



DEPARTMENT OF THE NAVY

NAVAL AIR STATION OCEANA
1750 TOMCAT BOULEVARD
VIRGINIA BEACH, VIRGINIA 23460-2168

IN REPLY REFER TO:

NASOCEANAINST 3740.2G

30

FEB 02 2004

NAS OCEANA INSTRUCTION 3740.2G

Subj: PROCEDURES FOR DESIGNATION OF FUNCTIONAL CHECK FLIGHT
PILOTS FOR THE UH-3H HELICOPTER

Ref: (a) OPNAVINST 4790.2H
(b) OPNAVINST 3710.7S
(c) NAVAIR 01-230-HLH-1 (UH-3H/UH-3H ET NATOPS)
(d) NAVAIR 01-230-HLH-1F NATOPS Functional Check Flight
Checklist, Navy Model UH-3H Helicopter

Encl: (1) H-3 Functional Check Flight Pilot Training Syllabus
(2) Recommendation for Post Maintenance Functional
Check Flight Pilot Designation
(3) Sample Designation Letter

1. Purpose. To set forth requirements for training and
designation of Functional Check Flight Pilots (FCPs) per
references (a) through (d).

2. Cancellation. NASOCEANAINST 3740.2F. Due to numerous
changes, paragraph markings have been omitted.

3. Action. Prior to being designated as an FCP, a pilot shall:

a. Be a highly motivated and currently designated
Helicopter Aircraft Commander with outstanding knowledge of
aircraft systems.

b. Obtain 50 hours in model as an Aircraft Commander. If
previously designated Functional Check Flight (FCF) in the
UH-3H, one standardization flight must be flown with a currently
designated FCP. If previously designated FCF in a model other
than the UH-3H, pilot must obtain 25 hours in model as Aircraft
Commander.

c. Have completed the appropriate FCP syllabus,
enclosure (1). Based upon the pilot's level of knowledge and
past experience, the ground and flight training syllabus may be
adjusted at the discretion of the Air Operations Maintenance
Division (AOMD) Maintenance Officer or the AOMD Quality
Assurance Officer (QAO). The Full Functional Qualifications
Check Flight shall be given by the Maintenance Officer, provided
he is a designated FCP; Quality Assurance Officer; or an
Assistant Naval Air Training and Operating Procedures
Standardization (NATOPS) Instructor (ANI)/FCP.

d. Satisfactorily complete the written open and closed book
examinations administered by the Quality Assurance Officer.

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e. Be recommended to the Officer in Charge (OIC) of Air Operations per enclosure (2).

4. Responsibilities

a. The QAO shall:

(1) Manage the FCP Training program.

(2) Review all crew qualifications prior to making recommendations for designation to the OIC.

(3) Establish an ongoing training program for all FCP's to include new procedures and quarterly refresher training.

(4) Conduct meetings of all FCP's to discuss current problem areas, review procedures and ensure standardization, and ensure designated FCF crews are kept current on any technical or procedural changes.

(5) Maintain liaison with Flight Support/Schedules to coordinate FCP flight training.

(6) Ensure a sufficient number of qualified FCP's are maintained to meet AOMD/Search and Rescue (SAR) requirements.

(7) Maintain a file with copies of ground training and flight training syllabi with recommendation and designation letters.

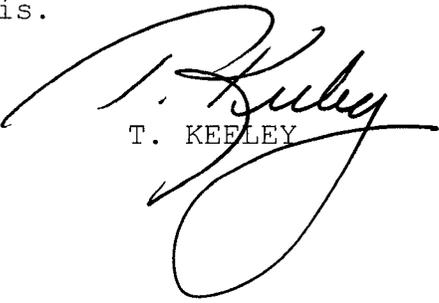
b. The AOMD Officer shall:

(1) Brief all prospective candidates on the requirements for designation as a FCP.

(2) Periodically review the FCP syllabus to ensure training is adequate to meet the objectives of the FCF program.

c. The OIC shall designate all FCP's in writing per enclosure (3).

