

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**AFI 11-2MH-53V3 CL-1
12 JANUARY 2004**



Flying Operations

HELICOPTER CREW BRIEFING GUIDES AND CHECKLIST

This checklist establishes procedures for the operation of MH-53 aircraft employed by the Air Force Special Operations Command (AFSOC) to accomplish their worldwide missions.

This checklist complements AFI 11-2MH-53V3, *MH-53 Operations Procedures*, and is printed on standard 8 ½" x 11" bond paper then trimmed to a unique size (4 ½" x 11") that will fit standard MH-53 aircrew checklist binders.

Units may request media from the OPR. Printed copies are limited to aircrew for use in in-flight and training purposes only.

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Number of Printed Pages: 52/Distribution: F

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TACTICAL AIRCREW BRIEFING

The aircraft commander will ensure all aircrew members receive this briefing prior to each mission. Brief only applicable items.

1. Time Hack**2. Roll Call****3. Mission Introduction****a. Mission Name/ Number****b. Classification****c. Overview of Area of Operations****d. Inventory of References**

- (1.) Edition number of maps/ charts**
- (2.) Datum of coordinates**
- (3.) Coordinates type and source**
- (4.) Information confirmation with supporting/
supported force**
- (5.) Confirm current CHUM**

4. Situation**a. Intelligence**

- (1.) EOB, GOB, AOB**
- (2.) Friendly Forces**
- (3.) Safe Areas**
- (4.) Code words and procedures**

(5.) ROE**b. Weather**

- (1) Departure, Enroute and Destination**
- (2) Sun/ Moon Data**
- (3) Sea state and temperature**
- (4) Limitations**

c. NOTAMS/ FCIF**5. Mission Specifics****a. Primary and Alternate****b. Go/ No- Go Criteria****6. Pre-Departure****a. Designated Lead/ Alternate(s)****b. Tail numbers, Call signs, Parking****c. Weight and Balance**

- (1) Passenger Requirements**
- (2) Fuel Loads**
- (3) Weapons**
- (4) Special Mission Equipment/ Configuration**

d. Personal Equipment

- (1) Personal and Flight Publications**
- (2) NVGs**
- (3) Flashlight, chem. Lights**

- (4) Maps and Nav Logs**
- (5) Tape**
- (6) Helmet/ Ear protection**
- (7) Dog Tags**
- (8) Remove Jewelry/scarves**

e. Station time/ Load time

f. Comm Check

g. Start/ Taxi time and Taxi Route

h. Bump Plan/ Abort Criteria

i. Anti- Hijacking/ Security Plan

7. Departure

a. Performance Data/ TOLD

b. Communications/ Lighting

c. Power Checks

d. Type of Takeoff

e. Airspeed and Rate of Climb

f. Abort Plan

8. Enroute (Brief once for initial leg and items that change for subsequent legs)

- a. Description of route**
- b. Hazards (wires, lights, towers, ect.)**
- c. Altitude and airspeed/ groundspeed**
- d. Type formation and spacing**
- e. Communications and lighting**
- f. Radar and Navigation settings**
- g. Weapons control status (hold, tight, free)**
- h. Crew/ Wingman duties**
- i. Evasive maneuvers/ scatter plan**
- j. IMC breakup Plan**
- k. Air Refueling**
 - (1) Refueling Track (ARIP, ARCP, AREP)**
 - (2) ARCT (time hack with tanker)**
 - (3) Altitude for join-up and refuel**
 - (4) Airspeed**
 - (5) Tanker/ receiver call signs**
 - (6) Communications and lighting, beacon, IFF and TACAN settings**
 - (7) Type rendezvous**
 - (8) Tactics (option)**
 - (9) Receiver sequencing and off-loads**

(10) Emergency recovery bases

(11) IMC avoidance, lost visual contact

I. Contingencies

9. Objective (brief for each objective)

a. Description of IP and track to LZ/ PZ

b. Description of objective

(1) Features

(2) Hazards

(3) Weapon control status/ firing fans

c. Approach Procedures

(1) Altitude and airspeed/ groundspeed

(2) Type of formation and spacing

(3) Point to begin approach

(4) Aircraft/LZ/PZ lighting

d. Arrival/ Landing Procedures

(1) TOT/ H-Hour

(2) Type of assault (air-land/AIE)

