COMNAVSURFOR INSTRUCTION 3700.1B

From: Commander, Naval Surface Forces

Subj: AVIATION READINESS QUALIFICATION (ARQ), AVIATION FACILITY CERTIFICATION (AVCERT) AND AVIATION (AIR) CERTIFICATION OF COMNAVSURFOR SHIPS

Ref: (a) OPNAVINST 3120.28B
(b) NAVAIRINST 3120.1C
(c) CINCPACFLTINST 9830.1
(d) CINCLANTFLTINST 3500.18
(e) Air-Capable Ship Aviation Facilities Bulletin No.1J
(f) Amphibious Assault Ship Aviation Facilities Bulletin 1B
(g) NAVAIR 00-80T-106
(h) NAVAIR 00-80T-122
(i) A1-AV8BB-NFM-000
(j) COMNAVSURFORINST 3502.1C
(k) NAVAIR 00-80T-109
(l) NAVAIR 00-80R-14

Encl: (1) Sample Message Format for Suspension of Flight Operations
(2) Aviation Readiness Qualification (ARQ)
(3) PQS/School/Qualifications for ACS
(4) Flight Deck Gear/Fire Fighting Equipment for ACS
(5) Aviation Fuel System for ACS
(6) PQS/School/Qualifications for AAS
(7) Flight Deck Gear/Fire Fighting Equipment for AAS
(8) Aviation Fuel System for AAS
(9) Drills – Crash/Fire (ACS)
(10) Drills – Crash/Fire (AAS)
(11) Drills – Hangar Deck
(12) Drills – Fuel
(13) Flight Deck Operations Demonstration (ACS and LPD)
(14) Flight Deck Operations Demonstration (LHA and LHD)
(15) Aviation Facility Certification (AVCERT)
(16) Comments
(17) Surface Aviation Operations Bill
(18) Aviation Facilities Binder Structure

1. Purpose. To issue policies, procedures, and responsibilities for Commander, Naval Surface Forces (COMNAVSURFOR) ships regarding Aviation Readiness Qualification
(ARQ), Aviation Facility Certification (AVCERT), and Aviation (Air) Certification per references (a) through (l).

2. **Cancellation.** COMNAVSURFORINST 3700.1A.

3. **Revision.** Changes to the cancelled instruction are extensive and have been incorporated into this instruction. Guidance for Aviation (Air) Certification has been added to this revision. It is therefore necessary to review this instruction in its entirety. Forward change recommendations to Commander, Naval Surface Force, U.S. Pacific Fleet (COMNAVSURFPAC) N42, 2841 Rendova Road, San Diego, CA 92155-5490.

4. **Scope.** This instruction is applicable to all COMNAVSURFOR Air-Capable Ships (ACS) and Amphibious Assault Aviation Ships (AAS), which conduct or support helicopter, Tilt Rotor and/or Vertical/Short Take-Off and Landing (V/STOL) aircraft operations.

5. **Background.** COMNAVSURFOR ACS and AAS are configured to conduct helicopter, Tilt Rotor and/or V/STOL operations; Helicopter In-Flight Refueling (HIFR); Vertical Replenishment (VERTREP); Recovery Assist, Secure, and Traverse (RAST); or other air operations. Aviation operations aboard these ships require programs designed to ensure standardized procedures and to enhance crew training and safety.

6. **Discussion.** The process for achieving Aviation Certification for COMNAVSURFOR ACS and AAS consists of three steps: AVCERT, ARQ and a flight deck operations demonstration (commonly called “Helo Day”). The ARQ program focuses on personnel qualifications, training and readiness. The scope of the ARQ program is separate from the Naval Air Systems Command’s AVCERT required per references (a) through (f). AVCERT is designed to ensure required shipboard aviation facilities and equipment are installed and functioning properly. Enclosures (2) through (18) are provided to aid in understanding and preparing for ARQ and Technical Assist (TA) visits. Enclosure (15) is provided for AVCERT. The flight deck operations demonstration, required by reference (j), focuses on operational proficiency. Enclosures (13) and (14) are provided to aid in understanding and preparing for the flight deck operations demonstration. Compliance with ARQ and AVCERT directives is mandatory for the safe conduct and support of helicopter, Tilt Rotor and V/STOL operations.
a. References (d) and (i) task the Type Commanders (TYCOM) to maintain shipboard aviation readiness. The ARQ program is the TYCOM’s assessment and qualification of COMNAVSURFOR ACS and AAS. It is designed primarily to ensure the training and qualification of personnel associated with air operations. ARQ Teams may be composed of aviation personnel from Afloat Training Group Pacific (ATGPAC), ATG WESTPAC, COMNAVSURFGRU MIDPAC/ATG MIDPAC, ATG Pacific North West (PACNORWEST), Afloat Training Group Atlantic (ATGLANT), or ATG Mayport.

b. References (g), (h) and (i) provide current doctrine for helicopter, Tilt Rotor and V/STOL shipboard operations. They set the requirements for aircraft operations aboard COMNAVSURFOR ships and shall be complied with, except when in conflict with an aircraft’s Naval Air Training and Operating Procedures Standardization (NATOPS) manual. In this event the aircraft NATOPS manual takes precedence. Reference (j) sets forth the unit level training requirements for ACS, AAS, and assigned helicopter detachments in order to achieve overall readiness for operations and deployments.

c. References (g), (h) and (i) also require the inclusion of specific information in the ship's Surface Aviation Operation Bill. Ships should use these references and enclosure (17) to establish their bill.

d. Shipboard aviation Support Equipment (SE) required to support aviation operations represents a significant financial investment. SE on AAS ships is managed by Commander, Naval Air Forces (COMNAVAIRFOR) N42. SE will be checked during the ARQ using the ship’s Allowance Equipage List (AEL). SE shall be stenciled or etched with the ship’s hull number and a serial number. SE not stenciled or etched is considered not on board. Trading and/or borrowing equipment for the purpose of the ARQ or AVCERT is prohibited.

e. ARQ periodicity is a maximum of 24 months and expires on the last day of the month in which the current evaluation was conducted. ARQ is lost when a ship enters a Chief of Naval Operations (CNO) maintenance availability greater than 90 days, when significant aviation facility work is programmed, or when mandated by the TYCOM or the ship’s operational commander.

f. In the event an ARQ is required due to operational demands or other unforeseen reasons, the ship will schedule an ARQ with ATG via its Immediate Superior in Command (ISIC). ARQ extensions will not be granted.
g. AVCERT periodicity is a maximum of 24 months and expires on the last day of the month in which the current evaluation was conducted. AVCERT is lost when a ship enters a CNO maintenance availability; when significant aviation facility work is programmed; or when mandated by the TYCOM; Commander, Naval Air Systems Command (COMNAVAIRSYSCOM); Commander, Naval Sea Systems Command (COMNAVSEASYSCOM); or the ship’s operational commander. AVCERT extensions will be per reference (b).

h. Ships must continuously satisfy the Continuous Certification Requirements (CCR) listed in Tab A of reference (j) to maintain their Aviation (Air) Certification currency. Air certification extensions may be granted by COMNAVSURFOR via the ISIC. Enclosure (13) and (14) of this instruction are recommended Schedules of Events for planning purposes and may be modified as the ship’s schedule requires.

i. All ships must be able to safely conduct flight operations and be ready to service aircraft. Therefore, all ships, including new construction, shall have a current ARQ and AVCERT prior to conducting any flight operations. The lead ship for a new class will receive an interim AVCERT until the dynamic interface testing, conducted by the NAVAIR Patuxent River, MD test team, is complete.

7. Action

a. COMNAVSURFPAC/COMNAVSURFLANT. Shall exercise overall cognizance of the ARQ program.

b. COMAFLOATRAGRUPAC/COMAFLOATRAGRULANT (ATG) will:

(1) Coordinate the activities of the ARQ Teams, to include formulation, training, revision, and updating the ARQ program.

(2) Conduct an Aviation Assist Visit (AAV) approximately 30 days prior to the ARQ.

(3) Conduct the ARQ using applicable sections of this instruction prior to the ship’s ULTRA C or within 24 months of the last ARQ for ships not in a typical unit level training cycle.

(a) For ACS, the assigned ARQ Team shall consist of one Aviation Boatswain’s Mate – Aircraft Handling (ABH), one
Aviation Boatswain’s Mate – Fuels (ABF), and an Aviation Officer when available.

(b) For AAS, the assigned ARQ Team shall consist of two Aviation Boatswain’s Mate – Aircraft Handling (ABH), two Aviation Boatswain’s Mate – Fuels (ABF), and an Aviation Officer when available.

(4) Ensure ARQ Teams conduct appropriate drills as required by reference (a) and evaluate the ship’s ability to set flight quarters as required by all sections of this instruction and references (g) and (h). Additionally, ARQ Teams will evaluate the ability of the ship’s Damage Control and Aviation Training Teams to train in aviation fire fighting.

(5) Plan and conduct proficiency training, as requested by the ship’s Commanding Officer (CO) or ISIC. Training should be completed prior to the Integrated Phase of training.

(6) Ensure standardization of ARQ Teams by reviewing procedures, techniques, and knowledge. Submit ARQ program requirements and changes to the COMNAVSURFOR N42.

c. Group and Squadron Commanders will:

(1) Schedule each ship’s ARQ and AVCERT to maintain the currency requirements of this instruction and to ensure the periodicity meets operational commitments.

(2) Provide a representative to accompany the ARQ Team during the ship’s ARQ.

(3) Utilize ARQ results and TFOM status at the ship’s Tailored Ship Training Availability (TSTA) conference to schedule necessary proficiency training.

(4) Review aviation qualifications, training, and procedures, per reference (j), when conducting command inspections and assessments.

(5) Monitor and ensure corrective action on all ARQ discrepancies.

d. Ship’s Commanding Officer will:

(1) Ensure flight operations are conducted with a current ARQ and AVCERT.
(2) Suspend aircraft operations, by naval message, for circumstances or equipment casualties that degrade aviation facilities, equipment, or personnel training or qualification below the standards established in this instruction and references (e), (f), (g), (h), (i) and (l) as applicable.

(3) Assign an Officer, O-1 or senior, as the ARQ program coordinator (ACS less LPD).

(4) Have an effective Surface Aviation Operation Bill as required per references (g) and (h) and per enclosure (17).

(5) Ensure a comprehensive Aviation Facilities Binder is maintained using enclosure (18).

(6) Ensure aviation personnel are designated, meet the training requirements of enclosure (3) or (6) as applicable, and are included in the ship’s training program.

(7) Ensure the training requirements of reference (j) are met prior to embarking a helicopter detachment.

(8) Submit Casualty Summary Reports (CASREP) whenever the aviation facility’s operational status prevents the ship from performing its mission.

(9) Maintain the complete allowance of aviation support equipment (SE) required by the ship’s AEL. Trading and/or borrowing equipment for the purpose of the ARQ or AVCERT is prohibited.

(10) Establish and maintain an aviation fuel quality assurance program as required per reference (k).

(11) Conduct flight deck crew proficiency training in order to support safe flight operations. In addition to crash and salvage drills and training in refueling operations, flight deck crew proficiency training should include day, night and NVD flight operations as practicable.

e. Aviation Facility Coordinator (ACS less LPDs) and Air Officer (AAS plus LPDs) will:

Note: An LPD is considered as AAS for training because it has an Air Department, but is considered an ACS for facilities
because it doesn’t have the flight deck facilities of an 
LHA/LHD.

(1) Coordinate the actions of divisions having direct 
cognizance over aviation related equipment, training, or 
qualifications.

(2) Ensure personnel receive the schools and training 
required by enclosure (3) or (6) as applicable.

(3) Maintain training, qualifications, and school 
documentation for all assigned aviation personnel.

(4) Maintain a locator system to ensure required 
publications are accessible.

(5) Maintain the ship’s aviation facility binder and 
ensure it meets the requirements of this instruction and 
enclosure (8).

T. H. COPEMAN
Chief of Staff

Distribution:
Electronic only, via COMNAVSURFOR Directives Website
SAMPLE MESSAGE FORMAT FOR SUSPENSION OF FLIGHT OPERATIONS

ROUTINE/UNCLAS

FROM: USS ___________________________ or ISIC (as, appropriate)

To: COMNAVSURFPAC SAN DIEGO CA//N42//
INFO: COMNAVAIRPAC SAN DIEGO CA//31//
CHAIN OF COMMAND
COMAFLOATRAGRUPAC SAN DIEGO CA//N432A// OR
COMAFLOATRAGRU WESTPAC YOKOSUKA JA//N3//

UNCLAS//N03501//

SUBJ/SUSPENSION OF HELO OPS/
MSGID/GENADMIN/COMMAND/
REF/A/-----/--------/
AMPN/CASREP, INSURV INSPECTION, POT&I, ETC. (IF REQUIRED)/
RMKS/
1. ORIG SUSENDS (AVIATION FUELING/NIGHT/VERTREP/ALL AVIATION/
ETC.) OPS BASED ON THE DISCREPANCIES (LISTED BELOW OR ADDRESSED
REF(A)).
   A. ______________________________________________________
   B. ______________________________________________________
   C. ESTIMATED RESUMPTION OF _____________________________
(SUSENDED OPS) NT______________________________./
   (DATE)
AVIATION READINESS QUALIFICATION (ARQ)

SHIP: USS ________________________________
CO: ______________________________________ PHONE # _______________________
XO: ______________________________________ PHONE # _______________________
AIR OFFICER/DEPT HEAD: ______________ (AAV)/ ______________ (ARQ)
AVIATION COORDINATOR: ______________ (AAV)/ ______________ (ARQ)
LOCATION: ______________________________ (AAV)/ ______________ (ARQ)
DATE OF VISIT: __________________________ (AAV)/ ______________ (ARQ)
TEAM MEMBERS: _________________________ (AAV)/ ______________ (ARQ)
____________________________________ (AAV)/ ______________ (ARQ)
GROUP: _________________________________ SQUADRON: ____________________

1. Points of Contact for Aviation Related Matters

COMNAVSURFOR SAN DIEGO, CA DSN (577-)
Amphibious Aviation (N42M) (619) 437-3140
Aviation Ordnance (N423M) (619) 437-2287
AVCERT Branch Manager (N422A) (619) 437-3145

COMNAVSURFLANT NORFOLK, VA DSN (836-)
CNSF Ground Support Equipment (757) 836-3188
AVCERT Branch Manager (N425) (757) 836-3197

COMAFLOATRAGRU ATLANTIC NORFOLK, VA DSN (565-)
ARQ Team (757) 444-9944
ARQ/AAV Schedules (757) 444-9944
Flight Deck/Fuel Evaluators (757) 444-9944
ATG MAYPORT (904) 270-7420 ext. 3004 DSN (960-)

COMAFLOATRAGRU PACIFIC SAN DIEGO, CA DSN (526-)
ARQ Team Leader (N88) (619) 556-0843
ARQ/AAV Schedules (619) 556-0904
ATG Flight Deck Evaluators (619) 556-0846
ATG JP-5 Fuels Evaluators (619) 556-0846
Ground Support Equipment (619) 556-0846

AFLOATRAGRU PACIFIC NORTHWEST EVERETT, WA (425) 304-4744 DSN (727-)
AFLOATRAGRU WESTPAC YOKOSUKA, JAPAN
ARQ Team Leader DSN 243-6130
FAX DSN 243-6100

COMNAVSURFRG MIDPAC PEARL HARBOR, HI
ARQ Team Leader (N61) (808) 473-0788 DSN 473-0788

ATG MIDPAC PEARL HARBOR, HI
ARQ Team Members (808) 472-8881 ext. 368 DSN 472-8881

2. All publications listed are current at the time of printing. Ships shall use the most current edition as changes occur.
3. Items marked with an asterisk (*) are considered restrictive discrepancies. Restrictive discrepancies are equipment or personnel discrepancies that constitute a hazard to safe flight or refueling operations. These discrepancies require suspension of flight operations.

4. Evaluators shall list all aviation facility material discrepancies noted during the AAV/ARQ.

5. The following references are used throughout the checklist:
   a. NAVAIR 00-80T-122, HELICOPTER OPERATING PROCEDURES FOR AIR-CAPABLE SHIPS NATOPS MANUAL.
   b. COMNAVSURFORINST 3502.1C, SURFACE FORCE TRAINING MANUAL
   c. NAVAIR 00-80R-14, U.S. NAVY AIRCRAFT FIREFIGHTING AND RESCUE MANUAL
   d. AEL 2-830024025 AERONAUTICAL MATERIAL, MOORING AIDS AND EQUIPAGE; AND AEL C150004097 HELICOPTER IN-FLIGHT REFUELING
   e. NAVAIR 00-80T-109, AIRCRAFT REFUELING NATOPS MANUAL
   f. AIR CAPABLE SHIP AVIATION FACILITIES BULLETIN NO.1J
   g. OPNAVINST 3130.6D, NAVAL SEARCH AND RESCUE (SAR) STANDARDIZATION PROGRAM
   h. OPNAVINST 3120.32C, STANDARD ORGANIZATION AND REGULATIONS OF THE U.S. NAVY
   i. AMPHIBIOUS ASSAULT SHIP AVIATION FACILITIES BULLETIN NO. 1B
   j. AV-8B SHIPBOARD OPERATING BULLETIN NO. 1 REV A.
   k. NAVAIR 00-80R-19, NATOPS U.S. NAVY AIRCRAFT CRASH AND SALVAGE OPERATIONS MANUAL (AFLOAT)
      l. NAVAIR 00-80T-106, LHA/LHD NATOPS MANUAL
   m. NSTM S9086-VG-STM-010, CHAPTER 634: DECK COVERINGS
   n. CNAFINST 4790.2 NAVAL AVIATION MAINTENANCE PROGRAM (NAMP) VOL 5 CHAPTER 12 (FOD PREVENTION AND REPORTING) AND CHAPTER 17 (SE OPERATING TRAINING AND LICENSING PROGRAM).
   o. S9542-AB-MM0-010, JP-5 JET FUEL CENTRIFUGAL PURIFIER DESCRIPTION, OPERATION AND MAINTENANCE MANUAL
   p. NSTM CH-542 REV 3 DTD 01DEC01, GASOLINE AND JP-5 FUEL SYSTEMS
   q. MIL-HNDBK-844AS AIRCRAFT REFUELING HANDBOOK
   r. OPNAVINST 5100.19D, NAVY OCCUPATIONAL SAFETY AND HEALTH (NAVOSH) PROGRAM MANUAL FOR FORCES AFLOAT, VOL. I/II/III
PQS/SCHOOL/QUALIFICATIONS FOR ACS

SHIP: USS ________________________________________________________________

As of 1 June Afloat Training Group (ATG) will not perform LTT’s

AAV EVALUATOR ___________________________ DATE ______________

ARQ EVALUATOR ___________________________ DATE ______________

1. Aviation Facility Binder
   a. Minimum entries per enclosure (18) __|__|__

2. Aviation Qualification Procedures
   a. COMNAVSURFORINST 3700.1B __|__|__
   b. Previous AAV/ARQ results __|__|__
   c. Aviation related messages/lessons learned __|__|__

3. Aviation Certification Program
   a. Current AVCERT message __|__|__*

4. Shipboard Aviation Standard Operating Procedures
   a. Ship’s SOP tailored to suit individual unit capabilities
      (Minimum entries per enclosure (17) __|__|__
   b. Flight quarters roster/billets with roster (Copy for ATG) __|__|__
   c. FOD Council __|__|__

5. PQS/Formal Schools/Training
   a. Aviation Facility Coordinator designated by notice or letter
      Name: ___________________________ __|__|__
   b. Safety Officer designated by notice or letter
      Name: ___________________________ __|__|__
   c. Glide Slope Technician (one)
      (C-670-2013))(NEC: 4758)
      Name: ___________________________ __|__|__*
   d. Damage Control Assistant (DCA)
      Aviation Fire Fighting (J-495-0414)
      Name: ___________________________ __|__|__*

