

CREW BRIEFING

1. Mission requirements.
2. Flight plan.
3. Fuel load.
4. Emergency - survival equipment.
5. Weather.
6. Special equipment.
7. Weight and balance.
8. Crew duties and responsibilities.

TOLD DATA CARD

WX # 6441

MAINT # 6276

TAKE-OFF AND LANDING DATA CARD HH3F

FSS. 9-374-3610

HELO NO. _____

14 95 (33)

DATE _____

14 79 (22)

14 1 (11)

MISSION _____

DATA

Field elevation

218 FT

Pressure altitude

Free air temperature

FSS

Wind

FSS

Density Altitude

A-13

Operating weight

365-F

Extra Crew/equipment

Fuel

-100^{lb} B.O.

Mission gross weight

Power available SE/DE

A-15 (1) /

Power required HIGE 5 ft. (A-21) A-23 ()

Power reserve

Max gross weight, HOGE (A-20) A-22 ()

Power required, HOGE, mission GWT (A-21) A-23 ()

Single engine climb

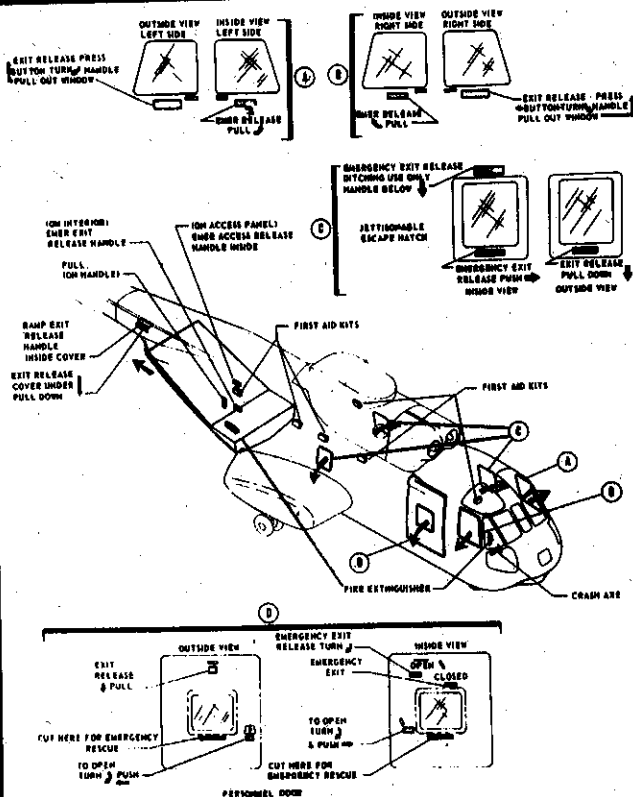
A-34

A-52

Max airspeed, mission GWT A-54

() NO WIND CALCULATIONS

EMERGENCY EXITS AND EQUIPMENT



PASSENGER BRIEFING

1. Introduction of crew.
2. Destination.
3. Flight altitude.
4. Departure time and estimated time enroute.
5. Enroute weather.
6. Seats and safety belts.
7. Movement in the helicopter.
8. Smoking.
9. Emergency exits (location and operation).
10. Emergency landings or autorotations, (signals and exits).
11. Bailout (signals and exits).
12. Emergency equipment (fire extinguishers, crash axe, first aid kits, parachutes, and emergency exit lights).
13. Use of portable electronic device.
14. Helicopter characteristics. Passenger information card in helicopters.
15. Action required in case of ditching.
16. Use of survival equipment (life vest, raft, etc.).

PASSENGER INFORMATION

1. Smoking is prohibited during ground operations, take-offs, landings, and when directed by the pilot. Obtain pilot's permission prior to smoking.
2. Safety belts will be securely fastened for all take-offs, landings, when operating below 1000 feet and during flight through turbulent air.
3. Operation of portable electronic gear is prohibited.
4. All passengers should wear ear protective devices to avoid ear damage.
5. If it becomes necessary to evacuate the helicopter, refer to the diagram provided for exits.
6. If a crash landing becomes necessary, proceed as follows:
 - a. Jettison emergency exits if directed by the pilot.
 - b. Loosen tie.
 - c. Fasten safety belt tightly.

Just prior to contact with the surface, passengers will fold arms resting them on their knees. Bend body forward as far as possible and rest head firmly on arms. If available, hold pillow, blanket, or clothing in front of head to cushion impact. Keep your safety belt fastened until the aircraft has landed and come to a complete stop.

MAX N_g LIMITS FOR EXISTING TEMPERATURES

FAT	N_g
4.5°C and below	102.7
10°C	102.7
15°C	102.7
20°C	102.2
25°C	101.9
30°C	101.7
35°C	101.6
40°C and above	101.5

ALTITUDE COUPLER CHECK

- a. Meter Selector Switch - CPLR POSITION.
- b. HOVER Indicator - A MODE.
- c. Altitude Set Pot - ZERO.
- d. AFCS Button - ENGAGED.
- e. Collective Friction - OFF.
- f. Vertical Accelerometer - CHECKED.

A check of the vertical accelerometer is made by noting the position of the vertical pointer. Alignment should be within $\pm .25$ of a division from the center. If it is not, have the crewman adjust the appropriate accelerometer null set screw to obtain proper alignment.

- g. Depress Press to Test on RADALT and hold.
- h. Rotate CPLR altitude set pot to center vertical pointer. The altitude shown on the set pot should agree with the altitude shown on the RADALT. If the altitudes do not agree the error noted will be present in a coupled hover. It should be written up as a discrepancy, if it exceeds 5 feet.
- i. Release press to test on RADALT, leave altitude set pot at altitude set.
- j. Meter Selector Switch - ASE POSITION.
- k. CPLR Button - ENGAGED.
- l. ALT CPLR Switch - ON. Collective should begin moving up within one division or less indicated by the vertical pointer on the hover indicator.

ALTITUDE COUPLER CHECK (CONT)

- m. ALT CPLR Switch - OFF.
- n. Return altitude set pot to zero.
- o. Disengage BARALT and CPLR.
- p. If the Cyclic Coupler Check is not going to be accomplished, disengage the AFCS.
- q. Collective friction - ADJUSTED.

CYCLIC COUPLER CHECK

a. Meter Selector Switch - ASE POSITION.

b. HOVER Indicator - A MODE.

c. Doppler - STANDBY.

d. AFCS Button - ENGAGED.

e. Pitch and Roll Bars - CENTERED.

Center the roll and pitch bars by placing the cyclic in the neutral position.

f. Meter Selector Switch - CPLR POSITION.

g. Speed and Drift Pots - SET.

Locate the deadband/null area on the drift pot by setting the knob to the full counterclockwise position. Slowly rotate the drift pot clockwise, noting that the roll bar on the hover indicator will follow the movement of the drift pot until the deadband/null area is reached. The roll bar and the drift pot should both be centered. If the drift pot is not centered, mark its position for the flight and note this on the CG-4377. If the roll bar is not centered within the donut, have the crewman adjust the accelerometer null set screw to obtain proper alignment within the donut. Repeat the same procedure for the speed pot.

h. Cyclic CPLR Switch - ON.

i. Engage CPLR and HOVER TRIM simultaneously. No movement of crossbars should have been noticed. Any such movement indicates a possible misalignment of the crew roll and pitch bias. Have the crewman reposition the crossbars to the original position using his pitch and roll knobs.

j. Meter Selector Switch - ASE POSITION.

CYCLIC COUPLER CHECK (CONT)

- k. Slowly turn the pilot's speed pot clockwise, while watching the pitch bar move. Wait 5 seconds at each $\frac{1}{4}$ division of movement. The cyclic should keep at $2 \pm \frac{1}{4}$ divisions up on the pitch bar.
- l. Reset the speed pot to the previously determined deadband/null position.
- m. Recenter pitch bar with cyclic.
- n. Repeat steps k through m in opposite directions.
- o. Repeat steps k through n using the drift pot.
- p. CYCLIC CPLR Switch - OFF.
- q. AFCS - DISENGAGED.

PATCH BRIEFING

1. Review PATCH procedures.
2. Timing to gate.
3. Coupler procedures.
4. Missed approach procedures.
5. Intentions in the event of engine malfunction.
6. Emergency egress.

WARNING

If maximum power available is not at least 10% greater than power required for hover OGE, the maneuver should not be attempted unless mission urgency dictates. Consideration should be given to reducing aircraft weight.

INSTRUMENT APPROACH BRIEFING

1. The frequencies of the navigation aids to be used during the approach.
2. The courses to be set in course display windows.
3. Approach minimums.
4. Minimum altitudes for each phase of the approach.
5. Missed approach timing.
6. Missed approach procedures.
7. Designation of pilot to handle communication.
8. Designation of pilot to monitor the navigation aid used for the approach.
9. Procedures to be followed after the safety pilot is visual.