(3) Type formation and spacing/ Specific landing areas

(4) Aircraft lighting and communications

(A) Team frequency and call sign

(B) Code words/authentication

(C) Comm out procedures

(5) Performance data (arrival and departure)

(6) Go-Around procedures/intentions

e. Alternate insertion/extraction (if required)

- (1) Load**
- (2) Authentication**
- (3) Device to be used/hover height**
- (4) Performance Data/TOLD**
- (5) CG**
- (6) Crew Duties**
- (7) Emergency procedures/intentions**

f. Refuel Plan (if applicable)**g. Sequence of routing****h. Egress plan and route****i. Contingencies**

- (1) Downed Aircraft**
- (2) Actions an enemy contact**
- (3) Initiation of Alternate LZ**
- (4) Other**

10. Recovery**a. Location****b. Taxi/Marshalling****11. Crew duties and responsibilities****a. Change control of aircraft**

b. Emergency actions and intentions

- (1) Takeoff, enroute, landing**
- (2) Over land/water**

c. NCOIC

d. Donning and removing goggles

e. Handling of passengers

12. Coordinating instructions

a. Risk assessment

b. Threat/EP of the day

c. Update time/location

13. Debrief

a. Mission accomplishment?

b. Deviations from plan/standards

c. Lessons learned

- (1) Preparation/debriefing**
- (2) Execution**
 - (A) Formation**
 - (B) Route**
 - (C) Enroute**
 - (D) Objective area**

- (E) Weapons**
- (F) Tactics**
- (G) Communications/lighting**
- (H) Crew coordination**

d. Documentation

NON-TACTICAL AIRCREW BRIEFING

Conduct this briefing with the user prior to mission execution. This is normally done during the time the crew and team are in isolation.

1. Time Hack

2. Roll Call

3. Mission Introduction

a. Mission name/number

b. Area of operation

c. Inventory of references

- (1) Edition number of maps/charts**
- (2) DATUM of coordinates**
- (3) Coordinates types and source**
- (4) Confirm current CHUM**

4. Mission Specifics

a. Weather

- (1) Departure, Enroute, Destination**
- (2) Sun/Moon data**
- (3) Sea state and temperature**
- (4) Limitation**

b. NOTAMS/FCIF

c. Mission: Primary/ Alternate

d. Go/ No-Go Procedures

5. Pre-Departure

a. Tail number, Call signs, Parking

b. Weight and Balance

- (1) Passenger requirement**
- (2) Fuel load**
- (3) Special mission equipment/Configuration**

c. Personal Equipment

- (1) Personal and Flight Publications**
- (2) Flashlight/Chem lights**
- (3) Maps and Nav Logs**
- (4) Helmet/Ear Protection**
- (5) Jewelry/Scarves**

d. Station Time/Load Time

e. Start/Taxi Time and Taxi Route

- f. Abort Criteria**
- g. Anti-Hijacking/Security Plan**
- 6. Departure**
 - a. Performance Data/TOLD**
 - b. Communications/Lighting**
 - c. Power Check**
 - d. Type Takeoff**
 - e. Abort Plan**
- 7. Enroute**
 - a. Route Description**
 - b. Hazards (wires, lights, towers, ect.)**
 - c. Altitude and Airspeed/Ground Speed**
 - d. Inadvertent IMC**
- 8. Arrival**
 - a. Description of Airfield/landing Area**

b. Taxi/Marshalling

9. Crew Duties and Responsibilities

a. Changing control of the Aircraft

b. Emergency Actions/Intentions

(1) Takeoff, enroute, landing area

(2) Over land/water

c. NCOIC

d. Handling of passengers

10. Coordinating Instructions

a. Risk Assessment

b. Threat/EP of the Day

11. Debrief

a. Mission Accomplished?

b. Deviations from plan/standards

c. Lessons Learned

(1) Preparation/Briefing

(2) Execution**d. Documentation**

OPERATIONS ORDER BRIEFING

The crew briefing should be completed prior to arrival at the refueling area.

