
The United States Navy's CAD/PAD Management Guide for FMS Customers

By

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[The following article provides a brief overview of Cartridge Actuated Devices (CAD), Propellant Actuated Devices (PAD), and Aircrew Escape Propulsion Systems (AEPS) managed by the U.S. Navy for Foreign Military Sales (FMS) customers. This article will use the acronym *CADs/PADs* in the narrative.]

Within the U.S. Navy's Program Executive Office, Tactical Aircraft Program [PEO(T)], PMA-201 is the case manager for these items as well as conventional strike weapons (i.e., General Purpose Bombs). PMA-201 obtains CAD/PAD technical support from the Naval Surface Warfare Center (NSWC) Indian Head, Maryland.

CADs/PADs applications include ejection seats, helicopter canopy severance systems, releasing bombs and missiles, ejecting chaff/flares (these items are not themselves the chaff or flares), and cutting parachute cables and cargo lines. As a result of these applications, CADs/PADs are mission essential/flight critical and if shortages occur, their absence will force aircraft to be grounded. They are not ordered like other aircraft spare parts whose calculations involve a demand or failure rate. Rather, CADs/PADs are chemical-based items and have a limited lifespan, ranging from one to ten years, and they accordingly must be routinely replaced. They are procured to support a fixed requirement, to replace an installed asset with a service life that is expiring. The USN does not stock extra CADs/PADs except for a very small safety stock to provide replacement items in case of accidental damage during maintenance. Aircraft can have from four to ninety-six different types of CADs/PADs with over one hundred total items installed. The different expiration dates for each type must be taken into consideration when determining requirements.

The administrative, contracting, manufacturing, acceptance testing, and delivery process for these devices requires an average of thirty (30) months. This does NOT include the time required to establish a FMS case or process an amendment to an existing case.

Transportation of CADs/PADs requires an average of ninety (90) days. Some countries will experience times in excess of 90 days due to infrequent vessel sailings or lack of cargo generation. To avoid excessive delays, countries with Defense Transportation System (DTS) availability should consider the use of DTS with their FMS case.

When procuring aircraft and a support package, include two years of CAD/PAD support as a separate line in your initial aircraft sale Letter of Offer and Acceptance (LOA). This will provide CAD/PAD support until a follow-on CAD/PAD case can be established.

DoD policy prohibits the use of Open-Ended (blanket order) and Direct Requisitioning Procedure (DRP) Cases for CADs/PADs. Therefore, all FMS cases for CADs/PADs must be defined order cases.

PMA-201 strongly recommends that FMS customers use a Five-Year Case with an Urgent Requirements Line for their follow-on CAD/PAD requirements. The Urgent Requirements Line is used only for emergency situations—to procure an item that was missed during planning.

Satisfying planning errors by obtaining an item from USN inventory may not be an available option since the USN procures for specific requirements. Funding for the Urgent Requirements Line can be estimated using historical data and should not exceed twenty percent of an annual buy. Requirements must still be submitted to the Navy International Programs Office (Navy IPO) and are subject to the full procurement leadtime. Also, FMS customers which already have a Five-Year Case can request an amendment to add an Urgent Requirements Line.

To ensure continuous support, and due to the long lead times for procuring CADs/PADs, PMA-201 encourages our customers to participate in the USN's annual buy program. Each July, a call letter is sent to FMS customers containing the USN's planned procurement quantities by item for each of the next five years. This year's cycle began with a call letter sent out in July 1995, which permits the FMS customer to submit requirements by April 1996 to combine with the USN's FY97 buy for a December 1998/early 1999 delivery. Similarly, FMS requirements received in April 1997 will be added to the USN's FY98 buy. An FMS case must be in-place by April of the year the requirements will be sent in. The USN does not make any other CAD/PAD procurements except for those items that are designated emergency stand-alone buys.

The FMS country's planners and financial personnel should be aware of these USN planning calendar dates as well as the acquisition leadtime involved with CAD/PAD items.

Planning and delivery problems can be resolved by methods including the Urgent Requirements Line, expediting deliveries, Service Life Extension (SLE), and Replacement In Kind (RIK). A Service Life Extension is a one-time extension to a specific item, or lot of items, and is for a specific length of time. The USN recommends action regarding SLE, but the FMS country is the ultimate decisionmaker. Note the USN buys replacement assets and a very small safety stock inventory, and RIK may not be an available option. PMA-201 also provides a Quarterly Delivery Status Report to its Five-Year Case customers.

CAD/AEPS Traceability System (CATS) is a software program that can assist in forecasting requirements and planning maintenance. The USN uses CATS, and it is now available to FMS customers. CATS will assist in one part of CAD/PAD management and planning, installed asset tracking. You must also consider CAD/PAD inventory/procurement and outyear aircraft planning (depot modifications, aircraft retirement, etc.). The CATS software and a users manual are offered at no cost with an FMS case; and other services such as initial aircraft configuration CAD/PAD data loading in CATS may require a case amendment.

Available technical support includes In-Service Engineering (ISE), Engineering Investigation (EI), Product Improvement Program (PIP), and Quality Evaluation. Examples of this support include resolving operation or maintenance concerns, determining if shelf or installed life can be extended, and evaluating proposed performance or reliability product improvements.

Technical manuals include information such as the installed life of each CAD. Ensure that you have ordered the essential NAVAIR Publications [NA-11-100-1.1, General Use Cartridges, and Cartridge Actuated Devices for Aircraft and Unique Aircraft Systems (CADS), NA-11-100-1.3, Cartridges and Cartridge Actuated Devices for Bomb Racks/Launchers, Bomb Dummy Units and Airborne Missile Systems (CADS), and NA-11-85-1, Aircrew Escape Propulsion System (AEPS) Devices] and you have requested automatic distribution for changes to these manuals on a follow-on publications case. Note that the follow-on publications case is not managed by PMA-201, but by the Naval Supply Systems Command (NAVSUP Code 07).

Remember, CADs/PADs are mission essential items and require dedicated management and planning.

