SOLDIER'S MANUAL
AND
TRAINER'S GUIDE
FOR
MOS 96U
TACTICAL UNMANNED AERIAL VEHICLE OPERATOR
SKILL LEVELS 1, 2, 3, and 4

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SOLDIER'S MANUAL AND TRAINER'S GUIDE
for MOS 96U
TACTICAL UNMANNED AERIAL VEHICLE OPERATOR
Skill Levels 1, 2, 3, and 4

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Subject Area 4: Maintenance

Preface

This manual contains a common task plan for skill levels (SL) 1 through 4 soldiers. It contains standardized training objectives, in the form of task summaries that support unit missions during wartime.

Training support information, such as reference materials, is also included. Trainers and first-line supervisors should ensure soldiers holding MOS 96U have access to this publication in their work areas, unit learning center, and unit library. This manual applies to both active and Reserve Components (National Guard and Army Reserve).

The proponent of this manual is the Commander, United States Army Training and Doctrine Command (TRADOC), with the Commander, U.S. Army Intelligence Center and Fort Huachuca designated as the preparing agency.

Users of this publication are encouraged to recommend changes and submit comments for its improvement. Comments should identify the task title and number, specific page, paragraph, and line of text for the recommended change. Provide reasons for each comment to ensure understanding and complete evaluation. Prepare comments using DA Form 2028 (*Recommended Changes to Publications and Blank Forms*). All comments, suggestions, and recommended changes to this publication may be emailed to ITPD@hua.army.mil or submitted to—

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Unless this manual states otherwise, masculine pronouns do not refer exclusively to men.

Chapter 1
Introduction

1-1. GENERAL.

a. This manual identifies the individual MOS training requirements for soldiers in MOS 96U. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in their unit. This manual is the primary MOS reference to support the self-development and training of every 96U soldier.

b. Use this manual with the soldier's manuals of common tasks (STP 21-1-SMCT and STP 21-24-SMCT), Army training and evaluation program (ARTEP) mission training plans (MTP), and FM 7-1 to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

1-2. TASK SUMMARIES.

Task summaries outline the performance requirements of each critical task in the soldier training publication (STP). They provide the soldier and the trainer with the information necessary to prepare, conduct, and evaluate critical task training. At a minimum, task summaries include information the soldier must know and the skills that he must perform to standard for each task. The format for the task summaries included in this STP is as follows:

(1) Task Number. A 10 alpha-numeric identifier for the task. Include it along with the task title in any correspondence relating to the task.

(2) Task Title. The task title identifies the action to be performed.

(3) Conditions. The task conditions identify all the equipment, tools, references, job aids, and supporting personnel the soldier needs to perform the task. This section identifies any environmental conditions (such as visibility, temperature, or wind) that can alter task performance. This section also identifies any specific cues or events (such as chemical attack) that may trigger task performance.

(4) Standards. The task standards describe how well and to what level the soldier must perform a task. Standards are typically described in terms of accuracy, completeness, and speed.

(5) Performance Steps. This section identifies a summary of the specific actions the soldier must do to successfully complete the task.

(6) Evaluation Preparation. This section lists any special setup procedures and instructions, or modifications to task performance necessary to evaluate a task that cannot be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to accommodate those modifications and instructions that should be given to the soldier before evaluation.

(7) Performance Measures. This section identifies the actions necessary to objectively observe and determine if a task performer has performed the task to the prescribed standard. These measures are derived from the task performance steps during task analysis.

(8) Evaluation Guidance. This section indicates requirements for receiving a passing score and any other special guidance for the task evaluator.

"Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. All measures must be marked GO to receive an overall GO on the task. If the soldier fails any measure, show what was done wrong and how to do it correctly."

(9) References. This section identifies references that provide a more detailed and thorough explanation of task performance requirements than those given in the performance step summary description.

1-3. SOLDIER'S RESPONSIBILITIES. Each soldier is responsible for performing individual tasks that the first-line supervisor identifies based on the unit's mission essential task list (METL). The soldier must perform the task to the standards listed in this STP. If the soldier has a question about how or which tasks to perform in this manual, the soldier must ask the first-line supervisor for clarification. The first-line supervisor should know how to perform each task, or be able to direct the soldier to the appropriate training materials.

1-4. NCO SELF-DEVELOPMENT AND THE SOLDIER'S MANUAL (STP).

a. Self-development is one of the key components of the leader development program. It is a planned, progressive, and sequential program followed by leaders to enhance and sustain their military competencies. It consists of individual study, research, professional reading, practice, and self-assessment. Under the self-development concept the NCO, as an Army professional, has the responsibility to remain current in all phases of the MOS. The STP is the primary source for the NCO to use in maintaining MOS proficiency.

b. Another important resource for NCO self-development is the Army correspondence course program (ACCP). Refer to DA Pam 350-59 for information on courses available, or visit the ACCP website at http://www.atsc.army.mil/accp/aipd.htm for course information and enrollment.

1-5. TRAINING SUPPORT. This manual includes additional training support information.

a. Glossary. The glossary is a single, comprehensive list of acronyms, abbreviations, definitions, and letter symbols.

b. References. This appendix contains a list of references, which support training of all tasks in this STP. Required references are listed in the condition statement and are required for the soldier to do the task. Related references are materials, which help a trainer, prepare for the task but are not required to perform the task.

Chapter 2
Trainer's Guide

2-1. GENERAL. The MOS training plan (MTP) identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and other similar factors. Therefore, this MTP should be used as a guide for conducting unit training and not a rigid standard. The MTP consists of two parts. Each part is designed to assist the commander in preparing a unit training plan that satisfies integration, cross training, training up, and sustainment training requirements for soldiers in this MOS.

a. Part One of the MTP shows the relationship of an MOS skill level between duty position and critical tasks. These critical tasks are grouped by task commonality into subject areas.

(1) Section I lists subject area numbers and titles used throughout the MTP. These subject areas are used to define the training requirements for each duty position within an MOS.

(2) Section II identifies the total training requirement for each duty position within an MOS and provides a recommendation for cross training and train-up/merger training.

- Duty position column. This column lists the duty positions of the MOS, by skill level; each skill level has different training requirements.

- Subject area column. This column lists, by numerical key (see Section I), the subject areas in which a soldier must be proficient to perform in that duty position.

- Cross Train column. This column lists the recommended duty position for which soldiers should be cross trained.

- Train-up/merger column. This column lists the corresponding duty position for the next higher skill level or MOSC into which the soldier will merge on promotion.

b. Part Two lists, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

- Subject area column. This column lists the subject area number and title in the same order as Section I, Part One of the MTP.

- Task number column. This column lists the task numbers for all tasks included in the subject area.

- Title column. This column lists the task title for each task in the subject area.

- Training location column. This column identifies the training location where the task is first trained to soldier training publications standards. If the task is first trained to standard in the unit, the word “unit” will be in this column. If the task is first trained to standard in the training base, it will identify, by brevity code (ANCOC, BNCOC), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

UNIT	Trained in the Unit
BNCOC	Basic Noncommissioned Officer Course
SOJT	Supervised On-the-Job Training
IET	Initial Entry Training

Figure 2-1. Training Locations

- Sustainment training frequency column. This column indicates the recommended frequency at which the tasks should be trained to ensure soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

BA	-	Biannually
AN	-	Annually
SA	-	Semiannually
QT	-	Quarterly
MO	-	Monthly
BW	-	Bi-weekly
WK	-	Weekly

Figure 2-2. Sustainment Training Frequency Codes

- Sustainment training skill level column. This column lists the skill levels of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to soldier's manual standards.

2-2. SUBJECT AREA CODES.

Skill Level 1

1 Emplacement Operations
2 Flight/Mission Operations
3 Displacement Operations
4 Maintenance
5 Intelligence Operations
6 Communications
8 Inspections

Skill Level 2

1 Emplacement Operations
2 Flight/Mission Operations
3 Displacement Operations
4 Maintenance
5 Intelligence Operations

Skill Level 3

1 Emplacement Operations
2 Flight/Mission Operations
3 Displacement Operations
5 Intelligence Operations

Skill Level 4

1 Emplacement Operations
2 Flight/Mission Operations
3 Displacement Operations

2-3. DUTY POSITION TRAINING REQUIREMENTS. (MOS Training Plan, Part One, Section II.) (This information has not been developed; it will be included in next revision of this publication.)

2-4. CRITICAL TASKS LIST.

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CRITICAL TASKS

Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
Skill Level 1				
Subject Area 1. Emplacement Operations				
301-96U-1012S	Emplace an Unmanned Aerial Vehicle (UAV) Air Vehicle Transport (AVT) (Shadow)	IET	SA	SL 1-4
301-96U-1013H	Emplace an Unmanned Aerial Vehicle (UAV) Fuel Point (Hunter)	UNIT	AN	SL 1-4
301-96U-1014H	Emplace an Unmanned Aerial Vehicle (UAV) Mobile Power Unit (MPU) (Hunter)	IET	SA	SL 1-4
301-96U-1015	Emplace An Unmanned Aerial Vehicle (UAV) Ground Control Station (GCS)	IET	SA	SL 1-4
301-96U-1016S	Emplace an Unmanned Aerial Vehicle (UAV) Portable Ground Control Station (PGCS) (Shadow)	IET	SA	SL 1-4
301-96U-1018	Emplace an Unmanned Aerial Vehicle (UAV) Ground Data Terminal (GDT)	IET	SA	SL 1-4
301-96U-1019S	Emplace an Unmanned Aerial Vehicle (UAV) Portable Ground Data Terminal (PGDT) (Shadow)	IET	SA	SL 1-4
301-96U-1026H	Emplace an Unmanned Aerial Vehicle (UAV) Launch and Recovery Terminal (LRT) (Hunter)	IET	SA	SL 1-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-1027S	Emplace an Unmanned Aerial Vehicle (UAV) Launcher (LAU) (Shadow)	IET	SA	SL 1-4
301-96U-1028S	Emplace an Unmanned Aerial Vehicle (UAV) Tactical Automated Landing Systems (TALS) (Shadow)	IET	SA	SL 1-4
301-96U-1029S	Emplace Unmanned Aerial Vehicle (UAV) Arresting Gear (AG) (Shadow)	IET	SA	SL 1-4
301-96U-1030H	Emplace an Unmanned Aerial Vehicle (UAV) Flight Line Support Equipment (Hunter)	UNIT	SA	SL 1-4
301-96U-1031H	Emplace an Unmanned Aerial Vehicle (UAV) Mobile Maintenance Facility (MMF) (Hunter)	UNIT	AN	SL 1-4
301-96U-1032	Emplace an Unmanned Aerial Vehicle (UAV) Remote Video Terminal (RVT)	IET	SA	SL 1-4
301-96U-1033	Assemble an Unmanned Aerial Vehicle (UAV)	IET	SA	SL 1-4
Subject Area 2. Flight/Mission Operations				
301-96D-1050	Plot Universal Transverse Mercator (UTM) Coordinates on a Map, Image or Geospatial Data	IET	SA	SL 1-4
301-96U-1060	Prepare an Unmanned Aerial Vehicle (UAV) Ground Control Station (GCS) for Operation	IET	SA	SL 1-4
301-96U-1061S	Prepare an Unmanned Aerial Vehicle (UAV) Portable Ground Control Station (PGCS) for Operation (Shadow)	IET	SA	SL 1-4
301-96U-1063S	Prepare an Unmanned Aerial Vehicle (UAV) Launcher (LAU) for Operation (Shadow)	IET	SA	SL 1-4
301-96U-1064	Prepare Unmanned Aerial Vehicle (UAV) Remote Video Terminal (RVT) for Operation	IET	SA	SL 1-4
301-96U-1065	Perform Unmanned Aerial Vehicle (UAV) System Preflight Procedures	IET	SA	SL 1-4
301-96U-1066	Perform Unmanned Aerial Vehicle (UAV) Launch Procedures	IET	SA	SL 1-4
301-96U-1067	Perform Unmanned Aerial Vehicle (UAV) Mission Planning Procedures	IET	SA	SL 1-4
301-96U-1068H	Perform an Unmanned Aerial Vehicle (UAV) Air Data Relay (ADR) Mission (Hunter)	IET	SA	SL 1-4
301-96U-1069	Perform an Unmanned Aerial Vehicle (UAV) Control Station Transfer	IET	SA	SL 1-4
301-96U-1070	Operate an Unmanned Aerial Vehicle (UAV) Remote Video Terminal (RVT)	IET	SA	SL 1-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-1071	Perform Unmanned Aerial Vehicle (UAV) Flight Procedures	IET	SA	SL 1-4
301-96U-1072	Perform Unmanned Aerial Vehicle (UAV) Payload Operations	IET	SA	SL 1-4
301-96U-1073	Perform Unmanned Aerial Vehicle (UAV) Reconnaissance Operations	IET	SA	SL 1-4
301-96U-1074	Perform Unmanned Aerial Vehicle (UAV) Surveillance Operations	IET	SA	SL 1-4
301-96U-1075	Perform Unmanned Aerial Vehicle (UAV) Target Acquisition Operations	IET	SA	SL 1-4
301-96U-1076	Perform Unmanned Aerial Vehicle (UAV) Emergency Procedures	IET	SA	SL 1-4
301-96U-1077	Perform Unmanned Aerial Vehicle (UAV) Recovery Procedures	IET	SA	SL 1-4
301-96U-1078	Perform Power Down Procedures for an Unmanned Aerial Vehicle (UAV) Ground Control Station (GCS)	IET	SA	SL 1-4
301-96U-1079S	Perform Power Down Procedures for an Unmanned Aerial Vehicle (UAV) Portable Ground Control Station (PGCS) (Shadow)	IET	SA	SL 1-4
Subject Area 3. Displacement Operations				
301-96U-1112S	Displace an Unmanned Aerial Vehicle (UAV) Air Vehicle Transport (AVT) (Shadow)	IET	SA	SL 1-4
301-96U-1113H	Displace an Unmanned Aerial Vehicle (UAV) Fuel Point (Hunter)	IET	AN	SL 1-4
301-96U-1114H	Displace an Unmanned Aerial Vehicle (UAV) Mobile Power Unit (MPU) (Hunter)	UNIT	SA	SL 1-4
301-96U-1115	Displace an Unmanned Aerial Vehicle (UAV) Ground Control Station (GCS)	IET	SA	SL 1-4
301-96U-1116S	Displace an Unmanned Aerial Vehicle (UAV) Portable Ground Control Station (PGCS) (Shadow)	IET	SA	SL 1-4
301-96U-1118	Displace an Unmanned Aerial Vehicle (UAV) Ground Data Terminal (GDT)	IET	SA	SL 1-4
301-96U-1119S	Displace an Unmanned Aerial Vehicle (UAV) Portable Ground Data Terminal (PGDT) (Shadow)	IET	SA	SL 1-4
301-96U-1126H	Displace an Unmanned Aerial Vehicle (UAV) Launch Recovery Terminal (LRT) (Hunter)	IET	SA	SL 1-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-1127S	Displace an Unmanned Aerial Vehicle (UAV) Launcher (LAU) (Shadow)	IET	SA	SL 1-4
301-96U-1128S	Displace an Unmanned Aerial Vehicle (UAV) Tactical Automated Landing System (TALS) (Shadow)	IET	SA	SL 1-4
301-96U-1129S	Displace Unmanned Aerial Vehicle (UAV) Arresting Gear (AG) (Shadow)	IET	SA	SL 1-4
301-96U-1130H	Displace Unmanned Aerial Vehicle (UAV) Flight Line Support Equipment (Hunter)	UNIT	SA	SL 1-4
301-96U-1131H	Displace Unmanned Aerial Vehicle (UAV) Mobile Maintenance Facility (MMF) (Hunter)	UNIT	AN	SL 1-4
301-96U-1132	Displace an Unmanned Aerial Vehicle (UAV) Remote Video Terminal (RVT)	IET	SA	SL 1-4
301-96U-1133	Disassemble an Unmanned Aerial Vehicle (UAV)	IET	SA	SL 1-4
Subject Area 4. Maintenance				
301-96U-1213S	Perform Preventive Maintenance Checks and Services (PMCS) on Unmanned Aerial Vehicle (UAV) Electrical Power Equipment (EPE) (Shadow)	UNIT	SA	SL 1-4
301-96U-1214H	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Mobile Power Unit (MPU) (Hunter)	UNIT	SA	SL 1-4
301-96U-1215	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Ground Control Station (GCS)	UNIT	SA	SL 1-4
301-96U-1216S	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Portable Ground Control Station (PGCS) (Shadow)	UNIT	SA	SL 1-4
301-96U-1218	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Ground Data Terminal (GDT)	UNIT	SA	SL 1-4
301-96U-1219S	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Portable Ground Data Terminal (PGDT) (Shadow)	UNIT	SA	SL 1-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-1226H	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Launch And Recovery Terminal (LRT) (Hunter)	UNIT	SA	SL 1-4
301-96U-1227S	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Launcher (LAU) (Shadow)	UNIT	SA	SL 1-4
301-96U-1228S	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Tactical Automated Landing System (TALS) (Shadow)	UNIT	SA	SL 1-4
301-96U-1229S	Perform Preventive Maintenance Checks and Services (PMCS) on Unmanned Aerial Vehicle (UAV) Arresting Gear (AG) (Shadow)	UNIT	SA	SL 1-4
301-96U-1230H	Perform Preventive Maintenance Checks and Services (PMCS) on Unmanned Aerial Vehicle (UAV) Flight Line Support Equipment (Hunter)	UNIT	SA	SL 1-4
301-96U-1232	Perform Preventive Maintenance Checks and Services (PMCS) on an Unmanned Aerial Vehicle (UAV) Remote Video Terminal (RVT)	UNIT	SA	SL 1-4
301-96U-1234	Update Unmanned Aerial Vehicle (UAV) System Logbooks	UNIT	SA	SL 1-4
Subject Area 5. Intelligence Operations				
301-96U-1260	Prepare Reports from Unmanned Aerial Vehicle (UAV) Collected Information	IET	SA	SL 1-4
301-96U-1261	Recognize Items of Significance for Military Operations Collected by Unmanned Aerial Vehicle (UAV)	IET	SA	SL 1-4
Subject Area 6. Communications				
113-625-2081	Operate Digital Secure Voice Terminal (DSVT) KY-68	UNIT	SA	SL 1-4
301-96U-1310	Operate Tactical Communication Equipment	UNIT	SA	SL 1-4
Subject Area 8. Inspections				
301-96U-1411H	Perform an Unmanned Aerial Vehicle (UAV) Daily Inspection (Hunter)	UNIT	SA	SL 1-4
301-96U-1412H	Perform an Unmanned Aerial Vehicle (UAV) Turn-Around Inspection (Hunter)	UNIT	SA	SL 1-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-1413H	Perform an Unmanned Aerial Vehicle (UAV) End of Runway Inspection (Hunter)	UNIT	SA	SL 1-4
301-96U-1414H	Perform an Unmanned Aerial Vehicle (UAV) Post-Flight Inspection (Hunter)	UNIT	SA	SL 1-4
Skill Level 2				
Subject Area 1. Emplacement Operations				
301-96U-2011	Supervise Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Site Emplacement	UNIT	SA	SL 2-4
301-96U-2012	Supervise Unmanned Aerial Vehicle (UAV) Forward Control Site Emplacement	UNIT	SA	SL 2-4
Subject Area 2. Flight/Mission Operations				
301-96U-2060	Supervise Preparations of an Unmanned Aerial Vehicle (UAV) System for Operations	UNIT	SA	SL 2-4
301-96U-2061	Supervise Unmanned Aerial Vehicle (UAV) Mission Planning	UNIT	SA	SL 2-4
301-96U-2063	Apply Airspace Instructions to Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Operations	SOJT	SA	SL 2-4
301-96U-2064	Supervise Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Operations	UNIT	SA	SL 2-4
301-96U-2065	Apply Airspace Instructions to Unmanned Aerial Vehicle (UAV) Flight/Mission Operations	SOJT	SA	SL 2-4
301-96U-2066	Supervise Unmanned Aerial Vehicle (UAV) Flight/Mission Operations	UNIT	SA	SL 2-4
301-96U-2067	Supervise Unmanned Aerial Vehicle (UAV) Reconnaissance, Surveillance, and Target Acquisition (RSTA) Operations	UNIT	SA	SL 2-4
301-96U-2068	Supervise Power Down of an Unmanned Aerial Vehicle (UAV) System After Operations	UNIT	SA	SL 2-4
Subject Area 3. Displacement Operations				
301-96U-2111	Supervise Unmanned Aerial Vehicle (UAV) Launch And Recovery (L/R) Site Displacement	UNIT	SA	SL 2-4
301-96U-2112	Supervise Unmanned Aerial Vehicle (UAV) Forward Control Site Displacement	UNIT	SA	SL 2-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
Subject Area 4. Maintenance				
301-96U-2210	Supervise Operator Level Maintenance of an Unmanned Aerial Vehicle (UAV) System	UNIT	SA	SL 2-4
301-96U-2211	Review Unmanned Aerial Vehicle (UAV) Logbooks	UNIT	SA	SL 2-4
Subject Area 5. Intelligence Operations				
301-96U-2260	Supervise Preparation of Reports from Unmanned Aerial Vehicle (UAV) Collected Information	UNIT	SA	SL 2-4
Skill Level 3				
Subject Area 1. Emplacement Operations				
301-96U-3010	Assist with Unmanned Aerial Vehicle (UAV) Site Survey	UNIT	SA	SL 3-4
301-96U-3011	Direct Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Site Emplacement	BNCOC	SA	SL 3-4
301-96U-3012	Direct Unmanned Aerial Vehicle (UAV) Forward Control Site Emplacement	UNIT	SA	SL 3-4
Subject Area 2. Flight/Mission Operations				
301-96U-3061	Direct Unmanned Aerial Vehicle (UAV) Mission Planning	BNCOC	SA	SL 3-4
301-96U-3062	Assist in Frequency Management for an Unmanned Aerial Vehicle (UAV) Mission	BNCOC	SA	SL 3-4
301-96U-3063	Assist in Airspace Coordination for an Unmanned Aerial Vehicle (UAV) Mission	BNCOC	SA	SL 3-4
301-96U-3064	Direct Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Operations	BNCOC	SA	SL 3-4
301-96U-3066	Direct Unmanned Aerial Vehicle (UAV) Flight/Mission Operations	BNCOC	SA	SL 3-4
301-96U-3067	Direct Unmanned Aerial Vehicle (UAV) Reconnaissance, Surveillance, and Target Acquisition (RSTA) Operations	BNCOC	SA	SL 3-4
Subject Area 3. Displacement Operations				
301-96U-3111	Direct Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Site Displacement	BNCOC	SA	SL 3-4
301-96U-3112	Direct Unmanned Aerial Vehicle (UAV) Forward Control Site Displacement	UNIT	SA	SL 3-4

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Task Number	*Title*	*Training Location*	*Sustainment Training Frequency*	*Sustainment Training*
301-96U-3113	Perform Unmanned Aerial Vehicle (UAV) Site Selection	BNCOC	SA	SL 3-4
Subject Area 5. Intelligence Operations				
301-96U-3260	Direct Unmanned Aerial Vehicle (UAV) Reporting	BNCOC	SA	SL 3-4
Skill Level 4				
Subject Area 1. Emplacement Operations				
301-96U-4010	Conduct Unmanned Aerial Vehicle (UAV) Site Survey	UNIT	SA	SL 4
301-96U-4011	Select an Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Site Location	UNIT	SA	SL 4
301-96U-4012	Produce an Unmanned Aerial Vehicle (UAV) Launch and Recovery (L/R) Site Layout	UNIT	SA	SL 4
Subject Area 2. Flight/Mission Operations				
301-96U-4060	Coordinate with Higher/Adjacent Headquarters	UNIT	SA	SL 4
Subject Area 3. Displacement Operations				
301-96U-4110	Plan Unmanned Aerial Vehicle (UAV) Displacement Operations	UNIT	SA	SL 4

Chapter 3
MOS/Skill Level Tasks

Skill Level 1

Subject Area 1: EMPLACEMENT OPERATIONS

301-96U-1012S

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) AIR VEHICLE TRANSPORT (AVT) (SHADOW)

Conditions: Given an air vehicle transport (AVT), an emplacement site, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Emplace an unmanned aerial vehicle (UAV) AVT in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0054 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0054 00, or TM 9-5895-681-CL.	———	———

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1013H

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) FUEL POINT (HUNTER)

Conditions: Given an emplacement site, two 5-ton fuel trucks, grounding equipment, waste fuel barrel, fuel sample container(s), environmental protection equipment, personal protective equipment (PPE), and TM 5-4930-230-13.