Time Hack

Classification

Roll Call

Hold All Questions Until The End Of The Briefing

OPORD Number/Name

Reference: Maps, inventory, handout material

Time zone used throughout the order

Tasked Organization(S)

1. Situation**a. Enemy Forces****(1) Weather (Current and Forecast)**

(A) Area of Operation/OBJ AREA

(B) FSB

(2) Light Data

(A) SR, SS, EENT, MR, MS, BMNT

(B) Moon Illumination

(3) Sea Data

(A) Sea State

(B) Water Temperature

(4) Terrain (Analyze Area of Operation/ OBJ AREA)**(5) NOTAMS****(6) Enemy Troops**

- (A) Enroute, LZ/OBJ AREA, Laager Site, ect.**
 - (B) Identification of forces**
 - (C) Locations**
 - (D) Strengths**
 - (E) Morale**
 - (F) Capabilities, AD, EW, CS, NBC, Reaction Forces**
 - (G) Vulnerabilities**
 - (H) Activities (Current and Future)**
 - (I) Command and Control**
 - (J) Service and Support**
 - (K) Probable Courses of Action**
- b. Friendly Forces**
 - (1) Higher Headquarters**
 - (A) Command Relationship**
 - (B) Mission**
 - (C) Intent**
 - (2) Ground Assault Force**
 - (A) Command Relationship**
 - (B) Mission**
 - (C) Intent**
 - (3) Adjacent Units**
 - (A) Location**
 - (B) Mission**
 - (C) Airspace Coordination**
- c. Attachments and Detachments**
- d. PAO Guidance**

e. Priority Intel Requirements/Information Requirements (PIR/IR)

f. Essential Elements of Information/Essential Elements of Friendly Information (EEI/EEFI)

2. Mission (Who, What, When, Where, Why)

3. Execution

a. Commander's Intent

b. Concept of the Operation

(1) Scheme of Maneuver

(A) General Scheme, Mission Profile and H-Hour

(B) Phasing

(2) Plan of fire Support (see Close Air Support annex)

(3) Counter Air Operations

(4) EW

(5) Deception

c. Tasks of Subordinate Units (Companies/Squadrons, Flights or Chalks)

d. Initial Staging Base (ISB)

(1) Marshaling Area Procedures and Control

(2) Time Sequence

(A) Show

(7) Weapons System Loading**(8) Takeoff**

- (A) Time**
- (B) Heading**
- (C) Formation**
- (D) Airspeed**
- (E) Altitude**
- (F) Hazards**
- (G) Aircraft Lighting**
- (H) ASE requirements**

(9) CCT

- (A) Communications**
- (B) Signals**

(10) Contingencies

- (C) Airfield Air Abort**
- (D) Airfield Go-Arounds**
- (E) Crew Injuries**
- (F) Mission Abort/Minimum Force Criteria**
- (G) Bump Plan**
- (H) Weather Abort**

f. Flight Route**(1) Primary/Alternate****(2) Formations**

- (A) Lead Change Procedures**
- (B) Formations Change Procedures**

(3) Airspeed/Groundspeed**(4) Altitude****(5) Hazards**

- (6) Turns in Excess of 60 Degrees**
- (7) Communications/Signals Unique to this Portion**
- (8) ATC/Special Tactics Procedures**
- (9) Aircraft Lighting**
- (10) Checkpoints**
- (11) Rally Points**
- (12) Aviation Element Linkup Procedures**
- (13) Enroute Fuel (Air Refueling/ FARP)**
- (14) Contingencies**
 - (A) Downed Aircraft**
 - (B) Actions on Enemy Contact**
 - (C) Communications Failure**
 - (D) Lead Disorientations**
 - (E) Missed Air Refueling/ FARP**
 - (F) Weather Abort**
 - (G) Enroute**
- (15) Mission Abort Criteria**

g. Landing Area Procedures (PZ, LZ, OBJ)

- (1) Location (Primary/ Alternate)**
- (2) Description**
- (3) Hazards**
- (4) Arrival**
 - (A) Time**
 - (B) Direction**
 - (C) Formation**
 - (D) Airspeed**
 - (E) ATC/CCT Procedures**
 - (F) Aircraft Lighting**
 - (G) Signal to Execute Alternate Landing Area**
- (5) PZ**

