



Parallel Track Search - MP

Objective: To practice parallel track search techniques.

Duration: 2.0 hours

SCENARIO

The widespread poor weather in the previous days apparently did not prevent a local farmer from flying. AFRCC has opened a search for the blue-on-white Navion, N1119Q. On board was Horace A. Farmer and his wife Lucille. No flight plan was filed, nor did the PIC receive a weather briefing from flight service. The pilot is well known at his home airport; the couple makes the trip about once a month. After topping off his aircraft on Friday evening, Mr. Farmer presumably departed for home. His daughter Mabel reported being unable to contact Mr. Farmer to the County Sheriff who in turn contacted AFRCC.

ASSIGNMENT

1. Plan flight to assigned grid _____ using pilotage only.
2. Plan a parallel track search for assigned grid, with 1NM track spacing.

PRE-FLIGHT PLANNING

1. Discuss the purpose of the flight.
2. Plan to navigate to the assigned grid via pilotage.
3. Using the details below, complete the pre-flight planning using the appropriate sections of the flight guide. Highlight differences from the previous flight; already-briefed items can be abbreviated and reviewed only as necessary.
4. Discuss the crew duties. Review individual responsibilities and who manages what equipment (for example, how the airband radios will be used and by whom).
5. Do all normal pre-flight activities (call for a weather briefing, prepare weight and balance, etc.)
6. Prepare a CAPF-104 a. and b.

PRIOR TO DEPARTURE

1. Review as necessary the operation of the following:
 - a. Nav/Comms
 - b. DME
 - c. ADF
 - d. GPS
 - e. VHF-FM (CAP) radio
 - f. Audio panel
 - g. Intercom
 - h. Push-to-talk buttons and mike
2. Have the trainee give an aircraft passenger and safety briefing:
 - a. Demonstrate use of safety belts and harnesses
 - b. Identify emergency exits and egress procedures
3. The mission pilot candidate should set up the CAP radio, DF, and FAA radios. Enter the proper nav/comm. frequencies and the first destination in the GPS. The MP candidate should demonstrate setup of the audio panel. Assist the MP candidate as necessary. The MP candidate should verbalize what she/he is doing



FLIGHT

1. Enroute (use pilotage only to the assigned grid)
 - a. Fly at the briefed altitude.
 - b. Discuss what to look for during a visual search. Whenever possible, have the trainee point out objects on the ground which resemble search visual clues, such as:
 - i. Light colored or shiny objects
 - ii. Smoke and fire
 - iii. Blackened areas
 - iv. Local discoloration of foliage
 - v. Fresh bare earth
 - vi. Breaks in cultivated field patterns
 - vii. Water and snow
 - viii. Tracks and signals
 - ix. Birds and animals
2. Parallel Track Search
 - a. Perform the four-corners flight at 2000 feet AGL. During this time, the trainee and MP should discuss physical features, lighting, and other information pertinent to conducting a successful visual search.
 - b. Conduct a normal grid search at 1000 feet AGL and at 90 to 100KIAS. The direction of the tracks should be determined during the four corners inspection of the grid.
3. Return to Base
 - a. Discuss anticipated communications with tower, and let the trainee handle communications during the approach and landing. Have the trainee report out of the area and wheels down.
 - b. Discuss anticipated taxi instructions, and let the trainee handle communications with ground control.
 - c. The mission pilot candidate will make this landing under the supervision of the MAS flight instructor.

DEBRIEFING

1. Review the flight and answer any questions.
2. Complete the CAPF 104 and 104a.
3. Ensure that the required specialty qualification training record (SQTR) tasks below are completed and sign the trainee's SQTR.

REQUIRED SQTR TASKS

1. Complete Task O-2103 - Demonstrate Planning and Flying a Parallel Track Search
 - a. Sign yourself and your aircraft into the mission.
 - b. Receive a sortie briefing, asking questions as necessary.
 - c. Plan a parallel track search of a grid. Include:
 - i. Estimated time enroute, time in the grid, and fuel requirements.
 - ii. Position coordinates for the entry and exit points (lat/long & VOR radials/cross-radials).
 - iii. Position coordinates for the grid legs (lat/long and VOR radials/cross-radials).
 - iv. Altitude restrictions, obstacles and other hazards (e.g., MTRs and SUAs).
 - v. Discuss observer/scanner assignments for all possible combinations.
 - d. Fill out the flight plan and preliminary mission data on the CAPF 104.
 - e. Preflight the aircraft and perform pilot safety and mission briefings.



