



**FEDERAL BUREAU OF INVESTIGATION
INTELLIGENCE BULLETIN**
Terrorist Explosive Device Analytical Center

26 December 2009

**(U//FOUO) Preliminary Analysis of the Device Used in the Attempted
Bombing of NWA Flight 253**

(U//FOUO) The Terrorist Explosive Device Analytical Center (TEDAC) conducted a preliminary analysis of the approximately 30 pieces of evidence recovered after the 25 December 2009 attempted bombing of Northwest Airlines flight 253. The evidence consisted of a plastic syringe initiator with traces of Ethyl Glycol, a main charge of 76 grams of Pentaerythritol Tetranitrate (PETN) wrapped in a container made of thin soft "plastic" film-like material and tape and clothing worn by the bomber. The underwear worn by the bomber was modified to provide storage of the main charge which was anatomically congruent, possibly to avoid detection during screening. The underwear sustained thermal damage. Blue jeans worn by the bomber also sustained thermal damage (scorching) on the inside with small spots of melted plastic on the outside surface.

(U) Initiator



(U//FOUO) Initiator assembly comprised of plastic syringe, plunger, "plastic" film-like material and tape. Note scorching and melting of the syringe body. Preliminary chemical analysis revealed the presence of ethylene glycol (EG). EG is a component of various commercially-manufactured items, including coolants and antifreezes.

(U) Main Charge



(U//FOUO) Main charge container comprised of "plastic" film-like material and tape, containing approximately 76 grams of finely powdered PETN. Note scorching of container.

(U//FOUO) Main Charge Container in Modified Underwear



(U//FOUO) Main charge container on right, inner portion of modified underwear on left. White fabric appears to be stitched to the briefs, forming a "pocket" for the main charge container. Note scorching of underwear and white fabric.

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(U//FOUO) Main Charge Inside Pocket



(U//FOUO) Main charge container inserted into white, fabric "pocket". Note that the main charge container was not received at the FBI Laboratory inserted into the "pocket", but was inserted by Laboratory examiners for demonstrative purposes only.

(U) This bulletin has been prepared by the Terrorist Explosive Device Analytical Center (TEDAC) of the FBI. Comments and queries may be addressed to the Director TEDAC at 703-632-8389.

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