

NOTICE OF CHANGE

INCH-POUND

MIL-HDBK-268(AS)
NOTICE 1
1 December 1995

MILITARY HANDBOOK
SURVIVABILITY ENHANCEMENT, AIRCRAFT
CONVENTIONAL WEAPON THREATS,
DESIGN AND EVALUATION GUIDELINES

TO ALL HOLDERS OF MIL-HDBK-268(AS):

1. THE FOLLOWING PAGES OF MIL-HDBK-268(AS) HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
33	5 August 1982	33	REPRINTED WITHOUT CHANGE
34	1 December 1995	34	5 August 1982

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of MIL-HDBK-268(AS) will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military handbook is completely revised or cancelled.

Preparing activity:
Navy - AS

(Project 15GP-N112)

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Of the two nitrogen storage and supply systems, cryogenic liquid is preferred over high pressure - a low temperature liquefied nitrogen system is considerably lighter in weight. To overcome the logistic requirements (one of a number of disadvantages of a remotely supplied liquid nitrogen system), two candidate onboard nitrogen generating systems have emerged - absorption (oxygen absorption by a molecular-sieve); diffusion (oxygen preferentially removed from the primary gas stream by a polymeric permeable membrane).

b. Suppression techniques

- (1) Metal arrester (Explosafe). An explosion suppression technique consisting of multisheet bundles of 0.003 in. (0.076 mm) thickness aluminum sheets. Each sheet having several short cuts at regular intervals forms an expanded metal mesh. Limited test data indicate that the metal arrester can suppress explosion.
- (2) Intumescent coatings/ablator materials. When exposed to heat, the intumescent coating expands to many times its original thickness and forms a carbonaceous porous matrix char which functions as a thermal barrier for the surface underneath. At the surface of this char, flame-quenching gaseous products are generated at block convective heating by forming an outflowing front of gas which chemically interferes with the flame. Although the ablator barrier (insulation) principle of intumescent coatings provides the greatest amount of protection for a given weight penalty against HEL radiation, toxicity of gases formed should be an important consideration when ablative materials are contemplated as a countermeasure. Consideration should also be given to integrate HEL protection with ballistic protection schemes to achieve the most effective combined protective system. Less effective protective techniques against HEL include reflection or mass ingestion. However, some combination of these techniques might be best for HEL radiation protection.
- (3) Extinguishment systems. Fire or explosion extinguishment systems (MIL-E-22285) operate on the principle of detecting the initiation of a flame front (MIL-D-27729) or warning of fire (MIL-F-7872 and MIL-F-23447) by means of an IR-sensitive lead sulphide photoelectric cell, an ultraviolet (UV)-sensitive tube, or by means of a piezoelectric sensor, and using this detection to trigger the explosive or nonpressurized release of an appropriate extinguishing agent. However, in "dry bay" compartments

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Subj: PROPOSED NOTICE 1 TO MIL-HDBK-268(AS), "SURVIVABILITY ENHANCEMENT,
AIRCRAFT CONVENTIONAL WEAPON THREATS, DESIGN AND EVALUATION
GUIDELINES", FOR GUIDANCE ON CLASS 1 OZONE DEPLETING SUBSTANCES (ODS)

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