#### NAVSEA WARFARE CENTERS









#### **CAD/PAD International Logistics Meeting (ILM)**

#### **CAD/PAD Management with Retiring Aircraft**

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- 11 June 2019 -





When aircraft are stricken (retired), the process works extremely well at Bases. However, more planning is required when aircraft are flown to Civilian airports and de-armed without the benefit of a facility explosively sited to store, package and ship munitions. CAD/PAD is Ordnance when not installed on the aircraft.



## Purpose



- Discuss considerations and requirements which need to be accomplished during the CAD/PAD logistics aircraft strike planning process
- Identify unintended outcomes if the plan is not executed
- Addressing Logistical Elements for sentencing and transportation

Note: Sentencing is the assigning of the proper condition code in terms of readiness for issue, use and/or to identify the action required to determine or to change that readiness.

## Agenda



- Routine and Non-Routine Disposition Process
- Aircraft Strike Logistics Problem
- Impacts from Inadequate Planning
- Poor Planning Case Study
- Good Planning Case Study
- Bone Yard
- Initiatives
- Strike Checklist
- The Power of Energetics
- Bottom Line





#### **Demilitarization Process**

Routine	Non-Routine
Procedures are contained in NAVSUP P-724	Must be worked "off line" Examples include
Disposition release orders (DRO) are issued by Ordnance Information System (OIS) Monthly	Urgent Notice of Ammunition Reclassification (NAR)
Marine Corps follows VFS fleet returns process	Devices are not able to be entered into inventory management system
Navy will implement Marine Corps' fleet returns model during FY19 – FY20	Devices are not cataloged
For both services, ordnance assessment (OA) samples are manually selected early and are pulled from opportune aircraft	Device cannot be identified





#### **Aircraft Strike Logistics Problem**

 Some striking activities may not have adequately planned for logistical support for disposition, packaging or transportation after material is removed from the aircraft.



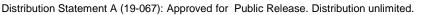


- Explosive Safety Issues: Devices may end up not being stored in sited facilities or transported in performance oriented packaging (POP) approved boxes
- Cost Driver: Logistics support becomes more expensive when the log elements are executed in an un-streamlined fashion
- Accountability: potential unauthorized disposal by EOD
- Since NALC and Naval Surface Warfare Center Indian Head EOD Technology Division are not included in decisions up front, disposition instructions are not in place for final destination of CADs/PADs
- Packaging solutions are not established up front to enable immediate relocation of the material

# **Poor Planning Case Study**

- In November 2011, an EA-6B was stricken in New York and donated to a museum. Devices were left on the museum floor.
- Weapons Station Earle had to assist:
  - Building wood boxes
  - Procuring safety caps and shorting devices
  - Obtaining three trucks to go to different locations
  - Obtaining permits, escorts and lead times to travel thru New York City
- Due to poor planning, process took twice as long and cost more than double than it should have





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## **Good Planning Case Study**

- A V-22 was stricken in January 2018
- Airframe to be used for fire/crash/rescue training
- Results of proper planning were:
  - Items deemed "not flight safety critical for the one time last flight" could be removed (JL03 internal initiators for passenger escape; no passengers were on board)
  - Pre-sentencing for disposition occurred early in planning
    - All devices were returned to NSWC IHEODTD for either restocking or for Ordnance Assessment in a timely fashion
  - Arrangements were made with Air Force ammo Personnel for courtesy storage and shipping back to NSWC IHEODTD





### **Bone Yard**



- Most strike aircraft from all services go to the 309th Aircraft Maintenance and Regeneration Group (aka the "Bone Yard") at Davis-Monthan AFB, Arizona
  - CAD/PAD are removed within 90 days after arrival
  - Transfer lines (SMDC) remain installed until time aircraft are taken apart for DEMIL
    - Defers labor costs
- Bone Yard is operated by the Air Force
- Navy NAVSUP Detachment on board coordinates strike actions
  - Communicates with CAD/PAD with inventory managers at NALC in Mechanicsburg to obtain DROs







### **Indian Head Initiatives**

- Engaged in Navy/Marine Corps Strike Process
  - o Interfaced with Bone Yard
  - CAD/PAD now receives the Navy/Marine Corps induction schedules every month
    - Logistics Management Specialists (LMS) can identify needed assets by reviewing bureau number (BUNO) logbooks and work with NALC to presentence
- Not all aircraft go to the Bone Yard, but to other non-governmental agencies
  - Working to engage with Platform Class Desks to know what BUNOs go to places other than the Bone Yard
- Researching to know and receive invite to Annual Strike Board meetings to insert CAD/PAD logistics planning into the strike process



## **Strike Checklist**



- Sentence (determine) CAD/PAD disposition before strike

   From NALC and NSWC IHEODTD Logistics Management
   Specialists
- Obtain special packaging instructions (SPI)
   O Defines packaging requirements
- Procure/build boxes and preposition at strike location
- Obtain Hazardous Declaration Certifier as a member of an on-site strike team
- Submit Naval Strike Message to VFS CAD/PAD trace module for striking A/C with email to cpvfsTRACE@navy.mil
- Pre-arrange rapid transportation to disposition location
   Generate shipping labels





## **The Power of Energetics**

- After being removed from the aircraft, the devices must be managed in accordance with munitions rules to maintain explosive safety
- For context, the next slide shows how much power can be released when functioned as designed within the appropriate environment. Imagine if a device fired in a museum in the public domain?





#### **The Power of Energetics (con't)**





#### **Bottom Line**

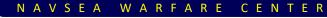


- Our goals:
  - Keep the public safe
  - Establish a routine process for CAD/PAD disposition from stricken aircraft
  - Maintain strong explosive safety practices for accountability, storage and packaging
  - Reduce frustration and cost
  - o Reutilize CAD/PAD by
    - Restocking
    - Reworking
    - Conducting ordnance assessments











## **Routine Disposition Process**



- Process for routine (automated) CAD/PAD dispositions
  - Disposition procedures are contained in NAVSUP P-724
  - Navy OIS computer issues DROs on the 15th of the month
    - DROs direct weapons departments to ship material to Army for DEMIL
- For the Marine Corps, the NSWC IHEODTD consolidated stock point in conjunction with NAVSUP NALC inventory managers pre-sentence before expiring devices are removed. Return paperwork for fleet returns accompanies the replacement devices with shipping labels for return for DEMIL, rework or OA.
- Condition code assignments:
  - o Return for DEMIL Condition Code H
  - Return for rework Condition Code F
  - o Return for OA Condition Code J
- Navy will implement Marine Corps' fleet returns model FY19 FY20





#### **Routine Disposition Process (Con't)**

- OA samples are selected and pulled from aircraft at opportune availabilities considering appropriate installed times and lot numbers to measure reliability
- Other services have similar DEMIL processes
  - Air Force uses Condition Code P = similar result to Condition Code H = unserviceable = dispose
- Ordnance is shipped from all services to the Army for DEMIL
  - Army is designated as the single manager for conventional ammunition
  - Most DEMIL processes employ "closed technologies" = no release of toxins – Environmental Protection Agency approved



#### **Non-routine Disposition Process**



- Non-routine disposition transactions require human intervention for accomplishment due to unique circumstances
  - Examples include: devices that are not identifiable, not cataloged or at an activity that is not an OIS reporter and urgent notice of ammunition reclassification events
- NSWC IHEODTD logistics personnel as subject matter experts assist NALC Ammo to find solutions and resolve issues by engaging with the Packaging, Handling, Storage and Transportation Center; Designated Disposition Authority; Naval Ordnance Safety and Security Agency; and others to provide technical guidance and direction as the circumstance dictates