

## CAP MISSION BRIEFING GUIDE

1. Pilot Preflight Actions
  - a. IMSAFE - Illness, Medication, Stress, Alcohol, Fatigue, Eat/Hydrate
  - b. FAA and CAP Personal Documents
  - c. FRO and Operation Risk Management
2. Crew Preflight Actions
  - a. Uniforms and Dressed to Egress
  - b. Crew Documents, Positions, and Experience
  - c. Time Hack and Time Management
  - d. Crew Rest, Nutrition, and Duty Day Remaining
3. General Flight Planning Considerations
  - a. Weather and Crosswinds
  - b. Current Charts and Publications
  - c. Flight Plan, NOTAMs/TFRs, and Special Local Procedures
  - d. Takeoff and Landing Data
  - e. Wake Turbulence
  - f. Fuel Requirements
  - g. Weight and Balance
4. Crew Resource Management
  - a. "Knock it off" and response
  - b. Two challenge rule
  - c. Positive aircraft control exchange
  - d. "Go Around" and response
  - e. Traffic calls based on clock position
  - f. Everyone has a voice, PIC is final authority
  - g. Sterile Cockpit altitudes and phases of flight
  - h. Crew assignments and avionic usage
  - i. Who reminds pilot to close flight plan and FRO
  - j. Pilot will fly the aircraft and will avoid target fixation
  - k. Night, IMC, Reduced Visibility, and Spatial Disorientation
  - l. Analyze threats along route
    - i. Bird strike hazard
    - ii. Military Training Routes/Victor Airways
    - iii. Minimum Safe Altitudes/High Terrain
    - iv. Towers, Airports, and Instrument Approach Corridors
    - v. Determine emergency divert fields
5. Observer Considerations Briefing
  - a. Seat belt operations on at all times, except scanner for duty performance
  - b. No Smoking
  - c. Crash Position for Observer and Scanner
  - d. Survival Equipment
  - e. ELT Operation

6. Emergency Procedures

- a. Crew responsibilities
  - i. Pilot flies
  - ii. Observer runs checklists
  - iii. Scanner Clears for hazards
- b. General Actions
  - i. Maintain Aircraft Control
  - ii. Analyze the Situation and take the proper action
  - iii. Land as Soon as Conditions Permit
  - iv. All Emergencies – Climb if possible
  - v. Critical Emergencies – Land
  - vi. Non Critical Emergencies – Climb and work through it
- c. Emergency Ground Egress
  - i. Pilot commands “EGRESS, EGRESS, EGRESS!” and shuts down aircraft
  - ii. Crew removes headsets
  - iii. Pilot opens left door allowing scanner to exit.
  - iv. Scanner retrieves Survival Kit and Observer retrieves fire extinguisher
  - v. Observer opens right door and pilot follows observer out right side of aircraft
  - vi. Crew proceeds to wingtip to avoid propeller and proceed to a spot 300 feet off the nose of the aircraft upwind of any smoke
  - vii. All crewmembers should be wary of responding crash fire rescue and EMS vehicles.
- d. Engine Fire on Start
  - i. Brief POH emergency actions
  - ii. Brief who will contact ground and request fire support prior to shutting off master switch
  - iii. Egress Procedures
- e. Takeoff Emergencies
  - i. Door open in flight: Climb to Traffic Pattern Altitude, then secure or land
  - ii. Recite Engine failure on takeoff procedure
  - iii. Bird strike into cockpit, ensure aircraft is climbing or climb together on controls
  - iv. Bird strike/structural damage, climb and controllability check
- f. En Route Emergencies
  - i. Recite Engine Failure at Altitude POH procedures
  - ii. Brief crews to unlatch doors prior to touchdown
  - iii. Physiological Incident (Have medical personnel—EMS—standing by)
  - iv. Ditching
  - v. Controllability Check
  - vi. Night Electrical Failure
- g. Emergency Procedure of the Day

1. Abort (Rejected T/O)	2. Engine Failure After T/O	3. Fire During Start	4. Oil System Failure
5. Electrical Fire Inflight	6. Structural Icing Inflight	7. Elevator Failure	8. Precaut'ry Landing w/Power
9. Forced Landing	10. Electrical Failure (Day)	11. Loss of Communications	12. Airspeed Failure
13. Spin Recovery	14. Porpoise on Landing	15. Landing with Flat Tire	16. Lost Procedures
17. Departing Prep'd Surface	18. Inadvertent IMC	19. Flaps Fail to Extend	20. Partial Eng. Power Inflight
21. Engine Fire Inflight	22. Fuel Leak	23. Throttle Failure	24. Ditching
25. High Ammeter	26. Electrical Failure (Night)	27. Asymmetrical Flaps	28. Pitot/Static Failure
29. Traffic Pattern Stall	30. Brake Failure	31. Ear Block/Phys. Incident	

