicable to air traffic control facilities and MATCDs which provide control tower services. Operating positions in accordance with FAAO JO 7110.65 may be added, deleted, combined, or integrated as necessary to meet local requirements.

#### 6.1.2 Billet Descriptions

##### 6.1.2.1 Control Tower Chief

The tower chief shall possess a CTO rating for the control tower assigned and be designated in writing by the ATCFO. The function of the tower chief is to assist the ATCFO in managing matters pertaining to control tower functions. Duties, responsibilities, and authority include the following:

1. Maintaining a current library of facility directives and other pertinent regulations pertaining to control tower operations.
2. Managing tower equipment, ensuring completion of watch equipment checklist, and recording of outages/returns to service with action taken to correct discrepancies.
3. Reviewing the branch log daily and maintaining operational continuity between various watch teams. Ensuring completion of position relief checklists by tower controllers.
4. Qualifying personnel on individual operating positions and recommending personnel for supervisory positions in conformance with this manual and local requirements.
5. Ensuring the currency of controllers.
6. Providing technical assistance to the ATCFO in development of procedures.

##### 6.1.2.2 Tower Supervisor

The tower supervisor shall be on duty within the branch at all times during hours of operation and is responsible to the FWS/FWO for operational efficiency of the branch watch team. The tower supervisor position should not be combined with a control position. The tower supervisor shall possess a CTO rating for the tower assigned and be designated in writing by the ATCFO. Duties, responsibilities, and authority include the following:

1. Coordinating and directing control of aircraft operating in assigned airspace areas and vehicular traffic operating on runways, taxiways, and other designated areas of the airfield.
2. Briefing the control tower watch team on weather conditions, traffic, equipment status, field conditions, and special evolutions.

3. Assigning personnel to operating positions according to individual qualifications and training requirements as directed.
4. Assigning trainees to qualified controllers for supervision.
5. Notifying cognizant SAR agencies of aircraft in distress and providing assistance and advice during emergencies.
6. At times when the airfield is technically VFR, but visual separation cannot be maintained, take immediate action to suspend VFR operations and inform appropriate authorities.
7. Ensuring the ATCT equipment checklist is completed at the beginning of each shift.

### **6.1.3 Operating Positions**

#### **6.1.3.1 Local Control**

Local Control (LC) is responsible for maintaining a continuous visual surveillance of the Class B/C/D/E surface area/Class G airspace and airport movement areas. Primary duties of LC include the following:

1. Formulating and issuing clearances and control instructions to accomplish separation between aircraft and between aircraft and vehicles operating under the jurisdiction of the tower.
2. Effecting coordination with appropriate operator positions and other facilities.
3. Providing flight assistance service to aircraft.
4. Operating airport lighting, lighting systems, and visual landing aids.
5. Providing initial notification and dispatch of emergency personnel and equipment for aircraft emergencies and mishaps.

#### **6.1.3.2 Ground Control**

Ground Control (GC) is responsible for exercising surveillance of the airport movement area. Primary duties of GC include the following:

1. Formulating and issuing ground movement clearances to aircraft and vehicles operating on the airport.
2. Transmitting current weather and field conditions, as required.

#### **6.1.3.3 Flight Data**

Duties of Flight Data (FD) are:

1. Operating communications equipment associated with FD.
2. Receiving and relaying aircraft movement data.
3. Preparing and posting flight progress strips.
4. Operating FDIO equipment.
5. Operating ATIS equipment.
6. Monitoring NAVAID alarm systems.



#### 6.1.3.4 Clearance Delivery

Duties of Clearance Delivery (CD) are:

1. Obtaining, posting, and relaying ATC clearances and advisories.
2. Other duties as assigned by Tower Supervisor.

#### Note

This position may be located in the flight planning or radar branch when local circumstances warrant, as determined by the ATCFO.

### 6.2 EQUIPMENT

#### 6.2.1 Requirements

Control towers should be provided the following equipment, as needed, to meet operational requirements. Standardized baseline control tower operator position equipment configuration and quantity is detailed in OPNAVINST 3722.35.

1. Control console.
2. Aircraft control communications equipment.
3. Interfacility communications equipment.
4. Intrafacility communications equipment.
5. Emergency communications system.
6. Radio receiver and transmitter controls.

#### Note

When the command workload and the airfield support assets justify, both a crash/fire net and an industrial net that separate the functions of crash/fire and industrial activities are appropriate. At locations without mission complexities and/or sufficient assets to perform both functions separately, consolidation of these functions is appropriate.

7. Flight progress strip holders.
8. Digital Altimeter Setting Indicator (DASI).
9. Weather dissemination or display device.
10. Wind direction and speed indicator.
11. Automatic Terminal Information Service (ATIS).
12. Digital reading clock.
13. Flight Data Input/Output (FDIO).
14. Remote video camera display.

15. Navigational aid monitor(s) (unless located in the radar room).
16. Airfield lighting and visual landing aids control.
17. Counters for recording aircraft operations.

**Note**

Items 8. through 17. may be part of the Visual Information Display System (VIDS).

- 18. Runway waveoff light controls.
- 19. VISCOM.
- 20. Air traffic control signal lamp.
- 21. Binoculars (at least two pair of 7×50 power or stronger shall be available to control tower personnel).
- 22. Crash phone, crash alarm, and evacuation alarm controls.
- 23. Crash grid per U.S. Navy Aircraft Firefighting and Rescue NATOPS Manual (NAVAIR 00-80R-14).
- 24. Tower radar display.

### **6.2.2 Mobile/Portable Control Tower**

Mobile/portable control towers are transportable shelters equipped with the personnel and equipment to provide temporary or limited control tower services. Mobile/portable control towers shall be under the operational custody of the ATCFO.

### **6.2.3 Airfield Diagrams**

An airfield diagram shall be displayed in the tower. The diagram should include:

1. Runways with length and width.
2. Taxiways with direction indicated if not bidirectional.
3. Intersection takeoff information.
4. Arresting gear location and type.
5. Location of navigational aids.
6. Visual landing aids.

### **6.2.4 Status Board**

■ An airport status board shall be displayed and maintained in the control tower. The status board should include the following information:

1. Radar equipment status.
2. NAVAID status (unless NAVAID monitors are located in the control tower).

3. Arresting gear status.
4. NOTAMs and non-NOTAM field conditions.
5. Status of communications equipment.
6. Outages.
7. Weather warnings.
8. Other pertinent information.

### 6.2.5 Air Traffic Activity Analyzer

The air traffic activity analyzer records and maintains data to facilitate preparation of the annual air activity report as well as development of air station noise contours during AICUZ study updates. Operational data needed for noise contour development (NOISEMAP computer program) includes aircraft type, runway use/direction of operations, flightpath identification, and time of day.

### 6.2.6 Tower Radar Display

The primary purpose of the tower radar display is to increase efficiency and safety of flight within the surface area for which the tower has responsibility. Use of certified or uncertified tower radar displays is detailed in FAAO JO 7110.65. The tower radar display is not intended to be used for approach control functions. Site specific condition and/or limitations of operations shall be specified by facility directive or letter of agreement, as appropriate. Tower radar displays may be used for the following:

1. To determine an aircraft's identification, exact location, or spacial relationship to other aircraft.

#### Note

This authorization does not alter visual separation procedures. When employing visual separation, the provisions of FAAO JO 7110.65, paragraph 7-2-1, Visual Separation, apply.

2. To provide aircraft with radar traffic advisories.
3. To provide a direction or suggested heading to VFR aircraft as a method for radar identification or as an advisory aid to navigation.
4. To provide information and instructions to aircraft operating within the surface area for which the tower has responsibility.

Certified tower radar displays may be used to ensure separation between successive departures, between arrivals and departures, and between overflights and departures within the surface area for which the tower has responsibility provided:

1. There is no airspace delegated to the tower.
2. The local controllers have radar training commensurate with their duties.
3. A LOA exists with the IFR facility having control jurisdiction which authorizes and prescribes the procedures to be used.
4. The LOA prescribes the process for a transition to nonradar procedures or the suspension of separation authority in the event of a radar outage.

5. The procedures for giving and receiving radar handoffs or pointouts do not impair the local controller's ability to satisfy responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility.
6. The procedures for ensuring radar separation do not require the tower to provide radar vectors.

**Note**

All SPAWARSYSCEN and FAA installed tower radar displays are certified tower radar displays.

## **6.2.7 BRANDS Site Unique Data**

### **6.2.7.1 Requirements**

Each air traffic control tower is unique in that runway configuration, traffic patterns, aircraft reporting points, terrain characteristics and coordination procedures differ. BRANDS system capabilities require that this site unique data be incorporated into each facility's operational software program.

### **6.2.7.2 Applicability**

This data consists of three types: digital maps, low altitude alert, and identity code lockout.

### **6.2.7.3 Procedures**

Changes shall be submitted to COMNAVAIRSYSCOM, Code 4.5.9.2, Bldg. 8131, Villa Road, St. Inigoes, MD 20684 ATTN: ATC Military Team Lead as outlined in the DAIR/RATCF DAIR/BRANDS Configuration Control Sub-board Policy and Procedures Manual.

## **6.3 WEATHER OBSERVATIONS BY CONTROL TOWER PERSONNEL**

### **6.3.1 General**

Air traffic controller weather observation and reporting procedures contained in Surface Weather Observation Procedures (NAVMETOC COMINST 3141.2A) and FAAO JO 7110.65 apply to DON air traffic controllers.

#### **6.3.1.1 Weather Observers**

DON air traffic controllers shall not be certified as weather observers except as noted in [paragraph 6.3.2](#).

#### **6.3.2 Certification of Tower Visibility Observers**

Qualification and certification of DON air traffic controllers as tower visibility observers will be in accordance with NAVMETOC COMINST 1500.3.

#### **6.3.3 Tower Visibility Charts**

Where air traffic controllers take tower visibility observations, tower visibility charts shall be maintained in the control tower. These charts shall be prepared in conjunction with the NAVMETOC Detachment/Marine Corps Weather Service as follows:

1. Prepare chart(s)/list(s) for daytime and nighttime visibility markers. Visibility markers may be depicted on separate daytime and nighttime charts or combination chart. Panoramic photos with distances/cardinal compass points may also be used.

2. Daytime/nighttime combination charts shall use the following legend:
  - a. Daytime visibility marker.
  - b. Nighttime visibility marker.
  - c. Daytime/nighttime visibility marker.
3. Each marker used shall be identified and its distance from the observation point noted.

## **6.4 PREVENTION OF WHEELS-UP LANDINGS**

Tower controllers shall remind the pilot to check wheels down at an appropriate position in the pattern unless the pilot has previously reported wheels down. The intent is solely to remind the pilot to lower the wheels, not to place responsibility on the controller. Controllers should be thoroughly indoctrinated in gear down indications of aircraft that normally operate at their airfield and should closely observe aircraft in the final stages of approach and landing.

## **6.5 ARRESTING GEAR**

### **6.5.1 Out Of Battery**

When arresting gear is out of battery, landing clearance shall not be issued to aircraft requesting that runway.

#### **Note**

Out of battery is defined as any premature loss of pretension in an arresting gear system.

Commanding officers of naval aviation shore installations may establish local regulations to provide departure procedures for flying units to use runways when the arresting gear is out of battery; however, in no case shall clearances be issued that require aircraft to taxi or takeoff over an out of battery arresting cable(s).

### **6.5.2 Unidirectional Gear**

As a prerequisite to activation of a duty runway, unidirectional arresting gear shall be derigged and cables removed prior to runway use when engagement direction is opposite the runway of intended use. This also applies to unidirectional overrun gear. Emergencies requiring immediate landing are an exception; therefore, controllers shall inform the pilot of the emergency aircraft of the arresting gear hazard.



**CHAPTER 7****Radar Operations****7.1 GENERAL****7.1.1 Functions**

The function of the radar branch is to provide radar ATC services to IFR and VFR air traffic within assigned airspace. The scope of radar services provided will vary according to equipment installed and the delegated airspace. Functions and responsibilities set forth in this chapter are applicable to ATCFs and MATCDs that provide radar ATC services, regardless of equipment installation or configuration. However, operating positions in accordance with FAAO JO 7110.65 may be added, deleted, combined or integrated as necessary to meet local requirements.

**7.1.2 Billet Descriptions****7.1.2.1 Radar Chief**

The radar chief shall possess the appropriate ATCS certification for the facility assigned and be designated in writing by the ATCFO. The function of the radar chief is to assist the ATCFO in managing matters pertaining to radar operations. Duties, responsibilities, and authority include the following:

1. Maintaining a current library of facility directives and other pertinent regulations pertaining to radar operations.
2. Managing radar branch equipment, ensuring completion of watch equipment checklist, and recording of outages/returns to service with action taken to correct discrepancies.
3. Reviewing the branch log daily and maintaining operational continuity between various watch teams. Ensuring completion of position relief checklists by radar controllers.
4. Qualifying personnel on individual operating positions and recommending personnel for supervisory positions in conformance with this manual and local directives.
5. Ensuring the currency of controllers.
6. Evaluating and recommending to the facility officer operational readiness of branch equipment.
7. Supervising FAA/military flight checks.
8. Providing technical assistance to the ATCFO in development of procedures.

**7.1.2.2 Radar Supervisor**

The radar supervisor shall be on duty within the branch at all times during hours of operation and is responsible to the FWS/FWO for operational efficiency of the branch watch team. The radar supervisor position should not be combined with a control position. The radar supervisor shall be qualified on all radar operating positions, possess the appropriate ATCS rating(s) for the facility assigned and be designated in writing by the ATCFO. Duties, responsibilities, and authority include the following:

1. Coordinating and directing control of air traffic within assigned airspace.

2. Briefing the radar watch team on weather conditions, traffic, equipment status, field conditions, and special evolutions.
3. Assigning personnel to operating positions according to individual qualifications and training requirements as directed.
4. Assigning trainees to qualified controllers for supervision.
5. Notifying cognizant SAR agencies of aircraft in distress and providing assistance and advice during emergencies.
6. Ensuring a radar equipment checklist is completed at the beginning of each shift.

### **7.1.3 Operating Positions**

#### **7.1.3.1 Approach Control**

Approach Control (AP) is responsible for coordination and control of all instrument traffic within the ATCF area of jurisdiction. Primary duties of the AP position include the following:

1. Issuing ATC clearances and advisory information to aircraft under approach control jurisdiction.
2. Maintaining radar surveillance of assigned areas and providing radar service to aircraft as required.
3. Determining the separation and sequence to be used between aircraft.
4. Initiating/accepting radar handoffs to/from adjacent sectors/facilities.
5. Providing assistance and priority of services to aircraft in emergency situations.

#### **7.1.3.2 Departure Control**

Departure Control (DC) is responsible for maintaining radar surveillance of the assigned area of jurisdiction and providing radar ATC services as required. Duties of the DC position include the following:

1. Issuing clearances and advisory information to aircraft under departure control jurisdiction.
2. Initiating/accepting radar handoffs to/from adjacent sectors/facilities.

#### **7.1.3.3 Arrival Control**

Duties of the Arrival Control (AR) position include the following:

1. Maintaining radar surveillance of the assigned area of jurisdiction and providing radar ATC services as required.
2. Issuing clearances and control instructions to aircraft operating under arrival control jurisdiction.
3. Accepting radar handoffs from approach control and providing radar ATC services to aircraft as required until the aircraft reaches approach minimums or is handed off to a final controller or adjacent facility.

#### **7.1.3.4 Flight Data**

Duties of the Flight Data (RD) position include the following:

1. Operating communications equipment associated with the RD position.
2. Receiving and relaying aircraft movement data.



3. Preparing and posting flight progress strips.
4. Operating FDIO equipment.
5. Monitoring NAVAID alarm systems.

#### **7.1.3.5 Final Control**

Duties of the Final Control (FC) position include the following:

1. Providing instructions necessary for an aircraft to conduct an ASR/PAR/PALS approach.
2. When required, monitoring approaches as specified in FAAO JO 7110.65.

#### **7.1.3.6 SUA Sector Control**

The function of SUA Sector Control (SC) is to provide SUA control services to all aircraft within the ATC Facility's assigned SUA. Duties and responsibilities include:

1. Providing positive control to aircraft requiring/requesting IFR handling to/from SUA.
2. Providing radar advisory control to VFR aircraft on a work-load permitting basis.
3. Coordinating controlled airspace infringement and hot area containment or boundary alerts.
4. Providing mission coordination assistance.
5. Disseminating weather information.
6. Providing SAR/MEDEVAC/HUMEVAC assistance.
7. Ensuring accuracy of information recorded on flight progress strips.
8. Coordinating with adjacent facilities.

### **7.2 EQUIPMENT**

#### **7.2.1 Requirements**

Each radar facility should be provided the following minimum equipment, as needed, to meet operational requirements. Standardized baseline radar operator position equipment configuration and quantity is detailed in OPNAVINST 3722.35.

1. Surveillance and precision radar display.
2. ATC radar beacon interrogator equipment and display.
3. Video mapper.
4. Air Traffic Control communications equipment.
5. Interfacility communications equipment.
6. Intrafacility communications equipment.
7. Emergency communications system.

8. Radio receiver and transmitter controls.
9. Flight progress strip holders.
10. Digital Altimeter Setting Indicator (DASI).
11. Weather dissemination or display device.
12. Wind direction and speed indicator.
13. Automatic Terminal Information Service (ATIS).
14. Digital reading clock.
15. Flight Data Input/Output (FDIO).
16. Navigational aid monitor(s).

**Note**

Items 10. through 16. may be part of the Visual Information Display System (VIDS).

17. VISCOM.

## **7.2.2 Video Mapping**

### **7.2.2.1 Requirements**

The minimum radar mapping capability required for providing approach control services is one of the following:

1. Dual video mapper.
2. Adequate map overlay.
3. Computer-generated displays.

When radar mapping is not available, limit radar services to:

1. Separating identified aircraft targets.
2. Vectoring aircraft to intercept a PAR final approach course.
3. Providing radar service in areas that ensure no conflict with traffic on airways, other ATC areas of jurisdiction, restricted or prohibited areas, terrain, etc.

### **7.2.2.2 Unauthorized Scope Markings**

Grease pencil markings, plastic tape, compass rose grid lines, range marks, or other innovations shall not be used in lieu of an adequate digital map, map overlay, or video map.

### **7.2.2.3 Display Map Data**

To reduce scope clutter and increase operational efficiency, limit data on display maps to the following:

1. Airports/heliports.
2. Runway centerline extension and/or final approach course.

3. Hospital emergency landing areas.
4. NAVAIDS and fixes.
5. Reporting points.
6. Airway/route centerlines.
7. Boundaries (control, special use areas, terminal buffer areas, holding pattern airspace areas, etc.).
8. Handoff points.
9. Special use tracks (scramble, recovery, DPs, etc.).
10. Obstructions.
11. Prominent geographical features (islands, mountains, etc.).
12. Map alignment indicators.
13. Range accuracy marks.
14. Minimum vectoring altitudes in hundreds of feet (e.g., 23 = 2,300 feet; 100 = 10,000 feet).

#### **7.2.2.4 Video Map Requests**

Requests for STARS radar video maps shall be submitted directly to COMNAVAIRSYSCOM, Code 4.5.9.2 on NAWCAD Form 1 (electronic submission preferred) for production and distribution except MVAC video maps which shall be routed through NAVFIG. Requests for RATCF/DAIR system radar video maps shall be sent to NAVFIG on OPNAV Form 13910/9. Instructions for preparing NAWCAD Form 1 and OPNAV Form 13910/9 can be found in [Appendix R](#).

### **7.2.3 Minimum Vectoring Altitude Charts**

#### **7.2.3.1 Requirement**

Minimum Vectoring Altitude Charts (MVACs) are developed to assist controllers in adhering to minimum safe IFR altitudes and obstruction clearance criteria set forth in OPNAVINST 3722.16 and applicable FAAOs. A MVAC shall be developed for all radar facilities having a requirement to vector aircraft. ATC facilities shall ensure compatibility with parent approach control MVACs. Facilities using slaved DOD, DOT radar feed may use that facility's approved MVAC.

##### **7.2.3.1.1 Terminal MVAC**

Terminal MVACs shall be developed for systems where radar data is provided by a feed from a single ASR/DASR or to support the designated terminal area of a multi-sensor "mosaic" system when the area is adapted to exclusively utilize a single terminal radar. A Terminal MVAC does not support a terminal "mosaic" area where radar data is provided by more than one radar (ASR/DASR or ARSR) or a terminal area where controllers have the ability to switch from terminal to "mosaic" mode.

##### **7.2.3.1.2 Long Range MVAC**

Long Range MVACs shall be developed for systems where radar data is provided by a feed from one or more ARSRs, or a feed from more than one terminal radar. Develop Long Range MVACs for multi-sensor "mosaic" systems (e.g., STARS), except as specified in [paragraph 7.2.3.1.1](#). When a Terminal MVAC is developed for the terminal area of a multi-sensor system, develop and maintain both Terminal and Long Range MVACs.

### **Note**

If a facility utilizes a Long Range Radar, the MVAC need only be developed to encompass the facility's airspace boundaries, not to the extent of the range of the Long Range Radar.

#### **7.2.3.2 Preparation**

Instructions for preparing an MVAC can be found in [Appendix I](#). Refer to [paragraph 9.2.5.2](#) concerning revised vectoring altitudes and the PAR Glide Slope Intercept Altitude (GSIP).

#### **7.2.3.3 Chart Review and Approval**

As indicated in [paragraph 3.10.2](#), Navy/Marine Corps aviation shore activities shall annually conduct a local review of the MVAC to ensure conformance with OPNAVINST 3722.16 and [Appendix I](#) of this manual. If changes are necessary, the MVAC shall be submitted to Head, Naval Flight Information Group, 1339 Patterson Ave, S.E., Room 301, Washington Navy Yard, DC 20374-5088 via the Regional Airspace Coordinator (RAC) for review and approval using NAVFIG Form 4. If NAVFIG initiates adjustments in MVAC design or changes in vectoring altitudes during review of a revised MVAC submission or during the triennial review, NAVFIG will coordinate these adjustments with the ATC facility. If required, the ATC facility will coordinate the revisions with affected military and/or civil ATC authorities.

#### **7.2.4 RATCF DAIR/STARS Site Unique Data**

##### **7.2.4.1 Requirements**

Each air traffic control facility is unique in that approach control and special use airspace, airports served, instrument approach procedures, terrain characteristics, and interfacility coordination procedures differ. RATCF DAIR/STARS system capabilities require that these site unique data be incorporated into each facility's operational software program.

##### **7.2.4.2 Applicability**

The data collected/incorporated determine MSAW parameters, auto-exclusion areas, reflection filtering data, initialization values, automatic acquisition limits, radar PRF, and NAS reference codes (i.e., station, ARTCC, and other interfacing facilities).

##### **7.2.4.3 Procedures**

Changes shall be submitted in writing to: NAWCAD, Code 4.5.9.2, Bldg. 8131, Villa Road, St. Inigoes, MD 20684 ATTN: ATC Military Team Lead; as they occur.

#### **7.2.5 Standard Terminal Automation Replacement System (STARS) Operation**

ATC Facilities equipped with STARS shall adhere to the STARS Operational Guide posted on the ATC Community web site at <https://atc.navy.mil>.

#### **7.2.6 Radar Systems Performance Checks/Tolerances**

##### **7.2.6.1 FAA Flight Inspection**

Radar performance shall be verified on a periodic basis by an FAA flight inspection crew operating an aircraft equipped for that purpose. Requirements and procedures are set forth in the United States Standard Flight Inspection Manual.

##### **7.2.6.2 Periodicity**

In addition to FAA flight inspections, radar systems' performance checks shall be made daily by a qualified controller through observation and use of the systems. These checks should be made on a continuous basis, but shall be

accomplished at least once each watch, available traffic permitting. Both primary and secondary radar systems shall be checked. Acceptability of the radar is a controller/ATC supervisor determination that cannot be usurped by non-controller personnel.

### 7.2.6.3 Video Maps

For DAIR/RATCF DAIR with Digital Video Map Generator (DVMG) or STARS systems, video map verification need only be accomplished upon receipt of new or revised maps. Upon receipt of new or revised maps, verification of the accuracy shall be accomplished in the following manner:

1. Verify designated map symbols align with the required fixed target(s) or permanent echoes (PE).
2. Verify runway centerline(s) accuracy by observing landing/departing aircraft.
3. Verify map reference points through the use of mutually observed targets and common map reference points with adjacent facilities.

#### Note

The magnetic variation shall be verified annually and a change of 2 degrees or more shall be reported to NAWCAD 4.5.9.2.

### 7.2.6.4 Radar Video

For display systems that internally and automatically verify accuracy of the radar (STARS), verification of radar accuracy shall be accomplished during the system installation.

For display systems that do not internally and automatically verify accuracy of the radar (DAIR, RATCF DAIR), verification of radar accuracy shall be accomplished at the beginning of each watch by checking MTI reflectors, fixed location beacon transponders (PARROTS), and/or permanent echoes with video map reference points.

### 7.2.6.5 Coverage

A useable target return (i.e., a strength 3 or 2 target) will be maintained along the entire airway/route or arrival/departure control routes for which radar service is provided. Tracking accuracy along these routes will be such that an aircraft reported over a fix will be within a circular area about the fix, the radius of which is 3 percent of the fix-to-radar antenna distance or 500 feet (1,000 feet for ATCRBS), whichever is greater. Radar service for arrival or departure routes is considered to exist between the normal handoff point and a point one-half mile from the end of a runway (or for secondary airports, the point where an aircraft leaves or enters the bottom ring of the radar coverage pattern).

#### Note

Not applicable to STARS.

### 7.2.6.6 Surveillance Approaches

#### 7.2.6.6.1 Approach to Runway (Straight-In)

The surveillance approach course line will coincide as nearly as practicable with the runway centerline extended. Maximum error left or right of runway edges will not exceed 500 feet at the MAP.

#### 7.2.6.6.2 Approach to an Airport (Circling)

Where surveillance approach guidance is provided to an airport for a circling approach, surveillance approach guidance shall be discontinued at a point 1 mile from the airport, the missed approach point, or at a preestablished

point beyond which radar or communications coverage ceases to exist. The aircraft will be within a circular area around the point where the approach is discontinued, the radius of which is 3 percent of the point to radar antenna distance or 500 feet, whichever is greater. Guidance accuracy at the point the approach is discontinued must be within 3 percent of the distance between the radar antenna and the discontinuation point or 500 feet, whichever is greater.

#### **7.2.6.7 PAR Approaches**

##### **7.2.6.7.1 PAR Alignment Photographs**

Each facility equipped with PAR shall have radar alignment photographs readily available to the radar final controller to facilitate radar performance checks. Radar alignment photographs shall be provided for each runway to which PAR approaches are established, and shall clearly display centerline and touchdown reflectors or bracket reflectors where applicable. It is recommended that multiple sets of alignment photographs (for each PAR runway) be available in the Radar Room to allow more than one controller at a time to make use of them. Photographs shall also be posted at the PAR site for technician use. Photographs shall be reviewed annually and updated when variables such as construction and change in vegetation cause a change in “radar picture.”

##### **7.2.6.7.2 PAR Alignment Verification Procedures (AN/FPN-63 (V))**

#### **Note**

These alignment verification procedures shall be accomplished on both PAR channels at the start of each watch, and on the channel in use at the start of each PAR session and whenever the PAR runway is changed. Notify maintenance personnel immediately if any of the following checks cannot be accomplished or alignment cannot be verified.

Controller PAR alignment verification procedures involve a number of elements. The controller procedures delineated below assume that the technician has previously conducted maintenance alignments.

1. To facilitate locating reflectors, controllers should adjust azimuth antenna servo (elevation range marks) down and elevation antenna servo (azimuth range marks) on centerline to obtain maximum signal return from the reflectors. MTI video selection will eliminate ground clutter and reduce errors in properly identifying the correct radar return. Adjust the IF GAIN control to create the smallest possible usable reflector targets. PAR alignment photographs, as delineated in [paragraph 7.2.6.7.1](#), shall be used to assist the controller in ascertaining reflector location.
2. Controllers must then locate the:
  - a. Touchdown Reflector on the elevation scan, and
  - b. Touchdown and Centerline Reflectors on the azimuth scan. (In the absence of a Centerline Reflector, the controller must locate the two Bracketing Reflectors on the azimuth scan.)

#### **Note**

The controller should locate the End-of-Runway Reflector, if installed at the station; however, this reflector is not used to verify PAR alignment. The End-of-Runway Reflector is used only to identify the runway threshold crossing point. Most air stations' PAR runways have a Centerline Reflector and an End-of-Runway Reflector. When overrun arresting gear is installed, End-of-Runway Bracketing Reflectors are normally used to preclude conflict between an overrun arrestment and the Centerline Reflector. If terrain and/or airport configuration circumstances near the end-of-runway preclude the installation of an End-of-Runway Reflector or Bracketing Reflectors adjacent to the end-of-runway, then the PAR alignment photographs should identify appropriate radar return in the photographs to assist the controller in making the most accurate “over landing threshold” advisory.

3. Controllers should turn OFF the cursor and range marks by adjusting the CURSOR INTENSITY and RANGE MARK controls on the Indicator Processor-Power Supply Front Panel Controls (beneath the controller's shelf/writing surface).
4. Controllers should perform the following to check radar antenna alignment accuracy. This check is similar to verifying a permanent echo is at the correct bearing on a surveillance radar system. This test verifies accuracy of the radar and shall be accomplished on each PAR indicator.
  - a. Using the ANGLE VOLTAGE TD-OPERATE-6 NMI Switch on the Indicator Power Supply Front Panel Controls (beneath the controller's shelf/writing surface), select the TD (up) position. The controller should observe a sweep trace on both azimuth and elevation displays.
  - b. Using the ANGLE VOLTAGE TD-OPERATE-6 NMI Switch, select the OPERATE (center) position. The controller should observe and verify that the sweep trace left on the screen bisects the touchdown reflector on both the azimuth and elevation displays. Toggling the ANGLE VOLTAGE TD-OPERATE-6 NMI switch from TD to OPERATE several times may be necessary.
5. Controllers should turn ON the cursor and range marks by adjusting the CURSOR INTENSITY and RANGE MARK controls on the Indicator Processor-Power Supply Front Panel Controls.
6. Controllers should perform the following to check cursor alignment accuracy. This check ensures the aircraft will land on the runway centerline at the approved touchdown point and shall be accomplished on each PAR indicator.
  - a. On the azimuth display, the controller should observe the Touchdown Range Mark is coincident with the Touchdown Reflector. Servo left or right if necessary to verify alignment.
  - b. On the elevation display, the controller should observe both the Glidepath Cursor and Lower Safe Limit Cursor emanating from the center of (bisecting) the Touchdown Reflector.
  - c. On the azimuth display, the controller should observe the Courseline Cursor bisecting the Centerline Reflector (or half way between the two Bracketing Reflectors, if they are used instead of a Centerline Reflector).
  - d. On both the azimuth and elevation display servo the range mark wedges so the five NMI range mark (the intensified range mark) is over the Glidepath Cursor on elevation and the Centerline Cursor on azimuth.
  - e. Using the ANGLE VOLTAGE TD-OPERATE-6 NMI Switch, select the 6 NMI (down) position. The controller should observe the cursor (an intensified one inch line on the sweep trace) is coincident with the 5-mile range mark (an intensified dot on the sweep trace) on both the azimuth and elevation displays.

#### 7.2.6.7.3 PAR Tolerances

Precision approach radar shall meet the tolerances set forth in the U.S. Standard Flight Inspection Manual for an unrestricted classification.

Azimuth course alignment (at threshold) will not exceed 30 feet referenced to runway centerline.

Azimuth course alignment (along track) will not exceed 30 feet or 0.6 percent of the aircraft to PAR antenna distance, referenced to runway centerline. 0.6 percent exceeds 30 feet at aircraft to PAR distances greater than 5,055 feet (0.83 NM).

Glide path alignment (angle) will not exceed 0.1 degree of published angle during commissioning flight inspection, and not exceed 0.2 degree of published angle during periodic flight inspection. The allowable periodic deviation of 0.2 degree is applied to the published (desired) angle and not the angle found during the commissioning inspection.

Lower safe limit alignment (angle) will provide clearance from all obstacles from glide slope intercept to runway threshold. The lower safe limit angle is normally 0.5 degree less than the glide path angle.

Range accuracy will not exceed  $\pm 2$  percent of the true range.

Usable distance of azimuth and elevation will be a minimum of (not be less than) 7.5 NM from touchdown.

Coverage of those PARs which have coverage capabilities beyond 10 NM should be checked at the minimum vectoring altitude to the coverage capabilities of the radar.

More detailed information can be found in the U.S. Standard Flight Inspection Manual.

#### **7.2.6.7.4 PAR Target Interpretation and Glide Path Standards**

To obtain maximum signal return from aircraft targets, controllers shall adjust the azimuth antenna servo (elevation range marks) on the elevation target, and the elevation antenna servo (azimuth range marks) on the azimuth target. To facilitate accurate and precise aircraft target relationship to elevation (glide path and lower safe limit) and azimuth (course) cursors, controllers shall adjust the IF GAIN control to create the smallest possible usable target.

### **WARNING**

Using exaggerated/blooming targets will result in the issuance of erroneous glide path and course information.

The radar final controller shall issue precise glide path information for the pilot to establish and maintain a proper rate of descent. The controller shall mentally divide the elevation target into quarters to advise the pilot of any deviation from glide path. As depicted in **Figure 7-1**, the following describes the relationship between the glide path information relayed to the pilot and the corresponding aircraft target position with respect to the PAR glide path cursor:

1. On glide path — the elevation target is bisected by the glide path cursor.
2. Slightly above glide path — the lower-middle quarter of the elevation target is intersected by the glide path cursor.
3. Slightly below glide path — the upper-middle quarter of the elevation target is intersected by the glide path cursor.
4. Above glide path — the lower-most quarter of the elevation target is intersected by the glide path cursor.
5. Below glide path — the upper-most quarter of the elevation target is intersected by the glide path cursor.
6. Well above glide path — the elevation target is completely above (doesn't touch) the glide path cursor.
7. Well below glide path — the elevation target is completely below (doesn't touch) the glide path cursor.

#### **7.2.6.7.5 Safety Limits Exceeded**

Per FAAO JO 7110.65, prior to an aircraft passing decision height, whenever the completion of a safe approach is questionable because safety limits are exceeded or radical target deviations are observed, the controller shall instruct the aircraft if runway environment not in sight, to execute a missed approach if previously given; or climb to or maintain a specified altitude and fly a specified course.

If, at any time, the final controller observes a radical descent deviation, "LOW ALTITUDE ALERT. CHECK YOUR ALTITUDE IMMEDIATELY" shall be transmitted to the pilot.



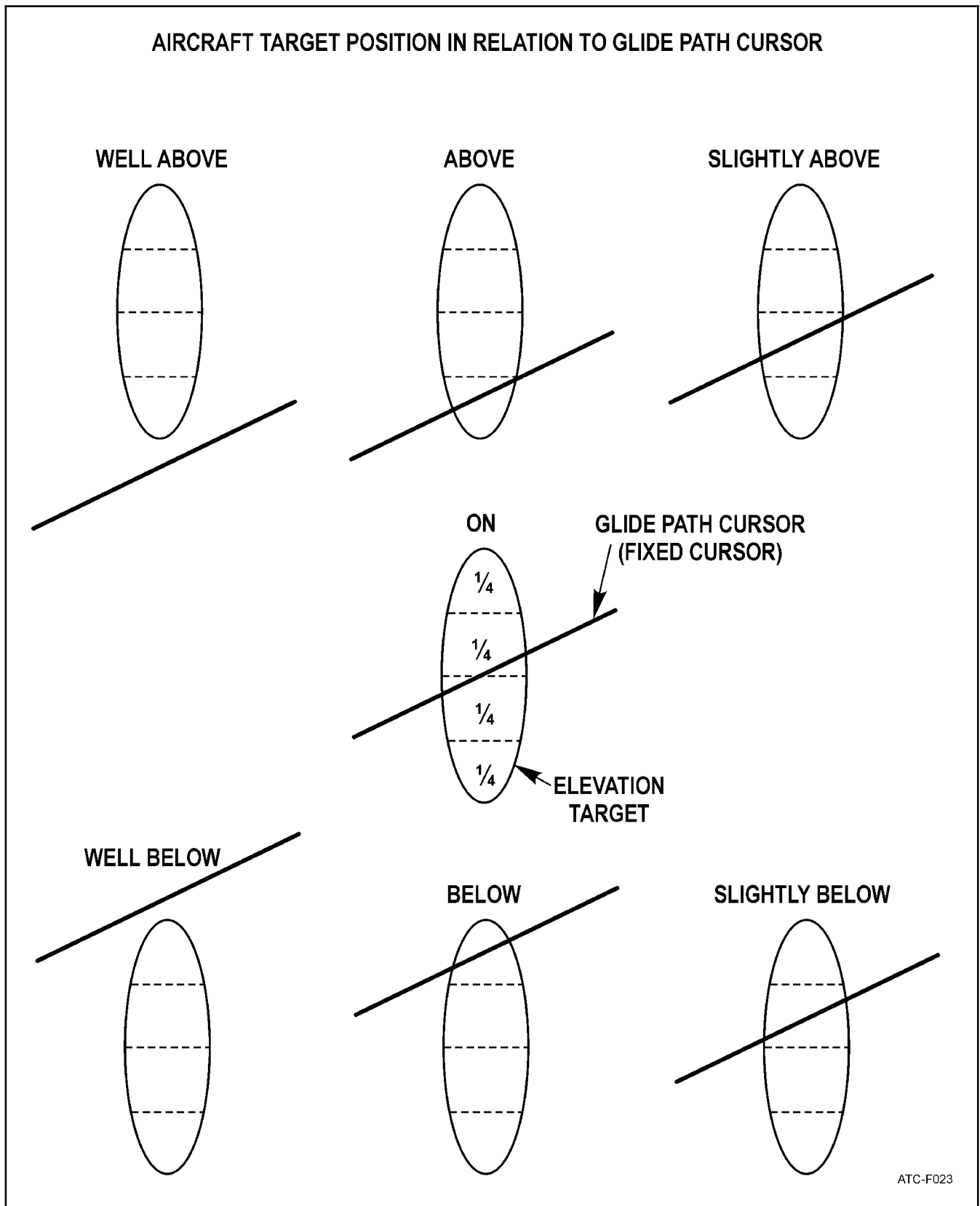


Figure 7-1. Glidepath Information

“TOO LOW FOR SAFE APPROACH” shall be defined as: If, after final descent, the aircraft target is well below glide path (not touching the glide path cursor) and touches the lower safe limit cursor. Due to the convergence of the glide path and lower safe limit cursors, “TOO LOW FOR SAFE APPROACH” shall be further defined as: If, at one mile, the aircraft target is not touching and below the glide path cursor.

“TOO HIGH FOR SAFE APPROACH” is defined as: If, at one mile, the aircraft target is not touching and above the glide path cursor.

“TOO FAR RIGHT FOR SAFE APPROACH” is defined as: If, at one mile, the aircraft target is not touching and right of the centerline cursor.

“TOO FAR LEFT FOR SAFE APPROACH” is defined as: If, at one mile, the aircraft target is not touching and left of the centerline cursor.

ATCFOs may, in the ATC Facility Manual, clearly state other local conditions defining “TOO HIGH FOR SAFE APPROACH”, “TOO FAR RIGHT FOR SAFE APPROACH”, and “TOO FAR LEFT FOR SAFE APPROACH” for PAR approaches conducted at their facilities considering such conditions as tower pattern altitudes, existence of parallel runways, etc.

**WARNING**

If, after the pilot is instructed “DO NOT ACKNOWLEDGE FURTHER TRANSMISSIONS,” a missed approach is issued due to safety limits exceeded or radical target deviations observed, obtain a specific acknowledgement from the pilot.

## CHAPTER 8

# Training, Standardization, and Air Traffic Controller Performance Evaluations

## 8.1 GENERAL

### 8.1.1 Purpose

Each ATCF shall establish a training and standardization program to ensure that individual and watch team training is accomplished. The program shall be based on facility requirements and reviewed annually. [Appendix U](#) provides guidance in meeting minimum training requirements. This chapter provides basic guidelines for the establishment of such programs, and supports the requirements outlined in [Appendix U](#).

### 8.1.2 Training Chief

#### 8.1.2.1 Qualifications

The Training Chief/EPDS shall possess a CTO rating and all ATCS ratings at the facility assigned and shall be designated in writing by the ATCFO. In addition, the individual filling this position should have a minimum of 5 years experience in ATC. For USN, the Training Chief shall be a designated FWS ashore or CATCC/AATCC/TACC supervisor afloat.

#### 8.1.2.2 Responsibilities

The Training Chief's function is to plan, execute, and supervise the ATC facility training, certification, and standardization programs. Duties, responsibilities, and authority include but are not limited to the following:

1. Establish and maintain an On-The-Job-Training program for air traffic controllers.
2. Conduct/monitor classroom training on local area ATC equipment and procedures as required.
3. Develop local course material, visual aids, and training scenarios to supplement other published material such as the FAA refresher series.
4. Supervise the development and execution of training scenarios for ATC simulators.
5. Coordinate with the ATC LCPO/ATCNCIOIC and branch chiefs in the preparation of a monthly training schedule. This schedule will be supplemented with ATC information of an immediate nature such as ATC publication/OPNAV instruction issuances/changes. The schedule will indicate which subjects must be recorded and on which form for inclusion in individual ATC Certification/Qualification Records/MPR. The training schedule shall be retained for 1 year.
6. Prepare tests to evaluate the results of scheduled training.
7. Coordinate and maintain the Long Range Training Plan (LRTP).
8. Manage and document monthly proficiency and currency requirements.
9. Evaluate, document and monitor training and qualification trends. Maintain historical data on average total training hours/approaches and training days to qualify on each operating/flight planning position.

10. Manage the Controller Evaluation Board program.
11. Review and endorse Procedures Evaluation Board recommendations.
12. Maintain ATC Certification/Qualification Records/MPR.
13. Maintain the ATC technical library.
14. Facilitate an air traffic indoctrination program for newly assigned controllers.
15. Evaluate the facility's involvement in mishaps and incidents and make professional recommendations to the ATCFO.

### **8.1.3 ATC Training Support Specialist**

#### **8.1.3.1 Qualifications**

The ATC Training Support Specialist position reports to the Training Chief and shall possess a CTO rating or ATCS rating.

#### **8.1.3.2 Responsibilities**

The ATC Training Support Specialist will perform those duties and responsibilities as assigned by the Training Chief.

### **8.1.4 On-The-Job-Training Instructor**

#### **8.1.4.1 Qualifications**

On-The-Job-Training Instructors (OJTIs) shall be designated in writing by the ATCFO and shall meet the following minimum criteria:

1. Complete a facility OJT Course.
2. Operationally current on positions involved.
3. Recommended by a branch supervisor.

OJTI designation shall be recorded in the ATC Certification/Qualification Record.

#### **8.1.4.2 Responsibilities**

The OJTI shall assist the controller under instruction (trainee) in acquiring the knowledge and skills necessary to qualify. Duties, responsibilities, and authority include the following:

1. Ensure the OJT process includes preferred methods of teaching through a combination of direction, demonstration, and practical application.
2. Be familiar with the trainee's previous training performance.
3. Document OJT results on the Air Traffic Controller Training Evaluation Report Form (refer to [Appendix J](#)).
4. Discuss performance as soon as possible after each session, an identification of strengths and weaknesses, and specific recommendations to improve performance.
5. Satisfy training objectives as specified in the facility/watch team training plan.

## **8.2 FACILITY TRAINING PROGRAM**

### **8.2.1 Program Elements**

The program shall consist of:

1. An ATC Facility Manual (FACMAN) that includes information required for position or facility qualification/designation.
2. A Facility Indoctrination that orients newly assigned controllers.
3. Local Qualification Standard (LQS) for each operating and supervisory position to establish and standardize the minimum knowledge factors and performance factors required for qualification/designation. USMC shall use the NAVMC DIR 3500.98 Aviation Training and Readiness (T&R) Directive, Marine Air Traffic Control (MATC) as a reference.
4. Lesson Topic Guides (LTG) are a vital element within the training program and serve as a road map to ensure standardized training. LTGs shall be developed to coincide with each LQS and encompass all knowledge and performance factors required for qualification/designation on all supervisory, control and non-control positions. Each LTG shall provide the reference for all knowledge factors. Care should be taken not to duplicate information published within other instructions, manuals, or directives.

