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DATA ITEM DESCRIPTION

Title: AIRCRAFT MECHANICAL INTERFACE CONTROL DRAWING (MICD)

Number: DI-NUOR-81407A

Approval Date: 20130201

AMSC Number: F9324

Limitation: N/A

DTIC Applicable: N/A

GIDEP Applicable: No

Preparing Activity: 27 (AFNWC)

Applicable Forms: N/A

Use/Relationship:

a. The MICD is a signature controlled drawing set detailing the mechanical clearance between the nuclear weapon(s), the suspension and release system, and the aircraft. The MICD shall dimensionally define the physical interfaces between nuclear weapon(s) and the aircraft. The MICD includes the mechanical layout drawings.

b. This Data Item Description (DID) contains the format and content preparation instructions for the tasks described by MIL-STD-1822.

c. This DID is related to DI-NUOR-81409, *Certification Requirements Plan (CRP)*.

(Copies of the DID and MIL-STD-1822 are available online at https://assist.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Ave., Bldg 4D, Philadelphia PA 19111-5094.)

Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices and revisions, shall be as specified in the solicitation or contract.

2. Format. Contractor format is acceptable.

3. Content. The MICD drawings are required to list aircraft version/configuration/equipment and contain all the notes and references, a signature block for responsible agency representatives and three-views of the aircraft. Also included in the drawings are the high level views of the external pylon configuration with bombs installed and/or the weapons bay launchers with bombs installed. The notes are to include the parachute and spin rocket deployment time selected for this application, the cartridge and orifice callouts and the required pullout cable for each bomb mod. The MICD shall provide engineering data and descriptions that define:

a. The general aircraft monitor and control system information or dimensions and weapon(s) location(s).

b. The installation of the ejector rack for each weapon.

c. The access to the ejector rack inspection points.

d. The sway brace mechanism.

e. The sway brace locations, pad dimensions, and the angles for each weapon.

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f. The ejector mechanism. (NOTE: If there are several different types of ejectors used on the aircraft, the MICD shall show each.) The ejector or ejectors location(s) on the bomb(s) and the stroke difference.

g. The method of securing weapons and the hook-lug interface details.

h. The details of ejector rack(s), orifice, cartridge access, and installation.

i. The details of the ejector rack if it is of the pneumatic type.

j. The clearance distances and angles of all parts of the nuclear weapons from all other ordnance, aircraft structures, electrical cables, and other installed equipment.

k. The access to weapon pullout connectors, release electrical connectors, and inspection and monitor points.

l. The loading drop clearance angles from the nearest aircraft equipment or structures and other ordnance.

m. The drop clearance angles, if applicable, of the other adjacent ordnance items with respect to weapons in the event that the other ordnance is dropped prior to releasing the weapons.

n. The weapon connector pullout bail retaining provisions, including slack provisions.

o. The angles of pullout withdrawal with respect to pullout device centerline.

p. Three views (top, side, and front) of the aircraft showing locations of bomb bays and/or pylons.

q. The rack actuation mechanism for the nuclear ejector safety lock.

r. The pullout cable routing.

s. The lanyard retention devices.

t. The cartridge and orifice combinations, if applicable, that will be used for each type of nuclear weapon.

3.1. The MICD shall provide:

a. Provisions for recording the coordination and approval by cognizant government agencies and their contractors.

b. References to applicable National Nuclear Security Administration (Sandia National Laboratory) mechanical compatibility control drawings.

c. References to drawings to include the aircraft, the ejector rack, the appropriate bombs, and other items such as electronic countermeasures (ECM) pods, fuel tanks, and missiles.

4. End of DI-NUOR-81407A.