Standards: Emplace an unmanned aerial vehicle (UAV) fuel point in accordance with TM 5-4930-230-13.

Performance Steps

1. Determine the location.

   Choose a site that will allow for the AV to enter and exit the fuel point safely. The site must be flat or have only a slight slope.

2. Layout the site.

   a. Ensure the spacing between aircraft is at least 100 feet.

   b. Lay out so the wind will carry fuel vapors away from the site. This is the best layout. Remember that fuel vapors are heavier than air and they will pool in a valley or hollow. If the site slopes, layout the equipment on the higher ground.

   c. Ensure that the equipment is not laid out in a place where a spill will drain into a stream or river. A spill could contaminate the water and create an unsuspected fire hazard downstream of the site. Choose a part of the site that is firm enough to support the weight of the aircraft, vehicles, and other heavy equipment (such as 50-gallon drums).

   d. Place the equipment and fuel drums in woods or brush, along a hedgerow, or in positions where natural shadows will disguise the shadow patterns of the equipment. It may be possible to conceal most of the hose in the woods, with the nozzles hung on hangers at the edge of the tree line. Deep grass can be bent over the hoses to help conceal them. When spray paint is available, use earth and grass tones to dull and conceal couplings and fittings. If necessary, use heaped dirt or large rocks along the side of the hoses (never on top) to break up the characteristic straight shadows. Remember that shadow patterns change during the day. Move equipment, if necessary, to use these changing patterns.

3. Prepare the site.

   Remove all sticks, stones, and debris from the area. Also clear the immediate refueling area and paths of approach. To prevent fires, clear dry grasses, leaves, and brush away from the pumping assembly. In some cases, engineer personnel prepare the site. This occurs when the site must be bulldozed (on a mountain) or if the site must be treated with dust suppressant (in a sandy desert). In such cases, the company or battalion operations officer must arrange for site preparation, in advance, with the engineers.

4. Emplace the equipment.

   a. Emplace the equipment in a way that is best for the specific situation. Layout to avoid obstacles, to take advantage of terrain features, to achieve maximum dispersion, and to operate within a restricted amount of space.

Performance Steps

> **CAUTION**
>
> When coupling hoses together, never take a dust cap or plug off an opening until ready to couple the next piece of equipment. Follow the same rule, in reverse, when uncoupling. Uncouple, drain, then cap or plug immediately. Couple removed caps and plugs together to keep them clean. Keep dirt out of the system. Remember that the readiness of the aircraft depends on the quality of the fuel pumped into them.

b. Place the 5-tons on a cleared level spot. When feasible, secondary containment should be provided underneath vehicles.

c. Drive one ground rod into the ground for each vehicle. Drive a separate ground for the AV when refueling/defueling.

(1) Grounding.

(a) The earth, particularly soft damp earth, can accept electrical charges. The charges dissipate harmlessly. To ground a piece of equipment means to provide a conductive path into the ground so a static charge will not be trapped on the surface of the equipment where it could discharge as a spark. This conductive path is made by connecting a conductive cable from the piece of equipment to a conductive metal rod that is driven into the earth to reach the level of permanent ground moisture. The connection to the piece of equipment must be made to a clean, unpainted, non-oxidized metal surface. In the arctic regions it is hard to get a good ground because of frozen soil. Moisture in the soil freezes when temperatures go below 32 degrees Fahrenheit. Several ground rods may need to be driven in at different locations to as great a depth as possible. Another solution is to try to locate a grounding system near a source of heat. If there are metal buildings or underground pipes nearby, a ground is connected to them. In some warmer areas, rocky or sandy soil makes it hard to get a good ground because such soils have a low conductivity. Chemicals can be used to condition the soil and to raise its conductivity. Magnesium sulfate (Epsom salts), copper sulfate (blue vitriol), calcium chloride, sodium chloride (common table salt), and potassium nitrate (saltpeter) are used for soil conditioning. Common table salt will probably be the easiest to get in the field. Before using the salt, dig a hole about one foot deep and three feet across. Mix five pounds of salt with five gallons of water. Pour the mixture into the hole, and allow it to seep in. Install the ground rod and wire, and keep the soil around the rod moist. Ground rods are usually made of galvanized iron, galvanized steel or copper-weld steel. The rod regularly used for grounding is line item number (LIN) S08698, NSN 5975-00224-5260. This ground rod is 3/4-inch in diameter and six feet long, and is made of galvanized steel.

Performance Steps

(b) The rod is driven into the earth to reach below the permanent ground moisture level. On the apron or ramp of a fixed airfield, the top of the rod should be level with the surrounding surface. At other facilities, the top of the rod should be either low enough or high enough so people will not trip over it. If the top of the rod is level with the surrounding surface, an area around the top of the rod must be dished out so ground cable clips can be attached to the rod. Tiedown bolts embedded in concrete ramps at fixed airfields may be used as ground connections if they meet the requirements for good resistance. If using tiedown bolts, ensure that the ground connections are to the eye of the bolt, not to the tiedown ring.

(c) A yellow circle that is 18 inches in diameter, with a 2-inch (approximately 5 centimeters) black border surrounding it, should encircle each rod that is installed in a hard surface permanently or semi-permanently. These circles must be painted on. The words STATIC GROUND CONNECTION and a numeric or alphanumeric identification of the rod must be stenciled in black on the yellow circle. The number and spacing of fixed rods should be determined by the requirements of the local situation. Markings of this type are not required for temporary ground rods.

(2) Grounding methods.

(a) There is no quick or easy way to test the adequacy of a ground. The testing procedures are complex, and the equipment used in testing is bulky and expensive. For these reasons, several methods or levels of grounding and bonding are required to meet the various operational needs of the Army.

(b) In method 1, equipment is grounded to a rod or rods that have measured resistance to ground equal to, or less than, 10,000 ohms. The refueling system or vehicle and the aircraft are grounded to this tested ground rod. In addition, the nozzle is bonded to the aircraft. The marking and testing requirements outlined above apply to method 1 grounding and bonding. Use of method 1 grounding is required unless conditions, as described below, preclude its use. Method 1 is the only standard of grounding acceptable, without specific authorization, at any fixed airfield or refueling point. It is the best and safest method.

Performance Steps

(c) In some instances, equipment is not available to test resistance to ground. In such cases, method 2 is used. Method 2 uses an untested ground—a grounding system based on the knowledge that damp earth will accept and drain off an electrical charge. Usually, method 2 is used only when the location, tactical situation, or type of operation makes it impossible to test ground rods or to mark them in the manner appropriate for fixed rods. In method 2, equipment is grounded to a rod or rods that are driven a specific depth into the ground depending on the type of soil (see table 7-2) at the site. The depth to which the rods must be driven is determined by the normal depth of permanent ground moisture in the various types of soils. The refueler and the aircraft are then grounded, and the nozzle is bonded to the aircraft. The commander of the operating unit must authorize the use of method 2. This method is less desirable. It should be used only when it is impossible to use method 1. In situations where the climate, terrain, or tactical condition makes it impossible to secure a satisfactory ground rod, the requirements to ground the aircraft and the fuel dispenser (system or refueler) may be waived. However, the requirement to bond the fuel dispenser to the aircraft may not be waived under any circumstances.

WARNING

When method 3 is used, an object that has a different electrical potential (any object that is not part of the bonded system) should not be allowed to come into contact with the bonded equipment when a flammable vapor-air mixture may be present.

(d) Method 3 relies on bonding alone. A bond is made between the aircraft and the refueling system or refueler and between the nozzle and the aircraft. A contact between an unbonded object and the system could produce a spark that could set off an explosion or fire. The commander of the aviation unit, one organizational level above the operating unit, must authorize method 3 procedures. This is the least desirable method since it involves solely bonding.

Table 7-2. Required Depths for Ground Rods

Type of soil	*Depth of ground rod*
Coarse ground, cohesionless sands and gravels.	6 feet
Inorganic clay, claying gravels, gravel-sand-clay, claying sands, sandy clay, gravelly clay, and silty clay.	4 feet
Silty gravel, gravel-sand-silt, silty sand, sand, silt, peat, muck, and swamp soil.	3 feet

d. Place one fire extinguisher at each of the vehicles and one at the dispensing point.

Performance Steps

e. Ensure the following is available for refueling operations:

(1) Personal protective equipment (PPE) (rubber gloves, apron, and goggles).

(2) Secondary containment for any long-term storage of fuel (fuel sample bottles).

(3) Secondary containment for putting underneath AV when refueling.

(4) Eye wash station.

(5) Firefighting equipment (ax, pick, shovel, fire extinguishers, and fire blanket).

(6) Fuel spill resources (dry sweep, brooms, and shovels).

5. React to emergencies.

a. Prepare for fuel spills.

(1) Fuel spills are classified according to the area covered by the spill. The area of contact between the fuel and the air determines the seriousness of a fuel spill. It is on or above this surface that a flammable, vapor-air mixture can form and fire can take place. The number of square feet covered by the spill is more important than the amount of fuel spilled. The types of fuel spills are described below.

(a) Small priming spill: A small priming spill is one that covers less than 18 inches in all directions.

(b) Small spill: A small spill is one that is less than 10 feet in any direction or that covers less than 50 square feet. It is not a continuous spill.

(c) Large spill: A spill that is larger than 10 feet in any direction, that covers an area larger than 50 square feet, or that is continuous (a tank leak) is classified as a large spill.

(2) Fuel spill cleanup: Every spill, no matter how small, should be reported and investigated so the cause can be determined and future spills prevented. Every spill should be treated as a potential source of fire. Cleanup procedures are described below.

Performance Steps

(a) All spills: The chief of the fire crew or other responsible authority must give detailed instructions. Each spill situation must be treated as an individual case because of size, type of fuel involved, wind conditions, weather, equipment available, possible involvement of aircraft or refueling vehicles, and other similar variables. In general, the following are basic actions that should be considered and carried out:

- Stop the flow of fuel if at all possible.
- Shut down operations in the area of the spill, or the whole refueling point if necessary.
- Notify firefighting support activities if the spill is serious. Call for help immediately. Once started, aviation fuel fires spread quickly. Reaction speed is the single most important element in fighting a fuel fire successfully.
- Check thoroughly for fuel vapors trapped in an aircrafts structure if fuel is spilled on or into an aircraft. Be sure the vapors have dissipated before the aircraft is returned to service.
- Absorb spilled fuel or allow it to evaporate before using the spill area for operation.
- Small priming spills: A small priming spill is not usually dangerous unless it is near equipment or personnel. A fireguard should stand by the spill area with a fire extinguisher.

(b) Small spills: Stop operations at the spill site, and post a fireguard by the spill. If the spilled fuel has not caught fire, the type of surface on which the fuel has spilled determines actions. If the spill is on concrete or a similar hard surface, use an absorbent material. (It is hazardous to use rags to clean up the spill of a low flash point fuel such as AVGAS or JP-4.) Place the fuel-contaminated absorbent material in a covered metal container until it can be burned. If the fuel is spilled on the earth or on a hard surface that is well removed from any operational area, rope off the spill area until the fuel evaporates and the vapors dissipate. Post a fireguard and do not allow personnel or operations in the area until it is free of fuel and vapors.

(c) Large spills: As with all other spills, the first thing to do is to stop the flow of fuel if possible. At a permanent airfield or large temporary refueling point where there is a fire department or fire brigade, call the fire fighters immediately and stop operations in the area. As soon as fire assistance has been called, the actions described below should be performed as necessary.

(3) Personnel. It may be necessary to have all personnel leave an aircraft if the spill is at or near it. No one should move through the spill area. If anyone gets fuel on his clothes, he should take them off ***only after thoroughly soaking the clothes in water.*** He should then wash with soap and water. Any person whose clothes are on fire should roll or be rolled on the ground to put out the fire or be wrapped in a blanket to smother flames.

Performance Steps

(4) Mobile refueling equipment. This presents a problem because it may be the largest single source of fuel near the spill. If the spilled fuel has not caught fire, it may be that starting the engine of a refueler or any other vehicle could supply the spark that would ignite the spill or vapors. The decision on what procedure is least hazardous—driving the refueler away or not starting the engine—must be made on the spot by the fire chief or the person in charge. If the vehicle engine is running, normal practice is to drive the vehicle away from the spill unless this would pose an unacceptable risk to the driver.

(5) Equipment. If an equipment engine is operating in the area of the spill and it is to be shut down, the engine speed should be cut back to idle before the engine is shut off. This is a precaution against backfiring.

b. Prepare for fires.

(1) Classes of fires: Underwriters' Laboratories, Incorporated, groups fires into Class A, B, and C. The National Fire Protection Association (NFPA) groups them into Class A, B, C, and D. The four classes are described below.

(a) Class A: These are fires that break out in combustibles (such as wood, brush, grass, and rubbish). This type of fire can occur around a pumping assembly and refueling area.

(b) Class B: These are fires that break out in flammable liquids (such as fuels, solvents, lubricants, paints, and similar substances). These fires leave no embers. This type of fire is the principal concern at refueling points. Class A and C fires can become Class B fires at a refueling point because any source of ignition may set fire to aviation fuel.

(c) Class C: These are fires that involve live electrical equipment (such as motors, switches, and transformers). A Class C fire can occur in the electrical system of an aircraft during rapid refueling, in a refueling vehicle, or in any electrical equipment that is operating at the refueling area.

(d) Class D: These are fires involving combustible metals. This type of fire can occur at a refueling point if an aircraft body begins to burn.

(2) Principles of extinguishing fires: The three elements of fire are fuel, air (oxygen), and heat (a source of ignition). The basic principle of firefighting is to eliminate one or more of these elements so that fire can be controlled. They are described briefly below.

(a) Control of fuel: The first effort in firefighting should be to stop the flow of fuel. This is usually done by shutting down the pump or by cutting off the fuel flow at the nearest valve.

(b) Control of air: Since it is impossible to remove air (oxygen) from an outdoor site, diluting, smothering, or chain breaking implements the principle of cutting off the oxygen supply.

(c) Diluting: The air around a fire can be diluted with carbon dioxide, a water fog or mist, or steam until there is not enough oxygen present to support the fire. An air-diluting agent must be used continuously for a fire to go out.

Performance Steps

(d) Smothering: Smothering is placing a layer of material between the fire and its source of oxygen. In a small fire, this smothering layer may be a blanket, sand, or earth. For a large fire, foam is generally used. The foam is composed of gas-filled bubbles formed from aqueous solutions and strengthened by a foam-stabilizing ingredient. The foam is lower in density than the lightest flammable liquid. It blankets the fire and cuts off its supply of air.

(e) Chain breaking: Chain breaking is a process in which a chemical agent interferes with the oxygen and hydrogen atoms and the hydroxyl radicals. These are the most active chemical components of fire in hydrocarbon combustion.

(f) Control of heat: Spraying water as a stream, fog, or mist usually controls heat. The cooling effect of water is used to reduce the temperature of a fire to below the ignition point and to keep nearby flammables cool so they will not ignite spontaneously. (Remember that aviation fuels are lighter than water, so use of large amounts of water can spread a petroleum fire.) Carbon dioxide also has a cooling effect because part of it turns into dry ice when it is discharged from a fire extinguisher.

(3) Types of fire extinguishers: Many types of fire extinguishers are available for use on the different classes of fires. In aircraft refueling, the principal concern is with Class B fires. The extinguishers described below are recommended for use in aircraft refueling operations.

(a) Halon 1211: The preferred fire extinguisher for use at refueling nozzles and pumps is the Halon 1211 extinguisher. It is preferred, especially for rapid refueling operations, because the agent is discharged as a liquid and becomes a gas only on contact with the fire. (The rotor wash in rapid refueling tends to dissipate firefighting agents that are expelled in the gaseous state.) The chemical agent in the Halon 1211 extinguisher is bromochlorodifluromethane ($CBrClF_2$). Halon 1211 is particularly effective against Class B fires, and is good for Class A and C fires. It is safe for use on electrical (Class C) fires because it is an excellent insulator (a nonconductor of electricity). Halon 1211 works on the principle of chain breaking. The bromine atoms in the compound interfere with the chemical chain reaction of fire. Undecomposed Halon 1211 is only slightly toxic when used out of doors. However, the heat of fire decomposes the agent and its decomposed products can be hazardous. Because Halon 1211 is heavier than air, it or its decomposed products may concentrate in low-lying areas. The Halon 1211 extinguisher is available in two models: 17 pounds (NSN 4210-01-128-1674) and 20 pounds (NSN 421001-089-0875). It has a 14- to 16-foot range and its stream is not affected by wind. When fighting a fire, direct the stream toward the base of the flames and sweep the flame off the surface with a slow, side-to-side motion. Continue discharging the extinguisher to prevent reflash.

***Note*:** If the extinguisher has a high velocity nozzle and the fire is on a deep container of petroleum, start the discharge from 8 to 10 feet away to prevent splashing.

Performance Steps

(b) Purple K: The other fire extinguisher recommended for use at refueling nozzles and pumps are the hard-type, 20-pound-capacity, Purple K extinguisher (NSN 4210-00-257-5343). It is a dry chemical extinguisher that uses the extinguishing agent potassium bicarbonate (KHCO3), commonly called Purple K. Carbon dioxide gas discharges the Purple K in a wide stream from a low-velocity nozzle. Aim the stream at the base of the flames starting at the rear edge of the fire. Sweep the nozzle from side to side. This fire extinguisher works on the principle of smothering and is designed for use on Class B and C fires. With a Class C fire, continue the discharge to prevent reflash. Purple K is highly corrosive. A Type II, Class II, size 20, Purple K extinguisher can be procured under Federal Specification A-A-393. The operating temperature range of this Purple K extinguisher is from –40 degrees to +120 degrees Fahrenheit.

Note: In subzero temperatures, do not open or close the discharge valve of a CO2 extinguisher.

(c) The other hand-type fire extinguisher acceptable for use at refueling nozzles and pumps is the 15-pound-capacity, CO2 extinguisher (NSN 4210-00-202-7858). The CO2 extinguisher has a limited range, so initial application must start reasonably close to the fire. Its discharge is affected by drafts and wind; so it is not the most desirable extinguisher to use in rapid refueling operations where rotor or prop wash create strong air currents. Direct the discharge toward the base of the fire and sweep the flame off the burning surface. Aim first at the closest edge of the fire and progress gradually, moving the nozzle slowly side to side. After the flames are out, continue discharging over the burned surface to prevent reflash. Discharge continuously so that the nozzle does not freeze up and become blocked with ice. As liquid CO2 is discharged under its own pressure, a large part of the discharge vaporizes and the rest is converted into fine particles of dry ice. This dry ice or snow gives the discharge a cloudy white appearance. During discharge, some of the liquid remaining in the tank vaporizes and the remaining liquid chills and begins to form dry ice. This fire extinguisher works on the principle of diluting but also has a cooling effect. It is suitable for Class B and C fires. CO2 is non-corrosive and non-damaging, and it leaves no residue. Because it is a nonconductor, it is safe to use on live electrical circuits. The only danger from CO2 is the possibility of losing consciousness or being suffocated in an enclosed space or low-lying area. This is a minimum risk in outdoor refueling operations. A Type I, size 115, CO2 extinguisher can be procured under Federal Specification A-A-1106B. Its operating temperature range is from –40° to +120°F.

Performance Steps

(d) Foam: Foam can be used on Class A and B fires. Foam capability is provided at airfields with sufficient traffic by fire trucks and personnel equipped to generate foam. The fire truck is procured under military specification MIL T-11407L. This is a tactical, pumper-type vehicle with a 750-gpm pump. Its 400-gallon tank is mounted on a standard 6- by 6-foot military chassis. It can discharge foam in any direction from its turret nozzle or hand lines and can discharge while moving. Foam works on the principle of smothering, but it also has a cooling and insulating effect because of its water content and gas-bubble structure. Foam is especially effective for Class B fires on flat or vertical surfaces where it is possible to blanket the fire with foam. On a petroleum spill fire, bounce the foam stream off the surface just in front of the fire. For a fire in a deep container of petroleum, either bounce the stream off the back wall of the container just above the burning surface so that the foam spreads back over the fire, or stand far enough away or aim upward so that the foam will fall lightly over the surface. If possible, walk around the fire, and discharge the foam around the whole fire as you walk. For a Class A fire, aim the stream directly at the burning surfaces.

(e) Water: Water-type extinguishers include water, antifreeze, soda-acid, wetting agent, and loaded stream types for use on Class A fires. Direct the stream at the base of the flames, working from a position as close as possible to the fire. As soon as the flames are out, direct the stream at glowing surfaces and smoldering embers. Thoroughly soak the embers.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Determined the location.	____	____
2. Laid out the site.	____	____
3. Prepared the site.	____	____
4. Emplaced the equipment.	____	____
5. Reacted to emergencies.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
Unit SOP	
TM 9-1425-691-10	

301-96U-1014H

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) MOBILE POWER UNIT (MPU) (HUNTER)

Conditions: Given a mobile power unit (MPU), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-1425-691-10.

Standards: Emplace an unmanned aerial vehicle (UAV) MPU in accordance with TM 9-1425-691-10.

Performance Steps
1. Perform steps as indicated in TM 9-1425-691-10, chapter 2, section II, paragraphs: 2-4, and 2-4 B.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section II, paragraphs: 2-4 A, and 2-4 B.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. All measures must be marked GO to have successfully accomplished the task. If the soldier fails any measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-5895-692-10 Vol. 1	FM 10-67-2
TM 9-5895-692-10 Vol. 2	
TM 9-6115-642-10	

301-96U-1015

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) GROUND CONTROL STATION (GCS)

Conditions: Given a ground control station (GCS), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL (Shadow), or TM 9-1425-691-10 (Hunter).

Standards: Emplace an unmanned aerial vehicle (UAV) GCS in accordance with TM 9-5895-681-CL (Shadow), or TM 9-1425-691-10 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-1425-691-10, chapter 2, section II, paragraph 2-2 A.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0046 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section II, paragraph 2-2 A .	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0046 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1016S

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND CONTROL STATION (PGCS) (SHADOW)

Conditions: Given a portable ground control station (PGCS), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Emplace an unmanned aerial vehicle (UAV) PGCS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0048 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0048 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1018

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) GROUND DATA TERMINAL (GDT)

Conditions: Given a ground data terminal (GDT), an emplacement site, all associated equipment, Personal Protective Equipment (PPE), and TM 9-5895-681-CL (Shadow), or TM 9-1425-691-10 (Hunter).

Standards: Emplace an unmanned aerial vehicle (UAV) GDT in accordance with TM 9-5895-681-CL (Shadow), or TM 9-1425-691-10 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-1425-691-10, chapter 2, section II, paragraphs: 2-2 B, 2-2 C, 2-2 D, and 2-2 E.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0047 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section II, paragraphs: 2-2 B, 2-2 C, 2-2 D, and 2-2 E.	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0047 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1019S

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND DATA TERMINAL (PGDT) (SHADOW)

Conditions: Given a portable ground data terminal (PGDT), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Emplace an unmanned aerial vehicle (UAV) PGDT in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0049 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0049 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1026H

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY TERMINAL (LRT) (HUNTER)

Conditions: Given a launch and recovery terminal (LRT), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-1425-691-10.

Standards: Emplace an unmanned aerial vehicle (UAV) LRT in accordance with TM 9-1425-691-10.