- (A) Marking and Control**
- (B) Aircraft Positioning in PZ**
- (C) Security in PZ**
- (D) Load Plan**
- (E) Time Sequencing**
 - 1. Load**
 - 2. Reposition**
 - 3. Takeoff**
 - 4. TOT/H-Hour**
- (6) Objective**
 - (A) Aircraft Touchdown Points**
 - (B) Type of Assault (Fastrope, Airland, Rappel, ect.)**
 - (C) Weapons Status**
 - (D) Fires**
 - (E) Departure Instructions**
 - 1. Departure Plan (Chalk Order, Individual, Flight)**
 - 2. Heading**
 - 3. Formation**
 - 4. Airspeed**
 - 5. Aircraft Lighting**
 - 6. ATC/CCT Procedures**
 - 7. Follow-On Instructions (Laager, Holding, ect.)**
 - 8. Contingencies**
 - (F) Downed Aircraft**
 - (G) Go Around Procedures**
 - (H) Action on Enemy Contact**
 - (I) Communications Failure**
 - (J) Friendly KIA/WIA**

h. Departure Airfield Procedures

- (1) Location**
- (2) Arrival Procedures**
- (3) Parking/Teardown**
- (4) Repositioning**
- (5) Marshaling**
- (6) Critical Times**
- (7) Contingencies**
 - (A) Friendly KIA/WIA**
 - (B) Aircraft Abort**
 - (C) Weather Abort**

i. Coordinating Instructions

- (1) Map and Charts**
 - (A) Confirm Current Chum**
- (2) SAR Plan**
 - (A) Supporting Unit**
 - (B) Notification Procedures**
 - (C) Recovery Hospital/FSB**
 - (D) PLS Coordination**
- (3) SERE Plan**
 - (A) Evasion Route and Checkpoints**
 - (B) Designated Area for Recovery**
 - (C) Recognition and Recovery Procedures**
 - (D) PLS and ISOPREP Coordination**
 - (E) Destruction of Aircraft and Sensitive Items**
- (4) IIMC (Inadvertent IMC)**
- (5) Rules of Engagement (ROE)**
- (6) Inspections**

- (7) Rehearsals and Equipment Check**
- (8) Individual Responsibilities**
- (9) Back Brief Time and Location**
- (10) Final Mission Update Time and Location**
- (11) Debrief Time and Location**

4. Service Support

a. Supply

- (1) Class I (Rations)**
- (2) Class III (FARP/POL)**
- (3) Class V (Ammunition)**
- (4) Class VIII (Medical Supplies)**
- (5) Class IX (Aircraft Repair Parts)**

b. Water

c. Uniform

d. ALSE

e. Special Equipment

f. Billeting

g. Finance

h. Transportation

i. Maintenance

- (1) Location**

(2) Capabilities**(3) Ground Support Equipment****j. Medevac Procedure/Medical Support****k. EPW Collection Point****l. NBC Equipment and Decontamination****m. Services (hygiene, laundry, trash collection, ect.)****5. Command and Signal****a. Command****(1) Chain of Command****(2) Location of Commander****(3) Location of Ground Commander****b. Signal****(1) Frequencies and Call Signs****(2) Transponder Codes****(3) Passwords****(4) Communication Check****(5) Frequency Change Procedures****(6) Execution Checklist****(7) Light and Visual Signal****(8) Challenge and Password****(9) Running Password****(10) Navigation Aids****(11) Flare/ Chaff Settings****(12) IRCM/ ECM Settings**

6. Safety**7. Commander's Comments****8. Hot washes****9. Contingency plans (what-ifs)****FORMATION BRIEFING**

Conduct this briefing with the user prior to mission execution. This is normally done during the time the crew and team are in isolation.

1. Time Hack**2. Call Signs and Positions****3. Designated Alternate Lead****4. Communications Check****5. Aircraft Lighting****6. Taxi, Takeoff and Join-up****a. Power Checks****b. Airspeed and Rate of Climb****7. Abort- Takeoff and Enroute**

8. Enroute**a. Type Formation and Required Spacing****b. Rout of Flight, Airspeed and Hazards****c. Navigation Responsibilities****d. Lead Changes****e. Enroute Communications****f. Signals (Comm Out)****g. Lost Communications****h. IMC Avoidance Consideration/Procedures****i. Lost Visual Contact Procedures****j. In-flight Emergence Procedures****9. Terminal Operations****a. Approach Procedures****(1) Altitude and Airspeed/Ground Speed****(2) Type Formation and Spacing****(3) Point to Begin Approach****(4) Aircraft Lighting****b. Arrival/Landing Procedures****(1) TOT/H-Hour**