DISTANCE

-2.2

-2.0

-1.8

-1.6

-1.4

-1.2

-1.0

-0.8

-0.6

-0.4

-0.2

-0.0

START CLOCK

DISENGAGE BAR ALT

WITHIN 10 SEC
DECREASE TORQUE 10
AND BEGIN DESCENT
TO 150 FT

MAINTAIN 50 KTS

GATE IS AT 1 MIN
AFTER ROLLOUT, ADD
30 SECONDS FOR EACH
5KTS OF WIND. IF NAVI-
GATOR USED, GATE IS
AT 0.6 DIST. AND BRG
SAME AS WIND LINE.

AT GATE
1 DECREASE TORQUE
BY 10
2 POSITION NOSE 2°
ABOVE 60 KT. CRUISE
ATTITUDE. (1° FOR
WIND OVER 10 KNOTS)

COUPLED HOVER
SHORT OF DATUM

WHEN VISUAL,
PERFORM O/T5
CHECK

GATE

NOTE TORQUE AND NOSE
ATTITUDE FOR 50 KIAS,
LEVEL FLIGHT

CHECK SPEED SELECTORS FULL
FORWARD MATCH TORQUES

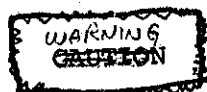
DATUM: START CLOCK, TURN 20° RT.
IF NAVIGATOR IS USED,
STORE DATUM POSITION IN
DESIRED WAYPOINT.

300 FT., 50 KIAS, PATCH
CHECKLIST COMPLETE

1 MIN AND
45 SEC. START LEFT
SRT TO THE WINDLINE



PRECISION APPROACH TO A COUPLED HOVER (PATCH)



A PATCH should not be attempted if the
aircraft is too heavy to hover out of

BRIEFING FOR TYPICAL BOAT HOIST

BRIEFING TO BOAT:

1. Ask for on scene wx, condition of patient, and recommended hoisting area. Give ETA and number of helicopter POB.
2. Recommend Course and speed for hoist.
3. Explain rotor downwash and static electricity. Have all loose gear stowed, antennas lowered, and instruct vessel on letting cable ground. Caution not to secure cable to vessel and discuss disconnecting the rescue device.
4. Describe type of hoist (trail line, indirect pump delivery, etc), type of rescue device, and area of vessel to be utilized.

BRIEFING TO COPILOT

1. Maintain all radio communications.
2. Monitor all A/C instruments and act as safety pilot. Altitude for hoist and safety limits.
3. Type of approach (visual, PATCH, etc.). When to perform Landing Check.
4. Torque-T5 checks and limits.
5. Fuel reserves and limits.

BRIEFING TO CREW

1. AVIONICSMAN-Maintain comms and log all times.
2. FLIGHT MECH-When to complete Rescue Checklist, type of hoist, rescue device, altitude, and area of vessel to be utilized. Review hoisting commands and procedures for the specific type of hoist.
3. Review lost comms, lost electrical power, and fouled hoist procedures for all crew positions. Establish procedures to be followed if sight of the boat is lost.

BOAT HOIST BRIEFING

1. Crew

- a. Power available vs. power required.
- b. Torque/T₅ checks and power deterioration limits.
- c. Rescue equipment to be used.
- d. Area where rescue equipment is to be delivered.
- e. Desired altitude.
- f. Copilot duties.
- g. Fouled cable/shear procedures.
- h. Lost communications procedures.
- i. Intentions in the event of engine malfunction.
- j. Emergency egress.

2. Vessel

- a. The desired course and speed of the vessel (course 30° to 45° to right of wind line and underway).
- b. The method of retrieval (basket, litter) to be provided by the helicopter.
- c. To discharge the static electricity prior to handling the hoisting rig.
- d. If hoisting rig is to be moved from the hoist location, to have the vessel's personnel disconnect the hoist cable.
- e. To ensure that hoist cable is not secured to any part of the vessel.
- f. To have vessel lower and/or stow all antennas, booms, rigging, flagstaffs, loose gear, etc., from the hoist area.
- g. Additional information to be passed as required.

RESCUE PLATFORM BRIEFING

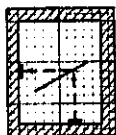
1. Torque/T5 checks and power deterioration limits.
2. Wind/sea evaluation.
3. Type of recovery to be performed.
4. Desired heading.
5. Equipment to be used (i.e. platform, boarding ladder).
6. Copilot actions.
7. Emergency egress.

CARGO SLING BRIEFING

1. Cargo to be carried.
2. Operating area description and peculiarities.
3. Method of approach and hookup/release of cargo.
4. Ground/air crew duties including communications, grounding and approach/egress procedures for personnel and special safety precautions.
5. Intentions in the event of engine or equipment malfunction.

CAUTION

When the maximum power available is not a minimum of 10% greater than that required to hover out of ground effect (OGE), the maneuver then becomes one of a very demanding nature and should not be attempted unless mission urgency dictates otherwise.



DENSITY ALTITUDE

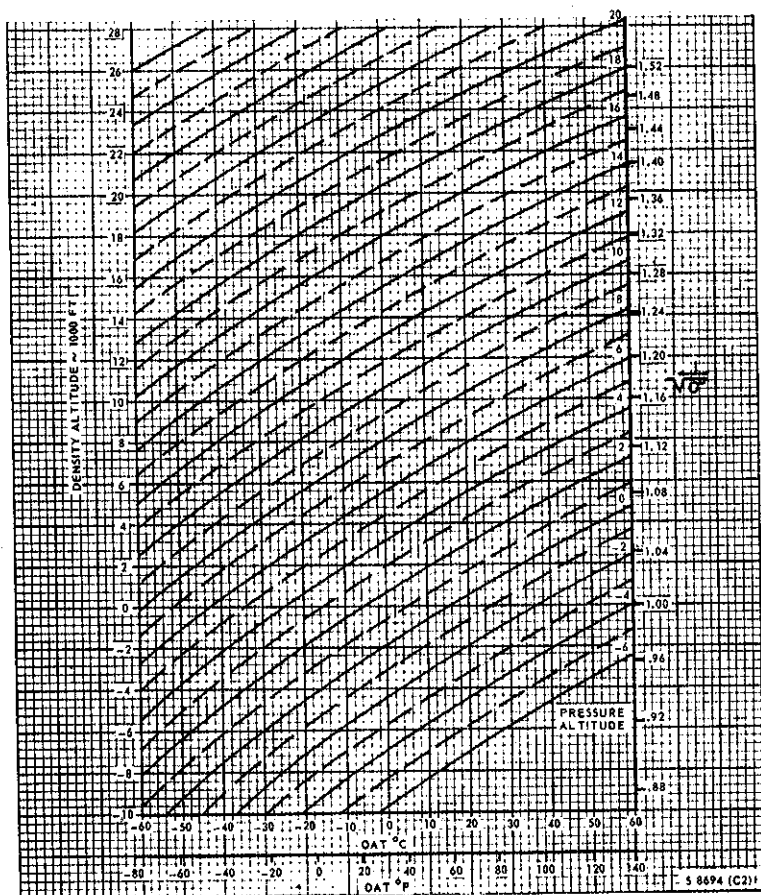


Figure A-1. Density Altitude

CONDITIONS:
HOVER ZERO WIND
ZERO AIRSPEED
POD SHIELD ON OR OFF
MILITARY POWER



MAXIMUM POWER AVAILABLE

ONE ENGINE

MODEL
HH-3F

ENGINE
T58-GE-5

DATE: 15 APRIL 1971

DATA BASIS: ENG MFG SPEC E1096-A

NO WIND TO 3 KNOTS

WITH WIND

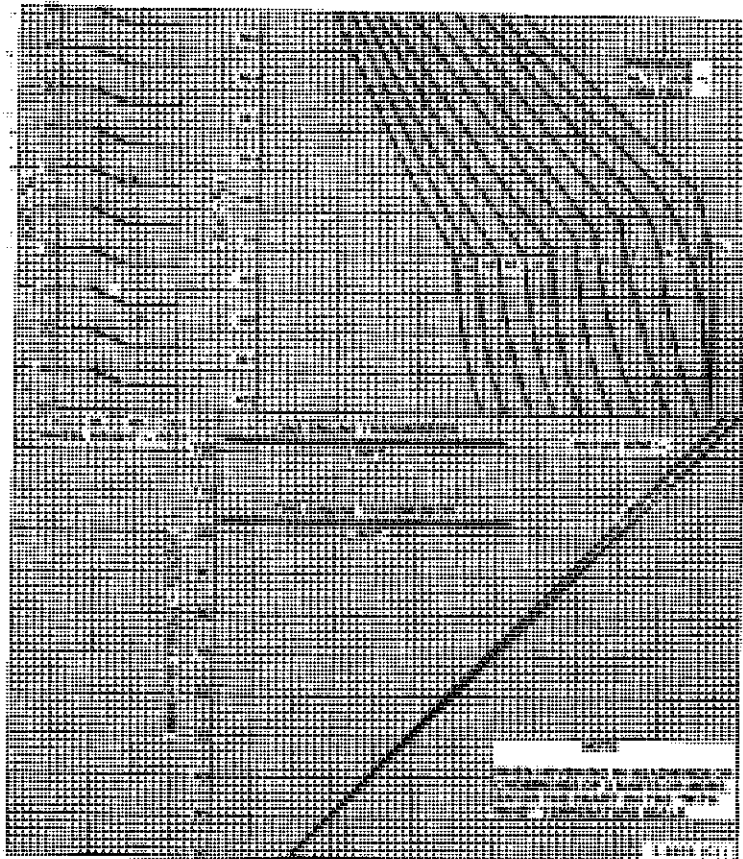


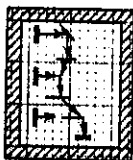
Figure A-3. Maximum Power Available - 3 Minute Limit - One Engine