Performance Steps

1. Perform steps as indicated in TM 9-1425-691-10, chapter 2, section I, paragraph 2-1 B.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section I, paragraph 2-1 B.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required

Related

TM 9-1425-691-10

301-96U-1027S

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCHER (LAU) (SHADOW)

Conditions: Given a launcher (LAU), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Emplace an unmanned aerial vehicle (UAV) LAU in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0053 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0053 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1028S

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) TACTICAL AUTOMATED LANDING SYSTEMS (TALS) (SHADOW)

Conditions: Given a tactical automated landing system (TALS), a landing zone, all associated equipment and TM 9-5895-681-CL.

Standards: Emplace an unmanned aerial vehicle (UAV) TALS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0052 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0052 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1029S

EMPLACE UNMANNED AERIAL VEHICLE (UAV) ARRESTING GEAR (AG) (SHADOW)

Conditions: Given arresting gear (AG), a landing zone, associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Emplace unmanned aerial vehicle (UAV) AG in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0051 00 and WP 0051 01, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0051 00 and WP 0051 01, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1030H

EMPLACE UNMANNED AERIAL VEHICLE (UAV) FLIGHT LINE SUPPORT EQUIPMENT (HUNTER)

Conditions: Given chock run up stand, arresting gear, 5-ton truck with a crane, all associated equipment, and TM 9-1425-691-10.

Standards: Emplace unmanned aerial vehicle (UAV) flight line support equipment in accordance with TM 9-1425-691-10.

Performance Steps

1. Perform steps as indicated in TM 9-1425-691-10, chapter 2, section I, paragraphs: 2-1 C, 2-1 D, 2-1 D.1, 2-1 E, and 2-1 F.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section I, paragraphs: 2-1 C, 2-1 D, 2-1 D.1, 2-1 E, and 2-1 F.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	

301-96U-1031H

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) MOBILE MAINTENANCE FACILITY (MMF) (HUNTER)

Conditions: Given an mobile maintenance facility (MMF), an emplacement site, all associated equipment, a setup team, personal protective equipment (PPE), TM 9-1425-697-13, and TM 9-1425-691-10.

Standards: Setup an unmanned aerial vehicle (UAV) MMF in accordance with TM 9-1425-697-13 and TM 9-1425-691-10.

Performance Steps

1. Perform steps as indicated in TM 9-1425-697-13, chapter 2, section III, paragraphs: 2-7 and 2-8.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-697-13, chapter 2, section III, paragraphs: 2-7 and 2-8.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	

301-96U-1032

EMPLACE AN UNMANNED AERIAL VEHICLE (UAV) REMOTE VIDEO TERMINAL (RVT)

Conditions: Given an remote video terminal (RVT), an emplacement site, all associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL (Shadow) or TM 9-5895-696-13 (Hunter).

Standards: Emplace an unmanned aerial vehicle (UAV) RVT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-696-13 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-696-13, chapter 2, section III, paragraph 2-7.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0050 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-696-13, chapter 2, section III, paragraph 2-7.	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0050 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-696-13	

301-96U-1033

ASSEMBLE AN UNMANNED AERIAL VEHICLE (UAV)

Conditions: Given a disassembled unmanned aerial vehicle (UAV) in storage, associated equipment, soldiers to assist, and TM 9-5895-681-CL (Shadow), or TM 9-1425-691-10 (Hunter).

Standards: Assemble a UAV in accordance with TM 9-5895-681-10 (Shadow), or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Assemble Hunter UAV:

   Perform steps as indicated in TM 9-1425-691-10, chapter 2, section III, paragraph 2-3.

2. Assemble Shadow UAV:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0055 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assemble Hunter UAV: Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 2, section III, paragraph 2-3.	___	___
2. Assemble Shadow UAV: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0055 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

Subject Area 2: FLIGHT/MISSION OPERATIONS

301-96D-1050

PLOT UNIVERSAL TRANSVERSE MERCATOR (UTM) COORDINATES ON A MAP, IMAGE OR GEOSPATIAL DATA

Conditions: Given a requirement, a military map, engineer scale, GTA 5-2-12 (coordinate scale and protractor), or digital geospatial data, with imagery workstation and appropriate software, FM 3-25.26 and unit standing operating procedures (SOP).

Standards: Plot universal transverse Mercator (UTM) coordinates on a map to within 10 meters on a 1:50,000 scale map and 100 meters on a 1:250,000 scale map, or within .02 percent on any other scale map in accordance with mission requirements, FM 3-25.26, and unit SOP.

Performance Steps

1. Determine what size map sheet you are using.
2. Verify a grid zone designator on the map.
3. Locate the correct 100,000-meter square identifier on the map.
4. Break the eight digits of the given coordinate into two parts. The first two numbers of the first part refer to the grid line numbers along the bottom or top of the map. The first two numbers of the second part refer to the grid line numbers along the left or right side of the map.

   EXAMPLE: Ft Huachuca Map Sheet, 1:50,000
   UTM: 12R WL 62 85 10 80
   12R = Grid Zone Designator
   WL = 100,000 meter square identifier
   62 = Grid Line
   85 = Protractor value
   10 = Grid Line
   80 = Protractor value

5. Within the appropriate 100,000-meter square, find the two grid lines and follow them until they intersect.

Note: The grid square in which the point will fall is to the right and up from the intersection

6. Read the last two numbers of the first part of the given coordinate. This is the value found at the bottom of the protractor that you will plot.
7. Place the protractor ensuring that it matches the correct scale. Put the scale on the map where the two grid lines intersect. Ensure that the horizontal scale of the protractor is parallel to and on top of the bottom grid line in that grid square. Slide the protractor to the left until the correct value intersects with the grid line.

Note: Do not move the protractor until you complete step 9.

Performance Steps

8. Read the last two numbers of the second part of the given coordinate. This is the value found along the vertical scale that you will plot.
9. Look at the vertical scale on the protractor, follow the scale up until you find the correct value. Place a pencil mark at this point.

Note: Remember plotting coordinates on a 1:250,000 scale are the same steps as a 1:50,000. The difference is you only have six digits with a 1:250,000.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement. Tell the soldier to plot universal transverse Mercator (UTM) coordinates on a map, image or geospatial data.

Performance Measures	GO	NO GO
1. Determined the latitude and longitude components of the given geographic coordinate.	___	___
2. Constructed the geographic trapezoid around the plot of the given geographic coordinate.	___	___
3. Subtracted the smaller parallel of latitude (number value) from the latitude of the given geographic coordinate.	___	___
4. Subtracted the smaller meridian of longitude (number value) from the longitude of the given geographic coordinate.	___	___
5. Selected a scale with divisions to convert units of measure to seconds of latitude and longitude.	___	___
6. Measured out the geographic coordinate latitude.	___	___
7. Measured out the geographic coordinate longitude.	___	___
8. Determined the intersection of these two lines.	___	___
9. Determined the 8-digit UTM coordinate for this point.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-25.26	
GTA 5-2-12	
Unit SOP	

301-96U-1060

PREPARE AN UNMANNED AERIAL VEHICLE (UAV) GROUND CONTROL STATION (GCS) FOR OPERATION

Conditions: Given an emplaced ground control station (GCS), ground data terminal (GDT), tactical automated landing system (TALS) (Shadow), mobile power unit (MPU) (Hunter), associated equipment and TM 9-5895-681-CL (Shadow), or TM 9-5895-692-CL (Hunter).

Standards: Prepare an unmanned aerial vehicle (UAV) GCS of operation in accordance with TM 9-5895-681-10 (Shadow), or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Prepare Hunter GCS for Operation:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-10, 8-11, 8-12, 8-14, 8-15, 8-16, 8-17, 8-18, or TM 9-5895-692-CL, section 1.0, paragraph 1.1, section 2.0, paragraphs: 2.1, 2.2, 2.3, section 4.0, paragraphs: 4.1, 4.2, 4.3, 4.4, and 4.5.

2. Prepare Shadow GCS for Operation:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0058 00, WP 0059 00, WP 0060 00, WP 0061 00, WP 0065 00, and WP 0070 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Prepared Hunter GCS for Operation: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-10, 8-11, 8-12, 8-14, 8-15, 8-16, 8-17, 8-18, or TM 9-5895-692-CL, section 1.0, paragraph 1.1, section 2.0, paragraphs: 2.1, 2.2, 2.3, section 4.0, paragraphs: 4.1, 4.2, 4.3, 4.4, and 4.5.	____	____
2. Prepared Shadow GCS for Operation: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0058 00, WP 0059 00, WP 0060 00, WP 0061 00, WP 0065 00, and WP 0070 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	Unit SOP
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1061S

PREPARE AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND CONTROL STATION (PGCS) FOR OPERATION (SHADOW)

Conditions: Given an emplaced portable ground control station (PGCS), portable ground data terminal (PGDT), tactical automated landing system (TALS), associated equipment and TM 9-5895-681-CL.

Standards: Prepare an unmanned aerial vehicle (UAV) PGCS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0058 00, WP 0059 00, WP 0062 00, WP 0063 00, WP 0067 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0058 00, WP 0059 00, WP 0062 00, WP 0063 00, WP 0067 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1063S

PREPARE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCHER (LAU) FOR OPERATION (SHADOW)

Conditions: Given an emplaced launcher (LAU), associated equipment and TM 9-5895-681-CL.

Standards: Prepare an unmanned aerial vehicle (UAV) LAU for operation in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0082 00 and WP 0083 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0082 00 and WP 0083 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1064

PREPARE UNMANNED AERIAL VEHICLE (UAV) REMOTE VIDEO TERMINAL (RVT) FOR OPERATION

Conditions: Given an emplaced remote video terminal (RVT), associated equipment and TM 9-5895-681-CL (Shadow), or TM 9-5895-696-13 (Hunter).

Standards: Prepare an unmanned aerial vehicle (UAV) RVT for operation in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-696-13 (Hunter).

Performance Steps

1. Prepare Hunter RVT for Operation:

   Perform steps as indicated in TM 9-5895-696-13, chapter 2, section III, paragraph 2-8 A.

2. Prepare Shadow RVT for Operation:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0064 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Prepared Hunter RVT for Operation: Performed all steps correctly in accordance with TM 9-5895-696-13, chapter 2, section III, paragraph 2-8 A.	____	____
2. Prepared Shadow RVT for Operation: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0064 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
TM 9-5895-696-13	

301-96U-1065

PERFORM UNMANNED AERIAL VEHICLE (UAV) SYSTEM PREFLIGHT PROCEDURES

Conditions: Given an operational unmanned aerial vehicle (UAV) system, ground crew, associated ground support equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV system preflight procedures in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-19 A, 8-19 B, 8-19 C (if necessary), 8-19 D, and 8-19, or TM 9-5895-692-CL, section 7.0, paragraphs: 7.1, 7.2, 7.3 (if necessary), 7.4, and 7.5.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0081 00, WP 0084 00, WP 0085 00, and WP 0086 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-19 A, 8-19 B, 8-19 C (if necessary), 8-19 D, and 8-19, or TM 9-5895-692-CL, section 7.0, paragraphs: 7.1, 7.2, 7.3 (if necessary), 7.4, and 7.5.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0081 00, WP 0084 00, WP 0085 00, and WP 0086 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	Unit SOP
TM 9-5895-681-CL	TC 34-212
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1066

PERFORM UNMANNED AERIAL VEHICLE (UAV) LAUNCH PROCEDURES

Conditions: Given an operational unmanned aerial vehicle (UAV) system, ground crew, associated ground support equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV launch procedures in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-19 F, 8-19 G, 8-19 H (if necessary), and 8-19 I, or TM 9-5895-692-CL, section 7.0, paragraphs: 7.6, 7.7, 7.8 (if necessary), and 7.9.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0087 00, and WP 0088 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-19 F, 8-19 G, 8-19 H (if necessary), and 8-19 I, or TM 9-5895-692-CL, section 7.0, paragraphs: 7.6, 7.7, 7.8 (if necessary), and 7.9.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0087 00, and WP 0088 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	Unit SOP
TM 9-5895-681-CL	TC 34-212
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1067

PERFORM UNMANNED AERIAL VEHICLE (UAV) MISSION PLANNING PROCEDURES

Conditions: Given mission requirement(s), airspace management products, an operational control station, associated equipment and TM 9-5895-681-CL (Shadow), or TM 9-5895-692-CL (Hunter).

Standards: Perform unmanned aerial vehicle (UAV) mission planning procedures TC 1-201, TC 34-212, TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM-9-5895-692-10-2 (Hunter), and local SOP.

Performance Steps

1. Perform mission planning procedures for Hunter. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-26 or 8-18.
2. Perform mission planning procedures for Shadow. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0073 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed mission planning procedures for Hunter. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-26 or 8-18.	____	____
2. Performed mission planning procedures for Shadow. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0073.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	Unit SOP
TM 9-5895-681-CL	TC 34-212
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1068H

PERFORM AN UNMANNED AERIAL VEHICLE (UAV) AIR DATA RELAY (ADR) MISSION (HUNTER)

Conditions: Given mission requirement(s), an operational unmanned aerial vehicle (UAV) system, and TM 9-5895-692-CL.

Standards: Perform a UAV air data relay (ADR) mission in accordance with TM 9-5895-692-10-1 and TM 9-5895-692-10-2.

Performance Steps
1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 G, 8-20 H, and 8-20 I, or TM 9-589-692-CL, section 9.0, paragraphs: 9.7, 9-8, and 9.9.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 G, 8-20 H, and 8-20 I, or TM 9-589-692-CL, section 9.0, paragraphs: 9.7, 9-8, and 9.9.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1069

PERFORM UNMANNED AERIAL VEHICLE (UAV) CONTROL STATION TRANSFER

Conditions: Given an unmanned aerial vehicle (UAV) system, radio communications, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV control station transfer in accordance with TC 34-212, TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 E and 8-20 F, or TM 9-589-692-CL, section 9.0, paragraphs: 9.5 and 9.9.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0089 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 E and 8-20 F, or TM 9-589-692-CL, section 9.0, paragraphs: 9.5 and 9.9.	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0089 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1070

OPERATE AN UNMANNED AERIAL VEHICLE (UAV) REMOTE VIDEO TERMINAL (RVT)

Conditions: Given a remote video terminal (RVT), unmanned aerial vehicle (UAV) information, an airborne UAV within data link range of the RVT, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter)/TM 9-5895-696-13 (Hunter).

Standards: Operate a UAV RVT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1(Hunter)/TM 9-5895-692-10-2 (Hunter)/TM 9-5895-696-13 (Hunter).

Performance Steps

1. Operate Hunter RVT. Perform steps as indicated in TM 9-5895-696-13, chapter 2, section III, paragraphs: 2-8 B, 2-8 C, 2-8 D, and 2-8 E.
2. Operate Shadow RVT. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0092 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Operated Hunter RVT. Performed all steps correctly in accordance with TM 9-5895-696-13, chapter 2, section III, paragraphs: 2-8 B, 2-8 C, 2-8 D, and 2-8 E.	___	___
2. Operated Shadow RVT. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0092 00.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
TM 9-5895-696-13	

301-96U-1071

PERFORM UNMANNED AERIAL VEHICLE (UAV) FLIGHT PROCEDURES

Conditions: Given an unmanned aerial vehicle (UAV) system, a mission plan, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV flight procedures in accordance with TC 34-212, TC 1-201, unit standing operating procedures (SOP), and TM 9-5895-681-10 (SHADOW) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. This step pertains to both Shadow and Hunter.

a. Perform flight utilizing automatic flight modes.

(1) Prepare for crew actions.

(a) The air vehicle operator (AVO) will announce all flight mode changes. He will verify the UAV enters the selected flight mode by monitoring the flight mode command (CMD)/report (RPT) pushbutton on the flight control module, heading, airspeed and altitude indicators.

(b) The mission payload operator (MPO) will verify the UAV payload enters the AVO's selected flight mode by monitoring the program CMD/RPT pushbutton on the camera steering module of the payload operator (PO) workstation.

(2) Set the following procedures.

(a) Destination. The AVO enters the destination coordinates into the system using the AVLD or the mission control unit (MCU). Once entered into the system send coordinates to the UAV.

(b) Send the UAV to the destination by pressing the destination button on the flight control module of the AVO workstation. CMD/RPT lights on the destination pushbutton are monitored to ensure the UAV performance is in accordance with destination flight parameters.

(c) Monitor UAV heading to ensure correct UAV response. Set UAV airspeed and altitude knob control setting in accordance with mission parameters.

(3) Set hold. Engage hold mode by depressing the destination pushbutton two (2) times.

(a) The destination pushbutton is monitored to ensure CMD/RPT lights on the button perform in accordance with hold mode parameters.

(b) Monitor UAV heading to ensure UAV response is normal for hold mode. Set UAV airspeed and altitude using knob control in accordance with mission parameters and mission briefing.

(4) Send program. The AVO sends a validated program to the UAV using the AVLD or computer console assembly (CCA).

(a) Verify the mission is loaded by confirming the "no mission plan loaded" warning is extinguished and the scan enabled lighted pushbutton blinks "load ok" message is displayed on the AVLD when mission is loaded from the AVLD.

(b) Select "continue after loss of link" and/or "continue after loss of global positioning system (GPS)" as required by mission profile.

Performance Steps

(c) Engage program mode by depressing the PGRM lighted pushbutton on the flight control module of the VO workstation.

(d) Verify UAV airspeed, heading and altitude correspond to program setting for designated waypoint.

b. Prepare to navigate by dead reckoning.

(1) Perform the following crew actions.

(a) The air vehicle operator's main focus will be on the heading of the aircraft and azimuth of the ground data terminal. The air vehicle operator will monitor flight and engine instruments.

(2) Perform the following procedures.

(a) After obtaining current weather forecasts, plan the flight by marking the route. The other crewmembers should assist with all planning and computations, if available. Compute the time, distance, and heading for each leg of the flight route.

(b) During the flight, use ground data terminal azimuth and dead reckoning to maintain UAV position. Adjust estimated times of arrival for subsequent legs of the route using the latest in-flight computed data. The AVO or MPO should provide the crewmember with heading corrections using the multimission optronic stabilized platform (MOSP) as necessary to maintain the desired course (ground track).

(c) NIGHT CONSIDERATIONS—Periods of darkness or reduced visibility require more detailed flight planning.

c. Perform air reconnaissance using an orbital flight pattern in knobs.

(1) Navigate the AV to the desired location using any mode of flight (such as destination, program, and knobs).

(2) Manipulate the camera so that a point of reference for the maneuver is easily recognized since the whole effort of the pattern is dependent on where the camera is pointing.

(3) Coordinate a left or right bank to initiate the orbit around the target when the camera depression angle reaches approximately 40 degrees.

(4) Navigate the AV to maintain good depression (between 40 and 60 degrees) as you circle the target or reconnaissance area.

(5) Maintain an angle between the nose of the AV and the camera bearing of 90 degrees. The camera bearing should be maintained off either the left or right wing throughout the entire orbit. If performed correctly, good depression will be maintained for as many orbits as necessary.

d. Perform air reconnaissance using a figure eight flight pattern in knobs.

(1) Navigate the AV to the desired location using any mode of flight (such as destination, program, and knobs). Since this is a good technique when restrictions are present (have to maintain a hold pattern to one side of the target), navigate the AV to the location without violating restrictions.

(2) Manipulate the camera so that a point of reference for the maneuver is easily recognized since the whole effort of the pattern is dependent on where the camera is pointing.

Performance Steps

(3) Fly to one side of the target with good depression on the camera. Once the AV passes the target, depression will decrease (you will be flying away from the target).

(4) Coordinate either a left or right bank (dependent on winds) and start heading towards the target again while maintaining the restriction to hold to one side and depression. Depression will start to increase after the bank is completed. Since the next bank will have to be in the opposite direction in order to form the figure eight, head the AV slightly left or right of the target depending on the turn just completed (if the heading was 200 degrees, fly at 340 degrees after the turn). Once the AV has flown by the target again, depression will start to decrease.

(5) Coordinate the second bank and start heading towards the target again and complete the figure eight pattern. As you experience this technique adjust for winds so that good depression can be obtained throughout the entire pattern.

e. Perform air reconnaissance using a racetrack flight pattern in knobs.

(1) Navigate the AV to the desired location using any mode of flight (such as destination, program, and knobs). Since this is a good technique when restrictions are present (have to maintain a hold pattern to one side of the target), navigate the AV to the location without violating restrictions.

(2) Manipulate the camera so that a point of reference for the maneuver is easily recognized since the whole effort of the pattern is dependent on where the camera is pointing.

(3) Fly to one side of the target with good depression on the camera. Once the AV passes the target, depression will decrease (you will be flying away from the target).

(4) Coordinate either a left or right bank (dependent on winds) and start heading towards the target again while maintaining the restriction to hold to one side and depression. Depression will start to increase after the bank is completed. Since the next bank will have to be in the same direction in order to form the racetrack, head the AV in the opposite direction just flown (if the heading was 90 degrees, fly 270 degrees on this leg). Once the AV has flown by the target again, depression will start to decrease.

(5) Coordinate the second bank and start heading towards the target again and complete the racetrack pattern. As you experience this technique adjust for winds so that good depression can be obtained throughout the entire pattern, although depression will inherently be weaker on the leg furthest away form the target.

2. For Hunter:

Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 A, 8-20 B, and 8-20 C, or TM 9-5895-692-CL, section 9.0, paragraphs: 9.1, 9.2, and 9.3.

3. For Shadow:

Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0090 00 and WP 0091 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed flight procedures for UAV.	____	____
a. Performed flight using automatic flight mode.		
b. Performed navigation by using dead reckoning.		
c. Performed air reconnaissance using an orbital flight pattern in knobs.		
d. Performed air reconnaissance using a figure eight flight pattern in knobs.		
e. Performed air reconnaissance using a racetrack flight pattern in knobs.		
2. For Hunter:	____	____
Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 A, 8-20 B, and 8-20 C, or TM 9-5895-692-CL, section 9.0, paragraphs: 9.1, 9.2, and 9.3.		
3. For Shadow:	____	____
Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0090 00 and WP 0091 00.		

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TC 1-201	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-1072

PERFORM UNMANNED AERIAL VEHICLE (UAV) PAYLOAD OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system, a mission, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV payload operations in accordance with unit standing operating procedures (SOPs), TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Perform payload procedures for UAV.

a. Track a static target.

(1) Navigate the air vehicle (AV) to the desired location using any mode of flight (destination, program, and knobs).

(2) Identify the objective target with the camera; zoom as required to keep the target in view and maintain that point of reference until the air vehicle operator (AVO) navigates the AV into a position that allows for better than 40 degrees depression.

(3) AVO will loiter over, or close to, the static target in such a way that the mission payload operator (MPO) can maintain the depression angle of 40 degrees or better while keeping the target in view. Depending on how fast the MPO manipulates the camera will determine how the AVO will navigate the AV. If the AV is getting ahead of the camera, implement a 30-degree bank to allow the camera to get back ahead of the AV. If the camera is getting too far ahead of the AV, increase airspeed.

(4) With the camera zoomed in as far as possible while still keeping good picture resolution, keep the payload crosshairs on the target until positive identification can me made, accurate grid coordinates can be collected on the target, or as long as the mission dictates.

b. Track a moving target.

(1) Navigate the AV to the desired location using any mode of flight (destination, program, and knobs).

(2) Identify the objective target with the camera; zoom as required to keep the target in view and maintain that point of reference until the AVO navigates the AV into a position that allows for better than 40 degrees depression.

(3) AVO will navigate AV over, or close to, the moving target in such a way that the MPO can maintain the depression angle of 40 degrees or better while keeping the target in view. Depending on how fast the MPO manipulates the camera will determine how the AVO will navigate the AV. If the AV is getting ahead of the camera, implement a 30-degree bank to allow the camera to get back ahead of the AV. If the camera is getting too far ahead of the AV, increase airspeed.

(4) With the camera zoomed in as far as possible while still keeping good picture resolution, keep the payload crosshairs on the target until positive identification can me made, accurate grid coordinates can be collected on the target, or as long as the mission dictates.

Performance Steps

c. Conduct a road search.

(1) Navigate the AV to the desired location using any mode of flight (destination, program, knobs).