- (2) Type of Assault (Airland/AIE)**
- (3) Type Formation and Spacing**
- (4) Aircraft Lighting and Communications**
 - (A) Team Frequencies and Call Sign**
 - (B) Code Words/Authentication**
 - (C) Comm Out Procedures**
- (5) Performance Data (arrival and departure)**
- (6) Go-Around Procedures**
- c. Sequence of Training**
- d. Egress Plan and Routing**
- 10. Evasive Tactics**
- 11. Rendezvous**
- 12. Bingo Fuel**
- 13. Type Recovery**
- 14. Contingencies- "What if's"**

CARGO SLING

Conduct this briefing with the user prior to mission execution. This is normally done during the time the crew and team are in isolation.

- 1. Load Description**
- 2. Power Available**
- 3. Sling Arming and De-Arming**
- 4. Hand Signals**
- 5. Hookup**
 - a. Grounding**
 - b. Goggles**
 - c. Restraint Devices**
 - d. External Lighting**
- 6. Enroute**
 - a. Altitude**
 - b. Airspeed**
- 7. Release**
- 8. Emergency Actions**
- 9. Safety Considerations**

AIRDROP CHECKLIST

- 1. Type of Drop**
- 2. Drop Zone**
 - a. Authentication or Markings**
 - b. TOT**
 - c. Visual Signals**
- 3. Communications**
 - a. Air to Ground**
 - b. Intercom**
 - c. Hand Signals**
- 4. Drop Procedures**
 - a. Altitude and Airspeed**
 - b. Track**
 - c. Drop Order**
 - d. Door and Ramp Procedures**
- 5. Crew Coordination**
- 6. Emergency Procedures and Hung Jumper**
- 7. Post Deployment Procedures**

FORWARD AREA RESUPPLY POINT

- 1. Location**
- 2. TOT**
- 3. Communication**
 - a. Call Sign**
 - b. Air to Air**
 - c. Air to Ground**
- 4. Marshaling**
- 5. On-Load**
- 6. Equipment**
 - a. Ground Wire**
 - b. Probe Adapter**
- 7. Emergency Procedures**
- 8. Departure Instruction**

PREMISSION TEAM BRIEFING

- 1. Time Hack**
- 2. Mission Information**
 - a. Mission Objective**
 - b. Intel/Scenario**
 - c. Map/Chart Series, Scale and Datum**
- 3. Team Data**
 - a. Call Sign**
 - b. Number of Personnel/Description**
 - c. Location/Movement Plans**
 - d. Marking Devices**
- 4. Aircraft Data**
 - a. Call Sign/Positions**
 - b. Number of Aircraft**
 - c. Aircraft Configuration**
 - (1) Weapons/Ammunition Load**
 - (2) Cabin Configuration**
 - (3) Inter/Intra-Plane Comm Requirements**
 - (4) Restraint Options**
 - (5) Hazardous Areas**

5. Communications**a. Confirm Current CEOI, Matrix, Execution Checklists****b. Nets/Frequencies****c. Comm Check****d. Authentication Procedures****e. Comm Out Procedures****6. Actions on the Objective****a. Infil/Exfil Method/Back-up****b. Hover Height****c. Time Calls****7. Emergencies****a. Code Words (Voice/No Comm Signals)****b. Extraction Options****c. Actions for Injured Personnel****d. Downed Aircraft****e. E&E Plan**

8. Bump Plan

9. Admin

a. Team Manifest

b. Issue Appropriate Life Support/Mission Equipment

CLOSE AIR SUPPORT CHECKLIST

1. Time Hack

2. Intel

3. Aircraft Data

a. Call Signs

b. Type and Number of Aircraft

c. Weapons Configuration and Ammo Load

4. Team Data

a. Call Sign

b. Number or personnel and Description

c. Location

d. Movement

e. Marking Devices

5. Maps and Charts Data

- a. Edition Number of Maps Used**
- b. Datum of Coordinates**
- c. Coordinates Types and Source**
- d. Information Confirmed with Customers**

6. Communications

- a. Fire Mission Nets**
- b. Comm Check**
- c. Voice Procedures**
- d. No Comm Procedures**

7. Predesignated LZs and Hold Points**8. Predesignated Targets Reference Points (TRPs),
Target Marking Devices and Weapons Free Fire Zones****9. Flight Patterns**