5. Review. The QAO shall review this instruction, at a minimum, on an annual basis.


T. KEELEY

Distribution:
NASOCEANAINST 5216.1X
List I (11 and 30 only)

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H-3 FUNCTIONAL CHECKFLIGHT PILOT TRAINING SYLLABUS

NAME/RANK _____
SSN _____

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UH-3H

- | | | |
|----|---|----------------------|
| 1. | <u>REQUIRED READING:</u> | <u>INITIALS/DATE</u> |
| | a. OPNAVINST 3710.7S PAR 3.8 | _____ |
| | b. OPNAVINST 4790.2H, VOL I, 12.1.4 & 12.1.5 | _____ |
| | c. LOCAL COMMAND PROCEDURES FOR NAVAL AVIATION
MANINTENANCE PROGRAM STANDARD OPERATING
PROCEDURES (NAMSOP) OPNAVINST 4790.2H VOL 1
CHAPTER 12 (SAFETY OF FLIGHT DISCREPANCIES
MATRIX) | _____ |
| | d. COMHELTACWINGLANTINST 4790.7 NON-NAMP SOP
PROGRAM POLICIES | _____ |
| | e. NA 01-230HLH-2-1.1 GENERAL INFO & PRINCIPLES
OF OPERATION - AIRFRAMES | _____ |

<u>WP</u>	<u>SUBJECT</u>
012 00	LIST OF APPLICABLE DIRECTIVES
027 00	PRIMARY HYDRAULIC SYSTEM & FIG 2
029 00	AUX HYDRAULIC SYSTEMS & FIG 2
031 00	UTILITY HYDRAULIC SYSTEMS
033 00	LANDING GEAR SYSTEM & FIG 2
045 00	ENGINE SPEED CONTROL SYSTEM
046 00	ENGINE CONTROL QUADRANT
047 01	ENGINE OVERSPEED SYSTEM T58-GE-402
048 00	EMER. ENGINE CONTROL SYSTEM & FIG 1
050 00	ENGINE START & IGNITION SYSTEM
051 00	ENGINE ANTI ICE SYSTEM
060 00	FUEL SYSTEM & FIG 1
064 00	FUEL DUMP SYSTEM & FIGS 1, 2
067 00	FUEL QUANTITY, INDICATING SYSTEM & FIGS 1, 2
069 00	FUEL BOOST PUMP SYSTEM & FIG 1
070 00	MAIN GEAR BOX

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<u>WP</u>	<u>SUBJECT</u>
072 00	MGB LUBRICATING AND INDICATING SYSTEMS & FIGS 1, 3, 4
074 00	TORQUE INDICATING SYSTEM & FIG 3
075 01	ACCESSORY DRIVE SYSTEM (AFC 401)
076 00	ROTOR BRAKE SYSTEM
077 00	TAIL DRIVE SHAFT
078 00	INTERMEDIATE GEAR BOX
079 00	TAIL GEAR BOX
080 00	FLIGHT CONTROL SYSTEM & FIGS 1, 2
081 00	ROTARY WING HEAD
082 00	ROTARY WING BLADES
084 00	AUTOMATIC BLADE FOLD SYSTEM & FIGS 2, 3
085 00	ROTARY RUDDER HEAD
086 00	ROTARY RUDDER BLADES
092 00	VIBRATION ANALYSIS

f. NAVAIR 01-230HLH-2-1.2 GENERAL AVIONICS

<u>WP</u>	<u>SYSTEM</u>
005 00	ATTITUDE INDICATING SYSTEM
006 01	AFCS DESCRIPTION
007 00	BEEPER TRIM SYSTEM
013 01	ATTITUDE HEADING REFERENCE SYSTEM (A/A24G-39)
025 01	AC/DC POWER DISTRIBUTION
025 03	POWER DISTRIBUTION COMPONENT DESCRIPTION

g. NAVAIR 01-230HLH-2-2.1.1 TEST AND TROUBLE SHOOTING PROCEDURES

<u>WP</u>	<u>SUBJECT</u>
027 00	MGB LUBRICATING & INDICATING SYSTEM
036 01	ENGINE OVERSPEED GOVERNOR SYSTEM
038 00	ENGINE STARTER & IGNITION SYSTEMS
039 00	TORQUE INDICATING SYSTEMS
043 00	FLIGHT CONTROL SYSTEM (MECHANICAL)
044 00	PRI & AUX HYDRAULIC SYSTEMS
055 01	ACCESSORY DRIVE SYSTEM
056 00	MAIN ROTOR SYSTEMS/VATS TRACK AND BALANCE SYSTEM & TABLE 6-3

