DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE SAFETY CENTER

6 Jan 03

MEMORANDUM FOR ALMAJCOM/SE
USCENTAF/SE

FROM: HQ AFSC/SEW
9700 G Avenue, SE
Kirtland AFB NM 87117-5670

SUBJECT: AFSC/SEW Policy #2002-2, Reduced MCEs for F-15 and F-16 Aircraft With AIM Series Missiles

The AFSC has conducted a test and analysis program to determine Maximum Credible Events (MCEs) and Quantity-Distances (Q-Ds) for F-15 and F-16 aircraft standing alert with live air-to-air missile loads. The results of this program were approved by the DDESB on 2 Jul 02. While the DDESB approval has resulted in reduced MCEs for some aircraft configurations, use of these reduced MCEs is conditional that no single trailer servicing an aircraft would present an MCE greater than the MCE used to generate the aircraft Q-D arcs. AFSC/SEW plans to address this restriction on transient trailer loads further with the DDESB. AFSC/SEW is also continuing to test in order to determine if we can justify additional revised criteria. This policy letter is intended to convey the DDESB-approved results to date, and addresses changes to existing AFMAN 91-201 requirements as a result of the test program.

The following change to AFMAN 91-201, Explosives Safety Standards (18 Oct 01), is effective immediately:

a. Add the following new paragraphs:

3.35.5. Reduced MCEs for F-15 and F-16 aircraft with AIM Series Missiles. Testing and analysis have demonstrated an allowable reduction in MCE and Q-D for some F-15 and F-16 configurations. Use of these reductions is only allowed if no single trailer servicing the aircraft would present an MCE greater than the MCE used to generate the aircraft Q-D arcs. In most cases, this means that the trailer cannot be loaded with more than the MCE of missiles. Where test results permit, such as in the case of a single layer of AIM-120 missiles loaded in alternating directions on a single trailer, reduced trailer MCEs may be applied. In that specific case, the trailer MCE is a single AIM-120 missile.

3.35.5.1. For F-15 aircraft in the open, see Figure 3.9.

3.35.5.2. For F-16 aircraft in the open, see Figure 3.10.

3.35.5.3. For F-15 and F-16 aircraft in fabric/tubular shelters or light metal structures (e.g. butler building), apply the criteria above for aircraft in the open. For any other type of structure, building debris criteria must be considered.

b. Add the attached figures 3.9 and 3.10.

c. Delete paragraph 3.35.3.1.

d. Delete Configuration 3 from Figure 3.8.

The above requirements will be incorporated into the next interim change to AFMAN 91-201. They have already been implemented into ASHS (Version 2352, Database 26). If you have any questions, please contact Ms Lea Ann Cotton, AFSC/SEW, DSN 246-1395.

//SIGNED//

DANIEL T. TOMPKINS, Colonel, USAF
Chief, Weapons, Space, and Nuclear
Safety Division

Attachment:
New Figures 3.9 and 3.10