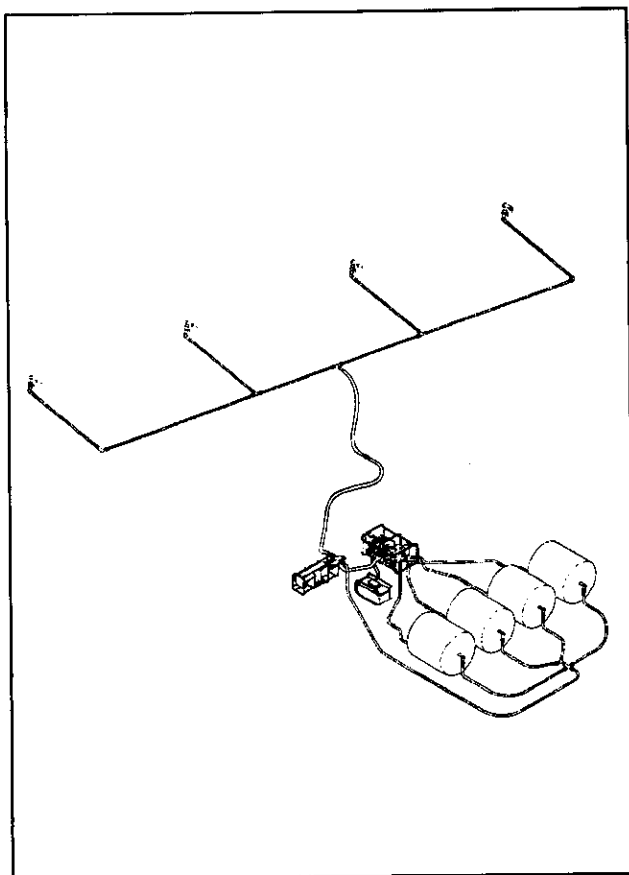


**TECHNICAL MANUAL**

**OPERATOR'S, UNIT AND  
DIRECT SUPPORT  
MAINTENANCE MANUAL  
INCLUDING REPAIR PARTS  
AND SPECIAL TOOLS LIST**



**ADVANCED AVIATION  
FORWARD AREA  
REFUELING SYSTEM  
(AAFARS)  
NSN 4930-01-380-4856**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
1 MARCH 1999**

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL  
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

ADVANCED AVIATION FORWARD AREA REFUELING SYSTEM (AAFARS)  
NSN 4930-01-380-4856

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

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# HOW TO USE THIS MANUAL

Be sure you read all Warnings before using your equipment.

This manual incorporates a quick reference tab feature that allows you to quickly locate the most often referenced subjects and topics appearing in this manual. The reference tab feature is composed of the following components:

## **Cover Index Page**

Index boxes are located on the right-hand edge of the cover page. Each index box contains a subject title, page number, and black index tab.

## **Table of Contents**

The Table of Contents lists all the major subjects contained in this manual. Subjects that are surrounded by a black box correspond to those that appear on the cover page index.

## **Page Numbers and Index Tabs**

Each page of this manual is identified with a page number. Pages that contain the subjects identified on the cover page index also contain a black tab on the right edge of the page that aligns with the cover page index tab.

To use the quick reference tab feature, select the title of the subject you are trying to find from the cover page index. You can turn to the indicated page number or bend the pages back and locate the page tab that aligns with the cover index tab.

If the cover page index is lost or badly worn, page numbers and index tabs can be located by referring to the Table of Contents.

# CHAPTER 1 INTRODUCTION

## Section I. GENERAL INFORMATION

### 1.1 SCOPE.

Type of Manual:	Operator's and Unit Level Maintenance including Repair Parts and Special Tools List (RPSTL)
Model Number and Name:	Advanced Aviation Forward Area Refueling System (AAFARS)
Purpose of Equipment:	To provide a day or night, soldier-portable, four-point refueling system capable of providing filtered fuel at a rate of fifty-five gallons per minute to each of four nozzles separated by a distance of 100 feet (30.5 m), and to operate satisfactorily from 120°F(48.9°C) to -25°F (-31.7°C).

### 1.2 MAINTENANCE FORMS AND PROCEDURES.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750 as contained in Maintenance Management Update.

### 1.3 CORROSION PREVENTION AND CONTROL.

Corrosion Prevention and Control (CPC) of Army material is a continuing concern. It is important that any corrosion problem with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of keywords such as "corrosion", "rust", "deterioration", or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

### 1.4 SAFETY, CARE AND HANDLING.

The AAFARS may be used to pump various fuels. It must be assumed that residual fuel and fuel vapors are present in the AAFARS at all times, even after draining or purging. Therefore the equipment must always be handled with the same degree of caution as actual fuel. One or more fully charged fire extinguishers must be present at all times, not only during operation. In addition, fuels may contain toxic additives. Rubber gloves should always be worn when handling AAFARS components which are in regular contact with fuel.

A static electric charge is always present in all fuels. The charge increases when the fuel is being pumped, stirred, shook, or splashed. Any physical movement of the fuel will increase the static charge. If the charge is allowed to build sufficiently it will discharge, causing a spark which will ignite fuel vapors. The build up of a static electric charge is controlled by bonding and grounding of all fuel handling equipment. Ground rods and grounding cable assemblies are provided with the AAFARS and must be inspected, maintained and used consistently and conscientiously to prevent fuel ignition due to electrostatic discharge.

Fuels are dangerous under all conditions. Always observe fuel handling safety precautions.