- a. Altitude and Airspeed**
- b. Drop Dead Time and Loiter Time**

10. Contingencies and Bump Plan

11. Emergency Procedures

a. Ground Party

b. Aircraft

c. Weapons

d. No Comm

12. E&E Plan

13. Gunnery Range Briefing

ORDNANCE DELIVERY BRIEFING

1. Range

2. Mission Number

3. Range Time

4. Route and Range Restrictions

5. Armament Procedures

6. Pattern

7. Altitude and Airspeed

8. Communications

a. Air to Air

b. Air to Ground

c. Inter Plane

9. Weapons Malfunctions

a. Gun

b. Flares/Chaff

c. Hot Gun Route and Clearing Area

10. Other Safety Considerations

11. Flare Operations

NIGHT WATER OPERATIONS CHECKLIST

1. Time Hack

2. Weather

a. Sea State and Temperature

b. Limitations

(1) Aircraft

(2) Team

(3) Safety Boat

3. Tam Data

a. Method of Insertion/Extraction

b. Load

c. Pickup Point

- (1) Location**
- (2) TOT**
- (3) Marshall Instructions**

d. Destination

- (1) Location**
- (2) TOT**
- (3) Staggered/Simultaneous Deployments**
- (4) CAST Master Action**

e. Communications

- (1) Call Signs**
- (2) Primary/Secondary Nets**
- (3) Advisory Calls**
- (4) Comm-Out Procedures**

4. Cabin Configuration

a. Rollers

b. Aircraft Weapons

c. Rescue Equipments/Egress Preparation

d. Load Configuration

- (1) Stacked/Tandem**
- (2) Preload Preparation**

5. Action on the Objective

a. Type of Approach

- (1) Coupled/Uncoupled**

b. Altitude/Ground Speed

- (1) Enroute**
- (2) Final**
- (3) Deployment**

c. Crew Duties**d. Formation Deconfliction**

- (1) Type Formation**
- (2) Spacing**
- (3) Simultaneous/Staggered**
- (4) Aircraft Lighting**
- (5) Orbit Points**
- (6) Time Interval**

6. Egress**a. Go Around****b. Rejoin****7. Emergency Actions****a. Loss of Power****b. Equipment Malfunctions/Hung Boat****c. Communication Failure****d. Injuries****8. Risk Assessment/Safety**

NAVIGATION EQUIPMENT CHECKLIST

- 1. TACAN and VOR – Tuned and Identify**
- 2. Nav Mode Switch – As Required**
 - a. HIS Switch – As Required**
 - b. Master/Slave – As Required**
- 3. Bearing Pointers – Point to Station $\pm 4^\circ$ from ground checkpoint)**
- 4. DME – $\frac{1}{2}$ Mile or 3% error whichever is greater**
- 5. CDI – Check Center Right or Left ($\pm 4^\circ$ error from known checkpoint)**
- 6. Check to or from Ambiguity**
- 7. ILS – Tuned and Identify**
 - a. Check Marker Beacon Volume**
 - b. Nav Mode switch – As Required**
 - (1) HIS Switch – Select VOR**
 - (2) Master/Slave – As Required**
 - c. Select Approach Course**
 - d. Check CDI and GSI Indications**
- 8. ADF – Check As Required**
- 9. Set Nav Equipment for Departure or Emergence**

Return

10. De-Ice and Anti-Ice – Check As Required

11. Pitot Heat – Check As Required

SELF TEST

1. VOR

a. Set – IAW Flight Manual

b. Switch - Test

c. CDI - Centered

d. To or From - To

2. TACAN

a. Switch –T/R

b. Set – 180° Course

c. Warm up – 90 Seconds

d. Test – Press Button

e. Light – 1 Second

f. DME Flag – 7 Seconds

g. Pointer 270°

h. DME $0 \pm .5$

i. Pointer – $180^\circ \pm 3$

j. Light On – System Failure, Repeat Test with Switch in “R”