(2) Identify the beginning of the road search with the camera; zoom in all the way and maintain that point of reference until the AVO navigates the AV into a position that allows for better than 40 degrees depression.

(3) Head the AV into the direction of the road being search and maintain the depression angle of 40 degrees or better. Depending on how fast the MPO manipulates the camera will determine how the AVO will navigate the AV. If the AV is getting ahead of the camera implement a 30-degree bank to allow the camera to get back ahead of the AV. If the camera is getting too far ahead of the AV, increase airspeed.

d. Perform an area search.

(1) Utilize the AVLD to map out the search area by using mission plans, targets, or threats. This will help both the AVO and MPO to visualize the search area when actually performing the mission.

(2) Select camera footprint on the AVLD so that the MPO will easily recognize how much of the area has actually been searched.

(3) Navigate the AV to the desired location using any mode of flight (destination, program, and knobs).

(4) Coordinate with the MPO on how to navigate the AV throughout the entire search. There are several techniques to use:

(a) Select destination hold to set up a 1.8-km circle around the area to be searched. This technique is conditional on the size of the area and whether good camera depression can be obtained.

(b) Utilize knobs to start at one end of the area search and perform a serious of "S" turns and allow the AV to flow from one side of the area search to the other while the camera stays out in front of the AV the entire time.

(c) Utilize either the racetrack or figure eight in the same type of theory as above, moving from one side to the other while the camera stays out in front of the AV throughout the entire procedure. Stipulations will have to be made if the MPO desires to stay in any one point for a long time.

e. Perform an indirect fire adjustment mission.

Note: For Hunter: Perform the following steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-22 E, or TM 9-5895-692-CL, section 11.0, paragraph 11.2.

For Shadow: Perform the following steps as indicated in TM 9-5895-681-10 and work package (WP) 0096 00.

(1) Perform tactical communication with GCS.

(2) Enter fire source coordinates on the AVLD/EMP.

(3) Enter the target coordinates.

(4) Display ALL of the video window overlays.

(5) Enter LOF coordinate adjustment mode.

(6) Proceed to orbit target with the AV.

Performance Steps

(7) Set the field of view (FOV) to MEDIUM.

(8) Maintain crosshair precisely over the target.

(9) Call for fire by announcing, "one round for adjustment".

(10) Freeze the video on shell impact.

(11) Click on the impact point with the video cursor.

(12) Read and announce adjustment parameters.

READ	ANNOUNCE
Side coord POS X	Go right X meters
Side coord NEG X	Go left X meters
RNG coord POS Y	Add Y meters
RNG coord NEG Y	Drop Y meters

(13) Perform additional adjustments as required.

(14) Check and perform target location readout.

(a) Enter the target coordinates.

(b) Confirm the target elevation.

(c) Select POINT on the camera steering module.

Note: Correct target elevation is essential for accurate target location calculations. Data is obtained automatically from the digital terrain elevation data (DTED) database in the AVLD, when point to coordinates is defined and AP is set as the source.

(d) Display all video window overlays.

(e) Maintain crosshair precisely over target.

(f) Over fly the target with the AV.

(g) Freeze the video at a depression of 80 to 83.

(h) Click on the target using the video cursor.

Note: Read target coordinates displayed in bottom left corner of frozen video display window. Location will be displayed in either universal transverse Mercator (UTM) or LAT/LONG, depending in the selection in the general data preset menu.

The frozen video can be saved to a disk using the video handling functions. When later retrieved, the same process can be repeated on the freeze video frame, since all relevant calculation data is stored with the video data (together with a time sample).

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed payload procedures for UAV.	____	____
a. Tracked a static target.		
b. Tracked a moving target.		
c. Conducted a road search.		
d. Performed an area search.		
e. Performed an indirect fire adjustment mission.		
2. For Hunter:	____	____
Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-22 E, or TM 9-5895-692-CL, section 11.0, paragraph 11.2.		
3. For Shadow:	____	____
Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0096 00.		

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-1073

PERFORM UNMANNED AERIAL VEHICLE (UAV) RECONNAISSANCE OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system, reconnaissance mission, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV reconnaissance operations in accordance with TC 1-201, FM 17-98, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Utilize the AVLD to map out the reconnaissance area/route by using mission plans, targets, or threats. This will help both the air vehicle operator (AVO) and mission payload operator (MPO) to visualize the reconnaissance area when actually performing the mission.
2. Select camera footprint on the AVLD so that the MPO will easily recognize which part of the reconnaissance area has actually been viewed.
3. Navigate the AV to the desired location using any mode of flight (destination, program, and knobs).
4. Coordinate with the MPO on how to navigate the AV throughout the entire reconnaissance mission. There are several techniques to use:
   a. Select destination hold to set up a 1.8-km circle around the area to be searched. This technique is conditional on the size of the area and whether good camera depression can be obtained.
   b. Utilize knobs to start at one end of the reconnaissance area and perform a serious of “S” turns and allow the AV to flow from one side of the area to the other while the camera stays out in front of the AV the entire time.
   c. Utilize either the racetrack or figure eight in the same type of theory as above; moving from one side to the other while the camera stays out in front of the AV throughout the entire procedure. Stipulations will have to be made if the MPO desires to stay in any one point for a long time.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Utilized the AVLD to map out the reconnaissance area/route by using mission plans, targets, or threats.	____	____
2. Selected camera footprint on the AVLD.	____	____
3. Navigated the AV to the desired location using any mode of flight (destination, program, and knobs).	____	____
4. Coordinated with the MPO on how to navigate the AV throughout the entire reconnaissance mission.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 17-98	
FM 3-55	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1074

PERFORM UNMANNED AERIAL VEHICLE (UAV) SURVEILLANCE OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system, surveillance mission and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV surveillance operations in accordance with TC 1-201, FM 34-1, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Navigate the air vehicle (AV) to the desired location of surveillance using any mode of flight (destination, program, and knobs).
2. Identify the objective surveillance area with the camera; zoom as required to keep the area in view and maintain that point of reference until the air vehicle operator (AVO) navigates the AV into a position that allows for better than 40 degrees depression.
3. AVO will have the UAV loiter over, or close to, the surveillance area in such a way that the mission payload operator (MPO) can maintain the depression angle of 40 degrees or better while keeping the area in view. Depending on how fast the MPO manipulates the camera will determine how the AVO will navigate the AV. If the AV is getting ahead of the camera, bank as necessary to allow the camera to get back ahead of the AV. If the camera is getting too far ahead of the AV, increase airspeed.
4. With the camera zoomed in as far as possible while still keeping good picture resolution, survey the area with the payload until mission requirements are accomplished.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Navigated the AV to the desired location of surveillance using any mode of flight (destination, program, and knobs).	___	___
2. Identified the objective surveillance area with the camera; zoomed as required to keep the area in view and maintained that point of reference until the AVO navigates the AV into a position that allowed for greater than 40 degrees depression.	___	___
3. Loitered over, or close to, the surveillance area in such a way that the MPO was able to maintain the depression angle of 40 degrees or greater while keeping the area in view.	___	___
4. Surveyed the area with the payload until mission requirements are accomplished.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 34-1	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1075

PERFORM UNMANNED AERIAL VEHICLE (UAV) TARGET ACQUISITION OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system, target acquisition mission, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV target acquisition operations in accordance with TC 1-201, FM 6-30, FM 17-98, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/ TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Navigate the air vehicle (AV) to the desired location using any mode of flight (destination, program, and knobs).
2. Acquire objective target with the payload.
   a. Identify the objective target with the camera.
   b. Zoom as required to keep the target in view and maintain that point of reference until the AVO navigates the AV into a position that allows for better than 40 degrees depression.
3. AVO will loiter over, or close to, the target in such a way that the mission payload operator (MPO) can maintain the depression angle of 40 degrees or better while keeping the target in view. Depending on how fast the MPO manipulates the camera will determine how the AVO will navigate the AV. If the AV is getting ahead of the camera, bank as necessary to allow the camera to get back ahead of the AV. If the camera is getting too far ahead of the AV, increase airspeed.
4. With the camera zoomed in as far as possible, and still keeping good picture resolution, keep the payload crosshairs on the target until—
   a. Positive target identification can be made.
   b. Accurate grid coordinates can be collected on the target.
   c. As long as the mission dictates.
5. Report target acquisition to higher command.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Navigated the AV to the desired location using any mode of flight (destination, program, and knobs).	____	____
2. Acquired objective target with the payload.	____	____
3. Loitered over, or close to, the target in such a way that the MPO was able to maintain the depression angle of 40 degrees or greater while keeping the target in view.	____	____
4. Kept the payload crosshairs on the target while completing steps a thru c.	____	____
5. Reported target acquisition to higher command.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 17-98	
FM 6-30	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1076

PERFORM UNMANNED AERIAL VEHICLE (UAV) EMERGENCY PROCEDURES

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, a mission, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform or describe UAV emergency procedures in accordance with unit standing operating procedures (SOPs), TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 9, section II, paragraphs: 9-10, 9-11, and 9-12, or TM 9-5895-692-CL, sections: E1.0, E2.0, and E3.0.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0122 00, WP 0123 00, WP 0124 00, WP 0125 00, WP 0126 00, WP 0127 00, WP 0128, WP 0129 00, WP 0130 00, WP 0130 01, WP 0130 02, WP 0131 00, WP 0132 00, WP 0133 00, WP 0133 01, WP 0133 02, WP 0133 03, WP 0133 04, WP 0134 00, WP 0135 00, WP 0136 00, WP 0137 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 9, section II, paragraphs: 9-10, 9-11, and 9-12, or TM 9-5895-692-CL, sections: E1.0, E2.0, and E3.0.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0122 00, WP 0123 00, WP 0124 00, WP 0125 00, WP 0126 00, WP 0127 00, WP 0128, WP 0129 00, WP 0130 00, WP 0130 01, WP 0130 02, WP 0131 00, WP 0132 00, WP 0133 00, WP 0133 01, WP 0133 02, WP 0133 03, WP 0133 04, WP 0134 00, WP 0135 00, WP 0136 00, WP 0137 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-1077

PERFORM UNMANNED AERIAL VEHICLE (UAV) RECOVERY PROCEDURES

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform UAV recovery procedures in accordance with TM 9-5895-681-10 (Shadow), or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 J, 8-20 K, 8-20 L, 8-20 M, and 8-20 N, or TM 9-5895-692-CL, section 10.0, paragraphs: 10.1, 10.2, 10.3, 10.4, and 10.5.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0105 00, WP 0106 00, WP 0107 00, and WP 0108 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraphs: 8-20 J, 8-20 K, 8-20 L, 8-20 M, and 8-20 N, or TM –5895-692-CL, section 10.0, paragraphs: 10.1, 10.2, 10.3, 10.4, and 10.5.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0105 00, WP 0106 00, WP 0107 00, and WP 0108 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1078

PERFORM POWER DOWN PROCEDURES FOR AN UNMANNED AERIAL VEHICLE (UAV) GROUND CONTROL STATION (GCS)

Conditions: Given a powered up ground control station (GCS), ground data terminal (GDT), tactical automated landing system (TALS) (Shadow), mobile power unit (MPU) (Hunter) associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Perform power down procedures for an unmanned aerial vehicle (UAV) GCS in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section II, paragraph 8-28, or TM 9-5895-692-CL, section 4.0, paragraph 4.6 and section 2.0, paragraph 2.4.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0060 00 and WP 0061 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section II, paragraph 8-28, or TM 9-5895-692-CL, section 4.0, paragraph 4.6 and section 2.0, paragraph 2.4.	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0060 00 and WP 0061 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1079S

PERFORM POWER DOWN PROCEDURES FOR AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND CONTROL STATION (PGCS) (SHADOW)

Conditions: Given a powered up portable ground control station (PGCS), portable ground data terminal (PGDT), tactical automated landing system (TALS), associated equipment, and TM 9-5895-681-CL.

Standards: Perform power down procedures for an unmanned aerial vehicle (UAV) PGCS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0062 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0062 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

Subject Area 3: DISPLACEMENT OPERATIONS

301-96U-1112S

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) AIR VEHICLE TRANSPORT (AVT) (SHADOW)

Conditions: Given an emplaced air vehicle transport (AVT), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) AVT in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0117 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0117 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1113H

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) FUEL POINT (HUNTER)

Conditions: Given two 5-ton fuel trucks, grounding equipment, waste fuel barrel, fuel sample container(s), environmental protection equipment, TM 5-4930-230-13, and personal protective equipment (PPE).

Standards: Displace an unmanned aerial vehicle (UAV) fuel point in accordance with unit standing operating procedures (SOPs) and TM 5-4930-230-13.

Performance Steps

1. Displace 5-ton petroleum, oil, and lubricant (POL) truck.
   - **a.** Ensure the fuel pump is off.
   - **b.** Retract fuel hose onto storage wheel.
   - **c.** Disconnect grounding cable from truck to grounding rod.
   - **d.** Remove grounding rod from ground and store on POL truck.
2. Displace POL site accessories.
   - **a.** Personal protective equipment (PPE) (rubber gloves, apron, and goggles).
   - **b.** Secondary containment for any long-term storage of fuel (fuel sample bottles).
   - **c.** Secondary containment for putting underneath air vehicle (AV) when refueling.
   - **d.** Eye wash station.
   - **e.** Firefighting equipment (ax, pick, shovel, fire extinguishers, and fire blanket).
   - **f.** Fuel spill resources (dry sweep, brooms, and shovels).

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Displaced 5-ton POL truck.	____	____
2. Displaced POL site accessories.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
Unit SOP	FM 10-67-2

301-96U-1114H

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) MOBILE POWER UNIT (MPU) (HUNTER)

Conditions: Given an emplaced mobile power unit (MPU), associated equipment, and TM 9-1425-691-10.

Standards: Displace an unmanned aerial vehicle (UAV) MPU in accordance with TM 9-1425-691-10.

Performance Steps

1. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section IV, paragraphs: 3-4 B, and 3-4 C.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section IV, paragraphs: 3-4 B, and 3-4 C.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-6115-642-10	

301-96U-1115

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) GROUND CONTROL STATION (GCS)

Conditions: Given an emplaced ground control station (GCS), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL (SHADOW) or TM 9-1425-691-10 (Hunter).

Standards: Displace an unmanned aerial vehicle (UAV) GCS in accordance with TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Displace Hunter GCS. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section II, paragraph 3-2 A.
2. Displace Shadow GCS. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0112 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Displaced Hunter GCS. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section II, paragraph 3-2 A.	——	——
2. Displaced Shadow GCS. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0112 00, or TM 9-5895-681-CL.	——	——

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1116S

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND CONTROL STATION (PGCS) (SHADOW)

Conditions: Given an emplaced portable ground control station (PGCS), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) PGCS in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0114 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0114 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1118

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) GROUND DATA TERMINAL (GDT)

Conditions: Given an emplaced ground data terminal (GDT), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Displace an unmanned aerial vehicle (UAV) GDT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Displace Hunter GDT. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section II, paragraph 3-2 B.
2. Displace Shadow GDT. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0113 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Displace Hunter GDT. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section II, paragraph 3-2 B.	——	——
2. Displace Shadow GDT. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0113 00, or TM 9-5895-681-CL.	——	——

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1119S

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND DATA TERMINAL (PGDT) (SHADOW)

Conditions: Given an emplaced portable ground data terminal (PGDT), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) PGDT in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0115 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0115 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1126H

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCH RECOVERY TERMINAL (LRT) (HUNTER)

Conditions: Given an emplaced launch recovery terminal (LRT), associated equipment, and TM 9-1425-691-10.

Standards: Displace an unmanned aerial vehicle (UAV) LRT in accordance with TM 9-1425-691-10.

Performance Steps

1. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section I, paragraph 3-1 B.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section I, paragraph 3-1 B.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	

301-96U-1127S

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCHER (LAU) (SHADOW)

Conditions: Given an emplaced launcher (LAU), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) LAU in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0118 00, or TM – 5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0118 00, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1128S

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) TACTICAL AUTOMATED LANDING SYSTEM (TALS) (SHADOW)

Conditions: Given an emplaced tactical automated landing system (TALS), associated equipment and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) TALS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0119 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0119 00, or TM 9-5895-681-CL.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1129S

DISPLACE UNMANNED AERIAL VEHICLE (UAV) ARRESTING GEAR (AG) (SHADOW)

Conditions: Given emplaced arresting gear (AG), associated equipment, personal protective equipment (PPE), and TM 9-5895-681-CL.

Standards: Displace an unmanned aerial vehicle (UAV) AG in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0120 00 and WP 0120 01, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0120 00 and WP 0120 01, or TM 9-5895-681-CL.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	

301-96U-1130H

DISPLACE UNMANNED AERIAL VEHICLE (UAV) FLIGHT LINE SUPPORT EQUIPMENT (HUNTER)

Conditions: Given an order to move, ground support vehicles, associated equipment, support personnel, TM 9-1425-691-10, TM 9-5895-692-10-1, TM 9-5895-692-10-2, and TM 9-5895-692-CL.

Standards: Prepare system ground transport vehicles for movement in accordance with procedures in TM 9-1425-691-10, TM 9-5895-692-10-1, TM 9-5895-692-10-2, and TM 9-5895-692-CL without causing damage to equipment, injury to personnel, or safety violations.

Performance Steps

1. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section I, paragraphs: 3-1 C, 3-1 D, and 3-1 F.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section I, paragraphs: 3-1 C, 3-1 D, and 3-1 F.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	

301-96U-1131H

DISPLACE UNMANNED AERIAL VEHICLE (UAV) MOBILE MAINTENANCE FACILITY (MMF) (HUNTER)

Conditions: Given emplaced flight line support equipment, support personnel, and TM 9-1425-691-10.

Standards: Displace UAV flight line support equipment in accordance with TM 9-1425-691-10.

Performance Steps
1. Perform steps as indicated in TM 9-1425-697-13, chapter 2, section III, paragraphs: 2-9 and 2-10.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-1425-697-13, chapter 2, section III, paragraphs: 2-9 and 2-10.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	

301-96U-1132

DISPLACE AN UNMANNED AERIAL VEHICLE (UAV) REMOTE VIDEO TERMINAL (RVT)

Conditions: Given an emplaced remote video terminal (RVT), associated equipment and TM 9-5895-681-CL (Shadow) or TM 9-5895-696-13 (Hunter).

Standards: Displace an unmanned aerial vehicle (UAV) RVT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-696-13 (Hunter).

Performance Steps

1. Displace Hunter RVT. Perform steps as indicated in TM 9-5895-696-13, chapter 2, section III, paragraphs: 2-9 and 2-10.
2. Displace Shadow RVT. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0116 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Displaced Hunter RVT. Performed all steps correctly in accordance with TM 9-5895-696-13, chapter 2, section III, paragraphs: 2-9 and 2-10.	——	——
2. Displaced Shadow RVT. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0116 00, or TM 9-5895-681-CL.	——	——

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-696-13	

301-96U-1133

DISASSEMBLE AN UNMANNED AERIAL VEHICLE (UAV)

Conditions: Given an assembled unmanned aerial vehicle (UAV), an emplaced air vehicle transport (AVT) (Shadow), an emplaced storage container (Hunter), associated equipment, soldiers to assist and TM 9-5895-681-CL.

Standards: Disassemble a UAV in accordance with TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Disassemble Hunter UAV. Perform steps as indicated in TM 9-1425-691-10, chapter 3, section III, paragraph 3-3.
2. Disassemble Shadow UAV. Perform steps as indicated in TM 9-5895-681-10, work package (WP) 0111 00, or TM 9-5895-681-CL.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Disassemble Hunter UAV. Performed all steps correctly in accordance with TM 9-1425-691-10, chapter 3, section III, paragraph 3-3.	——	——
2. Disassembled Shadow UAV. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0111 00, or TM 9-5895-681-CL.	——	——

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	

Subject Area 4: MAINTENANCE

301-96U-1213S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON UNMANNED AERIAL VEHICLE (UAV) ELECTICAL POWER EQUIPMENT (EPE) (SHADOW)

Conditions: Given electrical power equipment (EPE), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on unmanned aerial vehicle (UAV) EPE in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0151 00 and WP 0152 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0151 00 and WP 0152 00.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1214H

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) MOBILE POWER UNIT (MPU) (HUNTER)

Conditions: Given a mobile power unit (MPU), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), TM 9-6115-642-10, and TM 9-1425-691-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) MPU in accordance with TM 9-6115-642-10 and TM 9-1425-691-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-3, and table 8-1.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-3, and table 8-1.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	

301-96U-1215

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) GROUND CONTROL STATION (GCS)

Conditions: Given a ground control station (GCS), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Standards: Perform preventive maintenance checks and services (PMCS) on unmanned aerial vehicle (UAV) GCS in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-4, and table 8-2.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0143 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-4, and table 8-2.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0143 00.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	

301-96U-1216S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND CONTROL STATION (PGCS) (SHADOW)

Conditions: Given a portable ground control station (PGCS), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) PGCS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0143 02.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0143 02.	____	____

Evaluation Guidance Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1218

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) GROUND DATA TERMINAL (GDT)

Conditions: Given a ground data terminal (GDT), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) GDT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. For Hunter:

   Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-5, and table 8-3.

2. For Shadow:

   Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0143 01.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-5, and table 8-3.	____	____
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0143 01.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	

301-96U-1219S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) PORTABLE GROUND DATA TERMINAL (PGDT) (SHADOW)

Conditions: Given a portable ground data terminal (PGDT), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) PGDT in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0143 03.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0143 03.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1226H

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY TERMINAL (LRT) (HUTNER)

Conditions: Given a launch and recovery terminal (LRT), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), TM 9-5895-692-10-1, and TM 9-5895-692-10-2.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) LRT in accordance with TM 9-5895-692-10-1 and TM 9-5895-692-10-2.

Performance Steps

1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-6, and table 8-4.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-6, and table 8-4.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	

301-96U-1227S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) LAUNCHER (LAU) (SHADOW)

Conditions: Given a launcher (LAU), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE), and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) LAU in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0140 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0140 00.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1228S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) TACTICAL AUTOMATED LANDING SYSTEM (TALS) (SHADOW)

Conditions: Given tactical automated landing system (TALS), logbook, associated forms, appropriate tools and supplies, and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) TALS in accordance with TM 9-5895-681-10.

Performance Steps

1. Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0141 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0141 00.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1229S

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON UNMANNED AERIAL VEHICLE (UAV) ARRESTING GEAR (AG) (SHADOW)

Conditions: Given arresting gear (AG), logbook, associated forms, appropriate tools and supplies, personal protective equipment (PPE) and TM 9-5895-681-10.

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) AG in accordance with TM 9-5895-681-10.

Performance Steps
1. Perform steps as indicated in TM 9-5895-681-10, work packages (WPs): 0139 00, WP 0146 00, and WP 0139 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-681-10, WP 0139 00, WP 0146 00, and WP 0139 00.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-20	
TM 9-5895-681-CL	

301-96U-1230H

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON UNMANNED AERIAL VEHICLE (UAV) FLIGHT LINE SUPPORT EQUIPMENT (HUNTER)

Conditions: Given air vehicle ground power station, auxiliary generator, arresting gear, logbooks, associated forms, appropriate tools and supplies, personal protective equipment (PPE), TM 9-1425-697-13, TM 9-1425-691-10, TM 9-5895-692-10-1, TM 9-5895-692-10-2, and TM 9-1720-694-23.

Standards: Perform preventive maintenance checks and services (PMCS) on unmanned aerial vehicle (UAV) flight line support equipment in accordance with TM 9-1425-697-13, TM 9-1425-691-10, TM 9-5895-692-10-1, TM 9-5895-692-10-2, and TM 9-1720-694-23.