MAXIMUM GROSS WEIGHT FOR HOVERING

TWO ENGINES

MODEL
HH-3F

ENGINE
T58-GE-5



CONDITIONS:
MAXIMUM POWER
ZERO AIRSPEED
FOO SHIELD ON OR OFF

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

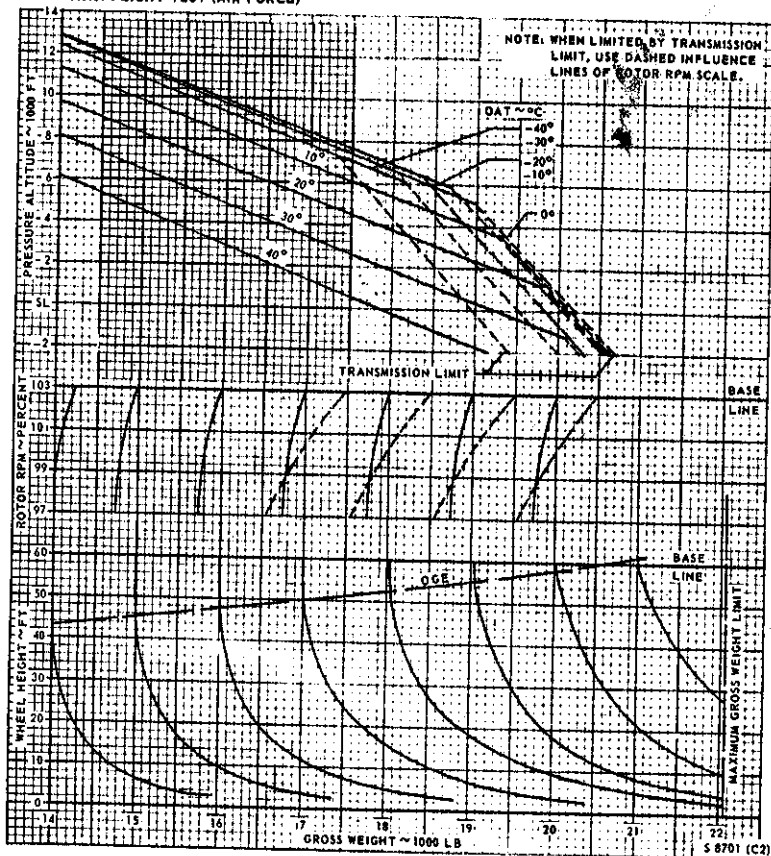
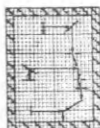


Figure A-8. Maximum Gross Weight for Hovering - Zero Wind - Two Engines

CONDITIONS:
HOVER, ZERO AIRSPEED,
FOD SHIELD ON OR OFF

DATE: 15 APRIL 1971
DATA BASIS: FLIGHT TEST

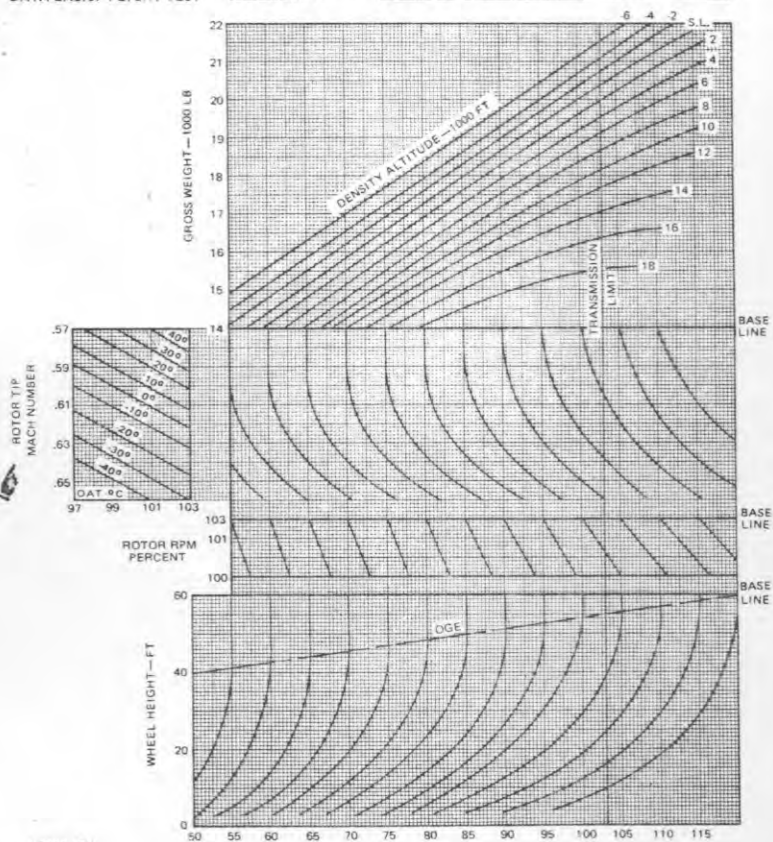


TORQUE REQUIRED TO HOVER

TWO ENGINES

MODEL:
HH-3F

ENGINE:
T58-GE-5



5 8702 (C)

Figure A-9. Torque Required to Hover - Zero Wind - Two Engines

HEADWIND INFLUENCE ON MAXIMUM GROSS WEIGHT FOR HOVERING

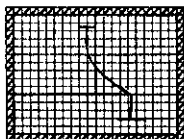
TWO ENGINES

MODEL

ENGINE

HH-3F

T58-GE-5



DATE: 1 JULY 1974
DATA BASIS: ESTIMATED

NOTE: WEIGHT CORRECTION FOR
HEADWINDS LESS THAN
3 KNOTS IS NEGLIGIBLE

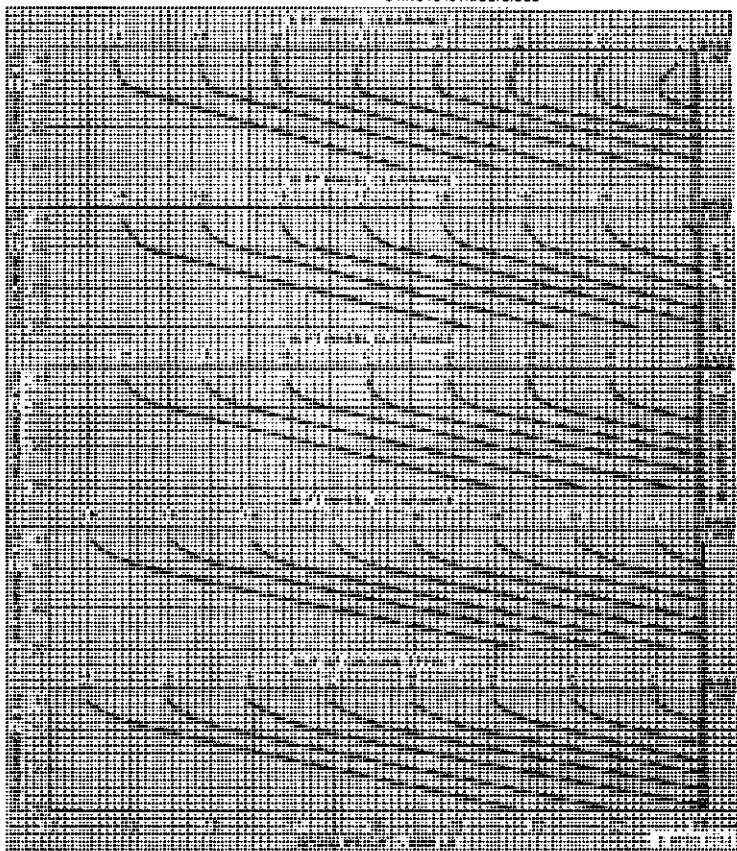
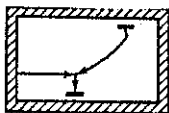


