

**National Emergency Services Academy, CIVIL AIR PATROL**  
**Mission Aircrew School Flight Syllabus**  
**FLIGHT #4: CREEPING LINE SEARCH TRAINING FLIGHT**

**Objective:** To practice route search techniques.

**Duration:** 1.5 hours or less

### **SCENARIO**

A light-sport aircraft has been reported missing within your assigned area. The pilot reportedly frequently likes to fly between two towns as listed on your Area Specific Targets sheet. The Air Operations Director as directed your crew to conduct a creeping line search between these two towns. The pilot's name is Leo Maier. He is 67 years old and flies a baby-blue Taylorcraft.

### **PRE-EXERCISE PLANNING**

This exercise requires that the trainee plan a creeping line search prior to the exercise (i.e., homework). The trainee should use a sectional chart to plan this exercise. The trainee should have planned for:

1. A creeping line search along the route described on the Area Specific Targets sheet.
2. Conduct at 1000' AGL, 1 NM track spacing, and 90-100 kts, 3 mile legs.
3. Determine the Latitude/Longitude of the entry and exit points. In addition, determine the entry and exit points using VOR cross-radials and VOR-DME.
4. Determine the magnetic heading and distance (NM) from BAK to the entry point.
5. Determine the VOR cross-radials and VOR-DME to the entry point.
6. Determine the magnetic heading and distance (NM) from the exit point to BAK.
7. Determine the inbound course from the exit point to a nearby VOR.
8. Mark the sectional accordingly.

### **PRE-FLIGHT BRIEFING**

1. Complete a pre-flight briefing using the appropriate section of the flight guide. Highlight differences from the previous flights; already-briefed items can be abbreviated and reviewed only as necessary. During this flight, the mission pilot candidate will ride in the left front seat. The observer track student will ride in the right front seat. The mission instructor will ride in the rear left seat. The instructor will:
  2. Have the trainee discuss the observer's duties during:
    - a. Preflight and taxi
    - b. Departure
    - c. Enroute
    - d. Approach and landing
  3. Discuss purpose of the flight:
    - a. How to plan and execute a creeping line search, with emphasis on navigational aids and the use of navigation equipment.
    - b. Locate the following navigational equipment and discuss their use:
      - 1) VOR
      - 2) ADF
      - 3) DME
      - 4) GPS
    - c. Assist the pilot with navigational aids:
      - 1) Setting and verifying proper frequencies for VOR, ADF, and DME
      - 2) Setup of audio panel pushbuttons
      - 3) Initial setup of the GPS
  4. Discuss use of the GPS, VOR, and DME during searches.

5. Review the trainees' planning and correct as necessary.
6. Initiate a CAPF-104. Have the trainees enter the required information.
7. Have the observer trainee give the aircraft passenger and safety briefing:
  - a. Demonstrate use of safety belts and harnesses
  - b. Identify emergency exits
8. Have the trainee set up the proper communications frequencies for the CAP radio, DF, clearance delivery/ground, tower, and departure control. Demonstrate setup of the audio panel. Then have the trainee:
  - a. Set up the audio panel switches.
  - b. Handle communications with clearance delivery/ground, tower, and departure control.
  - c. Give wheels up, time in the grid, time out of the grid, and wheels down reports.

### **CREEPING LINE SEARCH**

*During the flight, the trainee should concentrate on learning to use the aircraft navigational aids. The trainee should also handle as much of the communications load as practical during this exercise, but this is of secondary importance. The observer trainee should report wheels up, time in the grid, time out of the grid, and wheels down.*

1. Proceed to the entry point at 1000' AGL.
2. Let the trainee verify proper tracking per ground reference and GPS. Have the observer trainee notify the pilot when its time to turn and in which direction to turn.

### **RETURN TO BASE**

1. Have the trainee determine the proper heading for the return to BAK, and let the trainee set up the navigational instruments as necessary.
2. Have the trainee handle communications with approach, tower, and ground control.
3. Practice air-to-ground coordination techniques by using a vehicle on a highway. Keep up with it for a period of time, then demonstrate how you would tell it to turn at an intersection. Advance the complexity as proficiency improves.

### **DEBRIEFING**

1. Answer any questions.
2. Let the trainee provide the information for the debriefing (CAPF-104).
3. Sign the trainees' specialty qualification training record.