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- f. Demonstrate and discuss safety during each critical phase of the flight. In particular, demonstrate collision avoidance and enforce sterile cockpit rules.
 - g. Demonstrate proper ATC communications.
 - h. Setup the CAP FM radio and perform all required radio reports (may be simulated).
 - i. Fly the grid search. Demonstrate:
 - i. Proper use of nav aids (GPS as primary; VOR as backup).
 - ii. Proper use of radios (ATC as required, and CAP FM radio reports).
 - iii. Entry at the proper point, stabilized at search altitude and speed.
 - iv. Accurate altitude and speed control inside the grid.
 - v. Turns accomplished accurately using less than 30° bank, and stays inside the grid.
 - vi. Accurate navigation and track spacing.
 - vii. Proper observer/scanner direction (may be simulated).
 - j. Demonstrate proper attention to fuel management.
 - k. Properly secure the aircraft at the end of the sortie (ready for next sortie).
 - l. Fill out the remainder of the CAPF 104 and debrief the sortie.
2. Complete Task O-2008 - Complete a Mission Sortie
 3. Complete Task O-2106 - Plan and Command a CAP Flight
 - a. Compute Weight & Balance, list fuel requirements and state fuel reserve.
 - b. Receive a briefing and obtain a flight release.
 - c. Prior to the flight:
 - i. Referring to the aircraft log books, identify last mid-cycle oil change, last 100-hour inspection and annual, instrument requirements (i.e., ELT battery,
 - ii. pitot-static system, transponder and altimeter current), expiration dates on the CO detector and fire extinguisher, and the date of the last VOR check.
 - iii. Identify outstanding squawks in the Discrepancy Log.
 - iv. Identify minimum equipment for VFR (day & night) and IFR.
 - d. During aircraft preflight:
 - i. Verify outstanding squawks.
 - ii. Dispose of sumped fuel properly.
 - iii. Clean windows, as necessary.
 - e. Prior to startup:
 - i. Fill in Aircraft Log, and state time left to oil change and annual.
 - ii. Perform passenger and crew briefings, and assign responsibilities.
 - iii. Determine crosswind and state crosswind limit.
 - f. During startup:
 - i. Turn rotating beacon ON before starting engine.
 - ii. Setup the DF, Audio Panel and FM radio.
 - g. During taxi, takeoff, departure, approach, decent and landing:
 - i. Demonstrate challenge-response method for checklists.
 - ii. Demonstrate proper collision avoidance and taxi procedures.
 - iii. Read back all ATC clearances (including hold-short directions).
 - iv. State and enforce sterile cockpit rules.
 - v. Maintains situational awareness at all times.
 - vi. Demonstrate proper attention to fuel status and altimeter setting.



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- h. After landing:
 - i. Fill out the Aircraft Log and enter discrepancies (if necessary).
 - ii. Properly shutdown, inspect, secure and clean the aircraft (as if last flight of the day).
4. Complete Task O-2107 - Prepare for a Trip to a Remote Mission Base
 - a. Check for proper uniform, credentials and equipment.
 - b. State the flight time and duty limitations per CAPR 60-1.
 - c. Assist in checking the aircraft:
 - i. Check for required equipment on board (e.g., tie downs, survival kit, cleaning gear).
 - ii. Clean windows, as necessary.
 - d. Assist in filling out a CAP flight plan.
 - e. Receive a briefing from the mission pilot:
 - i. Fuel assumptions and fuel stop.
 - ii. Airspace restrictions, NOTAMS, and destination airport diagrams.
 - f. Upon (simulated) arrival at mission base:
 - i. Secure the aircraft and arrange for refueling.
 - ii. Sign yourself and the aircraft into the mission.
 - iii. Assist in completing your "Inbound" CAPF 104.