### **8.2.2 Long-Range Training Plan**

The Long-Range Training Plan (LRTP) is the basic instrument for informing personnel of training goals and schedules. This plan provides the framework to develop shorter range training plans and is valuable in determining the success of a training program. The Training Chief shall develop, for approval by the ATCFO, a LRTP covering a minimum of 12 months. The LRTP shall include:

1. Maximum number of calendar days (based on TTH) allotted for training by position.
2. All controllers assigned and any prospective gains during period covered.
3. Training goals and schedule by individual for entire period covered.

Once approved, the LRTP shall remain unchanged and used as a reference document to measure the success of the training program.

#### **8.2.2.1 Primary Trainee**

The ATCFO shall designate primary trainees and clearly delineate their training expectations. Primary trainees will be trained to the maximum extent possible and be afforded priority training over other trainees. The ATCFO should only designate the minimum amount of primary trainees. Example: One trainee designated per operating position per watch team.

### **8.2.3 Crosstraining**

Training of controllers in all functions of the ATCF enhances flexibility.

### **8.2.4 On-The-Job-Training**

OJT is training conducted by a supervisor or OJTI that provides direct experience in the work environment, not to include classroom training.

Controllers instructing OJT shall be current, qualified, and experienced at the position in which the training is conducted. They shall be designated an OJTI.

### 8.2.5 Simulator Use

Simulators approved by CNO (N885F) shall be used to provide realistic training opportunities to fully prepare a controller for qualification/certification with live traffic. In this regard, simulators can be used to fulfill desired skill sets associated with:

1. Unusual situations, such as weather affecting flight and other types of emergencies.
2. Seldom used procedures, such as transitioning to and applying non-radar separation.
3. Traffic and safety advisories.
4. Areas identified as needing reinforcement.

In addition, simulators shall be used for:

1. Maintaining proficiency on operating positions.
2. Maintaining final controller currency during insufficient traffic situations.

Simulator training shall be documented on an ATC Training Evaluation Report Form and maintained in the Air Traffic Control Certification/Qualification Record/MPR.

Refer to [paragraph 3.1.4.6](#); Mixing Live and Simulated Targets.

### 8.2.6 Position Qualified

Written authentication indicating an individual has successfully qualified for the performance of specific position functions within an ATCF. An air traffic controller is not required to possess a rating to be qualified to operate one or more position(s) in the facility (see [paragraphs 4.2.3](#) and [4.4.1](#)).

### 8.2.7 Time Limitations for Position Qualifications

Time limitations for position qualification shall be based on the maximum Total Training Hours (TTH) and calendar days allotted for that position. TTH are those hours accumulated on position during OJT and are counted minute for minute in total accumulation. Radar Final Controller qualification shall be based on a maximum number of approaches.

The ATCFO shall establish facility-unique maximum allotted TTH and calendar days for each operating position giving consideration to historical facility average times to qualify, and number and complexity of aircraft operations. The maximum allotted TTH/approaches and calendar days shall be evaluated at least annually and adjusted, if necessary. The ATCFO shall maintain a Memorandum for the Record (MFR) describing how TTH and calendar days were determined. Facility TTH shall not exceed the absolute maximum hours and approaches listed in [Figure 8-1](#).

A facility's maximum allotted position OJT hours/approaches and calendar days shall be published in the ATC Facility Manual.

The ATCFO shall determine the minimum number of hours on position per watch for all primary trainees within the facility. ATCFOs shall ensure all training is accomplished by primary trainees and document all missed training opportunities with justification. Documentation shall be maintained in the trainee's ATC Certification/Qualification Record/MPR.

#### 8.2.7.1 USMC Qualification Timelines

Qualification timelines for Marine air traffic controllers to achieve initial MOS and skill designator MOSs are governed by NAVMC DIR 3500.98 Aviation Training and Readiness (T&R) Directive, Marine Air Traffic Control (MATC).

### 8.2.7.2 Performance Progress

The decision to terminate training can be made by the ATCFO during any stage if demonstrated performance documented by ATC Training Evaluation Report Forms indicates an inability to master the complexities of air traffic control, the trainee is not progressing satisfactorily, or is unable to meet training schedules. When the trainee reaches 70 percent of the maximum allotted TTH/approaches or calendar days (whichever comes first) for the facility assigned, a CEB shall be conducted and the following determinations must be made:

1. If performance is satisfactory, training will be continued.
2. If performance is less than satisfactory and unusual or extenuating circumstances have occurred, the ATCFO may grant continuance of training.
3. If performance is less than satisfactory and step 2. above does not apply, the ATCFO shall not grant continuance. Consideration may be given to revocation of the controller's ATCS certificate and subsequent change of rate/MOS. If revocation is initiated, the trainee shall be removed from a training status, and all ATC qualifications/designations shall be suspended pending resolution of revocation recommendation.
4. The ATCFO shall not allow a trainee to exceed the maximum TTH/approaches established in [Figure 8-1](#) without authorization from CNO (N885F) or CMC (APX-25) as appropriate.

## 8.3 CONTROLLER CURRENCY AND PROFICIENCY ASHORE

### 8.3.1 Program Compliance

The ATCFO shall institute procedures to ensure controllers adhere to the currency requirements of this section.

### 8.3.2 Definitions

1. Currency — Prescribed minimum time requirement necessary to work an operational position independently under general supervision.
2. Proficiency — Knowing, understanding, and applying air traffic procedures in a safe and efficient manner.

### 8.3.3 Currency Requirements (Other Than Final Control)

Personnel shall meet the following minimum time requirements each calendar month:

1. FWS/FWO, Training Chief and Branch Chiefs shall work an operating position a minimum of four hours in each branch qualified.
2. Tower and Radar Supervisors shall work an operating position a minimum of four hours within the designated branch.
3. Non-supervisory personnel shall work on all operating positions qualified a minimum of two hours. RFC requirements are as specified in [paragraph 8.3.4](#).
4. Flight Planning shall be at the discretion of the ATCFO.

A lapse in currency shall require the controller to be monitored for proficiency and an ATC Training Evaluation Report Form submitted.

	MAXIMUM TRAINING TIME	
	INITIAL (NOTE 1)	SUBSEQUENT (NOTE 2)
<b>CONTROL TOWER</b>		
Local Control	290 hours	110 hours
Ground Control	170 hours	60 hours
Flight Data	130 hours	50 hours
Clearance Delivery	70 hours	40 hours
<b>RADAR</b>		
Approach Control (NOTE 3)	350 hours	190 hours
Departure Control	180 hours	30 hours
Arrival Control	290 hours	120 hours
Flight Data	140 hours	50 hours
Final Control (NOTE 5)	220 approaches	60 approaches
SUA Sector Control	110 hours	40 hours
<b>FACSFAC</b>		
Sector Control	150 hours	100 hours
Assistant Sector Control	80 hours	50 hours
Flight Data	60 hours	30 hours
<b>FLIGHT PLANNING</b>		
Flight Planning Dispatch	120 hours	50 hours
<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. Applicable to controllers without previous position qualification (any facility) at the position under consideration.</li> <li>2. Applicable to controllers with previous position qualification (any facility) at the position under consideration.</li> <li>3. When more than one approach control position exists within a facility, the initial position qualification is allocated 350 hours. Subsequent allocation is decreased to 190 hours for each additional approach control position.</li> <li>4. In cases where positions are combined, the maximum training time shall not exceed the highest TTH for any one of the combined positions.</li> <li>5. Radar Final Controller will reflect approaches vice TTH, 50 percent of which may be simulated.</li> </ol>		

Figure 8-1. Maximum Training Time



### 8.3.4 Final Control Requirements

#### 8.3.4.1 Radar Final Controllers

Final controllers shall not conduct final approaches during IMC unless they have controlled at least 10 approaches in the preceding calendar month. To the greatest extent practical, controllers should control live approaches to maintain currency/proficiency. During periods of insufficient traffic situations, controller currency/proficiency can be maintained by use of a simulator under proper supervision. The use of simulator approaches shall be counted only by the controller making the approach. Monitored simulated approaches are not considered adequate to maintain currency and proficiency. When the simulator is not available, the ATCFO has the authority to waive this requirement.

#### 8.3.4.2 PALS Final Controllers

PALS final controllers (ashore) shall maintain currency requirements as described in [paragraph 8.3.4.1](#). When controllers ashore are qualified at both the PAR/ASR and PALS operating positions, ATCFOs may allow for the application of approaches at either position to meet the minimum currency requirement. Procedures at air stations equipped with AN/SPN-42T shall conform as closely as possible with PALS recovery procedures in CV NATOPS Manual (NAVAIR 00-80T-105).

PALS final controllers (afloat) shall maintain currency requirements, that account for ship schedule/OPTempo, as prescribed by the CCA officer. Proficiency training is available at air stations equipped with AN/SPN-42T. CV/CVN Commanding Officers are encouraged to assign PALS final controllers TAD to these sites as necessary to maintain proficiency.

## 8.4 CONTROLLER PERFORMANCE EVALUATIONS

### 8.4.1 Controllers Under Instruction

Adequate documentation of training is necessary to measure controller progress and evaluate training program effectiveness. An ATC Training Evaluation Report Form ([Appendix J](#)) shall be used to document OJT on all operating positions. Controllers under instruction (trainees) will be evaluated on each observed factor/ element as follows:

1. Satisfactory — observed performance meets expected performance requirements and indicates that the trainee demonstrates the ability to work independently for this factor/element.
2. Needs improvement — observed performance is acceptable at this stage of training; but must improve in order to meet expected performance.
3. Unsatisfactory — observed performance is unsatisfactory at this stage of training. Suggestions and recommendations for correcting each unsatisfactory factor/element must be stated in the comment portion. OJT Instructors shall include constructive comments to enhance feedback and summarize key points. OJTIs shall sign the evaluation. Trainees shall be given an opportunity to make written comments and shall also sign the evaluation.

### 8.4.2 Tape Talk Program

ATCFOs shall ensure a tape talk is conducted for an initial qualification trainee at 25-percent of allotted TTH/approaches and as needed thereafter. Tape talk for supervisory or flight planning trainees is at the discretion of the ATCFO. Also, ATCFOs shall establish a tape talk program for the purpose of periodically reviewing qualified controllers' phraseology, voice quality, and proficiency. All tape talks shall be documented in the ATC Certification/Qualification Record/MPR.

### 8.4.3 Annual Evaluations

Controllers shall be evaluated at least annually (use [Appendix J](#)) on each operating position qualified to ensure they maintain the skill and competency to perform duties effectively and safely.

Evaluations shall be conducted by the Training Chief, Branch Chief, or Branch Supervisor specifically designated in writing by the ATCFO; and filed in the controller's ATC Certification/Qualification Record/MPR. Also, supervisors shall be administered a written proficiency exam. In case of an unsatisfactory evaluation, the controller will be made aware of deficiencies and reevaluated within 30 days. If major safety errors occurred or would have occurred without intervention and flight safety was jeopardized, the examiner shall recommend suspension of the rating or position qualification pending further action.

Failure of the controller to be evaluated annually shall result in a lapse of currency and the controller shall not work the position until all requirements of an annual evaluation are satisfied.

## **8.5 AIR TRAFFIC CONTROL CERTIFICATION/QUALIFICATION RECORDS**

### **8.5.1 Development and Issuance**

#### **8.5.1.1 USN**

ATC facilities will provide the ATC Certification/Qualification Record with contents as listed in [Appendix K](#). The forms in [Appendix L](#) are to be used as administrative transmittals to ensure standardized entry of ATCS ratings (as listed in [Chapter 4](#)) and qualifications on page 4 of the individual's service record. A copy of the appropriate qualification form shall be made a permanent part of the individual's ATC Certification/Qualification Record.

#### **8.5.1.2 USMC**

The ATC school will issue Marine students the MACCS Performance Record (MPR) (NAVMC 2898) with inserts (NAVMC 2898a). The ATC T & R Office shall direct the content and organization of the MPR. This record will contain the student's graduation certificate and school training record. The MPR will be maintained in the ATC facility (for station Marines and Marines FAPPED to station) and in the MATCD for Marines assigned to the MACS. The forms in [Appendix L](#) may be used as administrative transmittals to ensure standardized entry of MOS qualifications in the Marine Corps Total Force Structure (MCTFS). All T&R events completed and position qualifications attained on expeditionary ATC equipment shall be entered in the individual's MPR.

### **8.5.2 Transfer and Retention**

The ATC Certification/Qualification Record/MPR shall be forwarded by the commanding officer or designated representative to the individual's next command via mail. These records shall be retained at the facility level for a period of six months after a controller separates, transfers to Fleet Reserve, or retires. Records for those who transfer due to ATCS revocation shall be retained for three years. Copies may be provided to the individual upon request.

## CHAPTER 9

# Terminal Instrument Procedures

## 9.1 GENERAL

### 9.1.1 Purpose

This chapter provides policy and guidance for establishment, approval, publication, review, revision or cancellation, and utilization of terminal instrument approach, departure, and arrival procedures at naval aviation shore facilities.

### 9.1.2 Criteria

Criteria governing terminal instrument procedures are published in OPNAVINST 3722.16 and applicable FAAOs regarding terminal instrument procedure design.

### 9.1.3 Required Source Material

Commanding officers of naval aviation shore installations shall maintain the following source materials:

#### 9.1.3.1 U. S. Navy Standard Instrument Approach Procedure (NAVFIG Forms 3722/2 and 3722/3)

NAVFIG Form 3722/2 is the currently approved procedure. NAVFIG Form 3722/3 is a listing of the controlling obstacles for each segment of the approach procedure to include holding, circling, and if applicable minimum safe altitude sectors or terminal arrival areas.

#### 9.1.3.2 U. S. Navy Standard Instrument Departure Procedure (NAVFIG Form 3722/4)

The form is the approved standard instrument departure procedure.

#### 9.1.3.3 U. S. Navy Departure Procedure (NAVFIG Form 3722/5)

The form is the approved textual departure procedure.

#### 9.1.3.4 U. S. Navy Diverse Departure (NAVFIG Form 3722/6)

The form specifies any restrictions and obstacles associated with diverse departures.

#### 9.1.3.5 U. S. Navy Minimum Vectoring Altitude Chart (NAVFIG Form 4)

The form contains a graphic depiction of the currently approved minimum vectoring altitude chart and a computation sheet that details how the minimum sector altitudes were determined.

#### 9.1.3.6 TERPS Airfield Information Summary (NAVFIG Form 5)

The form is prepared by the facility and contains specific TERPS data derived from the current airfield survey. Instructions for completing this form are contained in [Appendix M](#).

#### 9.1.3.7 TERPS Obstacle Summary (NAVFIG Form 6)

The form is prepared by the facility and identifies obstacles that were not presented on the obstacle printout provided by NAVFIG 90 days prior to the triennial review. A copy of the revised form shall be forwarded to NAVFIG 30 days prior to the triennial review for verification. Instructions for completing this form are contained in [Appendix M](#).

### 9.1.3.8 Terminal Instrument Procedures Standards Waiver (NAVFIG Form 8)

The form is a waiver for non-standard procedures that deviate from TERPS criteria. The form specifies the reason for the waiver and the equivalent level of safety that is provided. Waivers that cannot achieve an equivalent level of safety shall include a note that states the hazard and annotated “not for civil use.” Instructions for completing this form are contained in [Appendix N](#).

### 9.1.3.9 Airfield Survey

The airfield survey shall include the geodetic position and MSL elevation of the airport reference point, runway thresholds, runway touchdown zone, NAVAIDs, antenna reflectors, visual glide slope indicator runway reference points, and a runway profile at 100-foot increments along the runway centerline. The geodetic position accuracy shall be a minimum of one-hundredth of an arc-second and elevation data shall be at least to one-hundredth of a foot. The survey must specify the horizontal and elevation reference datums.

### 9.1.3.10 Plan View Drawings

The drawing for non-precision approach procedures shall depict the controlling obstacle for all approach segments and any obstacle that penetrates the missed approach obstacle clearance surface. The drawing for precision approach procedures shall depict the controlling obstacle for the final, initial, and intermediate segments if applicable, and any obstacle that penetrates the missed approach clearance surface. The drawing for departure procedures shall depict any obstacle that penetrates the obstacle identification surface.

### 9.1.3.11 Flight Inspection Report (FAA Form 8240 series)

These reports reflect the operating parameters of navigational and visual aids. It is the means to certify the operational status of a facility, the quality of signal-in-space, and the instrument flight procedures supported by a navigational aid. Each ATC Facility shall maintain a copy of the commissioning, special, any flight inspection report that imposes or vacates a NAVAID or procedure restriction, and the most recent periodic flight inspection report for all navigational and visual aids that the facility is responsible.

### 9.1.3.12 Facility Data (FAA Form 8240-22)

This form contains detailed information for each NAVAID (i.e., TACAN, VOR, ILS, ASR, PAR) owned by the Department of the Navy. This information is used to prepare computer programs (AIRNAV) for FAA flight inspection aircraft and in the development of terminal instrument procedures. ATCFOs shall review the content of facility data forms as a part of the annual review of terminal instrument approach procedures, departure procedures, and the minimum vectoring altitude chart (MVAC) to ensure data is valid and current (refer to [paragraph 3.10.2](#)). Instructions for completing the form are found in FAAO 8240.36. ATCFOs shall submit a new or revised facility data form to NAVFIG when any of the information is changed (e.g., frequency change, antenna placement, equipment change, etc.). After reviewing the content of new or revised forms for potential impact on terminal instrument procedures, NAVFIG shall submit forms to the Flight Inspection Central Operations Technical Services Sub-Team (AJW-335) at: FAA/MMAC/AJW-335 (Data), TPSB Room B-15, P.O. Box 25082, Oklahoma City, OK 73125.

## 9.2 TERMINAL INSTRUMENT PROCEDURES DEVELOPMENT

### 9.2.1 General

#### 9.2.1.1 Establishment

Commanding Officers of naval aviation shore installations supporting flight operations shall establish terminal instrument procedures to provide approach and departure capabilities for local and transient flight operations. Such procedures shall conform to the provisions of this chapter, OPNAVINST 3722.16, and applicable FAAOs regarding terminal instrument procedure design. The minimum number of terminal instrument procedures consistent with mission requirements will be established. Each low-altitude approach procedure shall prescribe minimums for categories A, B, C, and D aircraft. Category E minima may be specified if an operational justification exists. Each high-altitude approach procedure shall prescribe minimums for categories C, D, and E aircraft. Radar approaches shall prescribe minimums for all categories of aircraft.

**Note**

- Procedures designed for use by helicopters only shall be so annotated.
- “Helicopter only” procedures shall not be used by tilt rotor aircraft.

**9.2.1.2 Coordination**

During the formulation of new/revised terminal instrument procedures, coordination will be effected with the ATC activities that provide the associated en route and approach control service. Coordination shall also be conducted with locally-based flying units, to include a local “flyability” evaluation. Affected military and civil ATC authorities shall sign the appropriate NAVFIG procedure request form(s). In the event that the existing airspace structures in and around the terminal areas are not suitable for proposed procedure(s) the appropriate RAC/NAVREP should be consulted for assistance.

**9.2.1.3 Navigational Fix/Waypoint Names**

The National Flight Data Center (NFDC) provides NAVFIG a list of five-character navigational fix/waypoint names for use by naval aviation shore installations. NAVFIG will assign names from this list to navigational fixes/waypoints on naval instrument procedures as required.

**9.2.1.4 Submission**

New or revised procedures shall be submitted to NAVFIG on the appropriate form(s). The form(s) shall be submitted as enclosure(s) to a standard Naval letter, which specifies the desired effective date of the procedure(s). Submissions should be made as far in advance of their desired effective date as possible, normally not less than 60 days.

**9.2.1.5 Waivers**

When operational requirements dictate a departure from standards established by this chapter, OPNAVINST 3722.16, and applicable FAAOs regarding terminal instrument procedure design, a request for authority to deviate from such standards shall be submitted to NAVFIG with a complete explanation of alternatives considered and justification for the deviation to be approved by CNO (N885F). Such requests will include any information concerning planned use of procedure by civil aircraft. In the cover letter, explain alternatives considered to preclude non-standard operations and reason(s) not adopted. NAVFIG Form 8, Terminal Instrument Procedures Standards Waiver ([Appendix N](#)) and [paragraph 9.1.3.8](#), shall be used to submit waiver requests.

**9.2.1.6 Approval**

NAVFIG is the sole approving authority for all naval aviation shore installation terminal instrument procedures. NAVFIG shall review, approve, and arrange for publication in the DOD FLIP or on local distribution only booklets/sheets all naval terminal instrument approach procedures, including those designated for “Local use only” or “Not for civil use,” as well as PALS, ICLS and CCA procedures.

**Note**

The term “Local use only” is used to identify specific flight procedures at naval aviation shore installations for use by locally-based or pre-briefed transient flight crews.

## 9.2.1.7 Flight Inspection

### 9.2.1.7.1 Instrument Procedure

For all new/revised terminal instrument procedures NAVFIG will forward all necessary forms to FAA Flight Inspection Central Operations. ATC facilities shall schedule flight inspections for new/revised terminal instrument procedures once the procedures have been approved by NAVFIG. Each terminal instrument procedure shall be flight inspected for safety and operational suitability in accordance with the U.S. Standard Flight Inspection Manual (NAVAIR 16-1-520).

### 9.2.1.7.2 New and/or Relocated Navigational Aid and Radar

Requests for approval of terminal instrument procedures associated with new and/or relocated navigational aids or radar shall indicate that a flight inspection has been conducted and that the navigational aid or radar is suitable for instrument flight operations in accordance with the U.S. Standard Flight Inspection Manual (NAVAIR 16-1-520).

## 9.2.2 Approach Lights

At facilities where standard or equivalent approach lighting systems are installed, as prescribed in OPNAVINST 3722.16, the visibility reduction afforded such systems may be applied. Because of variations in lighting systems installed at naval air installations, commanding officers shall coordinate with Naval Air Systems Command (PMA251) to ascertain whether or not the approach lighting system installed qualifies for the visibility credit. It shall remain the commanding officer's prerogative to apply approach light credit to visibility minimums.

## 9.2.3 Sidestep Maneuver

A sidestep maneuver is a visual alignment maneuver required by a pilot executing an approach to one runway but intending to land on the parallel runway. Straight-in minimums may be authorized for a sidestep maneuver to a parallel runway under the following conditions:

1. Runway centerlines are separated by 1,200 feet or less.
2. Only one final approach course is published.
3. Course guidance is provided on or within 3° of the primary runway centerline.
4. The procedure is identified in accordance with OPNAVINST 3722.16.
5. Final approach obstacle clearance areas shall be established for both runways and shall be determined by the approach guidance provided (i.e., TACAN, ASR, etc.). Both final approach areas shall be used to determine the MDA to the sidestep runway.
6. The obstacle clearance height used for the primary runway shall also be used to determine the MDA for the sidestep maneuver.
7. Visibility minimums shall be established in accordance with OPNAVINST 3722.16. One-half mile visibility reduction is authorized if ALS, MALSR, or SSALR approach lighting is installed for the sidestep runway. The minimum visibility after applying credit for lights must be no less than 1 mile. When the "sidestep" runway threshold is more than 1,000 feet closer to the FAF than the primary runway, visibility shall be increased one-quarter mile.



If descent gradient is exceeded, the sidestep maneuver shall not be authorized.

## 9.2.4 Frequency/Transponder Changes

Procedures and missed approaches shall be designed to avoid the necessity for NAVAID frequency/channel change, and transponder (IFF/SIF) code changes at altitudes below 2,500 feet AGL. Procedures designed primarily for high performance, single-piloted aircraft, or aircraft without dual-receiver capability will be designed to eliminate the need for a pilot to shift NAVAID frequencies after commencing an approach.

## 9.2.5 Radar Procedures

When establishing ASR and PAR procedures, the following shall be considered.

### 9.2.5.1 Lost Communication Procedures

Standard procedures to follow in event of loss of communications are covered in the DOD FLIP, Flight Information Handbook. However, when airport, airspace, or other conditions (i.e., aircrew/controller training) require a lost communications procedure different from the standard, the ATC facility officer may establish a separate procedure. In such cases, the procedure shall include a provision to execute a non-radar instrument approach to the airport or include:

1. Route to fly.
2. Fix to which cleared.
3. Altitude to maintain.
4. ATC facility to contact.
5. Holding instructions (if required).



Lost Communication procedures requiring execution of a non-radar instrument approach shall authorize the full approach procedure to include use of published holding patterns.

### 9.2.5.2 PAR Glide Slope Intercept Altitude (GSIP)

Aircraft shall be vectored to intercept the PAR final approach course at the authorized glide slope intercept altitude as shown on NAVFIG Form 3722/2 for the approach. When use of a revised altitude is required by the MVAC or permanent operational requirement, the ATC facility shall coordinate with NAVFIG for a procedure revision.

### 9.2.5.3 Precision Approach Radar Without Glideslope

Commanding officers may desire to establish a surveillance-type procedure that uses the azimuth-only portion of the PAR. The PAR without glideslope procedure can be used when the glideslope is unavailable, for more precise surveillance approaches, or for circling to another runway.

These procedures are designed using the PAR final approach segment dimensions and ASR final approach required obstacle clearance criteria, normally resulting in minimums less than those for surveillance approaches using ASR.

When this type of procedure is desired, the procedure shall be evaluated by NAVFIG and annotated on NAVFIG Form 3722/2 for the PAR approach or on a separate NAVFIG Form 3722/2.

### 9.2.5.4 ASR Missed Approach Point

The missed approach point on NAVFIG Form 3722/2 shall be depicted on the extended runway centerline video map.

### 9.2.6 PALS Criteria Ashore

When PALS (AN/SPN-42) or AN/TRN-28 approaches are to be established, they shall be prepared and submitted to NAVFIG for approval in accordance with the criteria detailed in [Appendix O](#).

## 9.3 TRIENNIAL REVIEW OF TERMINAL INSTRUMENT PROCEDURES

NAVFIG shall review and approve all instrument procedures and minimum vectoring altitude charts to ensure that requirements for obstacle clearance, navigational guidance, safety, TERPS criteria compliance, and practicality are met at least every three years. The triennial review process is as follows:

1. NAVFIG shall notify the commanding officer 90 days prior to the triennial review that the review is going to be conducted. The notification letter will contain obstacle, airfield, and NAVAID data.
2. The ATC facility shall review the obstacle, airfield, and NAVAID data for accuracy and update local records, as necessary.
3. The commanding officer shall send an acknowledgment to NAVFIG at least 30 days prior to the triennial review. In the event the ATC facility is in possession of more current survey data than that specified in the notification letter, that survey data shall be included in the response.
4. During the course of the review, NAVFIG will coordinate all procedure revisions with the ATC facility. If required, the ATC facility will coordinate the revisions with affected military and/or civil ATC authorities for approval.
5. Upon completion of the triennial review, NAVFIG shall forward new NAVFIG Forms 3722/2, 3722/3, 3722/4, and NAVFIG Forms 4 and 8 to the commanding officer. If any of the terminal instrument procedures or minimum vectoring altitude chart did not require any revisions during the review, completion letter from NAVFIG to the commanding officer will specify that the existing forms remain in effect. If any procedure requires flight inspection, [paragraph 9.2.1.7](#) applies.

## 9.4 NOTAM REQUIREMENTS

### 9.4.1 Triennial Review Periodicity

If the triennial review and approval due date has passed and a waiver not granted, the aviation shore installation shall issue a NOTAM to place all terminal instrument approach and departure procedures out of service, and radar vectoring services unavailable.

### 9.4.2 Hazardous Conditions

When conditions affecting an approach and departure procedure constitute a hazard to flight, the commanding officer shall issue a NOTAM amending or suspending the affected procedure(s). Examples of such conditions are the erection of temporary obstacles that violate criteria, publication of an erroneous approach chart, and navigational aid/radar beyond flight inspection periodicity, etc. NOTAMs announcing the temporary withdrawal of a navigational aid from service need not cancel the approved procedure(s). Temporary displacement of runway thresholds require a NOTAM suspending IFR operations to that runway unless specifically coordinated with NAVFIG in advance to determine impact on published procedures. NOTAMs shall not be used to promulgate new procedures except for the most urgent operational requirements.

Instrument departure procedures may be NOTAMed. Standard Terminal Arrival Routes are not NOTAM material.



## 9.5 CANCELLATION OF TERMINAL INSTRUMENT PROCEDURES

Advance coordination of cancellations should be effected well in advance with appropriate ATC authorities and locally-based flying units. To provide sufficient time to effect removal of a procedure from FLIP, commanding officers will notify NAVFIG as soon as the relevant information is known and normally, not later than 30 days in advance of the desired date of cancellation. If the next scheduled FLIP revision date will occur subsequent to the desired date of cancellation, cancellation shall be effected by NOTAM.

## 9.6 EXPEDITIONARY TERMINAL INSTRUMENT PROCEDURES

### 9.6.1 Instrument Procedures

The Marine Air Traffic Control (MATC) Detachment Commander shall formulate and submit to NAVFIG for review, approval, and publication terminal instrument procedures supporting air operations at expeditionary airfields (EAF) and forward operating bases (FOB) in accordance with [paragraph 9.2](#) of this manual. When the tactical or operational situation dictates that support by NAVFIG is not reasonably practical, the MATC Detachment Commander shall review, and submit for approval to the Marine Aircraft Wing or higher joint/coalition commander terminal instrument procedures for EAFs and FOBs under that commander's cognizance. Upon approval, the MATC Detachment Commander may publish terminal instrument procedures and distribute as appropriate. Procedures approved by the Marine Aircraft Wing or higher joint/coalition commander shall be temporary in nature and shall be reviewed by NAVFIG as soon as practical if the continued use of these terminal instrument procedures is expected. These terminal instrument procedures shall be in accordance with OPNAVINST 3722.16, this manual, and other applicable TERPS criteria directives. Approval of terminal instrument procedures shall be limited to NAVAIDS and radar systems certified for IFR use by FAA or other DOD agencies.

### 9.6.2 Waivers

The Marine Aircraft Wing or higher joint/coalition commander exercising approval authority for terminal instrument procedures also has TERPS criteria waiver authority for those terminal instrument procedures. In these instances, the signatory commander assumes all responsibility for the safe use of the instrument procedures in question.

### 9.6.3 Tactical Flight Inspection

A flight inspection of terminal instrument procedures at EAFs and FOBs is required to support IFR operations. When the tactical or operational situation dictates that FAA flight inspection is not reasonably practical, the Marine Aircraft Wing or higher joint/coalition commander may authorize a tactical flight inspection of terminal instrument procedures. Based on a tactical flight inspection, the Marine Aircraft Wing or higher joint/coalition commander may certify the terminal instrument procedures for use in IFR conditions by military aircraft under their command cognizance. Procedures for tactical flight inspections shall be in accordance with NAVAIR 16-1-520 to the greatest extent possible. Tactical flight inspections are not intended as a permanent replacement for FAA flight inspection and FAA flight inspection shall be requested as soon as practical if the continued use of these terminal instrument procedures is expected.

### 9.6.4 Approval

Tactically certified instrument procedures shall be approved for use in writing by the Marine Aircraft Wing or higher joint/coalition commander, and the MATCD Commander shall retain a copy of the approval letter for the duration of the operations or until an FAA flight inspection is conducted.



**CHAPTER 10**

# **Fleet Area Control and Surveillance Facility**

**10.1 BACKGROUND**

Safe and efficient use of airspace, surface, and subsurface fleet OPAREAs is necessary for both military and civilian activities. The Navy conducted a study in 1959, outlining an airspace management concept applicable to the San Diego offshore OPAREAs. This concept was implemented in 1964, thus the inception of the FACSFAc. FACSFAcs are established as the operational need justifies.

**10.2 MISSION**

FACSFAc is an organization equipped and staffed to manage/schedule SUA, OPAREAs, and Oceanic Airspace in support of air, surface, and subsurface operations. Additionally, FACSFAcs are designated by CNO as RACs. FACSFAcs manage special use airspace through:

1. Scheduling, coordination and monitoring of surface, subsurface, and airborne units operating within and transiting between offshore OPAREAs and the NAS.
2. Scheduling and coordination of airborne units operating within assigned airspace of inland operating areas.
3. Scheduling of MTRs.
4. Maintaining liaison with other controlling agencies, fleet commands, other military commands, the FAA, the Coast Guard, and selected state and federal agencies.
5. Providing special use airspace control services to participating military units, other government aircraft, government contract aircraft and, on a not-to-interfere basis to civil aircraft as delineated in letters of agreement with applicable FAA and military activities.
6. Scheduling and coordination of associated commercial and military aircraft services support.

**10.3 ORGANIZATION**

Each FACSFAc is structured to meet the operational needs of a specific area in direct support of fleet requirements. Basic functions of FACSFAc include the OCC, schedules, airspace, and maintenance.

For the purpose of equipment and manpower, each FACSFAc is placed under the operational and administrative control of CNAF. Technical support is received from the program manager for Naval Air Traffic Management Systems (NAVAIR PMA 213).

**10.4 FUNCTIONS****10.4.1 Operations Control Center**

OCC is comprised of two branches, ROCC staffed by ACs and SOCC staffed by OSs, to effectively manage and provide real-time scheduling and deconfliction of OPAREAs. Additional services for site specific missions may include:

1. Area containment services within assigned airspace and radar coverage.
2. Search and rescue, medical, and humanitarian evacuations.

3. When certified as a Class VI ATC Facility, provide en route ATC services, including positive control of IFR aircraft arriving and departing special use airspace.
4. Surveillance, identification, and clearance relay for NORAD.
5. OPAREA Link coordination and JOTS/JMCIS services.
6. Command and control support as directed by higher authority.
7. Terminal area control services.
8. Flight planning services to airborne units departing offshore OPAREAs.

#### **10.4.2 Airspace**

The airspace office acts as the focal point and central clearinghouse for all airspace matters pertaining to DON activity within a specific FACSAC's region of responsibility. Additionally, the airspace office provides direct liaison to non-DON activities and the appropriate NAVREP to the FAA. Duties may include but are not limited to:

1. Acting on behalf of the RAC. Specific guidance and area of responsibility is delineated in OPNAVINST 3770.2 (series).
2. Managing and updating the command RAP.
3. Coordinating all matters related to the establishment, use, and reporting requirements of SUA.
4. Monitoring regional airspace encroachment concerns and acting as liaison between agencies involved in airspace issues.
5. Conducting airspace procedures briefings for units whose flight operations will enter, or otherwise impact the NAS.
6. Maintenance of the command airspace LOA/MOU library.
7. Coordinating with FAA and other agencies in matters pertaining to oceanic air traffic control and airspace use including ALTRV and appropriate NOTAM.

#### **10.4.3 Schedules**

The schedules office is tasked with the collection, evaluation and dissemination of scheduled services pertaining to fleet operations in cognizant OPAREAs. Duties may include but are not limited to:

1. Coordinating with all scheduling activities to maximize OPAREA utilization in accordance with priorities set forth by higher authority, keeping safety paramount.
2. Publishing required messages (synopsis) to all users which reflect daily scheduled events.
3. Requesting the FAA issue NOTAMs, and the Coast Guard issue NOTEMARs for hazardous operations within the FACSAC scheduling authority area and for operations as requested by other scheduling activities.
4. Coordinating with other DOD agencies and FAA when fleet requirements necessitate scheduling areas beyond the FACSAC scheduling area.
5. Assisting in the planning of OPAREA and FACSAC service requirements for exercises.
6. Act as coordinating agent for air services.

7. Acting as coordinating agent for civil agencies in matters requiring the use of OPAREAs.
8. Ensuring the timely submission of required reports.
9. Acting as coordinating agent with oil companies in matters pertaining to offshore drilling in the OPAREAs.

## 10.5 BILLET DESCRIPTIONS

### 10.5.1 Airspace Officer

The airspace officer should be a graduate of an approved military airspace management course. In addition to those duties delineated in [paragraph 10.4.2](#), the airspace officer may be designated as the CALO in accordance with OPNAVINST 3770.2 (series).

### 10.5.2 ATCF Officer

In addition to the guidelines set forth in [Chapter 3](#), duties, responsibilities, and authority of the ATCFO may include:

1. Maintaining liaison with and providing briefings to the FAA, OPAREA users and other interested commands.
2. Reviewing air and surface training areas established within the OPAREAs, making recommendations for changes to improve utilization and/or safety as appropriate.
3. Assisting in the planning of OPAREA and FACSAC service requirements for exercises.
4. Reviewing and evaluating command participation in SAR/MEDEVAC/HUMEVAC related incidents and making recommendations for improvement.

### 10.5.3 Airspace Chief

The airspace chief shall possess the appropriate ATCS certification for the FACSAC assigned and be a graduate of an approved military airspace management course. The function of the airspace chief is to assist in the management of airspace matters as set forth in [paragraph 10.4.2](#) and OPNAVINST 3770.2 (series). Duties and responsibilities may include but are not limited to:

1. Acting as single point of contact with FAA and other ATC agencies, for the coordination of battle group/flight operations that enter, or otherwise impact, the NAS.
2. Providing ATC ship rider liaison service for carrier battle/amphibious readiness groups when required.
3. Developing, reviewing, and updating stereo routes for accuracy and, when necessary, making recommendations to users for changes to improve utilization and safety.
4. Providing procedure briefings to OPAREA users and other interested commands.
5. Assisting in the planning and coordination of OPAREA and FACSAC service requirements for fleet/joint exercises.
6. Coordinating air traffic control procedures between FACSAC controlled airspace and the National Airspace System, including LOAs and MOUs.
7. Acting as the point of contact with the FAA for aircraft carrier post-deployment flyoffs.
8. Functioning as "Trusted Agent."

9. Maintaining liaison with radar chief concerning air traffic control related matters including:
  - a. Special exercises.
  - b. Real-time procedures.
  - c. Operational requirements.

#### **10.5.4 ROCC (Radar) Chief**

In addition to the guidelines set forth in [Chapter 7](#), duties, responsibilities and authority of the radar chief may include:

1. Recommending to the ATCFO changes to the FACTS to improve operability and functionality.
2. Investigating, reporting, and collecting all applicable data related to incidents and mishaps.
3. Maintaining liaison with the FAA, local Navy and Marine Corps Air Stations, and other agencies concerned with air traffic control matters, including:
  - a. Special exercises.
  - b. Real-time coordination procedures.
  - c. Operational requirements.
4. Providing air traffic control briefings to aircrews as required.
5. Providing air traffic control briefings to watch teams as required.
6. Assisting in the planning of OPAREA and FACSFAC service requirements for exercises.
7. Assisting in the development, review, and updating of stereo routes.

#### **10.5.5 SOCC (Surface) Chief**

The surface chief shall be qualified in accordance with NAVEDTRA 43411-3 PQS for the FACSFAC assigned. The function of the surface chief is to assist in the management of matters relating to surface operations. Duties may include:

1. Responsibility for surface surveillance in offshore OPAREAs.
2. Maintaining a current operational ACDS/ADSI program.
3. Maintaining an operational Link-11 per OPNAV, fleet, and command directives.
4. Coordinating between surface units and scheduling activities for the use of OPAREAs.
5. Maintaining control and safety of assigned fleet OPAREAs by utilizing all sensors and equipment available for area surveillance.
6. Acting as a clearinghouse for fleet link training and troubleshooting by providing C4I services.
7. Ensuring watch team members are qualified in accordance with applicable PQS.

#### **10.5.6 Facility Watch Supervisor**

The FWS is responsible to the Commanding Officer for the operational performance of the watch crew on duty. The FWS shall remain apprised of operational and equipment/systems problems. In addition to the guidelines set forth in [Chapter 3](#), duties and responsibilities may include:

1. Maintaining close coordination with SOCC to effect safe and timely operations in support of fleet requirements.
2. Effecting real-time OPAREA schedule changes based on existing requirements/requests.

3. Coordinating real-time flight operations that enter, or otherwise impact the NAS.
4. Acting on behalf of aircraft carriers as single point of contact with FAA and other ATC agencies for the real-time use/transit of controlled airspace.
5. Coordinating requirements for special handling aircraft or emergency aircraft including SAR and MEDEVAC operations.
6. Ensuring controllers are briefed on special events, equipment/radio problems, precoordinated discrete assignments, hot areas, etc.
7. Reviewing message traffic and taking appropriate action as required.

### 10.5.7 ROCC (Radar) Supervisor

The ROCC (Radar) Supervisor (RS) shall be on duty within the ROCC at all times during hours of operation and is directly responsible to the FWS for the operational control of ROCC. The RS will monitor and assist controllers with required coordination and ensure all controllers are performing at an acceptable level. The RS position should not be combined with a control position. The RS shall be qualified on all ROCC operating positions, possess the appropriate ATCS rating for the FACSAC assigned and be designated in writing by the ATCFO. In addition to the guidelines set forth in [Chapter 7](#), duties and responsibilities may include:

1. Providing real-time coordination with adjacent facilities on any matter that affects the flow of air traffic or any special event.
2. Coordinating with the Surface Supervisor.
3. Relaying information regarding ECM incidents.
4. Resolving any operating area conflicts.
5. Overseeing any special handling aircraft or emergency aircraft requirements including SAR and MEDEVAC operations.
6. Ensuring equipment is operating properly and report any malfunctions to the FWS and duty technician.
7. Ensuring a current and complete ATIS broadcast is transmitted.
8. Maintaining accurate hot event status.

### 10.5.8 SOCC (Surface) Supervisor

The SOCC (Surface) Supervisor (SS) is directly responsible for the operational performance of SOCC. The SS will monitor and assist personnel with required coordination and ensure that all SOCC watchstanders are performing at an adequate level. The SS shall be qualified in accordance with NAVEDTRA 43411-3 PQS for the FACSAC assigned. Duties and responsibilities may include:

1. Keeping the FWS/RS informed of Surface Operations.
2. Equipment condition/performance.
3. Ensuring equipment is operating properly and report any malfunctions to the duty technician.
4. Maintaining SOCC logs.
5. Ensuring those units involved in “hot” events remain within assigned areas.

6. Supervising training of watch team personnel.
7. Ensuring physical security of spaces and proper handling and storage of classified material.
8. Ensuring incoming message traffic is properly screened and filed.
9. Ensuring changes to OPAREA events are correct and in the proper format.
10. Coordinating with outside agencies/commands.

## **10.6 OPERATING POSITIONS**

### **10.6.1 ROCC Sector Control**

The function of the ROCC Sector Control (SC) is to provide radar services to all aircraft within FACSAC's area of jurisdiction. Duties and responsibilities include:

1. Providing positive control to aircraft requiring/requesting IFR handling to/from SUA.
2. Providing radar advisory control to VFR aircraft on a work-load permitting basis.
3. Coordinating controlled airspace infringement and hot area containment or boundary alerts.
4. Providing mission coordination assistance.
5. Disseminating weather information.
6. Providing SAR/MEDEVAC/HUMEVAC assistance.
7. Ensuring accuracy of information recorded on flight progress strips.
8. Coordinating with adjacent facilities.

### **10.6.2 ROCC Assistant Sector Control**

The function of the ROCC Assistant Sector Control (ASC) is to effect coordination with other sectors and adjacent ATC Facilities, receive and relay aircraft movement messages and prepare and post flight progress data. ASC is responsible for assisting SC. Duties and responsibilities include:

1. Coordinating aircraft movement with adjacent ATC facilities/sectors.
2. Monitoring sector frequencies, and assisting the sector controller as required.
3. Posting information on flight progress strips.
4. Operating communications equipment associated with the position.

### **10.6.3 ROCC Flight Data**

■ ROCC Flight Data (RD) monitors and operates equipment to provide controllers with information to maximize safe and efficient ATC services. Duties and responsibilities include:

1. Receiving and relaying aircraft movement data.
2. Preparing and posting flight progress strips.
3. Operating FDIO and ATIS equipment.
4. Monitoring and operating ship-to-shore communications.



## **10.7 FACILITY CERTIFICATION**

### **10.7.1 Prerequisites**

Prior to being certified as a Class VI ATCF, FACSFACs are MRUs. In order to attain ATCF certification, the following requirements shall be met:

1. Possess flight check data depicting areas of radio/radar coverage.
2. Possess radar/radio communication redundancy in the areas routinely used for NAS-interface.
3. Validate operator training programs by assuring compliance with FAA, OPNAV, and FACSFAC personnel qualifications standards.
4. Implement controller certification standards in compliance with FAA publications and this manual.
5. Possess auxiliary power to support the FACTS in the event of loss of commercial power.
6. Obtain FACTS interface certification from the FAA.