Figure A-10. Headwind Influence on Maximum Gross Weight for Hovering

CONDITIONS:
HOVER WITH WIND



HEADWIND INFLUENCE ON TORQUE REQUIRED FOR HOVERING

MODEL TWO ENGINES ENGINE
HH-3F T58-GE-5

DATE: 15 APRIL 1971
DATA BASIS: ESTIMATED

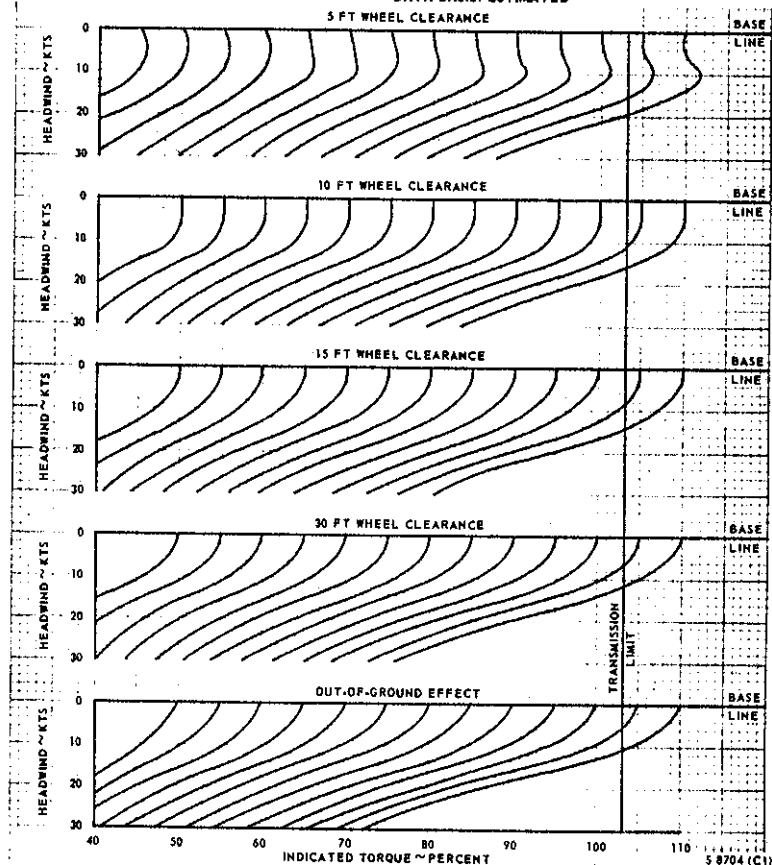
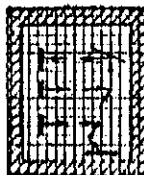


Figure A-11. Headwind Influence on Torque Required to Hover

CONDITIONS:
FORWARD FLIGHT
FOD SHIELD ON OR OFF



AIRSPPEED EFFECTS ON POWER AVAILABLE AND FUEL FLOW

MODEL

ONE ENGINE

ENGINE

11H-3P

T58-GE-3

DATE: 15 APRIL 1971

DATE BASIS: FLIGHT TEST (AIR FORCE)

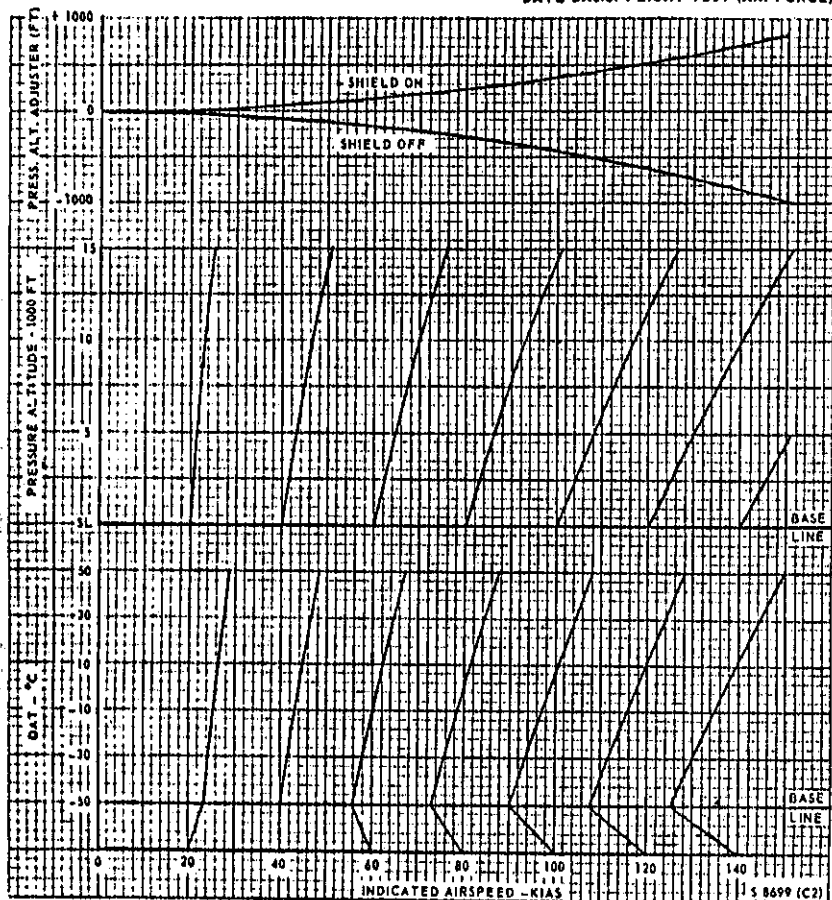
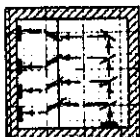


Figure A-7. Airspeed Effects on Power Available and Fuel Flow

CLIMB
ONE ENGINE
WARM DAY

MODEL
HH-3F

ENGINE
T58-GE-5



CONDITIONS:
103% N,
MILITARY POWER
WARM UP AND TAKE OFF
FUEL NOT INCLUDED
ZERO WIND
FOD SHIELD ON OR OFF

DATE: 15 APRIL 1971
DATA BASIS: FLIGHT TEST (AIR FORCE)

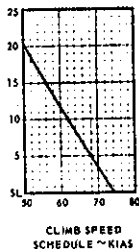
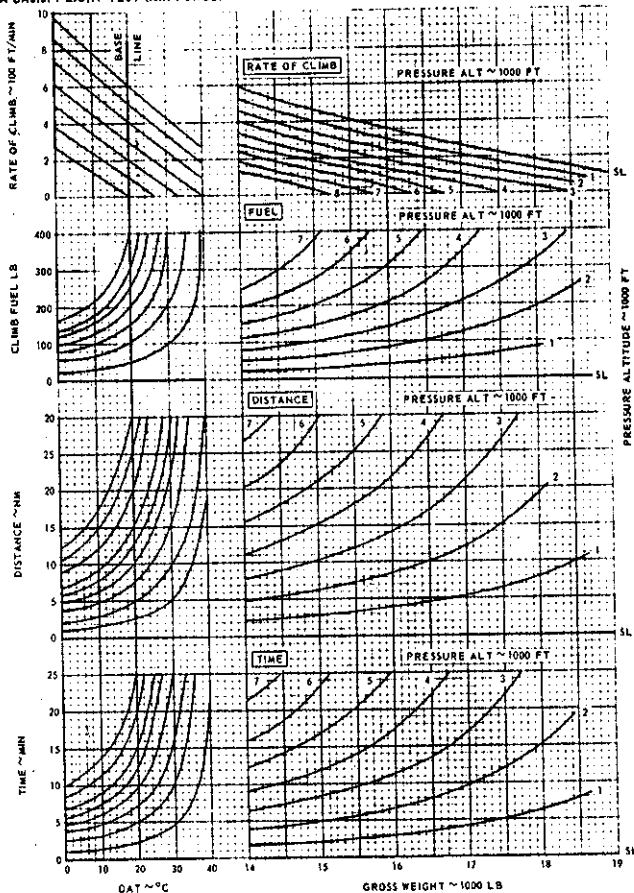


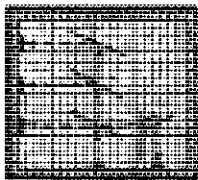
Figure A-22. Climb - Military Power (0 C to 40 C OAT) - One Engine

SINGLE ENGINE CAPABILITY

ONE ENGINE

MODEL
HM-3F

ENGINE
T58-GE-5



CONDITIONS:
70 KTS IAS
MILITARY POWER
103% N₁
FOD SHIELD
ON OR OFF
LANDING GEAR UP

DATE: 15 APRIL 1971

DATA BASIS: FLIGHT TEST (AIR FORCE)