IDAS/MATT TACAN Self-Test

****a. Set Course in HSI to 180.**

****b. Depress TACAN Switch on Copilot’s His Unit Switch and SLV will Illuminate. Pilot MST will Illuminate.**

****c. Press Test Switch.**

****d. Test Light Flashes Momentarily.**

****e. HSI Range Shutter and Navigation Warning Flag comes into view.**

****f. HSI #1 Bearing Pointer Slews to 3 o’clock Position for a nominal 3 seconds.**

****g. HSI Range Shutter and Navigation Warning Flag Go Out of View.**

****h. HSI Distance Indication is 000.0 ± 0.5 and Pointer Bearing Indication is 180 ± 3 .**

****i. HSI Course Deviation Bar is Centered within $\pm 1/2$ dot and TO-FROM arrow Indicates TO.**

****j. HSI Range Shutter and Navigation Warning Flag come into View Until TACAN Navigation System Reacquires Audible Signal.**

INSTRUMENT DEPARTURE BRIEFING

- 1. Navigation/Communication radio settings**
- 2. Emergency return approach**
 - a. DH or MDA**
 - b. Inbound Course**
 - c. Emergency Safe or Sector Altitude**
- 3. Restrictions**
- 4. Hazardous Terrain and Obstacles**
- 5. Emergency Intentions (To be accomplished immediately before initial simulated or actual instrument profile)**

INSTRUMENT APPROACH BRIEFING

- 1. Type of Approach**
- 2. Navigation/ Communication radio settings**
 - **a. HSI Switch – As Required**
 - **b. MST/SLV Selector Switch – As Required**

3. Altimeter (Barometric and Radar)**4. Sector Altitude****5. DH and MDA****6. Weather required for Approach****7. Missed Approach Point and Intentions****8. Review Descent Rate****9. Aerodrome Sketch****10. Crew Duties****11. Lost Comm Intentions****12. Backup Approach****13. Heading and Attitude Systems**

NOTE: When accomplishing successive approaches, only changed items need be briefed.

(Applies to IDAS?MATT Modified Aircraft)**

H-53 COMBAT INGRESS CHECKLIST

1. Aircraft and Crew configuration for low level - Complete

2. Radio responsibilities – Assign/Assume

3. Performance Data – Compute and Confirm**4. Fuel****a. Current fuel Onboard****b. Fuel Required to Fly Planned Mission****c. Loiter Capability****d. Bingo Fuel****e. Refueling Option (FARP, Tanker)****f. Required Adjustments****5. Radar Warning Receiver - Set****6. Fuel Control Lever - Open****7. Ramp Master Switch - Off****8. IFF – As Required****9. TACAN – As Required*****10. Doppler – As Required****11. Radar – As Required*****12. Exterior Lights – As Required**

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13. Hoist Operator's Checklist – Complete (Prepare

alternate insertion/extraction equipment, as applicable)

14. Body Armor - On

15. Chem Warfare Gear – As Required

16. Visors/Eye Protection – As Required

***17. Armor Wings – As Required**

18. Shoulder Harness - Locked

19. Guns, IRCM, and ECM equipment -Armed

****a. IEW Status - Confirm**

****b. IEW Mode/Settings Configure – as required**

****c. MATT Settings – Select and Confirm**

(*Simulate During Training)

BLUE FORCE TRACKER (BFT)

Interior Inspection

1. Ensure BFT power supply is plugged into co-051D pilots utility outlet

2. Ensure antenna cables are connected and antenna assembly is installed on co-pilot's upper greenhouse

window (Velcro)

Before Taxi Checklist

1. Flip toggle switch to appropriate mode based on mission requirements

Note:

Mode 1: Lights configured for brightness setting

Mode 2: Lights dimmed for NVG compatibility

Note:

If light interferes with NVG's, they can be extinguished by simultaneously holding the PTT ±C button for one second. Lights will extinguish and the device is still power on and operating until mode switch is placed off.

2. Verify "On" light illuminated for 15 seconds

Note:

"Low Batt" light flashing indicated a problem with power supply and/or installed photo cell batteries. Have system check by qualified personnel after mission.

If the power light alternately blinks from "bright" to "dim", the unit has been zeroized and will not operate.

3. Verify "GPS Lock" light quits flashing after approx 30 seconds.

Note:

"GPS Lock" light will flash while unit is calculating a

GPS solution. Light will go off immediately after transmission unit approx 30 seconds prior to next transmission.

Engine Shutdown Checklist

- 1. Flip toggle switch to “Off” (center) position.**
- 2. Verify “On” light extinguished after 45 seconds**

Note:

Device may take as long as 30 sec for “On” light to extinguish.