Enclosure (3)
6. Aviation Flight Deck and Fire Fighting Lectures and Drills

a. Crash crew continuous on-the-job training lecture series (per NAVAIR 00-80R-14 Chap 9) (e.g. aircraft entry, hazardous ordnance/Weapons cooling, composite materials clean up, etc.)

b. Aviation fire fighting drills conducted, documented, muster sheets, records (Example FXP-4: MOB-D-18-SF, MOB-D-27-SF) (Drills: two per month Class 1, 2, 3; others one per month)

c. Long/short range training plans

d. Flight deck crew training per NAVAIR 00-80T-122 Chapter 1, documented (e.g. personnel transfer, tiedown procedures)

7. Aviation Publications/Instructions (*asterisk publication shall be held hard copy within Aviation office)

a. Ship has established a NAVAIR publication account per NAVAIR 00-25-100

   (1) Ship’s NAVAIR publication account number is ____________

b. Phone numbers for assistance with NAVAIR Publications (I.E. LHA/LHD AIMD QUALITY ASSURANCE CENTRAL TECHNICAL PUBLICATIONS LIBRARIAN).

c. Current Allowance Equipage List (AEL)

   *

d. COMNAVSURFLANT ships utilize COMNAVSURFLANTNOTE 3710

   *

e. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual (dated 01 December 2001), available for LSE use

   *

f. COMNAVSURFPAC/COMNAVAIRPACINST 3710.3A Flight Demonstrations (dated 20 July 1999)

   *

g. COMNAVAIRPAC/COMNAVAIRLANTINST 3710.8A, procedures for participation in and/or authorization of aerial demonstrations flyovers, static display, orientation flight, civilian passengers and project specialists, and training and qualification waivers/extensions (dated 6 November 2001)

   *

h. NAVAIR 00-80T-122 Helicopter Operating Procedures For Air-Capable Ships NATOPS Manual (dated 1 November 2003)

   *

i. NAVAIR 00-25-100 NAVAIRSYS COM Tech Manual Program (dated 01 December 04)
j. NAVAIR 00-80R-14 NATOPS Aircraft
   Fire Fighting and Rescue Manual
   (dated 15 October 2003) __|__|__

k. NAVAIR 00-80R-14-1 NATOPS U.S. Navy
   Aircraft Emergency Rescue Information
   Manual (dated 15 October 03) __|__|__

l. NAVSEA Tech Manual S9086-VG-STM-010
   Chapter 634 Deck Coverings (Nonskid
   Procedures) Latest revision. __|__|__

m. NWP 4-01.4 Replenishment at Sea
   (dated 01 Aug 96), with Urgent
   Change 2 (COMNAVARDEVCOMDIV 20203Z May 98) __|__|__

n. JCS Publications 3-50 & 3-50.1 Search
   and Rescue Manual, Vol. I & II (dated 01 Feb 91) __|__|__

o. NWP 3-50.1 (Rev. A) Navy Search
   and Rescue (SAR) Manual (dated Mar 99) __|__|__

p. COMNAVSURFPACINST 3721.1I, TACAN Flight
   Inspection Requirements (TACAN Equipped
   Ships) with Change 1 (CNSP 121428Z Jul 95) __|__|__

q. COMNAVAIRPACINST 3750.17K, Command Attention
   in Aviation Safety (DET Capable ACS)
   (dated 28 Jun 94) __|__|__

r. COMNAVSURFORINST/COMNAVAIRFORINST 4420.1, Aviation
   Supply Support for LAMPS and VERTREP Helicopter
   Detachments Afloat (LAMPS, CLF Ships)
   (dated 19 Nov 2004) __|__|__

s. NAVAIR 51-5B-2, Installation, Service,
   Operation and Maintenance Instruction
   with IPB for SGSI MK1 MOD 0 for Aviation
   Facility Ships (Rev January 1991); with Change one
   (1 March 1992), Change two (1 August 1993), Change three
   (1 February 1996), Change four (1 November 1999), Change five
   (1 January 2002) __|__|__

t. NAVAIR 51-5B-2.1 for ships with
   MK-1/MOD-1 SGSI (SGSI Equipped Ships)
   (dated 15 August 1989) __|__|__

u. NAVAIR 51-5B-3, Installation, Service,
   Operation, and Maintenance Instruction
   with IPB, for Wave-off Lights for Aviation
   Facility Ships Change four (dated 1 December 1995) __|__|__

v. NAVAIR 51-50ABA-1, Visual Landing
   Aids (VLA) on Air-Capable Ships
   Change three (dated 01 December 1995) __|__|__

Enclosure (3)
w. NAVAIR 17-1-537, A/C Handling and Securing Equipment (dated 01 October 1991) with RAC-1 (dated 1 July 2001) (Class 1, 2, 2A and 3 Ships) __|__|__

x. OPNAVINST 3710.7T, General Flight and Operating Instructions (dated 15 November 2001) __|__|__

y. OPNAVINST 3750.6R, Naval Aviation Safety Program with Change one (dated 15 November 2001) __|__|__

z. COMNAVSURFPACINST 8023.1K, Conventional Aviation Ordnance Safety and Readiness on Amphibious Aviation Ships (LPH/LHA/LHD), Transport Dock Ships (LPD), Air Capable ships (LAMPS only) (LPD, LAMPS) (dated 22 December 1992) __|__|__


bb. NAVair 00-80R-19, U.S. Navy Aircraft Crash and Salvage Operations Manual (LPD) (dated 15 Oct 03) __|__|__


8. Publications Required by LAMPS Capable Ships

a. NAVair 51-5B-7, Installation, Service, Operation, and Maintenance Instruction, with IPB, for Wave-off Lights for Aviation Facility Ships. (LAMPS MK III Ships) with Change 1 (dated 01 Dec 95) __|__|__

b. NAVair AD-400A1-OMI-000, Horizon Reference Set (HRS) with Change 5 (dated 01 Jan 97) (RAST Ships) __|__|__

c. NAVair AD-400B1-OMI-000, Flight Deck Status and Signaling System (RAST Ship) (dated 01 Nov 95), Change 1 (1 Jun 00) __|__|__

d. NAVair AD-700A1-OMI-000, RAST technical manual (RAST ships) with Change 5 (dated 01 Nov 97), Change 9 (1 Oct 03) __|__|__

e. NAVair AD-700A1-IPB-000, RAST IPB manual with Change 5 (dated 01 Oct 97), Change 10 (01 Aug 05) __|__|__
9. Logs
   
   a. Aircraft Landings/Launches/VERTREP
      Minimum entries: date; time; helicopter
      call sign; type evolution; day, night,
      sunrise/sunset; and remarks) NVD

10. Ready Reference Materials
   (Available at the HCO station and the bridge)
   
   a. Visual signals between ship and helicopter
      under EMCON/lost communications
      (NAVAIR 00-80T-122 p. 4-36)

   b. Shipboard helicopter command
      and display signals (NAVAIR 00-80T-122 p. 4-32)

   c. Launch and Recovery Wind Limits for
      ships plus General Launch and Recovery
      Wind Limits (NAVAIR 00-80T-122, Appendix B)

   d. The following pages list the minimum positions and associated
      qualifications for shipboard flight operations. Each billet must be filled
      by a qualified individual who may fill more than one billet except as
      specifically noted in this instruction.
**PQS CHECKLIST – ACS**

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(1) HCO, LSE AND FLIGHT DECK CREWMAN FIREFIGHTING SCHOOL REQUIREMENT: J-495-0413 WITHIN THE PREVIOUS 48 MONTHS, OR J-495-0414 WITHIN THE PREVIOUS 24 MONTHS.
(2) LSE’S MUST BE STAGE II NVG QUALIFIED IAW NAVAIR 00-80T-122
(3) FLIGHT DECK OBSERVER PQS IS FROM NAVEDTRA 43426-0 (303) (ENTER DATE COMPLETED)
(4) FLT DECK PERSONNEL MUST HAVE A CURRENT FLIGHT DECK PHYSICAL (WITHIN THE LAST 12 MONTHS)
   (REF: NAVMEDEPT CH-15/NAV AIR 00-80T-122)
(5) LSE’S PQS IS FROM NAVEDTRA 43436-B (303) AND (304).
### PQS CHECKLIST – ACS

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(6) SGSIC/RAST TECH EM/EN (REF: SURFTRAMAN 3502.2 SERIES)
(7) SHADDED BLOCKS ARE N/A FOR THAT BILLET.

### PQS CHECKLIST – ACS

(1) RAST ELECTRICAL TECHNICAIN: ONE EM, E-5 OR ABOVE WITH NEC 4673.
(2) RAST MECHANICAL TECHNICIAN: ONE EN, E-5 OR ABOVE WITH NEC 4355.
(3) TACAN MAINTENANCE TECHNICIAN MUST HOLD EITHER NEC 1473 OR 1471 (NEC 1491 for FFG).
(4) SRQ-4 MAINTENANCE TECHNICIAN: ONE ET WITH NEC 1424.

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## PQS CHECKLIST – ACS

### ENLISTED AVIATION FUELS PERSONNEL

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<th>DATE WATCH STATION PQS</th>
<th>DATE AIRCRAFT FIRE FIGHTING**</th>
<th>DATE FLT DECK OBS PQS**</th>
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(1) MUST BE FILLED BY ONE QUALIFIED PERSON PER BILLET. THE FUELS OFFICER MUST BE AN E-7 OR ABOVE.
(2) ONE OFFICER AND TWO ENLISTED FUELS PERSONNEL MUST HAVE ATTENDED JP-5 SCHOOL (J-651-0466) OR SHIPBOARD PROPULSION FUELS/OIL AND JP5 SYSTEMS/TESTING (K-821-2142A) WITHIN THE PAST 4 YEARS.
(3) ONE PERSON MAY FILL BOTH THE QUALITY CONTROL SENTRY AND PUMP ROOM OPERATOR POSITIONS IF THE QA LAB IS IN THE PUMP ROOM.
(4) ALL PERSONNEL WORKING ON THE FLIGHT DECK REQUIRE A FLIGHT DECK PHYSICAL.
PQS CHECKLIST – ACS

PRIMARY CRASH AND SALVAGE FIRE TEAM

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(1) AN ADDITIONAL TWO HOSEMEN ARE REQUIRED IF 2½ INCH HOSE IS INSTALLED ONBOARD.
(2) WATCH STATION PQS ARE FROM NAVEDTRA 4311.
**PQS CHECKLIST – ACS**

**BACKGROUND FIRE TEAM**

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(1) THE ENTIRE FIRE PARTY MUST ATTEND FIREFIGHTING COURSE J-495-0414 (OR EQUIVALENT) AND REPEAT THE COURSE EVERY 24 MONTHS, OR IF TEAM LOSES 40% OF THE ORIGINAL PERSONNEL.

(2) THE PRIMARY FIRE TEAM CANNOT UTILIZE FLIGHT DECK CREW (LSE/CREWMAN). THE FLIGHT DECK CREW CAN ONLY BE USED IN THE BACKGROUND AND ASSISTANCE TEAM.

(3) WATCH STATION PQS ARE FROM NAVEDTRA 43119-I.
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(1) FIREFIGHTING SCHOOL REQUIREMENT: J-495-0413 WITHIN THE PREVIOUS 48 MONTHS, OR J-495-0414 WITHIN THE PREVIOUS 24 MONTHS.
(2) LSE’S MUST BE STAGE IV NVG QUALIFIED IAW NAVAIR 00-80T-122.
(3) THE FLIGHT DECK OBSERVER PQS IS FROM NAVEDTRA 43426-0 (303) (ENTER DATE COMPLETED).
(4) FLIGHT DECK PERSONNEL MUST HAVE A CURRENT FLIGHT DECK PHYSICAL (WITHIN THE LAST 12 MONTHS).
(5) THE LSE PQS IS FROM NAVEDTRA 43436-B (302) & (304).
(6) HCO SCHOOL IS REQUIRED IF THE MINI-BOSS/AIRBOSS IS NOT A PILOT.
[REC 001: If mini boss billet is filled by ABFCS with a 7022 NEC, Fuels Officer course C8B-2011 is not required].
### PQS CHECKLIST – LPD

#### ENLISTED AVIATION FUELS PERSONNEL

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(1) MUST BE FILLED BY ONE QUALIFIED PERSON PER BILLET.

(2) WATCH STATION PQS ARE FROM NAVEDTRA 43426-4C, AIR DEPT AVIATION FUELS AFLOAT.

(3) 70% OF ALL FUELS PERSONNEL MUST HAVE ATTENDED THE SHIPBOARD AVIATION FUELS REFRESHER COURSE (C-821-2012). _____ OF _____ HAVE ATTENDED.
### PQS CHECKLIST – LPD

#### SURFACE RESCUE SWIMMER

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#### PRIMARY CRASH AND SALVAGE FIRE TEAM

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(1) AN ADDITIONAL TWO HOSEMAN ARE REQUIRED IF 2½ HOSE IS INSTALLED ONBOARD.
(2) WATCH STATION PQS ARE FROM NAVEDTRA 43119-I.
(3) CRASH CREWMAN PQS IS FROM NAVEDTRA 43434-1C.
**PQS CHECKLIST – LPD**

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(1) WATCH STATION PQS ARE FROM NAVEDTRA 43119-I.

(2) THE ENTIRE FIRE PARTY MUST ATTEND FIREFIGHTING COURSE J-495-0414 (OR EQUIVALENT) AND REPEAT THE COURSE EVERY 24 MONTHS, OR IF TEAM LOSES 40% OF THE ORIGINAL PERSONNEL.

### FLIGHT DECK SE LICENSES

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(1) TRACTOR DRIVERS AND MEPP OPERATORS MUST HAVE SUPPORTING SE PHASE I AND PAHSE II OJT PAPERWORK IN TRAINING RECORD AND LICENSE MUST BE SIGNED BY THE LHA/LHD AIMD OFFICER IAW CNAFINST 4790.2, VOL 5, CHAPTER 17.
PQS CHECKLIST - LSD

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(1) FIREFIGHTING SCHOOL REQUIREMENT: J-495-0413 WITHIN THE PREVIOUS 48 MONTHS, OR J-495-414 WITHIN THE PREVIOUS 24 MONTHS.
(2) LSE'S MUST BE STAGE III NVG QUALIFIED IAW NAVAIR 00-80T-122.
(3) FLIGHT DECK OBSERVER PQS IS FROM NAVEDTRA 43426-0 (303) (ENTER DATE COMPLETED).
(4) FLIGHT DECK PERSONNEL MUST HAVE A FLIGHT DECK PHYSICAL (WITHIN THE LAST 12 MONTHS)
(5) THE LSE PQS IS FROM NAVEDTRA 43436-B (302) & (304).
### PQS CHECKLIST – LSD

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### ENLISTED AVIATION FUELS PERSONNEL

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(1) MUST BE FILLED BY ONE QUALIFIED PERSON PER BILLET.
(2) WATCH STATION PQS ARE FROM NAVEDTRA 43419-B, AVIATION FUELS (AIR CAPABLE SHIPS-LESS LPD).
(3) THE FUELS OFFICER MUST BE AN E-7 OR ABOVE THAT HAS ATTENDED SHIPBOARD PROPULSION FUELS/OIL AND JP5 SYSTEMS/TSTING (K-821-2142A).
(4) TWO ENLISTED FUELS PERSONNEL MUST HAVE ATTENDED SHIPBOARD PROPULSION FUELS/OIL AND JP5 SYSTEMS/TSTING (K-821-2142A).

*** ALL PERSONNEL WORKING ON THE FLIGHT DECK REQUIRE A FLIGHT DECK PHYSICAL***
**PQS CHECKLIST – LSD**

**PRIMARY CRASH AND SALVAGE FIRE TEAM**

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<td></td>
<td></td>
<td>Y/N</td>
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</table>

(1) AN ADDITIONAL TWO HOSEMEN ARE REQUIRED IF 2½ HOSE IS INSTALLED ONBOARD.
(2) WATCH STATION PQS ARE FROM NAVEDTRA 43119-G.
## PQS CHECKLIST - LSD

### BACKGROUND TEAM

<table>
<thead>
<tr>
<th>BILLET</th>
<th>NAME</th>
<th>F/F CRSE NUM</th>
<th>F/F CRSE DATE</th>
<th>WATCH STATION PQS</th>
<th>DATE COMP</th>
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<th>FLT DECK PHYS</th>
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</table>

(1) WATCH STATION PQS ARE FROM NAVEDTRA 43119-H.
(2) THE ENTIRE FIRE PARTY MUST ATTEND FIREFIGHTING COURSE J-495-0414 (OR EQUIVALENT) AND REPEAT THE COURSE EVERY 24 MONTHS, OR IF TEAM LOSES 40% OF THE ORIGINAL PERSONNEL.
FLIGHT DECK GEAR/FIRE FIGHTING EQUIPMENT FOR ACS

SHIP: USS ____________________________________________________________________

LTT EVALUATOR: ___________________________ DATE: _____________________________

AAV EVALUATOR: ___________________________ DATE: _____________________________

ARQ EVALUATOR: ___________________________ DATE: _____________________________

1. Flight Deck and VERTREP Deck Condition

   a. Flight deck condition: free of JP-5, oil and grease
      __|__|__  

   b. Flight deck free of Foreign Object Damage (FOD) materials for flight operations.
      __|__|__

   c. Flight deck flush deck AFFF nozzles (Visual Walk Through)
      (1) Free of debris
         __|__|__

      (2) Documentation that PMS has been completed (PMS MIP-5551)
         __|__|__

2. Flight Deck Applicable Clothing

   a. Check maintenance and documentation record for MK-1 life vest (PMS MIP-5832). Mk-1 life vest shall include: bladder, auto inflation device, cover, whistle, strobe light and dye marker. Back of outer covers shall be stenciled with the ship’s hull number.
      __|__|__

   b. Check maintenance and documentation records for cranial helmets (PMS MIP-5882). Cranial helmets shall include: sound attenuators, goggles, hard shell covers, and cloth liner. Back of hard shell covers shall be stenciled with the ship’s hull number.
      __|__|__

ALLOWANCE ON BOARD

BLUE _______ _______
RED _______ _______
YELLOW _______ _______
WHITE _______ _______
PURPLE _______ _______
GREEN (LPD) _______ _______  __|__|__

Enclosure (4)
### ALLOWANCE ON BOARD

<table>
<thead>
<tr>
<th>Color</th>
<th>Quantity</th>
<th>Material Condition</th>
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<tr>
<td>BLUE</td>
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<tr>
<td>RED</td>
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</tr>
<tr>
<td>YELLOW</td>
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<tr>
<td>PURPLE</td>
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<tr>
<td>GREEN (LPD)</td>
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<table>
<thead>
<tr>
<th>Item Description</th>
<th>Material Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Jerseys (two per each MK-1, stenciled)</td>
<td>*</td>
</tr>
<tr>
<td>d. Steel toe safety shoes (each member of flight deck crew shall be issued safety shoes per NAVSUP PUB 485) (NAVAIR 00-80T-122)</td>
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</tr>
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3. **Support Equipment**

<table>
<thead>
<tr>
<th>Item Description</th>
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<tbody>
<tr>
<td>a. Tie-downs (TD-1B)</td>
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<tr>
<td>Ship’s name or hull number shall be impressed stamped with 3/8-inch lettering on the hand wheel assembly tensioning nut and S-hooks installed on TD-1B (Ref NAVAIR 17-1-537)</td>
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<tr>
<td>Quantity of nine-foot chains _______</td>
<td></td>
</tr>
<tr>
<td>Quantity of fourteen-foot chains _____</td>
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<tr>
<td>Material condition ________________</td>
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</tr>
<tr>
<td>b. Towing bar per AEL</td>
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</tr>
<tr>
<td>c. NT4 Universal Tow Bars (2) (LPD only)</td>
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<tr>
<td>d. Wheel chocks per AEL</td>
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<tr>
<td>e. NWC-4 (for H-46, H-53, H-60)</td>
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<tr>
<td>Qty ___________</td>
<td></td>
</tr>
<tr>
<td>Material condition ________________</td>
<td></td>
</tr>
<tr>
<td>f. VERTREP Equipment</td>
<td></td>
</tr>
<tr>
<td>(1) Grounding device P/N 1610-AS-100-1</td>
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<tr>
<td>(2) Rubber gloves (2 pair) (Type I, Class 3)</td>
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<tr>
<td>g. Wheel, ground handling (LPD) (provided by ACE)</td>
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<tr>
<td>h. Tractor, AIRCRAFT tow/TAU (Halon) (LPD)</td>
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<tr>
<td>Serial <em><strong><strong><strong>/</strong></strong></strong></em></td>
<td></td>
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</table>
i. Guidance Taxi wands (night vision compatible) in accordance with applicable AEL.
   (1) Heat shrink sealing the cone to the wand body in accordance with NAVAIR 51-50-ABA-1.

j. Signal flags or panels for HIFR capable ships: 1 red and 1 green.