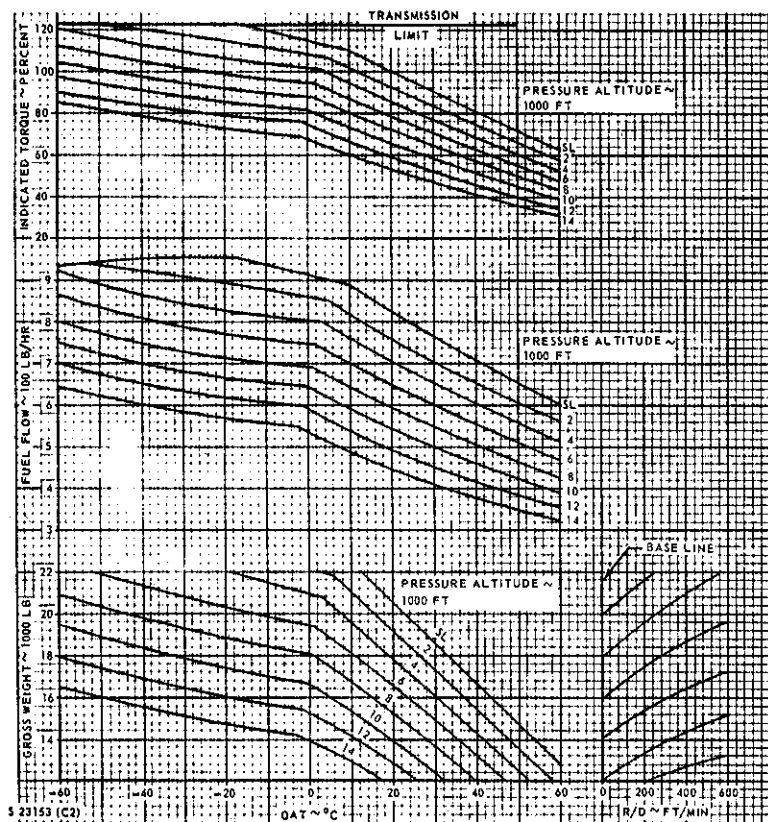
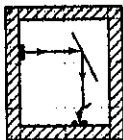


Figure A-34. Single Engine Capability - Military Power - One Engine

MAXIMUM AIRSPEED

MODEL
HH-3F

ENGINE
T58-GE-5



DATE: 1 DECEMBER 1967
DATA BASIS: ESTIMATED

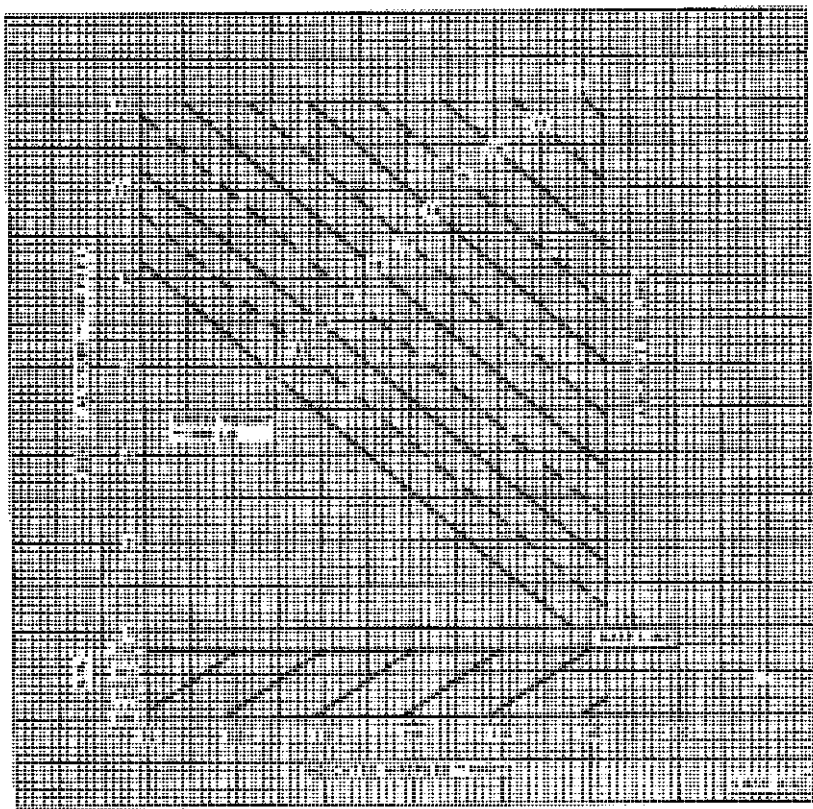


Figure A-36. Maximum Airspeed

----->INITIALIZE

----->POSITION

1. CHECK/INSERT LATITUDE/LONGITUDE OF PRESENT POSITION

N

W

----->TK/TKE

1. CHECK/INSERT LORAN C GRI AND SECONDARY PAIR SELECTION
GRI- SECONDARIES-

----->FF/VAR

2. CHECK/INSERT CORRECT PRESENT POSITION VARIATION
VARIATION-

----->WAY PT

3. DEPRESS CLR, WPT, 1, INSERT. CHECK/INSERT LAT/LONG
OF POSITION 1. (HOME STATION)

N

W

TAXI CLEAR OF LARGE BUILDINGS, HANGARS, OR OTHER OBSTACLES

----->OPERATE

WHEN WARN LIGHT EXTINGUISHES:

----->POSITION

DEPRESS

LORAN
COORD

KEY.

CHECK TDA AND TDB WITHIN 4.50 MS OF THAT PREDETERMINED FOR
THE SELECTED GEOGRAPHIC POSITION

TDA-

TDB-

DEPRESS

LORAN
COORD

KEY.

CHECK DISPLAYED LAT/LONG WITHIN 0.25 MIN OF THE LAT/LONG
REPRESENTED BY THE TDA AND TDB DISPLAYED ABOVE

N

W

PERFORM UPDATE AS NECESSARY

SELF TEST

→ INITIALIZE → TK/TKE

1. CLR. GRI. ENTER 5100, **INSERT**

→ OPERATE → POSITION

2. ADVISE INDICATOR SHOULD LIGHT. DISPLAYS SHOULD READ:

23° 52.82	N	±0.05	TD	ON	36000.00	±0.2
164° 02.04	W					

LAMP TEST

→ ADVISE → PF/VAR

INITIALIZATION

INITIAL PRESENT POSITION ENTRY

→ INITIALIZE → POSITION

1. CLR. POS. N OR S. ENTER LATITUDE. INSERT.
E OR W. ENTER LONGITUDE. INSERT.

GRI SELECTION

→ INITIALIZE → TK/TKE

1. CLR. GRI. ENTER 4-DIGIT GRI. INSERT.

SECONDARY ADVISE

→ ADVISE → TK/TKE

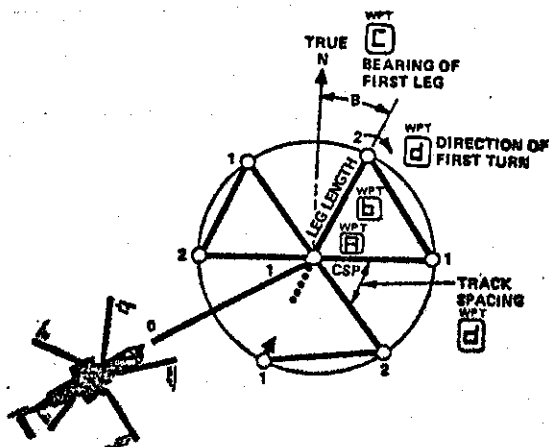
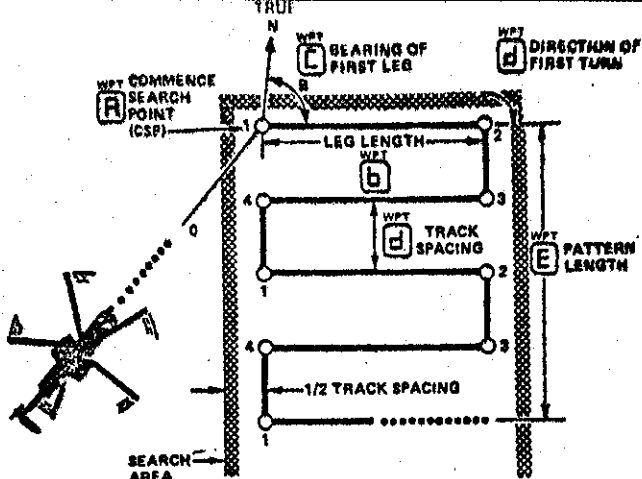
9930.
13 .12

RECOMMENDED PAIR → PAIR 7
IN USE

SECONDARY PAIR SELECTION

→ INITIALIZE OR ADVISE (IN FLIGHT) → TK/TKE

1. CLR. S. ENTER TWO SECONDARY NUMBERS. INSERT.



SEARCH PATTERN ENTRY

→ OPERATE

→ SF/PRL TK

SEARCH

CS OR VS

WPT

A ENTER CSP WAYPOINT:
CLR, ENTER NUMBER OF CSP WAYPOINT, INSERT.

B ENTER LEG LENGTH:
CLR, ENTER LEG LENGTH (1-99.9NM), INSERT.

C ENTER TRUE BEARING OF FIRST LEG:
CLR, ENTER BEARING IN DEGREES, INSERT.

D ENTER DIRECTION OF FIRST TURN & TRACK SPACING:
CLR, L OR R, ENTER TRACK SPACING (1-99.9NM),
INSERT. FOR VS PATTERNS DEPRESS INSERT AGAIN.