Performance Steps

1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-7, and table 8-5.
2. Perform steps as indicated in TM 9-1425-697-13, chapter 2, section-II, paragraphs: 2-3, 2-4, 2-5, 2-6, and tables: 2-1, 2-2, 2-3, 2-4, 2-5, 2-6.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraphs: 8-1, 8-2, 8-7, and table 8-5.	———	———
2. Performed steps as indicated in accordance with TM 9-1425-697-13, chapter 2, section II, paragraphs: 2-3, 2-4, 2-5, 2-6, and tables: 2-1, 2-2, 2-3, 2-4, 2-5, 2-6.	———	———

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	
TM 9-1720-694-23	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	

301-96U-1232

PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON AN UNMANNED AERIAL VEHICLE (UAV) REMOTE VIDEO TERMINAL (RVT)

Conditions: Given a remote video terminal (RVT), logbook, associated forms, appropriate tools and supplies, and TM 9-5895-681-10 (Shadow) or TM 9-5895-696-13 (Hunter).

Standards: Perform preventive maintenance checks and services (PMCS) on an unmanned aerial vehicle (UAV) RVT in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-696-13 (Hunter).

Performance Steps

1. For Hunter:

Perform steps as indicated in TM 9-5895-696-13, chapter 2, section II, paragraphs: 2-4, 2-5, 2-6, and table 2-1.

2. For Shadow:

Perform steps as indicated in TM 9-5895-681-10 and work package (WP) 0150 00.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. For Hunter: Performed all steps correctly in accordance with TM 9-5895-696-13, chapter 2, section II, paragraphs: 2-4, 2-5, 2-6, and table 2-1.	___	___
2. For Shadow: Performed all steps correctly in accordance with TM 9-5895-681-10 and WP 0150 00.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-696-13	

301-96U-1234

UPDATE UNMANNED AERIAL VEHICLE (UAV) SYSTEM LOGBOOKS

Conditions: Given logbooks, updated information and associated materials.

Standards: Update unmanned aerial vehicle (UAV) system logbooks in accordance with unit standing operating procedures (SOPs) and DA Pam 738-751.

Performance Steps

1. Identification. Identify the aircraft or other equipment to which the logbook belongs by using the DA Form 2408-31 (*Aircraft Identification Card*) inserted in the plastic slot on the front of the binder.
2. Use DA Form 2408 (*Equipment Log Assembly*). Utilize DA Form 2408 to obtain information for operational, mission, duty, flight condition symbols, aircraft condition status symbols, and maintenance codes to be used on DA Forms 2408-12 (*Army Aviator's Flight Record*), 2408-13 (*Aircraft Status Information Record*), and other related maintenance forms.
3. Prepare DA Form 2408-12.
   - **a.** Prepare DA Form 2408-12 to record aircraft flying time, duty, and type of flight done by the pilot and crew.
   - **b.** Make sure that enough copies of DA Form 2408-12 are in the aircraft logbook to do the assigned mission.
   - **c.** Close out the DA Form 2408-12 after the last flight of the mission day or before the first flight of the next mission day.
   - **d.** Prepare a new DA Form 2408-12 after the last flight of the mission day or before the first flight of the next mission day.
   - **e.** Enter all needed flight information for all crew members that were on the flight. The data entered by the pilot is very important. Data is used for a permanent record of the pilot and crewmembers career of flying hours and type of missions flown during different flight conditions. The pilot will also enter operational data, such as landings, engine starts, and so forth.
   - **f.** A flight or series of flights that takes off before 2400 hours and lands after 2400 hours is credited to the date of takeoff, unless the flight starts on the last day of the aircraft materiel condition status and flying time report reporting month. The DA Form 2408-12 will show a close out time of 2400 hours for that last day of the reporting month. Start a new form and show the flight for the first day of the reporting month as starting at 0001 hours. Enter the time it took for the flight in hours and tenths of an hour in the flight hour block, as listed in the time conversion table shown on DA Form 2408 in your logbook or table 1-13 at the end of chapter 1.
   - **g.** After the last flight of the mission day or before the first flight of the next mission day, close out the DA Form 2408-12, by totaling the flight hours, landings, hour meter hours, engine starts, and landing gear cycles, in block 8. Enter these totals on the DA Form 2408-13. Prepare a new DA Form 2408-12. Remove the closed out DA Form 2408-12 from the aircraft logbook at the end of the mission day or before the first flight of the next mission day. Send the closed out form through the maintenance office to the operations office. When the aircraft is operated away from its home station, the closed out forms will stay in the logbook until the aircraft returns.

Performance Steps

h. Keep the DA Form 2408-12 for 3 months and then destroy it.

4. Prepare DA Form 2408-13.

a. Prepare DA Form 2408-13 for aircraft and aircraft training devices. This form is used to show the present status of the aircraft, aircraft training devices/simulator, maintenance trainer airframes, and mission related equipment aboard the aircraft, current and hours flown today, total aircraft hours, number of landings and touchdown auto-rotations during the report period, sign off daily inspections, and shows when the next scheduled maintenance inspection is due.

b. Prepare a new DA Form 2408-13 before the first flight of the mission day. This form can also be filled out after completion of the daily inspection at the end of the mission day. Refer to DA Pam 738-751, figure 2-8A, for preparation instructions. Make out additional forms as needed during the current mission day.

c. Complete this form whenever a daily inspection or preventive maintenance service (PMS) is due by using the most current PMD or PMS CL for the type and model aircraft assigned. Enter all faults found during the inspection on the DA Form 2408-13-1 (*Aircraft Maintenance and Inspection Record*).

d. Enter the correct status symbol for the aircraft and the aviation mission related equipment in block 10, SYSTEM STATUS block(s) that apply. There are thirteen (13) spaces for SYSTEM STATUS symbols for aircraft and aircraft training devices/flight simulators and seven (7) spaces for installed mission related equipment for use during the mission day. If these spaces are filled during a mission day, continue the SYSTEM STATUS on a new DA Form 2408-13.

e. Close out after the last flight of the mission, by entering the flight time, landings, touchdown auto-rotations, and other needed information in the today blocks then add these to the current aircraft hours, landings, touchdown auto-rotations, and so forth. Make out a new DA Form 2408-13 and makes sure the correct current data is entered on the new form.

f. Remove the closed out DA Form 2408-13 from the aircraft logbook at the end of the mission day or before the first flight of the next mission day. Send the closed out form to the maintenance office. When the aircraft is operated away from its home station, the closed out forms will stay in the logbook until the aircraft returns. During extended time away from the home station this and other aircraft forms will be removed and filed in the local maintenance office, but forms will be delivered back to the home station upon completion of the exercise, combat, or TDY.

g. Check the aircraft and installed aviation associated equipment condition status, as shown in the SYSTEM STATUS blocks. The SYSTEM STATUS block must show the condition status of the most serious uncorrected fault as shown on the DA Form 2408-13-1, DA Form 2408-13-2 (*Related Maintenance Actions Record*), or the DA Form 2408-14 (*Uncorrected Fault Record*).

h. Check the DA Form 2408-18 (*Equipment Inspection Worksheet)* to see if any inspections, services, or replacements are due or overdue.

i. Check that fuel and oil have a sufficient amount remaining to complete the assigned mission.

Performance Steps

j. Perform a thorough preflight check/inspection using the most up-to-date checklist for the type and model aircraft to be flown. Enter all faults found during the check/inspection on the DA Form 2408-13-1.

k. Enter the date (dd mmm yy) in the date block if the aircraft is safe to fly and can do the assigned mission.

l. Perform a thorough thru flight check/inspection per checklist and enter any faults or remarks on the DA Form 2408-13-1 after landing or at any intermediate stop.

m. Perform a post-flight check/inspection per TM-IOCL and enter any faults or remarks on the DA Form 2408-13-1 after landing, following the last flight of the mission day.

n. Closed out DA Form 2408-13 along with related test flight worksheets. Remove from the logbook at the end of the mission day or before the first flight of the next day and send to the unit maintenance office. Forms closed out, while the aircraft is on a cross-country flight, will remain in the logbook until the aircraft returns to the home station. When the aircraft is detached, closed out forms will be turned in to a local maintenance activity. Forms will be turned in to the maintenance office when the aircraft has returned to the owning unit. Forms closed out while the aircraft is undergoing extensive inspection, maintenance, or test flight (to be closed out at the end of the mission day) will remain available (preferably in the unit maintenance office) for the flight or maintenance crew until all work is done and the test flight is signed off.

5. Utilize DA Form 2408-13-1.

a. Utilize DA Form 2408-13-1 to record operational and maintenance operations of aircraft, aviation associated equipment, and components/modules. This form is used by the pilot, crew members, crew chiefs, mechanics, quality control, maintenance, and supervisory personnel to—

(1) Record faults and deficiencies found during operational and maintenance operations.

(2) Record remarks related to flights and condition of the aircraft.

(3) Record removal and replacement of repair parts, component/module, or assembly that affect safety of flight of the aircraft.

(4) Record damage in an accident/mishap, battle damage, or damage resulting from a natural phenomenon such as, wind, rain, water, and so on.

(5) Record contamination or suspected contamination by nuclear, biological, or chemical agents.

(6) Record all scheduled, unscheduled, and special maintenance inspections, checks, and services due and completed.

(7) Record condition status symbols upon finding faults on aircraft, aviation associated equipment, including mission related equipment aboard aircraft.

(8) Record component/module, accessories, and other items due replacement at specific flying hours, operating hours, rounds fired, calendar time, and so on.

(9) Record uncorrected faults from the DA Form 2408-13-3 (*Aircraft Technical Inspection Worksheet)* and deferred faults from the DA Form 2408-14.

(10) Enter all faults found during the preflight checks or inspection. The entries go on the fault/remark line in the fault information block (see DA Pam 738-751, figure 2-9A).

(11) Enter faults found during flight, through flight, and post flight inspections.

Performance Steps

(12) Enter a signature after the fault or remark. The pilot will enter the status symbol in the status block that he or she feels is suitable for the fault entered and update the proper SYSTEM STATUS block of DA Form 2408-13 as needed. Only one fault/remark per fault Information block is allowed.

(13) Prepare a new DA Form 2408-13-1 before the first flight of each mission day. Additional forms will be prepared as needed during the mission day.

(14) Enter all faults found in the fault information block during the PMD or PMS.

(15) Make entries showing action taken in the correcting information block on the ACTION line. Other information called for will also be entered in blocks and lines on this form per DA Pam 738-751, paragraphs 1-7, 1-8, and figure 2-8.

(16) Complete the DA Form 2408-13-1 with other related logbook forms. The competed forms need not be removed and closed out at the end of the mission day. To prevent unnecessary reentering of information and faults on a new form every mission day, DA Form 2408-13-1 can be removed as determined by the unit or activity commander, but can be left in the logbook until the end of the seventh mission day's flying operation. DA Form 2408-13-1 will also be removed after completion of extensive maintenance, such as intermediate, periodic, phase maintenance inspections, and maintenance test flights. When this form is removed, the crew chief will remove the completed forms along with the current DA Form 2408-12, if any, and DA Form 2408-13 from the logbook as stated above after reentering needed information to the next mission days logbook forms.

(17) Record maintenance inspections due on the DA form 2408-13-1.

(a) Record a red horizontal dash 'AA' in the status block in the fault information block when the inspection becomes due or when it is started early.

(b) Record a red 'X' in the status block in the fault information block when a scheduled maintenance inspection is not done when due by the flying hour called for in the appropriate direct support maintenance (-23 level) TM.

(c) Record a Red 'X' in the status block in the fault information block when a special or repeat/recurring inspection was not done on the flying hour, or operating hour.

(d) Record the type and number (if it is numbered) of the inspection in the fault information block and the person making this entry will print his or her PID in the PID block or signature following the type and number of the inspection.

Performance Steps

(e) Record the completion of maintenance inspections. When all scheduled inspection requirements listed in the maintenance inspection checklist and maintenance related actions and other work are one, enter the word 'completed' or a phrase such as 'Phase 2 completed', 'phase inspection completed', 'phase insp comp', 'PMS completed', 'PMS 2 completed', 'inspection completed', and so on, on the action line in the correcting information block. If one or more words describing the correcting information or action taken are used, it will not be considered an error. Enter the date (dd mmm yy) the work is done and enter other information called for. If a maintenance test flight or MOC is needed to complete the inspection, enter a red "X" symbol in the fault information status block. On the fault/remark line in the fault information block enter test flight or MOC is needed, reason(s) for test flight/MOC and the PID in the PID block or signature of the person making the entry. As the test flight or MOC is done, the word 'completed' or a phrase similar to 'MTF completed', 'test flight completed', 'MOC completed', and so forth, will be entered on the action line in the correcting information block. If one or more words describing the correcting information or action taken are used, it will not be considered an error. The person performing the test flight and/or the MOC will initial the status symbol in the status block in the fault information block.

Note: When a PMD inspection is done after the last flight of the mission day, the completion of inspection is not needed on the DA Form 2408-13-1. Record this inspection on the DA Form 2408-13 for the next mission day per DA Pam 738-751, figure 2-7.

b. Remove the completed DA Form 2408-13-1 from the logbook as determined by the unit or activity commander, but not to exceed the seventh (7^{th}) mission day's flying operation. The removal and close out of the DA Form 2408-13-1 will be done on the selected mission day or before the first flight of the next mission day and carried to the unit or activity maintenance office with the related DA Form 2408-12, DA Form 2408-13, and DA Form 2408-13-2. Those forms filled out while the aircraft is away from its home station on TDY or a cross-country flight will remain in the logbook until the aircraft returns to the home station. When the aircraft is detached, completed forms will be turned in to a local maintenance activity so the logbook will not become too bulky. These forms are returned to the owning unit/activity maintenance office upon completion of the detachment.

c. Carry forward the open faults appearing in the fault information blocks to a new DA Form 2408-13-1. The PID or name of the person who made the first entry in the fault information block need not be carried forward to the new form, or the DA Form 2408-14. The decision to re-enter a fault to the DA Form 2408-14 to become a deferred fault will be made by the unit or activity commander, equal management or supervisor in contract support maintenance, or his or her designated representative.

Performance Steps

d. Enter in the fault information block of the new DA Form 2408-13-1 the date (dd mmm yy) of the DA Form 2408-13-1 on which each fault was first recorded. The fault is entered exactly as it was originally written. If corrective action is delayed because of lack of repair parts or some other item of supply or deferred maintenance, the supply requisition number or the maintenance request number will be printed in the requisition (REQ) or work order (W.O.) block of the fault information block. Other information called for in this block, including the date (dd mmm yy) of each fault entry will become part of the entry when it is carried forward to a new DA Form 2408-13-1 or reentered on the DA Form 2408-14. They stay with the entry until parts or other items of supply are received or when the fault is corrected.

e. Enter the corrective action on the action line in the correcting information block and enter his or her PID in the PID block or signature and fill in other called for information in this block per figure 2-8 when the fault is corrected. The person making the corrective action will change the aircraft status symbol in the SYSTEM STATUS block of the DA Form 2408-13.

f. Reenter the fault when it is carried forward from another DA Form 2408-13-1 to the fault information block of the current form. The person will print his or her PID in the PID block or place signature in the correcting information block after entering 'C/F' (carried forward) in this block.

6. Prepare DA Form 2408-13-2.

a. Prepare DA Form 2408-13-2 as a supplement form to DA Form 2408-13-1 and DA Form 2408-13-3 for aircraft and other equipment. This form will be used only to record related maintenance actions that are necessary while clearing major faults/deficiencies and conditions written up on the DA Form 2408-13-1 and DA Form 2408-13-3. This form is also used to show the condition status of each major fault or deficiency on the DA Form 2408-13-1 and DA Form 2408-13-3 and each related maintenance action in the fault block (block 5).

b. Use one or more DA Form 2408-13-2 for each major fault listed on the DA Form 2408-13-1 and DA Form 2408-13-3, when one or more related maintenance action is done.

c. Record maintenance work hours for each related maintenance task done by each person doing the work in hours and tenths of an hour.

d. Update all DA Form 2408-13-2 closely with the DA Form 2408-13-1 and DA Form 2408-13-3 where red 'X', circled red 'X', or red diagonal faults and deficiencies are listed.

e. Record all related maintenance actions on the DA Form 2408-13-2 by showing corrective action and clearing of status symbols per DA Pam 738-751, paragraphs 1-7, 1-8, 1-9, and figure 2-9A.

f. Do not reenter or carry forward to any other form or record related maintenance actions since they are not faults and are done to clear a fault.

g. Ensure quality control inspects the completed DA Form 2408-13-2 for incorrect entries and to assure that related maintenance actions are properly cleared per DA Pam 738-751, paragraphs 1-8 and 1-9 before forms are placed in the six-month file.

Performance Steps

7. Determine aircraft condition status.

a. Determine aircraft condition status, as shown in block 10, SYSTEM STATUS of this form. A matching status symbol must be on the current aircraft logbook forms, that is, DA Form 2408-13-1, DA Form 2408-13-2, or DA Form 2408-14. When scheduled maintenance inspections or extensive maintenance is being performed on the aircraft a matching condition status symbol may also appear on a DA Form 2408-13-3. A narrative of the fault, directive, inspection, and so forth, must be printed in the fault block of each form. Block 10, SYSTEM STATUS must reflect the current condition status symbol for the most serious uncorrected fault, unapplied directives, such as SOF message/ASAM/TB, MWO, component/module, accessories, and other items due or overdue replacement, or scheduled or special inspections due or overdue completion that are recorded on the DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3, and DA Form 2408-14.

b. Check the DA Form 2408-18 to see if any inspections, services, or replacements of items are due or overdue for completion.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Identified logbook with equipment.	____	____
2. Utilized DA Form 2408.	____	____
3. Prepared DA Form 2408-12.	____	____
4. Prepared DA Form 2408-13.	____	____
5. Prepared DA Form 2408-13-1.	____	____
6. Prepared DA Form 2408-13-2.	____	____
7. Determined if aircraft, or other related equipment, is safe to fly/use.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
DA Pam 738-750	TC 34-212
DA Pam 738-751	DA Form 2408-31
Unit SOP	DA Form 2408
	DA Form 2408-12
	DA Form 2408-13
	DA Form 2408-13-1
	DA Form 2408-13-2
	DA Form 2408-13-3
	DA Form 2408-14
	DA Form 2408-18

Subject Area 5: INTELLIGENCE OPERATIONS

301-96U-1260

PREPARE REPORTS FROM UNMANNED AERIAL VEHICLE (UAV) COLLECTED INFORMATION

Conditions: Given software with current report format(s), collection requirement(s), reportable information objectives, automation equipment and collected material, unit standing operating procedures (SOPs), TC 34-212, TM 9-5895-681-10 (Shadow), TM 9-5895-692-10-1 (Hunter), and TM 9-5895-692-10-2 (Hunter).

Standards: Prepare reports in accordance with the collection requirements, unit SOP, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Prepare for mission:

   Air vehicle operator (AVO)/mission payload operator (MPO) will:

   a. Verify mission plan from mission commander (MC).

   b. Extract pertinent information from air reconnaissance request/task message and USMTF joint tactical surveillance request.

   c. Insure specific mission priority Intelligence requirements are verified with data exploiter (DE).

   d. Prepare an appropriate message shell (RECCEXREP, free text, SALUTE) in accordance with TC 34-55 and unit SOP.

2. Compose message.

   a. Compose message in accordance with TC 34-55.

   b. Compares mission results with requestor's requirements.

   c. Lists results that satisfy mission requirements.

   d. Lists results that do not satisfy mission requirements.

3. Complete message.

   a. Complete REXCCEXREP in accordance with TC 34-55 and STANAG 3377.

   b. Complete freeform message in accordance with unit SOP.

   c. Complete SALUTE report in accordance with unit SOP.

   d. Transmit message to release authority.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Prepared for mission.	____	____
2. Composed message.	____	____
3. Completed message.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	TC 34-55
TM 9-5895-681-10	STANAG 3377
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-1261

RECOGNIZE ITEMS OF SIGNIFICANCE FOR MILITARY OPERATIONS COLLECTED BY UNMANNED AERIAL VEHICLE (UAV)

Conditions: Given a mission requirement(s), a UAV system, associated equipment, materials, vehicle identification guide based on the area of interest (AI) and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Recognize items of significance for military operations in accordance with mission requirements, command guidance, utilizing a vehicle identification guide, and unit standing operating procedures (SOPs).

Performance Steps

1. Prepare for mission.
   a. Ensure that the air vehicle operator (AVO)/mission payload operator (MPO) receives a mission plan from the mission commander (MC).
   b. Ensure the AVO, MPO, and MC review the mission plan and prepare the UAV in accordance with task 301-96U-1067.
   c. Ensure the MC informs the AVO and MPO if a remote video terminal will be used and where the DE, if assigned, will be stationed.
2. Prepare for detection, recognition, and/or identification of items of significance for military operations.
   a. Ensure the MPO familiarizes him or herself with those items that may be in the AI:
      (1) Obtain and review the recognition of combat vehicles (ROC-V) program via CD ROM or online at https://rocv.army.mil/. If support for ROC-V is not available, obtain vehicle identification flash cards for review. The MPO should focus on those items of equipment the unit S2 has designated as belonging to opposing forces that are expected in the AI. If possible, the MPO should bring the identification guide into the shelter.
      (2) Obtain and review live video and/or still pictures of those forces that may be in the area. If possible bring any still pictures available into the shelter to aid in detection, recognition and/or identification.
      (3) Review the situation map (SITMAP) for the AI to gain full situational awareness. Items to look for include but are not limited to: Anti-aircraft artillery and surface-to-air missile sites, lines of communications, obstacles, obstructions, ingress/egress routes and targets. Review latest situational updates from higher headquarters to determine the impact on operations, identification and reporting.
   b. Ensure the AVO/MPO develop and coordinate a valid search plan for each target area and adjust the mission plan accordingly.

Performance Steps

3. Scan the area of interest.

- **a.** Ensure proper video annotations/overlays are selected for usable imagery. Proper annotations/overlays include but are not limited to: target coordinates, north arrow, date time group, depression angle, and FOV. Payload annotations/overlays may be dictated in the unit SOP, by the MC, or higher command authority.
- **b.** Ensure the AVO/MPO scan the AI in accordance with the mission plan.
- **c.** Ensure the MPO informs the MC and DE if an object is detected, recognized or identified. The MC will make a decision on the target based on recommendations from the DE. If the DE is unavailable the MPO will attempt to identify the target using the identification guide.
- **d.** Ensure the MPO maintains valid depression angle, brightness, contrast, gain, and focus for usable imagery.
- **e.** Ensure the DE confirms all targets observed thru the payload based on the needs of the mission.
- **f.** The MC determines all decisions regarding target disposition. The MC has the authority to direct an ad hoc mission.
- **g.** Ensure the MPO makes/sends reports as directed/specified in local SOP or command reporting guidance.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Prepared for mission.	____	____
2. Prepared for detection, recognition, and/or identification of items of significance for military operations.	____	____
3. Scanned the area of interest.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
Identification Keys	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

Subject Area 6: COMMUNICATIONS

113-625-2081
OPERATE DIGITAL SECURE VOICE TERMINAL (DSVT) KY-68

Conditions: This task is performed when directed by your supervisor and under any condition or situation. The following must be available for correct performance:

1. Properly installed DSVT KY-68.
2. TM 11-5810-329-10.
3. Electronic transfer device, TSEC/KY-13 with key(s).
4. Fill cable.

Standards: Operate digital secure voice telephone (DSVT) KY-68 in accordance with procedures in TM 11-5810-329-10 (section III), and unit standing operating procedures (SOPs).

Performance Steps

1. Initialize DSVT KY-68.
2. Load KY-68 with KYK-13.
   a. Connect KYK-13 to KY-68 using fill cable.
   b. Perform loading procedures.
   c. Disconnect fill cable from KY-68.
3. Operate equipment under usual conditions.
   a. Process an outgoing call.
   b. Process an incoming call.
   c. Process an outgoing conference call.
   d. Process an incoming conference call.
   e. Perform emergency access.
4. Perform normal shutdown procedures.
   a. Perform complete shutdown.
   b. Perform shutdown saving COMSEC data.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Initialized DSVT KY-68.	____	____
2. Loaded KY-68 with KYK-13.	____	____
a. Connected KYK-13 to KY-68 using fill cable.		
b. Performed loading procedures.		
c. Disconnected fill cable from KY-68.		