4. Fire Protection – Flight Deck and Hangar

a. Saltwater Fire Plugs

   (1) Hose rack with the required length of hose
   (2) One Vari-nozzle
   (3) Two spanner wrenches
   (4) Hose hydro test current
   (5) Eductor
   (6) AFFF concentrate
   (7) Good material condition

b. Portable Fire Extinguishers

   (1) 15 lb. CO2; one required per AFFF outlet
   (2) 18 lb. chemical dry; one required per AFFF outlet
   (3) Portable extinguishers fitted with extension pipes in accordance with NAVAIR 00-80R-14 current revision.
   (4) PMS documented for extinguishers (PMS MIP 6641)

NOTE: Inspection tags on hangar and flight deck bottles shall be removed due to the FOD hazard. Plastic tamper seals shall be installed.

c. Crash/Rescue Tool Kit

   (1) Canvas tool roll (one)
   (2) Fire axe (one)
   (3) Halligan tool (one)
   (4) Saw, metal cutting (one)
   (5) Wrench, vice grip 10” (one)
(6) Screwdriver, common 4” (one) __|__|__*
(7) Screwdriver, common 8” (one) __|__|__*
(8) Screwdriver, phillips 4” (one) __|__|__*
(9) Screwdriver, phillips 8” (one) __|__|__*
(10) Pliers, lineman’s (one) __|__|__*
(11) Cable cutters 14” (one) NSN: 9Q5110-00-224-7053 __|__|__*
(12) Hacksaw (one) with six blades __|__|__*
(13) “V” blade rescue knife (one) with quick release fastener __|__|__*
(14) Replacement “V” blades (six sets) NSN: 9Q-5510-00-098-4326 __|__|__*
(15) Rib joint pliers 10” (water pump) (one) __|__|__*
(16) Wrench, open end adjustable 12” (one) __|__|__*
(17) Safety flashlight, two-cell (one) __|__|__*
(18) Tools shall be engraved with ship’s hull number and name __|__|__*
(19) Hose control device (1 per spot for ships Configured with 4 or 5 bar padeyes IAW NAVAIR 00-80R-14 CH-9) __|__|__*

Note: All tools shall be free of corrosion and in good working condition.

d. Protective clothing/aluminized fire protection hot suit in accordance with NAVAIR 00-80R-14

(1) Hot Suits shall conform to current NFPA standards. __|__|__*
(2) Required number of hot suits on board ACS: 3; LPD: 5 __|__|__*
(3) The third/fifth hot suit is ready service only, but shall be exhibited for the AAV/ARQ and AVCERT. __|__|__*
(4) Coats, fireman’s aluminized __|__|__*
(5) Trousers, fireman’s aluminized __|__|__*
(6) Gloves, fireman’s aluminized __|__|__*
(7) Boots, insulated, with safety toes and soles __|__|__*
(8) Aviator’s summer gloves (one pair per hot suit, stenciled with the ship’s name or hull number) __|__|__*

(9) Flash hoods (ACS: 3; LPD: 5) __|__|__*

(10) All protective clothing items shall be properly stenciled with ship’s hull number. Hot suit liners and shells shall be stenciled on the inside with flat white spray paint. __|__|__*

(11) Aluminized suits are stored on hangers __|__|__*

(12) Hoods, fireman’s aluminized with gold flash shields __|__|__*

CAUTION: Gold shields cannot be scratched or marred. Damaged shields lose 90% of their heat protection and shall be replaced immediately.

(13) Two complete positive pressure self-contained breathing apparatus with two spare bottles

NOTE: Air Capable ships outfitted with positive pressure Self Contained Breathing apparatus shall ensure hotsuitmen make use of them during drills after receiving proper training. Ships not yet outfitted with SCBA’s may simulate their use.
AVIATION FUEL SYSTEM FOR ACS

SHIP: USS ___________________________________________________________________

LTT EVALUATOR: ___________________________ DATE: __________________

AAV EVALUATOR: ___________________________ DATE: __________________

ARQ EVALUATOR: ___________________________ DATE: __________________

1. Instructions
   YES/NO/NA
   a. COMNAVSURFORINST 3700.1B __|__|__

2. Publications
   a. NSTM, CH. 542
      Gasoline and JP-5 Fuel Systems __|__|__
   b. NAVAIR 00-80T-109
      Aircraft Refueling NATOPS Manual __|__|__
   c. MIL-HDBK-844 (AS)
      Aircraft refueling Handbook __|__|__
   d. NAVAIR 00-80T-122
      Helicopter Operating Procedures for Air Capable Ships
      NATOPS Manual __|__|__

3. Equipment Technical Manuals
   a. Stripping pump, motor driven __|__|__
   b. Stripping pump, hand __|__|__
   c. Transfer pump __|__|__
   d. Service pump __|__|__
   e. Defuel pump __|__|__
   f. Defuel pump, portable __|__|__
   g. 3 port/2 way fuel/defuel valve (Cla-Val) (LPD Only) __|__|__
   h. Transfer filter __|__|__
   i. Service filter __|__|__
   j. Unloader valve __|__|__
   k. Free Water Detector (FWD) MIL-D-81227 __|__|__
   l. Contaminated Fuel Detector (CFD)
      MIL-D-22612 Type II __|__|__

Enclosure (5)
m. Combined CFD (CCFD) MIL-D-22612 Type III per AEL

n. FSII test kit

o. Flash Point Tester MIL-T-385/NAVIFLASH

p. Hose Reels

q. Nozzles (D-1 for cla-val systems and de-fueling, D-1R and CCR for HIFR capable ships)

4. Formal School Requirements
   a. C-821-2012 [Air Department]
      Shipboard Aviation Fuels Refresher
      Enlisted (70% of personnel assigned to the Aviation Fuels Division) (LPD ONLY)

   b. K-821-2142 [Engineering Department]
      Officer (1)
      Enlisted (2)

   c. AFOSS Check the ship’s annual AFOSS/verification

NOTE: Ship message to TYCOM.

5. Logs/Records
   a. Filter/Separator (Transfer/Service)
      Differential Pressure Record

   b. Aviation Fuel Quality Surveillance Log

   c. Aviation Fuel Monthly Contamination Fuel Detector Correlation Log

   d. Aviation Fuel Monthly B/2 Test Kit (FSII) Correlation Log

   e. Aviation Fuel Quality Laboratory Report Form

   f. Equipment Run Logs

   g. Delivery and UNREP Log

   h. Fuel logs shall be checked and signed off daily by the Workcenter Supervisor/CPO/Division Officer/MPA verifying logs are correct and up to date.
6. **Maintenance**

   a. Check that Schedule Aids are being followed and lined-out MRCs are accurate for the MIPs listed below.

      (1) MIP 5420(series), Aviation and General Purpose Fuels (applicable to ACS less LPD/AGF) __|__|__

      (2) MIP 6653(series), Test Equipment-Aviation Fuel __|__|__

7. **Consumables/Ready Service Spares**. Quantities will reflect the ship’s APL/AEL.

   a. Detector pad, free water __|__|__*

   b. Filter, Millipore __|__|__*

   c. Filters, Wratten set __|__|__*

   d. Spare standards, FWD __|__|__*

   e. Can, safety 5 gal __|__|__*

   f. Filter elements __|__|__*

   g. Kit, N-Dodecane/Propane Gas __|__|__*

   h. D1-R Nozzle (In ready condition) __|__|__*

   i. DETECTOR-COMB CONT FUEL (In ready condition and stenciled “JP-5 Only”) __|__|__*

   j. Ground wire __|__|__*

8. **Fuels Lab**

   a. Free Water Detector (FWD) for free water measurement - Combined Contaminated Fuel Detector (CCFD) or suitable substitute __|__|__*

   b. FWD provided with current standard (IAW PMS) __|__|__*

   c. FWD in good serviceable condition __|__|__*

   d. Contaminated Fuel Detector (CFD) for solid measurement - CCFD suitable substitute Stenciled “For JP-5 use only” and securely mounted __|__|__*

   e. CFD/CCFD calibrated (IAW PMS) __|__|__*

   f. CFD/CCFD in good serviceable condition __|__|__*

   g. B/2 anti-icing additive test kit __|__|__*

   h. Is space well ventilated? __|__|__
i. Is there a facility for washing and drying bottles?  

j. CO2/PKP bottle located within vicinity of lab

k. Eye wash station located within vicinity of lab

l. Test Purity utilizing the CCFD, fuel shall conform to NAVAIR 00-80T-122 and NAVAIR 00-80T-109 (i.e. solid contamination 2 mg/l max; water content 5 ppm max.

m. Test fuel using the B-2 Anti Icing Test Kit, minimum use level for USN/SH-60 is 0.03 %/vol FSII content 0.07 min – 0.20 max %/vol)

n. Test flash point utilizing NAVIFLASH or PENSKY-MARTENS flash point tester

**Note:** Both CCFD’s (Service spare and service) are required to be in ready service condition at all times. FWD requirement can be fulfilled if ship is equipped with CCFD.

### 9. Tasks

a. Conduct safety walkthrough of fuels spaces.

b. Observe walk-through HIFR procedures IAW 00-80T-109

c. Observe walk-through hot/cold pump procedures IAW 00-80T-109
PQS/SCHOOL/QUALIFICATIONS FOR AAS

SHIP: USS ________________________________

LTT EVALUATOR ___________________________ DATE __________________

AAV EVALUATOR ___________________________ DATE __________________

ARQ EVALUATOR ___________________________ DATE __________________

1. Aviation Facility Binder
   a. Minimum entries per enclosure (18) __|__|__

2. Aviation Readiness Qualification (ARQ) Program
   a. COMNAVSURFORINST 3700.1B __|__|__
   b. Previous AAV/ARQ Results __|__|__
   c. Aviation related messages/lessons learned __|__|__

3. Certification Programs
   a. Current AVCERT message __|__|__ *
   b. Current TYCOM SAR message __|__|__ *
   c. PALS Certification __|__|__ *

4. Shipboard Aviation Standard Operating Procedures
   a. Ship’s SOP tailored to suit individual unit capabilities
      (Minimum entries per enclosure (17) __|__|__
   b. Flight quarters roster/billets with roster (Copy for ATG) __|__|__
   c. FOD council designated by letter or notice __|__|__

5. PQS/Formal Schools/Training
   a. Glide Slope Technician (one)
      (C-670-2013) (NEC: 4758)
      Name: __________________/PRD____ __|__|__
   b. V/STOL/CAI Mod II Technician
      Name: __________________/PRD____ __|__|__

6. Flight Deck Training Requirements
   a. Aviation firefighting lectures for V-1 and V-3 Personnel __|__|__ *

Enclosure (6)
b. Continuous on-the-job training lecture series

|   |   |

|   |   |

c. Long and short range training plan

|   |   |

|   |   |

d. Crash and salvage crew lecture training and drills

(1) Crash crew continuous on-the-job training lecture series (per NAVAIR 00-80R-14 Chap 8) (e.g. aircraft entry, hazardous ordnance/weapons cooling, composite materials clean up, etc.)

|   |   |

|   |   |

(2) SCBA usage and maintenance

|   |   |

|   |   |

(3) Flight deck safety

|   |   |

|   |   |

(4) Crash and salvage tools and equipment per NAVAIR 00-80R-14

|   |   |

|   |   |

(5) Aviation firefighting drills conducted and documented: muster sheets, records (Example FXP-4: MOB-D-18-SF, MOB-D-27-SF) (Drills: two per month)

|   |   |

|   |   |

(6) Long and short range training plans

|   |   |

|   |   |

(7) Flight deck crew training per NAVAIR 00-80T-106

|   |   |

|   |   |

7. Publications

a. Ship has established a NAVAIR publication account per NAVAIR 00-25-100

|   |   |

|   |   |

(1) Ship’s NAVAIR Publication account number is _____________

|   |   |

|   |   |

b. List of required publications and instructions

|   |   |

|   |   |

c. Phone numbers for assistance with NAVAIR publications (AIMD CTPL)

|   |   |

|   |   |

d. COMNAVSURFLANT ships refer to CNSL NOTICE 3710

|   |   |

|   |   |

e. Aircraft Hand Signal Chart available for LSE use

|   |   |

|   |   |

f. COMNAVSURFPAC/COMNAVAIRPAC INST 3710.3A, Flight Demonstrations (dated 20 Jul 99)

|   |   |

|   |   |
g. NAVAIR 00-25-100, NAVAIRSYSCOM Tech Manual Program (dated 01 Oct 97) __|__|__

h. NAVAIR 00-80R-14, NATOPS Aircraft Fire Fighting and Rescue Manual (dated 15 Oct 03) __|__|__

i. NAVAIR 00-80R-14-1, NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual (dated 15 Oct 03) __|__|__

j. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual (dated 01 Oct 97) __|__|__

k. NAVSEA Tech Manual S9086-VG-STM-010, Chapter 634, Deck Coverings (Nonskid Procedures) Rev 2 (dated 01 Sep 01) __|__|__

l. NWP 4-01.4, Replenishment at Sea (dated AUG 96) with Urgent Change 2 (COMNAVWARDEVCOMDIV 202003Z May 98) __|__|__

m. JCS Publications 3-50 & 3-50.1, Search and Rescue Manual, Vol. I & II (dated 01 Feb 91) __|__|__

n. NWP 3-50.1 (Rev A) Navy Search and Rescue (SAR) Manual (dated Mar 99) __|__|__

o. COMNAVSURFPACINST 3721.1I, TACAN Flight Inspection Requirements (dated 10 Mar 95) with Change 1 (CNSP 121428Z Jul 95) (TACAN Equipped Ship) __|__|__

p. COMNAVAIRPACINST 3750.17K, Command Attention in Aviation Safety (dated 28 Jun 94) (DET Capable ACS) __|__|__

q. NAVAIR 51-5B-2, Installation, Service, Operating and Maintenance Instruction with IPB for SGSI MK1 MOD 0 for Air Capable and Amphibious Assault Ships with Change 5 (dated 01 Jan 02) __|__|__

r. NAVAIR 17-1-537, Aircraft Handling and Securing Equipment (dated 01 Oct 91) with RAC-1 (dated 01 Jul 01) (Class 1, 2, 2A and 3 Ships) __|__|__

s. OPNAVINST 3710.7T, General Flight and Operating Instructions (dated 15 Nov 01) __|__|__

t. OPNAVINST 3750.6R, Naval Aviation Safety Program with Change 1 (dated 29 Nov 01) __|__|__

u. COMNAVSURFPACINST 8023.1K, Conventional Aviation Ordnance Safety and Readiness on Amphibious Aviation Ships (LHA/LHD) (dated 22 Dec 92) __|__|__
8. The following pages list the minimum positions and associated qualifications for shipboard flight operations. Each billet must be filled by a qualified individual; no individual may fill more than one billet except as specifically noted in this instruction.
## V-1 Division

<table>
<thead>
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<th>POSITION</th>
<th>NAME</th>
<th>F/F DATE</th>
<th>PQS DATE</th>
<th>SE LIC.</th>
<th>FLT DECK PHYS</th>
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<td>Aircraft Elevator Operator (304)</td>
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CRASH, SALVAGE AND RESCUE CREWMEMBERS TRAINING:

PERSONNEL ASSIGNED AS CRASH, SALVAGE AND RESCUE CREWMEMBERS SHALL ATTEND (AS A TEAM) THE AIRCRAFT FIREFIGHTING SHIPBOARD TEAM TRAINING COURSE C-780-2012 ONCE DURING A 24 MONTH CYCLE OR WHENEVER THE TEAM EXPERIENCES A GREATER THAN 40% TURNOVER.

TOTAL NUMBER OF PERSONNEL THAT ATTENDED COURSE C-780-2012:

______ OUT OF______ HAVE ATTENDED.

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# V-3 Division

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Crash, Salvage and Rescue Crewmembers Training:

Personnel Assigned as crash and rescue crewmembers will attend (as a team) the aircraft firefighting shipboard team training course C-780-2012 once during a 18 month cycle or whenever the team experiences a greater than 40% turnover.

Total number of personnel that attended course C-780-2012: _________ out of ________ have attended “ABH AMPHIB REFRESHER: a minimum of 50% of all ABH’s must attend course.

C-604-2027. _______ out of ________ have attended.
## V-4 DIVISION

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**COMNAVSURFORINST 3700.1B**  
9 Feb 07

Enclosure (6)
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**SHIPBOARD AVIATION FUELS REFRESHER COURSE**

* 70% OF ALL PERSONNEL ASSIGNED TO AVIATION FUELS DIVISION MUST ATTEND COURSE C-821-2012. _____ OUT OF _____ HAVE ATTENDED.
FLIGHT DECK GEAR/FIRE FIGHTING EQUIPMENT FOR AAS

SHIP: USS _________________________________

LTT EVALUATOR: __________________________ DATE: ________________
AAV EVALUATOR: __________________________ DATE: ________________
ARQ EVALUATOR: __________________________ DATE: ________________

1. Flight Deck Condition

   a. Flight deck condition: free of JP-5, oil and grease            __|__|__

   b. Flight deck free of Foreign Object Damage (FOD) materials for flight operations  __|__|__

   c. Flight deck flush deck AFFF nozzles (Random visual check)

      (1) Free of debris                                         __|__|__

      (2) Documentation that PMS has been completed (PMS MIP-5551)  __|__|__

2. Aircraft Elevators

   a. Aircraft elevator stanchions instructions and safety precautions posted OPNAVINST 5100.19D  __|__|__

3. Flight Deck Clothing

   a. Check maintenance and documentation record for MK-1 life vest (PMS MIP-5832). Mk-1 life vest shall include: bladder, auto inflation device, cover, whistle, strobe light and dye marker. Back of outer covers shall be stenciled with the ship’s hull number.  __|__|__

       TOTAL ON BOARD

       BLUE  ______________
       RED   ______________
       YELLOW ______________
       PURPLE ______________

   b. Check maintenance and documentation records for cranial helmets (PMS MIP-5882). Cranial helmets shall include: sound attenuators, goggles, hard shell covers, and cloth liner. Back of hard shell covers shall be stenciled with the ship’s hull number.  __|__|__

Enclosure (7)
TOTAL ON BOARD

BLUE ______________
RED ______________
YELLOW ______________
PURPLE ______________

c. Jerseys (two per each MK-1, stenciled) __|__|__
d. Steel toe safety shoes (each member of the flight deck crew shall be issued safety shoes per NAVSUP PUB 485) (NAVAIR 00-80T-106) __|__|__*

4. Guidance Taxi Wands
a. Two (2) per spot with heat shrink sealing the cone to the body of the wand (night vision compatible) __|__|__

5. Support Equipment
a. NT4 Universal Tow Bar, Qty ______ __|__|__
b. Tie-downs (TD-1B) Qty ______ __|__|__
   The ship’s name and hull number shall be impression stamped with 3/8 inch lettering on the hand wheel assembly tensioning nut (Ref (b) and NAVAIR 17-1-537) Correct quantity of 14’ TD-1B assemblies for MV-22 and H-60.
c. Wheel chocks (NWC-4), Qty ______ __|__|__
d. VERTREP Equipment
   (1) Grounding device P/N 1610-AS-100-1 __|__|__
   (2) Rubber gloves (2 pr)
      (Class 3, Type 1) __|__|__
e. Tow tractor A/S32A-31A __|__|__
   (1) Material condition ________________ __|__|__
   (2) Instructions and safety precautions posted __|__|__

6. Status boards maintained on following:
a. Aircraft ordnance loads __|__|__
b. Equipment status __|__|__
c. Flight quarters check-off lists __|__|__
d. Mobile firefighting units __|__|__
e. Aircraft elevators

7. Saltwater Fire Plugs
   a. Hose rack with the required length of hose
   b. One Vari-nozzle
   c. Two spanner wrenches
   d. Hose hydro test current
   e. Good material condition

8. Portable Fire Extinguisher
   a. One CO2 and PKP per AFFF station
   b. One "Longhorn" 15 lb. CO2 per landing spot three foot extension for H-60 TMS five-foot extension for H-46 and seven-foot special wand for MV-22.