E ENTER PATTERN LENGTH (FOR CS PATTERNS ONLY):
CLR, ENTER PATTERN LENGTH (1-99 NM), INSERT.

SEARCH PATTERN READOUT

→OPERATE

→SF/PRL TK

SEARCH

1. DEPRESS INSERT TO OBTAIN NEXT CUE LETTER AND PREVIOUSLY ENTERED SEARCH PATTERN DATA. CONTINUE PRESSING INSERT UNTIL VS OR CS INDICATOR GOES OUT.

SEARCH PATTERN MODIFICATION

→OPERATE

→SF/PRL TK

1. DEPRESS SEARCH TO OBTAIN VS OR CS.
2. ENTER NEW DATA OVER THE OLD.
3. CONTINUE PRESSING INSERT UNTIL VS OR CS GOES OUT.

COMMENCE SEARCH PATTERN

→OPERATE

→SF/PRL TK (TO OBSERVE)

1. CLR, LEG CHG, ENTER APPROACH FROM POINT (USUALLY 0, REPRESENTING AIRCRAFT POSITION), SEARCH (CS OR VS), INSERT.

MANUAL LEG ADVANCE DURING SEARCH

1. CLR, LEG CHG, INSERT.

DEPART FROM SEARCH PATTERN, RETURN, AND RESUME SEARCH

1. DEPRESS SEARCH AT POINT YOU WANT TO LEAVE THE PATTERN.
2. WHEN YOU WANT TO RESUME SEARCH PATTERN WHERE YOU LEFT OFF, DEPRESS SEARCH AGAIN.

TERMINATING SEARCH

1. CLR, SEARCH, INSERT.

DOING A LEG CHANGE WILL ALSO TERMINATE SEARCH AND ACTIVATE STEERING TO DESIGNATED WAYPOINT.

TIME DIFFERENCE POSITION UPDATE

→ OPERATE → POSITION (SYSTEM MUST BE IN TRACK)

TO OBSERVE THE UPDATE, **TD** MUST BE ON.

1. CLR, POS, TDA, ENTER 7 DIGITS OF TIME DIFFERENCE A. INSERT, TDB, ENTER 7 DIGITS OF TIME DIFFERENCE B. INSERT.
2. TO CLEAR UPDATE: CLR, POS, INSERT.

LAT/LONG POSITION UPDATE

→ OPERATE → POSITION (SYSTEM MUST BE IN TRACK)

1. CLR, POS, N OR S, ENTER LAT, INSERT, W OR E, ENTER LONG, INSERT.
2. TO CLEAR UPDATE: CLR, POS, INSERT.

WAYPOINT POSITION UPDATE

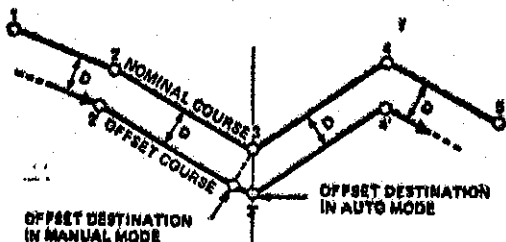
→ OPERATE → POSITION (SYSTEM MUST BE IN TRACK)

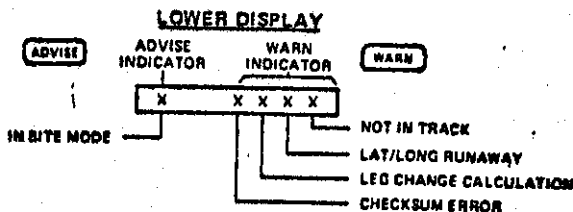
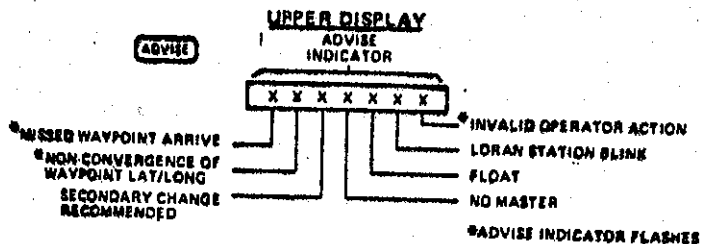
1. CLR, POS, WPT, ENTER WAYPOINT NUMBER OF STORED COORDINATES.
2. WHEN DIRECTLY OVER CALIBRATION POINT, DEPRESS INSERT.
3. TO CLEAR UPDATE: CLR, POS, INSERT.

PARALLEL TRACK STEERING

→ OPERATE → SF/PRL TK (TO OBSERVE)

1. CLR, PRL TRACK, L OR R, ENTER OFFSET DISTANCE (0.1-99.9 NM), INSERT.
2. TO CLEAR PARALLEL TRACK STEERING: CLR, PRL TRACK, INSERT.





Chain Rates			Secondaries			
			1	2	3	4
Central European	3970	(L3)	X	Y		
Central Pacific	4980	(S1)	X	Y		
Canadian East Coast	5930	(SH7)	X	Y	Z	
Canadian West Coast	5990	(SH1)	X	Y	Z	
North Atlantic	7930	(SL7)	W	X	Z	
Gulf of Alaska	7960	(SL4)	X	Y		
Norwegian Sea	7970	(SL3)	X	W	Y	Z
Southeast U. S.	7980	(SL2)	W	X	Y	Z
Mediterranean Sea	7990	(SL1)	X	Y	Z	
Great Lakes	8970	-	W	X	Y	
U. S. West Coast	9940	(SS6)	W	X	Y	
Northeast U. S.	9960	(SS4)	W	X	Y	Z
Northwest Pacific	9970	(SS3)	W	X	Y	Z
North Pacific	9990	(SS1)	X	Y	Z	

MASTER INDEPENDENCE OVERRIDE

ADVISE lights when master independent is active; Master independent is enabled automatically; to override the feature:

→ ADVISE

→ DBN TK/XTK

1. CLR, 4, 8, INSERT.

To remove master independence override (allow normal master independence operation):

→ ADVISE

→ DBN TK/XTK

1. CLR, 4, 0, INSERT.

LORAN CYCLE JUMP

The tracking point can be move either ahead or behind the cycle currently being tracked:

→ OPERATE

→ POSITION

TD ON

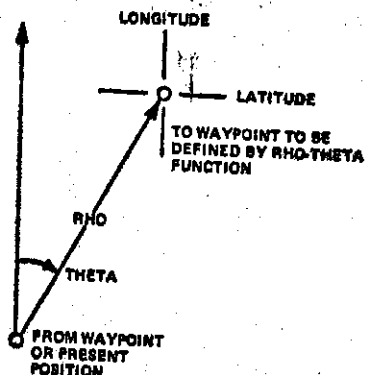
1. CLR, ORI.
2. To move master, go to step 3. To move the A secondary, press TDA; to move the B secondary, press TDB.
3. If jump is to be to the left(-), press L; if to the right (+), press R.
4. Press INSERT. For A or B (-) jumps, TD should decrease by 10 microseconds; for (+) jumps, TD should increase by 10. For master jumps, the shift will be ± 5 , with no visible indication.

RHO THETA

→ OPERATE

→ DIST/BRG

1. CLR, WPT, LEG CHG, FROM WAYPOINT (OR 09, TO WAYPOINT, INSERT.
2. ENTER UP TO FOUR DIGITS OF RANGE, UP TO 250 NM, IN MILES AND TENTHS, INSERT
3. ENTER UP TO THREE DIGITS OF TRUE BEARING, INSERT.



MASTER INDEPENDENCE OVERRIDE

ADVISE LIGHTS WHEN MASTER INDEP. IS ACTIVE. MASTER INDEP. IS ENABLED AUTOMATICALLY, TO OVERRIDE THE FEATURE:

→ ADVISE

→ DSR TK/XTK

1. CLR, 4, 8, INSERT.

TO REMOVE MASTER INDEPENDENCE OVERRIDE (ALLOW NORMAL MASTER INDEPENDENCE OPERATION):

1. CLR, 4, 0, INSERT.

WAYPOINT CALLUP

→WAY PT

2. CLR. WPT. ENTER WAYPOINT NUMBER. INSERT.

WAYPOINT ENTRY IN TIME DIFFERENCES

→WAY PT ☐ TD ☐ ON

3. CALL UP DESIRED WAYPOINT.
8. CLR. POS. TDA.
3. ENTER TIME DIFFERENCE A (SEVEN DIGITS). INSERT.
4. TDB. ENTER TIME DIFFERENCE B (SEVEN DIGITS). INSERT.