7. Mission Communications
  - a. Communications plan
  - b. Mission Base, Repeaters, Ground Team, and Deconfliction Frequencies
  - c. Call signs and code words
  - d. Check ins: Engine Start/Stop, Ops Norm 30min, Ingress/Egress
  - e. DO NOT TRANSMIT FIND UNTIL CREW CONSULTATION IS COMPLETE
  - f. Local law enforcement notification for property access
  - g. Ensure TDFM radio check after engine start
  
8. General Mission Data
  - a. Mission and sortie number
  - b. Mission flow/sortie length
  - c. Intended search profile or type (select one\* from below)
  
9. \* Electronic Search
  - a. SARSAT hits
  - b. Plot Lat/Longs independently and compare
  - c. Conduct DF Unit Preflight
  - d. Set 121.5 on VHF with squelch off
  - e. Discuss wing shadowing if necessary
  - f. Discuss Low visibility / IMC procedures
    - i. File a search area wedge off Navigational Aids
    - ii. Determine 2 VOR radials and min/max DME limits
    - iii. Fly cardinal headings using collapsing box
  
10. \*Low Level and Disaster Relief Flight
  - a. Plot legs and locate highest obstacle within 5 miles
  - b. Determine minimum leg altitude by adding 100 feet to the highest obstacle
  - c. Brief crew on expected visual cues
  - d. If possible, fly the route at high altitude in one direction to check for hazards and then fly the other direction at lower altitude
  
11. \*Grid Search
  - a. Prepare 104A/B as directed
  - b. Target information
  - c. Search area diagram with coordinates(decimal minutes)
  - d. Terrain and environment
  - e. Ingress/Egress altitude and direction
  - f. Search pattern direction, leg length, and track spacing
  - g. Search airspeed and flap settings
  - h. Search altitudes in AGL/MSL
    - i. Minimum Safe Altitude and Emergency Safe Altitude
  - j. Time to area/on station/RTB vs. fuel available
  - k. Any additional information (AFRCC/NTAP/IMT)
  - l. Other aircraft and/or ground teams in area
  - m. Proceed to Air-to-Ground Coordination section below if using ground team support

## 12. \*Air-to-Ground Coordination

- a. Call sign and frequency of ground team
- b. Rendezvous location and arrival window
- c. Vehicle description
- d. Back up communications over L-PER
  - i. 2 Way Air to Ground Comm Failure During DAY:
    1. Aircraft begins to circle over a point for as long as it takes the ground team to stop. Starting in a position ahead of the ground team will help get their attention.
    2. When the vehicle stops, attempt 1-way communication with the ground team using its L-Per as a radio receiver. Using the aircraft radio, transmit on 121.775 MHz or as briefed. Avoid using 121.5 MHz. If the ground team is listening for the ELT, you can (but should avoid) transmitting over it to get the ground team's attention.
    3. Ground team waves and flashes headlights when the message has been received.
    4. If the message has not been received, keep trying or proceed with No-Radio Air to Ground Coordination as described in the note below.
  - ii. 2 Way Air to Ground Comm Failure During NIGHT:
    1. Aircraft circles as in the day
    2. Ground team will stop and shut off headlights.
    3. Aircrew will attempt to contact over L-Per as described above.
    4. Ground team flashes headlights repeatedly when the message has been received.
    5. If the message has not been received, keep trying or proceed with No-Radio Air to Ground Coordination as described in the note below.

Note: (No-Radio Air to Ground Coordination) Ground team can be directed to proceed independently if comm fails. Circling aircraft is directing ground team to proceed to that location. Ground team follows the direction of the aircraft turns at intersections. If these procedures are ineffective and the action is necessary to save a life, an aircrew can consider executing the message drop procedure (airdrop).

## 13. \*Airdrop Procedures (Only to prevent loss of life)

- a. Prep airdrop kit or message drop
- b. Fly 800 foot traffic pattern over target (complete rectangle) to analyze hazards (towers, birds, terrain)
- c. Configure aircraft (80 knots or faster, NEVER slower than approach speed for configuration)
- d. Descend to 500 feet or safe altitude and fly second rectangular pattern with a 3 mile final
- e. Observer opens window
- f. Observer steers aircraft to place drop zone (DZ) under right wheel
  - i. Use "Left turn, Stop turn, Right turn" etc...
  - ii. Anyone may call "NO DROP" to abort the run in
- g. Pilot flies aircraft in 1G level, stable flight
- h. Observer releases the drop container directly over the DZ
- i. Observer secures window and after the object is clear the pilot initiates a climb
- j. Fly another rectangular pattern at 800 feet to determine success
- k. Safety Considerations
  - i. Do not call "Green light" or "Bombs Away", this could cause the pilot to pull up or maneuver
  - ii. Pilot should not be concerned with the timing of the release
  - iii. Pilot should not look over shoulder to determine accuracy
  - iv. Pilot should not climb or descend during the drop, this can cause the object to strike the tail