NOTE: Inspection tags on hangar and flight deck bottles shall be removed due to the FOD hazard. Plastic tamper seals shall be installed.

9. Mobile Firefighting Equipment
   a. MFFV two (2) P-25s
   b. Good material condition
   c. Instructions and safety precautions posted (per GENSPECS)
   d. Jumper hose, hydro test current
   e. Gauges, calibration up to date

10. Crash and Salvage Organization
    a. Crash Bill contains the following:
       (1) Launch and recovery station
       (2) Equipment operator
       (3) Equipment assignment
    b. Current Watch, Quarter, and Station Bill posted and readily accessible
    c. Personnel are qualified for assigned positions on Watch, Quarter, and Station Bill
11. Crash and Salvage Publications

   a. Cockpit and forcible entry display charts for embarked aircraft

   b. NAVAIR 00-80R-14, NATOPS U.S. Navy Aircraft Firefighting and Rescue Manual (CURRENT)

   c. NAVAIR 00-80R-14-1, NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual

   d. NAVAIR 00-80R-19, NATOPS U.S. Navy Aircraft Crash and Salvage Operations Manual (Afloat)

   e. AEL No. 2-830024032, Aircraft Crash and Rescue for LHA/LHD

   f. NAVSHIPS Technical Manual Ch. 555, Firefighting

   g. NAVAIR 00-80T-113, Aircraft Signals NATOPS Manual

12. Crash and Rescue tool kit

   a. Canvas tool roll (one)

   b. Axe, crash (serrated)

   c. Halligan tool

   d. Cable cutter (14 inch)

   e. Flashlight, safety, two cell

   f. Hack saw (with 6 blades)

   g. Knife, rescue, V-blade (12 spare blades)

   h. Pliers, lineman

   i. Pliers, rib joint, water pump (10 inch)

   j. Quick release fastener tool (Dzus Key)

   k. Saw, metal cutting

   l. Ground locks for each assigned aircraft (AVCAL items)

   m. Screwdriver, common (4 inch)

   n. Screwdriver, common (8 inch)

   o. Screwdriver, Phillips (4 inch)

   p. Screwdriver, Phillips (8 inch)
q. Wrench, vice grip (10 inch) __|___* 

r. Wrench, adjustable (12 inch) __|___* 

s. 1/4-inch Speed Handle __|___* 

t. 7/32-inch hex tip with holder __|___* 

u. 3/16-inch hex tip with holder __|___* 

v. Tools shall be stenciled or engraved with the ship’s name or hull number. __|___* 

13. Crash Locker. A crash locker containing the following firefighting/rescue equipment shall be maintained for emergency use only.

NOTE: Hot suits shall conform to NFPA standards (reference (l)).

a. Protective clothing/aluminized

(1) LHA/LHD: 6 complete sets __|___* 

(2) Two additional sets are required to be maintained onboard for back-up __|___* 

(3) Coats, fireman’s aluminized __|___* 

(4) Trousers, fireman’s aluminized __|___* 

(5) Gloves, fireman’s aluminized __|___* 

(6) Boots, insulated, with safety toes and soles __|___* 

(7) Hoods, fireman’s aluminized with gold flash shields __|___* 

(8) Flash hoods (8) __|___* 

(9) Aviator’s summer gloves two (2) pair per hot suit __|___* 

(10) Hot suits shall be stenciled on the inside of the suit with the ship’s name or hull number __|___* 

CAUTION: Gold shields cannot be scratched or marred. Damaged shields lose 90% of their heat protection and shall be replaced immediately.

b. Firefighting/rescue tools available in the crash locker

(1) Two 15 lb. CO2 extinguishers __|___* 

(2) Two 18 lb. PKP extinguishers __|___* 

(3) One pair cable cutters (14 inch) __|___*
(4) One Halligan tool
(5) One bolt cutters
(6) One side cutting pliers (ten inch)
(7) Two pliers (six inch and ten inch)
(8) One ball peen hammer (1-1/2 lb.)
(9) Drift punch
(10) Two hack saws (12 spare blades)
(11) Two fire axes
(12) Ground locks for each type of aircraft embarked
(13) Two pry bars (36 inch and 60 inch)
(14) One pinch bar (26 inch)
(15) One complete 1/2 inch drive socket set
(16) Two Reed and Prince screwdrivers (one 8 inch and one 12 inch)
(17) One each common screwdrivers (8 inch and 12 inch)
(18) Two V-Blade rescue knives and 4 sets of spare blades
(19) One 4 lb. grappling hook trailed with a 12 ft. chain
(20) Two safety flashlights
(21) Two each 3/8-inch speed handles with various Reed and Prince, Phillips, and High Torque adapters
(22) Two gasoline portable forcible entry saws (with ten spare blades)
(23) One battery powered megaphone
(24) One 10K port-a-power jack
(25) Four complete positive pressure self-contained breathing apparatus with four spare bottles

(26) Four kapok filled life jackets

(27) Four each safety harnesses (with tending lines) (100 ft. 1/2 inch or 3/4 inch diameter)

(28) Torque wrench (150-190 lb. ft.)

(29) One High-Efficiency vacuum cleaner

(30) Cutting equipment consisting of the following:
   (a) One cylinder acetylene
   (b) One cylinder oxygen
   (c) Two regulators
   (d) One length twin hose
   (e) Two torches/various tips
   (f) Spark lighter
   (g) Goggles with filter lens
   (h) Protective clothing
   (i) Hand cart

(31) Welding equipment consisting of the following:
   (a) Variable voltage regulator
   (b) Electrode holders
   (c) Ground plate
   (d) Welding electrodes
   (e) Electrode container
   (f) Wire brush/chipping hammer
   (g) Welding hood with filter lens

(32) Various block and tackle (reference: AEL 2-830024032)

(33) Manila line (reference (a))
(a) Four 50 ft. lines, 1/2 or 3/4 inch diameter
(b) Four 100 ft. lines, 1/2 or 3/4 inch diameter
(34) Eight 10,000 lb. nylon straps
(35) 12 TD-1 tiedowns
(36) Spare 1-1/2 and 2-1/2 inch fire hoses (2 each)
(37) Spare vari-nozzle
(38) Two hose control devices with vari-nozzles attached

14. **Fire Fighting, Rescue, Salvage Equipment**
   a. Aircraft crash crane
   b. Crash fork lift
   c. Rescue basket (weight test)
   d. Finger Booms (weight test)
   e. Padded pallet
   f. Belly straps per NAVAIR 00-80R-19; two each (20’, 30’, 40’ and 50’)
   g. Crash dollies with pads
   h. Universal salvage harness P/N 1359AS600-1
   i. AH-1W clevis with hoisting cable P/N T101897
   j. UH-1N clevis with hoisting cable P/N 204-011-178-1
   k. H-46 hoisting sling P/N A02G1348-1
   l. Static discharge grounding wand
   m. Type 1, Class 3 rubber gloves

15. **Day and Night AV-8 Tote Boards**
   a. Aircraft side number
   b. Nozzle setting
   c. Trim setting
   d. Gross weight
   e. Water (wet/dry)
f. Means of lighting for night operations __|__|__
g. Take off distance __|__|__

16. **Hangar Deck Condition**
   a. Hangar deck condition: free of JP-5, oil, and grease __|__|__
   b. Hangar deck free of Foreign Object Damage (FOD) materials __|__|__

17. **Hangar Deck Status Board**
   a. Equipment __|__|__
   b. Aircraft __|__|__

18. **Hangar Deck Protective Clothing**
   a. LHA/LHD: 5 complete sets of hot suits __|__|__*
   b. Coats, fireman’s aluminized __|__|__*
   c. Trousers, fireman’s aluminized __|__|__*
   d. Gloves, fireman’s aluminized __|__|__*
   e. Boots, insulated with safety toes and soles __|__|__*
   f. Hoods, fireman’s aluminized with gold flash shields __|__|__*
   g. Flash hoods (5) __|__|__*
   h. Aviator’s summer gloves, two (2) pair per hot suit __|__|__*
   i. Hot suits shall be stenciled on the inside of the suit with the ship’s hull number or name __|__|__*
   j. Two complete positive pressure self-contained breathing apparatus with four spare bottles __|__|__*
   k. PMS coverage __|__|__
   l. Documentation of training __|__|__
19. **Hangar Deck Crash and Rescue Tool Kit**

   a. Canvas tool roll (one)  
   b. Axe, crash (serrated)  
   c. Halligan tool  
   d. Bolt cutter  
   e. Flashlight, safety, two cell  
   f. Hack saw (with 6 blades)  
   g. Knife, rescue, V-blade (6 spare blades)  
   h. Pliers, lineman  
   i. Pliers, rib joint, water pump (10 inch)  
   j. Screwdriver, common (8 inch)  
   k. Screwdriver, Phillips (8 inch)  
   l. Wrench, vice grip (10 inch)  
   m. Wrench, adjustable (12 inch)  
   n. Tools shall be stenciled or engraved with the ship's hull number or name  
   o. Battery powered megaphone  
   p. Ball Peen hammer 1 1/2 POUND  
   q. Minimum of two SCBAs with four spare cylinders shall be pre-positioned in the hangar bay.  
   r. Tapered plugs (6) 3 wooden, 3 rubber  
   s. Two 3/8-inch speed handles with various reed and prince, Phillips, and high torque screw adapters  
   t. Non conductive extension ladder

20. **Hangar Deck Applicable Clothing**

   a. Check maintenance and documentation record for MK-1 life vest (PMS MIP-5832). Mk-1 life vest shall include: bladder, auto inflation device, cover, whistle, strobe light and dye marker. Back of outer covers shall be stenciled with the ship’s hull number.
b. Check maintenance and documentation records for cranial helmets (PMS MIP-5882). Cranial helmets shall include: sound attenuators, goggles, hard shell covers, and cloth liner. Back of hard shell covers shall be stenciled with the ship’s hull number.

   a. Tie-downs (TD-1B) 9’ and 14’ Qty _______. The ship’s hull number or name shall be impression stamped with 3/8inch lettering on the hand wheel assembly tensioning nut (NAVAIR 17-1-537) ________

   b. Towing bar ________
      NT4 Universal Tow Bar ________

   c. Spotting dollies ________
      (1) Material condition ________
      (2) Instructions and safety precautions posted (Ref: OPNAVINST 5100.19D) ________

   d. Wheel chocks, NWC-4 Qty ________

22. Hangar Deck Fire Protection
   a. Salt water fire plugs ________

   b. Hose rack with the required length of hose ________
(2) One vari-nozzle or Navy all purpose nozzle

(3) Two spanner wrenches

(4) Hydrostatic test current

(5) Equipment list posted

b. Portable fire extinguishers

(1) One CO2 and one PKP extinguisher per AFFF station

(2) One "Longhorn" extinguisher "15 lb. CO2 per landing spot three-foot extension for H-60 TMS five-foot extension for H-46 and seven-foot special wand for MV-22.

NOTE: Inspection tags on hangar and flight deck bottles shall be removed due to the FOD hazard. Plastic tamper seals shall be installed.
1. **TYCOM Instructions/Publications**
   a. COMNAVSURFORINST 3700.1B

2. **Publications**
   a. NSTM, Chapter 542 Revision 3
      Gasoline and JP-5 Fuel Systems
   b. NAVAIR 00-80T-109, Aircraft Refueling NATOPS Manual
   c. MIL-HDBK-844 (AS), Aircraft Refueling Handbook
   d. NAVAIR 00-80T-106, LHA/LHD NATOPS Manual

3. **Equipment Technical Manuals**
   a. Stripping pump, motor driven
   b. Stripping pump, hand
   c. Transfer pump
   d. Service pump
   e. Defuel pump
   f. Defuel pump, portable
   g. 3 port/2 way fuel/defuel valve (Cla-Val)
   h. Purifier
   i. Transfer filter
   j. Service filter
   k. Free Water Detector (FWD) MIL-D-81227
   l. Contaminated Fuel Detector (CFD)
      MIL-D-22612 Type II
   m. Combined CFD (CCFD) MIL-D-22612 Type III
n. FSII test kit

o. Flash Point Tester MIL-T-385/NAVIFLASH

4. Formal School Requirements

a. C-821-2012 [Air Department]
   Shipboard Aviation Fuels Refresher
   Enlisted (70% of personnel assigned
   to the Aviation Fuels Division)

5. Fuels Lab

a. Free Water Detector (FWD) for free water
   measurement – Combined Contaminated Fuel
   Detector (CCFD) or suitable substitute

b. FWD provided with current standard (IAW PMS)

c. FWD in good serviceable condition

(d. Contaminated Fuel Detector (CFD) for solid
   measurement – CCFD suitable substitute

(e. CFD/CCFD calibrated (IAW PMS)

f. CFD/CCFD in good serviceable condition

(g. B/2 anti-icing additive test kit

(h. Fuel sampling kits (NSN 9Q 8115-00-719-4111)
   provided

(i. Is the space well ventilated?

(j. Is there a facility for washing and drying
   bottles?

(k. Is there a CO2/PKP fire bottle located
   in the vicinity of the lab?

(I. Is there an eyewash station located within
   the vicinity of the lab?

(m. Test Purity utilizing the CCFD; fuel shall conform
   to NAVAIR 00-80T-106 and NAVAIR 00-80T-109 (i.e.
   solid contamination 2 mg/l max; water content
   5 ppm max.

(n. Test fuel using the B-2 Anti Icing Test Kit;
   minimum use level for USN/SH-60 is 0.03 %/vol.)
   FSII content 0.07 min – 0.20 max %/vol.)

(o. Test flash point utilizing NAVIFLASH flash
   point tester or PENSKY-MARTENS
6. **Logs/Records**

a. Filter/Separator (Transfer/Service)
   Differential Pressure Record
   __|__|__*

b. Aviation Fuel Quality Surveillance Log
   __|__|__*

c. Aviation Fuel Monthly B/2 Test Kit (FSII)
   Correlation Log
   __|__|__*

d. Aviation Fuel Quality Laboratory Report Form
   __|__|__*

e. Equipment Run Logs
   __|__|__*

f. Delivery and UNREP Log
   __|__|__*

g. Fuel logs shall be checked and signed off daily
   by the Workcenter Supervisor/CPO/Maintenance Officer/
   MPA verifying logs are correct and up to date.
   __|__|__*

7. **Maintenance**

a. Check that Schedule Aids are being followed and lined-
   out MRCs are accurate for the MIPs listed below.

   (1) MIP 5420 (series), Aviation and General Purpose Fuels
       __|__|__

   (2) MIP 6653 (series), Test Equipment-Aviation Fuels
       __|__|__

8. **Consumables/Ready Service Spares.** Quantities will reflect the ship’s
   APL/AEL.

a. DETECTOR-COMB CONT FUEL
   __|__|__

b. Filter, Millipore
   __|__|__

c. Spare standards, FWD
   __|__|__

d. Can, safety 5 gal
   __|__|__

e. Buckets, plastic 3 gal
   __|__|__

f. Glass bottles with plastic caps
   __|__|__

   __|__|__
1. **Purpose.** Upon completion of this drill the ship will have exercised:

   a. Flight Deck Fire Party Organization
   
   b. Firefighting equipment use
   
   c. Firefighting techniques
   
   d. Rescue and handling of personnel casualties

2. **Procedures**

   a. **Composition of Fire Party**

      (1) Scene leader (experienced, aggressive P.O.)

      (2) Messenger/phone talker (with a long phone lead)

      (3) Hospital corpsman

      (4) Two hose teams (composed in accordance with NAVAIR 00-80T-122 and NAVAIR 00-80R-14)

   b. **Required equipment**

      (1) Two AFFF hoses complete with 125/250 gpm Vari nozzles or type B nozzle with stream shapers (not charged)

      (2) Two salt water hoses with applicators or 125/250 gpm Vari nozzles (charged)

      (3) Two hotsuitmen properly dressed and equipped, for rescue of personnel:

         (a) Firefighters boots

         (b) Coat

         (c) Pants

         (d) Gloves

         (e) Helmets

         (f) V-Blade knife

      (4) Crash kit in roll

      (5) CO2/PKP bottles (one of each)

      (6) Spare hoses (2)
EVALUATION

Assume that the helicopter has crashed, fuel tanks have ruptured and spread inside the helicopter and the surrounding area engulfing the helicopter in flames.

When crash occurs or when crash alarm sounds, all exposed personnel take cover and remain covered until aircraft has come to rest, or “all clear” is sounded.

<table>
<thead>
<tr>
<th>Marking Factors</th>
<th>Maximum Credit/Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When the crash alarm stops or when the all clear is sounded, the primary team shall attack the fire and the secondary team leader shall organize a team and equipment. (If foam cannon is provided, it may be used to assist in effecting a rescue path while organizing a secondary team.)</td>
<td>10 _____</td>
</tr>
<tr>
<td>2. Both teams (primary and secondary) work as one unit, and are directed by the scene leader</td>
<td>20 _____</td>
</tr>
<tr>
<td>a. Phone talker/messenger will receive and transmit to the scene leader the following information:</td>
<td></td>
</tr>
<tr>
<td>(1) Number of souls on board</td>
<td></td>
</tr>
<tr>
<td>(2) Location of souls</td>
<td></td>
</tr>
<tr>
<td>(3) Fuel state</td>
<td></td>
</tr>
<tr>
<td>(4) Wind factor</td>
<td></td>
</tr>
<tr>
<td>3. Fight the helicopter fire from forward to aft and out. (Push the fire back and away from the helicopter.)</td>
<td>5 _____</td>
</tr>
<tr>
<td>a. When rescue path is established, the scene leader shall send hotsuitmen in for rescue of personnel and pass the word to the bridge and DCC.</td>
<td>25 _____</td>
</tr>
<tr>
<td>a. Hotsuitmen remain as a pair</td>
<td></td>
</tr>
<tr>
<td>b. Check surrounding area for casualties (flight deck, catwalks, etc.)</td>
<td></td>
</tr>
<tr>
<td>c. Hose teams will not wet down hotsuitmen unless absolutely necessary</td>
<td></td>
</tr>
<tr>
<td>d. Hotsuitmen use the standard fireman’s carry when removing casualties</td>
<td></td>
</tr>
<tr>
<td>e. Hotsuitmen will report all casualties to scene leader who will then report it via phone talker to the bridge and DCC</td>
<td></td>
</tr>
<tr>
<td>f. All firefighters will face the fire at all times</td>
<td></td>
</tr>
</tbody>
</table>
g. Hotsuitmen will check aircraft battery switches, fuel throttle, etc., after rescue is complete

5. When rescue is complete, scene leader will notify bridge and DCC of rescue completion. 5 _____

6. After all casualties have been accounted for, the scene leader will continue to fight the fire with both hose teams 5 _____

7. When the fire is out the scene leader will: 10 _____
   a. Notify the bridge and DCC via the messenger that the fire is out
   b. Overhaul the fire. Hotsuitmen recheck inside and adjacent areas of helicopter for smoldering fires, recheck battery switches, fuel throttle, etc. (Carry extinguisher and halligan tool.)
   c. Set the reflash watch (back one hose team our of area of reflash and have them standby

8. Scene leader report damage to helicopter and flight deck and make recommendations to bridge and DCC 5 _____

9. Scene leader give bridge an estimated time to get a clear/secure deck 5 _____

10. Restow all gear 5 _____
   a. Debrief – A debrief will be conducted after all gear has been restowed, emphasizing both correct/incorrect procedures 5 _____

Maximum Score: 100
Total Score: _____

Observer’s Remarks:
1. **Purpose.** Train ship’s personnel in the rescue of the crew from a crashed aircraft; containment and extinguishment of fire resulting from an aircraft crash or incident; and the expeditious removal from the landing area/catwalks using the crash crane and/or crash forklift. All pre-planning and training shall be directed toward providing minimum initial response to each drill scenario.