### **10.7.2 Validation Visit**

To assist FACSFACs in analyzing command readiness to assume positive control related responsibilities, CNO (N885F) will provide personnel to perform a validation/certification visit. The technical assistance team will be composed of representatives from the following activities:

1. Chief of Naval Operations (N885F) (chairperson).
2. Commander, Naval Air Systems Command.
3. Commander, Naval Air Forces.
4. NAVREP from the FAA region responsible for review of FACSFAC letters of agreement.
5. Air Traffic Control or Operations Officer from a FACSFAC other than the one being validated.
6. Additional representatives as determined by the team chairperson.

Upon receipt of approval from CNO, FACSFACs are authorized to enter into letters of agreement with the FAA to support civilian flight operations when such support will not interfere with military utilization of the airspace. CNO validation will be granted after an evaluation has been made as to command compliance with the certification prerequisites.

## **10.8 FLIGHT INFORMATION PUBLICATION VALIDATION**

Each FACSFAC shall conduct an annual validation/verification of associated SUA and MTR information published in the DOD FLIP. This validation shall also include a review of FACSFAC entries in the IFR en route supplement.

## **10.9 EQUIPMENT SITING, ALLOWANCE, LOGISTICS, AND MAINTENANCE**

Planning guidance for FACSFAC equipment deployment is contained in appropriate publications produced by the Naval Facilities Engineering Command. Each FACSFAC site is tailored to meet the operational requirements of the specific area and may be configured differently. Policies and procedures concerning FACSFAC equipment allowances, logistics, supply support, fiscal responsibilities, and maintenance are in set forth in NAVAIRINST 5400.137. Standardized baseline FACSFAC operator position equipment configuration and quantity is detailed in OPNAVINST 3722.35.



## CHAPTER 11

# Carrier Air Traffic Control Center

## 11.1 GENERAL

### 11.1.1 Function

The function of the Carrier Air Traffic Control Center is to provide radar ATC services to air traffic within the area of jurisdiction assigned by the appropriate authority. The scope of the services provided will vary according to the delegated airspace assigned, weather, and the type operations being conducted. The functions and responsibilities set forth in this chapter are applicable to all CATCC's regardless of equipment installations or configuration and are intended to be used in conjunction with the CV NATOPS Manual (NAVAIR 00-80T-105) and the Carrier Air Traffic Control Handbook (NAVAIR AE-CVATC-OPM-000).

### 11.1.2 CATCC Organization

CATCC is organized into air operations and carrier controlled approach.

#### 11.1.2.1 AirOps

AirOps (AO) has overall responsibility and makes real-time decisions necessary for safe and efficient aircraft launch and recovery. These decisions are coordinated with the air wing commander and other aircraft carrier personnel.

#### 11.1.2.2 CCA

CCA is responsible for operational control of aircraft departing the ship and recovery of inbound aircraft after a mission is complete. CCA is roughly equivalent to the approach control branch of an ashore ATC facility as outlined in [Chapter 7](#).

## 11.2 BILLET DESCRIPTIONS

### 11.2.1 Air Operations Officer

1. Review air plan for fuel and logistic requirements.
2. Supervise/coordinate the execution of the air plan.
3. During flight operations, remain informed of the status of all aircraft operating under CATCC control and ensure that all pertinent information is provided to other carrier work centers and personnel including commanding officer, bridge, PriFly, strike operations, CDC, handler, LSO, etc.
4. Ensure that all pertinent flight information is provided to inbound and outbound flights between the carrier and shore facilities.
5. Conduct airwing and squadron briefings as required to evaluate flight operations.
6. Ensure that records and reports of flight ops are prepared, maintained and disseminated to carrier personnel and submitted to other commands and agencies as required.

### 11.2.2 Assistant Air Operations Officer

The senior assistant AirOps officer (AAO) assists the AirOps officer in coordinating and administering the functions of CATCC, as well as performing the duties of AirOps officer during the incumbent's absence.

### **11.2.3 Air Operations Watch Officer**

The AirOps watch officer (AOWO) is a flight quarters watch station whose duties are normally performed by the AirOps officer and/or assistants. During CASE III operations, air operations shall be manned by two PQS qualified AirOps watch officers. Duties, responsibilities and authority include the following:

1. Ensure that CATCC is manned prior to scheduled flight operations and that the checklist and pre-launch information specified in CV NATOPS is accomplished.
2. Ensure that accurate BINGO/divert fuel and foul-deck endurance data is recorded for each aircraft model.
3. Assist CDC and PriFly on all SAR operations as necessary.
4. Manage fuel assets, monitor tanking station assignments and tanking procedures.
5. Provide all relevant personnel with all pertinent information about flight operations, including any changes to the Air Plan.

### **11.2.4 Air Operations Supervisor**

The AirOps supervisor assists the AirOps watch officers(s) by supervising enlisted personnel assigned to AirOps during flight quarters and general quarters. Duties and responsibilities include:

1. Ensure assigned personnel are properly trained and qualified for the following task:
  - a. Air Ops plotter.
  - b. Status board keeper.
  - c. Land/launch recorder.
2. Ensure CATCC systems/equipment are being operated per EMCON restrictions.
3. Ensure that appropriate maintenance facilities are notified of failed or malfunctioning systems/equipment and the information is logged, as required.
4. Ensure prelaunch information is accurate and complete.
5. Ensure that Alert condition information is posted and updated, as necessary.
6. Ensure all communications regarding inbound/outbound flights to shore facilities are transmitted/received and inform relevant personnel.
7. Ensure the master air plan is maintained and that changes and revisions are disseminated to all relevant work centers and personnel, including CDC, PriFly, strike operations, squadron ready rooms, CCA, CVIC, flight deck control, bridge, battle group rep and air wing operations.
8. At the completion of flight operations, ensure alert aircraft information is updated and all reports are completed, disseminated and filed, including the master air plan, land/launch record and daily air operations summary report.

### **11.2.5 Carrier Controlled Approach Watch Officer**

The CCA Watch Officer is responsible for the overall direction of CCA. Duties, responsibilities and authority include:

1. Determining the operational capability of ATC equipment.
2. Ensure that all relevant information about launch and recovery operations is disseminated to CCA including type of departure/recovery (CASE), instrument approach procedure, BRC, break/ramp time, DRR, airspace constraints, ship's in company scheduled flight operations, etc.

3. Monitor aircraft and tanker fuel states, tanker refueling system status and coordinate refueling operations with AirOps and departure control.
4. Conduct air wing and squadron debriefings as required. Establish a program to ensure effective dialogue between the CATCC and air wing/transient squadrons.
5. During flight operations, ensure that all aircraft conform to departure and recovery procedures and that adequate separation is provided between departing and recovering aircraft during CASE II and III operations.
6. Promulgate a CATCC Manual ensuring that it is reviewed and updated on an annual basis and forwarded to CNAF.
7. Ensure that organized cross training on all equipment and positions is conducted to the maximum extent practical.

CCA Officers shall not be normally assigned duties outside their billet description. When unavoidable, they shall be limited to essential duties as determined by the commanding officer.

### **11.2.6 CATCC Supervisor**

The CATCC supervisor is responsible to the CCA Watch Officer for the overall supervision and operational efficiency of CCA. The CATCC supervisor position shall not be combined with a control position. The CATCC supervisor shall be PQS qualified on all positions in CATCC and possess the CATCC ATCS rating. Duties, responsibilities and authority include the following:

1. Assist the CCA watch officer in the performance of duties and responsibilities.
2. Prepare CCA watch station assignments.
3. Ensure that systems and equipment are evaluated, casualties and malfunctions are reported and coordinate as necessary with maintenance personnel for appropriate action.
4. Ensure compliance with EMCON/HERO conditions.
5. Coordinate aircraft/pilot problems, low fuel states, emergencies, etc., with CCA watch officer.
6. Review all relevant information about scheduled flight operations including the master air plan, tanking plan, COMPLAN, card-of-the-day, etc.

## **11.3 OPERATING POSITIONS**

### **11.3.1 Approach Control**

Approach Control (AP) assesses aircraft closure rate and relative movement, and calculates and predicts the effects that vectors and speed changes will have on aircraft separation. Primary duties of AP include the following:

1. Identify all airspace constraints that may/will affect recovery operations.
2. Coordinate with CATCC supervisor for type of recovery (CASE), expected BRC, expected marshal radial for fixed-wing aircraft and helicopters, expected final bearing, expected type of approach, bolter holes, break/ramp time, first push time, DRR, etc.
3. Ensure CCA recovery board is accurate and complete.
4. Conduct communications check with plane guard helicopter every 20 minutes during CASE III operations (may be performed by Departure Control).
5. Continue to monitor aircraft after handoff to final control to ensure adequate separation is maintained.

### **11.3.2 Marshal Control**

Marshal Control (MC) determines the appropriate method of marshaling aircraft when adverse weather and airspace constraints exist in the carrier control area; revising the planned recovery order to accommodate aircraft with priority, emergencies, malfunctions, low states, stragglers, etc. Primary duties of MC include the following:

1. Calculating first push time and EATs; revising EATs when changes occur in the break/ramp time; creating bolter holes based upon the requirements of individual recoveries.
2. Review master airplan.
3. Identify all airspace constraints that will/may effect recovery operations.
4. Ensure CCA marshal board is accurate and complete.
5. Monitor fuel states.
6. Monitor aircraft in the bolter/wave-off pattern to determine when a Delta may be necessary and implement procedures when instructed.
7. Provide inbound flights with arrival information and assistance, if required. Obtain pilots' names for fly-on aircraft and load report from arriving COD/VOD aircraft.

### **11.3.3 Departure Control**

Departure Control (DC) is responsible for aircraft departures, monitoring the location and package status of tanker aircraft and the location of low-state aircraft and their fuel requirements. Primary duties of DC include the following:

1. Review the master air plan and the tanking plan.
2. Identify all airspace constraints that may/will affect launch operations.
3. Prior to commencement of flight ops, provide aircraft any changes in flight composition, mission assignment, type of departure (CASE), DRR, BRC, PIM, launch time, etc.
4. Ensure CCA departure board is accurate and complete.
5. Monitor performance of launching aircraft until pilots report KILO or aircraft are handed-off to another controlling agency.

### **11.3.4 Final Control**

Final Control (FC) is responsible for controlling aircraft during the final approach segment. Primary duties of FC include the following:

1. Provide each aircraft with precision or non-precision approach.
2. Coordinate hand-offs with CATCC Supervisor, approach controller and other final controller.
3. Evaluate system, equipment, and communication status.

### **11.3.5 Status Board**

Status Board provides essential information to CCA and AirOps for following the progress of launch and recovery operations. The status boards provide display of essential information (e.g., aircraft fuel states, emergencies, radio buttons; tanker fuel state and give; bingo/tank fuel states; holding status/location or approach/departure status).

Inaccurate or incomplete information can seriously compromise the capability of CATCC to follow the progress of operations and, in the extreme, safety of flight. The status board positions assigned to CATCC are as follows:

1. AirOps status board.
2. Departure status board.
3. Marshal status board.
4. Approach status board.

#### **Note**

In ISIS-equipped CATCC's, ISIS Input Operators fulfill Status Board responsibilities.

### **11.3.6 Sound-Powered Phone Talker/Visual Display Board Operator**

The sound-powered phone talker/visual display board (VDB) operator is a CCA watch station responsible for providing information to other carrier work centers for the coordination of Case II recoveries. This information is used by PriFly for setting the arresting gear and FLOLS and by the LSO to ensure optimum control and assistance in aircraft landings. The sound-powered phone talker/VDB operator should be manned, online and maintaining an accurate lineup of airborne aircraft during CASE II recoveries. This will help ensure a smooth transition to the CASE III environment, if necessary.

### **11.3.7 Land/Launch Recorder**

The land/launch recorder is an AirOps watch station responsible for maintaining the land/launch record during flight operations. The Record is an account of aircraft launches and landings that includes event numbers, aircraft side numbers, pilot's names, launch times, missions and remarks. Information in the record is also used to derive boarding rate for the air wing and each squadron. At the completion of each launch and recovery, the recorder will compare information with PriFly to ensure the accuracy of the count.

### **11.3.8 Plotter**

The AirOps plotter is an AirOps watch station responsible for maintaining the AirOps plot of the ship's position, completing the prelaunch brief and for handling communications. Primary duties of the AirOps plotter include the following:

1. Receive the ship's position from the bridge every hour between periods of flight operations and every 30 minutes during flight operations. Plot ship's position and correlate the position with the DAIR and SINS position.
2. Determine range and bearing to divert/bingo fields and nearest land, and update the status boards in AirOps and CCA.
3. Depict ship's position in relation to airways, hot areas, etc., on appropriate charts.

## **11.4 SYSTEMS MAINTENANCE**

### **11.4.1 Air Traffic Control Technicians**

Maintenance responsibility for equipment used to accomplish the carrier air traffic control mission of a command is vested in the combat system's department. Maintenance personnel, in addition to corrective maintenance, shall perform preventive maintenance and daily checks in compliance with existing policies in addition to requirements established by local directives.

## **11.4.2 Responsibilities**

Technicians assigned CATCC maintenance responsibilities shall:

1. Be physically assigned to the CATCC during all CASE II/III operations (minimum of one qualified SPN-46 or DAIR technician). All other technical specialties shall be readily available.
2. Keep CATCC supervisory personnel apprised of equipment status.
3. Be available to CATCC supervisory personnel after normal working hours to confirm controller judgment regarding equipment malfunctions.

## **11.4.3 Applicable NEC**

Electronics technicians actively involved in performing maintenance actions in support of CATCC systems must possess the applicable NEC for that equipment.

## **11.4.4 Qualification**

Local qualification of electronics technicians shall be in compliance with PQS augmented as required by local directives.

## **11.5 CATCC MANUAL**

Each CCA Officer shall promulgate a CATCC manual as per the Carrier Air Traffic Control Handbook (NAVAIR AE-CVATC-OPM-000) [Appendix L](#).

## **11.6 NATOPS EVALUATION**

The Air Traffic Control NATOPS Evaluation shall be accomplished by the ATC T & R Office assigned to CNAF. NATOPS Evaluations shall be conducted using COMNAVAIRFORINST 3500.71 and other governing directives.

## **11.7 TEAM TRAINING**

CATCC Team Training provides a simulated carrier air traffic control environment that teams use to train on CV/N NATOPS CASE III cyclic launch and recovery operations, tanking evolutions and/or carrier qualification pattern training. As CV/Ns enter extended maintenance availability periods, air traffic controllers are required to maintain a sufficient level of proficiency in order to support the ship's mission. Team training provides all of the necessary tools and systems required to maintain this level of proficiency. Additionally, it provides a training environment that can be tailored to the strengths and weaknesses of a given team or specific watch station while providing an opportunity for controllers to attain interim qualifications on any critically manned watch station. CATCC Team Training is scheduled for all CV/Ns through CNAF.

### **Note**

For CV/Ns in a maintenance availability period exceeding six months, it is recommended that the CATCC team attend a minimum of two team training sessions. Additional training sessions may be necessary due to crew turnover, unplanned losses, etc.



**CHAPTER 12****Amphibious Air Traffic Control****12.1 GENERAL****12.1.1 Function**

The function of Amphibious Air Traffic Control is to provide radar ATC services to air traffic within the area of jurisdiction assigned by the appropriate authority. The scope of the services provided will vary according to the delegated airspace assigned, weather and the type of operations being conducted. The functions and responsibilities set forth in this chapter are applicable to all platforms regardless of equipment installations or configuration and are intended to be used in conjunction with the LHA/LHD NATOPS Manual (NAVAIR 00-80T-106), AATCC Handbook (AE-LHATC-OPM-000), and air control documents.

**12.1.2 Amphibious Air Traffic Control Organization**

AATC is organized into Amphibious Air Traffic Control Center (AATCC) and Tactical Air Control Center (TACC).

**12.1.2.1 AATCC**

The LHA's/LHD's centralized air control agency responsible for operational control of aircraft departing the ship and recovery of inbound aircraft after a mission is complete. Also, responsible for maintaining the status and tactical control of airborne helicopters in support of amphibious assaults as directed by Helicopter Coordination Section (HCS).

**12.1.2.2 TACC**

When embarked, TACC is the primary air control agency for the Expeditionary Strike Group (ESG) and/or Amphibious Task Force (ATF) responsible for all air operations supporting the amphibious force. This control jurisdiction encompasses all airborne operations except actual launch and recovery of aircraft.

**12.1.3 Assigned Airspace**

AATCC and TACC assigned airspace will be in accordance with Task Force Commander guidance as delineated by the Airspace Control Authority (ACA) in the OPTASK Air/Air Control Plan/Air Control Order or Air Tasking Order (ATO).

**12.1.4 AATCC Manual**

Each Assistant AirOps Officer shall promulgate an AATCC Manual. This manual should address ship-unique administration, organization, qualification requirements, training, and equipment configuration. AATCC manuals shall be reviewed and updated on a continuous basis and shall be forwarded to the appropriate ATC T & R Office.

**12.1.5 NATOPS Evaluation**

The Air Traffic Control NATOPS Evaluation shall be accomplished by an ATC T & R Office assigned to a Fleet Type Commander. AATCC and TACC NATOPS evaluations shall be conducted using the checklists in COMNAVSURFORINST 3700.1 and COMTACGRUONEINST 1500.1.

## 12.1.6 Team Training

AATCC/TACC Team Training provides a simulated expeditionary/amphibious air traffic control environment that teams use to train on LHA/LHD NATOPS launch and recovery operations, carrier qualification pattern training, and amphibious/expeditionary operations air control. As LHAs/LHDs enter extended maintenance availability periods, air traffic controllers are required to maintain a sufficient level of proficiency in order to support the ship's mission. Team training provides all of the necessary tools and systems required to maintain this level of proficiency. Additionally, it provides a training environment that can be tailored to the strengths and weaknesses of a given team or specific watch station while providing an opportunity for controllers to attain interim qualifications on any critically manned watch station. AATCC Team Training is scheduled for all LHAs/LHDs through the ship's respective ATC T & R Office. TACC Team Training is scheduled through the respective ATC T & R Office, and TACCs should, to the extent possible, schedule team training to coincide with the assigned ship's AATCC Team Training.

## 12.2 AATCC BILLET DESCRIPTIONS

### 12.2.1 Air Operations Officer

The Air Operations (AirOps) Officer is responsible to the Operations Officer for coordination of all matters pertaining to flight operations and for proper functioning of AATCC. Duties and responsibilities include:

1. Review/develop the Air Plan to ensure deck cycle and deck requirements are executable.
2. Responsible, in conjunction with the TACC Plans and Support Section (PSS) for coordinating air operations in support of the ESG.
3. Attend the daily air planning conferences involving the development of the ATO. Assist the TACC ATO coordinator, as necessary, with the planning of the ATO. Ensure the ship's airplan satisfies the requirements of the ATO. Air Operations Officer is responsible for the generation of the ATO when TACC is not embarked.
4. Ensure that all operational information (excluding intelligence information) required to carry out aircraft missions is provided to pilots prior to and during flight operations.
5. Ensure that records and reports of flight ops are prepared, maintained, and disseminated to shipboard personnel and submitted to other commands and agencies, as required.
6. Receive, respond to, and prepare all correspondence related to flight operation reports.

### 12.2.2 OC Division Officer/Air Operations Afloat

The OC Division Officer should not be assigned duties outside their billet description. The OC Division Officer coordinates and administers the functioning of AATCC. Duties and responsibilities include:

1. Ensure that the Air Plan is distributed to all relevant ship, ESG, and ACE personnel.
2. Manage the assignment, administration and training of AATCC enlisted personnel.
3. Ensure all systems and equipment are maintained in proper operating order and coordinate with the electronic/combat systems maintenance officer regarding the status of repair to inoperative air traffic control equipment.
4. Provide supervision for the preparation, maintenance, dissemination, and submission of reports and records of flight operations.
5. Assist in the preparation of all correspondence related to AATCC operations.

6. Ensure the procurement and maintenance of charts, publications, and equipment required for flight operations.
7. Perform the duties of AirOps Officer during the incumbent's absence.
8. Coordinate airspace and communications requirements as appropriate.
9. Attend pre-sail planning conferences for operations involving aviation.

### **12.2.3 AATCC Watch Officer**

The AATCC Watch Officer is a flight quarters watch station whose duties are normally performed by the OC Division Officer. Duties and responsibilities include:

1. Ensure that AATCC is manned 1-1/2 hours prior to scheduled flight operations and that the checklist specified in LHA/LHD NATOPS is accomplished.
2. Ensure pre-launch brief information is timely and efficiently distributed.
3. Conduct ACE and squadron briefings as required.
4. Supervise/coordinate the execution of the Air Plan.
5. Remain informed of the status of all aircraft operating under AATCC control, and ensure that all pertinent information about flight operations, including any changes to the Air Plan are provided to other work centers and personnel including Commanding Officer, Bridge, PriFly, TACRON, CIC, Operations Officer, ESG representative, ACE operations, SAR detachment and the squadron ready room, etc.
6. Ensure that all pertinent flight information is provided to inbound and outbound flights between the ship and shore facilities.
7. Ensure accurate divert/bingo fuel endurance information is recorded for each aircraft model.
8. Notify all relevant work stations/personnel when an aircraft is diverted/bingoed.
9. Ensure that all AATCC systems and equipment are operating adequately and are operated per applicable directives.
10. Assist TACRON, CIC and PriFly on all SAR operations, as necessary.

### **12.2.4 AATCC Supervisor**

The AATCC Supervisor is responsible to the AATCC Watch Officer for the overall operation of AATCC. Duties and responsibilities include:

1. Assist the AATCC Watch Officer in the performance of duties and responsibilities.
2. Ensure that AATCC is properly manned, and assign AATCC personnel to operating positions according to individual qualifications and training requirements. Ensure operational continuity of the AATCC watch team.
3. Recommend the qualification of personnel on individual operating positions.
4. Ensure the completion of all pre-deployment and flight logistic checklists.
5. Ensure that systems and equipment are evaluated, casualties and malfunctions are reported, and coordinate as necessary with maintenance personnel for appropriate action.

6. Identify all airspace constraints that may/will affect launch and recovery operations.
7. Review all relevant information about scheduled flight operations, including the Master Air Plan, COMPLAN, EMCON conditions, etc.
8. Coordinate with other work centers, as required, to obtain the case departure/recovery, Fox Corpen, Charlie time, ASW datum, etc.
9. Ensure AATCC status boards are accurate and complete.
10. Ensure video mapping is accurate and complete, especially airspace constraints and bingo fields.
11. Ensure compliance with EMCON/HERO conditions.
12. Brief the AATCC team on traffic, weather conditions, and equipment status.
13. During flight operations, provide supervision and coordination of AATCC personnel.
14. Ensure flight plans are filed as required.
15. Coordinate between the AATCC Watch Officer and the controllers as necessary for the orderly flow of aircraft during amphibious and other non-tactical flight operations.
16. Monitor all aircraft fuel states.
17. Coordinate aircraft problems, emergencies, low fuel states, etc., with the AATCC Watch Officer.
18. After the completion of flight operations, debrief AATCC personnel.

## **12.3 AATCC OPERATING POSITIONS**

### **12.3.1 Approach Control**

Approach Control (AP) is responsible for controlling inbound aircraft from marshal/TACC until handoff to Final Control, or PriFly. Approach Control establishes the interval for aircraft on final approach. Duties and responsibilities include:

1. Maintain separation and ensure safety of flight.
2. Review the Master Air Plan.
3. Evaluate system/equipment/communication status.
4. Review approach area for potential conflicts. Identify all airspace constraints that may/will affect recovery operations.
5. Coordinate with AATCC Supervisor for case recovery, expected BRC, Expected marshal radial for fixed-wing aircraft and helicopters, expected type of approach, Charlie time, first push time, etc.
6. During Case II/III recoveries, provide positive control for all traffic.
7. Broadcast changes of the BRC and other pertinent recovery information.
8. Ensure AATCC Recovery (Approach) Board is accurate and complete.
9. Initiate and/or accept radar handoffs from other control positions/agencies.

10. After handoff from Marshal Control until handoff to PriFly or Final Control, maintain radar surveillance of assigned areas and provide positive control instructions when required.
11. Continue to monitor aircraft after handoff to Final Control to ensure adequate separation is maintained.

### **12.3.2 Marshal Control**

Marshal Control (MC) is responsible for establishing the initial separation and sequencing of aircraft during Case II/III recoveries. Duties and responsibilities include:

1. Maintain separation and ensure safety of flight.
2. Review the Master Air Plan.
3. Evaluate system/equipment/communication status.
4. Review marshal area for potential conflicts. Identify all airspace constraints that may/will affect recovery operations.
5. Coordinate with AATCC Supervisor for case recovery, expected BRC, expected marshal radial for fixed-wing aircraft and helicopters, expected final bearing, expected type of approach, Charlie time, first push time, etc.
6. Ensure AATCC Recovery (Marshal) Board is accurate and complete.
7. Initiate and/or accept radar handoffs from other control positions/agencies.
8. Provide inbound flights with arrival information and assistance, if required. Obtain load reports from arriving Passenger/Mail/Cargo (PMC) aircraft.
9. Issue marshal instructions and clearances as required.
10. Monitor aircraft adherence to marshal instructions and provide control instructions, when required.
11. Provide control instructions to aircraft that have commenced approach, when required.
12. Issue vectors and/or speed changes to maintain separation.
13. Monitor fuel states.
14. Monitor aircraft on approach and in the wave-off pattern to determine when a Delta may be appropriate.
15. Implement Delta procedures when instructed.

### **12.3.3 Departure Control**

Departure Control (DC) is responsible for the orderly flow of departing aircraft and to maintain a constant radar surveillance of the operating area of the ship. Duties and responsibilities include:

1. Maintain separation and ensure safety of flight.
2. Review the Master Air Plan.
3. Evaluate system/equipment/communication status.
4. Review departure area for potential conflicts. Identify all airspace constraints that may/will affect launch operations.

5. Coordinate with the AATCC Supervisor for type of departure (Case), BRC.
6. Ensure AATCC Departure Board is accurate and complete.
7. Prior to commencement of flight ops, provide aircraft any changes in flight compositions, mission assignment, type of departure (Case), BRC, PIM, launch time, etc.
8. Relay mission information to aircraft before releasing to another controlling agency.
9. Initiate an accept radar handoffs from other control positions/agencies.
10. Provide positive/advisory control information as required by weather conditions.
11. Provide advisory control of point-to-point flights and PMC aircraft.
12. Provide instructions, assistance and flight following to diverted/bingoed aircraft.
13. Maintain count of aircraft launched and remaining to be launched.
14. Provide relevant launch and recovery information to the plane guard helicopter, when on departure frequency.
15. Conduct communication check with SAR plane-guard helicopter every 20 minutes during Case III operations (may be performed by Approach Control or Air Boss).

#### **12.3.4 Final Control**

Final Control (FC) is responsible for controlling aircraft on final approach until the pilot reports SEE YOU or MEATBALL, or reaches approach minimums. Duties and responsibilities include:

1. Maintain established separating and ensure safety of flight.
2. Evaluate system/equipment/communication status.
3. Coordinate handoffs with Approach Control.
4. Provide instructions necessary for an aircraft to conduct a precision on non-precision approach.

#### **12.3.5 Assault Control**

Assault Control (AC) is responsible for the control of aircraft conducting ship-to-shore movement of troops, supplies and air support during an amphibious assault. Duties and responsibilities include:

1. Ensure safety of flight.
2. Review the Master Air Plan.
3. Evaluate system/equipment/communication status.
4. Review area for potential conflicts. Identify all airspace constraints that may/will affect flight operations within assigned airspace.
5. Operate under the tactical control of the Helicopter Coordination Section (HCS).
6. Control the movement of all aircraft operating in their assigned sector.
7. Maintain and report to the supervisor the status and location of assigned aircraft.

8. Relay wave in/out landing zone times.
9. Relay mission information.
10. Track and adjust control point times.
11. Initiate and accept radar handoffs from other control positions/agencies.

### **12.3.6 Status Board**

Status board provides essential information for following the progress of launch and recovery operations (e.g., aircraft fuel states, emergencies, radio buttons, mission status; holding status/location or approach/departure status). The following is a list of duties and responsibilities:

1. Review the Master Air Plan.
2. Evaluate equipment and communication status.
3. Monitor the appropriate frequencies and display pertinent flight data on status boards.
4. Display/update required information on status boards.
5. Display/update required information on Automatic Status Boards (ASTAB).
6. Coordinate with control positions as required maintaining an accurate and complete account of launch and recovery operations.

### **12.3.7 Plotter**

The Plotter is responsible for maintaining the ship's plot and completing the Pre-launch brief. The following is a list of duties and responsibilities:

1. Receive the ship's position from the Navigator every hour between periods of flight operations and every 30 minutes during flight operations. Plot ship's position and correlate the position with Direct Altitude and Identity Readout (DAIR).
2. Determine the range and bearing to divert/bingo fields and nearest land, and update the status boards in AATCC.
3. Depict ship's position in relation to airways, hot areas, etc., on appropriate charts.
4. Record weather at ship and bingo fields on status boards in AATCC.
5. Obtain airspace constraints from AATCC Supervisor, hot sheet, Flight Information Publication (FLIP, Notice to Airmen (NOTAMS), and messages).
6. Prepare and disseminate Pre-launch Brief information including ship's position, expected BRC, emergency marshal data, and divert field bearings/distances.

## **12.4 TACTICAL AIR CONTROL CENTER**

### **12.4.1 Function**

Tactical Air Control Center (TACC) provides centralized planning, control, coordination and integration of air operations and airspace management in support of amphibious multi-service, joint operations for the ATF/ESG, when embarked. Also, TACC detachments may augment air traffic control services and/or airspace management and control ashore, as required. More detailed TACC information is available in NTTP 3-02.1.3, Amphibious/Expeditionary Operations Air Control.

## **12.4.2 TACC Organization**

TACC functionally operates in two branches, Current Operations and Future Operations. Future Operations conducts the planning functions of the Air Traffic Control Section (ATCS), Helicopter Coordination Section (HCS), Air Defense Coordination Section (ADCS), Air Support Control Section (ASCS), and Plans and Support Section (PSS). Current Operations executes the plan developed by Future Operations.

### **12.4.2.1 Air Traffic Control Section**

Air Traffic Control Section (ATCS) is responsible for the safe and expeditious control of, and coordination for, Close Air Support (CAS) aircraft and all other aircraft entering, operating within or traversing the AOA/AOR/HIDACZ, as well as coordination of SAR operations. ATCS develops battlefield air structure and control in support of ATF/ESG objectives and scheme of maneuver. ATCS also maintains control and status of tankers supporting mission aircraft for amphibious operations.

### **12.4.2.2 Helicopter Coordination Section**

Helicopter Coordination Section (HCS) coordinates all helicopter operations conducted by subordinate air traffic control agencies in support of amphibious operations. HCS monitors helicopter operations and maintains readiness data on helicopter movements and helicopter capable ships. HCS shall coordinate helicopter movements with the Supporting Arms Coordination Center (SACC) and assign sectors, routes and control points to the Assault Controller when not covered in the operations order, or when changes occur.

### **12.4.2.3 Air Support Control Section**

Air Support Control Section (ASCS) exercises operational control and coordination of all rotary and fixed-wing aircraft assigned to ground support missions.

### **12.4.2.4 Plans and Support Section**

Plans and Support Section (PSS) provides all communications support, conducts current and future planning, and assembles and distributes current air operations data and reports.

### **12.4.2.5 Air Defense Coordination Section**

Air Defense Coordination Section (ADCS) serves as an Air Control Unit (ACU) to plan, coordinate and control air warfare operations with the Air Defense Commander (ADC). Primary function is Fleet Air Defense Identification Zone (FADIZ) coordination. ADCS provides ATF/ESG with oversight and coordination staff for the conduct of air warfare.

## **12.5 TACC BILLET DESCRIPTIONS**

### **12.5.1 Detachment Officer-In-Charge**

The Detachment Officer-In-Charge (OIC) is normally an O-5 aviator. The OIC performs as both the CATF's Air Officer and Tactical Air Controller (TAC). As the CATF's Air Officer, he is the direct representative and principal advisor to the CATF in all matters pertaining to air operations.

### **12.5.2 TACC Watch Officer**

The TACC Watch Officer (TACCWO) executes current operations. Duties and responsibilities include:

1. Coordinate execution of the daily ATO.
2. Ensure TACC is properly manned.



3. Review theater Airspace Control Order (ACO)/ATO/SPINS/Master Air Plan in support of Joint Forces Air Component Commander (JFACC).
4. Coordinate and deconflict airspace.
5. Provide and update flight sortie information within the Joint Air Command and Control (JAC2) network.
6. Coordinate with the ADC for defense of ESG.

### **12.5.3 TACC Supervisor**

The TACC Supervisor (TACC SUP) shall be designated in writing by the Commanding Officer and is responsible to the TACC Watch Officer for the overall operation of TACC. Duties and responsibilities include:

1. Assist the TWO in the performance of duties and responsibilities.
2. Ensure the TACC is properly manned, and assign TACC personnel to operating positions according to individual qualifications and training requirements.
3. Ensure that systems and equipment are evaluated, casualties and malfunctions are reported, and coordinate as necessary with maintenance personnel for appropriate action.
4. Identify all airspace constraints that may/will affect air operations for the amphibious force. Coordinate with AATCC during CASE II and III recovery/departure operations.
5. Coordinate with ADCS concerning FADIZ and other air defense matters.
6. Ensure compliance with EMCON/HERO conditions.
7. Ensure TACC status boards are accurate and complete.
8. Monitor all aircraft fuel states.
9. Coordinate aircraft problems and emergencies with the TWO and AATCC.
10. Review the ACO/ATO/SPINS/Master Air Plan.

## **12.6 TACC OPERATING POSITIONS**

### **12.6.1 Tactical Air Traffic Control**

Tactical Air Traffic Control (TATC), an air traffic control position that is responsible for all air traffic entering, exiting, and operating within the Amphibious Area of Responsibility. Duties and responsibilities include:

1. Maintain separation and ensure safety of flight per SPINS.
2. Review ACO/ATO/SPINS/Master Air Plan.
3. Evaluate system/equipment/communication status.
4. Review location of all ships within the operating area for potential conflicts and identify all airspace constraints that may/will affect flight operations for ESG.
5. Ensure TATC status board is accurate and complete.
6. Coordinate transfer of control with other positions/agencies.

7. Assign entry/holding/exit points for all aircraft.
8. Alert the TACC Sup to any event, which may affect the air mission.
9. Provide tactical situation updates to aircrew operating in the area.

### **12.6.2 Tactical Air Director**

Tactical Air Director (TAD), an air traffic control position that is responsible for the control of all aircraft assigned by the TATC. Duties and responsibilities include:

1. Assign aircraft to CAS holding points and issue entry and exit routes from target areas, as necessary.
2. Record and disseminate Battle Damage Assessment (BDA).
3. Maintain aircraft weapon load status and on-station time.
4. Transmit Air Defense warning conditions.
5. Coordinate aircraft and mission status with Air Support Coordinator (ASC).
6. Ensure TAD status board is complete and up to date.
7. Review ACO/ATO/SPINS/Master Air Plan.
8. Provide Joint Tactical Air Request (JTAR) to CAS assets.
9. Receive In Flight Reports (INFLTREP) and relay to appropriate agencies.

### **12.6.3 Status Board**

Status Board provides essential information. Duties and responsibilities include:

1. Review the ACO/ATO/SPINS.
2. Monitor the appropriate frequencies and display pertinent information on the status boards.
3. Continually update pertinent ship, weather, and divert information to maintain its usefulness.
4. Coordinate with other positions and agencies as required to maintain an accurate and complete account of all pertinent information.

### **12.6.4 Tactical Air Request/Helicopter Request Net Operator**

The Tactical Air Request/Helicopter Request (TAR/HR) net is the communications link between the Supporting Arms Coordination Center (SACC) and Forward Air Controllers (FACs). Duties and responsibilities include:

1. Establishing, maintaining and controlling communications with the Tactical Air Control Party (TACP) and Fire Support Coordination Center (FSCC).

## **12.7 SYSTEMS MAINTENANCE**

### **12.7.1 Air Traffic Control Technicians**

Maintenance responsibility for equipment used to accomplish the amphibious air traffic control mission of a command is vested in the Combat Systems/C5I Department. Maintenance personnel shall perform preventive maintenance, corrective maintenance, and daily checks in compliance with existing policies and requirements established by local directives.

### 12.7.2 Responsibilities

Technicians assigned AATCC maintenance responsibilities shall:

1. Be physically assigned to the AATCC during all CASE II/III operations (minimum of one qualified SPN-35 or Direct Altitude and Identity Readout (DAIR) technician). All other technical specialties shall be readily available.
2. Keep AATCC supervisory personnel apprised of equipment status.
3. Be available to AATCC supervisory personnel after normal working hours to confirm controller judgment regarding equipment malfunctions.

### 12.7.3 Applicable NEC

Electronics technicians actively involved in performing maintenance actions in support of AATCC systems must possess the applicable NEC for that equipment.

### 12.7.4 Qualification

Local qualification of electronics technicians shall be in compliance with PQS augmented as required by local directives.



## APPENDIX A

# Memorandum of Agreement Between Department of Transportation Federal Aviation Administration, and the U.S. Army, the U.S. Navy, and the U.S. Air Force

**(This Agreement provides for the provision of air traffic control services between the FAA and the three military services as discussed in [Chapter 2](#).)**

WHEREAS, by virtue of Section 307(b)(4) of the Federal Aviation Act of 1958 (49 U.S.C. 1348(b)(4)), the Administrator of the Federal Aviation Administration (hereinafter referred to as the FAA) is authorized to provide necessary facilities and personnel for the regulation and protection of air traffic.

WHEREAS, by virtue of Section 303(d) of the Federal Aviation Act of 1958 (49 U.S.C. 1344(d)), the Administrator of the FAA may make such provision as deemed appropriate authorizing, with its consent, the performance of any function under Section 307(b) of the Act by any other Federal department; and

WHEREAS, there are three separate agreements now in effect between the FAA and the Army, Navy, and Air Force, respectively, relating to the operation of air traffic control facilities on military installations; and

WHEREAS, all parties to the three existing agreements wish to supersede such agreements with this separate agreement between the FAA and the three military services;

NOW, THEREFORE, all parties to this agreement mutually agree as follows:

## ARTICLE I. Determination of Operational Responsibility.

A. In keeping with requirements of national defense and with due regard for budgetary, manpower, and all other pertinent considerations, the general allocation of responsibility for the operation of each military facility subject to this agreement shall be mutually determined at the national level between the FAA and the appropriate military service. To facilitate the determination of operational responsibility, recommendations concerning the operation of air traffic control facilities will be made at the local level by appropriate FAA and military personnel.

B. Unless agreement is reached to the contrary, the military services shall provide airport traffic control service (visual flight rules) at those military airports where the cognizant military authority deems that such service is required and said airports are not served by an FAA, state, municipal, or other non-Federal tower.

C. When it is mutually agreed to be more advantageous to establish independent military and FAA approach control facilities, the approach control authority for the military terminal area ordinarily will be delegated to the military. Prior to approval by FAA of this delegation of authority, the military facility must be equipped to transmit and receive on all frequencies necessary to control all categories of IFR traffic normally operating in the area. Additionally, a letter of agreement relating to the control of air traffic shall be consummated between the appropriate local military authority and the appropriate FAA air route traffic control center.

D. The FAA is authorized to assign an ATREP to each military approach control facility covered in Article I, Section C. The function of the ATREP is set out in detail in Article IV.

E. At all military locations not served by an ATREP, authorized FAA personnel may make evaluations of military approach control facilities and those military towers and military ASR/PAR units that exchange control of air traffic directly with FAA facilities. These evaluations are to be conducted at such times as are mutually agreeable to the FAA and the cognizant local military authority. The purpose of such evaluations is to determine whether equipment performance and staffing are adequate for the service being provided; whether personnel qualifications, certification, and performance meet acceptable standards; and, whether procedures utilized are consistent with the agreements provided for in Article I.C and Article V. All deficiencies which may affect flight safety shall be reported to cognizant military authority for timely corrective action.

F. Delegation of approach control authority may be temporarily suspended by a representative of the FAA area manager or the ATREP if such action is deemed necessary in the interest of flight safety. The commanding officer (or designated representative) of the affected military installation shall be notified prior to the time suspension action is taken and informed of the reason(s) therefore.

G. Withdrawal of any delegation of authority covered by this agreement shall not be authorized prior to approval of FAA and the appropriate military service at the national level.

## **ARTICLE II. FAA Operations on Military Installations.**

A. Where mutually agreed, the FAA will provide exclusive air traffic control services and staffing on military installations. Unless agreed to the contrary, where a military facility is located near an FAA approach control facility, the FAA will perform the approach control function from the FAA facility for both the military and nonmilitary facilities.

B. At jointly staffed air traffic control facilities located on military installations, unless agreed to the contrary, the FAA will staff the approach control (surveillance radar) function and the military service will staff and be responsible for the PAR function.

C. The FAA shall have full authority and responsibility for the operation of its authorized functions.

D. The basic radar system approved for use in the radar approach control function is of the ASR type. Proposals for use of radar systems other than the ASR shall be submitted to the Washington office of the FAA for review. This clause shall not affect those terminal facilities currently utilizing other radar systems, nor is it intended to limit the use of ARSR or other slower RPM systems to supplement ASR equipment.

## **ARTICLE III. Crosstraining at Jointly Staffed ATC Facilities.**

In the best interest of the FAA and military services, it is essential that organized crosstraining be accomplished; accordingly, crosstraining programs shall be implemented and training shall be conducted to the maximum extent possible.

A. At the request of the responsible local military authority, the FAA will provide on-site approach control training to designated military personnel. Qualification and training shall be carried out in accordance with FAA regulations and procedures. Military personnel who successfully complete the training program and receive appropriate FAA certificates and ratings are not required to maintain currency on approach control positions. However, qualified military controllers, when current by FAA standards and military supervisors, may be assigned to approach control positions without direct supervision.

B. At the request of the FAA facility air traffic manager, the appropriate military authority will provide on-site PAR training to designated FAA personnel. Qualification and training shall be carried out in accordance with military regulations and procedures. FAA personnel are not required to maintain currency on PAR positions. However, qualified FAA controllers, when current by military standards and when agreeable to both military and FAA supervisors, may be assigned to PAR control positions without direct supervision.

## ARTICLE IV. FAA Air Traffic Representatives.

## A. The ATREP is responsible to the area air traffic branch. Function is described as follows:

1. To serve as liaison officer between the military and the FAA and between the military and civil users; to resolve local air traffic problems between military and civil users of the terminal area in order that both are afforded the maximum service possible; and to conduct frequent liaison with FAA, civil, and military personnel to determine the adequacy of ATC service is being rendered.
2. To serve as technical advisor to the military in all phases of air traffic control in order to improve ATC service.
3. To evaluate the amount of airspace required for air traffic control in terminal areas and to coordinate approval of airport traffic patterns.
4. To continuously review existing air traffic control and communications procedures and practices and to recommend action for their revision to improve efficiency.
5. To participate in appropriate intramilitary meetings in which the FAA has an interest.
6. To encourage lecture and training programs for base pilots and civil air user groups and to recommend changes, if necessary, to improve the air traffic control facility training program and to obtain maximum utilization of personnel.
7. To administer control tower operator exams and issue appropriate FAA certificates and ratings.
8. To participate frequently in flights of various types of unit-equipped military aircraft (in which flight as a passenger or crewmember is permitted) for the purpose of evaluating, from the pilot's viewpoint, air traffic control services being rendered and the performance characteristics of aircraft employed at the base.

## B. The ATREP will be an FAA signatory to agreements made pursuant to Article I, Section C.

## ARTICLE V. Local Agreements at FAA-Staffed Military Installations

At military installations where FAA staffing is provided in whole or in part, a local memorandum of agreement shall be signed between FAA and appropriate military authority. The purpose of the local agreement is to further implement this agreement. Such agreements should cover details such as operational concepts, staffing, training, maintenance of equipment, utilization of space, parking and janitorial service, and security.

## ARTICLE VI. Financing

- A. Salary, travel and training expenses of FAA air traffic representatives, air traffic controllers, and other personnel furnished by the FAA, pursuant to this agreement, will be borne by the FAA.
- B. Salary, travel, and training expenses of military and civilian personnel furnished by the DOD, pursuant to this agreement, will be borne by the appropriate DOD component.
- C. The cost of providing normal support (utilities, office space, furniture, parking space, janitorial services, and supplies, etc.) to FAA personnel at jointly staffed air traffic control facilities located on military installations, pursuant to this agreement, will be borne by the host DOD component authority exercising jurisdiction over the military installation involved.
- D. Except as otherwise specifically agreed between the parties concerned, the cost of procuring new equipment at joint facilities to accommodate primarily a military requirement, pursuant to this agreement, will be borne by the host component of the DOD.
- E. The cost of procuring new facilities and equipment to accommodate primarily an FAA requirement, pursuant to this agreement, will be borne by the FAA.

F. Except as otherwise specifically agreed between the parties concerned, the cost of installing and maintaining equipment will be borne by the party to this agreement which has the responsibility for the air traffic control function being performed.

G. Agreements which include financing arrangements, other than the three separate agreements referred to in the preamble to this agreement, are not superseded by this article.

**ARTICLE VII. Miscellaneous Provisions**

A. Local military authority will determine the security clearances required of FAA personnel. FAA personnel will be subject to military security requirements and base regulations.

B. The military services shall inform the FAA at the earliest practicable date of plans to deactivate military bases at which FAA personnel are assigned. The FAA shall inform the appropriate military service at the earliest practicable date of plans to reduce services at or to abandon ATC facilities on military installations.

C. Differences which may arise and remain unresolved at the local level will be resolved through appropriate channels of the signatories to this memorandum of agreement.

The FAA and the three military services agree to be bound by all provisions of this agreement as indicated by the signature of their duly authorized officials.

UNITED STATES ARMY

By(s): A.S. Collins, Jr

Title: Asst. Chief of Staff for Force Development

Date: 10 June 1969

UNITED STATES AIR FORCE

By(s): John W. Vogt, Maj. Gen. USAF

Title: Asst. Deputy Chief of Staff Plans and Operations

Date: 26 June 1969

UNITED STATES NAVY

By(s): Thomas F. Connolly

Title: Deputy Chief of Naval Operations (Air)

Date: 2 June 1969

DEPARTMENT OF TRANSPORTATION FEDERAL  
AVIATION ADMINISTRATION

By(s): D.D. Thomas

Title: Deputy Administrator

Date: 17 July 1969



## APPENDIX B

# Air Traffic Control NATOPS Evaluation Checklist

**B.1 PURPOSE**

The Air Traffic Control NATOPS Evaluation Checklist in this appendix is used during the biennial NATOPS evaluations as required in Chapter 2.

**B.2 FACILITY MANAGEMENT****B.2.1 General**

1. Does the ATCFO properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
2. Is the ATCFO a graduate of an ACA1 course (or equivalent DOD or DOT air traffic controller course) and possess an ATCS Certificate? [NAVAIR 00-80T-114]
3. If applicable, is the AATCFO a graduate of an ACA1 course (or equivalent DOD or DOT air traffic controller course) and possess an ATCS Certificate? [NAVAIR 00-80T-114]
4. Does the ATC LCPO/ATCNCOIC properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
5. Are operating initials assigned to each controller? [NAVAIR 00-80T-114]
6. Are facility files maintained using SSIC format? [NAVAIR 00-80T-114]
7. Does the ATCFO maintain statistical/historical data and retain such data as prescribed in ATC NATOPS? [NAVAIR 00-80T-114]
8. Do retention standards/data relating to daily management of air traffic comply with the following:
  - a. Daily log/position logs — 6 months?
  - b. Flight plans — 6 months?
  - c. Flight progress strips — 6 months?
  - d. Mishap records/data — as set forth in NATOPS? [NAVAIR 00-80T-114/SECNAVINST 5210.1]
9. Is an AAFIF print out on file and up-to-date? [NAVAIR 00-80T-114]
10. Are FAA publications applicable to the naval establishment, as specified in ATC NATOPS, available in the ATCF library for use by facility controllers? [NAVAIR 00-80T-114]
11. Is CNO (N885F) notified if the ATC Facility has not received a revised FAAO JO 7110.65/change to FAAO JO 7110.65 at least 30 days before the effective date of such revision/change? [FAAO JO 7110.65]

12. Does the ATCF use Coordinated Universal Time (UTC) for entries on all forms, logs and written records, and radio and landline communications? [NAVAIR 00-80T-114]
13. Does the ATCF use local time for facility work schedules, daily traffic counts, and administrative forms and correspondence? [NAVAIR 00-80T-114]
14. Is the Air Activity Report prepared and distributed in compliance with NATOPS? [NAVAIR 00-80T-114]
15. Does Defense Readiness Reporting System (DRRS) accurately reflect ATC deficiencies? [OPNAVINST 3501.360]
16. Is the ATCFO assigned to and an active member of local and regional planning boards whose actions may affect ATC operations (procedures and/or equipment)? [OPNAVINST 3721.5]
17. Does the ATCFO use OPNAVINST 3722.35 as a reference for minimum baseline planning criteria for ATCF resources? [OPNAVINST 3722.35]
18. Does the quantity of operating positions used in the ATCF conform to the Operating Position Requirements presented in OPNAVINST 3722.35? [OPNAVINST 3722.35]
19. Does the equipment installed in the ATCF conform to the Operating Position Equipment Standards presented in OPNAVINST 3722.35? [OPNAVINST 3722.35]
20. Was a Vice Admiral Robert B. Pirie Naval Air Traffic Controller of the Year Award nomination submitted? [NAVAIR 00-80T-114]
21. Is facility management familiar with SECNAV policy with regard to the Freedom of Information Act? [SECNAVINST 5720.42/NAVAIR 00-80T-114]
22. Has the ATCFO provided a signed authorization letter to the GEMO indicating to which ATCF supervisory personnel voice/data recordings can be released? [NAVAIR 00-80T-114]
23. Is a Procedures Evaluation Board established? [NAVAIR 00-80T-114]
24. Is a Controller Evaluation Board established? [NAVAIR 00-80T-114]
25. Do ATCF normal working periods and work schedules conform to 14 CFR Part 65/ATC NATOPS requirements? [NAVAIR 00-80T-114]
26. Are waivers for deviations from the procedures set forth in FAAO JO 7110.65 approved by CNO (N885F)? [OPNAVINST 3710.7 and FAAO JO 7110.65]
27. Are temporary changes to ATCF operating hours requested in compliance with NATOPS? [NAVAIR 00-80T-114]
28. Does the ATCFO conduct an ORM assessment for closed control tower airfield operations as set forth in NATOPS? [NAVAIR 00-80T-114]
29. If airfield hours have been reduced, or if operating hours are extended, is the ATCFO sensitive to the impact on FAAO JO 7400.2 and FAAO JO 7400.9 airspace requirements? [NAVAIR 00-80T-114]
30. Do locally based aviation units provide orientation and indoctrination flights to facility controllers to improve controller work performance? [OPNAVINST 3710.7]

31. Is a program established to ensure effective dialogue between the ATC facility and locally based aviation units; i.e., ATC briefs to units, unit briefs to controllers, tower/radar orientation for aviators, etc.? [NAVAIR 00-80T-114]
32. Does the facility have a contingency plan and do controllers have a working knowledge of its contents? [NAVAIR 00-80T-114]
33. Is the security (controlled access) of the ATC Facility maintained? [NAVAIR 00-80T-114]
34. Are all official visits to the ATC Facility approved by the ATCFO? [NAVAIR 00-80T-114]
35. Are visitors escorted while in the ATC Facility? [NAVAIR 00-80T-114]
36. Does ATC have oversight of the airfield vehicle operators course? [NAVAIR 00-80T-114]
  - a. As a minimum, does the airfield vehicle operators course consist of the topics prescribed in ATC NATOPS? [NAVAIR 00-80T-114/Naval Safety Center web site]
  - b. Does the airfield vehicle operators course program require annual attendance? [NAVAIR 00-80T-114]
  - c. Is attendance at the airfield vehicle operators course documented and maintained by the course manager? [NAVAIR 00-80T-114]
37. Are vehicles operating on movement areas radio-equipped or escorted by radio-equipped vehicles using the frequency designated for vehicle control? [NAVAIR 00-80T-114]
38. Are vehicles not regularly used on the airfield equipped with a checkered flag or amber rotating beacon whenever operations on aircraft operating areas are necessary? [NAVAIR 00-80T-114]

### **B.2.2 Air Operations Manual**

1. Has an Air Operations Manual been promulgated to supplement OPNAV 3710.7? [OPNAVINST 3710.7 and NAVAIR 00-80T-114]
2. Does the Air Operations Manual adhere to the basic outline as set forth by NATOPS? [NAVAIR 00-80T-114]
3. Is an annual review of the Air Operations Manual conducted? [NAVAIR 00-80T-114]
4. Does distribution of the Air Operations Manual conform to NATOPS requirements? [NAVAIR 00-80T-114]
5. Does the Air Operations Manual include wheel load capacity of runways and parking aprons? [NAVAIR 00-80T-114]
6. Does the Air Operations Manual include arresting gear configuration based on the active runway? [NAVAIR 00-80T-114]
7. Does the Air Operations Manual include procedures for identifying to airport users, by NOTAM, ATIS, and other appropriate means, conditions that may affect the safe operation of aircraft? [NAVAIR 00-80T-114]
8. Do local course rules specify airspeeds based on information contained in the NATOPS flight manuals applicable to the aircraft operated by the prime user(s) of the airfield concerned? [NAVAIR 00-80T-114]
9. Have operational instructions for providing emergency service been promulgated by the commanding officer? [NAVAIR 00-80T-114]
10. If applicable, do Unmanned Aerial System (UAS) operations comply with the provisions of FAAO JO 7610.4? [FAAO JO 7610.4]

11. Are operating practices reviewed on a continuous basis with a view toward minimizing the impact of “aircraft noise” on the public? [OPNAVINST 3710.7]
12. Are local rules established which minimize vehicle traffic on aircraft movement areas? [NAVAIR 00-80T-114]
13. Is an electronic copy of the current Air Operations Manual posted on the ATC Community web site? [NAVAIR 00-80T-114]

### **B.2.3 ATC Facility Manual**

1. Has an ATC Facility Manual been promulgated? [NAVAIR 00-80T-114]
2. Does the ATC Facility Manual adhere to the basic outline set forth by NATOPS? [NAVAIR 00-80T-114]
3. Has an ATC Facility Directive System been established and maintained in a current status? [NAVAIR 00-80T-114]
4. Are facility directives/interim changes incorporated annually? [NAVAIR 00-80T-114]
5. Is an electronic copy of the current ATC Facility Manual posted on the ATC Community web site? [NAVAIR 00-80T-114]
6. Has the ATCFO clearly specified in the ATC Facility Manual which operating positions may be combined and under what specific circumstances? [NAVAIR 00-80T-114]
7. Are maximum allotted TTH/approaches and calendar days for each operating position published in the ATC Facility Manual? [NAVAIR 00-80T-114]
8. At STARS-equipped facilities, does the ATC Facility Manual contain procedures concerning MSAW/CA, data entry requirements, operational mode transition plan, radar selection plan, and multi-sensor radar plan as specified in the STARS Operational Guide? [NAVAIR 00-80T-114]
9. Has the ATCFO established procedures in the ATC Facility Manual for simulator utilization, including mixing of live and simulated targets? [NAVAIR 00-80T-114]
10. Has the ATCFO specified weather conditions in the ATC Facility Manual under which final control trainees nearing qualification or who have achieved a prior RFC rating may be authorized to conduct radar approaches below VMC? [NAVAIR 00-80T-114]
11. Has the ATCFO specified in the ATC Facility Manual the minimum number of hours on position per watch for primary trainees? [NAVAIR 00-80T-114]
12. Has the ATCFO established currency requirements in the ATC Facility Manual? [NAVAIR 00-80T-114]
13. Has the ATCFO established a Tape Talk program in the ATC Facility Manual? [NAVAIR 00-80T-114]

### **B.2.4 Letters of Agreement**

1. Are Letters of Agreement confined to a single subject or purpose? [NAVAIR 00-80T-114]
2. Are Letters of Agreement maintained in a current status? [NAVAIR 00-80T-114]
3. Are Letters of Agreement reviewed annually to ensure accuracy and conformance with current policy, and are such reviews documented? [NAVAIR 00-80T-114]
4. Are copies of Letters of Agreement forwarded to the appropriate NAVREP? [NAVAIR 00-80T-114]

5. At Approach Control facilities, is there a letter of agreement delegating airspace for the approach control function? [NAVAIR 00-80T-114]
6. If a letter of agreement specifies the application of separation minima less than that specified in FAAO JO 7110.65, has appropriate military authority authorized the reduced separation? [FAAO JO 7110.65]
7. Where aircraft will be controlled by both FAA and Naval ATCFs, is information to be transmitted by each facility the subject of a written agreement? [NAVAIR 00-80T-114]
8. When operations warrant a letter of agreement and MARSA will be applied, is the authority to invoke MARSA contained in the letter of agreement? [FAAO JO 7610.4]
9. Are information copies of local letters of agreement not specifically addressed by ATC NATOPS forwarded to CNO (N885F)? [OPNAVINST 3710.7 and NAVAIR 00-80T-114]
10. At out-CONUS locations is the ATCFO aware of the applicable portions of the treaties/agreements that apply to air traffic control? [NAVAIR 00-80T-114]



**B.2.5 Facility Watch Supervisor (USN)/Facility Watch Officer (USMC)**

1. Are Facility Watch Supervisors (FWSs) designated in writing by the commanding officer? [NAVAIR 00-80T-114]
2. Are Facility Watch Officers (FWOs) designated in writing by the ATCFO? [NAVAIR 00-80T-114]
3. Is an FWS/FWO on duty at the facility at all times during hours of operation? [NAVAIR 00-80T-114]
4. Are Facility Watch Supervisors qualified on all operating positions within the facility? [NAVAIR 00-80T-114]
5. If the FWS (or an appropriately qualified FWO) performs the duties of a branch supervisor, has the ATCFO authorized this combining of duties? [NAVAIR 00-80T-114]
6. Are Special Category FWSs designated by the commanding officer? [NAVAIR 00-80T-114]
7. Does the FWS/FWO ensure that an equipment checkout is performed at the beginning of each shift and malfunctions reported to appropriate agencies? [NAVAIR 00-80T-114]
8. Does the FWS/FWO ensure a proper crew briefing and an orderly watch turnover? [NAVAIR 00-80T-114]
9. Does the FWS/FWO prepare operating position assignments for those personnel under their supervision? [NAVAIR 00-80T-114]
10. Does the FWS/FWO ensure position currency, and accomplishment and documentation of training? [NAVAIR 00-80T-114]
11. Does the FWS/FWO ensure that complaints from pilots, adjacent facilities, and/or the general public are forwarded to the ATCFO? [NAVAIR 00-80T-114]
12. Does the FWS/FWO check and sign daily facility logs? [NAVAIR 00-80T-114]
13. Does the FWS/FWO sign on and off a position log? [NAVAIR 00-80T-114]

**B.2.6 Communications**

1. Are procedures for radio frequency changes below 2,500 feet for single-piloted aircraft in compliance with NATOPS? [OPNAVINST 3710.7]
2. At those airports where military single-piloted turbojet aircraft are regularly based, are procedures in place to provide single frequency approaches? [FAAO JO 7610.4]
3. Are SAR communications conducted on the frequency 282.8 MHz or other appropriate frequency as directed? [NAVAIR 00-80T-114]
4. Are emergency and distress frequencies 243.0 and 121.5 MHz used only to provide a communications channel to and from airborne and ground stations involved in an actual emergency or distress? [NAVAIR 00-80T-114]
5. Are all radio circuits, interphones, and telephones used for the control of air or vehicular traffic, including crash phone circuits, recorded continuously during hours of operation? [NAVAIR 00-80T-114]
6. Is position recording used for all operating positions? [NAVAIR 00-80T-114]
7. Are UHF guard, VHF guard, primary local control, primary approach control and ATIS frequencies recorded independently? [NAVAIR 00-80T-114]
8. Are original recordings retained for at least 15 days where the archive media is magnetic tape, or 45 days for locations where the media is a hard disk? [NAVAIR 00-80T-114]

9. Is there a sufficient supply of spare recording media to meet the 15 day retention requirement and replace recording media removed as a result of a mishap or incident? [NAVAIR 00-80T-114]
10. At joint facilities, if the FAA assumes recording responsibilities, have specific procedures/responsibilities been established? [NAVAIR 00-80T-114]
11. If recording equipment fails, is flight clearance and control data entered on appropriate flight progress strips? [NAVAIR 00-80T-114]
12. Are recording media changed by electronics maintenance personnel? [NAVAIR 00-80T-114]
13. Is each recorder channel checked as set forth in NATOPS? [NAVAIR 00-80T-114]
14. Is voice/data recording equipment locked except when maintenance actions are performed? Are keys under the custody of the electronics maintenance officer? [NAVAIR 00-80T-114]
15. During period of required retention, are voice/data recordings securely stored under the custody of the electronics maintenance officer? [NAVAIR 00-80T-114]
16. Is recorder identification, date of recording, and name of technician changing the voice/data recording annotated on each storage case/cartridge/reel? [NAVAIR 00-80T-114]

### B.2.7 Flight Inspection

1. Are navigation facilities flight inspected in accordance with criteria in the United States Standard Flight Inspection Manual? [NAVAIR 00-80T-114/NAVAIR 16-1-520]
2. Upon completion of flight inspections (if applicable), are appropriate NOTAMs issued/canceled to define any restrictions identified by the flight inspector? [NAVAIR 16-1-520]
3. Are FAA aircraft engaged in flight inspection of NAVAIDS provided maximum assistance? [NAVAIR 00-80T-114]
4. Are ATC procedural discrepancies noted during FAA surveillance flight inspections (on FAA Form 2711) reviewed and corrected? [NAVAIR 00-80T-114]
5. If TACAN restrictions exist, are restrictions to TACAN azimuth disseminated to users (e.g., NOTAM, published in flight information publications, published in Air Operations Manual)? [NAVAIR 16-1-520]
6. If TACAN restrictions exist, do the published restrictions match those of the most recent TACAN flight inspection report? [NAVAIR 16-1-520]
7. Have new/revised instrument procedures been flight inspected by FAA FIFO? [NAVAIR 16-1-520]
8. Are FAA flight inspection aircraft in the area of radar coverage utilized for fix accuracy checks? [NAVAIR 00-80T-114]

### B.2.8 Terminal Instrument Procedures (TERPS)

1. Does the facility have an individual trained and designated to implement and manage the facility's TERPS program? [NAVAIR 00-80T-114]
2. Are terminal instrument approach procedures, departure procedures, MVAC, TERPS Airfield Information Summary, TERPS Obstacle Summary, Facility Data Forms, and published aeronautical information reviewed locally on an annual basis and reported to NAVFIG as specified in ATC NATOPS? [NAVAIR 00-80T-114]
3. When TERPS obstacle, airfield and NAVAID data changes occur, is NAVFIG notified in writing as soon as possible? [NAVAIR 00-80T-114]



4. Does the ATCF maintain all applicable required source materials, as specified in ATC NATOPS, for terminal instrument procedures? [NAVAIR 00-80T-114]
5. Is the Airfield Survey and associated drawing prepared as set forth in ATC NATOPS? [NAVAIR 00-80T-114]
6. Is the TERPS Airfield Information Summary completed as set forth in NATOPS? [NAVAIR 00-80T-114]
7. Is the TERPS Obstacle Summary prepared as set forth in NATOPS? [NAVAIR 00-80T-114]
8. Are Plan View Drawings prepared as set forth in NATOPS? [NAVAIR 00-80T-114]
9. Are Facility Data Forms (FAA Form 8240-22) reviewed annually and new and revised forms forwarded to NAVFIG for further forwarding to FAA Flight Inspection Central Operations Technical Services Sub-Team? [NAVAIR 00-80T-114]
10. Are terminal instrument procedures established or revised when a reasonable need is identified, or where:
  - a. New navigation facilities are installed?
  - b. Changes to existing facilities necessitate a change to an approved procedure?
  - c. Additional procedures are necessary?
  - d. New obstacles or operational uses require a revision to the existing procedure? [OPNAVINST 3722.16]
11. Are the following minimum standards met for approved terminal instrument procedures:
  - a. Airport landing surfaces adequate to accommodate the aircraft which can be reasonably expected to use the procedure?
  - b. Runway lighting for night instrument operations?
  - c. Instrument and visual navigation aids which have passed flight inspection?
  - d. Obstacles which penetrate 14 CFR Part 77 imaginary surfaces marked and lighted, insofar as is reasonably possible?
  - e. Terminal weather observation and reporting facilities available for the airport to serve as an alternate airport?
  - f. Air-to-ground communications available at the IAF minimum altitude and when aircraft executing missed approach reaches the missed approach altitude? [OPNAVINST 3722.16]
12. Is every effort made to formulate terminal instrument procedures IAW the applicable portion of the TERPS Manual as determined by the type and location of navigation facility and procedure to be used? [OPNAVINST 3722.16]
13. When operational requirements dictate a departure from TERPS/NATOPS standards, does the request submitted to NAVFIG for authority to deviate contain:
  - a. Explanation of alternatives considered and why they are unacceptable, and
  - b. Information concerning planned use of the procedure by civil aircraft, and
  - c. Justification for the deviation? [NAVAIR 00-80T-114]
14. Is the Terminal Instrument Procedures Standards Waiver (NAVFIG Form 8) used to submit waiver requirements? [NAVAIR 00-80T-114]

## NAVAIR 00-80T-114

15. Do terminal instrument procedures which deviate from TERPS standards because of operational necessity, and in which an equivalent level of safety is not achieved, include a cautionary note to identify the hazard and marked “not for civil use”? [OPNAVINST 3722.16]
16. Are changes in instrument procedures which affect fix, course, altitude or published minimums, prepared and forwarded to NAVFIG for approval in the same manner as in the case of new procedures? [NAVAIR 00-80T-114/OPNAVINST 3722.16]
17. Prior to submission to NAVFIG, is coordination effected with appropriate en route and approach control agencies (and if applicable, overseas host nation) to ensure compatibility of new or revised terminal instrument procedures with air traffic flow and to assess the impact on current or future air traffic programs? [OPNAVINST 3722.16/NAVAIR 00-80T-114]
18. Is a record of coordination maintained when establishing or revising terminal instrument procedures? [OPNAVINST 3722.16]
19. Do coordinating military and civil authorities sign the appropriate NAVFIG form(s) for terminal instrument procedures? [NAVAIR 00-80T-114]
20. Where action to designate controlled airspace for an instrument procedure is planned, is the airspace action initiated sufficiently in advance so that effective dates of the procedure and the airspace action coincide? [OPNAVINST 3722.16]
21. Are new or revised terminal instrument procedures required between annual reporting submitted on the form specified in ATC NATOPS to NAVFIG for review, approval and publication? [NAVAIR 00-80T-114]
22. Is submission of new or revised terminal instrument procedures submitted as far in advance (normally not less than 60 days) of their desired effective date? [NAVAIR 00-80T-114]
23. Do requests for approval of terminal instrument procedures utilizing new, relocated, or modified NAVAIDS/radar facilities indicate that a facility flight check has been conducted and the NAVAID suitable for instrument flight operations? [NAVAIR 00-80T-114]
24. Is each terminal instrument procedure flight checked by FAA aircraft for safety and operational suitability? [NAVAIR 00-80T-114]
25. Are the results of the instrument procedures flight check submitted to NAVFIG when instrument procedures are processed? [NAVAIR 00-80T-114]
26. When temporary conditions affecting an approach procedure constitute a hazard to flight, is a NOTAM issued amending or suspending the affected approach procedure? [NAVAIR 00-80T-114]
27. In case of emergencies (i.e., facility outages/out of tolerance conditions, new construction which penetrates critical surfaces, etc.) is a NOTAM issued to change affected instrument procedure minimums? [OPNAVINST 3722.16]
28. Is there a sufficient number of terminal instrument procedures to provide approach and departure capabilities for local and transient flight operations? [NAVAIR 00-80T-114]
29. Does each low-altitude procedure prescribe minimums for category A, B, C and D aircraft? [NAVAIR 00-80T-114]
30. Does each high-altitude procedure prescribe minimums for category C, D and E aircraft? [NAVAIR 00-80T-114]
31. Are terminal instrument procedures for use by “helicopters only” so annotated? [NAVAIR 00-80T-114]

32. Are procedures and missed approaches designed to:
  - a. Avoid the necessity for NAVAID frequency/channel change, and transponder code changes below 2,500 feet AGL?
  - b. Eliminate the need to shift NAVAID frequencies after commencing an approach (for procedures primarily for high performance, single-piloted aircraft; or aircraft without dual receiver capability)? [NAVAIR 00-80T-114]
33. If visibility credit for approach lighting has been applied, has coordination been effected with COMNAVAIRSYSCOM (PMA251) to ascertain whether or not the approach lighting system qualifies for the visibility credit? [NAVAIR 00-80T-114]
34. Do sidestep procedures conform to conditions as set forth in NATOPS? [NAVAIR 00-80T-114]
35. When establishing PAR/ASR procedures, are the guidelines as set forth in NATOPS given consideration? [NAVAIR 00-80T-114]
36. If applicable and when established, are PALS and TRN-28 approaches prepared and submitted as set forth in NATOPS? [NAVAIR 00-80T-114]
37. If terminal instrument procedures and MVAC are beyond the triennial NAVFIG review/approval date (and a waiver has not been granted), is an active NOTAM in force placing all terminal instrument procedures out of service, and radar vectoring services unavailable? [NAVAIR 00-80T-114]
38. For cancellation of terminal instrument procedures, is NAVFIG notified as soon as relevant information is known (normally not later than 30 days prior to effective date of cancellation)? [NAVAIR 00-80T-114]
39. Are terminal instrument procedure cancellations coordinated well in advance with ATC activities concerned? [NAVAIR 00-80T-114]
40. When the FLIP revision date occurs subsequent to the effective date of procedure cancellation, is cancellation effected by NOTAM? [NAVAIR 00-80T-114]
41. Is the FAA informed when terminal instrument procedures are cancelled? [OPNAVINST 3722.16]
42. Has an MVAC been developed (and updated as required) as specified in ATC NATOPS to allow for vectoring of aircraft? [NAVAIR 00-80T-114]
43. Does the ATC Facility coordinate MVAC revisions with affected military and/or civil ATC authorities? [NAVAIR 00-80T-114]
44. If not an approach control, is the ATC Facility's MVAC compatible with the parent approach control MVAC? [NAVAIR 00-80T-114]
45. Are new or revised MVAC submitted to NAVFIG via the RAC for review and approval? [NAVAIR 00-80T-114]
46. Is the MVAC reviewed locally on an annual basis to ensure conformance with TERPS and ATC NATOPS and reviewed/approved by NAVFIG triennially? [NAVAIR 00-80T-114]
47. If radar data is provided by a feed from one or more ARSRs, or a feed from more than one terminal radar, has a Long Range MVAC been developed? [NAVAIR 00-80T-114]
48. Do any trees, shrubs or bushes penetrate the approach departure clearance surface area of Clear Zone III? [P-80.3]

49. Do reviews of proposed construction or alteration of structures affecting navigable airspace include evaluation of aeronautical effect as well as evaluation of electromagnetic effect? [OPNAVINST 3770.2]
50. Are obstruction standards in 14 CFR Section 77.28 applied to existing and proposed man-made objects including mobile objects, objects of natural growth, and terrain wherever they may be located? [FAAO JO 7400.2]
51. When responding to notices of proposed construction, are determinations made with respect to impact on aeronautical operations and procedures, airport operations and efficiency, and/or air navigation facilities as well as line-of-sight and physical or electromagnetic interference effect of the proposal on the use of the navigable airspace and the operation of air navigation facilities? [FAAO JO 7400.2]

### B.2.9 Incidents

1. During aircraft emergencies, are only those personnel absolutely necessary and required to provide technical advice allowed within the ATC Facility? [NAVAIR 00-80T-114]
2. Following an aircraft mishap or incident, do ATCF supervisory personnel:
  - a. Notify appropriate personnel designated in local directives?
  - b. Request and obtain a weather observation?
  - c. Cause the removal and safeguarding of any tapes which are, or may be, pertinent to the mishap or incident? [NAVAIR 00-80T-114]
3. Are ATCF personnel who appear to have contributed to a mishap or an incident which jeopardizes safety of aircraft temporarily relieved of operational duty and referred to a military flight surgeon for physical/psychological evaluation? [NAVAIR 00-80T-114]
4. If subsequent in-depth investigation reveals that the controller was responsible for or contributory to the error, are the minimum prerequisite actions as listed in ATC NATOPS, paragraph 3.7.7, taken prior to reassignment to operational duty? [NAVAIR 00-80T-114]
5. Following an aircraft mishap or incident, are statements obtained from controller and supervisory personnel involved? [NAVAIR 00-80T-114]
6. Are typewritten transcriptions prepared for all formal mishap packages? [NAVAIR 00-80T-114]
7. Are procedures/equipment in place to re-record pertinent original voice recordings as soon as possible after a mishap occurs? [NAVAIR 00-80T-114]
8. Are tabs removed from cassettes containing re-recordings? [NAVAIR 00-80T-114]
9. Is CNO (N885F) advised of requests for viewing or duplicating original recordings that may be evidence in a non-U.S. Government investigation? [NAVAIR 00-80T-114]
10. Are tapes or information thereon released to another party only with the consent of the Commanding Officer? [NAVAIR 00-80T-114]
11. Is a chain of custody established for all original voice and video recordings prior to release to appropriately authorized agencies or officials? [NAVAIR 00-80T-114]
12. Are air traffic system hazards reported immediately to supervisory personnel? [NAVAIR 00-80T-114]
13. Is the ATCFO briefed on air traffic system hazards? [NAVAIR 00-80T-114]

14. Does the ATCFO identify any and all deficiencies contributing to air traffic system hazards and take appropriate corrective actions using the Operational Risk Management (ORM) process?  
[NAVAIR 00-80T-114/OPNAVINST 3500.39]
15. Does the ATCFO report air traffic system hazards per OPNAVINST 3750.6?  
[NAVAIR 00-80T-114/OPNAVINST 3750.6]
16. Are air traffic system hazards which involve civilian aircraft reported to the appropriate NAVREP?  
[OPNAVINST 3750.6]
17. Have local procedures been established for ATC personnel to follow when observing violations of flying regulations? [NAVAIR 00-80T-114/OPNAVINST 3710.7]
18. Are procedures in place to ensure that any equipment alterations or adjustments made on equipment which might have contributed to an incident are not conducted without the consent of the ATCFO?  
[NAVAIR 00-80T-114]
19. Are procedures in place to ensure that if a radar facility is, or is suspected to have been, involved in a mishap or incident, the following action is taken?
  - a. A check of scope, video map, and cursor alignment?
  - b. If doubt exists that equipment performance is satisfactory, is such equipment placed out of service until complete technical evaluation and appropriate flight checks can be accomplished? [NAVAIR 00-80T-114]

## B.2.10 Medical

1. Do all air traffic controllers meet the physical requirements of 14 CFR Part 67 and maintain a current annual physical per physical standards established in MANMED? [NAVAIR 00-80T-114]
2. Do all air traffic controllers have a current Clearance Notice (NAVMED 6410/2) on file?  
[NAVAIR 00-80T-114]
3. As directed in MANMED Article 15-95, are DOD civilian controllers (if assigned) examined in military medical treatment facilities by a naval flight surgeon? [NAVAIR 00-80T-114]
4. Do air traffic controllers report any physical disposition to superiors and assume operational duties only when fit to do so? [NAVAIR 00-80T-114]
5. Does the ATCFO ensure that ATC personnel are adequately observed and appropriate grounding action taken when necessary? [NAVAIR 00-80T-114]
6. Does the ATCFO suspend from ATC duties all air traffic controllers who have not met physical examination requirements? [NAVAIR 00-80T-114]
7. Do military flight surgeons conduct interviews and/or physical examinations for ATC personnel?  
[NAVAIR 00-80T-114]
8. Are policies regarding use of drugs/sedatives known to controllers and enforced by ATCF management?  
[NAVAIR 00-80T-114]
9. Do ATC personnel who have donated blood perform ATC functions or directly supervise personnel performing these functions only after a minimum of 24 hours has elapsed since the blood was donated?  
[NAVAIR 00-80T-114]
10. Are requests for waivers of physical standards processed as set forth in NATOPS? [NAVAIR 00-80T-114]
11. If classified NPQ, are military air traffic controllers not permitted to transfer to perform ATC duties until a waiver of physical standards is approved by CHNAVPERSCMC? [NAVAIR 00-80T-114]

**B.3 FLIGHT PLANNING****B.3.1 General**

1. Is a daily operations log maintained by the supervisor on duty? [NAVAIR 00-80T-114]
2. Does the daily operations log contain all required information? [NAVAIR 00-80T-114]
3. Is a position log maintained for each operating position? [NAVAIR 00-80T-114]
4. Have position relief checklists been established for each supervisory/operating position and are they used? [NAVAIR 00-80T-114]
5. Are checklists established to ensure that hazardous cargo information is passed to all affected base support agencies? [OPNAVINST 3710.31]
6. Is Coordinated Universal Time (UTC) used for entries on all forms, logs and written records, and radio and landline communications? [NAVAIR 00-80T-114]
7. Is local time used for facility work schedules, daily traffic counts, and administrative forms and correspondence? [NAVAIR 00-80T-114]
8. Is an equipment checkout performed at the beginning of each shift and malfunctions reported to appropriate agencies? [NAVAIR 00-80T-114]
9. Is a reliable and accurate clock visible from each operating position? [NAVAIR 00-80T-114]
10. Are time checks obtained at the start of each watch? [NAVAIR 00-80T-114]
11. Are clocks set to agree with those of the approach control facility? [NAVAIR 00-80T-114]
12. Are ATC procedures and phraseology as prescribed in FAAO JO 7110.65? [NAVAIR 00-80T-114]
13. Are procedures established to ensure aircraft are kept informed of the latest reported weather and actual field conditions? [OPNAVINST 3710.7]
14. Do individuals perform duties as a controller under general supervision only at those positions qualified? [NAVAIR 00-80T-114]
15. When assigned to operating positions, are trainees under the direct and constant supervision of a controller qualified on the position concerned? [NAVAIR 00-80T-114]
16. Does the OJT instructor use the same radio console as the trainee when override capability does not exist from an adjacent console? [NAVAIR 00-80T-114]
17. Does each controller possess an ATCS Certificate? [NAVAIR 00-80T-114]
18. Does each controller possess a CTO Certificate or Airman Written Test Report? [NAVAIR 00-80T-114]
19. Is the Flight Planning Chief designated in writing by the ATCFO? [NAVAIR 00-80T-114]
20. Does the Flight Planning Chief properly perform the duties and responsibilities set forth in paragraph 5.1.3.1? [NAVAIR 00-80T-114]
21. Are Flight Planning Supervisors designated in writing by the ATCFO? [NAVAIR 00-80T-114]

22. Do Flight Planning Supervisors properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
23. Do Flight Planning Dispatchers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
24. If flight planning is equipped with the secondary crash phone, is mishap notification as set forth in NATOPS? [NAVAIR 00-80R-14]
25. Is a current crash locator grid readily available in flight planning? [NAVAIR 00-80R-14]
26. Do accommodations for flight planning include:
  - a. Wall space for the display of required aeronautical information
  - b. Plotting tables and storage for charts
  - c. Publications and forms required by aircrews? [NAVAIR 00-80T-114]
27. When an AISR equipment outage occurs or is anticipated, are ARTCC, FSS and the AISR Technical Support Help Desk notified? [NAVAIR 00-80T-114]
28. When aircraft carrying hazardous cargo are declared missing or overdue, is the appropriate RCC informed of the nature of the hazardous cargo and of positive measures required to accomplish the rescue? [OPNAVINST 3710.31]

### B.3.2 Flight Plans

1. Does the Flight Planning Branch provide for planning, receiving and processing flight plans? [NAVAIR 00-80T-114]
2. Are flight plan and flight movement messages completed/processed in accordance with procedures outlined in FAAO JO 7110.10? [NAVAIR 00-80T-114]
3. Do flight planning personnel ensure that flight plans are closed out when pilots either verbally confirm closing the flight plan or deliver a copy of the flight plan to flight planning? [NAVAIR 00-80T-114]
4. Are modifications to a written flight plan made only with the concurrence of the pilot in command? [NAVAIR 00-80T-114]
5. Are copies of all flight plan forms, flight schedules, OPS logs, aircraft clearance/arrival reports and other associated forms filed with flight plans retained for a period of 6 months? [NAVAIR 00-80T-114]

### B.3.3 Charts and Publications

1. Does the Flight Planning Branch maintain a current inventory of aeronautical charts, publications, applicable directives, related information and navigation equipment in sufficient quantity to support the activity mission? [NAVAIR 00-80T-114]
2. Are aeronautical data and facility information accurately published in flight information publications? [NAVAIR 00-80T-114]
3. Are procedures established to ensure that facility information in publications remain accurate and complete? [NAVAIR 00-80T-114]
4. Are FLIP changes submitted in order to coincide with publication cycles? [OPNAVINST 3721.20]
5. Are FLIP changes submitted for any reportable condition expected to last more than 90 days? [OPNAVINST 3721.20]

6. Are PCN, ECN, TCN or UCN installed promptly in flight information publications? [NAVAIR 00-80T-114]
7. Is local area information (VFR corridors, terrain hazards, etc.) prominently displayed to assist aircrews? [NAVAIR 00-80T-114]
8. Is a general flight planning chart prominently displayed? [NAVAIR 00-80T-114]

#### **B.3.4 NOTAMs**

1. Does Base Operations have the ability to access the DINS web site to view, query and create NOTAMs? [OPNAVINST 3721.20]
2. Is necessary funding received for NOTAM processing equipment to guarantee continuous access to the USNS database? [OPNAVINST 3721.20]
3. If an alternate computer is available for NOTAM processing, does its account certification expiration date differ from that of the primary computer to ensure continuous processing capability? [OPNAVINST 3721.20]
4. Do aircrews have a way to retrieve NOTAM information? [OPNAVINST 3721.20]
5. Are knowledgeable personnel available to assist aircrews with the NOTAM system when required? [OPNAVINST 3721.20]
6. Is the Flight Planning Chief familiar with the process to contact the USNOF to resolve problems with NOTAM input or format procedures? [OPNAVINST 3721.20]
7. Are NOTAMs processed using the criteria discussed in [Chapter 4](#) of the NOTAM instruction? [OPNAVINST 3721.20]
8. Is NOTAM information submitted describing changes in conditions that affect flight operations on airfields or in airspace for which the station has NOTAM responsibility? [OPNAVINST 3721.20]
9. Are Safety NOTAMs submitted no earlier than 3 days prior to the expected condition? [OPNAVINST 3721.20]
10. Is new NOTAM information submitted within 15 minutes of receipt or discovery? [OPNAVINST 3721.20]
11. If it is determined that a NAVAID (not part of the NAS) can be returned to service in less than 2 hours, are NOTAMs delayed only if the conditions stipulated in [Chapter 2](#) of the NOTAM instruction exist? [OPNAVINST 3721.20]
12. Is UTC used for all dates and times in NOTAMs? [OPNAVINST 3721.20]
13. Are NOTAMs, military or civilian, that correspond to airfields and airspace under their jurisdiction monitored for accuracy and currency? [OPNAVINST 3721.20]
14. Is coordination effected with NAVFIG prior to sending a NOTAM to correct a FLIP error? [OPNAVINST 3721.20]
15. Are active NOTAMs cancelled when the conditions no longer exist or NGA publishes the information in FLIP? [OPNAVINST 3721.20]
16. Are any NOTAMs active for more than 90 days? [OPNAVINST 3721.20]
17. Are NOTAM transmission forms retained for 15 days? [OPNAVINST 3721.20]
18. If a mishap/incident occurs, are NOTAM transmission forms retained as a historical document with the mishap/incident file? [OPNAVINST 3721.20]



19. If providing backup NOTAM support for another DOD installation on a permanent or long-term basis, has an LOA been established? [OPNAVINST 3721.20]
20. If a joint-use airfield, has an LOA been established to assure proper NOTAM responsibility, handling, and authority? [OPNAVINST 3721.20]
21. If a tenant on a host nation military aerodrome and issuing NOTAMs, has an LOA been established permitting this issuance? [OPNAVINST 3721.20]

## **B.4 CONTROL TOWER**

### **B.4.1 General**

1. Is a daily operations log maintained by the supervisor on duty? [NAVAIR 00-80T-114]
2. Does the daily operations log contain all required information? [NAVAIR 00-80T-114]
3. Is a position log maintained for each operating position? [NAVAIR 00-80T-114]
4. Have position relief checklists been established for each supervisory/operating position and are they used? [NAVAIR 00-80T-114]
5. Are checklists established to ensure that hazardous cargo information is passed to all affected base support agencies? [OPNAVINST 3710.31]
6. Is UTC used for entries on all forms, logs and written records, and radio and landline communications? [NAVAIR 00-80T-114]
7. Is local time used for facility work schedules, daily traffic counts, and administrative forms, and correspondence? [NAVAIR 00-80T-114]
8. Is an equipment checkout performed at the beginning of each shift and malfunctions reported to appropriate agencies? [NAVAIR 00-80T-114]
9. Do maintenance technicians keep ATCF supervisory personnel apprised of equipment status? [NAVAIR 00-80T-114]
10. Are maintenance technicians available to ATCF supervisory personnel to confirm controller judgment regarding equipment malfunctions? [NAVAIR 00-80T-114]
11. Is a reliable and accurate clock visible from each operating position? [NAVAIR 00-80T-114]
12. Are time checks obtained at the start of each watch? [NAVAIR 00-80T-114]
13. Are clocks set to agree with those of the approach control facility? [NAVAIR 00-80T-114]
14. Are ATC procedures and phraseology as prescribed in FAAO JO 7110.65? [NAVAIR 00-80T-114]
15. Is the broadcasting of information which is available to the pilot in flight information publications held to a minimum? [NAVAIR 00-80T-114]
16. Are procedures established to ensure aircraft are kept informed of the latest reported weather and actual field conditions? [OPNAVINST 3710.7]
17. Are weather reports, advisories, and radar monitored to determine when severe weather activity is approaching the facility? [NAVAIR 00-80T-114]

## NAVAIR 00-80T-114

18. Are PIREPs requested when required? [FAAO JO 7710.65]
19. Do individuals perform duties as a controller under general supervision only at those sectors or positions qualified? [NAVAIR 00-80T-114]
20. When assigned to operating positions, are trainees under the direct and constant supervision of a controller qualified on the position concerned? [NAVAIR 00-80T-114]
21. Does the OJT instructor use the same radio console as the trainee when override capability does not exist from an adjacent console? [NAVAIR 00-80T-114]
22. Does each controller possess an ATCS Certificate? [NAVAIR 00-80T-114]
23. Does each controller possess a CTO Certificate or Airman Written Test Report? [NAVAIR 00-80T-114]
24. Is the Control Tower Chief designated in writing by the ATCFO? [NAVAIR 00-80T-114]
25. Does the Control Tower Chief possess a CTO rating for the control tower assigned? [NAVAIR 00-80T-114]
26. Are Control Tower Supervisors designated in writing by the ATCFO? [NAVAIR 00-80T-114]
27. Do Control Tower Supervisors possess a CTO rating for the control tower assigned? [NAVAIR 00-80T-114]
28. Do Control Tower Supervisors normally combine with a control position? [NAVAIR 00-80T-114]
29. Are wheels down reports completed at an appropriate point? [OPNAVINST 3710.7]
30. Is airfield lighting operated per FAAO JO 7110.65? [NAVAIR 00-80T-114]
31. Are light signals used for controlling vehicles only when the control tower experiences an outage of radio equipment? [NAVAIR 00-80T-114]
32. Are the conditions and/or limitations of the tower radar display operation specified by facility directive or letter of agreement, as appropriate? [NAVAIR 00-80T-114]
33. Is an airfield diagram displayed in the control tower? [NAVAIR 00-80T-114]
34. Does the airfield diagram include all required items? [NAVAIR 00-80T-114]
35. Is an airport status board displayed in the control tower? [NAVAIR 00-80T-114]
36. Does the airport status board include all required items? [NAVAIR 00-80T-114]
37. Is the tower visibility chart(s) prepared and maintained in conjunction with NAVMETOC personnel? [NAVAIR 00-80T-114]
38. Does the tower visibility chart(s) contain all required information? [NAVAIR 00-80T-114]
39. Do local procedures require Tower Visibility Observers to receive On-The-Job-Training through an ATC Facility Local Qualification Standard (LQS) for local daytime and nighttime visibility markers? [NAVMETOC COMINST 1500.3/NAVAIR 00-80T-114]
40. Is the qualification/certification of controllers as Tower Visibility Observers per NAVMETOC COMINST 1500.3? [NAVAIR 00-80T-114/NAVMETOC COMINST 1500.3]
41. Are approaching/departing aircraft notified (directly or via ATIS) concerning HERO/EMCON conditions in effect? [NAVAIR 00-80T-103]

42. Are aircraft with “hung” ordnance of any type prohibited from hot refueling? [NAVAIR 00-80T-103]
43. Are explosive loaded combat aircraft prohibited from the fuel pits? [NAVAIR 00-80T-103]
44. Are aircraft with pods and dispensers loaded with decoy flares prohibited from hot refueling? [NAVAIR 00-80T-103]
45. Are aircraft with hung ordnance prohibited from conducting touch-and-go or FCLP training? [NAVAIR 00-80T-103]
46. Is every effort made to ensure that aircraft with hung ordnance are handled expeditiously and that flight over inhabited areas/public roadways is minimized? [NAVAIR 00-80T-103]
47. Do aircraft with hung ordnance normally have priority over routine air traffic? [NAVAIR 00-80T-103]
48. Are aircraft with externally carried unexpended ordnance prohibited from conducting touch-and-go or FCLP training when the landing pattern flight path is over inhabited areas/public roadways? [NAVAIR 00-80T-103]
49. Do cargo aircraft loaded with explosives proceed to and from the duty runway by a route that affords the greatest practical separation to inhabited buildings, combat aircraft parking area, and explosive storage areas? [NAVAIR 00-80T-103]
50. Are cargo aircraft loaded with explosives prohibited from making stops when proceeding to or from the duty runway except as necessary for safe ground operation of the aircraft? [NAVAIR 00-80T-103]

#### **B.4.2 Responsibilities**

1. Does the Control Tower Chief properly perform the duties and responsibilities set forth NATOPS? [NAVAIR 00-80T-114]
2. Do Control Tower Supervisors properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
3. Do Local Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
4. Do Local Controllers maintain a continuous visual surveillance of their airspace and airport movement areas? [NAVAIR 00-80T-114]
5. Do Ground Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
6. Do Ground Controllers exercise general surveillance of the airport movement area? [NAVAIR 00-80T-114]
7. Do Flight Data operators properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
8. Do Clearance Delivery operators properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
9. Is the responsibility for updating and monitoring ATIS broadcasts and disseminating current ATIS messages assigned to a specific position of operation? [NAVAIR 00-80T-114]
10. Which Control Tower Branch operating positions, if any, have been added, deleted, combined, or integrated to meet local requirements? [NAVAIR 00-80T-114]
11. Does the control tower retain final responsibility and authority for separation and control of all aircraft in the surface area during FCLP operations? [NAVAIR 00-80T-114]
12. Where authorized, are preventive control procedures in compliance with NATOPS? [OPNAVINST 3710.7]

- 13. Where applicable, are reduced runway separation standards in compliance with NATOPS? [OPNAVINST 3710.7]
- 14. Where applicable, are reduced runway separation standards for “other military” services in compliance with NATOPS? [OPNAVINST 3710.7]
- 15. Where applicable, are procedures for intersection departures in compliance with NATOPS? [OPNAVINST 3710.7]
- 16. Are runway braking action advisories issued in compliance with NATOPS? [OPNAVINST 3710.7]
- 17. Are tower controllers thoroughly indoctrinated in the external gear down indications of the aircraft normally operated from their facility? [NAVAIR 00-80T-114]
- 18. Workload permitting, do tower controllers closely observe each aircraft in the final stages of the landing approach? [NAVAIR 00-80T-114]
- 19. Do tower controllers remind pilots to check wheels down at an appropriate position in the pattern unless the pilot has previously reported wheels down? [NAVAIR 00-80T-114]
- 20. If unidirectional arresting gear cannot be promptly de-rigged and cables removed for emergencies requiring immediate landing, do controllers inform the pilot of the arresting gear hazard? [NAVAIR 00-80T-114]
- 21. Do Control Tower Supervisors and Local Controllers ensure that taxi, departure, and landing clearances do not require aircraft to roll over an “out of battery” arresting gear? [NAVAIR 00-80T-114/NAWCAD Lakehurst Advisory]
- 22. When using emergency and distress frequencies in an actual emergency/distress and time permits, do facility personnel identify that they are on guard frequencies? [NAVAIR 00-80T-114]
- 23. Is mishap notification as set forth in NATOPS? [NAVAIR 00-80R-14]
- 24. Is a current crash locator grid readily available in the control tower? [NAVAIR 00-80R-14]
- 25. Do controllers refrain from transmitting to aircraft during the most critical phases of flight — final approach, touchdown, landing roll, takeoff and initial climb to the first turn away from the airfield unless conditions affecting safety of flight are observed or known to exist? [NAVAIR 00-80T-114]
- 26. Are local operating procedures prescribed for OLS rheostat positioning to facilitate setting the optimum intensity during varying light conditions? [NAVAIR 00-80T-114]

#### **B.4.3 Equipment**

- 1. Is the Control Tower equipped as specified in NATOPS? [NAVAIR 00-80T-114]
- 2. Do two-way direct communications exist between the control tower and LSO/RDO during FCLP operations? [NAVAIR 00-80T-114]
- 3. Are telephones in the control tower assigned unpublished numbers or modified so as not to ring in the control tower? [NAVAIR 00-80T-114]
- 4. If the airfield has a PAPI system, is it manually controlled from the control tower? [NAVAIR 51-50AAA-2]
- 5. If installed, are the runway waveoff lights controllable from the control tower? [NAVAIR 00-80T-114/NAVAIR 51-50AAA-2]
- 6. Do daily equipment checks ensure the tower radar display system accuracy and proper display alignment? [NAVAIR 00-80T-114]

7. Is the mobile/portable control tower under the operational custody of the ATCFO? [NAVAIR 00-80T-114]
8. Is the current BRANDS site unique data (SUDs) or STARS adaptation data (as appropriate) incorporated into the facility's operational software program? [NAVAIR 00-80T-114]
9. Are changes to BRANDS SUDs or STARS adaptation data (as appropriate) submitted to NAWCAD (4.5.9.2) as set forth in the Shore CCSB Policy and Procedures Manual? [NAVAIR 00-80T-114]
10. Are two pair of binoculars (7 x 50 power or stronger) available in the control tower? [NAVAIR 00-80T-114]
11. Is a dedicated emergency fire and rescue radio network provided? [NAVAIR 00-80T-114]
12. Is a fixed base station for the fire and rescue radio network installed in the control tower? [NAVAIR 00-80T-114]
13. Is a direct wire primary aircraft emergency alarm intercommunication system (crash phone) installed in the control tower and at other locations set forth by NATOPS? [NAVAIR 00-80R-14]
14. Is a secondary aircraft emergency alarm intercommunication system installed as set forth by NATOPS? [NAVAIR 00-80R-14]
15. Are the primary and secondary aircraft emergency alarm intercommunication systems (crash phone) tested daily? [NAVAIR 00-80R-14]
16. Are there evacuation alarms for remote sites near the runways (PAR/PALS/TACAN, etc.), are they tested daily and are the results logged? [NAVAIR 00-80T-114]

#### **B.4.4 Airfield**

1. If installed, is the OLS turned on at all times when the associated runway is in use? [NAVAIR 00-80T-114]
2. Is unidirectional arresting gear de-rigged and cables removed prior to runway use when engagement direction is opposite runway of intended use? [NAVAIR 00-80T-114]
3. Are the arresting gear "out of battery" lights visible from the tower? [E-28 Service Change No. 31]

### **B.5 RADAR**

#### **B.5.1 General**

1. Is a daily operations log maintained by the supervisor on duty? [NAVAIR 00-80T-114]
2. Does the daily operations log contain all required information? [NAVAIR 00-80T-114]
3. Is a position log maintained for each operating position? [NAVAIR 00-80T-114]
4. Have position relief checklists been established for each supervisory/operating position and are they used? [NAVAIR 00-80T-114]
5. Are checklists established to ensure that hazardous cargo information is passed to all affected base support agencies? [OPNAVINST 3710.31]
6. Is Coordinated Universal Time (UTC) used for entries on all forms, logs and written records, and radio and landline communications? [NAVAIR 00-80T-114]
7. Is local time used for facility work schedules, daily traffic counts, and administrative forms and correspondence? [NAVAIR 00-80T-114]

8. Is an equipment checkout performed at the beginning of each shift and malfunctions reported to appropriate agencies? [NAVAIR 00-80T-114]
9. Do maintenance technicians keep ATCF supervisory personnel apprised of equipment status? [NAVAIR 00-80T-114]
10. Are maintenance technicians available to ATCF supervisory personnel to confirm controller judgment regarding equipment malfunctions? [NAVAIR 00-80T-114]
11. Is a reliable and accurate clock visible from each operating position? [NAVAIR 00-80T-114]
12. Are time checks obtained at the start of each watch? [NAVAIR 00-80T-114]
13. At non-approach control facilities, are clocks set to agree with those of the approach control facility? [NAVAIR 00-80T-114]
14. At approach control facilities, are clocks set to agree with those of the en route facility? [NAVAIR 00-80T-114]
15. Are ATC procedures and phraseology as prescribed in FAAO JO 7110.65? [NAVAIR 00-80T-114]
16. Is the broadcasting of information which is available to the pilot in flight information publications held to a minimum? [NAVAIR 00-80T-114]
17. Are procedures established to ensure aircraft are kept informed of the latest reported weather and actual field conditions? [OPNAVINST 3710.7]
18. Are weather reports, advisories, and radar monitored to determine when severe weather activity is approaching the facility? [NAVAIR 00-80T-114]
19. Are PIREPs requested when required? [FAAO JO 7110.65]
20. Do individuals perform duties as a controller under general supervision only at those sectors or positions qualified? [NAVAIR 00-80T-114]
21. When assigned to operating positions, are trainees under the direct and constant supervision of a controller qualified on the position concerned? [NAVAIR 00-80T-114]
22. Does the OJT instructor use the same radio console as the trainee when override capability does not exist from an adjacent console? [NAVAIR 00-80T-114]
23. Does each controller possess an ATCS Certificate? [NAVAIR 00-80T-114]
24. Does each controller possess a CTO Certificate or Airman Written Test Report? [NAVAIR 00-80T-114]
25. Is the Radar Chief designated in writing by the ATCFO? [NAVAIR 00-80T-114]
26. Does the Radar Chief possess the appropriate ATCS certification for the facility assigned? [NAVAIR 00-80T-114]
27. Are Radar Supervisors designated in writing by the ATCFO? [NAVAIR 00-80T-114]
28. Are Radar Supervisors qualified on all radar operating positions and do they possess the ATCS rating for the facility assigned? [NAVAIR 00-80T-114]
29. Are Approach Controllers TRACON-rated? [NAVAIR 00-80T-114]
30. Which Radar Branch operating positions, if any, have been added, deleted, or combined to meet local requirements? [NAVAIR 00-80T-114]

31. Are wheels down reports completed at an appropriate point? [OPNAVINST 3710.7]
32. For a Class IIIA/B Facility which is provided IFR service by an FAA facility, are details concerning the release of arriving and/or departing aircraft to the radar branch contained in a letter of agreement? [FAAO JO 7610.4]
33. Are unauthorized scope markings used in lieu of an adequate video mapper or electronic cursor? [NAVAIR 00-80T-114]
34. Is video map data limited to reduce scope clutter and increase operational efficiency? [NAVAIR 00-80T-114]
35. Does each video map display a minimum of two permanent echoes? [NAVAIR 00-80T-114]
36. To the extent practicable, is fix and/or video map accuracy verified with position reports made by pilots, by cross-reference to airborne navigation equipment or known geographic positions? [NAVAIR 00-80T-114]
37. Is a usable target return maintained along the entire airway/route or arrival/departure control routes for which radar service is provided? [NAVAIR 00-80T-114]
38. Does the surveillance approach course line coincide nearly as practicable with the runway centerline extended? [NAVAIR 00-80T-114]
39. Are PAR alignment photographs readily available to the radar final controller to facilitate radar performance checks? [NAVAIR 00-80T-114]
40. Are PAR alignment photographs provided for each runway to which PAR approaches are established? Are radar reflectors clearly displayed? [NAVAIR 00-80T-114]
41. Are PAR alignment photographs reviewed annually? [NAVAIR 00-80T-114]
42. Have PAR alignment photographs been updated due to “radar picture” variables such as construction and change in vegetation? What is date of current photographs? [NAVAIR 00-80T-114]

### **B.5.2 Responsibilities**

1. Does the Radar Chief properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
2. Do Radar Supervisors properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
3. Is the Radar Supervisor position normally not combined with a control position? [NAVAIR 00-80T-114]
4. Do Approach Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
5. Do Departure Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
6. Is verification of video map accuracy accomplished in the manner specified in ATC NATOPS? [NAVAIR 00-80T-114]
7. Is verification of radar video accuracy accomplished in the manner specified in ATC NATOPS? [NAVAIR 00-80T-114]
8. Do Flight Data operators properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
9. Do Final Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
10. Is verification of PAR alignment accomplished by final controllers in the manner prescribed in ATC NATOPS? [NAVAIR 00-80T-114]

11. To obtain maximum signal return from aircraft targets, do final controllers adjust azimuth antenna servo and elevation antenna servo in the manner specified in ATC NATOPS? [NAVAIR 00-80T-114]
12. To facilitate accurate and precise aircraft target relationship to elevation and azimuth cursors, do final controllers adjust IF GAIN to create the smallest possible usable target? [NAVAIR 00-80T-114]
13. Do radar final controllers issue precise glidepath information in the manner prescribed in ATC NATOPS? [NAVAIR 00-80T-114]
14. Whenever completion of a safe approach is questionable because safety limits are exceeded or radical target deviations are observed, do final controllers issue instructions in the manner prescribed in FAAO JO 7110.65 and ATC NATOPS? [NAVAIR 00-80T-114]
15. Are procedures for Final Approach Abnormalities during radar approaches in compliance with NATOPS? [OPNAVINST 3710.7]
16. Are mandatory missed approach procedures in compliance with NATOPS? [OPNAVINST 3710.7]
17. Are trainees assigned to final control positions only when the weather is at or greater than 1000/3? [NAVAIR 00-80T-114]
18. Has the ATCFO prescribed weather conditions under which a trainee nearing qualification or who has achieved a prior RFC rating may be authorized to conduct a radar approach? [NAVAIR 00-80T-114]
19. Does the Radar Chief provide written approval when a specific trainee is authorized to use these reduced weather conditions? [NAVAIR 00-80T-114]
20. If equipped with an AN/SPN-42T, do procedures conform as closely as possible with CV NATOPS? [NAVAIR 00-80T-114]
21. If applicable, is standard CCA phraseology used when a pilot specifically requests a PALS approach? [NAVAIR 00-80T-114]
22. Is controller/ATC supervisor determination of radar acceptability usurped by non-controller personnel? [NAVAIR 00-80T-114]
23. When using emergency and distress frequencies in an actual emergency/distress and time permits, do facility personnel identify that they are on guard frequencies? [NAVAIR 00-80T-114]
24. Do controllers refrain from transmitting to aircraft during the most critical phases of flight — final approach, touchdown, landing roll, takeoff and initial climb to the first turn away from the airfield unless conditions affecting safety of flight are observed or known to exist? [NAVAIR 00-80T-114]

### B.5.3 Equipment

1. Is the radar facility equipped as specified in NATOPS? [NAVAIR 00-80T-114]
2. At approach control facilities, does radar mapping capability meet minimum requirements? [NAVAIR 00-80T-114]
3. Except for MVAC video maps, are requests for new or revised STARS video maps submitted directly to NAWCAD 4.5.9.2, or for new or revised RATCF/DAIR video maps are requests submitted to NAVFIG? [NAVAIR 00-80T-114]
4. Are requests for new or revised MVAC video maps submitted to NAVFIG? [NAVAIR 00-80T-114]



5. To ensure accuracy of video maps, is magnetic variation verified annually? [NAVAIR 00-80T-114]
6. Is a change of 2 degrees or more in magnetic variation reported to NAWCAD 4.5.9.2? [NAVAIR 00-80T-114]
7. Is the current RATCF DAIR/DAIR site unique data (SUDs) or STARS adaptation data (as appropriate) incorporated into the facility's operational software program? [NAVAIR 00-80T-114]
8. Are changes to RATCF DAIR/DAIR SUDs or STARS adaptation data (as appropriate) submitted to NAWCAD (4.5.9.2) as set forth in the Shore CCSB Policy and Procedures Manual? [NAVAIR 00-80T-114]
9. Is radar performance verified on a periodic basis by a FAA flight inspection? Are reports of these inspections on file in the ATC Facility? [NAVAIR 00-80T-114]
10. Are primary and secondary radar performance checks and fix/map accuracy checks made on a continuous basis, but at least once each watch? [NAVAIR 00-80T-114]
11. Does PAR azimuth course alignment (at threshold) not exceed 30 feet, referenced to runway centerline? [NAVAIR 00-80T-114]
12. Is the PAR glidepath angle within 0.2 degree of the published angle? [NAVAIR 00-80T-114]
13. Is the PAR radar (azimuth and elevation) capable of detecting an aircraft on the runway centerline extended at an altitude of 2,000 feet and distance equal to the maximum scope range? [NAVAIR 00-80T-114]
14. Is the usable distance of PAR azimuth and elevation not less than 7.5NM from touchdown? [NAVAIR 00-80T-114]
15. Does PAR lower safe limit alignment (angle) provide clearance from all obstacles from glide slope intercept to runway threshold? What is angle of lower safe limit? [NAVAIR 00-80T-114]
16. Are STARS-equipped facilities adhering to the STARS Operational Guide concerning MSAW/CA, data entry requirements, operational mode transition plan, radar selection plan, and multi-sensor radar plan? [NAVAIR 00-80T-114]

## **B.6 TRAINING**

### **B.6.1 General**

1. Is the Training Chief/EPDS designated in writing by the ATCFO? [NAVAIR 00-80T-114]
2. Does the Training Chief/EPDS possess a CTO Rating and all ATCS Ratings at the facility assigned? [NAVAIR 00-80T-114]
3. Does the Training Chief/EPDS have a minimum of 5 years experience in ATC? [NAVAIR 00-80T-114]
4. For USN, is the Training Chief/EPDS a designated FWS at the facility assigned? [NAVAIR 00-80T-114]
5. Does the Training Chief properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
6. Are controllers instructing OJT qualified and experienced at the position in which the training is conducted? [NAVAIR 00-80T-114]
7. Are OJT Instructors designated in writing by the ATCFO? [NAVAIR 00-80T-114]
8. Do Branch Chiefs qualify controllers on operating positions as set forth in NATOPS? [NAVAIR 00-80T-114]

## NAVAIR 00-80T-114

9. During practical controller certification examinations, is a qualified controller responsible for the control of air traffic assigned to the position of operation? [NAVAIR 00-80T-114]
10. When assigned to operating positions, are trainees under the direct and constant supervision of a controller qualified on the position concerned? [NAVAIR 00-80T-114]
11. Does the OJT instructor use the same radio console as the trainee when override capability does not exist from an adjacent console? [NAVAIR 00-80T-114]
12. Are procedures prescribed concerning the mixing of live and simulated targets on the same indicator? [NAVAIR 00-80T-114]
13. Is the extent of each controller qualification level readily available to supervisory personnel? [NAVAIR 00-80T-114]
14. Do supervisors at all levels in the ATC Facility continuously observe and evaluate controllers? [NAVAIR 00-80T-114]
15. Has the ATCF established a training and standardization program to ensure individual and watch team training is accomplished? [NAVAIR 00-80T-114]
16. Is the training and standardization program based on facility requirements and reviewed annually? [NAVAIR 00-80T-114]
17. Does the facility training and standardization program include applicable subjects required for controller certification as set forth in 14 CFR Part 65? [14 CFR Part 65]
18. Is there an indoctrination program for newly assigned air traffic controllers? [NAVAIR 00-80T-114]
19. Does the facility training program consist of an ATC Facility Manual, Local Qualification Standards (LQS), and Lesson Topic Guides (LTG) as set forth by NATOPS? [NAVAIR 00-80T-114]
20. Does the facility training program encompass each operating/supervisory position within the facility? [NAVAIR 00-80T-114]
- 21. Are primary trainees designated for each operating position per watch team? [NAVAIR 00-80T-114]
22. Are training lectures conducted which cover operational characteristics and limitations of aircraft normally served by the facility? [NAVAIR 00-80T-114]
23. Are training lectures conducted which cover physiological and psychological factors incident to flight? [NAVAIR 00-80T-114]
24. Are time limitations for position qualification (approach limitations for RFC) based on/adjusted to historical qualification data for that position? [NAVAIR 00-80T-114]
25. When a trainee reaches 70% of the maximum allotted position OJT time, are determinations made as set forth in NATOPS? [NAVAIR 00-80T-114, [paragraph 8.2.7.2](#)]
26. In addition to documenting TTH, does the ATCFO document actual calendar days to attain position qualifications (initial/subsequent) from commencement of OJT to qualification? [NAVAIR 00-80T-114]
27. For USMC, does the facility adhere to qualification timelines to achieve initial MOS and skill designator MOS as specified in NAVMC DIR 3500.98? [NAVAIR 00-80T-114/NAVMC DIR 3500.98]
28. Are training schedules retained for one year? [NAVAIR 00-80T-114]

29. Has the ATCFO instituted procedures to ensure personnel adhere to the currency requirements specified in ATC NATOPS? [NAVAIR 00-80T-114]
30. Do FWS/FWO (including Training Chief/EPDS and Branch Chiefs) meet minimum currency time requirements each calendar month as prescribed in ATC NATOPS? [NAVAIR 00-80T-114]
31. Do Tower and Radar Supervisors meet minimum currency time requirements each calendar month as prescribed in ATC NATOPS? [NAVAIR 00-80T-114]
32. Do non-supervisory personnel meet minimum currency time requirements each calendar month as prescribed in ATC NATOPS? [NAVAIR 00-80T-114]
33. Do PALS final controllers maintain currency as described in NATOPS for RFC? [NAVAIR 00-80T-114]
34. Are simulator approaches counted for currency only by the final controller making the approach? [NAVAIR 00-80T-114]
35. Is each controller evaluated at least annually on each operating position qualified? [NAVAIR 00-80T-114]
36. Are annual evaluations (over-the-shoulder) conducted by the Branch Chief? [NAVAIR 00-80T-114]
37. Are annual evaluations filed in the controller's ATC Certification/Qualification Record? [NAVAIR 00-80T-114] ■
38. Are supervisors administered written proficiency examinations annually? [NAVAIR 00-80T-114]
39. In case of unsatisfactory performance during an annual evaluation, is the person evaluated made aware of deficiencies and reevaluated within 30 days? [NAVAIR 00-80T-114]
40. Has the ATCFO established a tape talk program to periodically review controller phraseology, voice quality, and inter/intraphone procedures? [NAVAIR 00-80T-114]
41. Are tape talks conducted at 25-percent of allotted TTH/approaches for initial qualification trainees? [NAVAIR 00-80T-114]
42. Are tape talks documented in the controller's ATC Certification/Qualification Record? [NAVAIR 00-80T-114] ■

### **B.6.2 Documentation**

1. For USN, are the forms in ATC NATOPS used as administrative transmittals to ensure standardized entry of ATCS Ratings and position qualifications in the service record? [NAVAIR 00-80T-114]
2. For USN, is a permanent record of air traffic controller qualifications and ratings entered on page 4 of the service record? [NAVAIR 00-80T-114]
3. For USN, is an ATC Certification/Qualification Record, with contents as specified in ATC NATOPS, maintained for each controller? [NAVAIR 00-80T-114]
4. For USN, are position qualifications and rating designations made a permanent part of the ATC Certification/Qualification Record? [NAVAIR 00-80T-114]
5. For USMC, are the forms in ATC NATOPS used as administrative transmittals to ensure standardized entry of MOS qualifications in MCTFS? [NAVAIR 00-80T-114]
6. For USMC, is a permanent record of the initial certification PMOS 7220 (officer) or 7257 (enlisted) entered in the OQR/SRB and MPR? [NAVAIR 00-80T-114/MCO P1070.12] ■

7. For USMC, is a MPR, with contents as specified by the ATC T & R Office, maintained for each controller? [NAVAIR 00-80T-114]
8. For USMC, are position qualifications, rating designations and MOS as well as T&R events completed and position qualifications attained on expeditionary ATC equipment made a permanent part of the MPR? [NAVAIR 00-80T-114]
9. Are ATC Certification/Qualification Records mailed to the next command? [NAVAIR 00-80T-114]
10. When a controller transfers subsequent to ATCS revocation, is the ATC Certification/Qualification Record retained at the ATCF for three years? [NAVAIR 00-80T-114]
11. When a controller separates, transfers to Fleet Reserve or retires, is the ATC Certification/Qualification Record retained at the ATCF for six months? [NAVAIR 00-80T-114]

### **B.6.3 Certification/Suspension/Revocation**

1. Has a CTO Examiner (Primary and/or Alternate) been designated? [FAAO 8000.90]
2. Is the ATCS Examiner designated in writing by the Commanding Officer? [NAVAIR 00-80T-114]
3. When approved by the ATCFO, is the ATCS rating recorded on the ATCS Certificate, the ATC Certification/Qualification Record and the individual service record? [NAVAIR 00-80T-114]
4. When a controller is eligible for an ATCS rating, does the ATCS Examiner administer appropriate examinations? [NAVAIR 00-80T-114]
5. Are the types of ATCS ratings used in conformance with NATOPS? [NAVAIR 00-80T-114]
6. At those facilities where the TRACON or RATCF rating is applicable, is radar final controller normally a position qualification? [NAVAIR 00-80T-114]
7. Prior to suspending an ATCS Rating, does the ATCS Examiner obtain concurrence of the ATCFO? [NAVAIR 00-80T-114]
8. Are ATCS ratings suspended when controller performance of duties adversely affects facility efficiency or safety of flight? [NAVAIR 00-80T-114]
9. Does facility management suspend controllers from participating in ATC duties when notified by competent authority of alcohol dependency or drug abuse by controllers? [NAVAIR 00-80T-114]
10. If a decision is made to suspend an ATCS rating, position qualification and/or supervisory designation, is the individual promptly notified in writing? [NAVAIR 00-80T-114]
11. Are ATCS rating/position qualification suspensions properly recorded in the ATC Certification/Qualification Record/MPR? [NAVAIR 00-80T-114]
12. For USMC, are ATCS Certificate revocations (and ATCS rating suspensions when revocation is contemplated) properly recorded in the OQR/SRB and MPR? [NAVAIR 00-80T-114/MCO P1070.12]
13. In cases where an ATCS rating is reissued following suspension, has the controller requalified on all applicable positions within the time limitations in place? [NAVAIR 00-80T-114]
14. For USN, are ATCS rating reinstatements properly recorded in the ATC Certification/Qualification Record? [NAVAIR 00-80T-114]

15. For USMC, are ATCS rating reinstatements properly recorded in the MPR (and OQR/SRB if applicable)? [NAVAIR 00-80T-114/MCO P1070.12]
16. Are cases where revocation of ATCS Certificate are considered in compliance with NATOPS? [NAVAIR 00-80T-114]
17. When the ATCFO determines that a recommendation for revocation of ATCS Certificate is appropriate, are associated ratings immediately suspended? [NAVAIR 00-80T-114]
18. When the ATCFO determines that a recommendation for revocation of ATCS Certificate is appropriate, is the controller concerned afforded 3 working days in which to submit a written statement concerning the recommendation or to decline the opportunity in writing? [NAVAIR 00-80T-114]
19. Do recommendations for revocation of ATCS Certificate contain the information as required by NATOPS? [NAVAIR 00-80T-114]
20. For USMC (FAP), are ATCS Certificate and MOS 72XX revocation packages routed via the ATC T & R Office to the parent Marine Air Control Squadron? [NAVAIR 00-80T-114]
21. Upon receipt of CNO/CMC approval of revocation of the ATCS Certificate, does the Commanding Officer notify the individual? [NAVAIR 00-80T-114]
22. Are revocations of ATCS Certificates reflected on the ATCS Certificate, ATC Certification/Qualification Records (USN)/MPR (USMC), and in the service record? [NAVAIR 00-80T-114]
23. Upon receipt of CNO approval of revocation of the ATCS Certificate, is eligibility for advancement (i.e., recommendation for advancement) removed for Navy controllers? [NAVAIR 00-80T-114]
24. Upon receipt of CNO approval of revocation of the ATCS Certificate is exam invalidation directed for Navy controllers who are "selectees" for advancement? [NAVAIR 00-80T-114]
25. Is the striker designation removed for revocations of ATCS Certificate of Navy nonrated (E3 and below) personnel? [NAVAIR 00-80T-114]
26. Upon receipt of CMC approval of revocation of the ATCS Certificate, is eligibility for promotion within MOS 72XX removed? [NAVAIR 00-80T-114]

## **B.7 FACSAC**

### **B.7.1 General**

1. Is a daily operations log maintained by the supervisor on duty? [NAVAIR 00-80T-114]
2. Does the daily operations log contain all required information? [NAVAIR 00-80T-114]
3. Is a position log maintained for each operating position? [NAVAIR 00-80T-114]
4. Have position relief checklists been established for each supervisory/operating position and are they used? [NAVAIR 00-80T-114]
5. Are checklists established to ensure that hazardous cargo information is passed to all affected base support agencies? [OPNAVINST 3710.31]
6. Is Coordinated Universal Time (UTC) used for entries on all forms, logs and written records, and radio and landline communications? [NAVAIR 00-80T-114]
7. Is local time used for facility work schedules, daily traffic counts, and administrative form and correspondence? [NAVAIR 00-80T-114]
8. Is a reliable and accurate clock visible from each operating position? [NAVAIR 00-80T-114]
9. Are time checks obtained at the start of each watch? [NAVAIR 00-80T-114]

## NAVAIR 00-80T-114

10. Are clocks set to agree with those of the host en route facility? [NAVAIR 00-80T-114]
11. Are ATC procedures and phraseology as prescribed in FAAO JO 7110.65? [NAVAIR 00-80T-114]
12. Is the broadcasting of information which is available to the pilot in flight information publications held to a minimum? [NAVAIR 00-80T-114]
13. Are procedures established to ensure aircraft are kept informed of the latest reported weather and actual field conditions? [OPNAVINST 3710.7]
14. Are weather reports, advisories, and radar monitored to determine when severe weather activity is approaching the facility? [NAVAIR 00-80T-114]
15. Are PIREPs requested when required? [FAAO JO 7110.65]
16. Do individuals perform duties as a controller under general supervision only at those sectors or positions qualified? [NAVAIR 00-80T-114]
17. When assigned to operating positions, are trainees under the direct and constant supervision of a controller qualified on the position concerned? [NAVAIR 00-80T-114]
18. Does the OJT instructor use the same radio console as the trainee when override capability does not exist from an adjacent console? [NAVAIR 00-80T-114]
19. Does each controller possess an ATCS Certificate? [NAVAIR 00-80T-114]
20. Does each controller possess a CTO Certificate or Airman Written Test Report? [NAVAIR 00-80T-114]
21. Is the FACSFAC structured to meet the operational needs of its specific area in direct support of fleet requirements? [NAVAIR 00-80T-114]
22. Does the Airspace Officer properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
23. Does the ATCFO properly perform the duties and responsibilities set forth in NATOPS?  
[NAVAIR 00-80T-114]
24. Does the Airspace Chief properly perform the duties and responsibilities set forth in NATOPS?  
[NAVAIR 00-80T-114]
25. Is the Airspace Chief a graduate of an approved military airspace management course? [NAVAIR 00-80T-114]
26. Does the Airspace Chief possess the appropriate ATCS certification for the FACSFAC assigned?  
[NAVAIR 00-80T-114]
27. Does the Radar Chief possess the appropriate ATCS certification for the facility assigned?  
[NAVAIR 00-80T-114]
28. Is the Radar Chief designated in writing by the ATCFO? [NAVAIR 00-80T-114]
29. Does the ROCC (Radar) Chief properly perform the duties and responsibilities set forth in NATOPS?  
[NAVAIR 00-80T-114]
30. Does the Facility Watch Supervisor (FWS) properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
31. Are ROCC (Radar) Supervisors designated in writing by the ATCFO? [NAVAIR 00-80T-114]

32. Does the ROCC (Radar) Supervisor properly perform the duties and responsibilities set forth in NATOPS? [NAVAIR 00-80T-114]
33. Do ROCC Sector Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
34. Do ROCC Assistant Sector Controllers properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
35. Do ROCC Flight Data operators properly perform the duties set forth in NATOPS? [NAVAIR 00-80T-114]
36. Have FACSAC ATC Facility certification requirements been met? [NAVAIR 00-80T-114]
37. When an AISR equipment outage occurs or is anticipated, are ARTCC, FSS and the AISR Technical Support Help Desk notified? [NAVAIR 00-80T-114]
38. When aircraft carrying hazardous cargo are declared missing or overdue, is the appropriate RCC informed of the nature of the hazardous cargo and of positive measures required to accomplish the rescue? [OPNAVINST 3710.31]
39. Are flight plan and flight movement messages completed/processed in accordance with procedures outlined in FAAO JO 7110.10?
40. Are modifications to a written flight plan made only with the concurrence of the pilot in command? [NAVAIR 00-80T-114]
41. Are copies of all flight plan forms, flight schedules, OPS logs, aircraft clearance/arrival reports and other associated forms filed with flight plans retained for a period of 3 months? [NAVAIR 00-80T-114]
42. Has the FACSAC conducted an annual validation/verification of associated DOD FLIP information? [NAVAIR 00-80T-114]
43. Are aeronautical data and facility information accurately published in flight information publications? [NAVAIR 00-80T-114]
44. Are procedures established to ensure that facility information in publications is accurate and complete? [NAVAIR 00-80T-114]
45. Are FLIP changes submitted in order to coincide with publication cycles? [OPNAVINST 3721.20]
46. Which operating positions, if any, have been added, deleted, or combined to meet local requirements? [NAVAIR 00-80T-114]
47. Are unauthorized scope markings used in lieu of an adequate video mapper or electronic cursor? [NAVAIR 00-80T-114]
48. Is video map data limited to reduce scope clutter and increase operational efficiency? [NAVAIR 00-80T-114]
49. At the beginning of each watch, do controllers verify accuracy of radar alignment (for each radar inputted to FACTS) by comparing fixed location beacon transponders (PARROTS) with map alignment indicators? [NAVAIR 00-80T-114]
50. Is a usable target return maintained along the entire airway/route or arrival/departure control routes for which radar service is provided? [NAVAIR 00-80T-114]
51. Is radar performance verified on a periodic basis by a FAA flight inspection? Are reports of these inspections on file in the ATC Facility? [NAVAIR 00-80T-114]
52. Are primary and secondary radar performance checks made on a continuous basis, but at least once each watch? [NAVAIR 00-80T-114]
53. When using emergency and distress frequencies in an actual emergency/distress and time permits, do facility personnel identify that they are on guard frequencies? [NAVAIR 00-80T-114]

## **B.8 AIRSPACE MANAGEMENT**

### **B.8.1 General**

1. Are periodic meetings on airspace usage held with FAA? [OPNAVINST 3770.2]
2. Is modification (expansion or reduction) of ATC airspace responsibility approved by CNO? [NAVAIR 00-80T-114]
3. Are the procedures used to initiate rule making actions per 14 CFR Part 11? [FAAO JO 7400.2]
4. Are coordinates submitted or used in airspace matters in North American Datum 1983 (NAD 83)? [FAAO JO 7400.2]
5. Are the geographic coordinates of a NAVAID used as a reference point in a controlled airspace description provided in degrees, minutes, and seconds? [FAAO JO 7400.2]
6. Are charted reporting points established IAW FAAO JO 7400.2? [FAAO JO 7400.2]
7. Do names assigned for waypoints, intersections, ATC coordination, and DME fixes not collocated with a NAVAID consist of a single five-letter pronounceable name? [FAAO JO 7400.2]
8. Are new airspace requirements submitted to the cognizant RAC for consolidation and submission to the appropriate ATC T & R Office? [OPNAVINST 3770.2]
9. If a RAC, does the activity serve as the central regional coordination point for scheduling and controlling SUA? [OPNAVINST 3770.2]
10. If a RAC, does the activity maintain SUA usage documentation and act as the interface for operational matters dealing with non-DON activities? [OPNAVINST 3770.2]
11. If a RAC, does the activity serve as DON focal point and central clearinghouse for all SUA matters that pertain to any DON activity within their regional area of responsibility? [OPNAVINST 3770.2]
12. If a RAC, does the activity perform its duties as delineated in OPNAVINST 3770.2? [OPNAVINST 3770.2]
13. Has the activity designated an individual to serve as Command Airspace Liaison Officer (CALO)? [OPNAVINST 3770.2]
14. If applicable, does the CALO perform the duties as delineated in OPNAVINST 3770.2? [OPNAVINST 3770.2]
15. If applicable, are petitions to the FAA Administrator for review, extension, or revision of determinations issued by FAA regional officials submitted to CNO (N885F) via the cognizant NAVREP? [OPNAVINST 3770.2]
16. If applicable, are petitions to the FAA Administrator for reconsideration of a FAA Headquarters administrative denial submitted to CNO (N885F) by the Chain of command, with a copy to the cognizant NAVREP? [OPNAVINST 3770.2]
17. Are procedures governing ATCAA operations specified in letters of agreement between local military commands and the cognizant ATC facility? [OPNAVINST 3770.2]
18. In the case of ATCAA identification, is coordination effected between adjacent ATC facilities to avoid use of similar sounding names? [OPNAVINST 3770.2]
19. Do ATCAA requirements comply with OPNAVINST 3770.2? [OPNAVINST 3770.2]



20. Are MTRs established or modified as specified in FAAO JO 7610.4? [OPNAVINST 3770.2]
21. If an originating activity, are MTRs visually surveyed prior to submission for publication/annually to confirm existing obstructions/locate new obstructions? [OPNAVINST 3770.2]
22. Are noise sensitive areas (e.g., wilderness areas, wildlife refuges) avoided in the development of IR or VR routes and additional SUA? [OPNAVINST 3770.2]
23. Do proposals for new or revised MTRs comply with OPNAVINST 5090.1? [OPNAVINST 3770.2]
24. Do facilities that schedule Military Training Routes (IR routes) maintain records of IR usage in terms of individual aircraft operations for the preceding calendar year? [FAAO JO 7610.4]
25. Do facilities that schedule Military Training Routes (IR/VR routes) coordinate planned utilization of IR/VR routes with their tie-in FSS? [FAAO JO 7610.4]
26. Do facilities that schedule Military Training Routes (VR routes) have established procedures to ensure all VR users are knowledgeable of the respective route procedures? [FAAO JO 7610.4]
27. Are all letters of agreement/procedures pertaining to airspace usage signed by the commanding officer of the naval activity concerned and the RAC? [OPNAVINST 3770.2]
28. Are all letters of agreement/procedure, prior to final approval, forwarded to the NAVREP (or the cognizant authority for which the airspace was designated) for review to determine if the agreement alters airspace? [OPNAVINST 3770.2]
29. Are copies of all letters of agreement/procedure forwarded to the cognizant NAVREP for information? [OPNAVINST 3770.2]
30. Are requests for installation, commissioning, decommissioning, removal, or relocation of NAVAIDS submitted via the appropriate chain of command to CNO (N885F)? After approval is the NAVREP notified to initiate appropriate airspace action? [OPNAVINST 3770.2]
31. Are proposals involving the establishment, relocation or discontinuance of NAVAIDS forwarded to the FAA Regional Air Traffic Division for non-rulemaking study? [FAAO JO 7400.2]
32. Is a daily recording of SUA, ATCAA and MTR usage including a "Record of release" maintained in accordance with OPNAVINST 3770.2? [OPNAVINST 3770.2]
33. Is annual (CY basis) MTR usage reported by 20 January to NAVREP with information copy to ATC T & R Office and RAC? [OPNAVINST 3770.2]
34. Are SUA/ATCAA and MTR usage reports maintained at the command for three years? [OPNAVINST 3770.2]

### **B.8.2 Special Use Airspace**

1. At those facilities that exercise air traffic control in airspace that contains an ADIZ boundary, are procedures in place to ensure personnel forward specific information dealing with flight plans, position reports, penetration reports, departure times, and other information on aircraft that propose to operate or are operating within the ADIZ to the appropriate ARTCC that provides Aircraft Movement Information Service (AMIS)? [FAAO JO 7610.4]
2. Do letters of agreement/procedure concerning special use airspace contain scheduling and activation/deactivation procedures, as well as activation/deactivation times? [FAAO JO 7610.4]
3. Are procedures governing operations within ATCAA's and MOA's specified in letters of agreement with the controlling agency? [FAAO JO 7610.4]

4. When designated as the “scheduling agency” for a MOA/ATCAA, does the facility establish a real-time activity schedule indicating airspace use times and forward the schedule and any subsequent changes to the controlling agency? [FAAO JO 7610.4]
5. When designated as the “scheduling agency” for a MOA/ATCAA, has the facility developed procedures with the military using units to ensure that they inform the scheduling agency, as soon as possible, of any periods of nonuse (1 hour or longer) after the initial schedule has been established? [FAAO JO 7610.4]
6. Is special use airspace designated, modified, or revoked IAW the policy, procedures, and criteria contained in FAAO JO 7400.2? [FAAO JO 7400.2]
7. Prior to submission for approval, are SUA proposals coordinated with locally affected ATC facilities and military units, local FAA representatives/liaison officers (where assigned), and the ARTCC having jurisdiction over the affected airspace? [FAAO JO 7400.2]
8. If applicable, when was the last FAA SUA Review conducted? [FAAO JO 7400.2]
9. If applicable, is the annual SUA utilization report submitted as specified in FAAO JO 7400.2? [FAAO JO 7400.2]
10. Is annual (FY basis) SUA/ATCAA usage reported by 1 December to NAVREP with information copy to ATC T & R Office and RAC? [OPNAVINST 3770.2]
11. For reporting annual utilization, is ATCAA usage reported in conjunction with associated MOA (unless a stand-alone ATCAA)? [OPNAVINST 3770.2]
12. Under the joint-use concept, is SUA released to other airspace users whenever the airspace is not required? [OPNAVINST 3770.2]
13. Are joint-use letters of procedure implemented between the using agency and controlling agency in regard to SUA? [OPNAVINST 3770.2]
14. Do joint-use letters of procedure include provisions for preemptive use of warning areas by the using agency? [OPNAVINST 3770.2]
15. Unless it is impractical because of the area’s small size, location or high degree of usage, is SUA designated for joint use? [OPNAVINST 3770.2]
16. If a Using Agency, is SUA made available for the conduct of operations or training by other agencies on a shared-use basis, provided such operations or training can be safely contained within the airspace and not derogate the mission of the Using Agency? [OPNAVINST 3770.2]
17. If SUA is designated for part-time use by NOTAM, have the prerequisites of OPNAVINST 3770.2 been met? [OPNAVINST 3770.2]
18. Are requests for designation, establishment, alteration, or revocation of SUA validated and endorsed by the ATC T & R Office prior to submission to RAC? [OPNAVINST 3770.2]
19. If applicable, are warning area times of use established by NOTAM or a special time of use other than continuous? [OPNAVINST 3770.2]
20. Is the volume and time of use of SUA the absolute minimum required to contain the user activities including safety zones? [OPNAVINST 3770.2]
21. Are environmental factors considered at the inception and development of SUA plans, programs, and actions? Is certification/documentation of environmental effect in compliance with OPNAVINST 5090.1? [OPNAVINST 3770.2]

### B.8.3 Terminal Airspace

1. Are reviews of proposed construction or alteration of structures affecting navigable airspace expeditiously forwarded to the NAVREP in the event an aeronautical objection is to be registered? [OPNAVINST 3770.2]
2. Is the FAA given reasonable prior notice if the runway layout is substantially altered? [FAAO JO 7400.2]
3. Does the ATCFO ensure that the command be particularly sensitive to airport projects or airport layout plan changes which would, if accomplished, lead to the relocation, replacement, or modification of ATC, NAVAID and communications facilities? [FAAO JO 7400.2]
4. Does terminal airspace supporting ATCF operations meet the general IFR and VFR airspace requirement guidelines presented in FAAO JO 7400.2? [FAAO JO 7400.2]
5. When responding to notices of landing area (i.e., airport) proposals, is an airspace review conducted to evaluate the effect on the safe and efficient utilization of airspace and the effect that such proposals may have on the movement and control of air traffic, associated resources and ATC program planning? [FAAO JO 7400.2]
6. Is controlled airspace in terminal areas designated, modified, or discontinued IAW the policy, procedures, and criteria contained in FAAO JO 7400.2? [FAAO JO 7400.2]
7. Is the communications requirement for a surface area properly met? [FAAO JO 7400.2]
8. Is the weather observation reporting requirement for a surface area properly met? [FAAO JO 7400.2]
9. If a part-time surface area, is a provision added in the designation to allow for changes by NOTAM when minor variations in the time of designation are anticipated? [FAAO JO 7400.2]

## B.9 GROUND ELECTRONICS MAINTENANCE DIVISION (GEMD)

### B.9.1 GEMD Administration

1. Is the Maintenance Officer designated in writing by the station Commanding Officer? [OPNAVINST 3721.5]
2. Does the Maintenance Officer maintain copies of NATOPS Evaluation Reports for evaluations conducted during the preceding six years? [NAVAIR 00-80T-114]
3. Have the major and minor discrepancies identified during the previous NATOPS Evaluation been resolved? If not, explain.
4. Is there an GEMD Facility Electronics Manual (FACMAN)? [OPNAVINST 3721.5]
5. Is the content of the FACMAN as per enclosure (1) of the Shore ATC System Maintenance Policy? [OPNAVINST 3721.5]
6. Is the Maintenance Officer assigned to and an active member of local and regional planning boards whose actions may affect the operation of ATC equipment? [OPNAVINST 3721.5]
7. Does the Maintenance Officer maintain a facility maintenance plan that supports equipment maintenance and calibration that minimizes the impact to operations? [OPNAVINST 3721.5]
8. Is the authorized allowance and onboard strength of military and civilian personnel adequate to support the mission assigned? [OPNAVINST 1000.16]
  - a. Is the division staffed to support the systems installed? [Manpower Authorization (USN)/Table of Organization (USMC)]
  - b. Do electronic technicians assigned possess a Navy Enlisted Classification (NEC/USN), Military Occupational Specialty (MOS/USMC), equivalent rating (civilian) relative to their work assignment? [NAVAIR 80T-114]
  - c. Are personnel enrolled in a structured Individual Training Standards System (ITSS) (USMC)/JQR to obtain qualification for the systems on which they are not NEC/MOS/equivalent rating qualified? [Equipment-specific NTSPs and JQRs]

- d. Are ATC electronics technicians normally not assigned duties outside their professional specialty? [OPNAVINST 3721.5]
- e. Unless operational requirements dictate otherwise, are working hour limitations in effect for air traffic controllers (NAVAIR 00-80T-114, [paragraph 3.3.7](#)) imposed on electronic technicians maintaining ATC-related equipment? [NAVAIR 00-80T-114]
- 9. Does the GEMD have a billet authorization for a storekeeper/supply technician? [Manpower Authorization (USN)/Table of Organization (USMC)]
  - a. If authorized, is the billet filled on a full-time base? [Manpower Authorization (USN)/Table of Organization (USMC)]
- 10. If managing contracted maintenance organizations, does the Maintenance Officer possess documented extensive knowledge and experience with ATC systems? [OPNAVINST 3721.5]
- 11. If managing contracted maintenance organizations, has the Maintenance Officer received proper training to administer the technical requirements of the contract under the guidance of the Contracting Officer? [OPNAVINST 3721.5]
- 12. If using a contracted maintenance organization, is OPNAVINST 3721.5 included in the contract as a reference? [OPNAVINST 3721.5]
- 13. If managing a contracted maintenance organization, does the Maintenance Officer ensure contract management is proactive with immediate personnel replacement when contracted technicians receive a suspension of qualification? [OPNAVINST 3721.5]
- 14. Is the security (controlled access) of ATC equipment spaces maintained? [NAVAIR 00-80T-114]
- 15. Are all visits to ATC equipment spaces approved by the GEMO? [NAVAIR 00-80T-114]
- 16. Are visitors escorted while in ATC equipment spaces? [NAVAIR 00-80T-114]
- 17. Is classified material under the cognizance of the GEMD properly stowed? [SECNAVINST 5510.36]
- 18. Are classified material destruction bills posted in conspicuous locations? [SECNAVINST 5510.36]
  - a. Is training conducted on a recurring basis to keep personnel knowledgeable of destruction procedures? [SECNAVINST 5510.36]
- 19. Is the Maintenance Officer or LCPO/NCOIC knowledgeable of the procedures for monitoring navigation aids? [NAVAIR 80T-114]
- 20. If navigational aids require relocation, does the Maintenance Officer ensure compliance with OPNAVINST 3722.16 (TERPS)? [OPNAVINST 3721.5]
- 21. Is the Maintenance Officer cognizant of Notice to Airman (NOTAM) procedures for radar and NAVAIDs removed from service for routine or corrective maintenance? [NAVAIR 80T-114]
- 22. Are technicians aware of NO-NOTAM preventive maintenance periods? [NAVAIR 00-80T-114]
- 23. Does the Maintenance Officer maintain copies of Radar Data Sharing Agreements with FAA (if applicable) or other Letters/Memoranda of Agreement related to electronic maintenance support? [NAVAIR 80T-114, OPNAVINST 3721.5]
- 24. Is the Maintenance Officer or LCPO/NCOIC (if designated) held accountable for the frequency assignment of equipment transmitting onboard the station? [OPNAVINST 2400.20/NTP-6]

25. Does the Maintenance Officer coordinate with local and regional frequency coordinators as well as transient units and tenant commands to ensure no radio emissions are permitted on or around ATC facilities that may cause interference with ATC frequencies? [OPNAVINST 3721.5]
26. Does the Maintenance Officer coordinate with the Resident Officer-In-Charge of Construction, Regional Commander, ATC T & R Office, and ISEAs to ensure that facility projects, such as Military Construction/road construction, address the impacts and specifically identify and include relocation costs of existing equipment, if necessary, to prevent unplanned costs, or system performance impacts? [OPNAVINST 3721.5]
27. Are adequate measures in place to secure/monitor ATC electronic equipment at remote facilities and unmanned sites? [NAVAIR 00-80T-114]
28. Does the Maintenance Officer maintain a file of installation documents issued by the sponsoring ISEA (i.e., Site Surveys, BESEPs, IDPs, FRSS, etc.) for the ATC equipment under their cognizance? [NAVAIR 00-80T-114]
29. Does the Maintenance Officer fully understand the Operational Capability Improvement Request (OCIR) process? [OPNAVINST 3721.5]
30. Does the Maintenance Officer maintain a complete and accurate file of command generated OCIRs, including chain of command endorsements? [OPNAV 3721.5]
31. Are CASREP History Files maintained for two years? [NWP 1-03.1]
  - a. Are active CASREPs current with timely UPDATES? [NWP 1-03.1]
  - b. Are locally-held records in accord with records on the ATC Community web site? [NWP 1-03.1]
32. Does the Maintenance Officer and LCPO/NCOIC have access to the ATC Community web site (web account) to verify current Casualty Reports (CASREP) for systems/equipment supported? [NWP 1-03.1]
33. Is the ATCFO consulted during the preparation of CASREPs to ascertain operational impacts, and notified of CASREP status associated with ATC systems outages? [NAVAIR 00-80T-114]
34. Does the Maintenance Officer use the classifications of full system capable, partial system capable and non-operational system when preparing ATC system(s) CASREPs and UPDATES? [NAVAIR 00-80T-114]
35. Are the personnel assigned to the GEMD with a need to know, knowledgeable of and proficient in executing the duties prescribed to support FAA Flight Inspections? [NAVAIR 16-1-520]
36. Does the GEMD have sufficient vehicles assigned to assure timely access to all systems/equipment under their cognizance? [Subjective: Each location will be assessed based upon span of control, system diversity and geographic/weather conditions]
37. Does the Maintenance Officer understand the procedures to follow concerning Condition Based Field Maintenance (CBFM) of ATC system(s) under their cognizance? [OPNAVINST 3721.5]
38. Was a VADM William P. Lawrence Air Traffic Control Technician of the Year Award nomination submitted? [NAVAIR 00-80T-114]

### **B.9.2 GEMD Material**

1. Does equipment performance meet or exceed the standards established by the ISEA? [OPNAVINST 3721.5]
2. Does the Maintenance Officer coordinate with SPAWARSCEN Charleston for all issues related to test equipment? [OPNAVINST 3721.5]
3. Has the command funded the GEMD Operation Target (OPTAR) to assure adequate resources to support systems installed? [Compare budget call input to budget approved]

**B.9.3 GEMD Publications, Records and Reports**

1. Does the GEMD maintain a Technical Library? [OPNAVINST 3721.5]
2. Are the following publications retained or available to the GEMD? Are the available publications up-to-date? [OPNAVINST 3721.5]
  - a. Personnel Qualification Standards (PQS). [OPNAVINST 3500.34]
  - b. Catalog of Navy Training Courses. [CANTRAC, NAVEDTRA 10500]
  - c. Naval Shore Safety Manual. [OPNAVINST 5100.23]
  - d. Naval Air Traffic Control, Air Navigation Aids and Landing Systems (NAALS) Program. [OPNAVINST 3721.5]
  - e. Preventive Maintenance Schedules posted and up to date in each work center. [OPNAVINST 4790.4 and NAVSEAINST 4790.8]
  - f. United States Interagency Ground Inspection Manual for Air Traffic Control and Navigation Aids. [FAAO 6000.6 Series]
  - g. Facilities Project Instruction Manual. [OPNAVINST 11010.20]
  - h. NATOPS Air Traffic Control Manual. [NAVAIR 00-80T-114]
  - i. United States Standard Flight Inspection Manual. [NAVAIR 16-1-520]
  - j. Facility Planning Criteria for Navy and Marine Corps Shore Installations. [UFC-2-000-05N]
  - k. Design: Navy Air Traffic Control Facilities. [UFC 4-133-01N]
    1. Design: Aviation Operation and Support Facilities. [UFC 4-141-10N]
  - m. FAA/NAVY MOA for Logistic Support. [AAC-229]
  - n. Configuration and Logistics Support Information System. [ATC Community web site]
  - o. Operational Reports. [NWP 1-03.1]
  - p. Technical Manuals on all supported equipment. (Electronic or paper version is acceptable)
  - q. Policy and Procedures for BESEPs. [NAVAIR BESEP Policy and Procedures]
3. Are the following reports/records current and complete?
  - a. Telecommunications Operating Requirements (TELCOR) Documentation System. [OPNAVINST 2010.3]
  - b. Frequency Usage Report. [OPNAVINST 2400.7]
  - c. Telecommunications Service Request (TSR) and Telecommunications Service Order (TSO) records to support connectivity requirements. [OPNAVINST 3721.5, DCA Circular 310-130-1]
  - d. Inter-facility and intra-facility landline connectivity reports including connectivity diagrams, labeled demarcation points, designation labels on each circuit, and maintenance responsibility information. [OPNAVINST 3721.5]
  - e. Preventive Maintenance Schedules posted and up to date in each work center. [OPNAVINST 4790.4 and NAVSEAINST 4790.8]
  - f. Airfield IFLOLS/FLOLS Certification, if supported by GEMD (12 months). [NAVAIRINST 13800.13]
  - g. 2-M Recertification (18 Months). [NAVAIR 4790-PLN-001/2M]

- h. RADHAZ (HERP/HERF) Survey (SPAWARSYSCEN Atlantic). [NAVSEA OP3565/NAVAIR 16-1-529]
  - i. HERO Survey (NSWC Dahlgren). [NAVSEA OP3565/NAVAIR 16-1-529, NAVSEAINST 8020.7C]
  - j. History files that document equipment acceptance, upgrades, removals, transfers, DRMO and shipment. [OPNAVINST 3721.5]
  - k. Files that document current and planned installations with BESEPS for those systems. [OPNAVINST 3721.5]
  - l. Maintenance data reported via an approved method? [OPNAVINST 3721.5]
  - m. Commissioning flight check reports and the most recent flight check report for ATC radars, landing systems and NAVAIDS, and magnetic offset (variation) information. [OPNAVINST 3721.5]
4. Are as-built drawings available for each equipment/system installed? [OPNAVINST 3721.5]
  5. Are all General Purpose Electronic Test Equipment (GPETE) items covered under the MEASURE Calibration Program? [NAVSEA OD 45845]
  6. Does the command maintain a current copy of the Test Equipment Allowance Process (TEAP) Report? [OPNAVINST 3721.5, OP 43P6A]
  7. Is the ATC CDM current on the ATC Community web site? [OPNAVINST 3721.5]
    - a. Are the site validations being accomplished biennially as per the Shore ATC System Maintenance Policy? [OPNAVINST 3721.5]
    - b. Date of last site validation completed? \_\_\_\_\_
  8. Are Equipment Performance Forms maintained on file for at least two years? [OPNAVINST 3721.5]

#### **B.9.4 GEMD Training**

1. Has the Maintenance Officer instituted a training program for the continuing development of all personnel assigned to the division? [OPNAVINST 3120.32]
2. Does the training program contain elements for long range, quarterly, and monthly training? [OPNAVINST 3120.32]
  - a. Is annual GMT conducted and documented in training records?
  - b. Is in-rate training conducted and documented in training records?
3. Has the Maintenance Officer or LCPO/NCOIC designated a senior petty officer/NCO to schedule, track and record individual training accomplishments? [OPNAVINST 3120.32]
4. Is the training petty officer/NCO aware of the technical training assistance available to the division in the form of Personnel Qualification Standards (PQS)/Job Qualification Requirement (JQR)/from the cognizant Technical Authority? [OPNAVINST 3120.32]
5. Has the training petty officer/NCO established PQS or JQR courses for personnel assigned to work on equipment covered by PQS? [OPNAVINST 3120.32, OPNAVINST 3721.5]
  - a. For systems with an ISEA-approved JQR, have the maintenance technicians working on those systems completed the approved JQR? [OPNAVINST 3721.5]
  - b. Are ATC systems maintenance technicians designated in writing by the Maintenance Officer as qualified to perform Ground Inspection and maintenance for each particular system? [OPNAVINST 3721.5]

- c. Are oral qualification boards comprised of technicians qualified on the specific equipment? [OPNAVINST 3721.5]
- d. If an abridged GEMD qualification package is used for those technicians with previous equipment experience, does it include a JQR and an oral board and/or written exam? [OPNAVINST 3721.5]
- 6. Are technicians cross-qualified, if necessary, on additional or secondary systems once the technician has demonstrated the required knowledge and experience through OJT and JQRs and passed an oral board and/or written exam? [OPNAVINST 3721.5]
- 7. Do technicians receive a qualification review at least once every four years, documented in the technician's qualification record? [OPNAVINST 3721.5]
- 8. Do all technicians attend the Airfield Vehicle Operators Course and possess a current local airfield driver's license and/or permit? [NAVAIR 00-80T-114]
- 9. Is basic first aid and Cardiopulmonary Resuscitation (CPR) training mandatory for each technician assigned to the division and documented in training records? Is this a continuing requirement? [OPNAVINST 5100.23]
- 10. Is prevention and treatment of electrical shock a continuing part of the division training program, and documented in training records? [OPNAVINST 5100.23]

#### **B.9.5 GEMD Safety**

- 1. Does the GEMD have a safety program structured to disseminate NAVOSH information to division personnel and support contractors? [OPNAVINST 5100.23]
- 2. Are all personnel informed of the types and uses of hazardous materials found in division workspaces? [OPNAVINST 5100.23]
- 3. Are safety warning and precaution signs (to include use of power and hand tools, electrical shock, electronic safety, high voltage signs, radiation hazard signs, hazardous material signs, etc) posted in conspicuous locations in each of the division work centers? [OPNAVINST 5100.23, DD Form 2272]
- 4. Do technical personnel (selected at random) know the tag-out or lock-out procedures for working on electrical/electronic equipment? [OPNAVINST 5100.23]
- 5. Are safety precautions written to cover unusual hazards found in GEMD spaces such as working aloft and using climbing equipment, working near radiating antennas, handling radioactive tubes, use of rubber floor coverings, properly labeled fuse box covers, tag-out procedures, and safe driving? [OPNAVINST 5100.23]
- 6. Has the Maintenance Officer and/or designated safety petty officer/NCO established a target safety program to include noise control and hearing conservation, asbestos control, sight conservation, ORM? [OPNAVINST 5100.23]
- 7. Is personal protective equipment (PPE) provided and worn (e.g., head protection, hearing protection, eye protection, safety footwear)? [OPNAVINST 5100.23]
- 8. Is lighting sufficient for troubleshooting? [CFR 1910.303]
- 9. Is all electronic/electrical equipment properly grounded? [CFR 1910.243, 1910.304F]
- 10. Are grounding systems and lightning protection systems in place and checked for markings, continuity, corrosion and resistance? [OPNAVINST 3721.5]
- 11. Are technicians aware of the location of circuit breakers for the equipment in their space? [CFR 1910.304]
  - a. Are those circuit breakers properly labeled as to function? [CFR 1910.304]



12. Are electrical cords (extension and test equipment) being checked and are the safety tags current? [CFR 1910.334]
13. Are properly constructed shorting probes easily located within each work center? [OPNAVINST 5100.23]
14. Do personnel (selected at random) know the procedures to use when treating electrical shock? [OPNAVINST 5100.23]
15. Are safety elements such as goggles, facemasks, gloves, and blankets attached to an approved safety board easily accessible in each work center? [OPNAVINST 5100.23, CFR 1910.132]
16. Are aprons, chemical resistance face shields and gloves in areas containing wet cell batteries and is there an eyewash station mounted in this area? [OPNAVINST 5100.23]
17. Are proper type of fire extinguishers readily available in each work center? [CFR 1910.157, (D2) and (D4)]
  - a. Are they correctly located? [CFR 1910.157, (D2) and (D4)]
  - b. Is the inspection date current? [CFR 1910.157, (D2) and (D4)]
18. Is there a posted fire and emergency evacuation route posted in each work area? [CFR 1910.39, CFR 1910.38]
19. Are the emergency lights operational in case of power loss? [CFR 1910.308]

#### **B.9.6 Maintenance Procedures**

1. Do division personnel perform maintenance actions in accordance with the 3M system? [OPNAVINST 4790.4 and NAVSEAINST 4790.8]
2. Are PAR alignment photographs posted at the PAR site for technician use? [NAVAIR 00-80T-114]
3. Is each configuration change in equipment sent to the Configuration Data Manager (CDM) via the ATC Community web site? [NAVSEAINST 4790.8, NAVSEAINST 4130.1C]
4. Do only maintenance technicians change ATC recorder media? [NAVAIR 00-80T-114]
5. During the period of required retention, are voice/data recordings securely stored under the custody of the electronics maintenance officer? [NAVAIR 00-80T-114]
6. Is each recording medium (tape, disc, cartridge, etc.) annotated with a unique identification? [NAVAIR 00-80T-114]
7. Are voice/data recordings retained for normal retention period and for incident/mishap purposes identified in a log maintained by the electronics maintenance officer or equivalent with recorder identification, date/time frame of recording, and name of technician placing the media into storage? [NAVAIR 00-80T-114]
8. Are voice/data recordings made available to ATCF supervisory personnel only as indicated in an authorization letter signed by the ATCFO? [NAVAIR 00-80T-114]
9. Are ATC related facilities configured with auxiliary power sources sufficient to ensure continuity of ATC services during emergency conditions? [NAVAIR 00-80T-114]
10. Are auxiliary power generators for ATC related facilities including navigational aids operated as directed by the ATCFO? [NAVAIR 00-80T-114]
11. Unless reliable automatic transfer equipment is installed, does the ATCF shift to auxiliary power at least 30 minutes before severe weather is anticipated? [NAVAIR 00-80T-114]

12. Does the ATCF have a program of preventive maintenance and periodic load and no-load operation of auxiliary power sources to ensure maximum continuity of ATC service? [NAVAIR 00-80T-114]
13. When commands determine the NAALS equipment is “in excess,” are disposition instructions requested from COMNAVAIRSYSCOM? [OPNAVINST 3721.5]
14. In those instances where deviations from OPNAVINST 3722.35 baseline criteria resource allocations are required, does the ATC Facility document such deviation(s) in an OCIR or similar media providing for command endorsements? [OPNAVINST 3722.35]
15. Do technicians perform corrective and preventive maintenance as well as daily checks in accordance with existing maintenance policies and philosophies? [NAVAIR 00-80T-114]
16. Are duty technicians, assigned ATC maintenance responsibilities, present anytime the facility is open and available to provide ATC services? [NAVAIR 00-80T-114]
17. Do maintenance technicians keep ATCF supervisory personnel apprised of equipment status? [NAVAIR 00-80T-114]
18. Are duty technicians authorized to recall electronic maintenance personnel to perform corrective maintenance should an after-hour outage adversely impact fleet support mission requirements? [NAVAIR 00-80T-114]
19. Is reliable two-way communications available between the NAVAID site and the primary monitor facility when a NAVAID is monitored at the NAVAID site? [NAVAIR 00-80T-114]

#### **B.9.7 Supply Procedures**

1. Are GEMD managers familiar with the Memorandum of Agreement (AAC-229) between FAA and DON (NAVAIRSYSCOM) concerning supply support, repair and return service, and exchange and repair items? [NAVAIR 00-80T-114/AAC-229]
2. Are replacement/repair parts ordered in a timely manner when needed? [NAVSUP Pub 485 Vol III]
  - a. Is proper priority assigned based on system failure and mission? [NAVSUP Pub 485 Vol III]
3. Are DLR parts being properly turned in when replacement is ordered? [NAVSUP Pub 485 Vol III]
  - a. Is carcass tracking being done to ensure proper credit of turn-in? [NAVSUP Pub 485 Vol III]
4. Is status of part ordered checked regularly until received? If so, how? [NAVSUP Pub 485 Vol III]

#### **B.9.8 GEMD Overview**

1. Prepare a general assessment of the GEMD, including:
  - a. Operational capability to support the ATC-related mission of the command.
  - b. Observed cooperation/coordination between the ATC Facility and GEMD.
  - c. Effectiveness of GEMD membership on local and regional planning boards whose actions may affect operation of ATC equipment, specifically radars, landing systems and NAVAIDs.
  - d. Additional comments, as required.

## APPENDIX C

# Sample Format for FAA/USN Letter of Agreement Concerning Control of Air Traffic

### C.1 PURPOSE

As described in [Chapter 3](#), [Figure C-1](#) contains the sample format for a FAA/USN LOA concerning control of air traffic.

(Name) Air Route Traffic Control Center and NAS (Name) <b>LETTER OF AGREEMENT</b>	
	Effective (date) _____
Subj: Air Traffic Control Procedures (or as appropriate)	
1. Purpose: (General statement of responsibilities and description of necessary coordination) 2. Cancellation: (As required) 3. Scope: (Specify areas, names, and types of facilities involved) 4. Responsibilities: (Specify operational concepts) 5. Certification of Equipment: (See OPNAVINST 3721.5) 6. Procedures <ul style="list-style-type: none"> <li>a. ATC assigned airspace: List procedures to be followed for requesting and authorizing airspace, handling aircraft to and from the airspace, and notifying when no longer required.</li> <li>b. Transfer of control: Specify transfer procedures/release of aircraft to ASR/PAR.</li> <li>c. Departures: Specify required advance time for filing flight plans. Outline additional items required in the flight plan (e.g., type of departure(s), ECHO item procedures). When applicable, include authorization for local GCA unit(s) to provide limited departure control service.</li> <li>d. En Route: Include information that ATC is responsible for effecting separation in assigned airspace whenever nonparticipating aircraft are cleared to operate within such airspace.</li> <li>e. Arrivals: Special instructions.</li> <li>f. General:                         <ul style="list-style-type: none"> <li>(1) Single frequency approach procedures</li> <li>(2) Missed approach procedures</li> <li>(3) Flameout approach procedures</li> <li>(4) Special VFR operations</li> <li>(5) Provisions for handling movement of national defense aircraft in emergencies (OPNAVINST 3722.30), security control of air traffic and air navigation aids.</li> </ul> </li> </ul>	
7. Attachments: (List, as required, items such as chart of ATC assigned airspace areas, common reference/handoff points, etc.)	
Air Traffic Representative _____	Manager (name) (ARTCC) _____
Commanding Officer, NAS (name) _____ <div style="text-align: right; margin-right: 100px;">(Title of other appropriate authority) _____</div>	
Distribution List _____	

Figure C-1. Sample Format for FAA/USN Letter of Agreement Concerning Control of Air Traffic

## APPENDIX D

# Sample Format for Local FAA/ USN Memorandum of Agreement Regarding the Operation of Joint FAA/ Military ATC Facilities

### D.1 PURPOSE

As described in [Chapter 3](#), [Figure D-1](#) contains the sample format for a local FAA/USN MOA regarding the operation of joint FAA/military ATC facilities.

MEMORANDUM OF AGREEMENT	
	Effective (date) _____
Subj: Operation of joint FAA/NAS _____ ATC Facility	
1. Operational concepts: (division of responsibilities)	
2. Staffing/personnel assignment:	
3. Logistic support:	
4. Equipment:	
a. Maintenance	
b. Certification (see OPNAVINST 3721.5)	
5. Training/certification of personnel:	
6. Space assignment/layout:	
7. Janitorial service:	
8. Security:	
9. Parking:	
_____	
_____	
Manager of Joint FAA/NAS ATC Facility _____	Commanding Officer NAS _____

Figure D-1. Sample Format For a Local FAA/USN MOA Regarding the Operation of Joint FAA/  
Military ATC Facilities

## APPENDIX E

# Air Traffic Control Contingency Plan

(As addressed in **Chapter 3** of this manual)

## E.1 GENERAL

This plan is intended to provide continuity of Navy and Marine Corps flight operations within airspace for which the FAA has jurisdiction in the event of a significant disruption to the FAA ATC system.

### E.1.1 Scope and Applicability

This plan applies to naval aviation shore activities within the continental United States.

### E.1.2 Background

Significant disruptions to the FAA system may include, but are not limited to, loss of services resulting from power failures, earthquakes, floods, hurricanes, fires, civil disturbances, or personnel absenteeism. Personnel absenteeism may be because of epidemics, walkouts, "sickouts," illegal strikes, and the like. A significant disruption is considered to be a peacetime situation, short of national emergency, where the operational capability of one or more FAA ARTCC areas to provide required services is seriously reduced. In the past, the absence of a coordinated Navy/Marine Corps plan to be used in the event of disruptions in the ATC system has necessitated a concentration of decision making disruptions. The intent of this contingency plan is to decentralize authority by delegating contingency actions to the lowest echelons capable of carrying out the required actions and making appropriate decisions.

### E.1.3 Assumptions

The following assumptions form the basis on which this contingency plan is formulated:

1. The FAA will maintain primary cognizance for overall management of the ATC system.
2. At least 30 percent of the ATC system will remain functional.
3. Military ATC facilities and services will be fully available.
4. A national emergency will be declared if the FAA ATC system becomes nonoperational (i.e., greater than 70-percent loss of capability).
5. 14 CFR will not be waived in situations less than a national emergency.

## E.2 CONCEPT OF OPERATIONS

Associate Administrator for Air Traffic will determine that a significant disruption has occurred and will so notify the NMCC which will, in turn, notify the headquarters of the individual military services. The Air Traffic Control System Command Center (ATCSCC) in Herndon, Virginia will provide centralized direction of the ATC systems. Upon notification of a significant disruption, CNO will take action to cooperate with the FAA by reducing IFR operations in areas affected by the disruption while maintaining overall continuity of naval air operations to the maximum extent possible. The basic elements of the general plan are:

1. Upon notification that the ATCSCC Air Traffic Services Cell has been activated, CNO (N885F) will ensure that one Navy or Marine Corps officer is on duty at the ATCSCC at all times for the duration of the disruption. The functions of this officer are:
  - a. Act as liaison between FAA headquarters and CNO/CMC action officers.
  - b. Attend to the interests of naval aviation as they may be affected by events occurring in the ATCSCC Air Traffic Services Cell.
  - c. Keep interested offices within CNO and CMC apprised of significant events.

2. CNO (N885F) will notify all naval aviation commands of the nature and extent of the disruption and direct compliance with this contingency plan.
3. Naval aviation shore facilities shall activate local contingency plans to minimize effects of ATC disruptions on naval air operations.
4. Operational commanders shall:
  - a. Reduce IFR operations in affected areas to those operations specified below (areas affected will be specified in CNO notification message).
    - (1) Active air defense missions and active antisubmarine warfare missions.
    - (2) Flights in support of combat operations or forces.
    - (3) Flights in support of peacetime emergency plans.
    - (4) Flights involving safety of lives or property (e.g., search and rescue, air evacuation, hurricane evacuation, airlift forces in support of domestic crises, etc.).
    - (5) Flights supporting important peacetime service, joint or unified/specified command exercises or missions.
    - (6) Other flights specifically approved by one of the following commanders or higher authority:
      - (a) Naval Air Force Commanders.
      - (b) Chief of Naval Air Training.
      - (c) Marine Corps Air Wing Commanders.
      - (d) Fleet Marine Force Commanders.
      - (e) Commander, Naval Air Systems Command.
      - (f) Commander, Naval Air Force Reserve.
  - b. Institute flow control procedures to smooth IFR traffic in affected areas (e.g., shift operations where possible to times of low traffic density such as at night or early morning hours).
  - c. Conduct flights in accordance with VFRs in affected areas if feasible.
  - d. Reroute IFR flights to avoid affected areas if possible.
  - e. Use MARSAs in affected areas, if feasible.
5. Aircraft commanders shall list the words “military priority” in the remarks section of the flight plan for all IFR flights, any part of which will be conducted in affected areas. “Military priority” signifies that the flight falls into one of the categories set forth in subparagraph 4.a. of [paragraph E.2](#).
6. Active air defense interceptor missions and active antisubmarine warfare missions are vital to national defense and are given priority over all other military and civil aircraft by procedural handling by ATC for the particular operations as specified in coordinated agreements or authorizations. ATC services shall be provided to all other “military priority” flights in affected areas on a first come, first served basis.



### **E.3 ADMINISTRATIVE CONSIDERATIONS**

As need dictates, commanding officers of naval aviation shore facilities may cancel leave for military ATC personnel, recall military personnel on annual leave, and extend the length of the work day and work week.

FAA may redeploy air traffic coordinators, air traffic representatives, regional, area, and facility ATC personnel to those facilities most affected by disruption. However, FAA ATC personnel may not be redeployed by FAA from military facilities without the concurrence of the military commanders.

### **E.4 COORDINATING ACTION REQUIRED**

To support this plan, commanding officers having ATC facilities under their cognizance shall coordinate with appropriate local/regional FAA ATC officials and/or nearby military commanders to develop local contingency plans (e.g., letters of agreement or procedure) for use in the event of disruptions to ATC service affecting the military facility. Appropriate contingency actions might include:

1. Between the military airfield(s) and international airspace, designation of egress and ingress corridors within which the military would assume responsibility for separation between military traffic.
2. Designation of blocks of special use airspace for exclusive military use within which the military would assume responsibility for separation of aircraft.
3. Increasing the area of jurisdiction for which approach control service has been delegated to military facilities.
4. Delegation of authority to military approach control facilities to provide service for airfields normally provided such service by FAA facilities. Example: NAS Propbase is normally provided approach control service by Libertytown FAA approach control. NAS Jetbase, which is 15 miles from NAS Propbase, has its own military approach control facility. A local contingency plan might provide for NAS Jetbase to supply approach control service to NAS Propbase and Libertytown Municipal Airport in the event of a disruption to FAA provided services.
5. In joint FAA/military facilities, assignment of approximately crosstrained military personnel to operating positions normally filled by FAA personnel.



## **APPENDIX F**

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## APPENDIX G

# Air Traffic Control Personnel Statement

### G.1 AIR TRAFFIC CONTROL PERSONNEL STATEMENT

As discussed in [Chapter 3](#), [Figure G-1](#) is to be used when obtaining Air Traffic Control Specialist witness statements.

## ATC PERSONNEL STATEMENT

The following is a report concerning the mishap involving \_\_\_\_\_  
[Aircraft I.D. number(s)]

at \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ UTC.  
(location) (city) (state) (month, day, year) (time)

My name is \_\_\_\_\_ , \_\_\_\_\_ .  
(first - M.I. - last) (opr. init.)

I am an Air Traffic Control Specialist at the \_\_\_\_\_ .  
(facility name and location)

I was on duty in the \_\_\_\_\_ .  
(facility name)

I was working \_\_\_\_\_ , from \_\_\_\_\_ UTC to \_\_\_\_\_ GMT.  
(position name/number) (time on Position Log) (time off Position Log)

NOTE: Statements shall be written in the first person: "I am", "I did", etc. Include only the facts: what you heard, did, or observed. DO NOT abbreviate proper wording: 10,000 feet, 180 degrees, northeast, aircraft, 1800 UTC, flight, etc.

<b>SIGNATURE</b>		<b>PRINT NAME</b> <i>(First, Middle, Last)</i>	
DATE	RANK/RATE	SERVICE	TELEPHONE NO.
WHERE YOU MAY BE LOCATED			

Figure G-1. ATC Personnel Statement

## APPENDIX H

# Air Traffic Activity Report

### H.1 AIR TRAFFIC ACTIVITY REPORTS

As required in [Chapter 3](#), [Figures H-1](#) through [H-3](#) are used when submitting Air Traffic Activity Reports.

<b>AIR TRAFFIC ACTIVITY REPORT</b>					
<b>TO:</b> CHIEF OF NAVAL OPERATIONS CODE N885F 2000 NAVY PENTAGON WASHINGTON, DC 20350-2000			<b>1. REPORT PERIOD</b> 1 January - 31 December 20__		
<b>2. NAME OF ACTIVITY SUBMITTING REPORT</b>			<b>3. LOCATION IDENTIFIER</b>		
<b>4. NAME OF AIRFIELD THIS REPORT</b>					
<b>5.</b>	<div style="display: flex; justify-content: space-around;"> <span><b>MILITARY</b></span> <span><b>CIVIL</b></span> </div>				<b>TOTAL</b>
CONTROL TOWER OPERATIONS	NAVY/MARINE CORPS	OTHER MILITARY	AIR CARRIER	GENERAL AVIATION	
AIRPORT					
OVERFLIGHT					
TOTAL					
<b>6. RADAR APPROACHES</b>					
<div style="display: flex; justify-content: space-around;"> <span>MODE I</span> <span>MODE IA</span> <span>MODE II</span> <span>MODE III</span> </div>					<b>TOTAL</b>
<b>7. PALS APPROACHES</b>					
<b>8. Training Device Use — Type Device(s) _____</b> (1) Number of hours used _____ (2) Number of radar approaches accomplished _____ (3) Number of hours of pattern control, vector to outlying fields, etc. _____ (4) Number of hours of ground control _____ (5) Number of hours of local control _____ (6) Number of hours not used because of maintenance outage _____					
<b>9. Remarks.</b> Report airport use by runway, NAVAID approaches by runway, and radar/PALS approaches by runway. (Use additional pages if necessary.)					
<b>APPROVED</b>					
<b>COPY TO:</b> ATC T & R NAVREP (Specific Service Area) CMC (APX-25) (USMC only) FAA ATREP CNIC Regional Commander					

Figure H-1. Control Tower Operations



<b>AIR TRAFFIC ACTIVITY REPORT</b>					
TO: CHIEF OF NAVAL OPERATIONS CODE N885F 2000 NAVY PENTAGON WASHINGTON, DC 20350-2000			1. REPORT PERIOD 1 January - 31 December 20__		
2. NAME OF ACTIVITY SUBMITTING REPORT			3. LOCATION IDENTIFIER		
4. NAME OF AIRFIELD THIS REPORT					
5.	<div style="display: flex; justify-content: space-between;"> <span>MILITARY</span> <span>CIVIL</span> </div>				
APPROACH CONTROL OPERATIONS	NAVY/MARINE CORPS	OTHER MILITARY	AIR CARRIER	GENERAL AVIATION	TOTAL
IFR					
VFR					
TOTAL					
6. RADAR APPROACHES					
<div style="display: flex; justify-content: space-around;"> <span>MODE I</span> <span>MODE IA</span> <span>MODE II</span> <span>MODE III</span> </div>					TOTAL
7. PALS APPROACHES					
8. Training Device Use — Type Device(s) _____ (1) Number of hours used _____ (2) Number of radar approaches accomplished _____ (3) Number of hours of pattern control, vector to outlying fields, etc. _____ (4) Number of hours not used because of maintenance outage _____					
9. Remarks. Report airport use by runway, NAVAID approaches by runway, and radar/PALS approaches by runway. (Use additional pages if necessary.)					
APPROVED					
COPY TO: ATC T & R NAVREP (Specific Service Area) CMC (APX-25) (USMC only) FAA ATREP CNIC Regional Commander					

Figure H-2. Approach Control Operations

AIR TRAFFIC ACTIVITY REPORT					
TO: CHIEF OF NAVAL OPERATIONS CODE N885F 2000 NAVY PENTAGON WASHINGTON, DC 20350-2000			1. REPORT PERIOD 1 January - 31 December 20__		
2. NAME OF ACTIVITY SUBMITTING REPORT			3. LOCATION IDENTIFIER		
4. NAME OF AIRFIELD THIS REPORT					
5.	<div style="display: flex; justify-content: space-between;"> <span>MILITARY</span> <span>CIVIL</span> </div>				
SPECIAL USE AIRSPACE OPERATIONS	NAVY/MARINE CORPS	OTHER MILITARY	AIR CARRIER	GENERAL AVIATION	TOTAL
TOTAL					
6. Training Device Use — Type Device(s) _____ (1) Number of hours used _____ (2) Number of hours not used because of maintenance outage _____					
7. Remarks. (Use additional pages if necessary.)					
APPROVED					
COPY TO: ATC T & R NAVREP (Specific Service Area) CMC (APX-25) (USMC only) FAA ATREP CNIC Regional Commander					

Figure H-3. Special Use Airspace Operations

## APPENDIX I

# Minimum Vectoring Altitude Chart

(For use in the preparation, review and approval of Minimum Vectoring Altitude Charts as discussed in [Chapter 7](#))

## I.1 AREA OF CONSIDERATION

The area considered for obstacle clearance shall be the maximum range of the primary radar, except for GCA facilities, in which the distance may be limited to the maximum range the facility is expected to vector aircraft. This area may be subdivided into sectors as necessary to gain relief from obstacles. There is no prescribed limit on the size, shape, or orientation of the sectors; however, they must be designed in consideration of aircraft maneuvering ability, obstacle clearance requirements, and air traffic flow requirements. Vectoring charts should be designed to emphasize simplicity and safety in radar traffic control applications.

## I.2 OBSTACLE CLEARANCE

Obstacle clearance shall be provided over all obstacles within the vectoring area/segments and within a 3-mile (5 miles at distances greater than 40 miles from the antenna) buffer area surrounding the area/segments. Apply 1,000 feet of obstacle clearance in areas and 2,000 feet in areas designated as mountainous in the FLIP. MVAs should provide at least 300 feet above the floor of controlled airspace. Include a rationale if selected altitudes do not provide 300 feet above the controlled airspace floor. Resultant altitudes are rounded up to the nearest 100 feet, i.e., 1,101 feet shall become 1,200 feet.

Where lower MVAs are required in designated mountainous areas to achieve compatibility with terminal routes or to permit vectoring to an instrument approach procedure, 1,000 feet of obstacle clearance may be used.

## I.3 PREPARATION

1. Minimum Vectoring Altitude Charts should be drawn on an appropriate topographical chart. An aeronautical sectional chart is the preferred method since controlled airspace is included on the chart. However, where four or less sectors can be identified, the compass rose diagram on the REQUEST/APPROVAL form may be used.
2. Center the MVA chart on the ASR antenna site, even if other NAVAIDS are used to describe sectors.
3. Segment the chart into areas as required by the different minimum vectoring altitudes. Configuration of the segments will vary with local terrain and operational considerations. Use the following methods as applicable: (See [Figure I-1](#) for an example chart.)
  - a. Describe the segments by using magnetic bearings from the radar antenna site and radar display range marks or by radials or radials and arcs from VOR/TACAN/VORTACs.
  - b. To facilitate correlation between vectoring charts and radar displays, make segment boundaries coincident or compatible with map overlay or video map data.
  - c. Make each sector large enough to accommodate vectoring of aircraft. In some cases, it may be desirable to combine adjoining smaller areas having different altitudes into a single large area with one altitude.
  - d. Establish segment boundaries at least 3 miles (5 miles at distances greater than 40 miles from the antenna) from the obstruction determining the minimum vector altitude.
  - e. To avoid a large area with an excessively high minimum vectoring altitude because of an isolated prominent obstruction, enclose the obstruction with a buffer of at least 3 miles (5 miles at distances greater than 40 miles from the antenna) from the obstruction. Do this to facilitate vectoring around the obstruction.

- f. Determine the minimum IFR vectoring altitude in each area by applying [paragraph I.2](#).

**Note**

Minimum vectoring altitudes are established irrespective of the flight checked radar coverage in the sector concerned. They are based on obstruction clearance criteria only. It is the responsibility of the controller to determine that a target return is adequate for radar control purposes.

- g. Ensure that an assumed 200-foot mast height is applied to MVA computations for those sectors overlaying designated shipping lanes.
  - h. An MVA established outside of controlled airspace will be so noted and will consider obstacle clearance only.
  - i. Ensure that minimum vectoring altitudes are compatible with vectoring altitudes established for associated radar instrument approach procedures.
  - j. Depict the segment identification and the minimum vectoring altitude in each segment.
  - k. Complete the Minimum Vectoring Altitude Chart Computations sheet ([Figure I-2](#)).
4. Develop Terminal MVACs to support radar data being provided by a feed from a single ASR/DASR or to support the designated terminal area of a multi-sensor “mosaic” system when the area is adapted to exclusively utilize a single terminal radar.
  5. Develop Long Range MVACs to support those systems where radar data is provided by a feed from one or more ARSRs, or a feed from more than one terminal radar, or for multi-sensor “mosaic” systems (e.g. STARS).

#### **I.4 REVIEW AND APPROVAL**

Forward the completed Request/Approval — U.S. Navy Minimum Vectoring Altitude Chart, the MVA chart, and the supporting documentation to NAVFIG for review and approval.

REQUEST/APPROVAL — U.S. NAVY MINIMUM VECTORING ALTITUDE CHART					
Airport name:		Location (city, state, country):		Effective date:	
Type radar equipment:		Ant LAT/LONG:		Assigned variation:	
Other NAVAIDs:		Point of contact:		Phone number:	
		E-mail:			
ATCF Officer		Date		Commanding Officer	
Date		Date		Date	
APPRV	DISAPP	NAVFIG PROC SPCLST		HD. NAVFIG	Date
		Date			

NAVFIG Form 4 MVAC

Figure I-1. Request/Approval — U.S. Navy Minimum Vectoring Altitude Chart

[illegible]

### Figure I-2. Minimum Vectoring Altitude Chart Computations

## APPENDIX J

# ATC Training Evaluation Report

## J.1 PURPOSE

As required in [Chapter 8](#), this appendix contains [Figure J-1](#), ATC Training and Evaluation Report Form (Sheets 1 and 2), and standards for evaluating controllers under instruction.

## J.2 RADAR FUNCTIONS AND DUTIES

### J.2.1 Separation

1. Separation is ensured: provides control instructions or restrictions to ensure that separation standards are maintained at all times.
  - a. Issues control instructions or restrictions to prevent loss of separation.
  - b. Ensures separation standards are maintained at all times.