h. NAVAIR 02B-105AHC-6-1 TURBOSHAFT ENGINE

*****READ THE -402 INFO ONLY*****

SECTION I: SEE TABLES 1-1 through 1-6
 SECTION IX: SYSTEM OPERATIONS & DESCRIPTION
 SECTION X: FIG 10-3
 SECTION XI: TROUBLESHOOTING & FIG 11-6

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i. NAVAIR 01-230HLH-2-3.9 FLIGHT CONTROLS _____

<u>WP</u>	<u>SYSTEM</u>
003 00	FLIGHT CONTROL SYSTEMS
015 00	NEGATIVE FORCE GRADIENT SPRING
017 00	FLIGHT CONTROL QUICK RIG CHECK
018 00	RIGGING ROTARY WING FLIGHT CONTROLS
019 00	RIGGING ROTARY RUDDER FLIGHT CONTROLS

j. NAVAIR 01-230HLH-2-3.3 HYDRAULIC SYSTEMS _____

<u>WP</u>	<u>SYSTEM</u>
003 00	SEE TABLE 1
007 00	PRIMARY PANEL PACKAGE
008 00	PRIMARY SERVO
013 01	AUXILIARY SERVO CYLINDER
017 00	COLLECTIVE OPEN LOOP SPRING
018 00	YAW OPEN LOOP SPRING

k. NAVAIR 01-230HLH-2-3.6 PROPULSION SYSTEMS _____

<u>WP</u>	<u>SYSTEM</u>
008 00	ENGINE ADJUSTMENTS SEE STEPS 1 - 3
012 00	ENGINE DRIVE SHAFT
014 00	ENGINE SPEED CONTROL SYS SEE STEP 4
016 00	EMERGENCY ENGINE CONTROL SEE STEP 3

l. NAVAIR 01-1A-8 STRUCTURAL HARDWARE _____
 PARAGRAPHS 2-38 through 2-47
 SAFETY WIRE PROCEDURES
 SECTION 5: BOLTS

m. NA 01-230HLH-6-1 TURNAROUND CHECKLIST _____

n. NA 01-230HLH-6-2 DAILY MRC CARDS _____

o. NA 01-230HLH-6-3 SPECIAL'S AND DATED _____
 INSPECTIONS

p. NAVAIR 01-230-HLH-1 NATOPS Flight Manual, _____
 UH-3H

Chapter 4, Operating Limitations
 Chapter 10, Functional Checkflight Procedures
 Chapter 12, Emergency Procedures

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2. REQUIRED GROUND TRAINING:

- a. FUNCTIONAL CHECK FLIGHT PROGRAM QAO _____
- b. HC-2 FCF GROUND SCHOOL QAO _____
- c. MAINTENANCE OFFICER BRIEF MO _____
- d. WEIGHT AND BALANCE MMCO _____
- e. PUBLICATIONS AND DIRECTIVES AZ/QA _____
- f. T58-402 ENGINE REVIEW* POWERPLANTS QAR _____
- g. FLIGHT CONTROLS REVIEW* AIRFRAMES QAR _____
- h. AVIONICS/ELECTRICAL REVIEW* AVIONICS CDI _____
- i. ENGINE TOPPING & TUNE FCP _____
- j. CONTROLABILITY CHECKS FCP _____
- k. TRACK AND BALANCE FCP _____
- l. VIBRATIONAL ANALYSIS PROGRAM QAR _____

OPEN BOOK EXAM _____

CLOSED BOOK EXAM _____

*Designed to be an in-depth overall briefing to work in concert with a prospective FCP's required reading and completion of the Open Book Test.