2. **Requirements.** Three phases are required to complete the exercise for ships where crash/salvage equipment is on board: Phase I, aircraft fires; Phase II, incident to exercise crash forklift; Phase III, incident to exercise crash crane; or until proficient in all phases of aircraft crash/fires.

3. ** Procedures.** Designate an aircraft to simulate a crash or fire incident and personnel casualty.

   a. Flight Deck Crew – Establish fire containment; and extinguishment of fire.

   b. Crash & Salvage Crew – Establish rescue, conduct overhaul and aircraft salvage.

---

**EVALUATION**

<table>
<thead>
<tr>
<th>Marking Factors</th>
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</table>

**PHASE I**

1. Minimum initial response (10)

   a. Personnel (i.e. scene leader, hose team leader, rescuers) 5 ____

   b. Equipment (i.e. MFFV, 4 AFFF hoses, 2 stretchers, 4 hose control devices (two 2 1/2” and two 1 1/2”), and 2 fire extinguishers (PKP/Halon/CO2)) 5 ____

2. Scene leader (10)

   a. Maintain control 3 ____

   b. Knowledgeable and aggressive 3 ____

   c. Communications/reports 4 ____

3. Hose teams (10)

   a. Properly manned/positioned 2 ____

   b. Effective and aggressive 2 ____

   c. Positive direction from hose team leader 2 ____

Enclosure (10)
d. Communications/reports 2 

e. Relieve nozzleman 2 

4. Personnel manning AFFF stations and MFFV knowledgeable in operating procedures (5)

a. AFFF station 3 

b. MFFV 2 

5. Rescue procedures (25)

a. Respond in proper attire 5 

b. Entry procedures – knowledgeable in cockpit entry (normal/manual/forcible/emergency) 5 

c. Crew release/removal – personnel services connections/ejection seat safety/emergency release 5 

d. Deactivation of: engine, oxygen system, batteries, and APUs 5 

e. Forklift 5 

6. Background assistance leader (10)

a. Organize and dispatch background assistance personnel as required 5 

b. Background hoses manned and standing by 5 

7. Casualties removed from the scene; triage area identified (5) 5 

8. Overhaul procedures (5) 5 

9. Turnover report, estimated damage, ETR, FOD walkdown, and casualty reports complete (10) 10 

10. Safety precautions observed during the drill (10) 10 

Maximum Score: 100 

Observer’s Remarks:
PHASE II – AIRCRAFT SALVAGE USING CRASH FORKLIFT

1. Time (30) 30 _____
   a. For aircraft collapsed gear, 5-minute time will score 30 points
   b. Each 20 seconds used over 5 minutes will be -5 points
   c. Any time over 7 minutes will result in an unsatisfactory drill

2. Organization (25)
   a. Crash and salvage forklift, crash dollies, and associated equipment maintained in a constant state of readiness and readily available for immediate response to the scene 5 _____
   b. Crash team leader coordinates equipment response to prevent interference with firefighting; has available information for aircraft weights and fuel/ordnance loads 10 _____
   c. Crash and salvage team demonstrated a working knowledge of procedures and equipment 10 _____

3. Procedures (35) 35 _____
   a. Timely response of equipment to scene 5 _____
   b. Aircraft immediately secured/downlocks installed 5 _____
   c. Crash forklift and padding properly positioned to lift the aircraft on a dolly 5 _____
   d. Crash team leader is knowledgeable and coordinates the exercise, establishes ETR, and maintains progress reports 10 _____
   e. Background assistance provides support personnel as required, conducts FOD walkdown 5 _____

4. Safety (10) 10 _____
   a. Exercise caution to prevent damage to aircraft and personnel

Maximum Score: 100  Total Score: _____

Observer’s Remarks:
PHASE III – AIRCRAFT SALVAGE – CRASH CRANE

1. Time (30)
   a. For aircraft in a catwalk or with all gear collapsed, 10-minute time will score 30 points
   b. Each 20 seconds used over 10 minutes will be -5 points
   c. Any time over 12 minutes will result in an unsatisfactory drill

2. Organization (25)
   a. Crash and salvage crash crane, crash dollies, and associated equipment are maintained in a constant state of readiness and readily available for immediate response to the scene 5 _____
   b. Crash team leader coordinates equipment response to prevent interference with firefighting; has available information for aircraft weights and fuel/ordnance loads 10 _____
   c. Crash and salvage team demonstrated a working knowledge of procedures and equipment 10 _____

3. Procedures (35)
   a. Timely response of equipment to scene 2 _____
   b. Aircraft immediately secured/downlocks installed 3 _____
   c. Crash crane properly positioned to lift aircraft 5 _____
   d. Aircraft sling/hoisting straps properly installed/positioned 10 _____
   e. Crash team leader is knowledgeable and coordinates the exercise – establishes ETR, and maintains progress reports 10 _____
   f. Background assistance provides support personnel as required; conducts FOD walkdown 5 _____

4. Safety (10)
   a. Exercise caution to prevent damage to aircraft and personnel. 10 _____

Maximum Score: 100
Total Score: _____

Observer’s Comments:
DRILLS - (HANGAR DECK)

1. Purpose. Train ship’s personnel in the rescue of personnel and extinguishment of an aircraft fire on the hangar deck.

2. Requirements
   a. Simulation of aircraft on fire on the hangar deck.
   b. Two drills are required.

3. Procedures. Designate an aircraft on the hangar deck to simulate a fire.

EVALUATION

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>1. Minimum initial response (10)</td>
<td></td>
</tr>
<tr>
<td>a. Personnel (i.e. scene leader, hose team leader, rescuemen)</td>
<td>5 _____</td>
</tr>
<tr>
<td>b. Equipment (i.e. 4 AFFF hoses, 2 stretchers, 2 spare hoses, and 2 fire extinguishers, PKP/Halon/CO2)</td>
<td>5 _____</td>
</tr>
<tr>
<td>2. Scene leader (15)</td>
<td></td>
</tr>
<tr>
<td>a. Maintains control</td>
<td>5 _____</td>
</tr>
<tr>
<td>b. Knowledgeable and aggressive</td>
<td>3 _____</td>
</tr>
<tr>
<td>c. Communications/reports</td>
<td>4 _____</td>
</tr>
<tr>
<td>d. Close all hatches and doors</td>
<td>3 _____</td>
</tr>
<tr>
<td>3. Hose teams (10)</td>
<td></td>
</tr>
<tr>
<td>a. Properly manned/positioned</td>
<td>2 _____</td>
</tr>
<tr>
<td>b. Effective and aggressive</td>
<td>2 _____</td>
</tr>
<tr>
<td>c. Positive direction from hose team leader</td>
<td>2 _____</td>
</tr>
<tr>
<td>d. Communications/reports</td>
<td>2 _____</td>
</tr>
<tr>
<td>e. Relieve nozzleman</td>
<td>2 _____</td>
</tr>
<tr>
<td>4. AFFF stations properly manned, knowledgeable in operation and equipment (5)</td>
<td>5 _____</td>
</tr>
<tr>
<td>5. Rescue procedures (12)</td>
<td></td>
</tr>
<tr>
<td>a. Respond in proper attire</td>
<td>4 _____</td>
</tr>
</tbody>
</table>
b. Entry procedures – knowledgeable in cockpit entry (normal/manual/forcible/emergency) 2

c. Check the surrounding area 2

d. Deactivation of: engine, oxygen system, batteries, and APUs 2

e. Casualties removed from the scene; triage area identified 2

6. Background assistance leader (20)

   a. Organize and dispatch background assistance personnel as required 5

   b. Background hoses manned and standing by 5

   c. Identify (i.e. Repair locker... ) 5

   d. Properly utilized, relief of initial response team 5

7. Overhaul procedures (3) 3

8. Conflagration watch properly manned, knowledgeable in operation and equipment (5) 5

9. Back-up firefighting team (i.e. repair locker) (10)

   a. Identify 2

   b. Properly manned/attired (to include breathing apparatus) 4

   c. Properly utilized; relief of initial response team 4

10. Safety precautions observed during the drill (10) 10

Maximum Score: 100

Observer’s Remarks:
1. **Purpose.** Train Air Department Aviation Fuels personnel in aviation fuel system casualties.

2. **Requirements.** A V-4 division emergency drill consisting of four independent phases. The four phases will be initiated one at a time by the announcement of verbal orders from an observer. Four phases are required to complete the exercise. The phases do not need to be conducted in any regular sequence, nor on the same day, and may be reported separately as flight deck, hangar deck, pump room, and filter room.

3. **Procedures**
   
a. Designate a casualty to the aviation fuel system.
   

---

**EVALUATION**

<table>
<thead>
<tr>
<th>Marking Factors</th>
<th>Maximum Credit/Score</th>
</tr>
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</table>

**PHASE I - FLIGHT DECK**

1. Did aviation fuels control dispatch investigators? (10) 10 ____

2. Did the investigators find all casualties within a reasonable time (10 minutes for amphibious ships)? Deduct one point for each minute after the established time. (10) 10 ____

3. Did investigators make complete and accurate reports? (5) 5 ____

4. Was the casualty isolated? (15)
   
a. Emergency drain back (if required) 5 ____
   
b. Isolate casualty, leaving as much of system operable as possible 10 ____

5. Repairman (30)
   
a. Was communication established? (runner/sound-powered phones) 15 ____
   
b. Were safety precautions followed? 5 ____
   
c. Was time required to effect repairs estimated? 5 ____
   
d. Were adequate repair tools available? 5 ____

6. Did aviation fuels control monitor investigation/repair and provide progress status reports? (5) 5 ____

7. Did the aviation fuels maintenance Officer/aircraft handling Officer/Air Officer receive accurate reports? (5) 5 ____

Enclosure (12)
8. Were fuel quality control procedures adhered to? (20)
   a. Were samples taken as required? 10 ____
   b. Were acceptable samples results obtained? 10 ____

Maximum Score: 100  Total Score: ____

Observer’s Remarks:

PHASE II – HANGAR DECK

1. Did aviation fuels control dispatch investigators? (10) 10 ____
   a. Did the investigators find all casualties within a reasonable time (15 minutes)? Deduct one point for each minute after the established time. (10) 10 ____

2. Did investigators make complete and accurate reports? (5) 5 ____

3. Was the casualty isolated? (15)
   a. Emergency drain back (if required) 5 ____
   b. Isolate casualty, leaving as much of system operable as possible 10 ____

4. Aviation Fuels Repairman (30)
   a. Was communication established? (runner/sound-powered phones) 15 ____
   b. Were safety precautions followed? 5 ____
   c. Was time required to effect repairs estimated? 5 ____
   d. Were adequate repair tools available? 5 ____

5. Did aviation fuels control monitor investigation/repair and provide progress status reports? (5) 5 ____

6. Did the aviation fuels maintenance Officer/aircraft handling Officer/Air Officer receive accurate reports? (5) 5 ____

7. Were fuel quality control procedures adhered to? (20)
   a. Were samples taken as required? 10 ____
   b. Were acceptable results obtained? 10 ____

Maximum Score: 100  Total Score ____

Observer’s Remarks:
AMPHIBS COMBINE PHASES III & IV

PHASE III - PUMP ROOM

1. Was the casualty isolated? (20)
   a. Emergency drain back (if required) 10 _____
   b. Isolate casualty, leaving as much of system operable as possible 10 _____

2. Were quality control procedures adhered to? (30)
   a. Were samples taken as required? 15 _____
   b. Were acceptable results obtained? 15 _____
      (If no samples are taken, phase is considered unsatisfactory)

NOTE: If the time to complete numbers 1 and 2 exceed 15 minutes, this drill will be considered unsatisfactory.

3. Was the aviation fuels control/aircraft handling officer/CPO kept informed and repair estimates provided? (10) 10 _____

4. Was the type of problem determined and corrected? (20) 20 _____

5. Were safety precautions observed? (20) 20 _____

Maximum Score: 100

Total Score: _____

Observer’s Remarks:

PHASE IV - FILTER ROOM

1. Was filter properly secured after casualty? 5 _____
   a. Was the casualty isolated? 5 _____
   b. Emergency drain back (if required) 5 _____
   c. Isolate casualty, leaving as much of system operable as possible 5 _____

2. Was another filter put into operation within a reasonable time? (7 minutes) If the time to complete numbers 1 and 2 exceeds 10 minutes, this drill will be considered unsatisfactory. Deduct 5 points for every minute after 7 minutes. 20 _____

3. Were quality control procedures adhered to? 5 _____
   a. Were samples taken as required? 10 _____
b. Were acceptable results obtained? 5 _____
   (If no samples are taken, the phase is considered unsatisfactory)
4. Was fuel control kept informed? 10 _____
5. Was the aircraft handling officer/CPO kept informed? 10 _____
6. Was the type of problem determined and corrected? 10 _____
7. Were safety precautions observed? 10 _____

Maximum Score: 100

Total Score: _____

NOTE: All fuel system alignments and equipment light-off procedures will be in accordance with current AFOSS or Ship’s Information Book.

NOTE: The final drill grade will be computed by averaging the score of the phase attempted; a minimum of three phases is required.

1. Flight deck 100
2. Flight deck (ACS) 100
3. Hangar deck 100
4. Pump room 100
5. Filter 100

Observer’s Remarks:
FLIGHT DECK OPERATIONS DEMONSTRATION (ACS AND LPD)

<table>
<thead>
<tr>
<th>EVENT NO.</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>- Complete flight quarters checklist (not observed if assessors fly onboard)</td>
</tr>
<tr>
<td>02</td>
<td>- FOD Walkdown (A/C handling team check for deck preparation) (not observed if assessors fly onboard)</td>
</tr>
<tr>
<td>03</td>
<td>- Brief the flight deck crews on HELO day flight operations handling/flight deck emergency procedures (not observed if assessors fly onboard)</td>
</tr>
<tr>
<td>04</td>
<td>- Land aircraft with assessors aboard</td>
</tr>
<tr>
<td>05</td>
<td>- Assessors inspect HCO tower for the following publications</td>
</tr>
<tr>
<td></td>
<td>a. NAVAIR 00-80t-122</td>
</tr>
<tr>
<td></td>
<td>b. Shipboard aviation facilities resume</td>
</tr>
<tr>
<td></td>
<td>c. Flight operations checklist</td>
</tr>
<tr>
<td>06</td>
<td>- Launch and recover one helicopter. Demonstrate and maintain the ability to plan and conduct flight operations by launching, recovering and controlling a helicopter, day and night IAW reference (h). Requires 13 and 40 evolutions per quarter for ACS and LPD, respectively. (observed).</td>
</tr>
<tr>
<td>07</td>
<td>- Refuel helicopter/aircraft on-deck. Demonstrate and maintain the ability to refuel helicopters/aircraft on-deck, day and night, while its engines are running IAW references (h) and (k) (observed). Requires 1 evolution per month.</td>
</tr>
<tr>
<td>08</td>
<td>- Refuel a helicopter in-flight (HIFR) HIFR CAPABLE SHIPS). Demonstrate and maintain the ability to refuel a helicopter</td>
</tr>
<tr>
<td>09</td>
<td>- In-flight (HIFR) IAW references (e) and (f) (observed) requires one HIFR per year.</td>
</tr>
<tr>
<td>10</td>
<td>- Replenish the ship with helicopters. Demonstrate and maintain the ability to replenish the ship with helicopters (VERTREP) IAW reference (h) (observed). Requires 5 VERTREP load transfers every 6 months</td>
</tr>
</tbody>
</table>
FLIGHT DECK OPERATIONS DEMONSTRATION (LHA AND LHD)

SCHEDULE OF EVENTS

1. The following list of events should be used to schedule the day and night flight operations:

Requirements for Helicopter Certification (D/N/NVG) (LHD):

- 1 Dud aircraft (mobile)
- Minimum of 2 supporting aircraft (Prefer 1 H-60 and 1 MH-53E) but can utilize up to 3 aircraft.
- Flight deck to be spotted prior to Helo Day commencing:
  - Dud aircraft spotted on Spot 7
- One 500 lb (minimum) dummy VERTREP load

FIRST FLYING DAY:

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<td>- FOD walkdown (A/C handling team check for deck preparation)</td>
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<td>- Brief the flight deck crews on day aircraft handling/flight deck emergency procedures</td>
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<tr>
<td>04</td>
<td>- Launch the helicopter for SAR/Plane Guard</td>
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<tr>
<td>05</td>
<td>- Recover two helicopters to spots 2 and 5 (4 landings per spot minimum). Demonstrate 1 emergency waveoff during approach to each spot</td>
</tr>
<tr>
<td>06</td>
<td>- Spot the first two helicopters in refueling spots and hot refuel (fly 1)</td>
</tr>
<tr>
<td>07</td>
<td>- Launch aircraft into the marshal pattern to commence 4 practice day VMC Case III approaches to missed approach parameters per aircraft to evaluate AATCC</td>
</tr>
<tr>
<td>08</td>
<td>- Conduct fire drill on dud aircraft located on spot 7 (complete combine hydraulic failure on the dud helicopter) crash and salvage crews respond</td>
</tr>
<tr>
<td>09</td>
<td>- Debrief the crash and salvage emergency procedures</td>
</tr>
<tr>
<td>10</td>
<td>- Deck crew remove dud aircraft out of the landing area using procedures IAW reference (g) and re-spot on spot 4</td>
</tr>
<tr>
<td>11</td>
<td>- Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 1 and 6 (4 landings per spot minimum. Air Boss to determine which pattern to exercise first)</td>
</tr>
<tr>
<td>12</td>
<td>- Run the deck, increasing aircraft numbers launch/recoveries</td>
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</tbody>
</table>
13 - Rig VERTREP loads and stage them on the port side elevator
14 - Conduct VERTREP evolutions. Minimum of 5 pickup/drop offs per aircraft
15 - Recover, refuel and shutdown all aircraft in a final recovery spot (simulating actual, routine deck spotting)
16 - Recover the SAR helicopter for hot pump, or recover the helicopter for shutdown in preparation for the next event
17 - Conduct Class Bravo fire drill on dud aircraft located on spot 4 once helicopters are shutdown
18 - Send (2) helicopters/dud to hangar bay for fire drill/towing

Exercise (day drills)
19 - Debrief the day exercises
20 - Brief the flight deck crews on night aircraft handling/flight deck emergency procedures
21 - Send helicopters to the flight deck
22 - 30 minutes after sunset, start designated aircraft (2 or more/SAR) for night launching exercise using ships designated spots. Re-spot dud aircraft on spot 4. Aircraft will launch into the marshal pattern to commence 4 practice night VMC Case III approaches to missed approach parameters per aircraft to evaluate AATCC
23 - Conduct Class Bravo fire on dud aircraft located on spot 4. Crash and salvage crews respond
24 - Deck crew remove dud aircraft out of the landing area using procedures IAW reference (g) and re-spot out of the way of further DLQs
25 - Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 2 and 6 (4 landings per spot minimum). Demonstrate 1 emergency waveoff during approach to each spot (MH-53E can only conduct unaided landings. Once the MH-53E is complete with landings, aircraft to be hot pumped and RTB)
26 - Rig VERTREP loads and stage them on the port side elevator
27 - Conduct VERTREP evolutions. Minimum of 5 pickup/drop offs per aircraft
28 - Spot the helicopters in refueling spots and hot refuel
29 - Upon completion of fueling exercise, set up the flight deck for night vision device flight operations for multiple helicopters (recommend 6 NVD landings/launches per LSE on spots 1, 2, 5 and 6)
30  - Debrief the night towing helicopter/fueling/fire drill procedures

31  - Brief the hangar deck exercise

32  - Send (2) helicopters/dud helicopter to the hangar bay for towing exercise with hangar deck crews (night exercise)

33  - Conduct bravo fire drill in hangar bay (night drill)

34  - Debrief the aircraft towing exercises/fire drill

35  - Send helicopters to the flight deck

**Helicopter Certification Complete (D/N/NVG) (LHD)**

**NOTE:** If weather does not permit night operations then a second day and night will be required to complete the exercises.
Minimum 4 bounces each to Spots 2 and 5

Dud

USS WASP    LHD 1
Dud H46

Minimum 4 bounces to Spot 1

NOTE:
Air Boss to determine which pattern to exercise first

Minimum 4 bounces to Spot 7

USS WASP  LHD 1
1. The following list of events should be used to schedule the day and night flight operations:

**Requirements for Helicopter Certification (D/N/NVG) (LHA):**
- 1 Dud H-46
- Minimum of 2 supporting aircraft (Prefer 1 H-60 and 1 MH-53E) but can utilize up to 3 aircraft.
- Flight deck to be spotted prior to Helicopter Day commencing: Dud aircraft spotted on Spot 8

### FIRST FLYING DAY

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<td>01</td>
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<td>03</td>
<td>- Brief the flight deck crews on day aircraft handling/flight deck emergency procedures</td>
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<tr>
<td>04</td>
<td>- Launch the helicopter for SAR/plane guard</td>
</tr>
<tr>
<td>05</td>
<td>- Recover two helicopters to spots 1, 2 and 6 (4 landings minimum). Demonstrate 1 emergency waveoff during approach to each spot</td>
</tr>
<tr>
<td>06</td>
<td>- Spot the first two helicopters in refueling spots and hot refuel</td>
</tr>
<tr>
<td>07</td>
<td>- Launch aircraft into the marshal pattern to commence 4 practice day VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC</td>
</tr>
<tr>
<td>08</td>
<td>- Conduct fire drill on dud aircraft located on spot 8 (complete combine hydraulic failure on the dud helicopter) crash and salvage crews respond</td>
</tr>
<tr>
<td>09</td>
<td>- Debrief the crash and salvage emergency procedures</td>
</tr>
<tr>
<td>10</td>
<td>- Deck crew remove dud aircraft out of the landing area using procedures per flight deck NATOPS and re-spot on spot 4</td>
</tr>
<tr>
<td>11</td>
<td>- Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 3 and 6 (4 landings per spot minimum. Air boss to determine which pattern to exercise first)</td>
</tr>
<tr>
<td>12</td>
<td>- Run the deck, increasing aircraft numbers launch/recoveries</td>
</tr>
<tr>
<td>13</td>
<td>- Rig VERTREP loads and stage them on the port side elevator</td>
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</table>
- Conduct VERTREP evolutions. Minimum of 5 pickup/drop-offs per aircraft

- Recover, refuel and shutdown all aircraft in a final recovery spot (simulating actual, routine deck spotting)

- Recover the SAR helicopter for hot pump, or recover the helicopter for shutdown in preparation for the next event

- Conduct bravo fire drill on dud aircraft located on spot 4 once helicopters are shutdown

- Send (2) helicopters/dud to hangar bay for fire drill/towing exercise (day drills)

- Debrief the day exercises

- Brief the night towing aircraft handling procedures

- Send helicopters to the flight deck

- 30 minutes after sunset, start designated aircraft (2 or more/SAR) for night launching exercise using ships designated spots. Re-spot dud aircraft on spot 4. Aircraft in support of helicopters day will launch into the marshal pattern to commence 4 practice night VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC

- Conduct class bravo fire on dud aircraft located on spot 4. Crash and salvage crews respond

- Deck crew remove dud aircraft out of the landing area using procedures per flight deck NATOPS and re-spot out of the way of further DLQ’s

- Recover aircraft from marshal pattern. Aircraft is to fly final approach to sidestep for landing on spots 1, 2 and 6 (4 landings per spot minimum). Demonstrate 1 emergency waveoff during approach to each spot (MH-53E can only conduct unaided landings. Once the MH-53E is complete with landings, aircraft to be hot pumped and RTB)

- Rig VERTREP loads and stage them on the port side elevator

- Conduct VERTREP evolutions. A minimum of 5 pickup/drop-offs per aircraft

- Spot the helicopters in refueling spots and hot refuel

- Upon completion of fueling exercise, set up the flight deck for night vision device flight operations for multiple helicopters (recommend 6 NVD landings/launches per LSE on spots 2, 3, 5 and 6)

- Debrief the night towing helicopter/fueling/fire drill procedures
- Brief the hangar deck exercise

- Send (2) helicopter/dud helicopter to the hangar bay for towing exercise with hangar deck crews (night exercise)

- Conduct bravo fire drill in hangar bay (night drill)

- Debrief the aircraft towing exercises/fire drill

- Send helicopter to the flight deck

Helicopter day complete (d/n/NVG) (LHA)

- If weather does not permit night operation then a second day and night will be required to complete exercises
Minimum 4 bounces each to Spots 1, 2 and 6

Dud H46

LHA 1 TARAWA
NOTE: Air Boss to determine which pattern to exercise first.

Minimum 4 bounces to Spot 6

Dud H46

Minimum 4 bounces to Spot 3
SCHEDULE OF EVENTS

1. The following list of events should be used to schedule the day and night flight operations:

Requirements for PMINT Initial F/W Training/Certification Training Complete (D/N/NVG) (LHD/LHA):

- 1 Dud AV-8B
- Minimum of 1 SAR aircraft and 2 AV-8B for initial F/W Cert.
- Flight deck to be spotted prior to PMINT/Cert Training (Day) commencing Day 1 F/W: Dud aircraft spotted on Spot 3
- Phase I/II/III Lecture and Demonstration pre-requisites complete.

SECOND FLYING DAY:

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<td>02</td>
<td>FOD walkdown (a/c handling team check for deck preparation)</td>
</tr>
<tr>
<td>03</td>
<td>Brief the flight deck crews on day aircraft handling/flight deck emergency procedures</td>
</tr>
<tr>
<td>04</td>
<td>Launch the helicopter for SAR/plane guard</td>
</tr>
<tr>
<td>05</td>
<td>Recover AV-8Bs to spots 7 ½ (LHA)/7 (LHD) and/or 9 (4 recoveries/launches per aircraft minimum). Demonstrate 1 emergency wave off during approach</td>
</tr>
<tr>
<td>06</td>
<td>Hot refuel aircraft</td>
</tr>
<tr>
<td>07</td>
<td>Launch aircraft into the marshal pattern to commence 4 practice day VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC</td>
</tr>
<tr>
<td>08</td>
<td>Conduct fire drill on dud aircraft located on spot 3. Crash and salvage crews respond</td>
</tr>
<tr>
<td>09</td>
<td>Debrief the crash and salvage emergency procedures</td>
</tr>
<tr>
<td>10</td>
<td>Re-spot dud av-8b to hangar deck</td>
</tr>
<tr>
<td>11</td>
<td>Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing to spots 7 ½ (LHA)/7 (LHD) and/or 9</td>
</tr>
<tr>
<td>12</td>
<td>Run the deck, increasing aircraft numbers launch/recoveries</td>
</tr>
<tr>
<td>13</td>
<td>Recover, refuel and shutdown all aircraft in a final recovery spot (simulating actual, routine deck spotting)</td>
</tr>
<tr>
<td>14</td>
<td>Recover the SAR helicopter for hot pump, or recover the helicopter for shutdown in preparation for the next event</td>
</tr>
</tbody>
</table>
- Send (2) AV-8Bs/dud to hangar bay for fire drill/towing exercise (day drills)

- Debrief the day exercises

- Brief the night taxi aircraft handling procedures

- Send AV-8B’s to the flight deck

- Re-spot dud aircraft on spot 3

- 30 minutes after sunset, start SAR aircraft for night launch exercise using ships designated spots. AV-8B’s in support of PMINT will launch into the marshal pattern to commence 4 case III approaches to missed approach parameters per aircraft to evaluate AATCC

- Conduct class bravo fire on dud aircraft located on spot 3. Crash and salvage crews respond

- Deck crew remove dud aircraft re-spot to hangar deck

- Recover aircraft from marshal pattern. AV-8B’s to fly final approach for landing 7 ½ (LHA)/7 (LHD) (4 recoveries/launches per aircraft minimum). Demonstrate 1 emergency wave off during approach

- Hot refuel AV-8B’s and SAR helicopter

- Upon completion of fueling exercise, set up the flight deck for night vision device flight operations for night case I operations spots 7 ½ (LHA)/7 (LHD) (4 recoveries/launches per aircraft minimum)

- Debrief the night taxi AV-8B/fueling/fire drill procedures

- Brief the hangar deck exercise

- Send (2) AV-8B’s/dud to the hangar bay for towing exercise with hangar deck crews (night exercise)

- Conduct bravo fire drill in hangar bay (night drill)

- Debrief the aircraft taxi/towing exercises/fire drill

- Send AV-8B’s to the flight deck

**PMINT initial f/w training/certification training complete (D/N/NVG) (LHD/LHA):**

* If weather does not permit night operation then a second day will be required to complete exercises.
* Adjustments to the SOE may be necessary depending on whether aircraft are embarked and specific AV-8B pilot qualification requirements.
Minimum 4 Day, 4 Night and 4 NVG bounces
Minimum 4 Day, 4 Night and 4 NVG bounces

LHA 1 TARAWA
1. The following list of events should be used to schedule the day and night flight operations:

**Requirements for Tilt-Rotor Cert (D/N/NVG) (LHD):**

- 1 Dud CH-46
- Minimum of 2 supporting aircraft but can utilize up to 3 aircraft.
- Flight deck to be spotted prior to Tilt-Rotor Cert commencing: Dud aircraft spotted on Spot 5

**FIRST FLYING DAY:**

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<td>04</td>
<td>Launch the helicopter for SAR/plane guard</td>
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<tr>
<td>05</td>
<td>Recover two MV-22s to spots 2 and 7 (4 landings per spot minimum). Demonstrate 1 emergency wave off during approach to each spot</td>
</tr>
<tr>
<td>06</td>
<td>Spot the first two MV-22s in refueling spots and hot refuel (fly 1)</td>
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<td>07</td>
<td>Launch aircraft into the marshal pattern to commence 4 practice day VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC</td>
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<td>08</td>
<td>Conduct fire drill on dud aircraft located on spot 5 (complete combine hydraulic failure on the dud helicopter) crash and salvage crews respond</td>
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<td>Debrief the crash and salvage emergency procedures</td>
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<tr>
<td>10</td>
<td>Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 1 and 9 (4 landings per spot minimum. Air boss to determine which pattern to exercise first)</td>
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<tr>
<td>11</td>
<td>Run the deck, increasing aircraft numbers launch/ recoveries</td>
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<td>Recover, refuel and shutdown all aircraft in a final recovery spot (simulating actual, routine deck spotting)</td>
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<td>Recover the SAR helicopter for hot pump, or recover the helicopter for shutdown in preparation for the next event</td>
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<tr>
<td>14</td>
<td>Conduct bravo fire drill on dud aircraft located on spot 5 once MV-22s are shutdown</td>
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</tbody>
</table>
- Send (1) MV-22/dud to hangar bay for fire drill/towing exercise (day drills)
- Debrief the day exercises
- Brief the night towing aircraft handling procedures
- Send MV-22 to the flight deck
- 30 minutes after sunset, start designated aircraft (2 or more/SAR) for night launching exercise using ships designated spots. Re-spot dud aircraft on spot 5. Aircraft in support of tilt-rotor cert will launch into the marshal pattern to commence 4 practice night VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC
- Set up the flight deck for night vision device flight operations for multiple MV-22s (recommend 6 NVD landings/launches per LSE on spots 2, 3, 7 and 9)
- Conduct class bravo fire on dud aircraft located on spot 5. Crash and salvage crews respond
- Deck crew remove dud aircraft out of the landing area using procedures per flight deck NATOPS and re-spot out of the way of further DLQ’s
- Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 2 and 7 (4 landings per spot minimum). Demonstrate 1 emergency waveoff during approach to each spot
- Spot the MV-22s in refueling spots and hot refuel
- Debrief the night towing MV-22/fueling/fire drill procedures
- Brief the hangar deck exercise
- Send (1) MV-22/dud helicopter to the hangar bay for towing exercise with hangar deck crews (night exercise)
- Conduct bravo fire drill in hangar bay (night drill)
- Debrief the aircraft towing exercises/fire drill
- Send MV-22 to the flight deck

TILT-ROTOR CERT Complete (D/N/NVG) (LHD)

* If weather does not permit night operation then a second day and night will be required to complete exercises.
Minimum 4 bounces each to Spots 2 and 7

Dud H46
Minimum 4 bounces to spot 1

Minimum 4 bounces to Spot 9

Dud H46

NOTE: Air Boss to determine which pattern to exercise first
SCHEDULE OF EVENTS

1. The following list of events should be used to schedule the day and night flight operations:

Requirements for Tilt-Rotor Cert (D/N/NVG) (LHA):

- 1 Dud CH-46
- Minimum of 2 supporting aircraft but can utilize up to 3 aircraft.
- Flight deck to be spotted prior to Tilt-Rotor Cert commencing:
  Dud aircraft spotted on Spot 5

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<td>04</td>
<td>Launch the helicopter for SAR/plane guard</td>
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<td>05</td>
<td>Recover two MV-22s to spots 1, 2 and 7 (4 landings minimum). Demonstrate 1 emergency waveoff during approach to each spot</td>
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<td>06</td>
<td>Spot the first two MV-22s in refueling spots and hot refuel</td>
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<td>Launch aircraft into the marshal pattern to commence 4 practice day VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC</td>
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<td>Conduct fire drill on dud aircraft located on spot 5 (complete combine hydraulic failure on the dud helicopter) crash and salvage crews respond</td>
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<td>Deck crew remove dud aircraft out of the landing area using procedures per flight deck NATOPS and re-spot on spot 4</td>
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<td>11</td>
<td>Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 3 and 8 (4 landings per spot minimum. Air boss to determine which pattern to exercise first)</td>
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<td>12</td>
<td>Run the deck, increasing aircraft numbers launch/Recoveries</td>
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<td>Recover, refuel and shutdown all aircraft in a final recovery spot (simulating actual, routine deck spotting)</td>
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<td>14</td>
<td>Recover the SAR helicopter for hot pump, or recover the helicopter for shutdown in preparation for the next event</td>
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</table>
- Conduct bravo fire drill on dud aircraft located on spot 4 once helicopters are shutdown

- Send (1) MV-22/dud to hangar bay for fire drill/towing exercise (day drills)

- Debrief the day exercises

- Brief the night towing aircraft handling procedures

- Send MV-22s to the flight deck

- 30 minutes after sunset, start designated aircraft (2 or more/SAR) for night launching exercise using ships designated spots. Re-spot dud aircraft on spot 4. Aircraft in support of tilt-rotor cert will launch into the marshal pattern to commence 4 practice night VMC case III approaches to missed approach parameters per aircraft to evaluate AATCC

- Set up the flight deck for night vision device flight operations for multiple MV-22s (recommend 6 NVD landings/launches per LSE on spots 1, 2, 7 and 8)

- Conduct class bravo fire on dud aircraft located on spot 4. Crash and salvage crews respond

- Deck crew remove dud aircraft out of the landing area using procedures per flight deck NATOPS and re-spot out of the way of further DLQ’s

- Recover aircraft from marshal pattern. Aircraft to fly final approach to sidestep for landing on spots 1, 2, 7 and 8 (6 landings per spot minimum). Demonstrate 1 emergency waveoff during approach to each spot

- Spot the MV-22s in refueling spots and hot refuel

- Debrief the night towing helicopter/fueling/fire drill Procedures

- Brief the hangar deck exercise

- Send (1) MV-22/dud helicopter to the hangar bay for towing exercise with hangar deck crews (night exercise)

- Conduct bravo fire drill in hangar bay (night drill)

- Debrief the aircraft towing exercises/fire drill

- Send MV-22s to the flight deck

Tilt-rotor cert complete (D/N/NVG) (LHA)

* If weather does not permit night operation then a second day and night will be required to complete exercises.
Minimum 4 bounces each to Spots 1, 2 and 7

Dud H46

LHA 1 TARAWA
NOTE:
Air Boss to determine which pattern to exercise first

Minimum 4 bounces to Spot 3

Minimum 4 bounces to spot 8

Dud H46

LHA 1 TARAWA
AVIATION FACILITY CERTIFICATION (AVCERT)

1. Flight Deck Nonskid
   a. Is the nonskid gray compound installed IAW NSTM chapter 634? __|__|__
   b. Are nonskid color markings made according to current VLA guidance drawing? Contact local NAVAIR representative. __|__|__
   c. Is the nonskid profile acceptable, with adequate slip resistance maintained for personnel and material safety? __|__|__
   d. Does nonskid maintain proper adhesion? (Pay particular attention to flaking/delamination around padeyes, deck fixtures, lights, and edges of nonskid.) __|__|__
   e. Does nonskid show any evidence of excessive rust bleed-through? (Defined as rust from underlying deck surface to the nonskid surface.) __|__|__
   f. Is nonskid free of JP-5, oil, and grease? __|__|__
   g. Is the flight deck free of all unauthorized painting, color topping, or deck wash? __|__|__

NOTE: Any painting or color topping of nonskid other than VLA is strictly prohibited. Color topping of nonskid for cosmetic purposes is strictly prohibited.

2. Flight Deck Safety Nets and Life Lines
   a. Are all areas of the flight/VERTREP decks covered by safety nets or life lines? __|__|__
   b. Do life lines extend at least 3 feet beyond the first safety net if no corner net is installed? __|__|__
   c. Do corner nets provide personnel protection by being at a 45 degree angle to net frame and life line on the structure? __|__|__
   d. Do replacement safety net frames allow a maximum gap of 5 inches between adjacent net frames and frames and hull structures? __|__|__
   e. Are glass reinforced plastic net frames free of excessive wear and evidence of cracking? __|__|__
   f. SAFETY NET FRAME:
      (1) Do all safety net frame pendants distribute the frame weight evenly? __|__|__
(2) Are net frame attaching hardware of the correct type (CRES)? __|__|__

(3) Are bolts secured with nylok nuts or pinned nuts with cotter keys? __|__|__

(4) Are net frame securing toggles and frame holdup devices in operable condition? __|__|__

(5) Are toggles permanently secured to the frame or deck? __|__|__

g. Are margin and/or wrapping lines per applicable drawing? __|__|__

h. Are lashing lines per applicable drawing? __|__|__

i. Are nets lashed according to applicable drawings? __|__|__

j. Installed nylon webbing coated with flame-retardant neoprene latex in accordance with paragraph 3.2.7.2 of MIL-W-23223A (Recommended) __|__|__

k. Safety nets successfully load tested in accordance with requirements within the designated time interval (i.e. one year for nylon nets; three years for CRES nets). (verification required) __|__|__

l. If lifelines are installed, lifeline height is a minimum of 36 inches __|__|__

m. Are safety nets made of CRES in high heat, missile blast areas? __|__|__

n. Are nylon/CRES safety nets free of broken webbing/stands? __|__|__

o. Are nylon/nets free of fraying? __|__|__

p. Do all nets meet maximum sag requirements? (5”-7”) __|__|__

q. Are grounding straps installed between steel net frame and hull? See mil-std-1310. __|__|__

r. Are grounding straps installed from CRES nets to the frame? See mil-std-1310. __|__|__

s. Are chaffing bands installed on non-cres nets? __|__|__

3. Fight Deck Drainage and Sealing

a. Is the flight deck adequately sealed to prevent fuel/water from going below decks? __|__|__

b. Are all drains free and clear? __|__|__

c. Are screens and bars installed to prevent entry of debris into overboard drains? __|__|__
d. Do all hatches and deck elevators have scupper channels installed? __|__|__

e. Do hangar deck drains/scuppers discharge directly overboard? __|__|__

f. Do all hatches and deck elevators seal properly? __|__|__

g. Are affected space(s) (e.g. deck below the helo deck) sealed to prevent liquids from discharging to lower or adjacent areas? __|__|__

NOTE: Required on ships with portable helicopter decks (e.g. LSD 28 class) or existing ships with flight deck elevators or hatches whose design precludes deck sealing.

4. Aircraft Elevators and Deck Hardware

a. Do flight deck elevator stanchions function properly? (AAS) __|__|__

b. Do flight deck elevator stanchions have all securing hardware and wire rope properly installed? (AAS) __|__|__

c. Are safety instructions posted at the flight deck elevator control station? __|__|__

d. Are proper sound-powered headsets available from communications between flight/hangar decks? __|__|__

e. Are sound-powered communications between flight/hangar decks operable? __|__|__

f. Do elevator warning horns operate during full elevator movement between decks? __|__|__

g. Do all hatches/scuttles leading to the flight deck have the following placard posted on the underside? __|__|__

WARNING: DO NOT OPEN DURING FLIGHT QUARTERS EXCEPT FOR EMERGENCY EXIT. THERE IS AN AIRCRAFT OPERATING AREA ABOVE THIS SCUTTLE/HATCH.

h. Are catwalk ladder entrances clearly marked on the deck? __|__|__

i. Do wheel stops/combing provide adequate aircraft safety where installed? __|__|__

j. Is aircraft fresh water washdown provided with sufficient length of hose to reach aircraft landing spot(s)? __|__|__

5. Flight Deck/Hangar Deck Tiedown Fittings

a. Are flight/hangar deck aircraft securing fittings clear of debris and in good condition? __|__|__
b. Is there evidence that securing fitting PMS is performed according to current MRCs? ___|___

c. Has the padeye go-no-go gauge been sighted? ___|___

6. Demineralized Water. Is/are demineralized water station(s) available for AV-8 aircraft? (AAS) ___|___

7. Flight Deck Lighting

a. Are all lighting systems installed IAW applicable drawings? ___|___

b. Are lighting fixtures free of the following defects: ___|___
   (1) Missing/broken securing bolts ___|___
   (2) Securing bolts not fully seated ___|___
   (3) Cracked lenses ___|___
   (4) Safety wiring damaged (where applicable) ___|___
   (5) Evidence of moisture/leakage ___|___

c. While conducting an operational check of the Helicopter Control Station/On-Deck Control Station/LSO Control Station (as applicable), determine whether the following equipment is working properly:
   (1) VERTREP/landing lineup lights ___|___
   (2) Flash sequencer (the flash sequencer is required on LAMPS MK III air capable ships only) ___|___
   (3) Extended lineup lights (forward and aft) ___|___
   (4) Red deck edge lights ___|___
   (5) Blue perimeter lights (CLF ships only) (“DO NOT PAINT” must be stenciled on the inside of glare shield) ___|___
   (6) Hangar/structure wash lights ___|___
   (7) Deck Status Lights (DSL)/rotating beacon: (ACS)
      (a) Flash 90 times per minute ___|___
      (b) Lens safety wired ___|___
   (8) HIFR heading lights (amber globe, 15 watt bulb) ___|___
   (9) Red globes for HIFR heading lights stowed on board ___|___
   (10) 50 watt lamps for HIFR heading lights (required when red globes are installed) stowed on board ___|___

Enclosure (15)
(11) Deck surface floodlights

(12) Overhead floodlights yellow/white/blue/red (red filters stowed on board (one required for each installed floodlight))

(13) Homing beacon (flash 90 times per minute)

(14) Tramline/nozzle rotation lights (AAS)

(15) Blue obstruction lights (LAMPS MK III ships only)

(16) Safe parking line lights (LHA, LHD)

(17) Edge lights forward (LHA, LHD)

(18) Aft athwart ship lights (AAS)

(19) Low pressure sodium floodlights (AAS)

d. Are all flight deck/surface floodlights pinned at the proper angle?

e. All overhead floodlights correctly aimed, drilled and secured for best possible illumination of the helicopter deck, keeping spillover to a minimum (securing must be in accordance with NAVAIRENGCEN drawing 611114) LIGHTS: TEST PROCEDURES: TURN ALL LIGHTS ON TO FULL INTENSITY. ON SIGNAL, TURN THE DIMMER SLOWLY TO FULL OFF, THEN SLOWLY BACK TO FULL INTENSITY. WHILE IN FULL INTENSITY AND IN THE FULL OFF POSITION, CHECK THE STOPS ON THE CONTROL KNOB RHEOSTATS.

8. Helicopter Control Station

a. All equipment is identified by nameplates or engraving

b. Windshield wipers are installed and tested

c. The crash alarm is marked and tested

d. The lighting control panel is clearly marked

e. UHF communications installed and tested

f. Sound-powered/IVCS phone communications installed and tested

g. Intercom system installed and tested

h. Wind direction and speed indicator calibrated/operable

i. Ship’s course indicator calibrated/operable

j. MC station for transmitting loud speaker announcements to the flight and hangar decks
9. For the following systems, perform visual inspection of all system components and operational checks as described below (where applicable):

a. Stabilized Glide Slope Indicator (SGSI):
   1. Missing/broken/corroded mounting/securing hardware __|__|__
   2. Inoperative/missing lamps or indicators __|__|__
   3. Cabling and wiring in good condition __|__|__
   4. Visible damage to system components __|__|__
   5. Evidence of hydraulic fluid leaks __|__|__
   6. Evidence of water entry into weather-exposed components __|__|__
   7. Evidence of excessive corrosion in or on weather-exposed components __|__|__
   8. System operates correctly in Internal Gyro Mode __|__|__
   9. System operates correctly in Ship’s Gyro Mode __|__|__
  10. Pole check pads clean/unobstructed __|__|__
  11. Pole checks current __|__|__
  12. Pole checks match F100 label plate data __|__|__
  13. If system fails to operate properly in any mode or pole check data does not match F100 label plate, perform system checkout and alignment IAW SGSI tech manual (NAVAIR 51-5B-2 or NAVAIR 51-5B-2.1) __|__|__
  14. All PMS requirements up-to-date __|__|__

b. Wave-Off or Wave-Off/Cut Light System:
   1. Missing/broken/corroded mounting/securing hardware __|__|__
   2. Inoperative/missing lamps or indicators __|__|__
   3. Cabling and wiring in good condition __|__|__
   4. Visible damage to system components __|__|__
   5. Evidence of water entry into weather-exposed components __|__|__
   6. Evidence of excessive corrosion in or on weather-exposed components __|__|__
(7) Safety wire installed properly on red/green wave-off or wave-off/cut light lenses

(8) System operates correctly from Master Control Panel

(9) System operates correctly from remote locations

(10) All PMS requirements up to date

c. Horizon Reference Set (HRS) (LAMPS MK III only):

(1) Missing/broken/corroded mounting/securing hardware

(2) Inoperative/missing lamps or indicators

(3) Cabling and wiring in good condition

(4) Visible damage to system components

(5) Evidence of water entry into weather-exposed components

(6) Evidence of excessive corrosion in or on weather-exposed components

(7) System operates correctly from Control Indicator mounted in HCS

(8) System operates correctly from Electronic Component Assembly

(9) All PMS requirements up to date

d. Flight Deck Status and Signaling System (FDSSS):

(1) Missing/broken/corroded mounting/securing hardware

(2) Inoperative/missing lamps or indicators

(3) Cabling and wiring in good condition

(4) Visible damage to system components

(5) Evidence of water entry into weather-exposed components

(6) Evidence of excessive corrosion in or on weather-exposed components

(7) System operates correctly from HCS

(8) System operates correctly from LSO shack

(9) System operates/indicates correctly from remote locations

(10) All PMS requirements up to date
e. Vertical and Short Take-Off and Landing Optical Landing System (VSTOL OLS) (LHA/LHD only):

(1) Missing/broken/corroded mounting/securing hardware

(2) Inoperative/missing lamps or indicators

(3) Cabling and wiring in good condition

(4) Visible damage to system components

(5) Evidence of water entry into weather-exposed components

(6) Evidence of excessive corrosion in or on weather-exposed components

(7) Humidity indicators on Units 11 & 12 blue in color

(8) System operates correctly from Active Mode

(9) Pole check pads on flight deck clean/unobstructed

(10) All PMS requirements up to date

10. Wind Measuring & Indicating System (WMIS)

a. Visually inspect all components and operationally verify WMIS as directed below:

(1) Missing/broken/corroded mounting/securing hardware

(2) Missing/broken hardware in indicator covers

(3) Inoperative/missing lamps in indicators

(4) Dimmer rheostats operate correctly in all indicators

(5) Pointer oscillation in any indicators

(6) Cracked or broken pointers in any indicators

(7) Cabling and wiring in good condition

(8) Visible damage to any system components

(9) Evidence of excessive corrosion in or on weather-exposed components

(10) System appears to operate correctly using any detector/transmitter combination

(11) All indicators appear to show correct speed and direction information simultaneously
(12) Evidence of gears rubbing on wire bundles in transmitter housing with speed and direction assemblies removed  __|__|__

(13) Evidence of excessive wearing of worm gear or roller disc integrator on speed transmitter subassembly  __|__|__

(14) All PMS requirements up to date  __|__|__

NOTE: All WMIS removal components (detectors, indicators, transmitter subassemblies) will need to be removed and staged in the location of the WMIS transmitter housing(s) at start of PRE-AVCERT T/A or AVCERT visit.

11. Aircraft Start/Service Electrical Systems

a. Check the aircraft starting/electrical power outlets for the following:

(1) Are aircraft AC/DC power cables/heads in good condition?  __|__|__

(2) Has PMS been performed on the cables/heads per current MRCs?  __|__|__

(3) Are 28VDC rectifiers in good material condition?  __|__|__

(4) Is 28VDC power limited to 24VDC to 28VDC at 300 amps steady load?  __|__|__

(5) Electrical cable hatch(s) (AAS and LPD Class):

   (a) In good condition  __|__|__

   (b) Have no missing parts  __|__|__

   (c) I Roller sheaves, where equipped, are operable  __|__|__

   (d) PMS is evident  __|__|__

b. Helicopter starting system performance tested satisfactory – performance of system verified. 400 Hz system performed tested satisfactory – performance of system verified. (load bank test documentation required)

c. KVA output adequate (i.e. H1-1 KVA; H2-11 KVA; H3-15 KVA; H46-13KVA; H53-16 KVA; H53E-16 KVA; USN H60B/F/H and USCG H60J-20 KVA for Class 2 H65-10 KVA)

12. Pneumatic Services

a. Are a minimum of two nitrogen bottles available?  __|__|__

b. Have they been hydrostatically tested?  __|__|__

c. Is the hydrostatic test current (every 5 years)?  __|__|__
d. For LAMPS III operation, nine nitrogen bottles are required if HP air system does not meet dew point requirements of -58 degrees F at the station __|__

13. **Flight Deck Control**

   a. Is the 5MC control panel operable? (AAS) __|__

   b. Are the lighting control panels operable? (AAS) __|__

   c. Are interior communications available to all appropriate stations? __|__

14. **Helo Hangar/Hangar Door**

   a. Check each hangar door for the following requirements:

      (1) Does it function properly in all modes? __|__

      (2) Does it have a limit switch at the open position? __|__

      (3) Does it have a limit switch at the closed position? __|__

      (4) The lower two feet of vertically actuated hangar doors painted with alternating yellow and red stripes (exterior & interior) (stripes 4” wide at 45 degree angle rising from port to starboard) __|__

      (5) Does it have a functional locking device at either the open or closed position of the door? __|__

   b. Does the retractable hangar (where installed) operate properly? __|__

   c. Does the hangar door have at least two modes of operation (electrical, mechanical, or air driven)? __|__

   d. Are the hangar roller door and bulkhead clearly marked with black alignment lines (if required)? __|__

   e. Are all high point padeyes properly marked? __|__

   f. Are elevator door/fire station warning lines painted on deck? __|__

   g. Are H-53 safe parking lines correctly painted on deck? (AAS) __|__

   h. Hangar nonskid will be checked the same as the flight deck:

      (1) Is the nonskid gray compound installed properly IAW NSTM chapter 634? __|__

      (2) Are nonskid color markings made according to current/VLA guidance? __|__
j. Is the nonskid profile acceptable, with adequate slip resistance maintained for personnel and material safety? __|__|__

(1) Does nonskid maintain proper adhesion (pay particular attention to flaking/delamination around padeyes, deck fixtures, lights, and edges of nonskid)? __|__|__

(2) Does nonskid show any evidence of excessive rust bleed-through (defined as rust from the underlying deck surface to nonskid surface)? __|__|__

(3) Is nonskid free of JP-5, oil, and grease? __|__|__

(4) Is the hangar free of all unauthorized painting or color topping of deck wash of nonskid? __|__|__

**NOTE:** Any painting or color topping of nonskid other than VLA is strictly prohibited and is cause for rejection of nonskid installation.

15. **Hangar Conflagration Station**

   a. Has the hangar deck conflagration station been checked for the following operational equipment: (AAS) __|__|__

   (1) Do elevator door controls operate? __|__|__

   (2) Do sprinkler controls operate? __|__|__

   (3) Is the 3MC announcing system operable? __|__|__

   (4) Is the 1MC announcing system operable? __|__|__

   (5) Do alarms operate? __|__|__

   (6) Is the interior communications system(s) operable? __|__|__

   (7) Is visibility adequate? __|__|__

16. **Aircraft Elevator**

   a. Are hangar deck elevator stanchions operable and clearly marked? (AAS) __|__|__

   b. Are all hangar elevator control stations fully operable? (AAS) __|__|__

   c. Are all hangar elevator control station switches and indicator positions clearly marked/identified? __|__|__

   d. Is sound-powered communication between the flight deck, hangar deck, and pump room operable? __|__|__
e. Are operating/safety instructions posted by the elevator control stations? __|__|__
f. Are operating/safety instructions clearly readable? __|__|__

17. **Component Storage Space**
   a. Main rotor blade(s) __|__|__
   b. Tail rotor blade(s) __|__|__
   c. Engine container(s) __|__|__
   d. APS-124 radome cover __|__|__
   e. Main rotor blade restraining sets __|__|__
   f. Are appropriate securing mechanisms available for the above items? __|__|__

18. **Aviation Detachment Spaces**
   a. Is the aircraft work space large enough to safely accommodate all maintenance for embarked aircraft (approximately 125 square feet)? __|__|__
   b. Is the work area equipped with the following:
      (1) LP air and drier __|__|__
      (2) Work bench with electrical power __|__|__
      (3) Vise (in operable condition) __|__|__
      (4) Hoisting capability (Up to 13,500 pounds (AAS); (ACS) 2000 pounds for H1, H2, H3, H53, and H60; 2500 pounds for H46. For RAST equipped ships RSD hoisting capability of 3050 pounds is required.) __|__|__
      (5) Adequate storage cabinets __|__|__
      (6) Flammable storage (not located in hangar) __|__|__
   c. Is the material condition of the work space satisfactory? __|__|__
   d. Is the material condition of the equipment satisfactory? __|__|__
   e. Is space provided for an administrative office? __|__|__
      (1) Does it have two desks? __|__|__
      (2) Does it have filing cabinets? __|__|__
      (3) Does it have appropriate stowage space for 1 linear foot of confidential material? __|__|__
19. **AEL Equipment**

a. Are two pairs of class 3, type 1, rubber gloves available?  __|__|__

b. Is the proper grounding wand provided as follows:
   
   (1) ACS – one each  __|__|__
   
   (2) AAS – two each  __|__|__

c. Are both 9’ and 14’ TD-1B/TD-1B tiedown chains provided per applicable AEL?  __|__|__
   
   (1) Number required? __________  __|__|__
   
   (2) Number available? _________  __|__|__

d. Does each TD-1B chain have an “S” hook installed to prevent chain/tensioner assembly separation (NAWC Support Equipment 4455)?  __|__|__

**NOTE:** Support Equipment Change 2966 replaces the latch pin on the tensioner assembly with a nut and bolt.

**NOTE:** Support Equipment Change 4287 replaces the bottom spacer pin, when worn, with bolt, nut, and aluminum spacer sleeve.

e. Are bulb hooks and 5/8” shackles available for flight decks with clover leaf securing fittings installed?  __|__|__

f. Are NWC-4 wheel chocks provided per applicable AEL?  __|__|__
   
   (1) Number required? __________  __|__|__
   
   (2) Number available? _________  __|__|__
   
   (3) Has one washer been removed from each bolt/nut to allow 1 full thread engagement?  __|__|__

g. Has one flight deck cranial helmet been modified to incorporate a sound-powered headset (VERTREP capability)?  __|__|__

h. Is the SRC-22, MOMS, SRC-47, and/or Motorola Expo system available for operations during flight quarters? (AAS)  __|__|__

i. Are taxi signal wands provided per applicable AEL?  __|__|__

20. **AFFF Hose Stations (125/250 GPM, AS APPLICABLE)**

a. Are correct hoses installed at the stations (if collapsible hoses are installed, orange enduro preferred, rubber jacketed acceptable, as required by PMS)?  __|__|__

b. Is the correct length of hose installed?  __|__|__
c. Is proper vari-nozzle installed?  __|__|__
   (1) 1 1/2" hose – 125 gpm: _________  __|__|__
   (2) 2 1/2" hose – 250 gpm: _________  __|__|__

d. Check each AFFF generating station for the following 
   required equipment and placards:

   Number of stations on board: _________
   Number of stations inspected: _________
   (1) Is the tank filled to the top of the sight glass?  __|__|__
   (2) Is the material condition of each tank acceptable?  __|__|__
   (3) Is there any evidence of leakage around inspection 
        plates and sight glass gages?  __|__|__
   (4) Are sight glass valves, lock-wired open?  __|__|__
   (5) Are piping, valves, and solenoid operated pressure 
        valve(s) (SOPV(s)) in acceptable material condition?  __|__|__
   (6) Is there any evidence of leakage?  __|__|__
   (7) Are operating instructions and a diagrammatic 
        drawing posted on/by each generating station?  __|__|__
   (8) Is a minimum of 50 percent spare AFFF readily 
        available at installed AFFF stations? (ACS)  __|__|__
   (9) Is there a current AFFF analysis?  __|__|__

21. Aviation Area Fire Extinguishers:

   a. Check CO2 bottles on ACSs for the following:
   (1) Are two 15 pound CO2 bottles available for the 
       helicopter landing area, and one available for each 
       landing spot, on ships with multiple landing spots?  __|__|__
   (2) Are these bottles, or additional bottles in these 
       numbers, properly fitted with insulated horn 
       extensions in accordance with NAVAIR 00-80R-14 
       current revision.  __|__|__

   b. Are two PKP bottles available for each landing spot?  
      (ACS)  __|__|__
   c. Is one CO2 bottle and one PKP bottle installed at, or in 
      close proximity, to each installed AFFF station?  __|__|__
   d. Is the inspection tag and the lead wire seal removed from 
      each fire bottle serving helicopter operating areas?  __|__|__
NOTE: Yellow beaded seals are acceptable for flight deck use.

e. Does each aircraft hangar have two CO2 and two PKP bottles mounted for ready use? (ACS) __|__|__

f. Are CO2/PKP bottles in good material condition? __|__|__
   (1) Is PKP agent dry and free of caking? __|__|__
   (2) Are seals intact? __|__|__

22. Flight/Hangar Deck, Fire Fighting Markings
   a. Are flight deck markings per applicable drawings? __|__|__
   b. Are hangar deck markings per applicable drawings? __|__|__

23. Crash & Rescue Tools
   a. Check for the following tools (ACS/AAS), in the Crash and Rescue Tool Kit. The flight deck crash, salvage, and rescue team and the AAS hangar deck rescue team shall each maintain a minimum of one tool kit. The tool kit shall contain the tools listed below (as a minimum) (AAS only – Ground locks for each type aircraft (AVCAL items)).

<table>
<thead>
<tr>
<th>Tool</th>
<th>NSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Canvas tool roll</td>
<td>(Local manufacture)</td>
</tr>
<tr>
<td>(2) Fire axe</td>
<td>9Q-4210-00-142-4949</td>
</tr>
<tr>
<td>(3) Halligan tool (pry bar)</td>
<td>9Q-5120-00-009-5044</td>
</tr>
<tr>
<td>(4) Metal cutting saw</td>
<td>9Q-5110-00-221-0235</td>
</tr>
<tr>
<td>(5) Vicegrip pliers</td>
<td>9Q-5120-00-277-4244</td>
</tr>
<tr>
<td>(6) Pliers (lineman)</td>
<td>9Q-5120-00-239-8251</td>
</tr>
<tr>
<td>(7) Cable cutters (14 inch)</td>
<td>9Q-5110-00-224-7053</td>
</tr>
<tr>
<td>(8) Hack saw frame</td>
<td>9Q-5110-00-289-9657</td>
</tr>
<tr>
<td>(9) Hack saw blades (6)</td>
<td>9Q-5110-00-277-4589</td>
</tr>
<tr>
<td>(10) Screwdrivers:</td>
<td></td>
</tr>
<tr>
<td>(a) 8” common</td>
<td>9Q-5120-00-237-6985</td>
</tr>
<tr>
<td>(b) 4” common</td>
<td>9Q-5120-00-222-8852</td>
</tr>
<tr>
<td>(c) L 8” Phillips</td>
<td>9Q-5120-00-224-7375</td>
</tr>
<tr>
<td>(d) 4” Phillips</td>
<td>9Q-5120-00-234-8913</td>
</tr>
<tr>
<td>(11) “V” blade rescue knife</td>
<td>9Q-5110-00-524-6924</td>
</tr>
</tbody>
</table>
b. In addition to the above listed tools, AAS shall have the following tools/equipment in the crash and salvage locker ready for immediate access:

NOTE: These tools are not to be used for routine maintenance.

<table>
<thead>
<tr>
<th>Tools</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(1) “V” blade rescue knife</td>
<td>5110-00-524-6924</td>
</tr>
<tr>
<td>(2) “V” blade (12 spare sets)</td>
<td>5110-00-098-4326</td>
</tr>
<tr>
<td>(3) Four pound grapnel hook with 12 foot chain</td>
<td>2040-00-287-9644</td>
</tr>
<tr>
<td>(4) Battery powered megaphone</td>
<td>5830-00-412-9206</td>
</tr>
<tr>
<td>(5) 3/8” speed handles with various reed and prince, Phillips, and high torque screw adapters (2)</td>
<td>5120-00-237-4969</td>
</tr>
<tr>
<td>(6) 10K port-a-power jack</td>
<td>N/A</td>
</tr>
<tr>
<td>(7) Positive pressure breathing apparatus (4)</td>
<td>4240-01-190-0455</td>
</tr>
<tr>
<td>(8) Spare bottles (4)</td>
<td>4240-01-252-0086</td>
</tr>
<tr>
<td>(9) Safety flashlights (2)</td>
<td>6230-00-270-5418</td>
</tr>
<tr>
<td>(10) Portable fire extinguishers in the crash locker (halon 1211, PKP, or CO2) (4)</td>
<td></td>
</tr>
<tr>
<td>(11) Cable cutters (14 inch)</td>
<td>5110-00-224-7053</td>
</tr>
<tr>
<td>(12) Halligan tool (pry bar)</td>
<td>4210-01-108-8716</td>
</tr>
<tr>
<td>(13) Bolt cutter</td>
<td>5110-00-188-2524</td>
</tr>
<tr>
<td>(14) Side cutting pliers (10 inch)</td>
<td>5120-00-224-1541</td>
</tr>
</tbody>
</table>
(15) Pliers (slip joint):
   (a) 6” 5120-00-223-7396
   (b) 10” 5120-00-223-7398

(16) Ball peen hammer
      (1-1/2 pound) 5120-00-061-8545

(17) Hack saws (2) 5110-00-289-9657

(18) Spare blades (12) 5110-00-277-4587

(19) Fire axes (2) 5110-00-720-0711

(20) Ground locks for each
     type of aircraft embarked
     (IMRL item)

(21) Pry bar:
     (a) 36” 5120-00-242-0762
     (b) 60” 5120-00-224-1330

(22) Pinch bar (26 inch) 5120-00-224-1372

(23) Gasoline portable
     forcible entry rescue
     saws (2) 5130-00-134-1207

(24) Spare blades (10) N/A

(25) Socket set (1/2-inch drive) 5120-00-081-2307

(26) Torque wrench (150-190
     foot pounds) 5120-00-524-6924

(27) Drift punch 5120-00-240-8898

(28) Portable Oxygen
     Acetylene Cutting Kit
     3433-00-026-4718

(29) Welding Kit (portable) N/A

(30) Spare 1 1/2” and 2 1/2”
     fire fighting hoses

(31) Two hose control devices
     with vari-nozzles attached

(32) Safety harnesses (4) 4240-00-022-2522

(33) Safety harness
     lanyards (4) 4240-00-022-2518
(34) Reed and prince screwdriver:
   (1) 8 inch 5120-00-278-1280
   (2) 12 inch 5120-00-227-7362

(c) Hangar Deck Tools (AAS)
   (1) Crash/fire axes
   (2) Halligan tool
   (3) Flashlights, safety, two-cell (2)
   (4) Hack saw (with six blades)
   (5) Knife, rescue, V-blades (with six sets of blades)
   (6) Pliers, lineman
   (7) Pliers, rib joint, water pump (10-inch)
   (8) Screwdriver, common (8-inch)
   (9) Wrench, vice grip (10-inch)
   (10) Wrench, adjustable (12-inch)
   (11) Bolt cutter
   (12) Battery powered megaphone
   (13) Ball peen hammer (1-1/2 pound)
   (14) Tool roll, canvas
   (15) Minimum of two SCBA’s with four spare cylinders shall be pre-positioned in each hangar bay
   (16) Tapered plugs (6); 3 wooden, 3 rubber
   (17) Two 3/8-inch speed handles with various reed and prince, Phillips, and high torque screw adapters

24. Fireman’s Proximity Suit or Hot Suit Criteria
   a. Are there six complete sets of hot suits in the crash locker? (AAS) __|__|__
   b. Are there two sets as ready spares? (AAS) __|__|__
   c. Are there three complete sets of hot suits for the rescue personnel? (ACS) (Five complete sets for LPDs) __|__|__
   d. Are the gold face shields free of scratches? __|__|__
NOTE: Gold face shields lose 90 percent of their reflective capability when scratched and shall be replaced immediately.

   e. Do helmet shield protectors snap over the gold face shield?  ___|___

   f. Are hot suits maintained in an “as new” condition?  ___|___

NOTE: Hot suits shall be maintained in an “as new” condition to maintain maximum reflectivity.

NOTE: Pilot’s NOMEX flight gloves must be worn under hot suit gloves but shall not replace them.

NOTE: A complete set of protective clothing includes: trousers, coat, gloves, aviator summer flight gloves, flash hood (sock), structural helmet, proximity helmet, hood, and boots all meeting the requirements of NFPA 1976/2000 edition standards.

25. Weapons Jettison Ramp

   a. Are weapons jettison ramps installed where required by NAVSEA drawings and directives?  ___|___

   b. Are catwalk ramps in working condition?  ___|___

26. JP-5 Fuel

   a. Are the following instructions properly posted in each fuel station:

      (1) “NO SMOKING”  ___|___

      (2) “Recirculate fuel two (2) minutes before refueling A/C”  ___|___

      (3) Aviation fuels handling safety precautions  ___|___

      (4) Operating instructions  ___|___

   b. Is there a receptacle for sound-powered phones?  ___|___

   c. Are sound-powered phones available?  ___|___

   d. Is there an Emergency Service “STOP” button available nearby?  ___|___

   e. Is it labeled “JP-5 EMERGENCY STOP”?  ___|___

   f. Is there an adequate means of recirculating and flushing at the fueling station?  ___|___

   g. Is there a pressure gage at the fueling station?  ___|___

      (1) Is it properly mounted?  ___|___
(2) Has it been calibrated (per METCAL program)?  
Date of calibration  

h. Is a hose reel used for hose storage?  

i. If there is no reel, is there adequate means for proper hose storage when not in use?  

j. Are the deck hatches to the fuel station in good working order?  

k. Are the deck edge rollers properly installed?  
(1) Are they operable?  
(2) Are they maintained properly (reference current PMS)?  

l. Is there a cover for the recirculation piping when it is not in use?  

m. Is there a properly installed one way check valve, either at the fuel station or downstream from the service filter?  

n. Is there any evidence of leakage in the piping, hose reel, hoses, or nozzles?  

o. Is/are the fuel station(s) properly color coded?  

p. Is/are the fuel station(s) properly cleaned?  

q. Is/are the fuel station(s) free of explosive liquids?  

r. Are the proper hoses available for the ship’s installation:  
(1) Has each length of hose been hydrostatically tested (reference current PMS)?  

s. Is the date of that hydrostatic test properly stenciled on each length of hose (reference current PMS)?  
(1) Does each hose length have the proper fitting installed?  
(2) Does each length of hose have continuity within specified limits (reference current PMS)?  

t. If the ship is equipped with the NATO High Capacity Fueling System, the following hoses are required:  
(1) 100 ft. – 2 in. non-collapsible hose with unisex fittings.
(2) 100 ft. – 2 in. collapsible hose with unisex fittings and tiedown segment

(3) 10 ft. HIFR saddle with automatic break away fitting

u. Is the following equipment provided:

(1) D1R (Carter type) pressure nozzle

(a) Does it have the proper strainer with lock ring in place?

(b) Is the strainer maintained properly (reference current PMS)?

(c) Does the nozzle have the proper quick disconnect?

(d) Is the thumblatch cover installed?

(e) Does the nozzle turn freely in the quick disconnect when in the locked position?

(f) Does the quick disconnect have continuity through it?

(g) Is the dust cover properly attached?

(h) Is the proper “Gammon Sampling” coupler installed?

(i) Is the D1/D1R nozzle within continuity limits (reference current PMS)?

(j) Does the nozzle operate properly?

(k) Is the nozzle corrosion free?

(2) Is an aircraft gravity (over wing) nozzle provided?

(a) Does it have a threaded quick disconnect, with strainers?

(b) Does it have a continuity wire?

(1) Is the continuity within specified limits (reference current PMS)?

(2) Plug

(3) Clip

(c) Does it operate properly?

(d) Is it corrosion free?
(3) Grounding Straps (two) to connect aircraft to deck:

   (a) One strap with two clips
   (b) One strap with one clip and one plug OR
   (c) One strap with a clip on one end and clip and
       plug on the other end

v. Is a defueling pump provided?

   (1) Are hoses for the defueling pump provided?
   (2) Is the NATO High Capacity CCR nozzle provided?
       (a) Is the AEROQUIP adapter AE84524R installed?
       (b) Is the continuity wire installed?
       (c) Does the nozzle shut off valve close between 40
           and 50 psi?
   (3) If the DLR nozzle is used, does the shut off valve
       close between 50 and 60 psi?

27. JP-5 CLA-VLA Station

   a. Does each one show evidence of proper preservation?
   b. Is each one clean?
   c. Does each one have continuity from all hoses?
   d. Is there any evidence of leakage?
   e. Are there appropriate JP-5 fuel hoses:
       (1) 1-1/2”
       (2) 2-1/2”
   f. Does each one have a defueling pump?
   g. Does the defueling pump have securely mounted
       coupling/shaft guards?
   h. Is the station operable?
   i. Does the fuel station have a filter?
       (1) Is the filter “change date” stenciled on the bowl?
       (2) Are gauges properly mounted?
       (3) Are gauges calibrated?
       (4) Is there any evidence of leakage within the filter?
28. **JP-5 TEST Equipment**

   a. Is there a complete B2 test kit on board (FSII anti-icing)? __|__|__

   b. Does the ship have an AEL MK III contaminated fuel detector? __|__|__
      (1) Is it stenciled “JP-5 only”? __|__|__
      (2) Is the calibration chart in periodicity according to current PMS? __|__|__
      (3) Does it have a set of wratten filters? __|__|__
      (4) Does it have a set of tweezers? __|__|__
      (5) Has it been electrically safety checked? __|__|__
      (6) Does it have a calibrated fuel sample bottle (calibrated at 500 and 800 milliliters)? __|__|__
      (7) Does it have a wash bottle with Clean, Clear, and Bright (CC & B) JP-5 fuel? __|__|__
      (8) Is it operating properly? __|__|__
      (9) Is it maintained according to current PMS? __|__|__

   c. Does the ship have an AEL MK I/II water detector? __|__|__
      (1) Does it have a standard installed? __|__|__
      (2) Is the standard in periodicity according to current PMS? __|__|__
      (3) Has it been electrically safety checked? __|__|__
      (4) Is it operating properly? __|__|__
      (5) Is it maintained according to current PMS? __|__|__

   d. Are there a minimum of three, five gallon safety cans stenciled “JP-5 only”? __|__|__

29. **Recovery Assist, Securing and Traversing (RAST) Equipment**

   a. Are the following instructions posted on the door to the unmanned machinery room: __|__|__
      (1) “NO ENTRY WHILE RAST IN OPERATION” __|__|__
      (2) “HIGH NOISE LEVEL-HEARING PROTECTION REQUIRED” __|__|__

   b. Is there only RAST associated equipment in the machinery room? __|__|__
c. Is all of the equipment in the machinery room properly secured?   __|__|__

d. Is the machinery and machinery room in good material condition?   __|__|__

e. Is there evidence of the proper use of preservation materials?   __|__|__

f. Is there any evidence of leakage in the hydraulic system?   __|__|__

g. Are hydraulic fluid samples analyzed according to current PMS?   __|__|__

h. Are all required special tools on board and functional?   __|__|__

i. Are sound-powered communications to the LSO control station available?   __|__|__

j. Are the sound-powered phone sets operational?   __|__|__

k. Check each traverse cable for the following:
   (1) Is it rust free?   __|__|__
   (2) Is it properly coated?   __|__|__
   (3) Are there any broken strands?   __|__|__
   (4) Are the ends frayed?   __|__|__

l. Are there a minimum of three spare Recovery Assist (RA) cables stored on the machinery room bulkhead?   __|__|__

m. Are the cables cut to the proper length?   __|__|__

n. Check Tail Guide Winch (TGW) RA cables for the following:
   (1) Are they rust free?   __|__|__
   (2) Are there any broken strands?   __|__|__
   (3) Are the ends frayed?   __|__|__

o. Is there a nitrogen cylinder properly mounted in the machinery room?   __|__|__

p. Do(es) the mounted nitrogen cylinder(s) meet minimum charge requirements?   __|__|__

q. Are the following signs properly mounted in the machinery room:
   (1) “DANGER – HIGH VOLTAGE”   __|__|__
(2) “HIGH NOSE LEVEL – HEARING PROTECTION REQUIRED” __|__|__
(3) “DANGER – OPERATING MACHINERY” __|__|__
r. Are all gauges and meters properly calibrated? __|__|__
s. Is all fire fighting equipment properly installed? __|__|__
t. Is all fire fighting equipment operable and maintained according to current PMS? __|__|__
u. Are all filter indicators on the Winch Hydraulic Power Unit (WHPU) in the down position? __|__|__
v. Is the hydraulic fluid in the WHPU reservoir at the proper level according to current PMS? __|__|__
w. Does each walkway in the machinery room have a slip resistant deck covering? __|__|__
x. Are all flight deck drains clean and in their proper place? __|__|__
y. Is/are bell mouth(s) within wear tolerances as prescribed by current PMS? __|__|__
z. Is/are bell mouth plug(s) in good condition? __|__|__
aa. Is sufficient length of SLOT SEAL available to seal the length of each track? __|__|__
bb. Is/are RAST track(s) clean and free of debris? __|__|__
c. Is/are RAST track(s) properly painted? __|__|__
d. Are all bolts in place and securely fastened on RAST track plates? __|__|__
e. Are TGW boxes and hatches free of corrosion and rust? __|__|__
ff. Are all control lights operable? __|__|__
g. Is slip resistant rubber matting installed on the walkway in the control station? __|__|__
hh. Is a portable CO2 fire extinguisher properly installed? __|__|__
ii. Is the portable CO2 extinguisher properly maintained according to current PMS? __|__|__
jj. Is the view of the flight deck clear and unobstructed through the control panel windows? __|__|__
kk. Are the following communications systems in an operable condition:
(1) UHF head set (H-172/U) __|__|__
(2) Sound-powered phones

(3) 5 MC announcing system

(4) Helicopter crash alarm

11. Check control station windshield wipers for the following:

(1) Are they operational?

(2) Are the blades in good condition?

(3) Are replacement blades available?

mm. Are Rapid Securing Device (RSD) flags operable when RSD beams are in the CLOSED position?

nn. Are RSD safety bars available?

oo. Are the RSD safety bars properly pinned in position when not in use?

pp. Do RSD safety bars have locking pins attached?

qq. Is hydraulic fluid at the proper level in the RSD reservoir as prescribed in current PMS?

30. Aircraft Operations Bill

a. Does the ship have an up-to-date Aviation Operations Bill?

b. Does the bill contain all procedures to assure safe operations?

c. Does the bill specify the levels, classes, and aircraft for which the ship is certified?

d. Does the bill address shipboard smoke control resulting from aircraft fires?

e. Does the bill discuss ship maneuvers and identify ventilation which must be secured in the event of fight/hangar deck emergency?
COMMENTS

SHIP: USS____________________________________________ DATE: _________________
SECTION: __________________________ EVALUATOR: ______________________________
_____________________________________________________________________________

NOTE: Items marked with an asterisk (*) must be corrected to complete an ARQ or conduct flight or fueling operations.
SURFACE AVIATION OPERATIONS BILL

1. The Surface Aviation Operation Bill shall be tailored to each ship and include standard operating procedures for the following:
   a. Responsibilities and required training of aviation
   b. Personnel
   c. Ship’s level/certification and clearance requirements
   d. Helicopter operation safety
   e. Standard commands
   f. Underway launching/recovery
   g. RAST launching/recovery
   h. IFR recovery
   i. Helicopter stowage/movement
   j. Night operations
   k. NVD operations
   l. Lost communications/lost aircraft procedures
   m. Crash rescue procedures
   n. Maneuvering restrictions during flight operations
   o. Cold weather operations
   p. Helicopter fueling on deck/in-flight (HIFR)
   q. Helicopter ordnance/AECM handling (HERO)
   r. Vertical replenishment (VERTREP)
   s. Personnel or light cargo transfer
   t. Emergency procedures
   u. Mishap procedures
   v. Helicopter characteristics and wind envelops
   w. FOD program
   x. Flight quarters assignment
   y. Relaxed flight quarters procedures
AVIATION FACILITIES BINDER STRUCTURE

1. Each Aviation Facility Coordinator shall maintain a reference binder to facilitate job continuity and ready access to important aviation facility information and documentation. This file shall be updated regularly and shall contain the following items at a minimum:

   a. A current copy of COMNAVSURFORINST 3700.1B

   b. A current copy of the applicable Facilities Bulletin

   c. A copy of the latest ARQ results

   d. NAVAIR certification guidelines

   e. Last SAR evaluation

   f. AVCERT Documentation

      (1) AVCERT results message

      (2) Certification recommendation message (new constructions)

   g. Testing documentation

      (1) Safety Net Load Test

      (2) Pad eye Load Test

      (3) AFFF analysis

      (4) AC/DC Load bank

      (5) Hangar Sprinkling System memo

      (6) Flight Deck Sprinkling System Memo for landing area

      (7) Helicopter Maintenance Hoist Load Test

      (8) JP-5 Storage Tank inspection memo

      (9) TACAN Certification

   h. Training documentation

      (1) Current copy of ship’s Collateral Duty List (CDL)

      (2) HCO/FDO/LSE school graduation, fire-fighting course completion, and PQS

      (3) JP-5 Fuels officer and enlisted school and PQS

      (4) Surface Rescue Swimmer School completion

      (5) RAST Technician EM/EN School completion and PQS qualifications

Enclosure (18)
(6) SGSI Technician School completion

(7) Flight Deck Fire Team School completion and PQS

i. Copy of current Fire Bill

j. Copy of Surface Aviation Operation Bill

k. A locator file for all required instructions

l. Copies of current Aviation Facility CASREPs