Performance Measures	GO	NO GO
3. Operated equipment under usual conditions.	——	——
a. Processed an outgoing call.		
b. Processed an incoming call.		
c. Processed an outgoing conference call.		
d. Processed an incoming conference call.		
e. Performed emergency access.		
4. Performed normal shutdown procedures.	——	——
a. Performed complete shutdown.		
b. Performed shutdown saving COMSEC data.		

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 11-5810-329-10	Unit SOP

301-96U-1310

OPERATE TACTICAL COMMUNICATION EQUIPMENT

Conditions: Given an operational single channel ground and airborne radio systems (SINCGARS), single unit transceiver (SUT), KYK-13/TSEC with keys, distant station, TM 11-5820-890-10-1, TM 11-5820-890-10-3, unit signal operation instruction (SOI), and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Transmit and receive messages and/or via a SINCGARS/SUT radio, multiple subscriber equipment (MSE), and/or fiber optic cables (FOCs), with a distant station in accordance with TM 11-5820-890-10-1, TM 11-5820-890-10-3, unit SOI, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Prepare SINCGARS/MSE communications.

a. Set SINCGARS radios in accordance with TM 11-5820-890-10-1.

(1) Turn the function (FCTN) switch to SQ-ON.

(2) Set power (PWR) knob low (LO), medium (M), high (HI), or power amplifier (PA), as required.

(3) Set the data rate to 16000 for messages or 4800 for missions, as required.

b. Perform SINCGARS radio voice check.

c. Open tactical messages window.

d. Select change tables.

(1) Enter password trw-uavsr-1.

e. Select local node.

(1) Set local node name and number.

(2) Enter route indicator.

(3) Set message serial number, as required.

Note: Steps (4), (5), and (7) are for MSE only.

(4) Set node area code, as required.

(5) Set node phone number, as required.

(6) Set classification, as required.

(7) Set operation, as required.

(8) Save changes by selecting save.

(9) Select done to exit local node.

f. Select net route**.**

(1) Set net route tables, as required.

(2) Select next/previous to find first destination.

(3) Set board/port field based on the board/port table.

(4) Select DCT for SINCGARS or mode 1 for MSE in the net protocol field.

(5) Set radio silence to no.

(6) Set area code, as required.

(7) Set phone number, as required.

(8) Set max number of re-trans to 3, if required.

Performance Steps

(9) Set max re-trans delay to 020, if required.
(10) Enter local node number in the message originator.
(11) Enter 7 for ND RTE indicator.
(12) Select save to save changes.
(13) Find the next destination table by selecting previous/next.
(14) Repeat step 6a for all destinations.

g. Select done in the net route tables. Verify message receipt using SINCGARS radio.

2. Perform transmitting a message via SINCGARS radio.

a. Select write message.

b. Select message format.

c. Enter data to prepare message for transmission.

d. Select save and send when message is complete.

e. Select destination information.

f. Call the receiving station that the message is being sent.

g. Select send to send message to destination.

h. Verify message receipt using the SINCGARS radio.

3. Perform receiving message via SINCGARS radio.

a. Set SINCGARS radios in accordance with TM 11-5820-890-10-1.

(1) Turn the FCTN switch to SQ-ON.
(2) Set PWR knob LO, M, HI, or PA, as required.
(3) Set the data rate to 16000 for messages.

b. Check and observe green “R” for receipt of incoming message.

c. Select tactical messages window.

d. Select read message.

e. Select new message.

f. Verify message receipt using SINCGARS radio.

4. Perform transmitting a mission plan via SINCGARS radio.

a. Set SINCGARS radios in accordance with TM 11-5820-890-10-1.

(1) Turn the FCTN switch to SQ-ON.
(2) Set PWR knob LO, M, HI, or PA, as required.
(3) Set the data rate to 4800 for missions.

b. Perform SINCGARS radio voice check.

c. Select write mission.

d. Select file name and choose mission to be sent.

e. Select send to complete preparation.

f. Select destination information.

Performance Steps

g. Notify receiving station of mission being sent.

h. Select SEND to send mission to destination.

i. Verify mission receipt using SINCGARS radio.

5. Perform receiving a mission plan via SINCGARS radio.

a. Set up SINCGARS radios in accordance with TM 11-5820-890-10-1.

(1) Set FCTN switch to SQ-ON.
(2) Set PWR knob to LO, M, or HI, as required.
(3) Set data rate to 4800 for missions.

b. Perform voice check on SINCGARS radio.

c. Check and observe blue “R” for receipt of incoming mission plan.

d. Open tactical message.

e. Select read message (this extinguishes blue “R”).

f. Use file manager, AVLD, or AP mission load to check receipt of mission plan.

g. Verify mission receipt using SINCGARS radio.

6. Perform transmitting and receiving message via MSE telephone.

a. Check that the data adapter communication module (DACM) manual light is illuminated.

(1) If the manual light is ON continue with step 2.
(2) If the manual light is not ON restart TACOMA.

b. Select write message in preparation for transmission.

c. Select message type.

d. Enter data to prepare message for transmission.

e. Select save and send when the message is complete.

f. Prepare destination information by entering data.

g. Contact destination via MSE.

h. Accept MSE contact with sender by answering the telephone.

i. Select send to send message to destination.

j. Check and observe red “S” for out going message.

k. Sending station announce “NOW”.

l. Synchronize DACM in sending and receiving stations by both stations pressing off hook for 2 seconds.

m. Sender and destination stations hang up within 5 to 8 seconds.

n. Observe yellow “S” for out going message.

Performance Steps

o. Observe yellow “R” for incoming message.

p. Observe green “R” for complete message received.

q. View received message by selecting read message.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Prepared for SINCGARS/MSE communication.	____	____
2. Transmitted a message via SINCGARS radio.	____	____
3. Received a message via SINCGARS radio.	____	____
4. Transmitted a mission plan via SINCGARS radio.	____	____
5. Received a mission plan via SINCGARS radio.	____	____
6. Transmitted and received a message via MSE telephone.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 11-5820-890-10-1	
TM 11-5820-890-10-3	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOI	

Subject Area 8: INSPECTIONS

301-96U-1411H
PERFORM AN UNMANNED AERIAL VEHICLE (UAV) DAILY INSPECTION (HUNTER)

Conditions: Given an unmanned aerial vehicle (UAV) system, logbook, associated equipment and supplies, and TM 9-5895-692-CL.

Standards: Perform a UAV daily inspection in accordance with TM 9-5895-692-10-1 and TM 9-5895-692-10-2.

Performance Steps

1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 A, or TM 9-589-692-CL, section 6.1.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 A, or TM 9-589-692-CL, section 6.1.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1412H

PERFORM AN UNMANNED AERIAL VEHICLE (UAV) TURN-AROUND INSPECTION (HUNTER)

Conditions: Given a requirement to re-launch an unmanned aerial vehicle (UAV), UAV system, flight crew, associated equipment, and TM 9-5895-692-CL.

Standards: Perform a UAV turn-around inspection in accordance with TM 9-5895-692-10-1, and TM 9-5895-692-10-2.

Performance Steps
1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 B, or TM 9-589-692-CL, section 6.2.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 B, or TM 9-589-692-CL, section 6.2.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1413H

PERFORM AN UNMANNED AERIAL VEHICLE (UAV) END OF RUNWAY INSPECTION (HUNTER)

Conditions: Given an unmanned aerial vehicle (UAV) ready for take-off at the end of the runway, flight crew, associated equipment, and TM 9-5895-692-CL.

Standards: Perform a UAV end of runway inspection in accordance with TM 9-5895-692-10-1 and TM 9-5895-692-10-2.

Performance Steps

1. Perform steps as indicated in TM 9-589-692-CL, section 6.3.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-589-692-CL, section 6.3.	___	___

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-1414H

PERFORM AN UNMANNED AERIAL VEHICLE (UAV) POST-FLIGHT INSPECTION (HUNTER)

Conditions: Given an unmanned aerial vehicle (UAV) returning from a mission with no further mission requirement(s), flight crew, associated equipment, and TM 9-5895-692-CL.

Standards: Perform a UAV post-flight inspection in accordance with TM 9-5895-692-10-1 and TM 9-5895-692-10-2.

Performance Steps

1. Perform steps as indicated in TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 C, or TM 9-589-692-CL, section 6.4.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Performed all steps correctly in accordance with TM 9-5895-692-10-2, chapter 8, section I, paragraph 8-9 C, or TM 9-589-692-CL, section 6.4.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

Skill Level 2

Subject Area 1: EMPLACEMENT OPERATIONS

301-96U-2011

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE EMPLACEMENT

Conditions: Given a launch and recovery (L/R) site, layout plan, unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Supervise UAV L/R site emplacement in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive emplacement orders from local/higher command.
2. Assign emplacement teams.
   - **a.** Ensure teams have proper tools and equipment for movement.
   - **b.** Ensure teams have properly licensed personnel for 5-ton, high mobility multipurpose wheeled vehicle (HMMWV), and any other vehicles involved in emplacement.
   - **c.** Ensure that personnel know the layout of site.
3. Supervise emplacement. Verify that emplacement is performed in accordance with tasks: 301-96U-1012S, 301-96U-1013H, 301-96U-1014H, 301-96U-1015, 301-96U-1016S, 301-96U-1018, 301-96U-1019S, 301-96U-1026H, 301-96U-1027S, 301-96U-1028S, 301-96U-1029S, 301-96U-1030H, 301-96U-1031H, 301-96U-1032, and 301-96U-1033.
4. Perform final inspection.
   - **a.** Ensure that equipment is emplaced properly.
   - **b.** Conduct inventory of all equipment.
   - **c.** Ensure that equipment is prepared for power-up.
   - **d.** Report back to local/higher command with status of site emplacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received emplacement orders from local/higher command.	____	____
2. Assigned emplacement teams.	____	____
3. Supervised emplacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-697-13	FM 10-67-1
TM 9-5895-681-10	FM 10-67-2
TM 9-5895-681-CL	
Unit SOP	

301-96U-2012

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) FORWARD CONTROL SITE EMPLACEMENT

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, site plan, and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Supervise UAV forward control site emplacement in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive movement orders from local/higher command.
2. Assign emplacement teams.
   a. Ensure teams have proper tools and equipment for set-up.
   b. Ensure teams have properly licensed personnel for any vehicles involved in emplacement.
   c. Ensure that personnel know the layout of site.
3. Supervise emplacement. Verify that emplacement is performed in accordance with tasks: 301-96U-1014H, 301-96U-1015, 301-96U-1016S, 301-96U-1018, 301-96U-1019S, and 301-96U-1032.
4. Perform final inspection.
   a. Ensure that equipment is set-up properly.
   b. Conduct inventory of all equipment.
   c. Prepare for mission.
   d. Report back to local/higher command, status of site emplacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received emplacement orders from local/higher command.	____	____
2. Assigned emplacement teams.	____	____
3. Supervised emplacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-5895-681-10	FM 10-67-2
TM 9-5895-681-CL	
Unit SOP	

Subject Area 2: FLIGHT/MISSION OPERATIONS

301-96U-2060
SUPERVISE PREPARATIONS OF AN UNMANNED AERIAL VEHICLE (UAV) SYSTEM FOR OPERATIONS

Conditions: Given an emplaced unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise preparation of a UAV system for operations in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Assign preparation teams.
   - **a.** Assign an air vehicle operator (AVO)/mission payload operator (MPO) team to prepare UAV control stations and antennas for mission.
   - **b.** Assign EP team to prepare runway/launch area for mission (launch and recovery site only).
   - **c.** Assign ground crew to prepare UAV and engine run up area for mission (launch and recovery site only).
2. Supervise preparation of a UAV system for operations.
   - **a.** Ensure power up procedures are performed in accordance with tasks: 301-96U-1014H, 301-96U-1060, 301-96U-1061S, 301-96U-1063S, and 301-96U-1064.
   - **b.** Ensure launch area is clear of foreign object damage (FOD).
   - **c.** Ensure arresting gear are set up for mission.
   - **d.** Ensure flight control boxes (FCBs) are connected.
   - **e.** Ensure assembly of air vehicle (AV) is in accordance with task 301-96U-1033.
   - **f.** Ensure AV is properly installed in the chock run-up up stand or on the launcher**.**
3. Perform final inspection.
   - **a.** Ensure that equipment is powered up properly.
   - **b.** Conduct inventory of all equipment.
   - **c.** Prepare for preflight and launch operations.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assigned preparation teams.	____	____
2. Supervised preparation of UAV system for operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-2061

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) MISSION PLANNING

Conditions: Given a mission, current situation, airspace management products, an operational control station with associated equipment and materials, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise unmanned aerial vehicle (UAV) mission planning in accordance with mission requirements, unit standing operating procedures (SOPs), TC 1-201, TC 34-212, FM 3-52, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/ TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Receive mission from local/higher command.
   a. Check on availability of and assign a UAV for the mission.
   b. Assign the configuration of the UAV to match the mission.
   c. Check on the weather for the area and time of mission.
   d. Assign an air vehicle operator (AVO)/mission payload operator (MPO) for the mission.
2. Supervise preparation of mission plan. Ensure that the mission plan is performed in accordance with task 301-96U-1067.
3. Perform final inspection.
   a. Ensure that the UAV is set-up properly.
   b. Ensure that the mission is set-up properly.
   c. Report back to local/higher command with status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Receive mission from local/higher command.	____	____
2. Supervised preparation of mission plan.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-2063

APPLY AIRSPACE INSTRUCTIONS TO UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) OPERATIONS

Conditions: Given a mission, unmanned aerial vehicle (UAV) system, Army airspace command and control (A^2C^2) element, and airspace control measures.

Standards: Apply airspace instructions to UAV launch and recovery (L/R) operations in accordance with airspace management products, FM 3-52, and local standing operating procedures (SOPs).

Performance Steps

1. Mark all airspace boundaries.
   - **a.** Ensure all exterior airspace boundaries are marked and known by all air vehicle operator (AVO) personnel.
   - **b.** Ensure all interior airspace sections are marked and known by all AVO personnel.
   - **c.** Ensure all “no-fly zone” airspace sections are marked and known by all AVO personnel.
2. Collect any special airspace instructions, from air traffic control, and apply to L/R operations.
   - **a.** Collect any airspace flight corridor instructions, from air traffic control, and apply to L/R operations.
   - **b.** Collect any “notice to airmen (NOTAM)” airspace instructions, from air traffic control, and apply to L/R operations.
   - **c.** Collect any weather data pertaining to the airspace being used, from air traffic control, and apply to L/R operations.
   - **d.** Collect any information pertaining to the “restricted operations zone (ROZ)” airspace being used, from air traffic control, and apply to L/R operations.
   - **e.** Collect any information pertaining to specific altitudes of airspace being used, from air traffic control, and apply to L/R operations.
3. Collect all ingress and egress air routes that could possibly be flown after launch or before recovery and apply to L/R operations.
   - **a.** Collect all ingress air routes for mission.
   - **b.** Collect all egress air routes for mission.
   - **c.** Collect all approved military flight routes for mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Marked all airspace boundaries.	____	____
2. Collected any special airspace instructions, from air traffic control, and applied to L/R operations.	____	____
3. Collected all ingress and egress air routes that could possibly be flown after launch or before recovery and applied to L/R operations.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-2064

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) OPERATIONS

Conditions: Given a mission, an operational unmanned aerial vehicle (UAV) launch and recovery (L/R) site, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise UAV L/R operations in accordance with mission requirements, TC-1-201, FM 57-38, local standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Receive mission from local/higher command.
   - **a.** Check on availability of and assign a UAV for the mission.
   - **b.** Assign the configuration of the UAV to match the mission.
   - **c.** Check on the weather for the area and time of mission.
   - **d.** Assign an AVO/MPO for the mission.
   - **e.** Ensure that the mission is set-up properly.
2. Supervise mission operations. Ensure that launch and recovery operations are performed in accordance with tasks: 301-96U-1060, 301-96U-1061S, 301-96U-1063S, 301-96U-1064, 301-96U-1065, 301-96U-1066, 301-96U-1067, 301-96U-1068H, 301-96U-1069, 301-96U-1076, 301-96U-1077, 301-96U-1078, and 301-96U-1079S.
3. Perform final inspection.
   - **a.** Ensure that the UAV is configured properly.
   - **b.** Report back to local/higher command with status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received mission from local/higher command.	____	____
2. Supervised mission operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 57-38	
TC 1-201	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-2065

APPLY AIRSPACE INSTRUCTIONS TO UNMANNED AERIAL VEHICLE (UAV) FLIGHT/MISSION OPERATIONS

Conditions: Given a mission, unmanned aerial vehicle (UAV) system, Army airspace command and control (A^2C^2) element, and airspace control measures.

Standards: Apply airspace instructions to UAV L/R operations in accordance with airspace management products, FM 3-52, and unit standing operating procedures (SOPs).

Performance Steps

1. Mark all airspace boundaries.
   - **a.** Ensure all exterior airspace boundaries are marked and known by all air vehicle operator (AVO) personnel.
   - **b.** Ensure all interior airspace sections are marked and known by all AVO personnel.
   - **c.** Ensure all “no-fly zone” airspace sections are marked and known by all AVO personnel.
2. Collect any special airspace instructions from air traffic control and apply to flight/mission operations.
   - **a.** Collect any airspace flight corridor instructions from air traffic control and apply to flight/mission operations.
   - **b.** Collect any “notice to airmen (NOTAM)” airspace instructions, from air traffic control, and apply to flight/mission operations.
   - **c.** Collect any weather data pertaining to the airspace being used, from air traffic control, and apply to flight/mission operations.
   - **d.** Collect any information pertaining to any “restricted operations zone (ROZ)” airspace being used, from air traffic control, and apply to flight/mission operations.
   - **e.** Collect any information pertaining to specific altitudes of airspace being used, from air traffic control, and apply to flight/mission operations.
3. Collect all air routes that could possibly be flown during the mission and apply to flight/mission operations.
   - **a.** Collect all ingress air routes for mission.
   - **b.** Collect all egress air routes for mission.
   - **c.** Collect all approved military flight routes for mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Marked all airspace boundaries.	____	____
2. Collected any special airspace instructions from air traffic control and applied to flight/mission operations.	____	____
3. Collected all air routes that could possibly be flown during the mission and applied to flight/mission operations.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-2066

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) FLIGHT/MISSION OPERATIONS

Conditions: Given a mission, an operational unmanned aerial vehicle (UAV) site, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise flight/mission operations in accordance with TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Receive mission from local/higher command.
   - **a.** Check on availability of a UAV for the mission.
   - **b.** Check on the weather for the area and time of mission.
   - **c.** Assign an air vehicle operator (AVO)/mission payload operator (MPO) for the mission.
   - **d.** Ensure the mission is set-up properly.
2. Supervise flight/mission operations.
   - **a.** Ensure that the mission is set-up properly.
   - **b.** Ensure that flight/mission operations are performed in accordance with tasks: 301-96U-1060, 301-96U-1061S, 301-96U-1064, 301-96U-1067, 301-96U-1068H, 301-96U-1069, 301-96U-1070, 301-96U-1071, 301-96U-1072, 301-96U-1073, 301-96U-1074, 301-96U-1075, 301-96U-1076, 301-96U-1078, and 301-96U-1079S.
   - **c.** Ensure airspace boundaries are not crossed with the AV.
   - **d.** Ensure known threats are avoided and targets are observed.
   - **e.** Ensure specific targets and any named areas of interest (NAIs) are observed.
3. Perform final inspection. Report back to local/higher command, status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received mission from local/higher command.	____	____
2. Supervised flight/mission operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-2067

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) RECONNAISSANCE, SURVIELLANCE, AND TARGET ACQUISITION (RSTA) OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system and a reconnaissance, surveillance, and target acquisition (RSTA) mission.

Standards: Supervise UAV RSTA operations in accordance with TC 1-201, FM 6-30, FM 17-98, FM 34-1, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Collect mission requirements for RSTA operations from higher/adjacent command.
2. Supervise reconnaissance operations.
   a. Ensure the air vehicle operator (AVO)/mission payload operator (MPO) team knows the reconnaissance area for the mission.
   b. Ensure the reconnaissance area has been appropriately marked in the controlling station.
   c. Ensure the entire area has been surveyed during the reconnaissance mission.
3. Supervise surveillance operations.
   a. Ensure the AVO/MPO team knows the surveillance area for the mission.
   b. Ensure the surveillance area has been appropriately marked in the controlling station.
   c. Ensure the entire area has been surveyed during the surveillance mission.
4. Supervise target acquisition operations.
   a. Ensure the AVO/MPO team knows the objective target area for the mission.
   b. Ensure the objective target area has been appropriately marked in the controlling station.
   c. Ensure the all targets have been surveyed during the target acquisition mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Collected mission requirements for RSTA operations from higher/adjacent command.	____	____
2. Supervised reconnaissance operations.	____	____
3. Supervised surveillance operations.	____	____
4. Supervised target acquisition operations.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-55	
FM 6-30	
FM 17-98	
FM 34-1	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

301-96U-2068

SUPERVISE POWER DOWN OF AN UNMANNED AERIAL VEHICLE (UAV) SYSTEM AFTER OPERATIONS

Conditions: Given an emplaced, operating, unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise power down of a UAV system after operations in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Assign power down teams.
   - **a.** Assign an air vehicle operator (AVO)/mission payload operator (MPO) team to power down UAV control stations with power sources and antennas used during mission.
     - **(1)** Ensure power down procedures are performed in accordance with tasks: 301-96U-1078 and 301-96U-1079S.
   - **b.** Assign ground crew to power down UAV used during the mission (launch and recovery site only).
     - **(1)** Ensure power down procedures are performed in accordance with task 301-96U-1077.
2. Perform final inspection.
   - **a.** Ensure that equipment is powered up properly.
   - **b.** Conduct inventory of all equipment.
   - **c.** Prepare for preflight and launch operations.
3. Review system logbooks in accordance with task 301-96U-2211.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assigned power down teams.	____	____
2. Performed final inspection.	____	____
3. Reviewed system logbooks in accordance with task 301-96U-2211.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

Subject Area 3: DISPLACEMENT OPERATIONS

301-96U-2111
SUPERVISE UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE DISPLACEMENT

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Supervise UAV launch and recovery (L/R) site displacement in accordance with unit standing operating procedures (SOPs) and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive movement orders from local/higher command.
2. Assign displacement teams.
   - **a.** Ensure teams have proper tools and equipment for movement.
   - **b.** Ensure teams have properly licensed personnel for 5-ton, high-mobility multipurpose wheeled vehicle (HMMWV), and any other vehicles involved in displacement.
   - **c.** Ensure that personnel know the lineup order of displaced vehicle/equipment.
   - **d.** Verify that the team leaders have a copy of the load plans for their equipment.
3. Supervise displacement. Verify that displacement is performed in accordance with tasks: 301-96U-1112S, 301-96U-1113H, 301-96U-1114H, 301-96U-1115, 301-96U-1116S, 301-96U-1118, 301-96U-1119S, 301-96U-1126H, 301-96U-1127S, 301-96U-1128S, 301-96U-1129S, 301-96U-1130H, 301-96U-1131H, 301-96U-1132, and 301-96U-1133.
4. Perform final inspection.
   - **a.** Ensure that equipment is displaced properly.
   - **b.** Conduct inventory of all equipment.
   - **c.** Check and verify load plans.
   - **d.** Ensure that equipment is prepared for movement.
   - **e.** Perform a walk around inspection of the site and ensure that site is ready to be vacated.
   - **f.** Report back to local/higher command, status of site displacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received movement orders from local/higher command.	____	____
2. Assigned displacement teams.	____	____
3. Supervised displacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-1425-697-13	FM 10-67-2
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-696-13	
Unit SOP	

301-96U-2112

SUPERVISE UNMANNED AERIAL VEHICLE (UAV) FORWARD CONTROL SITE DISPACEMENT

Conditions: Given an operational unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Supervise UAV forward control site displacement in accordance with local standing operating procedures (SOPs), and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive movement orders from local/higher command.
2. Assign displacement teams.
   - **a.** Ensure teams have proper tools and equipment for movement.
   - **b.** Ensure teams have properly licensed personnel for 5-ton, high-mobility multipurpose wheeled vehicle (HMMWV), and any other vehicles involved in displacement.
   - **c.** Ensure that personnel know the lineup order of displaced vehicle/equipment.
   - **d.** Verify that the team leaders have a copy of the load plans for there equipment.
3. Supervise displacement. Verify that displacement is performed in accordance with tasks: 301-96U-1114H, 301-96U-1115, 301-96U-1116S, 301-96U-1118, 301-96U-1119S, and 301-96U-1132.
4. Perform final inspection.
   - **a.** Ensure that equipment is displaced properly.
   - **b.** Conduct inventory of all equipment.
   - **c.** Check and verify load plans.
   - **d.** Ensure that equipment is prepared for movement.
   - **e.** Perform a walk around inspection of the site and ensure that site is ready to be vacated.
   - **f.** Report back to local/higher command, status of site displacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received movement orders from local/higher command.	____	____
2. Assigned displacement teams.	____	____
3. Supervised displacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-5895-681-10	FM 10-67-2
TM 9-5895-681-CL	
TM 9-5895-696-13	
Unit SOP	

Subject Area 4: MAINTENANCE

301-96U-2210

SUPERVISE OPERATOR LEVEL MAINTENANCE OF AN UNMANNED AERIAL VEHICLE (UAV) SYSTEM

Conditions: Given unmanned aerial vehicle (UAV) system, associated equipment, TM 9-5895-681-CL (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter), and any additional operator level maintenance manuals.

