

MILITARY SEALIFT COMMAND



Aviation Facility Certification

21 FEB 2021



Learning Objectives

- **Aviation facility certification (AVCERT) process:**
 - **Aviation Policies; OPNAVINST 3120.35L, MSC INST 3700.1, MSC INST 3502.2**
 - **Organizations/facilities associated with aviation facilities**
 - **Equipment needed to maintain/renew an AVCERT**
 - **Reporting requirements for degraded aviation facilities**
 - **Scheduled events/visits/ARQs/AVCERTs**
 - **Principal port engineer (PPE) responsibilities**
 - **Afloat deck and engineering department responsibilities**



Aviation Policies

- **OPNAV INSTRUCTION 3120.35L (30 MAR 2018)**
 - Defines the level, class, and type of aviation facilities requirements for ships to operate specific aircraft.
- **MSC INSTRUCTION 3700.1 (03 NOV 2018)**
 - Promulgates policies, procedures, and responsibilities for readiness, certification, and safety of aviation operations.
- **MSC INSTRUCTION 3502.2 (29 APR 2019)**
 - Establishes the strategy and policy required to optimize and standardize training and readiness reporting.



AVCERT & Suspension of Flight Operations

- The term AVCERT identifies the certification required to operate aircraft on a US Navy or MSC vessel. An AVCERT inspection ensures a ship has the required facilities and personnel to operate specific aircraft.
- MSC Instruction 3700.1 provides guidance on reporting suspension of flight or refueling operations when equipment, material, or personnel capabilities fall below standards.



Aviation Facility Organizations/Facilities

- **MSC Aviation Afloat Training Team (ATT)**
- **NAVAIR Aeronautical Ship Installation Reps (ASIRs)**
- **Shipboard Electronics Evaluation Facility (SESEF)**
- **Federal Aviation Administration (FAA)**
- **NAVSEA (PEO Ships)**



Aviation Facility Equipment

- **The following is a partial list of equipment and material required to be maintained to obtain or retain an AVCERT:**
 - Helo deck and hanger non-skid and markings
 - Tie-downs, nets, doors, hatches, drains
 - 400 Hz and 28 VDC electrical systems
 - Tactical Air Navigation System (TACAN), glide slope indicator
 - JP-5 tank coating system/aviation fuel system
 - AFFF systems, CO2 extinguishers, fire suits



Aviation Facility Inspections

- **AVCERT inspections conducted by NAVAIR Aeronautical Ship Installation Reps (ASIR) field reps from Norfolk and San Diego**
- **Aviation Readiness Inspections (ARQs) accomplished by MSC aviation ATT reps focus on administration, flight deck gear, protective equipment, and training**
- **ARQ Periodicity – 18 months not to exceed 24 months**
- **AVCERT periodicity**
 - **MSC ships, 3 years**
 - **USS ships operated by MSC, 2 years**
- **AVCERT is equivalent to having a car inspected**
- **ARQ is equivalent to obtaining a driver's license**
- **Both AVCERT and ARQ are necessary for flight operations**



Aviation Facility Visits

- **Pre-availability technical assist (PATA)**
- **Pre-certification technical assist (PRECERT)**
- **Aviation assist visit (AAV)**
- **PATAs, PRECERTs, and AAVs accomplished within a 5 day in-port period**
- **PATAs and PRECERTs are requested through NAVAIR**



Aviation Readiness Inspections (ARQs)

- **Train CIVMARs**
- **Assess training, qualifications, proficiency, and aviation administration**
- **Assess material condition and operational status**
- **Assess equipment maintenance**
- **Assess protective equipment**
 - **Hot Suits - replace NFPA 2000 with 2018 edition when not serviceable (5 year max outer shell/10 year liner)**



AVCERT

- **Part of new construction delivery**
- **After significant alterations**
- **Prior to sea trials after a shipyard period over 70 days**
- **Upon NAVSEA, SPARWAR, Type Commander or Operational Commander request**
- **Prior to current AVCERT expiration**
- **Clock resets after AVCERT**
- **Extensions**



AVCERT (cont.)