BFT Emergency Procedures

- 1. Emergency Shutdown – If BFT or power supply operate in a hazardous manner immediately**
 - a. Pull pilot’s utility recep CB (pilot’s #2 DC CB panel)**
 - b. Disconnect power supply plug**
 - c. If hazardous condition ceases, run BFT on battery power**
 - d. If condition continues, turn BFT Off**
 - e. Terminate use until insoection by qualified personnel**
- 2. Zeroizing the Unit**

Note:

Zeroize should only be done when it is deemed the device may be compromised. Never Zeroize for Normal operations.

a. Turn On BFT

b. Simultaneously hold PTT ±A±C buttons for one second (marked with “Z” on red background). Power light alternately blinks bright then dim.

c. Unit may be turned Off if time permits

d. Smashing unit or shooting through “X” will also Zeroize unit.

3. Emergency Egress with BFT**Note:**

If time permit, BFT should be removed and used as an E&E device.

Device will operate normally on battery power (approximately 40 hours lie at 2 min transmit rate).

a. Disconnect power and antenna cable

b. Remove BFT by releasing strap

c. When time permits, install the UHF whip antenna and connect the GPS antenna. Do Not over tighten connectors.

H-53 COMBAT POST-EGRESS**1. Guns, IRCM and ECM equipment - Dearm******a. IEW Status - Confirm******b. IEW Mode/Settings Configure – as required******c. Matt Settings – Select and Confirm****2. Shoulder Harness – As Required****3. Armor Wings - Back****4. Chem Warfare Gear – As Required****5. Body Armor – As Required****6. Exterior Lights - Set****7. Doppler – As Required****8. Radar – As Required****9. IFF – As Required****10. Fuel Control Levers – As Required****11. After Takeoff Checklist - Complete****(** Applies to IDAS/MATT modified aircraft)**

HELICOPTER LIGHT SIGNALS (ENROUTE)

SIGNAL	MEANING
Single flash (tail position light)	Trail
Two flashes (tail position light)	Stagger left
Three flashes (tail position light)	Stagger right
..	Return to Base
--	Lead change*
-.	Slow Down
.-	Speed Up
---	Lights (increase)
...	Lights (decrease)
-. .	Lights (check)
....	Lost Comm**

*Execute signal – Infinity symbol (horizontal 8 motion). This signal follows the lead changes light signal for execution.

**Assume radio responsibilities

Attention Signal – Circular Motion.

Yes - Move light in a Vertical movement.

No – Move light in a Horizontal movement.

A dot “.” Will be a momentary flash from light.

A dash “-“ will be a two second hold down.

A flash from the tail position light will be switch from dim to bright for the H-60.

All signals will be ECHO by the receiver back to the sender.

SWIMMER OR HELICOPTER SIGNALS

Need doctor or medical kit – Crossed Wrists

“Affirmative” – Thumbs Up

Deploy Backup Swimmer–Breast Stroke Motion.

Deploy Raft – Paddling Motion.

Deploy Stoke Litter – Hands cupped, then arms outstretched

Lower Rescue Cable without Device – Climbing Rope Motion.

Lower Penetrator – One Arm Extended Overhead, Fist Clenched.

Helicopter Move In or Out – Wave In or Out

Parachute Nearby – Closed Fist, pumping arm, pointing with other arm.

Emergency – MK-13 Flare and/or inflated LPU.

Hoist Operator Reply – Thumbs Up “ok”, “Affirmative”.

Swimmer Recall – Aircrew member signaling from the Aircraft by circling arm overhead, finger pointing skyward.

Shark – Hand-Clapping Motion

Cease Operations – Slashing Motion Across neck

AIR REFUELING LIGHT SIGNALS

TANKER TO RECEIVER

- 1. One Green – Clear to Contact (Wet/Dry) and/or Clear to Crossover to other side.**
- 2. One White – Go to Observation position.**
- 3. Two White – Crossover to other hose.**
- 4. One Amber – Prepare to Turn.**
- 5. Two Amber – Unable to Refuel, proceed to/wait for Spare Tanker.**
- 6. Flashing Red – Breakaway**

RECEIVER TO TANKER

- 1. One Flash – Reset Reel Response**
- 2. Multiple Flashes – Require More Gas**

RONALD E. KEYS, Lt General, USAF
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