WAYPOINT ENTRY IN LAT/LONG

→WAY PT ☐ TD ☐ OFF

3. CALL UP DESIRED WAYPOINT.
2. CLR. POS. N OR S.
3. ENTER LATITUDE. INSERT.
4. W OR E. ENTER LONGITUDE. INSERT.

MAGNETIC VARIATION ENTRY

→INITIALIZE OR OPERATE →FF/VAR (TO OBSERVE)

2. CLR. VAR. W OR E. ENTER MAG VAR TO NEAREST DEGREE. INSERT.
2. TO CLEAR MAG VAR: CLR. VAR. INSERT.

LEG CHANGE ENTRY

→OPERATE (DISPLAY SWITCH TO ANY POSITION)

3. CLR. LEG CHG. ENTER NEW FROM AND TO NUMBERS. INSERT.
2. TO ADVANCE TO THE NEXT CONSECUTIVE LEG:
CLR. LEG CHG. INSERT.

INTERWAYPOINT RANGE AND BEARING

→OPERATE →DIST/BRG

1. CLR. WPT. ENTER FROM AND TO NUMBERS. INSERT.
2. FOR RANGE/BEARING FROM AIRCRAFT TO WAYPOINT,
ENTER 0 AND THE WAYPOINT NUMBER.

CONVERTING PRESENT POSITION INTO A WAYPOINT

→OPERATE (DISPLAY SWITCH TO ANY POSITION)

3. PRESS LORAN COORD FOR L/L OR TD.
2. WHEN AIRCRAFT IS OVER POINT OF INTEREST, PRESS
DISPLAY HOLD.
3. CLR. WPT. ENTER WAYPOINT NUMBER FOR POSITION
STORAGE. INSERT.

HOT REFUELING OPERATIONS

1. No. 2 Engine Boost Pump-"OFF." (P) Copilot perform.
2. No. 2 Engine Ignition Switch-"OFF." (P) Copilot perform.
3. No. 2 Engine Speed Selector-"SHUT OFF." (P) Copilot perform.
4. No. 2 Engine Fuel Shutoff Valve Switch-"OFF." (CP)
5. Overhead Switch Panel-"CHECKED." (CP)
 - a. No. 2 Engine anti-ice-OFF.
 - b. Cabin Heater Vent-NORM.
 - c. Cabin Heater-OFF.
 - d. Pitot Heat-OFF.
6. Radar Altimeter-"OFF." (P) (CP)
7. Center Console-"CHECKED." (CP)
 - a. IFF-STBY.
 - b. Ramp-Closed.
 - c. Radar-STBY.
 - d. Doppler-STBY.
 - e. TACAN-REC.

8. Side Consoles-"CHECKED." (P) (CP)
 - a. All ICS Rotary Selector Switches-INT.
9. HF Radio-"OFF." (AVI) (CP)

WARNING

Electromagnetic radiation including radio transmissions, radar, IFF, RADALT, and doppler are prohibited during the hot refueling operation. Actuation of electrical switches shall be restricted to those necessary for the refueling operation such as ICS communications.

10. Parking Brake-"SET." (P)
11. Chocks-"INSTALLED." (FM)
12. Windows and Doors-"CHECKED." (P) (CP) (FM)
 - a. Cockpit Windows-Closed.
 - b. Cargo Door-Open.

NOTE

The cargo door will remain open to permit rapid exit of the crew in case of an emergency while refueling.

13. Refueling Unit-Positioned.

NOTE

Movable refueling units shall be positioned as far from the helicopter as the nose will permit, and in a position so that it may be quickly moved away in case of fire. This means the refueler shall be parked on the right side of the helicopter and parallel to the helicopter heading.

14. Ground Static Wires-"ATTACHED." (FM)

- a. Helicopter-Grounded.
- b. Refueling Unit-Grounded.
- c. Helicopter to Refueling Unit-Bonded.
- d. Fuel Nozzle to Helicopter-Grounded.

15. Fireguard-"POSTED." (FM)

WARNING

Hot refueling introduces greater fire hazards than encountered during normal fueling because of ignition sources. Consequently, greater fire protection is needed. A twin-agent fire fighting unit is the preferred protection. The minimum acceptable protection is a manned 50 pound dry chemical extinguisher. If this minimum fire protection is not available, or if the grounding requirements cannot be met, hot refueling shall not be attempted.

- 16. Fuel Flow-"ESTABLISHED." (FM)
- 17. Primary and Secondary Shutoff Checks-"COMPLETED." (FM)

CAUTION

If the fuel flow does not stop when either the primary or secondary checks are made, it indicates a fuel system malfunction, and refueling shall be terminated.

NOTE

Refuel at a flow rate not to be over 150 gpm or 50 psi.

- 18. Fuel flow-"STOPPED." (FM)
- 19. Pressure Fueling Nozzle-"DISCONNECTED." (FM)
- 20. Ground Static Wires-"DISCONNECTED." (FM)

NOTE

If a movable refueling unit was not used, complete the BEFORE TAXI checklist and taxi clear of the refueling area before restarting the No. 2 engine.

SERVICING

JP-4 6.5 lbs/gal

LBS GAL

25 4

50 8

75 12

100 15

200 31

300 46

400 62

500 77

600 92

700 108

800 123

900 138

1000 154

1100 169

1200 185

1300 200

1400 215

1500 231

1600 246

1700 262

1800 277

1900 292

2000 308

2100 323

2200 338

2300 354

2400 369

2500 385

2600 400

2700 415

2800 431

2900 446

LBS

GAL

3000 462

3100 477

3200 492

3300 508

3400 523

3500 538

3600 554

3700 569

3800 585

3900 600

4000 615

4100 631

4200 646

4300 662

4400 677

4500 692

4600 708

4700 723

4800 738

4900 754

5000 769

5100 785

5200 800

5300 815

5400 831

5500 846

5600 862

5700 877

5800 892

5900 907

6000 923

6100 938

SERVICING

JP-5

6.8 lbs/gal

LBS	GAL	LBS	GAL	LBS	GAL
25	4	2000	294	4200	618
50	7	2100	309	4300	632
75	11	2200	324	4400	647
100	15	2300	338	4500	662
200	29	2400	353	4600	676
300	44	2500	368	4700	691
400	59	2600	382	4800	706
500	74	2700	397	4900	721
600	88	2800	412	5000	735
700	103	2900	426	5100	750
800	118	3000	441	5200	765
900	132	3100	456	5300	779
1000	147	3200	471	5400	794
1100	162	3300	485	5500	809
1200	176	3400	500	5600	824
1300	191	3500	514	5700	838
1400	206	3600	529	5800	853
1500	221	3700	544	5900	868
1600	235	3800	559	6000	882
1700	250	3900	574	6100	897
1800	265	4000	588		
1900	279	4100	603		

LUBRICATION

MIL-L-23699

- Engines
- Main Gear Box
- Inter. Gear Box
- Tail Gear Box

MIL-L-21260

- Main Rotor
- Tail Rotor

Instrument Approach Procedures (Charts) INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE

Landing minimums published on instrument approach procedure charts are based upon full operation of all components and visual aids associated with the particular instrument approach chart being used. Higher minimums are required with inoperative components or visual aids as indicated below. If more than one component is inoperative, each minimum is raised to the highest minimum required by any single component that is inoperative. ILS glide slope inoperative minimums are published on instrument approach charts as localizer minimums. This table may be amended by notes on the approach chart. Such notes apply only to the particular approach category(ies) as stated. See legend page for description of components indicated below.

1) ILS, MLS, and PAR

Inoperative Component or Aid	Approach Category	Increase DH	Increase Visibility
MM*	ABC	50 feet	None
MM*	D	50 feet	1/4 mile
ALSF 1 & 2, MALSR, & SSALR	ABCD	None	1/4 mile

*Not applicable to PAR

(2) ILS with visibility minimum of 1,800 or 2,000 RVR.

MM	ABC	50 feet	To 2400 RVR
MM	D	50 feet	To 4000 RVR
ALSF 1 & 2, MALSR, & SSALR	ABCD	None	To 4000 RVR
TDZL, RCLS	ABCD	None	To 2400 RVR
RVR	ABCD	None	To 1/2 mile

3) VOR, VOR/DME, VORTAC, VOR (TAC), VOR/DME (TAC), LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME, RNAV, and ASR

Inoperative Visual Aid	Approach Category	Increase MDA	Increase Visibility
ALSF 1 & 2, MALSR, & SSALR	ABCD	None	1/2 mile
SSALS, MAL5 & ODALS	ABC	None	1/4 mile