Standards: Supervise operator level maintenance of a UAV system in accordance with TM 9-5895-681-10 (SHADOW) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter), and any additional operator level maintenance manuals.

Performance Steps

1. Check equipment.
   a. Check what equipment will need maintenance.
   b. Assign equipment to team leaders for maintenance.
   c. Ensure that all team leaders have the proper manuals/paperwork for maintenance.
   d. Ensure that all team leaders have properly licensed personnel for any equipment needed.
2. Supervise maintenance operations.
   a. Ensure MPU is checked in accordance with task 301-96U-1214H.
   b. Ensure that GDT is checked in accordance with task 301-96U-1218.
   c. Ensure that ground control station (GCS)/mission planning station (MPS) is checked in accordance with task 301-96U-1215.
   d. Ensure that LRS is checked in accordance with task 301-96U-1203.
   e. Ensure that LRT is checked in accordance with task 301-96U-1226H.
   f. Ensure that RVT is checked in accordance with task 301-96U-1232.
   g. Ensure that ground support equipment is checked in accordance with task 301-96U-1230H.
3. Perform final inspection.
   a. Perform an inventory of all equipment.
   b. Perform a walk around inspection of the site/equipment and ensure that site/equipment has been updated in the logbooks and or any paperwork involved.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Checked equipment.	____	____
2. Supervised maintenance operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-697-13	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-696-13	
TM 9-6115-642-10	
TM 11-5820-890-10-1	
TM 11-5820-890-10-3	

301-96U-2211
REVIEW UNMANNED AERIAL VEHICLE (UAV) LOGBOOKS

Conditions: Given logbooks and associated materials.

Standards: Review unmanned aerial vehicle (UAV) logbooks in accordance with DA Pam 738-750, DA Pam 738-751, and unit standing operating procedures (SOPs).

Performance Steps

1. Identification. Identify the aircraft or other equipment to which the logbook belongs by using the DA Form 2408-31 inserted in the plastic slot on the front of the binder.
2. Review logbook for completeness and/or errors.
   a. Inspect the DA Form 2408-31 inserted in the plastic slot on the front of the binder to ensure that is in the correct logbook.
   b. Inspect all entries on DA Form 2408-12 for completeness and/or for any errors.
   c. Inspect all entries on DA Form 2408-13 for completeness and/or for any errors.
   d. Inspect all entries on DA Form 2408-13-1 for completeness and/or for any errors.
   e. Inspect all entries on DA Form 2408-13-2 for completeness and/or for any errors.
   f. Inspect all entries on DA Form 2408-13-3 for completeness and/or for any errors.
   g. Inspect all entries on DA Form 2408-14 for completeness and/or for any errors.
   h. Inspect all entries on DA Form 2408-18 for completeness and/or for any errors.
3. Review logbook for any inspections due on that piece of equipment.
4. Correct any deficiencies with the logbook.
5. Turn in the logbook to maintenance when completed.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Identified logbook with equipment.	____	____
2. Reviewed logbook for completeness and/or errors.	____	____
3. Reviewed logbook for any inspections due on that piece of equipment.	____	____
4. Corrected any deficiencies with the logbook.	____	____
5. Turned in the logbook to maintenance section when completed.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
DA Pam 738-750	DA Form 2408-12
DA Pam 738-751	DA Form 2408-13
Unit SOP	DA Form 2408-13-1
	DA Form 2408-13-2
	DA Form 2408-13-3
	DA Form 2408-14
	DA Form 2408-18
	DA Form 2408-31

Subject Area 5: INTELLIGENCE OPERATIONS

301-96U-2260

SUPERVISE PREPARATION OF REPORTS FROM UNMANNED AERIAL VEHICLE (UAV) COLLECTED INFORMATION

Conditions: Given the requirement to prepare a report, combat information, unmanned aerial vehicle (UAV) imagery, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Supervise preparation of reports in accordance with the collection requirements, unit standing operating procedures (SOPs), TC 34-212, TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Collect reporting requirements from higher/adjacent command.
   - **a.** Schedule.
   - **b.** Format.
   - **c.** Context.
2. Determine appropriate report to be prepared.
3. Provide guidance to assemble data for inclusion in report.
4. Assign subordinates to prepare written/electronic draft of the report.
5. Supervise subordinates in the proper marking and handling procedures for classified material (see AR-380-5).
6. Review report.
7. Edit report.
8. Supervise subordinates in the proper dissemination of intelligence reports for dissemination.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Collected reporting requirements from higher/adjacent command.	____	____
2. Determined appropriate report to be prepared.	____	____
3. Provided guidance to assemble data for inclusion in report.	____	____
4. Assigned subordinates to prepare written/electronic draft of the report.	____	____
5. Supervised subordinates in the proper marking and handling procedures for classified material (see AR-380-5).	____	____

Performance Measures	GO	NO GO
6. Reviewed report.	____	____
7. Edited report.	____	____
8. Supervised subordinates in the proper dissemination of intelligence reports for dissemination.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

Skill Level 3

Subject Area 1: EMPLACEMENT OPERATIONS

301-96U-3010
ASSIST WITH UNMANNED AERIAL VEHICLE (UAV) SITE SURVEY

Conditions: Given a mission, a unmanned aerial vehicle (UAV) system, map of proposed area of operations (AO), associated materials, and TM 9-5895-681-10 (SHADOW) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter)/TM 9-1425-691-10 (Hunter).

Standards: Assist with UAV site survey in accordance with airspace management products, TC 1-201, unit standing operating procedures (SOPs), FM 57-38, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter)/TM 9-1425-691-10 (Hunter).

Performance Steps

1. Assist with launch and recovery (L/R) site survey.

- **a.** Assist in gathering resources for possible L/R site areas.
  - **(1)** Maps of the possible sites.
  - **(2)** Weather data.
    - **(a)** Prevailing winds of the area.
    - **(b)** Overall area cloud coverage.
    - **(c)** Annual rainfall.
  - **(3)** Geological data.
    - **(a)** Soil content.
    - **(b)** Soil density.
    - **(c)** Local area terrain features.
  - **(4)** Area population data.
    - **(a)** Total of populated areas (over fly hazards).
    - **(b)** Local facilities such as airports with controlled airspace.
- **b.** Assist in researching resources for the following:
  - **(1)** Areas large enough to maneuver entire UAV baseline in for set up of L/R element and staging of the forward control site.
  - **(2)** Area large enough for runway/launch area.
  - **(3)** Terrain obstacles for line of site with airborne UAV.
  - **(4)** Ingress and egress routes.
  - **(5)** Cover and concealment.
  - **(6)** Distance from L/R site to possible forward control sites.
  - **(7)** Distance from L/R site to furthest mission objective.
  - **(8)** Lines of communications.

Performance Steps

2. Assist with forward control site survey.

a. Assist in gathering resources for possible forward control site areas.

(1) Maps of the possible sites.

(2) Weather data.

(a) Prevailing winds of the area.

(b) Overall area cloud coverage.

(c) Annual temperatures.

(d) Annual rainfall.

(3) Geological data.

(a) Soil content.

(b) Soil density.

(c) Local area terrain features.

(4) Area population data.

(a) Total of populated areas (over fly hazards).

(b) Local facilities such as airports with controlled airspace.

b. Assist in researching resources for the following:

(1) Terrain obstacles for line of site with airborne UAV.

(2) Ingress and egress routes.

(3) Cover and concealment.

(4) Distance from forward control sites to possible L/R sites.

(5) Distance from forward control site to furthest mission objective.

(6) Lines of communications.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assisted with L/R site survey.	___	___
a. Assisted in gathering resources for possible L/R site areas.		
b. Assisted in researching resources.		
2. Assisted with forward control site survey.	___	___
a. Assisted in gathering resources for possible forward control site areas.		
b. Assisted in researching resources.		

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 57-38	
TC 1-201	
TC 34-212	
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
Unit SOP	

301-96U-3011

DIRECT UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE EMPLACEMENT

Conditions: Given a launch and recovery (L/R) site, layout plan, unmanned aerial vehicle (UAV) system, associated equipment, and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Direct UAV L/R site emplacement in accordance with local standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive emplacement orders from local/higher command.
2. Assign emplacement team (non-commissioned officers in charge) NCOICs.
   - **a.** Assign a NCOIC for the shelters and antennas.
   - **b.** Assign a NCOIC for the runway/launch area.
   - **c.** Assign a NCOIC for the maintenance area.
3. Direct emplacement. Verify that emplacement is performed in accordance with tasks: 301-96U-1012S, 301-96U-1013H, 301-96U-1014H, 301-96U-1015, 301-96U-1016S, 301-96U-1018, 301-96U-1019S, 301-96U-1026H, 301-96U-1027S, 301-96U-1028S, 301-96U-1029S, 301-96U-1030H, 301-96U-1031H, 301-96U-1032, and 301-96U-1033.
4. Perform final inspection.
   - **a.** Ensure that equipment is emplaced properly.
   - **b.** Ensure an inventory of all equipment is conducted.
   - **c.** Ensure that equipment is prepared for power-up.
   - **d.** Report back to local/higher command with status of site emplacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received emplacement orders from local/higher command.	____	____
2. Assigned emplacement team NCOICs.	____	____
3. Directed emplacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-1425-697-13	FM 10-67-2
TM 9-5895-681-10	
TM 9-5895-681-CL	
Unit SOP	

301-96U-3012

DIRECT UNMANNED AERIAL VEHICLE (UAV) FORWARD CONTROL SITE EMPLACEMENT

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, site plan, and TM 9-5895-681-10 (SHADOW) or TM 9-1425-691-10 (Hunter).

Standards: Direct UAV forward control site emplacement in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-CL (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive emplacement orders from local/higher command.
2. Assign emplacement team (non-commissioned officers in charge) NCOICs.
   a. Assign an NCOIC for the shelters and antennas.
   b. Assign an NCOIC for the remote video terminal (RVT) and antennas (if used onsite).
3. Direct emplacement. Verify that emplacement is performed in accordance with tasks: 301-96U-1014H, 301-96U-1015, 301-96U-1016S, 301-96U-1018, 301-96U-1019S, and 301-96U-1032.
4. Perform final inspection.
   a. Ensure that equipment is emplaced properly.
   b. Ensure an inventory of all equipment is conducted.
   c. Ensure that equipment is prepared for power-up.
   d. Report back to local/higher command with status of site emplacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received emplacement orders from local/higher.	____	____
2. Assigned emplacement team NCOICs.	____	____
3. Directed emplacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-5895-681-10	FM 10-67-2
TM 9-5895-681-CL	
Unit SOP	

Subject Area 2: FLIGHT/MISSION OPERATIONS

301-96U-3061
DIRECT UNMANNED AERIAL VEHICLE (UAV) MISSION PLANNING

Conditions: Given a mission, current situation, airspace management products, an operational control station with associated equipment and materials, and TM 9-5895-681-CL (Shadow) or TM 9-5895-692-CL (Hunter).

Standards: Direct UAV mission planning in accordance with mission requirements, local standing operating procedures (SOPs), TC 1-201, TC 34-212, FM 3-52, TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Receive mission from local/higher command.
   a. Verify availability of a UAV for the mission.
   b. Verify the configuration of the UAV matches the mission requirements.
   c. Verify the weather is checked for the area and time of mission.
   d. Verify an appropriate AVO/MPO for the mission has been selected.
2. Direct mission planning. Verify that the mission plan is performed in accordance with task 301-96U-1067.
3. Perform final inspection.
   a. Verify that the UAV is set-up properly.
   b. Verify that the mission is set-up properly.
   c. Report back to local/higher command with status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received mission from local/higher command.	____	____
2. Directed mission planning.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-3062

ASSIST IN FREQUENCY MANAGEMENT FOR AN UNMANNED AERIAL VEHICLE (UAV) MISSION

Conditions: Given a mission.

Standards: Assist in frequency management for the unmanned aerial vehicle (UAV) mission in accordance with mission requirements, FM 24-2, AR 5-12, and local frequency management policies.

Performance Steps

1. Assist the 350U in identifying frequency requirement.
   a. Determine area of operation (AO).
   b. Research local frequency management policies.
2. Assist the 350U in coordinating frequency usage.
   a. In garrison operations, submit request to post frequency manager.
   b. In field/deployment operations, submit request to brigade S6.
3. Assist the 350U in reporting frequency interference.
   a. In garrison operations, notify unit causing interference, director of information management (DOIM) or post frequency manager.
   b. In field/deployment operations, notify S6.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assisted the 350U in identifying frequency requirements.	____	____
2. Assisted the 350U in coordinating frequency usage.	____	____
3. Assisted the 350U in reporting frequency interference.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
AR 5-12	
FM 24-2	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOI	

301-96U-3063

ASSIST IN AIRSPACE COORDINATION FOR AN UNMANNED AERIAL VEHICLE (UAV) MISSION

Conditions: Given a mission to assist in airspace coordination for an unmanned aerial vehicle (UAV) mission in accordance with mission requirements.

Standards: Assist in airspace coordination for the UAV mission in accordance with mission requirements, FM 3-52, JP 3-52, JP 3-56.1, and unit standing operating procedures (SOPs).

Performance Steps

1. Assist the 350U in identifying airspace requirements.
   - **a.** Determine area of operation (AO).
   - **b.** Extract UAV requirements from the collection plan.
   - **c.** Identify the commander's priority intelligence requirements (PIR) and latest time information is of value (LTOIV).
2. Assist the 350U in coordinating airspace.
   - **a.** In garrison operations, submit request to S3 (AIR), and range control.
   - **b.** In field/deployment operations, submit request to S3 (AIR).
3. Assist the 350U in checking for airspace approval.
   - **a.** Review air tasking order (ATO) for mission times.
   - **b.** Review airspace control order (ACO) for associated control measures.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Assisted the 350U in identifying airspace requirements.	———	———
2. Assisted the 350U in coordinating airspace.	———	———
3. Assisted the 350U in checking for airspace approval.	———	———

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
JP 3-52	
JP 3-56.1	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-3064

DIRECT UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) OPERATIONS

Conditions: Given a mission, an emplaced unmanned aerial vehicle (UAV) system, associated equipment, operations order, fragmentary orders, airspace management products, and climatological data.

Standards: Direct personnel to perform runway launch procedures to include shelter power-up through recovery in accordance with mission, TM 9-5895-692-10-1, TM 9-5895-692-10-2, and TM 9-5895-692-CL without causing damage to equipment, injury to personnel, or safety violations.

Performance Steps

1. Receive mission from local/higher command.
   - **a.** Verify availability of a UAV for the mission.
   - **b.** Verify the configuration of the UAV matches the mission requirement.
   - **c.** Verify the weather for the area and time of mission is appropriate.
   - **d.** Verify an appropriate flight crew has been assigned for the mission.
2. Direct L/R operations. Ensure that launch and recovery operations are performed in accordance with tasks: 301-96U-1060, 301-96U-1061S, 301-96U-1063S, 301-96U-1064, 301-96U-1065, 301-96U-1066, 301-96U-1067, 301-96U-1068H, 301-96U-1069, 301-96U-1076, 301-96U-1077, 301-96U-1078, and 301-96U-1079S.
3. Perform final inspection.
   - **a.** Verify the mission is set-up properly.
   - **b.** Report back to local/higher command with status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received mission from local/higher command.	____	____
2. Directed L/R operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
FM 57-38	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-3066

DIRECT UNMANNED AERIAL VEHICLE (UAV) FLIGHT/MISSION OPERATIONS

Conditions: Given a mission and unmanned aerial vehicle (UAV) system.

Standards: Direct UAV flight/mission operations in accordance with mission requirements, TC 1-201, TC 34-212, FM 1-300, FM 6-30, FM 3-52, FM 17-98, FM 34-1, FM 57-38, unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Receive mission from local/higher command.
   - **a.** Verify availability of a UAV for the mission.
   - **b.** Verify the weather for the area and time of mission is appropriate.
   - **c.** Verify an appropriate flight crew has been assigned for the mission.
   - **d.** Verify the mission is set-up properly.
2. Direct mission operations.
   - **a.** Ensure that flight/mission operations are performed in accordance with tasks: 301-96U-1060, 301-96U-1061S, 301-96U-1064, 301-96U-1067, 301-96U-1068H, 301-96U-1069, 301-96U-1070, 301-96U-1071, 301-96U-1072, 301-96U-1073, 301-96U-1074, 301-96U-1075, 301-96U-1076, 301-96U-1078, and 301-96U-1079S.
   - **b.** Verify airspace boundaries are not crossed with the air vehicle (AV).
   - **c.** Verify known threats are avoided and targets are observed.
   - **d.** Verify specific targets and any named areas of interest (NAIs) are observed.
3. Perform final inspection.
   - **a.** Report back to local/higher command with status of the mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received mission from local/higher command.	____	____
2. Directed mission operations.	____	____
3. Performed final inspection.	____	____

Evaluation Guidance Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 1-300	
FM 34-1	
FM 3-52	
FM 57-38	
FM 6-30	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

301-96U-3067

DIRECT UNMANNED AERIAL VEHICLE (UAV) RECONNAISSANCE, SURVEILLANCE, AND TARGET ACQUISITION (RSTA) OPERATIONS

Conditions: Given an unmanned aerial vehicle (UAV) system and a reconnaissance, surveillance, and target acquisition (RSTA) mission.

Standards: Direct UAV RSTA operations in accordance with TC 1-201, FM 6-30, FM 17-98, FM 34-1, TC 34-212, and TM 9-5895-681-10 (Shadow) or TM 9-5895-692-10-1 (Hunter)/ TM 9-5895-692-10-2 (Hunter).

Performance Steps

1. Collect mission requirements for RSTA operations from higher/adjacent command.
2. Direct reconnaissance operations.
   a. Verify the air vehicle operator (AVO)/mission payload operator (MPO) team knows the reconnaissance area for the mission.
   b. Verify the reconnaissance area has been appropriately marked in the controlling station.
   c. Verify the entire area has been surveyed during the reconnaissance mission.
3. Direct surveillance operations.
   a. Verify the AVO/MPO team knows the surveillance area for the mission.
   b. Verify the surveillance area has been appropriately marked in the controlling station.
   c. Verify the entire area has been surveyed during the surveillance mission.
4. Direct target acquisition operations.
   a. Verify the AVO/MPO team knows the objective target area for the mission.
   b. Verify the objective target area has been appropriately marked in the controlling station.
   c. Verify the all targets have been surveyed during the target acquisition mission.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Collected mission requirements for RSTA operations from higher/adjacent command.	———	———
2. Directed reconnaissance operations.	———	———
3. Directed surveillance operations.	———	———
4. Directed target acquisition operations.	———	———

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 17-98	
FM 34-1	
FM 3-55	
FM 6-30	
TC 1-201	
TC 34-212	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	

Subject Area 3: DISPLACEMENT OPERATIONS

301-96U-3111
DIRECT UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE DISPLACEMENT

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, site plan, and TM 9-5895-681-10 (SHADOW) or TM 9-1425-691-10 (Hunter).

Standards: Direct UAV launch and recovery (L/R) site displacement in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive movement orders from local/higher command.
2. Assign displacement team (non-commissioned officers in charge) NCOICs.
   - **a.** Assign a NCOIC for the shelters and antennas.
   - **b.** Assign a NCOIC for the runway/launch area.
   - **c.** Assign a NCOIC for the maintenance area.
3. Direct displacement. Verify that displacement is performed in accordance with tasks: 301-96U-1112S, 301-96U-1113H, 301-96U-1114H, 301-96U-1115, 301-96U-1116S, 301-96U-1118, 301-96U-1119S, 301-96U-1126H, 301-96U-1127S, 301-96U-1128S, 301-96U-1129S, 301-96U-1130H, 301-96U-1131H, 301-96U-1132, and 301-96U-1133.
4. Perform final inspection.
   - **a.** Verify equipment is displaced properly.
   - **b.** Verify an inventory of all equipment has been completed.
   - **c.** Verify load plans have been completed.
   - **d.** Verify that equipment is prepared for movement.
     - **(1)** Verify vehicles are lined up in preparation for convoy.
     - **(2)** Verify vehicle loads are secure and ready for movement.
     - **(3)** Verify vehicles have properly licensed drivers and assistant drivers.
   - **e.** Direct a walk around inspection of the site and ensure that site is ready to be vacated.
   - **f.** Report back to local/higher command with status of site displacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received movement orders from local/higher command.	____	____
2. Assigned displacement team NCOICs.	____	____
3. Directed displacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-1425-697-13	FM 10-67-2
TM 9-5895-681-10	
TM 9-5895-681-CL	
Unit SOP	

301-96U-3112

DIRECT UNMANNED AERIAL VEHICLE (UAV) FORWARD CONTROL SITE DISPLACEMENT

Conditions: Given an unmanned aerial vehicle (UAV) system, associated equipment, site plan, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Direct UAV forward control site displacement in accordance with unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Receive movement orders from local/higher command.
2. Assign displacement team (non-commissioned officers in charge) NCOICs.
   - **a.** Assign a NCOIC for the shelters and antennas.
   - **b.** Assign a NCOIC for the RVT and antennas (if used onsite).
3. Direct displacement. Verify that displacement is performed in accordance with tasks: 301-96U-1114H, 301-96U-1115, 301-96U-1116S, 301-96U-1118, 301-96U-1119S, and 301-96U-1132.
4. Perform final inspection.
   - **a.** Ensure equipment is displaced properly.
   - **b.** Ensure an inventory of all equipment has been completed.
   - **c.** Ensure load plans have been completed.
   - **d.** Ensure that equipment is prepared for movement.
     - **(1)** Line up vehicles in preparation for convoy.
   - **e.** Direct a walk around inspection of the site and ensure that site is ready to be vacated.
   - **f.** Report back to local/higher command, status of site displacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received movement orders from local/higher command.	____	____
2. Assigned displacement team NCOICs.	____	____
3. Directed displacement.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	FM 10-67-1
TM 9-5895-681-10	FM 10-67-2
TM 9-5895-681-CL	
Unit SOP	

301-96U-3113

PERFORM UNMANNED AERIAL VEHICLE (UAV) SITE SELECTION

Conditions: Given a mission, UAV system, associated materials, map of proposed area of operation (AO), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Perform UAV site selection in accordance with operations order, site survey, FM 57-38, unit standing operating procedures (SOPs), and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Ensure site has good line-of-sight with UAV area of operation. Look for large mountains that could potentially block the UAVs line of sight to the launch and recovery (L/R) site and forward control site.
2. Ensure launch and recovery (L/R) site is within communications range of the forward control site.
   a. Verify L/R site is with in tactical communications range of the forward control site.
   b. Verify L/R site is with in UAV data link range of the forward control site.
3. Ensure site has trafficability ingress and egress for UAV baseline system vehicles.
4. Ensure site is large enough to accommodate all UAV system equipment.
5. Ensure site is in a secure area with cover and concealment.
6. Ensure site is suitable for UAV takeoff/launch and recovery operations.
   a. Ensure site has an appropriate sized area for launch and recovery operations.
   b. Check the area for appropriate prevailing winds for launch and recovery operations.
   c. Check the site for any high elevation terrain obstructions could potentially be hazardous during launch and recovery operations.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Ensured site has good line of sight with UAV area of operation.	———	———
2. Ensured L/R site is within communications range of the forward control site.	———	———
3. Ensured site has trafficability ingress and egress for UAV baseline system vehicles.	———	———
4. Ensured site is large enough to accommodate all UAV system equipment.	———	———
5. Ensured site is in a secure area with cover and concealment.	———	———
6. Ensured site is suitable for UAV takeoff/launch and recovery operations.	———	———

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 57-38	
TM 9-1425-691-10	
TM 9-1425-697-13	
TM 9-5895-681-10	
Unit SOP	

Subject Area 5: INTELLIGENCE OPERATIONS

301-96U-3260
DIRECT UNMANNED AERIAL VEHICLE (UAV) REPORTING

Conditions: Given a mission, commander's critical intelligence requirement (CCIR), AR 380-5, and combat information.