3. FLIGHT TRAINING SYLLABUS

The following flights must be completed prior to recommendation for designation as Functional Checkflight Pilot. **EVERY PROFILE SHOULD BE COMPLETED WITHIN A SECTION BEFORE THE SECTION CAN BE SIGNED OFF.** Subsections shall be completed INDEPENDENTLY from the section. A FCP Checkflight must be flown with either the MO (if an FCP), QAO, or any FCP who is also designated an Assistant NATOPS Instructor. An FCF Refresher Flight with a qualified FCP should be flown within two weeks of designation. Refresher Flight shall include at a minimum engine topping checks and auto rpm checks.

BOLD-FACED ITEMS are considered critical FCF procedures where mastery of requisite flying skills AND appropriate preflight planning, calculations and interpolations are more to be EVALUATED for a sign-off THAN TAUGHT.

REQUIRED CHECK	1 ST SIGNOFF DATE/SIG	2 ND SIGNOFF DATE/SIG
1. PRESTART CHECKS	_____	_____
2. NO. 1 or 2 ENGINE CHECKS	_____	_____
3. SYSTEM CHECKS	_____	_____
4. PRE-TAKEOFF CHECKS	_____	_____
5. HOVER CHECKS	_____	_____
a. CONTROLLABILITY CHECKS	_____	_____
b. ASE HOVER	_____	_____
c. TOPPING CHECKS	_____	_____
6. FORWARD FLIGHT CHECKS	_____	_____
a. JUMP TAKE OFF	_____	_____
b. AUTOROTATION	_____	_____
c. CONTROLLABILITY/VIBES	_____	_____
d. ASE	_____	_____
7. VIBRATION ANALYSIS	_____	_____
8. MRH TRACK AND BALANCE	_____	_____
9. TRH SMOOTHING	_____	_____
10. LEAK CHECKS	_____	_____
11. HEALTH MONITOR	_____	_____
12. FCP CHECK RIDE	_____	_____
13. FCF Refresher (within two weeks of designation)	_____	_____

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**RECOMMENDATION FOR POST MAINTENANCE FUNCTIONAL
CHECK FLIGHT PILOT DESIGNATION**

From: AOMD Quality Assurance Officer
To: Officer in Charge, Air Operations Department
Via: (1) Maintenance Officer
(2) Flight Support/Schedules Officer

Subj: RECOMMENDATION FOR POST MAINTENANCE FUNCTIONAL CHECK
FLIGHT PILOT (PMFCP) DESIGNATION

Ref: (a) NASOCEANAINST 3740.2G

1. _____
(Rank, Name (Last, First MI), SSN, USN/USNR)
has successfully completed the qualifications, as set forth in
reference (a), and is recommended for designation as a PMFCP for
the UH-3H aircraft.

(Signature) (Date)

FIRST ENDORSEMENT

From: Maintenance Officer
To: Officer in Charge, Air Operations Department
Via: Flight Support/Schedules Officer

1. Forwarded, recommending approval/disapproval.

(Signature) (Date)

SECOND ENDORSEMENT

From: Flight Support/Schedules Officer
To: Officer in Charge, Air Operations Department

1. Subject pilot was designated Helicopter Aircraft Commander
(HAC) on _____, and has flown _____ HAC hours and _____
total flight hours.

2. Forwarded, recommending approval/disapproval.

(Signature) (Date)

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SAMPLE POST MAINTENANCE FUNCTIONAL CHECKFLIGHT PILOT
DESIGNATION LETTER

3740
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From: Commanding Officer, Naval Air Station Oceana
To: LT John L. Doe, USN, 123-45-6789/1310

Subj: DESIGNATION AS POST MAINTENANCE FUNCTIONAL CHECKFLIGHT
PILOT IN H-3 MODEL AIRCRAFT

Ref: (a) OPNAVINST 3710.7S
(b) OPNAVINST 4790.2H
(c) NAVAIR 01-230HLH-1
(d) NAVAIR 01-230HLF-1
(e) NASOCEANAINST 3740.2G

1. Having met the requirements of references (a) through (e),
you are designated a Post Maintenance Functional Check Flight
Pilot in the UH-3H aircraft.

D. R. DESIMONE
By direction

Copy to:
COMNAVPERSCOM (PERS-312)
NATOPS Jacket
AOMD Quality Assurance Officer
Training Jacket
Schedules Officer