### J.2.2 Control Judgment

1. Awareness is maintained: continuous attention is provided to all facets of the control environment to ensure that discrepancies do not exist; takes action to resolve any discovered discrepancies; and ensures that other personnel/facilities affected by these discrepancies are notified. Develops an accurate “picture” of the existing traffic and displays the ability to forecast future positions and relationships of aircraft.
  - a. Controls in a manner to ensure future separation or flow problems will not exist; generally reacts to situations before they are imminent.
  - b. Ensures awareness of all facts concerning the control situation.
  - c. Ensures flight strip information is in agreement with aircraft/route position.
  - d. Verifies if a discrepancy exists any time an unusual or nonstandard situation occurs.
  - e. Considers subsequent controller requirements.
  - f. Keeps alert for possible problem situations from other controllers/facilities.
  - g. Does not use control procedures which result in unnecessary work loads and stress being placed on other controllers/facilities.
2. Good judgment is applied: issues control instructions or restrictions that are correct or reasonable control procedures that provide for efficient flow of traffic. Obtains all available facts about the control situation, fully and accurately determines aircraft requirements, and carefully plans procedures prior to issuing instructions.
  - a. Determines the requirements of aircraft.
  - b. Issues necessary restrictions.
  - c. Does not accept handoffs of aircraft that are in conflict or about to lose separation.
  - d. Utilizes correct vector procedures.
  - e. Utilizes correct speed control procedures.
  - f. Correctly evaluates the factors affecting safety of aircraft.

- g. Correctly evaluates the factors affecting traffic flow.
  - h. Informs aircraft and appropriate personnel of existing significant situations.
  - i. Does not control in a manner which allows significant situations to develop resulting in system errors, lessening of safety, or unnecessary slowing of traffic.
  - j. Does not allow or order unneeded separation.
  - k. Does not have to issue additional instructions because previous actions or decisions were incorrect or unnecessary.
3. Control actions are correctly planned: controls traffic within area of responsibility in an orderly manner.
- a. Control procedures do not tend to cause unnecessary complexity and confusion.
  - b. Does not terminate or activate radar control too soon.
  - c. Correctly sequences traffic flow.
4. Positive control of situation is provided: controller takes command of control situations; does not act in a hesitant and uncertain manner.
- a. Acts decisively; appears to have confidence.

### **J.2.3 Traffic Management**

1. Prompt action to correct errors is taken: recognizes when an error exists or has been made and takes prompt action to initiate a correction.
- a. Does not commit errors in call sign, instruction, or information.
  - b. Acts rapidly to correct errors.
  - c. Recognizes when incorrect information has been passed to aircraft or other ATC personnel.
2. Traffic overload is prevented when possible: observes present and forecast traffic to predict whether or not an overload may occur and takes appropriate actions to prevent or lessen an overload situation.
- a. Recognizes potential overload situations.
  - b. Initiates action to prevent or limit the overload.
  - c. Initiates holding procedures; does not allow clearances when traffic overload is developing.
3. Aircraft radar identity is maintained: determines aircraft position through appropriate use of beacon, turn procedures, or coordination with other sectors/facilities; maintains positive identification during the entire time the aircraft is within the area of responsibility.
- a. Employs correct beacon or radar procedures.
  - b. Reidentifies aircraft when a doubt exists.
  - c. Detects errors in identity.
4. Professional manner is maintained: demonstrates the ability to think clearly and act rapidly during stressful situations; conveys a positive and professional impression at all times.
- a. Continues to control in an effective manner when the control situation becomes stressful.
  - b. Conveys to other controllers, pilots and related personnel the impression of a skilled professional who can successfully handle the situation.
  - c. Remains calm under stress.



### **J.2.4 Operating Methods and Procedures**

1. Flight strip postings are complete or correct: posts all required information on flight strips.
  - a. Posts altitude changes, estimated times, radar contact, etc.
  - b. Posts data in correct area of strip.
  - c. Uses required colors.
  - d. Detects and/or corrects flight strip errors or update changes.
2. Letters of agreement/directives are adhered to: performance of control functions and duties are in compliance with agreed-upon facility procedures, handbooks, or directives.
  - a. Adheres to noise abatement routing procedures.
  - b. Adheres to facility directives and local routing restrictions.
3. Navigational assistance is provided: issues appropriate control instructions to avoid conflicting situations, to obtain operational advantages, to avoid congested areas, or to provide shorter routes.
  - a. Provides navigational assistance when an operational advantage to the pilot or controller would be gained.
4. Handoff procedures are correctly performed: verifies aircraft position or coordinates any restrictions or special instructions; uses correct interphone procedures.
  - a. Verifies aircraft position or altitude.
  - b. Satisfactorily coordinates special restrictions or instructions.
  - c. Correctly updates flight strips.
  - d. Performs handoff at appropriate time/position.

### **J.2.5 Coordination and Communication**

1. Necessary traffic advisories are provided: follows the required format when passing traffic information and passes traffic advisories when work load permits.
  - a. Issues safety advisories as appropriate.
  - b. Provides traffic advisories to aircraft on work load permitting basis.
  - c. Provides advisory service to all radar identified aircraft.
  - d. Issues complete traffic information in the required format.
2. Coordination is thorough: coordinates all information that is pertinent to the situation. Ensures that personnel receiving information have all of the contents or acknowledges all information received on position.
  - a. Ensures that all required information has been passed.
  - b. Verifies or acknowledges all information exchanges.
  - c. Keeps supervisor informed of emergency status information.

3. Communication is clear and concise: ensures that all data passed or received is understood; does not have to repeat information using different words to convey the intended meaning.
  - a. Ensures information is understood.
  - b. Makes intentions known.
  - c. Provides useful information that is timely, accurate, and clear.
  - d. Does not have to repeatedly explain intentions.
4. Makes necessary transmissions: transmits information that is required over radio or interphone; does not transmit information as separate messages when it would be more efficient to combine information.
  - a. Does not make unnecessary use of radio or interphones.

#### **J.2.6 Phraseology**

1. Standard phraseology adhered to: uses words and phrasings in accordance with the requirements of the duty being performed.
  - a. Uses approved procedural words, phrases, and formats.
  - b. Improvises when necessary.
2. Voice quality: quality of the controller's voice is such that it is easy to understand speech.
  - a. Easy voice pitch or timbre is satisfactory.
  - b. Voice is not harsh, grating, or causes lack of understanding.
3. Speech rate is correct: other personnel or pilots have no difficulty understanding what has been said because controller speaks too rapidly or too slowly.
  - a. Speaks neither too fast nor too slow.
  - b. Adjusts speech rate to ensure accurate receipt of information.

#### **J.2.7 Equipment**

1. Equipment status information is maintained: maintains knowledge of equipment operating status or NAVAIDs used by aircraft flying through area; reports malfunctioning equipment as required.
  - a. Determines status of equipment performance.
  - b. Reports malfunctions.
2. Adjustment of control display is correct: adjusts the radar presentation to exhibit the best display possible; recognizes when maintenance assistance is necessary; takes steps to ensure that control is provided when radar display has deteriorated beyond safe limits.
  - a. Displays entire control area.
  - b. Adjusts gain so that targets are sharp and distinct.
3. Equipment capabilities are fully utilized/understood: utilizes available equipment to the fullest extent possible; displays knowledge of capabilities and limitations of equipment and its associated backup.
  - a. Uses best equipment available.
  - b. Is aware of built-in delay in radio equipment.
  - c. Is aware of secondary equipment when primary fails.

### **J.3 CONTROL TOWER FUNCTIONS AND DUTIES**

#### **J.3.1 Separation**

1. Separation is ensured: provides control instructions or restrictions to ensure that separation standards are maintained at all times.
  - a. Issues control instructions or restrictions to prevent loss of separation.
  - b. Ensures that separation standards are maintained at all times.
  - c. Plans departure route prior to issuing takeoff clearance to maintain safe separation.
  - d. Detects and corrects unsafe separation of VFR and IFR traffic.
  - e. Detects unsafe aircraft maneuvering.

#### **J.3.2 Control Judgment**

1. Awareness is maintained: continuous attention is provided to all facets of the control environment to ensure that discrepancies do not exist; takes action to resolve any discovered discrepancies; and ensures that other personnel/facilities affected by these discrepancies are notified. Develops an accurate “picture” of the existing traffic, and displays the ability to forecast positions and relationships of aircraft.
  - a. Ensures control of ground vehicle traffic when required.
  - b. Does not engage in conversations about miscellaneous matters when the developing situation calls for attention.
  - c. Considers subsequent controller requirements.
  - d. Keeps alert for possible situations from other controllers.
  - e. Ensures that flight strip information is in agreement with aircraft route/position.
  - f. Ensures awareness of all facts concerning the control situation.
  - g. Detects radio communication failures.
  - h. Does not use control procedures which result in unnecessary work loads and stress being placed on other controllers/facilities.
  - i. Makes no unnecessary moves around the CAB.
2. Uses good control judgment: issues control instructions or restrictions that are correct or reasonable. Employs control procedures to allow for efficient flow of traffic. Obtains all available facts about the control situation, fully and accurately determines aircraft requirements, and carefully plans procedures prior to issuing instructions.
  - a. Allows or orders only necessary altitude, heading, or speed changes.
  - b. Allows or orders only needed separation.
  - c. Controls in a manner which allows no significant situations to develop resulting in errors, lessening of safety, or unnecessary slowing of traffic.
  - d. Determines the requirements of aircraft.
  - e. Informs aircraft and appropriate personnel of existing significant situations or hazardous conditions.
  - f. Issues minimum additional instructions because previous actions or decisions were incorrect or unnecessary.

- g. Correctly evaluates the factors affecting safety of aircraft.
  - h. Correctly evaluates the factors affecting traffic flow.
  - i. Issues no unnecessary restrictions.
  - j. Unsafe approach and missed approach aircraft are determined early and cause no unnecessary delay or handling problems.
3. Control actions are correctly planned: controls traffic within the area of responsibility in an orderly manner, and carefully plans procedures prior to issuing instructions.
- a. Applies flow control procedures at the appropriate time to prevent unnecessary slowdown of traffic.
  - b. Control procedures are orderly.
  - c. Plans effective/expeditious runway use.
  - d. Plans taxi traffic, which eliminates unnecessary stops, delays, and communication.
  - e. Correctly sequences flight strips.
  - f. Transfer of control to ground control is timely.
  - g. Transfer of control to local control is timely.
  - h. Turnoff instructions are timely.
  - i. Traffic data is closely monitored.
4. Positive control of situation is provided: controller takes command of control situations; acts in an expedient and decisive manner.
- a. Acts with poise and self-confidence.

### **J.3.3 Traffic Management**

1. Prompt action to correct errors is taken: recognizes when an error exists or has been made and subsequently takes prompt corrective action.
- a. Commits minimum errors in call sign, instruction, or information.
  - b. Acts rapidly to correct the error.
  - c. Recognizes when incorrect information has been passed to aircraft or other personnel and/or facilities.
2. Effective traffic flow is maintained: takes into account aircraft characteristics and effect on traffic flow; uses runways and taxiways to best advantage; sequences timely landing and departure clearances to effect an orderly traffic flow, resulting in no unnecessary delays.
- a. Makes effective use of turnoff taxiways.
  - b. Makes effective use of runways.
  - c. Presents orderly traffic flow with proper aircraft spacing to departure radar.
  - d. Provides prompt landing clearances, traffic advisories, terminal weather, and other pertinent information.
  - e. Secures, through coordination, adequate airspace for arrival aircraft.
  - f. Considers aircraft characteristics and their effect on traffic flow.
  - g. Taxi traffic is managed efficiently and effectively.

3. Aircraft identity is maintained: determines aircraft position through visual means or coordination with other personnel/facilities; maintains positive identification during the entire time the aircraft is within the area of responsibility.
  - a. Use of radar displays is adequate.
  - b. Uses tally sheet or other aid to maintain identity when it becomes necessary because of traffic load.
  - c. Employs correct fix, turn, or radio procedures.
  - d. Detects errors in identity.
  - e. Reidentifies aircraft when a doubt exists.
4. Professional manner is maintained: demonstrates the ability to think clearly and act rapidly during stressful situations; conveys a positive and professional impression at all times.
  - a. Continues to control in an effective manner when the control situation becomes stressful.
  - b. Conveys to other controllers, pilots, and related personnel the impression of a skilled professional who can successfully handle the situation.
  - c. Remains calm under stress.

#### **J.3.4 Operating Methods and Procedures**

1. Flight strip postings are complete and correct: posts all required information on flight strips and updates them as required.
  - a. Detects and/or corrects flight strip errors or update changes.
  - b. Posts altitude changes, estimated time, route changes, etc.
  - c. Posts data in correct area of strip.
  - d. Postings are legible.
2. Clearance delivery is correct/complete/timely: issues clearances in the correct format or order; is specific and uses correct phraseology.
  - a. Uses specific terms to describe a fix.
  - b. Never exceeds clearance authority.
  - c. Readback procedures are adhered to.
  - d. Uses appropriate clearance fixes.
3. Letters of agreement/directives are adhered to: performance of control functions and duties are in compliance with agreed-upon facility procedures, handbooks, or directives.
  - a. Adheres to noise abatement routing procedures.
  - b. Adheres to directives and local routing restrictions.

4. Terminal weather information is provided: changes in weather such as visibility and wind are monitored and provided as necessary to aircraft, controllers, and other facilities.
  - a. Monitors weather information in an adequate manner.
  - b. Notes significant changes in terminal weather conditions.
  - c. Provides terminal weather information to aircraft and controller/facilities as necessary.
  - d. Issues appropriate ATIS information when necessary.
5. Handoff procedures are correctly performed: verifies aircraft position or coordinates any restrictions or special instructions; uses correct interphone procedures.
  - a. Ensures departure radar awareness of unusual departure routes.
  - b. Performs handoff at appropriate time/position.
  - c. Satisfactorily coordinates special restrictions or instructions.
  - d. Verifies aircraft position or altitude.
  - e. Correctly updates flight strips.

### **J.3.5 Coordination and Communication**

1. Necessary traffic advisories are provided: follows the required format when passing traffic information; passes traffic advisories when work load permits.
  - a. Provides traffic advisories to aircraft on work load permitting basis.
  - b. Issues complete traffic information in the required format.
2. Coordination is thorough: coordinates all information that is pertinent to the situation. Ensures that personnel receiving information have all of the contents and acknowledges all information received on position.
  - a. Ensures that all required information has been passed.
  - b. Verifies or acknowledges all information exchanges.
  - c. Coordinates revisions and updates in ATIS information.
  - d. Keeps supervisor informed of emergency status information.
  - e. Issues PIREP and NOTAM information in a timely manner.
3. Communication is clear and concise: ensures that all data passed or received is understood; does not have to repeat information using different words to convey the intended meaning.
  - a. Ensures information is understood.
  - b. Makes intentions known.
  - c. Provides useful information that is timely, accurate, and clear.
  - d. Does not have to explain intentions more than once.

4. Makes only necessary transmissions: transmits only information that is required over radio or interphone; or transmits information as combined messages when it is more efficient to combine information.
  - a. Only necessary use of radio or interphones.
  - b. Over coordination does not result from having too much information.

### **J.3.6 Phraseology**

1. Standard phraseology is adhered to: uses words and phrases in accordance with the requirements of the duty being performed.
  - a. Uses approved procedural words, phrases, and formats.
  - b. Improvises only when necessary.
2. Voice quality: quality of the controller's voice is such that it is easy to understand.
  - a. Voice pitch or timbre is satisfactory.
  - b. Voice is not harsh, grating, or causes lack of understanding.
3. Speech rate is correct: other personnel or pilots have no difficulty understanding what has been said because controller speaks too rapidly or too slowly.
  - a. Speaks neither too fast nor too slow.
  - b. Adjusts speech rate to ensure accurate receipt of information.

### **J.3.7 Equipment**

1. Equipment status information is maintained: maintains knowledge of equipment operating status; reports malfunctioning equipment as required.
  - a. Determines status of equipment performance.
  - b. Reports malfunctions.
2. Equipment operations are thoroughly understood: is familiar with all equipment in control tower; understands all procedures, needs no help on malfunction procedures; has no difficulty switching to backup equipment.
  - a. Knows procedures for operating all equipment.
  - b. Has no difficulty in operating radio equipment, lighting equipment, and/or other control tower equipment.
  - c. Is familiar with backup equipment or procedures.
  - d. Uses tower radar display to full capabilities.

ATC TRAINING EVALUATION REPORT FORM							
Name		Position		Date		Rwy	
Type of Training	Workload	Complexity		Weather		Routing	
<input type="checkbox"/> OTS <input type="checkbox"/> OJT <input type="checkbox"/> Certification <input type="checkbox"/> Classroom <input type="checkbox"/> Observation <input type="checkbox"/> Simulation <input type="checkbox"/> Tape Talk <input type="checkbox"/> Annual	<input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy	<input type="checkbox"/> Routine — not difficult <input type="checkbox"/> Occasionally difficult <input type="checkbox"/> Mostly difficult <input type="checkbox"/> Very difficult		<input type="checkbox"/> IFR <input type="checkbox"/> VFR <input type="checkbox"/> MVRP <input type="checkbox"/> Fog <input type="checkbox"/> Icing <input type="checkbox"/> Rain <input type="checkbox"/> Thunder Storms <input type="checkbox"/> Other: _____		ATCFO _____ LCPO _____ TC _____ BR CHIEF _____ FWS _____ TPO _____ BR SUP _____	
Evaluation Factors		Evaluation Subfactors		Evaluation Marks			
				SAT	NI	UNSAT	NA/O
Refer to ATC NATOPS Chapter 8 and Appendix J	Separation	1. Separation is ensured					
	Control Judgment	2. Awareness is maintained					
		3. Good control judgment is applied					
		4. Control actions are correctly planned					
		5. Positive control of situation is provided					
		6. Prompt action to correct errors is taken					
	Traffic Management	7. Effective traffic flow is maintained					
		8. Aircraft identity is maintained					
		9. Professional manner is maintained					
		10. Flight strip postings are complete and correct					
	Operating Methods and Procedures	11. Clearance delivery is correct/complete/timely					
		12. Letter of agreement/directives are adhered to					
		13. Navigational assistance is provided					
		14. Weather information is provided					
		15. Handoff procedures are correctly performed					
	Coordination and Communication	16. Necessary traffic advisories are provided					
		17. Coordination is thorough					
		18. Communication is clear and concise					
		19. Makes necessary transmissions					
	Phraseology	20. Standard phraseology is adhered to					
		21. Voice quality					
		22. Speech rate is correct					
	Equipment	23. Equipment status information is maintained					
		24. Computer entries are correct					
		25. Adjustment of control display is correct					
		26. Equipment capabilities are fully utilized/understood					
	Other (specify)	27. _____					
		28. _____					
		29. _____					
Training Hours Summary:		TTH	GCA/PALS Approaches Summary:		ASR	PAR	
Prior hours:			Prior approaches:				
Hours this period:			Approaches this period:				
Cumulative hours:			Cumulative approaches:				
Percentage of maximum TTH/approaches allowed:							

Figure J-1. ATC Training Evaluation Report Form (Sheet 1 of 2)



Overall Performance: (Refer to ATC NATOPS Chapter 8 and Appendix J)		References
<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory	
Instructor Comments:		
		Instructor Name (print):
Trainee Comments:		
		This report has been discussed with me.

Figure J-1. ATC Training Evaluation Report Form (Sheet 2)



## APPENDIX K

# Air Traffic Control Certification/Qualification Record

## K.1 PURPOSE

As required in [Chapter 8](#), individual ATC Certification/Qualification Records shall be established that contain the information as specified in [Figure K-1](#) of this appendix. This action provides ATC management a cumulative and standardized presentation of professional history for assigned personnel. ■

**PRIVACY ACT STATEMENT**

(Use only last 4 digits of SSN)

**SECTION I**

**ADMINISTRATION**

- A. ANNUAL MEDICAL UP CHIT
- B. TEMPORARY GROUNDING CHITS AND UP CHITS
- C. COPY OF AWT RESULTS/CTO CERTIFICATE/ATCS CERTIFICATE/CREDENTIALING CERTIFICATE
- D. CAREER HISTORY SUMMARY (including duty assignments and associated qualifications)
- E. SECURITY CLEARANCE (type, adjudicated date, expiration)
- F. RECORD OF ANNUAL AUDIT OF ATC CERTIFICATION/QUALIFICATION RECORD
- G. MISCELLANEOUS

**SECTION II**

**QUALIFICATIONS AND DESIGNATIONS**

- A. FACILITY QUALIFICATION SUMMARY (including OJT qualification date(s))

Start/Stop/Qualification Dates/Calendar Days Trained

Training Hours (Actual/Simulated/Total)

Annual Over-the-Shoulder Position Evaluation Completion Date(s)

Position Test(s) (Date and Score)

Administrative Action Complete

- USN Page 4 Entry

- USMC MCTFS Entry

- B. POSITION QUALIFICATIONS AND ANNUAL EVALUATIONS

**Note**

Tab for Each Operating/Supervisory Position

LQS/PQS/Qualification Letter(s)

Annual Evaluation(s)

(Supervisor's Test Score Annotated on ATC Training Evaluation Report Form)

- C. DESIGNATION LETTERS

**SECTION III**

**ON-THE-JOB-TRAINING DOCUMENTATION**

**Note**

Tab for Each Operating/Supervisory Position

- A. CONTROLLER EVALUATION DOCUMENTATION

ATC Training Evaluation Reports (retain only until controller is qualified)

Progress Review Documents (retain only until controller is qualified)

CEB Minutes (if applicable)

- B. TAPE TALK

Figure K-1. Contents of ATC Certification/Qualification Record (Sheet 1 of 2)

<p style="text-align: center;"><b>SECTION IV</b></p> <p style="text-align: center;"><b>GENERAL TRAINING INFORMATION</b></p> <p style="text-align: center;"><b>(USN ONLY)</b></p> <p>A. INDIVIDUAL DEPLOYMENT RECORDS/INFORMATION</p> <p>B. PROFESSIONAL MILITARY EDUCATION (if not documented elsewhere)</p> <p>C. GENERAL MILITARY TRAINING (if not documented elsewhere)</p> <p>D. MISCELLANEOUS</p> <p>ATC Certification/Qualification Record may be maintained electronically provided it conforms to this format.</p>
--

Figure K-1. Contents of ATC Certification/Qualification Record (Sheet 2)



APPENDIX L

Personnel Office Transmittal Forms

L.1 ATC QUALIFICATION/DESIGNATION ENTRIES IN SERVICE RECORDS

As discussed in Chapter 8, the administrative transmittal samples in this appendix (Figure L-1, L-2, and L-3) are used to forward ATC qualifications/designations to the Personnel Office for service record entry.

(SAMPLE)

MEMORANDUM

Date \_\_\_\_\_

From: Air Traffic Control Facility Officer

To:

Subject: Air Traffic Control Facility Watch Supervisor Designation ICO

Rate

Name

SSN (last four digits)

Ref: (a) ATC NATOPS Manual (NAVAIR 00-80T-114)  
(b) (C.O. letter of designation)

1. Per references (a) and (b), request subject designation, effective \_\_\_\_\_ be entered in SNM’s service record.  
(Date)

2. Upon completion of action, request your endorsement and return of this memo.

//s// \_\_\_\_\_

-----

FIRST ENDORSEMENT

Date \_\_\_\_\_

From:

To: Air Traffic Control Facility Officer

1. Service record entry was completed on \_\_\_\_\_ as requested.  
(Date)

//s// \_\_\_\_\_

ATC-F04

Figure L-1. Facility Watch Supervisor Designation Transmittal

(SAMPLE)		
MEMORANDUM		Date _____
From: Air Traffic Control Facility Officer		
To:		
Subj: Air Traffic Control Specialist (ATCS) Rating Designation ICO		
Rate	Name	SSN (last four digits)
Ref: (a) ATC NATOPS Manual (NAVAIR 00-80T-114)		
1. Per reference (a), request the following page 4 service record entry:		
Air Traffic Control Specialist _____ (see chapter 4) _____,		
Facility Rating; effective _____.		
(Date)		
2. Upon completion of action, request your endorsement and return of this memo.		
//s// _____		
-----		
FIRST ENDORSEMENT		Date _____
From:		
To: Air Traffic Control Facility Officer		
1. Service record entry was completed on _____ as requested.		
(Date)		
//s// _____		

ATC-F05

Figure L-2. Air Traffic Control Specialist (ATCS) Rating Designation Transmittal



(SAMPLE)

## MEMORANDUM

Date \_\_\_\_\_

From: Air Traffic Control Facility Officer

To: OIC, NAVMETOCDET \_\_\_\_\_

Subj: Request for Tower Visibility Observer Designation

Ref: (a) NAVAIR 00-80T-114  
 (b) NAVMETOCCOMINST 1500.3G

1. Per references (a) and (b), it is requested that \_\_\_\_\_ be designated as a Tower Visibility Observer.

//s// \_\_\_\_\_

## FIRST ENDORSEMENT

Date \_\_\_\_\_

From: OIC, NAVMETOCDET

To: Air Traffic Control Facility Officer

1. Subject request is approved/disapproved.

//s// \_\_\_\_\_

ATC-F06

Figure L-3. Tower Visibility Observer Designation



APPENDIX M

# TERPS Airfield Information Summary and TERPS Obstacle Summary Instructions

(Use of this form is discussed in [Chapter 3](#) and [9](#) of this manual.)

TERPS AIRFIELD INFORMATION SUMMARY INSTRUCTIONS	
<u>GENERAL</u>	
<p>These instructions are for completing forms NAVFIG Form 5 and NAVFIG Form 6. After an initial submission of each form, it shall be reviewed annually. Whenever interim changes occur, whether extensive or minor, NAVFIG shall be notified as soon as possible. Extensive changes, e.g., when you add several new obstacles or make several coordinate changes, a revised form shall be submitted. All changes must be identified on a cover letter or may be highlighted on the revised form. Minor changes may be made by telephone, but must be followed by letter or revised form.</p>	
<u>ACCURACY</u>	
<p>Use the most accurate data available. Minimum standards should not be less than those listed below:</p>	
<ul style="list-style-type: none"> <li>a. Distances:               <ul style="list-style-type: none"> <li>(1) The nearest tenth of feet when measured in feet.</li> <li>(2) The nearest tenth of miles when reported in miles.</li> <li>(3) All mileages are nautical miles (6076.1 feet)</li> </ul> </li> <li>b. Geographical coordinates - to the nearest hundredth of an arc second. <b>Enter in the REMARKS the reference datum used for the calculation.</b></li> <li>c. True/magnetic values - to the nearest tenth of degree.</li> <li>d. Elevations are Mean Sea Level (MSL), except also report Above Ground Level (AGL) for obstacles.</li> </ul>	
<u>NAVFIG Form 5, TERPS AIRFIELD INFORMATION SUMMARY</u>	
1. GENERAL	
<ul style="list-style-type: none"> <li>A. AIRPORT: Enter name, i.e., PENSACOLA NAS, CHERRY POINT MCAS.</li> <li>B. LOCATION: Enter the name of the associated city and state/country.</li> <li>C. OPERATING AGENCY: Enter the mailing address of the assigned unit or detachment.</li> <li>D. OWNER: Indicate the actual owner (USN, FAA, foreign country, etc.).</li> <li>E. ICAO IDENTIFIER: Enter the four letter designation for airport.</li> <li>F. AIRPORT ELEVATION: Enter the elevation of the highest point on the useable airport landing surfaces.</li> <li>G. MAGNETIC VARIATION: Enter current magnetic variation at the airport location and the epoch year</li> <li>H. AIRPORT REFERENCE POINT: Enter the latitude and longitude for the official ARP.</li> </ul>	
2. AIRFIELD INFORMATION	
<ul style="list-style-type: none"> <li>A. RUNWAY NUMBER: Self-explanatory.</li> <li>B. LENGTH: Enter the length of the landing surface. Measure from threshold to threshold.</li> <li>C. WIDTH: Enter the width of the runway. Measure from runway lights.</li> <li>D. THRESHOLD ELEVATION: Enter MSL elevation at the threshold.</li> <li>E. TOUCHDOWN ZONE ELEVATION: Enter MSL elevation of touchdown zone (the highest point within the first 3,000 feet of runway)</li> <li>F. RUNWAY GRADIENT: Enter the gradient (percent) of the first 3,000 feet of the runway and indicate the direction of slope, either (+) or (-). Starting at the threshold, an up-sloping runway has a positive slope (+) and a downsloping runway has a negative slope (-).</li> <li>G. DISPLACED THRESHOLD: Enter the exact distance displaced from the actual threshold. Include any qualifying statements in the REMARKS section and include the geographical coordinates of the displaced threshold.</li> <li>H. RUNWAY TRUE AZIMUTH: Enter the true azimuth of the runway.</li> <li>I. RUNWAY THRESHOLD COORDINATES: Enter the latitude and longitude of the point on the centerline at the threshold.</li> </ul>	
3. AIRFIELD LIGHTING: Enter the runway number and the appropriate approach lighting code (from TERPS e.g., A1, A2, D, etc) or an "X" for the appropriate runway lighting. At Rwy MRKG, enter NP for non-precision, P for precision, or O for other to describe the type of runway markings available. For nonstandard light systems (other than as described in TERPS), fill in the required information. Use the REMARKS section for any necessary explanations.	
4. REMOTE ALTIMETER: If a remote altimeter is used (not on the airport), give its source and distance.	
5. ILS / PAR / VASI INFORMATION:	
<ul style="list-style-type: none"> <li>A. RUNWAY NUMBER: Self-explanatory</li> <li>B. RUNWAY ELEVATION AT RPI: Enter the crown elevation of the runway for the position abeam the ILS glideslope antenna or at the PAR RPI.</li> <li>C. DISTANCE PAR ANTENNA TO RUNWAY CENTERLINE</li> <li>D. DISTANCE PAR ANTENNA TO TOUCHDOWN REFLECTOR AND TOUCHDOWN REFLECTOR TO THRESHOLD: Put the PAR antenna to touchdown reflector distance in the PAR block. Put the touchdown reflector to threshold distance in the ILS block.</li> <li>E. GLIDESLOPE INTERCEPT ALTITUDE: Enter glideslope intercept altitude (in hundreds of feet)</li> <li>F. GLIDESLOPE ANGLE: Enter the angle in degrees and hundredths.</li> <li>G. GLIDESLOPE ANTENNA ELEVATION: Enter the MSL elevation at the base of each ILS antenna or the elevation at the mid-point of the PAR elevation antenna.</li> <li>H. VASI. Enter required information.</li> </ul>	

ATC-F07

Figure M-1. TERPS Airfield Information Summary and TERPS Obstacle Summary Instructions (Sheet 1 of 2)

6. **COMPUTATIONS:** Indicate whether smooth terrain or rapidly dropping terrain was used when siting was accomplished by the installation engineer.

7. **NAVAID INFORMATION**

- A. **FACILITY:** List all facilities that will be/are used for terminal instrument procedures (includes PAR, ASR, ILS). List ILS as ILS/L for the localizer; ILS/G for the glideslope; and ILS/D for a co-located DME. Also include Marker Beacons, as appropriate. List in the REMARKS section which facilities are restricted, but DO NOT list the restriction.

**NOTE:** When a PAR is sited at more than one location enter the runway it serves in the Facility ID block and the coordinates of each location.

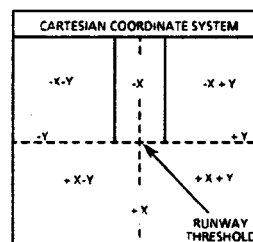
- B. **FACILITY IDENTIFICATION:** Enter the two or three letter identification for the facility. For PAR and ILS enter the runway number.

- C. **ANTENNA ELEVATION:** Enter the MSL elevation at the mid-point of the antenna.

- D. **MAGNETIC SLAVED VARIATION:** Enter the variation set into the antenna of the VOR, TACAN, VORTAC, or ASR. Leave blank for NDB, PAR, DME etc.

- E. **CARTESIAN COORDINATES FROM THRESHOLD:**

When geographical coordinates can not be obtained, use "X" and "Y" cartesian coordinates. Measure cartesian coordinates from the threshold of the primary instrument runway. When this is not practical, any runway may be used. Use the runway centerline as the "X" axis as shown in the illustration.



- F. **GEOGRAPHICAL COORDINATES OF FACILITY:** Enter latitude and longitude of each facility.

8. **REMARKS:** Use this section to clarify any information. Key each remark to the appropriate section and block (e.g. 2E, 3N, 5C). If necessary, continue on a separate sheet.

9. **Completely fill in this section.**

NAVFIG Form 6, TERPS OBSTACLE SUMMARY

General Guidelines

- This form is used to add obstacles not listed or revise / delete those listed on your latest NAVFIG provided TERPS OBSTACLE SUMMARY.
  - Consider for listing those obstacles which fall within the minimum sector areas; holding areas; initial, intermediate, final, and missed approach segments; and circling areas for IAP's. Also consider all departure segments.
  - List all those obstacles within 8 NM of the ARP regardless of the elevation.
  - List only those obstacles between 8 and 30 NM which are greater than 400 feet above the airport elevation.
  - List any additional obstacles deemed pertinent.
- DATE:** When obstacles are added, deleted, or changed, change the date to reflect the current revision.
  - NUMBER:** Leave blank.
  - DESCRIPTION:** Enter description (control tower, tree, silo, etc.).
  - MSL ELEVATION:** Self-explanatory.
  - AGL ELEVATION:** Self-explanatory.
  - GEOGRAPHIC COORDINATES:** Use geographical coordinates only if known to be accurate. (Geographical coordinates from engineering surveys are usually best.)
  - CARTESIAN COORDINATES:** See instruction for 7E under NAVAID INFORMATION.
  - Include the total number of pages used at the bottom of each form.

ATC-F08

Figure M-1. TERPS Airfield Information Summary and TERPS Obstacle Summary Instructions (Sheet 2)



APPENDIX N

# Terminal Instrument Procedures Standards Waiver

(Use of this form is discussed in [Chapter 9](#) of this manual.)

TERMINAL INSTRUMENT PROCEDURES STANDARDS WAIVER		DATE
1. PROCEDURE IDENTIFICATION		
2. APPLICABLE STANDARD AND WAIVER REQUIRED		
3. REASON FOR WAIVER		
4. EQUIVALENT LEVEL OF SAFETY PROVIDED		
5. SUBMITTED BY		
DATE	TITLE	SIGNATURE
6. INSTRUMENT PROCEDURES REVIEW		
<input type="checkbox"/>	APPROVED	REASON:
<input type="checkbox"/>	DISAPPROVED	
DATE	TITLE	SIGNATURE
7. NAVFIG ENDORSEMENT		
<input type="checkbox"/>	APPROVED	REASON:
<input type="checkbox"/>	DISAPPROVED	
DATE	TITLE	SIGNATURE
8. CNO ENDORSEMENT		
<input type="checkbox"/>	APPROVED	REASON:
<input type="checkbox"/>	DISAPPROVED	
DATE	TITLE	SIGNATURE

NAVFIG FORM 8

ATC-F09

Figure N-1. NAVFIG Form 8



## APPENDIX O

# Precision Approach Landing System Approach Criteria

## O.1 GENERAL

As addressed in [Chapter 9](#), PALS/TRN-28 approaches shall be based on the latest certification information and the appropriate ILS/PAR chapters of OPNAVINST 3722.16 (TERPS).

## O.2 INITIAL, INTERMEDIATE, AND DESCENT GRADIENT AND ALTITUDE SELECTION

Initial, intermediate, and descent gradient and altitude selection shall be determined in accordance with the appropriate ILS/PAR paragraphs of TERPS.

## O.3 FINAL APPROACH SEGMENT

The final approach area shall be as described in the appropriate ILS/PAR paragraphs of TERPS. (EXCEPTION: Final trapezoid width shall be based upon the greater of (1) 6° splay on either side of the TRN-28 antenna or (2) the ILS/PAR trapezoid).

## O.4 FINAL APPROACH OBSTACLE

Final approach obstacle clearance surfaces shall be as described in the appropriate ILS/PAR paragraphs for the certified glideslope angles.

## O.5 TRANSITIONAL SURFACES

Transitional surfaces shall be based upon the trapezoid used for the final approach (6° to 20° on either side of centerline if based on the TRN-28 antenna, or the ILS/PAR trapezoid's 5,000-foot transitional surface).

## O.6 DECISION HEIGHT (DH)

Decision height shall be in accordance with the appropriate ILS/PAR sections of TERPS, based upon the certified glideslope angles. Minima assigned shall be the lowest supported by both certification and TERPS.

## O.7 MISSED APPROACH SEGMENT

Missed approach segment shall be developed using the appropriate ILS/PAR sections of TERPS. The missed approach surface shall be based upon the height of the Zone 1 obstacle clearance surface at DH.

## O.8 MISSED APPROACH OBSTACLE CLEARANCE

Missed approach obstacle clearance shall be based on the appropriate ILS/PAR sections of TERPS.



SEE IC # 10

## APPENDIX P

# Selected Air Traffic Control Related Directives

## P.1 ATC-RELATED DIRECTIVES

The directives listed below all pertain to various aspects of the Navy and Marine Corps Air Traffic Control mission and supplement those publications listed in Chapter 1.

NUMBER	SOURCE	TITLE
00-80R-14	NAVAIR	U.S. Navy Firefighting and Rescue NATOPS Manual
00-80T-104	NAVAIR	NATOPS LSO Manual
00-80T-105	NAVAIR	CV NATOPS Manual
00-80T-106	NAVAIR	LHA/LHD NATOPS Manual
00-80T-111	NAVAIR	V/STOL Shipboard and LSO NATOPS Manual
00-80T-112	NAVAIR	NATOPS Instrument Flight Manual
00-80T-115	NAVAIR	US Marine Corps Expeditionary Airfields and Marine Corps Air Stations NATOPS Manual
00-80T-122	NAVAIR	Helicopter Operating Procedures for Air-Capable Ships NATOPS Manual
16-1-520	NAVAIR	U.S. Standard Flight Inspection Manual
51-40ABA-7	NAVAIR	Lighting and Marking Systems for Expeditionary Airfields
51-50AAA-2	NAVAIR	General Requirements for Shore-Based Airfield Marking and Lighting
AE-CVATC-OPM-000	NAVAIR	Carrier Air Traffic Control Handbook
AE-LHATC-OPM-000	NAVAIR	Amphibious Ships ATC Manual
AE-TACAN-GYD-000	NAVAIR	Instructions and Procedures Guide for Certification of Shipboard TACAN Systems
NAEC-ENG-7576	NAVAIR	Shipboard Aviation Facilities Resume
1000.8	MCO	Fleet Assistance Program (FAP)
1400.28	DOD	Civilian Air Traffic Controllers
1500.76	OPNAV	Navy Training System Requirements, Acquisition, and Management
1710.22	BUPERS	Navy Flying Club (NFC) Program
3140.54	OPNAV	METOC Needs Submission
3141.2	NAVMETOC	Surface METAR Observations User's Manual
3200.15	DOD	Sustainment of Ranges and Operating Areas (OPAREAs)
3500.98	NAVMC DIR	Aviation Training and Readiness Directive, MATC
3501.360	OPNAV	Defense Readiness Reporting System - Navy (DRRS-N)
3700.19	OPNAV	Foreign Military Aircraft landing Clearance Procedures
3710.1	NAVAIR	Contractor's Flight Operations
3710.2	OPNAV	Foreign Clearance Procedures for U.S. Naval Aircraft
3710.7	OPNAV	NATOPS General Flight and Operating Instructions; promulgation of
3710.31	OPNAV	Operational Procedures for Aircraft Carrying Hazardous Materials

<b>NUMBER</b>	<b>SOURCE</b>	<b>TITLE</b>
3721.1	SPAWAR	Naval Air Traffic Control, Air Navigation Aids and Landing Systems (NAALS) Program
3721.5	OPNAV	Naval Air Traffic Control and Air Navigational Aid and Landing Systems (NAALS) Program
3721.20	OPNAV	DOD Notice to Airmen (NOTAM) System
3722.16	OPNAV	U.S. Standard for Terminal Instrument Procedures (TERPS)
3722.33	OPNAV	Federal Aviation Administration Handbook of Special Military Operations 7610.4
3722.35	OPNAV	Baseline Planning Criteria for Naval Air Traffic Control Facility Resources Criteria
3750.6	OPNAV	Naval Aviation Safety Program
3750.16	OPNAV	Participation in a Military Aircraft Safety Investigation
3770.1	SECNAV	Use of Department of the Navy Aviation Facilities by other than U.S. DOD Aircraft
3770.2	OPNAV	Airspace Procedures and Planning Manual
3770.2	SECNAV	Joint Military and Civil Use of Navy and Marine Corps Aviation Installations
3770.4	OPNAV	Use of Airspace by U.S. Military Aircraft and Firing Over the High Seas
4540.1	DOD	Use of Airspace by US Military Aircraft and Firings Over the High Seas
4610.8	OPNAV	Transportation and Traffic Management
4700.9	NAVELEX	Fleet Marine Force (FMF) ATC System and Equipment Maintenance and Logistics Support Program Policy and Procedures Concerning
5030.19	DOD	DOD Responsibilities on Federal Aviation and National Airspace System Matters
5090.1	OPNAV	Environmental and Natural Resources Protection Manual
5300.8	BUMED	Disposition of rehabilitated alcohol dependent or abuser aircrew, air traffic controllers, hypobaric chamber inside observers and instructor
5350.4	OPNAV	Drug and Alcohol Abuse Prevention and Control
5720.44	SECNAV	Department of the Navy Public Affairs Regulation
5800.7	JAGINST	Manual of the Judge Advocate General
6120.20	NAVMED-COM	Competence for Duty Examinations, Evaluations of Sobriety, and Other Bodily Views and Intrusions Performed by Medical Personnel
11010.36	OPNAV	Air Installations Compatible Use Zones (AICUZ)
13800.11	NAVAIR	Procedures and Responsibilities for Certification and Verification of the Precision Approach and Landing System (PALS)
13800.17	NAVAIR	Procedures and Responsibilities for Certification of Amphibious Assault Ship (LHA/LHD) Precision Approach and Landing Systems
15560	BUPERS	Navy Military Personnel Manual
ANNEX 2	ICAO	Rules of the Air
ANNEX 11	ICAO	Air Traffic Services

NUMBER	SOURCE	TITLE
DOC-4444-RAC/501	ICAO	Rules of the Air and Air Traffic Services
FAAO JO 7110.10	FAA	Flight Services
FAAO JO 7110.65	FAA	Air Traffic Control
FAAO 7130.3	FAA	Holding Pattern Criteria
FAAO JO 7210.3	FAA	Facility Operation and Administration
FAAO JO 7350.7	FAA	Location Identifiers
FAAO JO 7400.2	FAA	Procedures for Handling Airspace Matters
FAAO JO 7400.8	FAA	Special Use Airspace
FAAO JO 7400.9	FAA	Airspace Designation and Reporting Points
FAAO JO 7610.4	FAA	Special Military Operations
FAAO JO 7900.5	FAA	Surface Weather Observing
FAAO JO 7930.2	FAA	Notices to Airmen
FAAO 8000.90	FAA	Air Traffic Safety Oversight Service (AOV) Credentialing and Control Tower Operator (CTO) Certification Programs
FAAO 8200.1	FAA	U.S. Standard Flight Inspection Manual
FAAO 8260.19		Flight Procedures and Airspace
14 CFR Part 1		Definitions and Abbreviations
14 CFR Part 65		Certification: Airman other than Flight Crewman
14 CFR Part 67		Medical Standards and Certification
14 CFR Part 71		Designation of Federal Airways, Controlled Airspace, and Reporting Points
14 CFR Part 73		Special Use Airspace
14 CFR Part 75		Establishment of Jet Routes
14 CFR Part 77		Objects Affecting Navigable Airspace
14 CFR Part 91		General Operating and Flight Rules
14 CFR Part 93		Special Air Traffic Rules and Airport Traffic Patterns
14 CFR Part 95		IFR Altitudes
14 CFR Part 97		Standard Instrument Approach Procedures
14 CFR Part 99		Security Control of Air Traffic
14 CFR Part 101		Moored Balloons, Kites, Unmanned Rockets, and Unmanned Free Balloons
14 CFR Part 103		Ultralight Vehicles
14 CFR Part 105		Parachute Jumping
14 CFR Part 139		Certification and Operations of Airfields
32 CFR Part 245		Emergency Security Control of Air Traffic (ESCAT)
NSS	NSARC	United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual
JANAP 119	JCS	Joint Voice Callsigns Book
JP 3-52	JCS	Joint Doctrine for Airspace Control in a Combat Zone
MCWP 3-25.8	MCCDC	Marine Air Traffic Control Detachment Handbook
ATP 36A	NWDC	Amphibious Operations/Ship to Shore Movement
NTTP 3-02.1	NWDC	Ship-to-Shore Movement
NTTP 3-02.1.3	NWDC	Amphibious/Expeditionary Operations Air Control

NUMBER	SOURCE	TITLE
NTTP 3-50.1	NWDC	Navy Search and Rescue Manual
NTTP 3-56.3	NWDC	Multi-service Procedures for Joint ATC (JATC)
NTTP 6-02.1	NWDC	Multi-service Brevity Codes
NWP 1-03.1	NWDC	Operational Reports
NWP 3-04.1	NWDC	Helicopter Operating Procedures for Air Capable Ships
DM-23.2	NAVFAC	Navigational and Traffic Aids
MIL-HDBK-1023/1	NAVFAC	Airfield Lighting
MIL-HDBK-1024/1	NAVFAC	Aviation and Operational Support Facilities
P-80.1	NAVFAC	Facility Planning Factors for Naval Shore Activities, Appendix C, Runway Capacity Handbook — Fixed Wing
P-80.3	NAVFAC	Facility Planning Factor Criteria for Navy and Marine Corps Shore Installations, Appendix E, Airfield Safety Clearances
P-970	NAVFAC	Planning in the Noise Environment
UFC 2-000-05N	NAVFAC	Facility Planning Criteria for Navy and Marine Corps Shore Installations
UFC 3-260-01	AFCEA	Design: Airfield and Heliport Planning and Design
UFC 3-260-02	USACE	Design: Pavement Design for Airfields
UFC 3-260-03	USACE	Design: Airfield Pavement Evaluation
UFC 4-133-01N	NAVFAC	Design: Navy Air Traffic Control Facilities
UFC 4-141-10N	NAVFAC	Design: Aviation Operation and Support Facilities
	NAWCAD	BRANDS/RATCF DAIR/DAIR Configuration Control Sub-board Policy and Procedures Manual
	NGA	National Geospatial-Intelligence Agency Catalog of Maps, Charts, and Related Products, Part 1, Aerospace Products

## APPENDIX Q

# TERPS Approach/Departure Procedure and FLIP Revision Forms

## Q.1 STANDARD INSTRUMENT APPROACH PROCEDURES

As addressed in [Chapter 9](#), [Figure Q-1](#) is used when requesting new or revised terminal instrument approach procedures.

## Q.2 STANDARD INSTRUMENT DEPARTURE PROCEDURES

[Figures Q-2](#) and [Q-3](#) are used when requesting new or revised instrument departure procedures and takeoff minimums as addressed in [Chapter 9](#).

## Q.3 FLIP REVISION REPORT

A FLIP Revision Report is provided as [Figure Q-4](#) for submission of errors, omissions, and recommended changes to FLIP publications as addressed in [Chapter 5](#).

## STANDARD INSTRUMENT APPROACH PROCEDURE REQUEST

AIRPORT NAME, CITY, STATE, COUNTRY			ICAO IDENT		APRT. ELEV.		APRT. VAR.	
PROCEDURE IDENTIFICATION			NAVAID		TYPE		FREQ/CH	
TITLE:							IDENT	
DATE RQR:								
SUPERSEDES:							ASSN.VAR.	
DATE:								
PROCEDURE DESCRIPTION								
IAF:								
DESCRIPTION:			TERMINAL TRANSITION ROUTINGS					
			FROM			TO		MIN. ALT.
IF:								
DESCRIPTION:								
FAF:								
DESCRIPTION:								
REMARKS:								
FAF ALT:		GS (DEG):	GS INTCP ALT:					
MAP:								
DESCRIPTION:								
RUNWAY INFORMATION:								
GPI:		TCH:						
RPI:		RWY GRADIENT:						
TDZE:		THRE:						
<b>NOTE:</b> Bearings, headings, courses, tracks and radials are magnetic. Procedure altitudes are MINIMUM ALTITUDES, unless otherwise specified. The minimum altitude for initial approach will be MEA, or as indicated above. Distances are in NAUTICAL MILES. Visibility MINIMUMS are in STATUTE MILES. Elevations and altitudes are in FEET MSL.								
<b>NOTE:</b> Use additional sheets as needed, but only <b>one procedure</b> per form. Complete All Three Sheets.								



<div>Draw New Procedure Here</div> <div>Or</div> <div>Paste Marked-Up Copy Of Revised Procedure</div>	HOLDING PATTERNS					
	INITIAL:					
	MISSED APPROACH:					
	MINIMA (OPTIONAL)					
	CATEGORY	A	B	C	D	E
	S-					
	S-					
	CIRCLING					
	NOTE					
	NOTE					
SIGNATURES						
ATC FACILITY OFFICER				DATE		
APP CONT FACILITY (IF REQUIRED)				DATE		
ENROUTE FACILITY (IF REQUIRED)				DATE		
OTHER				DATE		
COMMANDING OFFICER				DATE		

Figure Q-1. Standard Instrument Approach Procedure Request (Sheet 2)

Q-3

ORIGINAL

OBSTACLES					LOST COMMUNICATIONS PROCEDURES
DESCRIPTION	MSL	AGL	LATITUDE	LONGITUDE	

ADDITIONAL COMMENTS OR DIAGRAMS:

Figure Q-1. Standard Instrument Approach Procedure Request (Sheet 3)

ORIGINAL

Q-4

## Q-5

**ORIGINAL**

<p>Draw New Procedure Here</p> <p>Or</p> <p>Paste Marked-Up Copy Of Revised Procedure</p>	HOLDING PATTERNS	
	ONE:	
	TWO:	
	THREE:	
	LOST COMMUNICATIONS PROCEDURES:	
	REMARKS:	
	SIGNATURES	
	ATC FACILITY OFFICER	DATE
	APP CONT FACILITY (IF REQUIRED)	DATE
ENROUTE FACILITY (IF REQUIRED)	DATE	
FAA	DATE	
COMMANDING OFFICER	DATE	

ORIGINAL

Q-6

Figure Q-2. Standard Instrument Departure Procedure Request (Sheet 2)

## DEPARTURE PROCEDURE - TAKEOFF MINIMUMS

Airport Name and ICAO Ident:	City, State and Country:																								
<b>DEPARTURE PROCEDURE:</b> RWY ____:  RWY ____:																									
<b>TAKEOFF MINIMUMS:</b> RWY ____:  RWY ____:																									
<b>TAKEOFF OBSTACLES:</b> RWY ____:  RWY ____:																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 5px;">DEVELOPED BY</td> <td colspan="2" style="text-align: center; padding: 5px;">NAVFIG APPROVAL</td> </tr> <tr> <td style="width: 50%; padding: 5px;">Signature and Title:</td> <td style="width: 10%; padding: 5px;">Date:</td> <td style="width: 50%; padding: 5px;">Signature and Title:</td> <td style="width: 10%; padding: 5px;">Date:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Organization and Address:</td> <td colspan="2" style="padding: 5px;">Effective Date:      Amendment No.</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Phone:                      Email:</td> <td colspan="2" style="padding: 5px;">Email:      <a href="mailto:NAVFLTINFOGRP@HQ.NAVY.MIL">NAVFLTINFOGRP@HQ.NAVY.MIL</a></td> </tr> <tr> <td colspan="2" style="padding: 5px;"></td> <td colspan="2" style="padding: 5px;">Website:      <a href="http://atc.navy.mil/navfig">http://atc.navy.mil/navfig</a></td> </tr> <tr> <td colspan="2" style="padding: 5px;"></td> <td colspan="2" style="padding: 5px;">Phone:      202-433-3473</td> </tr> </table>		DEVELOPED BY		NAVFIG APPROVAL		Signature and Title:	Date:	Signature and Title:	Date:	Organization and Address:		Effective Date:      Amendment No.		Phone:                      Email:		Email: <a href="mailto:NAVFLTINFOGRP@HQ.NAVY.MIL">NAVFLTINFOGRP@HQ.NAVY.MIL</a>				Website: <a href="http://atc.navy.mil/navfig">http://atc.navy.mil/navfig</a>				Phone:      202-433-3473	
DEVELOPED BY		NAVFIG APPROVAL																							
Signature and Title:	Date:	Signature and Title:	Date:																						
Organization and Address:		Effective Date:      Amendment No.																							
Phone:                      Email:		Email: <a href="mailto:NAVFLTINFOGRP@HQ.NAVY.MIL">NAVFLTINFOGRP@HQ.NAVY.MIL</a>																							
		Website: <a href="http://atc.navy.mil/navfig">http://atc.navy.mil/navfig</a>																							
		Phone:      202-433-3473																							
<b>Coordination</b> <input type="checkbox"/> FAA/Region <input type="checkbox"/> APP/Center <input type="checkbox"/> Military <input type="checkbox"/> Host Nation																									
NOTES: Bearings, headings, courses are magnetic. Distances are in NAUTICAL MILES. Elevations and altitudes are in FEET MSL. Ceilings are measured above airport elevation. Visibility is in STATUTE MILES or RVR. Enter as many runways as necessary. Use additional sheets as needed.																									

Figure Q-3. Departure Procedure — Takeoff Minimums

## USN/USMC FLIP REVISION REPORT

(Non-Procedural FLIP Data)

<b>USN/USMC FLIP REVISION REPORT</b> (Non-Procedural FLIP Data)	<b>DATE:</b>		(NAVFIG use only)
	<b>FLIGHT INFORMATION LIST (FIL) No.</b>		(NAVFIG use only)

Submission Date: (completed by submitting military/civil agency)

**Submitter info:**

Rank/Name/POC:

Organization/Address:

Phone: DSN      Comm:

Approving official (Airfield Mgr or Equivalent):

REFER TO GENERAL PLANNING (GP) CHAPTER 11 (REVISIONS/SCHEDULED CUT-OFF DATES) FOR ADDITIONAL INSTRUCTIONS.

AIRPORT NAME	PAGE NUMBER (in current FLIP)	LOCATION IDENT (ICAO) (4 characters)	STATE	COUNTRY
--------------	----------------------------------	---	-------	---------

Select one FLIP publication (see below) per submission. (Ex: ENAME, US IFR, AP/1, AP/2, etc.)

NOTE: National-Geospatial-Intelligence Agency (NGA) is responsible for updating all other associated (data) FLIP products.

*IAP/AD	ALASKA	AFRICA	C&SA	EEA	ENAME	FIH	PAA	US IFR	US VFR	VFR ARR/DEP EUROPE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GP	AP/1	AP1/A	AP1/B	AP/2	AP/2A	AP/3	AP/3A	AP/4 & 4A		VFR ARR/DEP KOREA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

*\*Non-procedural changes only – Airport sketches, airport diagrams (AD), and RADAR notes. Detailed airport diagram changes will be submitted as an attachment with this form.*

Use standard abbreviations found in IFR Supplement (section A). See format examples below.

(Space for text will automatically expand and add pages as necessary.)

**FORMAT EXAMPLES**

**TO ADD:** Refer to DoD IFR -Supplement Airport/Facility Directory Legend Items 1-40. Example: REMARKS-ADD: Twy F clsd to all acft btn Twy A and clamshell W of Twy C.

**TO DELETE:** Refer to DoD IFR -Supplement Airport/Facility Directory Legend Items 1-40. Example: SERVICE-TRAN ALERT- DELETE: Full svc 0600-2100Z++ Mon-Fri, 1100-1900Z++ US hol. Ltd svc avbl on wkend-prior coord rqr. Ltd tran fac/prk. No fleet svc avbl.

**TO REVISE:** Example: Area Planning (AP/1) Page 3-31, Altus AFB (KLTS), OK. REVISE: CAUTION - {text (Para. and/or line) to be revised} TO: CAUTION - {new text}.

**ADD:****DELETE:****REVISE:****When the form is complete:**

1. Save form to your computer as "FLIP Change {DD – MM – YY}{airport ident}" (Ex: "FLIP Change 05 May 04 KCEF")
2. E-MAIL THIS REPORT AS AN ATTACHMENT TO: [NAVFIG@NAVY.MIL](mailto:NAVFIG@NAVY.MIL)  
(In the event e-mail submission is not possible, form may be copied and faxed to: DSN 288-34586 COMM 202-433-3458)

OPNAV Form 3722/15

Figure Q-4. USN/USMC FLIP Revision Report

APPENDIX R

# Request for Video Maps

(Used for submission of requests for Video Maps, as addressed in [Chapter 7](#))

Figures R-1 and R-2 are provided for submission of requests for Video Maps.

<b>REQUEST FOR AERONAUTICAL VIDEO MAPS</b>		<b>Date of Request</b>	<b>Date Required</b>
<b>FROM:</b> <b>ATTN:</b>		<b>TO:</b> <b>ATCP&amp;D Code 4.5.9.2</b> <b>B8131 Villa Road</b> <b>St. Inigoes, MD., 20684</b>	
<b>OFFICE NUMBER</b> <b>COMM:</b> <b>DSN:</b> <b>EMAIL:</b>	<b>FAX NUMBER</b> <b>COMM:</b> <b>DSN:</b>	<b>OFFICE NUMBER</b> <b>COMM ((301)-995-8807</b> <b>DSN: 995-8807</b> <b>Email: STIN_DoDSTARSOSF@navy.mil</b>	<b>FAX NUMBER</b> <b>COMM (301) 995-6126</b> <b>DSN: 995-8807</b>
<p><b>1. GENERAL INFORMATION –</b></p> <p>a. <u>Purpose.</u> To provide information and a format for ordering the Aeronautical Video Maps for integrating into the Standard Terminal Automation Replacement System (STARS)</p> <p>b. <u>New Maps.</u> Facilities submitting their video map requirements shall use this standard request form for each map requested. Sketches of the desired final product (not necessarily to scale), and special procedural data or information that would not be on file at the DoD OSF should be attached or included.</p> <p>c. <u>Revised Maps.</u> Revisions or changes to video maps shall be requested on this form. Requests submitted on this form should contain ALL of the information desired on the map. Revisions shall be highlighted or identified.</p> <p>d. <u>Map Content.</u> The specific data to appear on each video map shall be determined by the requester consistent with operational requirements. The symbols, which DoD OSF uses, are standardized. Requested data shall be held to a minimum to avoid scope clutter.</p> <p>e. <u>MAP symbol sizes.</u> Map symbols and symbol sizes are standardized, however, reduced symbol(s) may be requested. If reduced size symbols are requested, specify in Item 19 of this request which symbol(s) should be reduced, e.g., "Use reduced-size symbols for all DME fixes."</p> <p>f. <u>Production Time:</u> DoD OSF normally requires three weeks to produce a new map. Revisions may take less time.</p> <p>g. <u>Symbol Priorities.</u> On congested maps where symbols would overlap, a symbol of lesser priority will be broken or interrupted for a symbol of higher priority. The priorities follow the same order used in this request form, e.g., an airway symbol (Item 15) will yield to a fix symbol (Item 9).</p> <p>h. <u>Continuation Pages.</u> Where there is insufficient room on this form to request needed items, attach continuation pages as needed, referenced to the appropriate item number.</p>			
<p>2. This request is for a _____ new map _____ revised map. If this map is for a revision, the map to be revised is STARS _____. If this map replaces another map, may DoD OSF eliminate the replaced map from the files. That map is STARS _____.</p>			
<p><b>3. LOCATION OF RADAR SITE CENTER, NAME, AND ANTENNA VARIATION:</b></p> <p>Site Center Name:</p> <p>Antenna Slave Variation:</p> <p>Coordinates:</p> <p>Datum:</p> <p>(Antenna Slave Variation should be confirmed by radar maintenance personnel.)</p> <p>Note: The antenna variation is independent of the airport variation values published in FLIP and other variation values used for TERPS purposes. Once the radar unit is setup and flight checked, the variation set in the equipment will not change until radar maintenance personnel perform a realignment.</p> <p>Note: Site Center Name - (i.e. NAS Kingsville ASR, MCAS Miramar ASR)</p>			

DoD OSF Map Request Form (February 2004)  
 Derived from NavFig Form OPNAVFORM13910-9 for use only for U.S. Air Force and U.S. Army STARS

1

LOCAL REPRODUCTION AUTHORIZED

Figure R-1. NAWCAD Form 1 (Sheet 1 of 4)



<b>4. MAP SCALE:</b> _____ <b>10NM</b> _____ <b>20NM</b> _____ <b>40NM</b> _____ <b>60NM</b> _____ <b>100NM</b> _____ <b>200NM</b> _____ <b>OTHER</b> NOTE: More than one map scale may be requested on this form if the data is the same for all maps, otherwise use separate forms.				
<b>FINAL PRODUCTS WANTED:</b>				
<b>6. PRIMARY AIRPORTS</b> – List Name, Rwy ID, Bearing (Label bearings as True or Magnetic as appropriate), Length of Extended centerline (NM) and mileage T's if required.				
<b>7. SECONDARY AIRPORTS</b> - List name and indicate whether portrayal should be by distinctive runway pattern or by symbol. If a symbol is wanted, specify the true bearing for the symbol alignment.				
<b>NAME</b>	<b>PATTERN</b>	<b>SYMBOL</b>	<b>TRUE BRNG</b>	<b>(NAWCAD USE ONLY)</b>
<b>8. NAVIGATION AIDS</b> - List ident and type (VOR, VORTAC, etc.). Coordinates are not required for Nav aids published in FLIP.				
<b>NAME/IDENT</b>	<b>TYPE</b>			
<b>9. REPORTING POINTS/FIXES</b> - Provide name and location by either coordinates or bearing/distance. For bearing/distance locations, specify TRUE or MAGNETIC, as appropriate, e.g., "086.5 Mag/15NM from NAME VORTAC:"				
<b>NAME/IDENT</b>	<b>TYPE</b>	<b>LOCATION (Either coordinates or bearing/distance)</b>		
<b>10. OBSTRUCTIONS/PERMANENT ECHOES</b> - Provide a name and location (coordinates or bearing/distance) for each. For locations described by bearing/distance, label the bearings as TRUE or MAGNETIC, as appropriate, e.g., WATER TANK 128.3 Mag/12.6NM Note: Bearings read from the radar scope are MAGNETIC. All bearings should be from the ASR site.				
<b>NAME</b>	<b>LOCATION</b>			

Figure R-1. NAWCAD Form 1 (Sheet 2)

**ORIGINAL**

18. **TOPOGRAPHIC/HYDROGRAPHIC FEATURES** - Name the features desired (rivers, shorelines, terrain, etc.) and indicate limits to be shown. For shorelines, indicate the amount of detail desired, e.g., "Show coastline highly generalized with no islands except Grande Island. Rivers - show only the Big Muddy River and depict as a single line.

19. **GEOREF (GEOGRAPHIC REFERENCE GRIDS)** - If GEOREFs are required, specify whether they should be on a separate map or if they should be combined with other data on this form:

☐ Not Required    ☐ Required, combine with other data    ☐ Not Required, provide as a separate map

20. **SPECIAL INSTRUCTIONS** – N/A

TYPED NAME AND GRADE OF REQUESTER

SIGNATURE

//SIGNED//

Figure R-1. NAWCAD Form 1 (Sheet 4)

<b>REQUEST FOR AERONAUTICAL VIDEO MAPS</b>		<b>Date of Request</b>	<b>Date Required</b>
<b>FROM: COMMANDING OFFICER</b> <b>ATTN:</b>		<b>TO: DEPARTMENT OF THE NAVY</b> <b>HEAD, NAVAL FLIGHT INFORMATION GROUP</b> <b>BLDG 176, ROOM 301</b> <b>1339 PATTERSON AVENUE, SE</b> <b>WASHINGTON, DC 20374-5088</b>	
<u>OFFICE NUMBER</u> <b>COMM:</b> <b>DSN:</b> <b>EMAIL:</b>	<u>FAX NUMBER</u> <b>COMM:</b> <b>DSN:</b>	<u>OFFICE NUMBER</u> <b>COMM (202) 433-3473/0974</b> <b>DSN: 288-3473/0974</b> <b>Email: NAVFIG@NAVY.MIL</b>	<u>FAX NUMBER</u> <b>COMM (202) 433-3458</b> <b>DSN: 288-3458</b>
<p><b>1. GENERAL INFORMATION –</b></p> <p>a. <u>Purpose.</u> To provide information and a format for ordering the GPA-131/FA-8970 Aeronautical Video Maps (a 2.32" x 2.32" film negative), plastic mounts, video map overlays and E-PROMS, etc. for the New Video Map replacement equipment.</p> <p>b. <u>New Maps.</u> Facilities submitting their video map requirements shall use this standard request form for each map requested. Sketches of the desired final product (not necessarily to scale), and special procedural data or information that would not be on file at NIMA/NESEA should be attached or included.</p> <p>c. <u>Revised Maps.</u> Revisions or changes to video maps shall be requested on this form. Requests submitted on this form should contain ALL of the information desired on the map. Revisions shall be highlighted or identified.</p> <p>d. <u>Map Content.</u> The specific data to appear on each video map shall be determined by the requester consistent with operational requirements. The symbols, which NIMA/NESEA use, are standardized. Requested data shall be held to a minimum to avoid scope clutter.</p> <p>e. <u>MAP line thickness and symbol sizes.</u> Video maps are produced with the finest lines possible for the mapper to project; A final width of 2/1000" (.002"). Map symbols and symbol sizes are standardized, however, reduced symbol(s) may be requested. If reduced size symbols are requested, specify in Item 19 of this request which symbol(s) should be reduced, e.g., "Use reduced-size symbols for all DME fixes."</p> <p>f. <u>Alignment T's.</u> Standard alignment T's are provided on each map at the four cardinal magnetic bearings. The video map is produced with Magnetic North at the top. The top of each T is scaled to the nautical mile range of the map. The vertical part of the T is outboard of the nautical mile range. Additional T's will be provided upon request.</p> <p>g. <u>Plastic Mounts.</u> As an option, the video map for FA-8970's may be requested as a "Plastic Mount". NIMA will mount the standard map negative to a clean piece of same sized Plexiglass. Note: Plastic Mounts have proven helpful for some facilities, but not for all. Normally, the map negative is secured by a glass plate sized to fit the mapper.</p> <p>h. <u>Overlays.</u> An overlay is a photographic film positive of the video map, enlarged as necessary to fit the radar scope display. Special alignment T's are provided where the vertical portion of the T is INBOARD of the map's nautical mile range marker. These special T's are standard on all overlays.</p> <p>i. <u>Production Time:</u> NIMA normally requires six weeks to produce a new computer generated (CAVC) video map. NESEA normally requires three weeks to produce a new E-PROM. Revisions may take less time.</p> <p>j. <u>Symbol Priorities.</u> On congested maps where symbols would overlap, a symbol of lesser priority will be broken or interrupted for a symbol of higher priority. The priorities follow the same order used in this request form, e.g., an airway symbol (Item 15) will yield to a fix symbol (Item 9).</p> <p>k. <u>Continuation Pages.</u> Where there is insufficient room on this form to request needed items, attach continuation pages as needed, referenced to the appropriate item number.</p>			
<p>2. This request is for a _____ new map _____ revised map. If this map is for a revision, the map to be revised is AVC/CAVC/E-PROM/STARS _____. If this map replaces another map, may NIMA/NESEA eliminate the replaced map from the files. That map is AVC/CAVC/E-PROM/STARS _____.</p>			

Figure R-2. OPNAV Form 13910/9 (Sheet 1 of 4)

**3. LOCATION OF RADAR SITE CENTER, NAME, AND ANTENNA VARIATION:**

Site Center Name: \_\_\_\_\_ Antenna Slave Variation: \_\_\_\_\_ Coordinates: \_\_\_\_\_  
 Datum: \_\_\_\_\_

(Antenna Slave Variation should be confirmed by radar maintenance personnel.)

Note: The antenna variation is independent of the airport variation values published in FLIP and other variation values used for TERPS purposes. Once the radar unit is setup and flight checked, the variation set in the equipment will not change until radar maintenance personnel perform a realignment.

Note: Site Center Name - (i.e. NAS Kingsville ASR, MCAS Miramar ASR)

**4. MAP SCALE:**

\_\_\_\_\_ 10NM \_\_\_\_\_ 20NM \_\_\_\_\_ 40NM \_\_\_\_\_ 60NM \_\_\_\_\_ 100NM \_\_\_\_\_ 200NM \_\_\_\_\_ OTHER

NOTE: Additional mapper units are required for video maps over 60 NM.

More than one map scale may be requested on this form if the data is the same for all maps, otherwise use separate forms.

**5. FINAL PRODUCTS WANTED:** \_\_\_\_\_ (Qty) GPA-131 Negatives Plastic Mounts? \_\_\_\_\_ Yes \_\_\_\_\_ No

Overlays \_\_\_\_\_ Scope Size \_\_\_\_\_ E-PROM \_\_\_\_\_ STARS \_\_\_\_\_

**6. PRIMARY AIRPORTS** – List Name, Rwy ID, Bearing (Label bearings as True or Magnetic as appropriate), Length of

Extended centerline (NM) and mileage T's if required.

**7. SECONDARY AIRPORTS** - List name and indicate whether portrayal should be by distinctive runway pattern or by symbol. If a symbol is wanted, specify the true bearing for the symbol alignment.

NAME	PATTERN	SYMBOL	TRUE BRNG	(NAWCAD USE ONLY)

**8. NAVIGATION AIDS** - List ident and type (VOR,VORTAC, etc.). Coordinates are not required for Nav aids published in FLIP.

NAME/IDENT	TYPE

**9. REPORTING POINTS/FIXES** - Provide name and location by either coordinates or bearing/distance. For bearing/distance locations, specify TRUE or MAGNETIC, as appropriate, e.g., "086.5 Mag/15NM from NAME VORTAC:"

NAME/IDENT	TYPE	LOCATION (Either coordinates or bearing/distance)

Figure R-2. OPNAV Form 13910/9 (Sheet 2)

10. **OBSTRUCTIONS/PERMANENT ECHOES** - Provide a name and location (coordinates or bearing/distance) for each. For locations described by bearing/distance, label the bearings as TRUE or MAGNETIC, as appropriate, e.g., WATER TANK 128.3 Mag/12.6NM

Note: Bearings read from the radar scope are MAGNETIC. All bearings should be from the ASR site.

NAME	LOCATION

11. **RADAR HANDOFF POINT** - Provide location either by coordinates or by bearing/distance. Label bearings as TRUE or MAGNETIC, as appropriate.


12. **SCRAMBLE TRACK** - Attach sketch and describe in full detail. Not Required      Sketch Attached

13. **RECOVERY TRACK** - Attach sketch and describe in full detail. Not Required      Sketch Attached

14. **SPECIAL USE AIRSPACE** - (Restricted, Prohibited, Warning Areas, etc.) - Provide designation number or name of each.


15. **CONTROLLED AIRWAYS AND CORRIDORS** - Give designations of each airway and/or corridor desired.


16. **ADIZ/SUA AREAS** - Provide designation number or name of each.


17. **ARTCC BOUNDARIES, SECTOR BOUNDARIES, JETTISON AREAS OR OTHER UNIQUE AREA LIMITS** - Attach sketch and give designation of each area. For locations described in bearing/distance, label bearings as TRUE or MAGNETIC, as appropriate.

\_\_\_\_ NOT REQUIRED      \_\_\_\_ SKETCH ATTACHED

Figure R-2. OPNAV Form 13910/9 (Sheet 3)

<p><b>18. TOPOGRAPHIC/HYDROGRAPHIC FEATURES</b> - Name the features desired (rivers, shorelines, terrain, etc.) and indicate limits to be shown. For shorelines, indicate the amount of detail desired, e.g., "Show coastline highly generalized with no islands except Grande Island. Rivers - show only the Big Muddy River and depict as a single line.</p>	
<p><b>19. GEOREF (GEOGRAPHIC REFERENCE GRIDS)</b> - If GEOREFs are required, specify whether they should be on a separate map or if they should be combined with other data on this form:</p> <p><input type="checkbox"/> Not Required    <input type="checkbox"/> Required, combine with other data    <input type="checkbox"/> Not Required, provide as a separate map</p>	
<p><b>20. SPECIAL INSTRUCTIONS -</b></p>	
<p>TYPED NAME AND GRADE OF ATCF OFFICER</p>	<p>SIGNATURE</p>

Figure R-2. OPNAV Form 13910/9 (Sheet 4)





APPENDIX S

Sample Format for Controller/  
Technician of the Year Award Nomination

S.1    FORMAT FOR CONTROLLER/TECHNICIAN OF THE YEAR AWARD NOMINATION

Figure S-1 is provided for submission of nominations, as required in Chapter 2.

From:	Originator
To:	Reviewing Command
Subj:	VICE ADMIRAL ROBERT B. PIRIE NAVAL AIR TRAFFIC CONTROLLER/VICE ADMIRAL WILLIAM P. LAWRENCE NAVAL AIR TRAFFIC CONTROL TECHNICIAN OF THE YEAR AWARD
Ref:	(a) NAVAIR 00-80T-114
Encl:	(1) Professional History (2) Biography (3) Personal Award Recommendation (OPNAV 1650/3)
	1. Per reference (a), AC2 (AW) Ima Controller/SGT Ima Technician, USN/USMC, is nominated for subject award.
	2. Paragraph two (and subsequent paragraphs, if necessary) contains substantiating justification regarding performance during the award period (not to exceed two pages).

Figure S-1. Standard Format for Controller/Technician of the Year Nomination



APPENDIX T

# Sample ATCS Certificate Revocation Notification

## T.1 SAMPLE ATCS CERTIFICATE REVOCATION NOTIFICATION

As addressed in [Chapter 4](#), [Figure T-1](#) is provided for use to notify a controller in advance of the submission of a recommendation to revoke the ATCS Certificate.

DD MMM YY

From: (Air Traffic Control Facility Officer/OC Division Officer/Detachment Commander)

To: (Service member name), USN, XXX-XX-####

Subj: RECOMMENDATION TO REVOKE AIR TRAFFIC CONTROL SPECIALIST  
(ATCS) CERTIFICATE

Ref: (a) NAVAIR 00-80T-114

1. Per reference (a), a recommendation is being submitted via the chain of command to the Chief of Naval Operations (N885F) (for USN)/Commandant of the Marine Corps (APX-25) (for USMC) to revoke your ATCS Certificate. This recommendation for revocation is based on (state one of the reasons/considerations from paragraph 4.6.4.2.1).
2. Effective immediately, you are suspended from performing duties as a Naval Air Traffic Controller.
3. Accordingly, you are afforded three working days to submit a statement concerning this recommendation or to decline in writing this opportunity.
4. Any statement you make must be constructed in temperate language and shall be confined to pertinent facts. Opinion shall not be expressed nor the motives of other impugned. Neither shall counter charges be made.
5. These procedures are administrative and are not to be construed as a disciplinary action.

A. C. ATCFO

I have been counseled and understand the action being taken. I acknowledge that I have three working days to submit a written statement concerning this action or to decline the opportunity in writing.

A. C. SAILOR (signature)

DATE

Figure T-1. Sample ATCS Certificate Revocation Notification

## APPENDIX U

# ATCF Training Program

## U.1 GENERAL

As discussed in [Chapter 8](#), this appendix provides guidance to the Training Chief/EPDS to develop and maintain a successful ATCF training program.

The ATCF training program consists of four parts:

Part 1 — An ATC Facility Manual (FACMAN) that includes information required for position or facility qualification/designation.

Part 2 — A Facility Indoctrination that orients newly assigned controllers.

Part 3 — Local Qualification Standard (LQS) for each operating and supervisory position to establish and standardize the minimum knowledge factors and performance factors required for qualification/designation.

Part 4 — Lesson Topic Guides (LTG) to provide detailed information on equipment, procedures and information to trainees.

This program is designed to ensure required training elements are not overlooked and to standardize the basic structure to the maximum extent possible.

## U.2 PART 1 — ATCF MANUAL OUTLINE

1. The ATCF manual outline in [paragraph 3.1.6.2](#) is provided as an example of the type of information that should be included in a facility manual and training program. The format closely aligns the manual to other manuals frequently required by air traffic control facilities and is the preferred format.
2. Command missions and operational requirements are greatly varied. Such requirements along with other factors such as weather, location, airfield facilities and ATC equipment available vary the knowledge and qualification standards required by air traffic controllers. These factors do not allow facilities to share a standard Navy wide facility manual. All facility manuals will differ in a number of areas if they are to meet the facilities' needs. Therefore a facility manual should be developed for individual facilities following this basic outline and format when possible.

## U.3 PART 2 — FACILITY INDOCTRINATION

1. The Facility Indoctrination may include but is not limited to the following:
  - a. Facility/unit policies, and training expectations.
  - b. Tour of facility and appropriate agencies.
  - c. Facility specific information (e.g., airport layout, airspace, local flying units, frequencies, facility ID's, equipment, references, etc.).
  - d. General control information (e.g., abbreviations, definitions, flight plans/control information, radio/interphone communication, weather).
  - e. General information (e.g., security, safety, ATC hazards, emergency/mishap procedures).

## U.4 PART 3 — LOCAL QUALIFICATION STANDARDS

1. LQSs establish and standardize professional knowledge and performance factors. Developed by local subject matter experts, they are used to set the minimum required level of qualification for controllers.
2. A LQS shall be developed for each operating and supervisory position in the facility.
3. Approving authority for position qualification is the appropriate branch chief. Approving authority for branch supervisor designations is the ATCFO. The commanding officer is the approving authority for facility watch supervisor designation.
4. **Figure U-1** is an example of a LQS for one position qualification at a facility.

## U.5 PART 4 — LESSON TOPIC GUIDES

Lesson topic guides are organized outlines of single topics and used as a blueprint of what is to be accomplished in the lesson. It is complete in detail and includes:

1. The objectives.
2. Main teaching points.
3. References.
4. Training aids.
5. Methods.
6. Procedures.
7. Supplemental information as needed.

Organized outlines ensure instructors address every portion of a subject ensuring standardization in the classroom/knowledge portion of a facility training program. These outlines will be developed by local subject matter experts and made available to watch teams.

Because of the unique requirements of each facility the number of lesson topic guides will vary. The ATFCO will determine requirements for each facility.

**Figure U-2** is an example of one lesson topic guide that covers a specific topic.

## Local Qualification Standard

## LOCAL CONTROL

NAME: \_\_\_\_\_

RATE/RANK: \_\_\_\_\_

Date Commenced:

Date Completed:

Circle One:      Initial or Subsequent

TTH:

## REQUIRED READING

1. Ground Control LQS Required Reading Items a, b, d, e, f, g, h
2. FAAO JO 7110.65, Chapters 1, 2, 3, 7, 9, 10, and Pilot/Controller Glossary
3. Aeronautical Information Manual, Chapters 2, 3, 4, and 7
4. NASINST 3730.3, Aircraft Antihijacking Procedures
5. NASINST 5530.1, Bomb Threats
6. Waiver to Taxi Aircraft into Position and Hold
7. Letters of Agreement
  - a. Air National Guard/NAS
  - b. TRACON/NAS
8. Appropriate FLIP products

## TRAINING PREREQUISITES

Int

Date \_\_\_\_\_

1. Ground Control/Flight Data Qualification
2. Complete Preposition Local Control Test

## DETAILED KNOWLEDGE FACTORS

1. Equipment (Equipment Manual, NAVAIR-00-80T-114 ATC Facility Manual)
  - a. VISCOM
  - b. BRANDS
2. Communications/Coordination Procedures (NAVAIR-00-80T-114 ATC Manual, FAAO JO 7110.65, NAS Air Ops Manual, Letters of Agreement)
  - a. Tower Supervisor
    - (1) Emergencies/Hot Brakes/Abnormalities
    - (2) Helicopter operations
    - (3) FOD Reports
    - (4) FCLPs
    - (5) Hold/Call for Release

Figure U-1. Local Qualification Standard (Sheet 1 of 5)

	Int	Date
b. Ground Control (NAVAIR 00-80T-114 ATC Manual)		
(1) Vehicle Movement On/Across Runways	_____	_____
(2) Parking Intentions for transient aircraft	_____	_____
(3) Emergencies	_____	_____
(4) Arresting Gear Status	_____	_____
c. Departure Control (NAVAIR 00-80T-114 ATC Manual, FAAO JO 7110.65, NASINST 3722.1)		
(1) Standard Departure	_____	_____
(2) Requests for Unrestricted Climbs	_____	_____
(3) Hold/Call for Release	_____	_____
(4) Aircraft Requesting IFR Handling	_____	_____
d. Approach Control (FAAO JO 7110.65, NASINST 3722.1)		
(1) Aircraft requesting IFR Handling	_____	_____
(2) IFR Approach Termination	_____	_____
e. Radar Final Control (FAAO JO 7110.65, NASINST 3722.1)		
(1) Traffic and Sequencing Information	_____	_____
(2) Wave-off/Low Approach Restrictions	_____	_____
(3) Arresting Gear Out-of-Battery	_____	_____
(4) Clearance for the Option	_____	_____
3. Local Area and Airspace (OPNAVINST 3770.2, FAAO JO 7400.2, NASINST 3722.1)		
a. Class "D" Airspace	_____	_____
b. Local Airports	_____	_____
c. Approach Control Airspace	_____	_____
d. Departure Control Airspace	_____	_____
e. Special Use Airspace	_____	_____
f. VFR Reporting Points	_____	_____
4. Traffic Patterns (NASINST 3722.1)		
a. Tower		
(1) Initials	_____	_____
(2) Initial Altitudes	_____	_____
(3) Break Altitudes	_____	_____
(4) Pattern Altitudes	_____	_____
(5) Pattern Directions	_____	_____
b. Radar (NASINST 3722.1)		
(1) Pattern Altitudes	_____	_____
(2) Pattern Direction	_____	_____
(3) Pattern Climbouts	_____	_____
(4) Missed Approach Procedures	_____	_____

Figure U-1. Local Qualification Standard (Sheet 2)



	Int	Date
5. Traffic Management (FAAO JO 7110.65, ATC Facility Manual, Letters of Agreement)		
a. Types of Approaches		
(1) Option Approach	_____	_____
(2) Touch and Go	_____	_____
(3) Stop and Go	_____	_____
(4) Altitude Restricted Low Approach	_____	_____
b. Simultaneous Opposite Direction Operations (FAAO JO 7110.65)		
c. Runway Separation (NASINST 3722.1, FAAO JO 7110.65, Letters of Agreement)		
(1) FAAO JO 7110.65	_____	_____
(2) Reduced Runway Separation	_____	_____
(3) Air National Guard	_____	_____
(4) Air Force	_____	_____
(5) PPLAs	_____	_____
d. VFR Departure Separation (FAAO JO 7110.65)	_____	_____
e. VFR Arrival Separation (FAAO JO 7110.65)	_____	_____
f. IFR Departure Versus VFR Departure Separation (FAAO JO 7110.65)	_____	_____
g. IFR Departure Versus IFR Arrival Separation (FAAO JO 7110.65)	_____	_____
h. Traffic Advisories and Information (FAAO JO 7110.65)	_____	_____
i. Wake Turbulence Application (FAAO JO 7110.65)	_____	_____
6. Departure Procedures (FAAO JO 7110.65, NASINST 3722.1)		
a. Automatic Releases	_____	_____
b. "Radar Trail" Departures	_____	_____
c. Join Departures	_____	_____
7. Arrivals Procedures (FAAO JO 7110.65, NASINST 3722.1)		
a. Overhead	_____	_____
b. Straight-in Approaches	_____	_____
c. Visual Approaches	_____	_____
d. Practice Precautionary Approaches	_____	_____
e. Heavy/Large Aircraft Landings	_____	_____
f. Approaches to a Closed Runway	_____	_____
g. Aircraft With Ordnance	_____	_____
(1) Hung Ordnance	_____	_____
(2) Unexpended Ordnance	_____	_____

Figure U-1. Local Qualification Standard (Sheet 3)

	Int	Date
8. Field Carrier Landing Practice (NASINST 3722.1)	_____	_____
a. VFR FCLPs		
(1) Responsibility	_____	_____
(2) Number of Aircraft	_____	_____
(3) Standby Alert	_____	_____
(4) Delta Pattern	_____	_____
(5) Pattern and Break Altitude	_____	_____
(6) Lighting Requirements	_____	_____
(7) Define	_____	_____
(a) Signal Delta	_____	_____
(b) Signal Charlie	_____	_____
9. Special VFR (SVFR) (FAAO JO 7110.65, NASINST 3722.1)		
a. Helicopter SVFR		
(1) Coordination	_____	_____
(2) Coded Routes	_____	_____
10. Noise Abatement (NASINST 3722.1)		
a. Minimum Altitudes		
(1) Over Cities of Podunk and Bump	_____	_____
(2) Over Base Administration	_____	_____
(3) Over Base Housing	_____	_____
b. Quiet Hours		
(1) Procedures	_____	_____
(2) Notification	_____	_____
(3) Responsibilities	_____	_____
11. Runway Use Program (NASINST 3722.1)		
a. Aircraft Characteristics (Aircraft NATOPS)		
(1) Locally Based Aircraft	_____	_____
(2) Transient Aircraft	_____	_____
12. Weather Effects (NASINST 3722.1)		
a. Pattern Restrictions	_____	_____
b. Braking Action Advisories	_____	_____
c. Wind Shears	_____	_____
13. Emergencies (FAAO JO 7110.65, NASINST 3722.1)		
a. Controller Responsibilities	_____	_____
b. Types of Emergencies	_____	_____

Figure U-1. Local Qualification Standard (Sheet 4)

	Int	Date
14. Special Airfield Operations (NASINST 3722.1)		
a. Banner Tows	_____	_____
b. Crop Dusters	_____	_____
c. Night Vision Goggles Operations	_____	_____
(1) Runway Lights	_____	_____
(2) Requirements	_____	_____
(3) Coordination	_____	_____
15. Special Aircraft Handling (NASINST 3722.1, FAAO JO 7110.65)		
a. Search and Rescue	_____	_____
b. Flight Inspections	_____	_____
c. MEDEVAC/AIREVAC	_____	_____
DETAILED PERFORMANCE FACTORS		
1. Watch Routine (ATC Facility Manual)		
a. Receive Verbal/Written Pass down	_____	_____
b. Verify Equipment Status	_____	_____
2. Complete written test on items covered by LQS		
3. Draw the following		
a. SIDS	_____	_____
b. STARS	_____	_____
c. TACAN Approaches	_____	_____
d. VOR Approaches	_____	_____
e. Class "D" Airspace	_____	_____
4. Label the following diagrams		
a. Jet Routes (60NM Radius)	_____	_____
b. Victor Routes (60NM Radius)	_____	_____
5. Demonstrate ability to satisfactorily work local control position	_____	_____
I have evaluated the above trainee and certify that all required training and performance factors have been met and trainee has demonstrated the ability to perform all duties of the position.		
Recommended by: _____	FWS _____	Date _____
Approved/Disapproved: _____	Tower Chief _____	Date _____
Recorded: _____	Training Chief _____	Date _____

Figure U-1. Local Qualification Standard (Sheet 5)

## RADAR FINAL CONTROL

Lesson Topic Guide RAD-A1

Date: FEB 00

A. Title: Reference Documents

B. Purpose: To familiarize the trainee with the required information in various documents.

C. Objective: Upon completion of lesson, trainee will be able to locate specific final control information in reference documents.

D. Time: 2 Hours

E. References: Radar Final Control Local Qualification Standard

F. Training Aids:

1. FAAO JO 7110.65 Chapter 5
  - a. Section 1 General Procedures
  - b. Section 3 Radar Identification Procedures
  - c. Section 10 Radar Approaches (Terminal)
  - d. Section 12 PAR Approaches (Terminal)
2. NAVAIR 00-80T-114 NATOPS ATC Manual
  - a. [Chapter 3, Section 3.2](#)
  - b. [Chapter 7](#)
3. Pass Down Log
4. Read and initial Board
5. Watch Relief Checklist
6. FPN-63 Radar Service Instruction Manual

G. Information Sheets: None

H. Instructor Procedure:

1. Preparation:
  - a. Ensure that all reference documents are available.
2. Introduction
  - a. State the lesson objective.
3. Presentation:
  - a. Locate, identify and specifically explain the required Information for final control in each reference document.
  - b. Give examples of when this information would be important to know and locate.

I. Trainee Application:

- a. Upon completion of this lesson, the trainee should be able to:
  - (1) Locate reference document information identified in the Radar Final Control LQS.
  - (2) Understand and explain the information required for Radar Final Control.

J. Testing:

1. Administer oral test when complete with this lesson.

Figure U-2. Lesson Topic Guide

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