AVCERT Preparation

- **Checklists:**
 - **Flight quarters station bill & personnel qualifications**
 - **Shipboard aviation operations bill**
 - **Training, publications & helicopter control officer (HCO) ready reference and log**
 - **Aviation, facilities, training & qualifications binder**
 - **Flight deck gear**
 - **Fire protection**
 - **General flight deck and facilities**
 - **Aviation fuel system**



AVCERT Inspections

- **AVCERT inspections focus on:**
 - **Publications**
 - **HCO log**
 - **Ready reference materials**
 - **Training requirement documentation**
 - **Test memos for systems and equipment**
 - **Onboard inspections**



AVCERT Required Documentation

- **Test Memos/Documentation:**
 - **Safety net weight test**
(12 month nylon, 36 month CRES)
 - **Deck tiedowns inspection**
(12 months)
 - **Hanger hoist weight test**
(48 months)
 - **TACAN – SESEF or FAA verification**
(18 months, TYCOM can extend to 24 months)
 - **400 Hz and 28 VDC system inspection load test memo**
(36 months)
 - **Aviation fuel system (tank coating)**
(service tanks 8 years max, storage tanks 10 years max)



AVCERT Inspections

- **Inspections during AVCERT week:**
 - **Helo hanger and helo deck non-skid (NSTM 634 criteria)**
 - **Hatches/elevators/doors**
 - **Helo deck nets**
 - **Crash/rescue locker and tools inventory**
 - **Personnel protective equipment/hot suits**
 - **Glide Slope Indicator/helo control station**
 - **JP-5 System (pressure, flow, hose continuity/hydro, fuel testing)**
 - **AFFF system/firefighting equipment**
 - **Crash and rescue team/setting flight quarters (drills)**



Port Engineer Responsibilities

- **Funding NAVAIR well in advance of aviation facility week**
- **Working with ship's force to address Aviation Assist Visit (AAV) discrepancies through completion of Ship's Force Work List (SFWL) items or tracking to completion Voyage Repair Requests (VRRs)**
- **Completion of VRR/industrial assist items associated with the Aviation Facility prior to aviation certification week**



Items of Concern for the Port Engineer

- **Funding NAVAIR**
- **Certification Expiration Date/Scheduling**
- **Afloat Training Team (ATT) Aviation Assist Visit (AAV) Scheduling**
- **Helo deck and hanger non-skid and marking**
- **Helo deck and hanger tie-downs**
- **400 Hz and 28 VDC system testing**
- **Wind measuring and indicating system testing**



Afloat Deck and Engineering Department Responsibilities

- **Completion of SAMM maintenance actions associated with the Aviation Facility**
- **Accomplishment of Aviation Facilities Certification Specific Inspections and Tests**
- **Review and Completion of Aviation Facility Readiness (ARQ) checklists**
- **Addressing AAV discrepancies through completion of Ship's Force Work List (SFWL) items or submittal and tracking to completion Voyage Repair Requests (VRRs)**



Items of Concern for Afloat Deck and Engineering

- **Certification expiration date/scheduling**
- **Afloat Training Team (ATT) Aviation Assist Visit (AAV) Scheduling**
- **Flight/Helo deck and hanger non-skid and marking**
- **Flight/Helo deck and hanger tie-downs**
- **400 Hz and 28 VDC system testing**
- **Wind measuring and indicating system testing (Anemometer)**
- **Personnel Training and Qualifications**
- **Drills During Aviation Facility Certification Week**



AVCERT Training Summary

- **During this module we discussed:**
 - **Aviation Policies**
 - **Equipment needed to maintain/renew an AVCERT**
 - **Reporting requirements for degraded aviation facilities**
 - **Organizations associated with aviation facilities**
 - **Scheduled events/visits**
 - **Port Engineering, Afloat Deck and Engineering Department responsibilities**



Additional Information

- **MSC aviation DVD**
- **MSC ATT aviation facility reps**
 - **Pat O'Donnell, patrick.odonnell2@navy.mil**
 - **Tim Smith, timothy.p.smith5@navy.mil**
 - **Mark Henson, mark.henson@navy.mil**