Standards: Direct UAV reporting to ensure proper format and dissemination in accordance with unit standing operating procedures (SOPs), AR 380-5, JINTACCS, and USMTF.

Performance Steps

1. Collect reporting requirements from higher/adjacent command.
2. Disseminate reporting information to subordinates.
   - **a.** Schedule.
   - **b.** Format.
   - **c.** Context.
3. Direct subordinates to prepare written/electronic draft of the report.
4. Direct subordinates in the proper marking and handling procedures for classified material (see AR-380-5).
5. Direct subordinates in the proper dissemination of intelligence reports for dissemination.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Collected reporting requirements from higher/adjacent command.	——	——
2. Disseminated reporting information to subordinates.	——	——
3. Directed subordinates to prepare written/electronic draft of the report.	——	——
4. Directed subordinates in the proper marking and handling procedures for classified material (see AR-380-5).	——	——
5. Directed subordinates in the proper dissemination of intelligence reports for dissemination.	——	——

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
AR 380-5	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
TM 9-5895-692-CL	
Unit SOP	

Skill Level 4

Subject Area 1: EMPLACEMENT OPERATIONS

301-96U-4010
CONDUCT UNMANNED AERIAL VEHICLE (UAV) SITE SURVEY

Conditions: Given a mission, an unmanned aerial vehicle (UAV) system, map of proposed area of operations (AO), associated materials, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Conduct UAV site survey in accordance with airspace management products, TC 1-201, unit standing operating procedures (SOPs), FM 57-38, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Conduct launch and recovery (L/R) site survey.

- **a.** Gather resources for possible L/R site areas.
  - **(1)** Maps of the possible sites.
  - **(2)** Weather data.
    - **(a)** Prevailing winds of the area.
    - **(b)** Overall area cloud coverage.
    - **(c)** Annual temperatures.
    - **(d)** Annual rainfall.
  - **(3)** Geological data.
    - **(a)** Soil content.
    - **(b)** Soil density.
    - **(c)** Local area terrain features.
  - **(4)** Area population data.
    - **(a)** Total of populated areas (over fly hazards).
    - **(b)** Local facilities such as airports with controlled airspace.
- **b.** Review resources for the following:
  - **(1)** Areas large enough to maneuver entire UAV baseline in for set up of L/R element and staging of the forward control site.
  - **(2)** Area large enough for runway/launch area.
  - **(3)** Terrain obstacles for line of site with airborne UAV.
  - **(4)** Ingress and egress routes.
  - **(5)** Cover and concealment.
  - **(6)** Distance from L/R site to possible forward control sites.
  - **(7)** Distance from L/R site to furthest mission objective.
  - **(8)** Lines of communications.

Performance Steps

2. Conduct forward control site survey.

a. Gather resources for possible forward control site areas.

(1) Maps of the possible sites.

(2) Weather data.

(a) Prevailing winds of the area.

(b) Overall area cloud coverage.

(c) Annual temperatures.

(d) Annual rainfall.

(3) Geological data.

(a) Soil content.

(b) Soil density.

(c) Local area terrain features.

(4) Area population data.

(a) Total of populated areas (over fly hazards).

(b) Local facilities such as airports with controlled airspace.

b. Review resources for the following:

(1) Terrain obstacles for line of site with airborne UAV.

(2) Ingress and egress routes.

(3) Cover and concealment.

(4) Distance from forward control sites to possible L/R sites.

(5) Distance from forward control site to furthest mission objective.

(6) Lines of communications.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Conducted launch and recovery (L/R) site survey.	____	____
a. Gathered resources for possible L/R site areas.		
b. Reviewed resources.		
2. Conducted forward control site survey.	____	____
a. Gathered resources for possible forward control site areas.		
b. Reviewed resources.		

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 57-38	
TC 1-201	
TM 9-1425-691-10	
TM 9-5895-681-10	
TM 9-5895-681-CL	
TM 9-5895-692-10 Vol. 1	
TM 9-5895-692-10 Vol. 2	
Unit SOP	

301-96U-4011

SELECT AN UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE LOCATION

Conditions: Given a mission, site survey, associated materials, operations order, fragmentary orders, airspace management products, climatological data, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Select UAV site locations in accordance with operations order, fragmentary orders, unit standing operating procedures (SOPs), FM 3-52, FM 57-38, TC 1-201, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Review resources listed in task 301-96U-4010.
2. Mark multiple areas on maps for potential L/R sites.
3. Review marked areas for potential L/R sites in accordance with task 301-96U-4010.
4. Select best suited location for emplacement of UAV L/R site.
   a. Select an area with level ground and little vegetation.
   b. Select an area that can best support the entire UAV baseline emplacement.
   c. Select an area that has best terrain characteristics for UAV operations.
   d. Select a location that will not be out of data link or communications range from possible forward control site areas.
   e. Select a location best suited logistically.
   f. Select a location that has best lines of communications available.
   g. Select a location with the least amount of hazard or impact to populated areas.
5. Designate primary and alternate L/R site location.
6. Disseminate results of site selection to higher/adjacent command.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Reviewed resources listed in task 301-96U-4010.	____	____
2. Marked multiple areas on maps for potential L/R sites.	____	____
3. Reviewed marked areas for potential L/R sites in accordance with task 301-96U-4010.	____	____
4. Selected best suited location for emplacement of UAV L/R site.	____	____
5. Designated primary and alternate L/R site location.	____	____
6. Disseminated results of site selection to higher/adjacent command.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
FM 57-38	
TC 1-201	
TM 9-1425-691-10	
TM 9-5895-681-10	
Unit SOP	

301-96U-4012

PRODUCE AN UNMANNED AERIAL VEHICLE (UAV) LAUNCH AND RECOVERY (L/R) SITE LAYOUT

Conditions: Given a mission, site survey, associated materials, operations order, fragmentary orders, airspace management products, climatological data, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Produce UAV site layout in accordance with operations order, fragmentary orders, unit standing operating procedures (SOPs), FM 3-52, FM 57-38, TC 1-201, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Performance Steps

1. Layout emplacement location for runway/launch area.
   a. Research L/R site wind directions and speeds.
   b. Layout emplacement locations of runway and runway support equipment in accordance with TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).
2. Layout emplacement locations for controlling shelters, antennas, and flight control boxes (with associated equipment) in accordance with TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).
3. Layout emplacement locations for mission briefing and debriefing area.
4. Layout emplacement location for POL (fuel) point.
5. Layout emplacement location for maintenance area.
6. Layout location for maintenance support equipment.
7. Layout location for air vehicle (AV) storage while not in use.
8. Layout location for support vehicle to be parked while not in use.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Produced a layout with the emplacement location for runway/launch area.	——	——
2. Produced a layout with the emplacement locations for controlling shelters, antennas, and flight control boxes (with associated equipment) in accordance with TM 9-5895-691-10.	——	——
3. Produced a layout with the emplacement locations for mission briefing and debriefing area.	——	——
4. Produced a layout with the emplacement locations for mission briefing and debriefing area.	——	——
5. Produced a layout with the emplacement location for maintenance area.	——	——

Performance Measures	GO	NO GO
6. Produced a layout with the location for maintenance support equipment.	____	____
7. Produced a layout with the location for AV storage while not in use.	____	____
8. Produced a layout with the location for support vehicle to be parked while not in use.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 3-52	
FM 57-38	
TC 1-201	
TM 9-1425-691-10	
TM 9-1425-697-13	
TM 9-5895-681-10	
TM 9-5895-681-CL	
Unit SOP	

Subject Area 2: FLIGHT/MISSION OPERATIONS

301-96U-4060
COORDINATE WITH HIGHER/ADJACENT HEADQUARTERS

Conditions: Given an operations plan, operations order and intelligence annex, a higher and/or adjacent headquarters, and references FM 34-2, FM 71-100, FM 3-0, FM 100-15, and FM 101-5.

Standards: Identify and coordinate all requirements needed to accomplish the mission through higher/adjacent headquarters using references FM 34-2, FM 71-100, FM 3-0, FM 100-15, and FM 101-5.

Performance Steps

1. Establish communications with supported unit(s) or higher/adjacent headquarters.
2. Brief supported unit or higher/adjacent command on specific UAV system capabilities.
   a. Brief on sensor capabilities.
   b. Brief on range capabilities.
   c. Brief on endurance capabilities.
   d. Brief on notification time needed prior to each mission.
3. Receive mission/tasking information from supported unit(s) or higher/adjacent headquarters.
   a. Receive approximate number of missions needed for supporting the unit or higher/adjacent command.
   b. Receive approximate timelines of missions needed for supporting the unit or higher/adjacent command.
   c. Receive overall objective of missions needed for supporting the unit or higher/adjacent command.
   d. Receive a list of objective targets being collected on during missions supporting the unit or higher/adjacent command.
4. Coordinate missions/taskings for supported unit(s) or higher/adjacent headquarters.
   a. Coordinate mission priorities.
   b. Coordinate which mission objectives can be achieved and which objectives possibly may not be achieved.
   c. Coordinate possible forward control site locations.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Established communications with supported unit(s) or higher/adjacent headquarters.	____	____
2. Briefed supported unit or higher/adjacent command on specific UAV system capabilities.	____	____
3. Received mission/tasking information from supported unit(s) or higher/adjacent headquarters.	____	____
4. Coordinated missions/taskings for supported unit(s) or higher/adjacent headquarters.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
FM 100-15	
FM 101-5	
FM 3-0	
FM 34-2	
FM 71-100	

Subject Area 3: DISPLACEMENT OPERATIONS

301-96U-4110
PLAN UNMANNED AERIAL VEHICLE (UAV) DISPLACEMENT OPERATIONS

Conditions: Given a mission, mission required equipment, support equipment, personnel, associated materials, operational order, fragmentary orders, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter).

Standards: Plan unmanned aerial vehicle (UAV) displacement operations in accordance with operational order, fragmentary orders, and TM 9-5895-681-10 (Shadow) or TM 9-1425-691-10 (Hunter) to satisfy missions tasking.

Performance Steps

1. Receive movement orders from local/higher command.
2. Plan a displacement schedule.
   - **a.** Research the time and date of the last UAV mission needed to be performed from that site.
   - **b.** Schedule the displacement of all non-essential equipment for that mission prior to end of mission. Schedule the displacement of the following:
     - **(1)** Mobile maintenance facility (MMF) and associated equipment.
     - **(2)** Non-essential flight line support equipment.
     - **(3)** Non-essential AV's and storage boxes.
     - **(4)** Non-essential ground support vehicles.
   - **c.** Schedule the displacement of all mission essential equipment after last mission has been completed. Schedule the displacement of the following:
     - **(1)** Controlling shelters and antennas with associated equipment.
     - **(2)** Remaining flight line support equipment.
     - **(3)** Remaining maintenance equipment.
3. Implement the planned schedule.
   - **a.** Verify assignment of a (non-commissioned officer in charge) NCOIC for the shelters and antennas.
   - **b.** Verify assignment of a NCOIC for the runway/launch area.
   - **c.** Verify assignment of a NCOIC for the maintenance area.
   - **d.** Ensure all NCOICs know the timelines of the displacement schedule.
   - **e.** Ensure all timelines of the displacement schedule are achieved.
4. Perform final inspection.
   - **a.** Verify scheduled timelines were achieved.
   - **b.** Verify all equipment has been displaced.
   - **c.** Verify an inventory of all equipment has been completed.
   - **d.** Verify load plans have been completed.

Performance Steps

e. Verify that equipment is prepared for movement.

f. Verify a walk around inspection of the site has been performed and ensure that site is ready to be vacated.

g. Report back to local/higher command with status of site displacement.

Evaluation Preparation: Provide the soldier with the materials listed in the condition statement.

Performance Measures	GO	NO GO
1. Received movement orders from local/higher command.	____	____
2. Planned a displacement schedule.	____	____
3. Implemented the planned schedule.	____	____
4. Performed final inspection.	____	____

Evaluation Guidance: Mark each performance measure either GO or NO GO. The soldier must complete all substeps to receive a GO for that measure. Mark the soldier GO if all performance measures are passed. All measures must be marked GO to receive an overall GO on the task. Mark the soldier NO GO if any performance measure is failed. If the soldier is marked NO GO, show him what was done wrong and how to do it correctly.

References

Required	Related
TM 9-1425-691-10	
TM 9-1425-697-13	
TM 9-5895-681-10	
Unit SOP	

Chapter 4
Duty Position Tasks

4-1. MAJOR DUTIES. The TUAV operator supervises or operates the TUAV, to include mission planning, mission payload operations, launching, remotely piloting, and recovering the air vehicle. The following describes duties for MOS 96U at each skill level—

a. **MOSC 96U1O.** Prepares and conducts reconnaissance, surveillance, and target acquisition (RSTA) missions. Operates mission payload. Prepares and analyzes mission plans. Deploys and redeploys the TUAV system. Operates and performs operator level maintenance on communications equipment, power sources, light and heavy wheel vehicles. Launches and recovers the air vehicle, performs pre-flight, in flight, and post-flight checks and procedures.

b. **MOSC 96U2O.** Performs and supervises duties shown in the preceding skill level and provides guidance to subordinate soldiers. Supervises launch/recovery site operations. Provides navigational assistance to, and control of, Army aircraft in designated areas. Participates in mission planning, using maps, terrain studies, and intelligence reports. Supervises operator level maintenance and crew procedures performed on TUAV system, communications equipment, vehicles, power sources, and other assigned equipment. Supervises operations and activities of the team.

c. **MOSC 96U3O.** Performs duties shown in the preceding skill levels and provides guidance to subordinate soldiers. Performs site selection and supervises site setup of TUAV ground equipment using maps, aerial photographs, terrain studies, and intelligence reports. Performs as mission commander during flight operations. Coordinates methods of employment to higher and adjacent units. Creates and maintains a mission database. Supervises operations and activities of the squad.

d. **MOSC 96U4O.** Performs duties shown in the preceding skill levels and provides guidance to subordinate soldiers. Directs TUAV flight operations. Supervises navigational assistance to and control of Army aircraft in designated areas. Applies military intelligence collection processes and RSTA planning to TUAV operations. Supervises operations and activities of the platoon.

4-2. PHYSICAL DEMANDS RATING AND QUALIFICATIONS FOR INITIAL AWARD OF MOS.

a. Physical demands rating and qualifications for initial award of MOS. UAV operators must possess the following qualifications.

(1) A physical demands rating of medium.

(2) A physical profile of 222221.

(3) Normal color vision.

(4) A minimum score of 105 in the aptitude area of SC.

(5) A security clearance of secret. (An interim secret meets this requirement.)

(6) A U.S. citizen.

(7) Meet career management and development criteria contained in AR 614-200 and DA Pam 351-4.

(8) A high school graduate or equivalent.

(9) Formal training (completion of MOS 96U course conducted under the auspices of USAIC&FH, Ft Huachuca, AZ is mandatory).

(10) Never been a member of the U.S. Peace Corps, except as specified in AR 614-200, chapter 1.

(11) No information in military personnel, provost marshal, intelligence, or medical records, that would prevent the granting of a security clearance under provisions of AR 380-67 (paragraph 3.401.b).

(12) No record of conviction by court martial.

(13) No record of conviction by a civil court for any offense other than minor traffic violations.

b. Additional skill identifiers.

(1) P5—Master fitness trainer.

(2) 2S—Battle staff operations (skill level 3 and above only).

(3) 4A—Reclassification training.

(4) F7—Pathfinder.

(5) Q8—Air operations specialist.

c. Physical requirements and standards of grade. Physical requirements and SG relating to each skill level are listed in the following tables:

(1) Table 10-96U-1. Physical requirements.

(2) Table 10-96U-2. Standards of grade TOE/MTOE.

(3) Table 10-96U-3. Standards of grade TDA.

Glossary

A	amps
AA	avenue of approach; assembly area
AC	active component; assistant commandant; alternating current
ACD	altitude compensation device
ACO	airspace control order
ADR	airborne data relay
AG	adjutant general; arresting gear
AI	air interdiction; area of interest
AIT	advanced individual training
alt	altitude; alternate
an	annually
ant	antenna
AP	antipersonnel; application processor; autopilot
AR	Army regulation; armor
assy	assembly
ATO	air tasking order
attn	attention
AV	audiovisual; air vehicle
AVO	air vehicle operator
AVT	air vehicle transport
BA	biannually
bn	battalion
BNC	see BNCOC
BNCOC	basic noncommissioned officer course
BW	biweekly
C	chemical (graphics); celsius
C2	command and control
C3	command, control, and communications
CCA	circuit card assembly; console computer assembly
CCIR	commander's critical information requirements
CD	chemical defense; counterdrug; chad; capacitor discharge, compact disk
cmd	command
comp	complete, completed
DA	Department of the Army; direct action
DACM	data adapter communication module

DC	direct current
DD	Department of Defense (form)
DE	directed energy; data exploiter
DSVT	digital subscriber voice terminal
DTED	digital terrain elevation data
egress route	The route used to exit enemy territory after the conclusion of a mission (such as a deep attack or raid).
EMP	electromagnetic pulse; enhanced mission planner
EP	electronic protection; external pilot
EPE	electrical power equipment
ESD	engine shut down; electro static discharge
F	Fahrenheit
FCB	flight control box
FM	field manual; frequency modulated/modulation
FOC	flight operations center; fiber optic cable
FOD	foreign object damage
FOV	field of view
ft	feet; fort
GCS	ground control station
GDT	ground data terminal
gpm	gallons per minute
GPS	global positioning system
GTA	graphic training aid
HMMWV	high mobility multipurpose wheeled vehicle
IET	initial entry training
IMINT	imagery intelligence
INC	increase; incorporated
indirect fire	(JP 1-02) Fire delivered on a target that is not itself used as a point of aim for the weapons or the director. (Army) – Fire delivered on a target characterized by a relatively high trajectory and where the weapon operator normally does not have visual contact with the target. (See also direct laying.) See FM 6-20-series and FM 7-90.
Individual task	The lowest behavioral level in a job or duty that is performed for its own sake. It should support a collective task; it usually supports another individual task. Individual tasks include common soldier tasks, leader tasks, common tasks, organizational level tasks.

Information systems security (ISS)	The protection of information systems against unauthorized access to, or modification of, information, whether in storage, processing, or transit, and against denial of service to authorized users or the providing of access to unauthorized users, including those measures necessary to detect, document, and counter such threats. See FM 100-6.
Insp	inspection
instructional site	A physical location where specific instruction is to be accomplished (school, unit, job site). Despite semantic preferences, a recognition of basic distinction between form of training (self-study, supervised on-the-job training) and location of training (resident or job site) is important. In this context, site and setting are designations of training location, not training form. In analysis the analyst is concerned with site (location) selection, not training form selection, which is the task of the designers and developers. See “training site selection.”
JINTACCS	joint interoperability of tactical command and control systems
JP	joint publication
km	kilometer
lat	latitude
L/R	launch and recovery
lau	launcher
line of sight	The unobstructed path from a soldier, weapon, weapon sight, electronic-sending and -receiving antennas, or piece of reconnaissance equipment from one point to another point.
lines of communications	(JP 1-02) All the routes, land, water, and air, that connect an operating military force with a base of operations and along which supplies and military forces move. [See also communications zone (COMMZ)].
LO	lubrication order; law and order, low
load plan	A document that presents, in detail, all instructions for the arrangement of personnel and equipment aboard a given type aircraft or vehicle. (See also combat loading.)
LOC	lines of communications
long	longitude
LOS	line of sight
LRS	long-range surveillance; launch and recovery station
LRT	launch and recovery terminal
m	mechanized (graphics); moment

map	(JP 1-02, NATO) A graphic representation, usually on a plane surface and at an established scale, of natural or artificial features on the surface of a part or whole of the Earth or other planetary body. These features are positioned relative to a coordinate reference system. See FM 3-25.26. (Army). a. large-scale map. A map having a scale of 1:75,000 or larger used for tactical planning. b. medium-scale map. A map having a scale between 1:1,000,000 and 1:75,000 used for operational planning. c. small-scale map. A map having a scale smaller than 1:1,000,000 used for general planning and strategic studies.
max	maximum
MC	mission commander
MCU	mission control unit
METL	mission essential task list
MGRS	military grid reference system (pertains to maps)
MMF	mobile maintenance facility
MMP	modular mission payload
mo	monthly
moc	maintenance operational check
MOS	military occupational specialty
MOSP	multimission optronic stabilized platform
MPO	mission payload operator
MPS	mission planning station
MPU	mobile power unit
MSE	multiple subscriber equipment; mission support element
MTF	maintenance test flight
NAI	named area of interest
nav	navigation; naval
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NOTAM	notice to airman
NSN	nonstandard number; national stock number
PA	power amplifier
pam	pamphlet
PGCS	portable ground control station
PGDT	portable ground data terminal
PIR	priority intelligence requirements
PM	provost marshal; preventive maintenance; project/program manager
PMCS	preventive maintenance checks and services
POL	petroleum, oil, and lubricants

PPE	personnel protective equipment
pwr	power
qt	quarterly
RISTA	reconnaissance, intelligence, surveillance, and target acquisition (see RSTA also).
ROC-V	recognition of combat vehicles
ROM	refuel on the move; read-only memory
ROZ	restricted operations zone
RSTA	reconnaissance, surveillance, and target acquisition
RVT	remote video terminal
S2	battalion intelligence officer
S3	battalion operations officer
S4	battalion supply officer
SALUTE	size, activity, location, unit, time, and equipment
SERU	servo elerudder units
SITMAP	situation map
SL	skill level; sea level
SM	soldier's manual; service member; statute mile
SMU	shelter mounted unit
SNR	signal-to-noise ratio
SOJT	supervised on-the-job training
SOI	signal operating instructions
SOP	standing operating procedures
SP	start point; strongpoint; self-propelled; Spain
SPA	stabilized platform assembly
SR	supply route; short range
SRC	search
SSM	surface-to-surface missile
STAB	stabilizer
STBY	standby
STU	servo throttle unit
suppl	supplement
SUT	single unit transceiver
SW	southwest; sector width
SWU	servo wheel unit
SYS	system
TALS	tactical automated landing system
TAMMS	The Army Maintenance Management System
TC	technical coordinator; training circular

TG	trainer's guide; training guidance
tm	team; technical manual; telemetry
TRADOC	United States Army Training and Doctrine Command
TR	United States Army Training and Doctrine Command regulation
trans	transportation; transcription, transmit
TUAV	tactical unmanned aerial vehicle
UAV	unmanned aerial vehicle
USAIC&FH	United States Army Intelligence Center and Fort Huachuca
USMTF	United States message text format
U.S.	United States
UTM	universal transverse Mercator
WK	weekly
WP	work package(s)

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