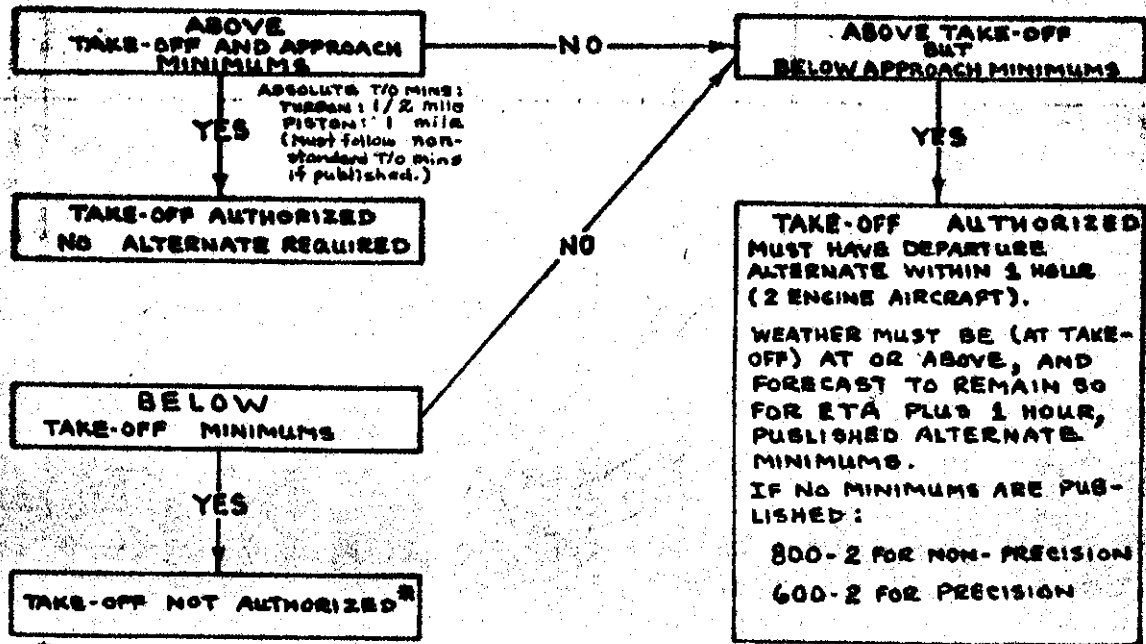
(4) NDB

ALSF 1 & 2, MALSR, & SSALR	C	None	1/2 mile
MAL5, SSALS, ODALS	ADD	None	1/4 mile
	ABC	None	1/4 mile

ATIONAL VHF-FM FREQ PLAN

		FREQUENCY		COMMUNICATIONS
	65	156.275	-----	Port Operations
06		156.300	-----	InterShip
	66	156.325	-----	Port Operations
07		156.350	-----	Commercial
	67	156.375	-----	Commercial
08		156.400	-----	Commercial
	68	156.425	-----	Non-commercial
09		156.450	-----	Shared
	69	156.475	-----	Non-commercial
10		156.500	-----	Commercial
	70	156.525	-----	Non-commercial
11		156.550	-----	Commercial
	71	156.575	-----	Non-commercial
12		156.600	-----	Port Operations
	72	156.625	-----	Non-commercial
13		156.650	-----	Navigation
	73	156.675	-----	Port Operations
14		156.700	-----	Port Operations
	74	156.725	-----	Port Operations
15		156.750	-----	Environmental
16		156.800	-----	Distress & Call
17		156.850	-----	State Control
	77	156.875	-----	Commercial
18		156.900	-----	Commercial
	78	156.925	-----	Non-commercial
19		156.950	-----	Commercial
	79	156.975	-----	Commercial
20		157.000	161.600	Port Operations
	80	157.025	-----	Commercial
21		157.050	-----	Coast Guard
22		157.100	-----	Coast Guard
23		157.150	-----	Coast Guard
24		157.200	161.800	Shared
	84	157.225	161.825	Shared
25		157.250	161.850	Shared
	85	157.275	161.875	Shared
26		157.300	161.900	Shared
	86	157.325	161.925	Shared
27		157.350	161.950	Shared
28		157.400	162.000	Shared

DEPARTURE WEATHER



*The Commanding Officer or A/O may authorize TAKE-OFF in this situation if mission urgency dictates.

DESTINATION WEATHER

DESTINATION WEATHER 2000'
ABOVE COMPATIBLE APPROACH
MINIMUMS AND 3 MILES VIS.
OR 2 MILES ABOVE MINIMUMS
WHICHEVER IS GREATER.

YES

NO ALTERNATE REQUIRED

NO

DESTINATION WEATHER
ABOVE APPROACH MINIMUMS

YES

ALTERNATE WEATHER MUST
BE AT OR ABOVE PUBLISHED
ALTERNATE MINUMS. IF NOT
PUBLISHED:
800-2 NON-PRECISION
600-2 PRECISION

NO

DESTINATION WEATHER
BELOW APPROACH MINIMUMS

YES

ALTERNATE WEATHER MUST BE
2000' ABOVE LOWEST COMPATIBLE
APPROACH MINIMUMS AND 3
MILES VIS. OR 2 MILES ABOVE
MINIMUMS WHICHEVER IS
GREATER

HF FREQUENCIES

	MODE	STATION
531	AM	FAA Flight Service
5680	AM	Coast Guard District (Sec)
5692	USB	Coast Guard Air-Ground
5696	USB	Coast Guard Air-Ground
8980	USB	Coast Guard Air-Ground
8984	USB	Coast Guard Air-Ground
11195	USB	Coast Guard Air-Ground
11198	USB	Coast Guard Air-Ground
11201	USB	Coast Guard Air-Ground
15081	USB	Coast Guard Air-Ground
15084	USB	Coast Guard Air-Ground
15087	USB	Coast Guard Air-Ground
26965	AM	CB Channel 01
26975	AM	CB Channel 02
26985	AM	CB Channel 03
27005	AM	CB Channel 04
27015	AM	CB Channel 05
27025	AM	CB Channel 06
27035	AM	CB Channel 07
27055	AM	CB Channel 08
27065	AM	CB Channel 09 - Emergency
27075	AM	CB Channel 10
27085	AM	CB Channel 11
27105	AM	CB Channel 12
27115	AM	CB Channel 13
27125	AM	CB Channel 14
27135	AM	CB Channel 15
27155	AM	CB Channel 16
27165	AM	CB Channel 17
27175	AM	CB Channel 18
27185	AM	CB Channel 19
27205	AM	CB Channel 20
27215	AM	CB Channel 21
27225	AM	CB Channel 22
27255	AM	CB Channel 23

01/81

AIRCRAFT LOAD SHEET

AIRCRAFT TYPE _____

FM: OPS

TO: ENG

MISSION: _____

DE T DATE/TIME _____

CREW REQUIREMENTS: _____

FUEL REQUIREMENTS: _____

SPECIAL INSTRUCTIONS: _____

DATE	LOCATION	PAX		CARGO		REFUEL LBS	REMARKS
		LOAD	UNLOAD	LOAD	UNLOAD		

OIC / CONTACT _____

OIC / CONTACT _____

LOCATION _____

LOCATION _____

PHONE _____

PHONE _____

ODO CHECKLIST

- ___ CREW NOTIFIED
- ___ WX NOTIFIED
- ___ MEALS ORDERED
- ___ OPAREA CLEARANCE
- ___ QTRS/RESV/TRANSP

PILOT CHECKLIST

- ___ ORDERS
- ___ ADVANCE PERDIEM
- ___ PRE-MISSION BRIEF
- ___ MISSION FOLDER/MESSAGES
- ___ EXTRA BLUE SHEETS
- ___ CHECK WEIGHT/BALANCE
- ___ FLIGHT ADVISORY
- ___ SF-44, IF REQUIRED

COPILLOT CHECKLIST

- ___ DEPARTURE MESSAGE
- ___ FLIGHT PLAN
- ___ NOTAMS
- ___ WX BRIEF
- ___ CODES/CLASSIFIED MATERIAL

NAV CHECKLIST (H3 COPILLOT)

- ___ CHARTS
- ___ EXTRA CHARTS/NAV NOTAMS
- ___ NAV LOG/INSTRUMENTS
- ___ CUSTOMS/IMMIGRATION FORMS
- ___ AGRICULTURE FORMS
- ___ TRAVEL CLAIMS

LOADMASTER CHECKLIST (H-3 PILOT)

- ___ WEIGHT/BALANCE FORM
- ___ PAX/CARGO MANIFEST

TAKE-OFF AND LANDING DATA CARD

AIRCRAFT NUMBER: _____

DATE: _____

MISSION CODE: _____

DATA

Field elevation

Pressure altitude

Free air temperature

Wind

Density altitude

Operating Weight

Extra Crew/equipment

Fuel

Mission Gross Weight

Power available

Power required, HIGE @ 5 FT

Power reserve

Max Gross Weight, HOGE

Power required, HOGE @ Mission GW

Single engine climb

Max airspeed @ Mission GW

TAKE-OFF

LANDING

	FT	
	FT	
	C •	
	KT/ LEG	
	FT	
	LB	
	LB	
	LB	
	LB	
	HP	
	HP	
	HP	
	LB	
	HP	
	FT/ MIN	
	KTS	

REV DEC 70

DEST	LAT	LONG	VAR	NAV AID
1				
2				
3				
4				
IP				

Search type: _____ Course _____

Estimated time on Scene: _____

Leg 1 _____ Leg 2 _____

Estimated Range _____ For Fuel Load _____

Best Cruise Altitude _____

Estimated Fuel Flow: _____

Remarks: