Urban Direction Finding Team Task Book

Extracted from the Civil Air Patrol Ground & Urban Direction Finding Team Tasks
Manual Dated 24 May 2004

NATIONAL EMERGENCY SERVICES CURRICULUM
URBAN DIRECTION FINDING TEAM TASKS

The following tasks are included in this task guide.

Task #	Task Title
Command Tasks	
NONE	

Operations Tasks

O-0010	PREPARE URBAN DF TEAM INDIVIDUAL EQUIPMENT
O-0201	USE A COMPASS
O-0205	LOCATE A POINT ON A MAP USING THE CAP GRID SYSTEM
O-0214	DETERMINE AND PLOT AN AZIMUTH ON A MAP
O-0218	LOCATE OWN POSITION ON A MAP USING TERRAIN ASSOCIATION
O-0220	MOVE FROM POINT TO POINT IN A VEHICLE USING A MAP
O-0301	DETERMINE DISTRESS BEACON BEARING
O-0302	LOCATE A DISTRESS BEACON
O-0303	DEACTIVATE A DISTRESS BEACON
O-0304	TRIANGULATE ON A DISTRESS BEACON SIGNAL
O-0420	PERFORM AN AIRFIELD SEARCH (RAMP CHECK)

Planning Tasks

P-0101	KEEP A LOG

Logistics Tasks

L-0001	BASIC COMMUNICATIONS PROCEDURES FOR ES OPERATIONS
L-0002	PERFORM RADIO OPERATING PROCEDURES
L-0003	EMPLOY APPROPRIATE RADIO FREQUENCIES AND REPEATERS
L-0101	INSPECT A VEHICLE

Urban Direction Finding Team Task Book

Familiarization and Preparatory Training

O-0010

PREPARE URBAN DF TEAM INDIVIDUAL EQUIPMENT

CONDITIONS

You are a member of a urban DF team at home prior to a mission.

OBJECTIVE

Collect and efficiently pack all items required of a urban DF team member. The enclosed list is the suggested national list. Wings may have supplemented this list to suit their environment with national approval, so be sure to use your approved wing list.

TRAINING AND EVALUATION

Training Outline

1. Your individual equipment is designed to keep you functional in the field and to help you do your job. Urban DF Teams are not expected to go off road or stay overnight in the field, but they do need to have certain tools available to do their job in an appropriate manner.

2. The gear list below is the minimum required equipment. Items required of trainees are marked with a "T." You may carry additional equipment if you would be added on to a full ground team at a later time but remember, you may have to walk a long way carrying it all.

a. On your person:

1) Complete uniform appropriate to the environment in which you will be working. (T)
2) Notepad and pencil (T)
3) All CAP Identification, including 101 card, 76 card, First Aid card, etc. (T)
4) Watch (T)
5) Handkerchief or Tissues
6) Vest, reflective, orange (T)
7) Comb or brush (optional, carry if needed) (T)
8) Ground and UDF Team Task Guide (T)
9) Flashlight (with red or blue lens), with spare bulb and batteries
10) Change for phone calls, calling card, or cellular phone (T) to call mission base
11) Compass, lensatic or orienteering (orienteering preferred). Compass should have a "glow in the dark" dial.
12) Protractor -- for map work.
13) Map Case (Large Zip-Loc bags can be used if necessary)
14) Pencil, with eraser (plus sharpener if not a mechanical pencil)
15) Alcohol Pens, fine tip, at least 2 colors (neither the color of your colored flashlight lens)
16) Some way to erase alcohol pens marks on the map case, such as alcohol swabs or a special alcohol pen eraser.
17) A straightedge ruler, at least 6" long (Some protractors may have a ruler as well).
18) One Meal or personal funds to purchase a meal while prosecuting the mission if appropriate. (T)

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student:

1. Tell the student to lay out his gear. Tell him to lay out all items in the order listed on the above list, in rows from left to right (except for the uniform the member is wearing. of course). Inspect all items for presence and serviceability.

2. After inspection of all items, tell the student to reassemble his/her equipment and put it on.

Evaluation

Performance measures	Results	
The individual:		
1. Has all required items.	P	F

NOTE: ALL REQUIRED ITEMS MUST BE PRESENT IN ORDER FOR THE STUDENT TO PASS THIS TASK. ALL ITEMS MUST MATCH THE DESCRIPTIONS LISTED ABOVE. NO EXCEPTIONS OR SUBSTITUTIONS. TRAINEES ONLY HAVE TO HAVE THE ITEMS MARKED WITH A “T”.

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

P-0102
CONDUCT PHONE ALERT

CONDITIONS

You are a member of a ground team, and receive a phone call at home alerting you for a mission.

OJECTIVES

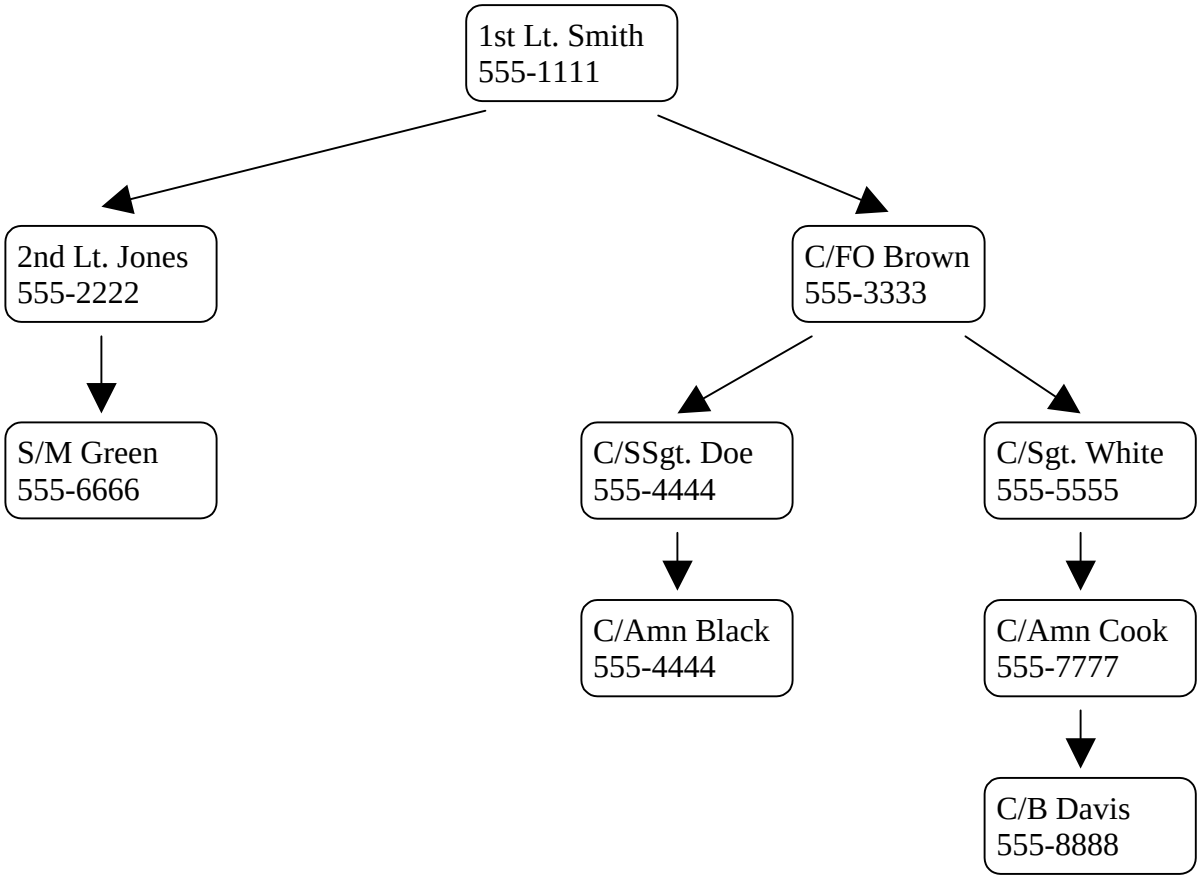
Take the steps necessary to alert all the personnel you are responsible for on the alert roster, passing on all the necessary information.

TRAINING AND EVALUATION

Training Outline

1. Alerting the team is the first step to saving a life. Done correctly, the phone alert quickly notifies all members of the team that a mission is in progress, gives them the information they need to prepare for the mission and move to the team meeting place, and informs the team leader of who will be attending the mission.

a. You squadron should have an alert roster, which graphically designates who calls who in the event of an alert. The roster will look something like this:



With this diagram, it is easy to see who calls who in an alert. 1st Lt. Smith calls 2nd. Lt. Jones and Cadet Brown. 2nd Lt. Jones calls S/M Green. Cadet Brown calls Cadets Doe and White. Cadet Doe calls Cadet

Black. Cadet White calls Cadet Cook, who in turn calls Cadet Davis. This chart also assumes that 1st Lt. Smith is the squadron commander. If for some reason the squadron commander is not the main POC for missions in the unit, then the commander should be notified that the squadron has been alerted.

b. The team leader or designated individual must ensure the alert roster is kept up to date as members leave or join the team.

c. When a team leader starts the alert by “calling down the alert roster," he or she needs feedback. The personnel on the alert roster must confirm that they have passed the information on to those they were supposed to call, report on whom they could not reach, and report who will be attending the mission. This last piece of information can be critically important in determining how much transportation is needed. Accomplishing this can be done one of two ways. First, when the people at the bottom of the roster have been called, the people who called them should call back UP the roster, telling the person who called them, whom they contacted, whom they did not contact, and who will be attending the mission. Second, last member notified in the chain contacts the squadron POC initiating the alert (in this case probably 1st Lt. Smith) before departing for the meeting place with the same information.

d. The biggest problem with alert rosters occurs when you cannot reach someone you are supposed to call. If this happens, you must take responsibility for calling all the personnel that person was supposed to call. If you do not, those personnel will never be alerted.

2. When you receive an alert call:

a. Ensure the person tells you (at a minimum):

1. Type of Mission
2. Expected Duration of Mission
3. Time and Location of Meeting Place
4. Any special instructions.
5. Mission number
6. Their call back number

b. Write down all this information. Do not trust your memory.

c. Call those people directly below you on the alert roster. If one of those people is not available, call all the people that person would call. (if you could not reach them because of a busy signal, make sure to try again later.) Pass on all the information. Find out if they will be able to attend the mission.

d. If the personnel you call are at the bottom of the roster, after you call them, call the person who called you or the alerting officer and report who you reached, who you did not reach, and who will be attending as advised during your alert briefing.

e. If the personnel you call have other people to call, wait until they call you back with their report. Then call and report to the person who called you.

f. Keep conversations short and keep the phone line open as much as possible. Someone may be trying to call you with a report or an update to the information.

Additional Information

More detailed information on this topic is available in Chapter 17 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Prepare an alert roster and give a copy to the student.

Brief Student: Show the student where he is on the roster (it does not have to really be his name. Just ensure that the name you pick is someone in the middle of the roster). Tell the student that you will simulate an alert call, and that the student should take all necessary actions, including simulating the calling of all the personnel that they should call on the list. Tell him that you will play the role of anyone he calls. Then "call" the member and pretend to alert them for the mission. Ensure you leave out one of the required elements of the alert call (listed in paragraph 2 above). When they simulate calling others, have one of those people not be home.

Evaluation

Performance measures	Results	
When alerted, the individual:		
1. Asks questions to ensure he or she knows the Type of Mission, Expected Duration of Mission, Time and Location of Meeting Place, Mission number, any special instructions and call back number.	P	F
2. Writes down all information	P	F
3. Calls all personnel directly below him/her on the alert roster.	P	F
4. Passes on all information, and finds out who will be attending	P	F
5. If someone is not there, call the personnel that person was responsible for calling.	P	F
6. Follows correct procedures to report back up the roster after making the calls.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

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Advanced Training

O-0201
USE A COMPASS

CONDITIONS

Given a compass, the magnetic azimuth and distance to a destination point. Your team has been given a point to travel dismounted. You have been designated the compass person. Or, you spot an object in the distance and want to know the azimuth to that point.

OJECTIVES

1. Successfully give the magnetic azimuth to a distant object +/- 5 degrees within 2 minutes.

2. Successfully move at least 600 meter's distance along the azimuths given with enough accuracy to find coffee-can sized targets suspended at eye level within 45 minutes.

TRAINING AND EVALUATION

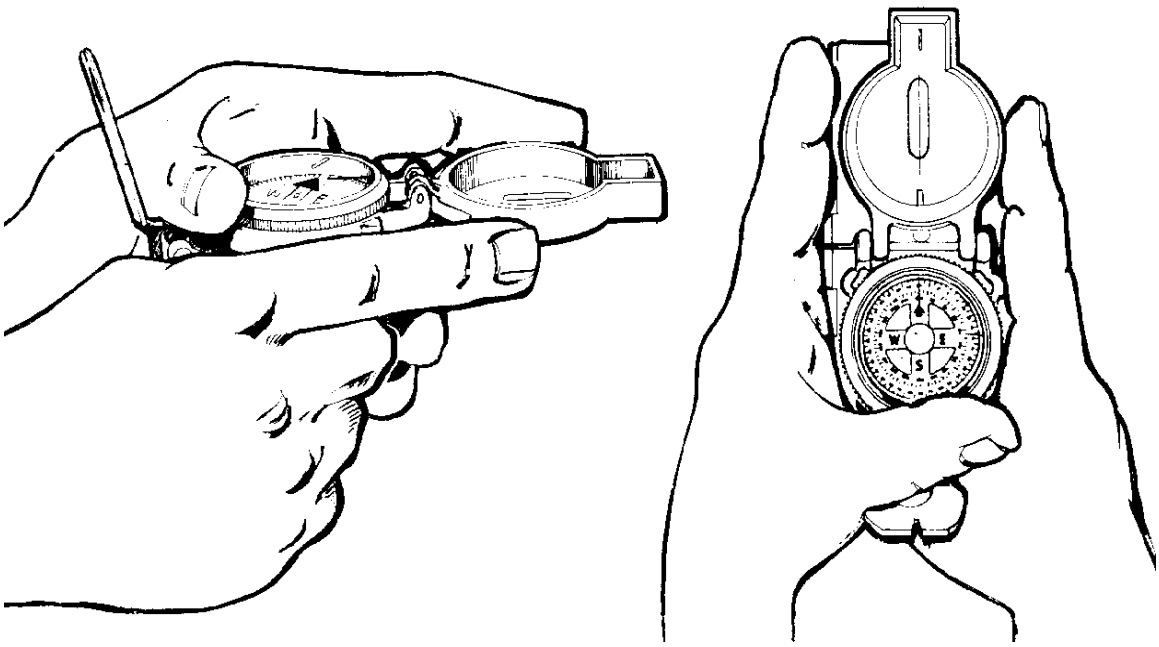
Training Outline

1. There are two techniques to holding and determining an azimuth with a compass: the Centerhold Technique and the Compass-to-Cheek Technique.

a. The Centerhold Technique can be used with lensatic or orienteering compasses.

1) If you have a lensatic compass, open it up to its fullest so the cover forms a straightedge with the base. Then move the lens (rear sight) to the rearmost position to allow the compass dial to float freely.

2) Hold the compass at waist level, with your elbows firmly against your sides, with your hands in the position shown below:



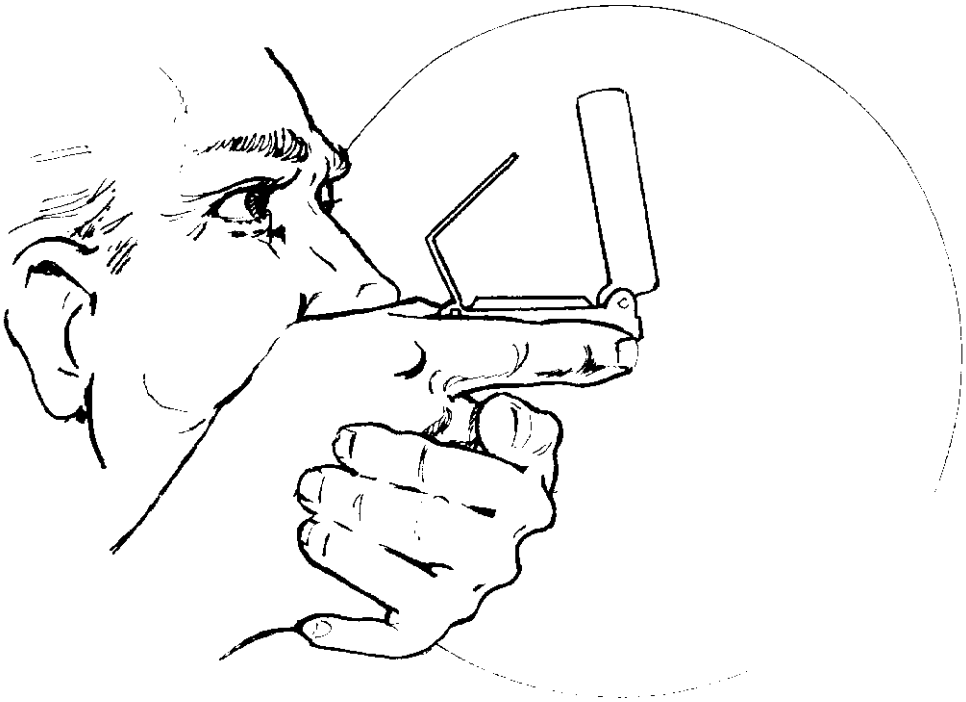
The centerhold technique used with a lensatic compass. You can hold an orienteering (Silva compass) the same way.

3) To use a lensatic compass while holding it this way, simply look down and read the number under the black reference line. This is the azimuth of the direction you index fingers are pointing.

4) To use an orienteering compass while holding it this way, rotate the compass dial until the "N" is under the needle while pointing at the target with your index fingers. Then read the dial number aligned with the "read bearing here" line. This is the azimuth of the direction you index fingers are pointing.

b. The Compass-to-Cheek Technique is typically used with a lensatic compass, though some newer orienteering compasses have sighting lenses and reference lines as well.

1) Hold the compass as shown below.



2) To use the compass when holding it this way, look through the rear sight notch and align the front sighting wire with your target. Look down through the lens one rear sight and read the number under the black reference line. This is the azimuth of the direction you are sighting.

3) This technique can be more accurate, but takes longer. If you are wearing metal glasses, they may affect the compass when held this close to your face.

2. Following an azimuth with a compass (Daylight).

a. With a lensatic compass:

1) Use the centerhold technique.

2) Rotate your body until the desired azimuth fall under the fixed black index line.

3) Turn the bezel ring until the luminous line is aligned with the north-seeking arrow. One you obtain alignment, the compass is preset.

4) To follow an azimuth, keep the north seeking arrow aligned with the luminous line. Look along the way your fingers are pointing, and pick out a distinctive terrain feature along the azimuth and walk toward it. Occasionally recheck the compass to ensure the north seeking arrow is still aligned with the luminous line.

b. With an orienteering compass.

1) Turn the compass dial until the desired azimuth is aligned with the "Read Bearing Here" line.

2) Use the centerhold technique.

3) Rotate your body until north seeking arrow is aligned with the "N" on the compass dial.

4) To follow an azimuth, keep the north seeking arrow aligned with the "N" on the compass dial. Look along the way your fingers are pointing, and pick out a distinctive terrain feature along the azimuth and walk toward it. Occasionally recheck the compass to ensure the north seeking arrow is still aligned with the "N" on the compass dial.

3. Following an azimuth with a lensatic or orienteering compass at night is the same as daytime, except you cannot normally use terrain features for reference as you walk. Simply:

1) Use a flashlight to set the appropriate azimuth as listed under daylight compass work (above). Use a red or blue lens to avoid night blindness.

2) To follow an azimuth:

a) Orienteering Compass: To follow an azimuth, keep the north seeking arrow aligned with the "N" on the compass dial. This only works if the arrow and the "N" are luminous.

c) Lensatic Compass: To follow an azimuth, keep the north seeking arrow aligned with the luminous line.

3) Occasionally "recharge" the luminous marks by cupping your hand around a white light flashlight and the compass dial, ensuring the compass gets the light without blinding any team members.

4. At all times avoid metal objects and electrical sources. These can affect compass accuracy. The following safe operating distances are suggested:

a. High Tension Power Lines -- 55 meters.

b. Vehicles -- 10 meters

c. Telephone poles or metal fences -- 10 meters.

Additional Information

More detailed information on this topic is available in Chapter 5 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup:

1. Before the student arrives. Choose a wooded area where a course can be established that is at least 600 meters long. Choose a start and a finish point and turning points along the course as necessary, and determine the magnetic azimuth and distance between them. Hang a brightly covered coffee-can or similar object at eye level at the destination point and other turn points on the course. Mark the can with a large letter or number. Hang at least three other cans with different numbers at least 100 meters away from the actual destination point. Choosing a distant terrain feature that is visible from the start point as the destination target is suggested, but if necessary the evaluator may select a different terrain feature for personnel to demonstrate how to properly determine an azimuth.

2. Be sure that the individual has a compass, piece of paper, and pencil.

Brief Student: Give the individual a compass and point out a distant object. Ask him to determine the magnetic azimuth to that point. Then give him the azimuth and distance to the target can. Tell him to move to that point, and then return and tell you the number or letter written on the target.

Evaluation

Performance measures	Results	
Determines an azimuth.		
1. Correctly uses the centerhold or compass-to-cheek technique.	P	F
2. Determines the azimuth to the distant point +/- 5 degrees	P	F
3. Completes the above steps within 2 minutes.	P	F
Follows an azimuth.		
1. Successfully moves to the target and determines it's marking.	P	F
2. Completes the task in less than 45 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0205

LOCATE A POINT ON A MAP USING THE CAP GRID SYSTEM

CONDITIONS

Given an aeronautical chart, road map, or topographical map gridded with the CAP grid system. You are away from mission base, mounted or dismounted, and must plot your location on a CAP gridded map in order to report it, an aircraft or another ground element. Or, you are coordinating with another search element (ground or air) who has told you his location using the CAP grid system. You want to plot this point on your map.

OBJECTIVES

Within 1 minute, the team member announces the CAP grid and sub-grid that the point is located in, using correct terminology, and can plot a point on the map given the CAP grid coordinates orally.

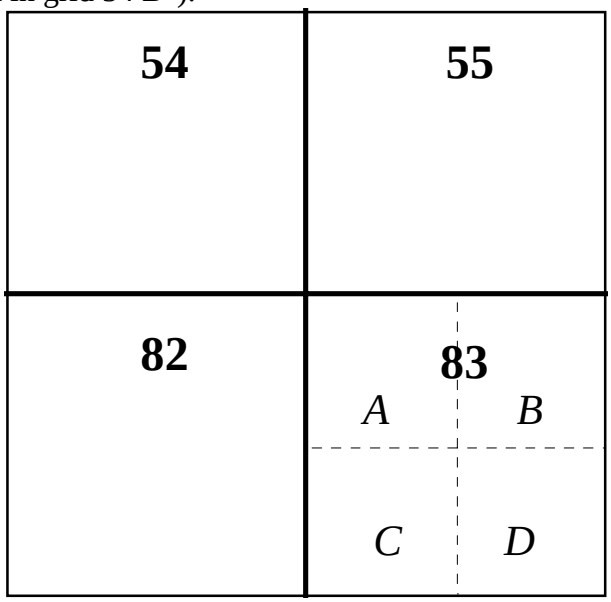
TRAINING AND EVALUATION

Training Outline

1. The CAP grid system is designed for use on aeronautical charts, but can be adapted to any map with latitude/longitude markings around the edge.

2. A grid is a 15 minute latitude by 15 minute longitude box. This is done by dividing the 30 minute by 30 minute boxes already on the aeronautical chart into fourths. Each grid is identified with a number. (For example "I am located in Grid 54").

3. To locate a position more precisely, mentally divide each grid into four quadrants. The Northwest quadrant is "A", the Northeast is "B", the Southwest is "C", and the Southeast is "D". Say the quadrant letter after the grid number (for example, "I am in grid 54 B").



Example of CAP grids (54,55,82 and 83) and lettered quadrants (83A, 83B, 83C, and 83D)

4. To find the grid designation of a known point on the map

a. Find the grid number the point is in.

b. Determine which quadrant of the grid the point is in (A, B, C, or D)

5. To plot a point given a grid number and quadrant letter:

a. Find the appropriate grid on the map (the grid numbers increase as you look left to right and top to bottom on the map.

b. Mark the point in the appropriate lettered quadrant of that grid.

Additional Information

More detailed information on this topic is available in Chapter 5 and Attachment D of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: Mark a point on a CAP gridded map or chart and give the map to the student. Pick a different grid location from the point and write down the grid and quadrant. Ensure you have a timer.

Brief Student: Tell the student to tell you the CAP grid and quadrant designation of the point. Then orally give him the grid and quadrant of the point you wrote down and tell him to show you where that point is on the map.

Evaluation

Performance Measures	Results	
The individual determines the grid of a known point:		
1. Announces the correct grid number and quadrant within 1 minute	P	F
The individual determines the location of a designated grid:		
2. Finds the correct numbered grid and quadrant within 1 minute	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0214
PLOT AN AZIMUTH ON A MAP

CONDITIONS

Given a map, pencil, a straight edge, a known point and a grid azimuth.

OBJECTIVE

Within 2 minutes, plot the azimuth from the given point on a map.

TRAINING AND EVALUATION

Training Outline

1. In some situations, a team might be given an azimuth to plot. A good example would be if another ground team has determined a bearing to a distress beacon from their location. Plotting this azimuth on your map could help with the search.

2. To plot an azimuth.

   a. Plot the point on the map.

   b. Ensure that the azimuth is a grid, not a magnetic azimuth. If it is magnetic, convert to a grid azimuth.

   c. Place the protractor on the point with the "0" degree mark oriented to grid north. Place a pencil mark at the degree mark on protractor corresponding to the azimuth.

   d. With a straightedge, draw a line from the first point (the position) through the mark you just made.

Additional Information

More detailed information on this topic is available in Chapter 5 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: On a map, mark a point. Give the student the map, a pencil, a straightedge, and a protractor.

Brief Team Leader: Verbally give the team leader a grid azimuth. Tell the team leader to plot the azimuth from the point marked on the map within 2 minutes.

Evaluation

Performance measures	Results	
1. Draws a line from the point along the correct azimuth +/- 2 degrees within 2 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0218
LOCATE OWN POSITION ON A MAP USING TERRAIN ASSOCIATION

CONDITIONS

In the field during daylight, while at an unknown location on the ground, given a objective topographic map, protractor, and a known point on the ground.

OBJECTIVE

Point out your position within a 100 meter tolerance within 5 minutes.

TRAINING AND EVALUATION

Training Outline

1. Determine the four cardinal directions.

2. Determine the type of terrain feature on which you are located. (see task O-0209, Identify the Major Terrain Features on the Map.)

3. Determine what type of terrain features surround your position.

4. Orient the Map. (see task O-0216 - Orient a Map to the Ground Using Terrain Association).

5. Relate the terrain features on the ground to the ones shown on the map.

6. Point out your position on the map.

Additional Information

More detailed information on this topic is available in Chapter 5 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: Select a relatively open area that has prominent terrain features shown on the map. Provide a map, pencil, paper, protractor and compass to the student.

Brief Student: Tell the student to locate his position on the map.

Evaluation

Performance measures	Results	
1. Determines 4 cardinal directions	P	F
2. Identifies the terrain feature on which he is located	P	F
3. Identifies terrain features around location	P	F
4. Orients map to ground	P	F
5. Relates the terrain features on the ground to those of the map.	P	F
6. Identifies own location on Map (+/- 100 meters)	P	F
7. Performs all steps within 5 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0220
MOVE FROM POINT TO POINT IN A VEHICLE USING A MAP

CONDITIONS

Given a vehicle with driver, state road map, topographical map, and compass.

OBJECTIVES

Successfully navigate to three designated points and return to the start point within 1 hour.

TRAINING AND EVALUATION

Training Outline

1. Virtually every sortie begins with driving to some point. Additionally, entire hasty searches must be done mounted (in a vehicle). Because of this, team leaders must become proficient at mounted navigation.

2. To find a point by mounted navigation

a. On the map, determine the route you will take (see task O-0209 - Identify Topographical Symbols on a Map)

b. Choose checkpoints along the way. These should be easily recognizable features along your route, such a bridges or road intersections. Every point where you will turn should be a checkpoint.

c. Measure the distance between each checkpoint (see task O-0211 - Measure Distance on a Map) and write it down.

d. Move to the point:

1) Don't try to navigate and drive. Let someone else drive so you can concentrate on the map.

2) Use the odometer to measure the distance between points. That way you'll know when checkpoints are coming up, or if you passed them by accident.

3) Rely on terrain association whenever possible (see task O-0217 - Locate Own Position by Terrain Association). The metal in your vehicle will make compasses unreliable.

4) If you must use a compass. Get out of the vehicle and move at least 10 yards away from it. This keeps the metal in the vehicle from affecting the compass (See task O-0201 - Use a Compass).

5) Don't speed, stop abruptly, block traffic or break any traffic laws. Make sure to park clear of the road when stopping, and be careful when exiting the vehicle when traffic is driving by.

Additional Information

More detailed information on this topic is available in Chapters 3, 5 and 7 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: Pick at least three points, approximately 5 to 10 miles apart. At each point, place a marker, clearly visible from the road, with a number on it. Choose points that are located on the topographical map, but are not marked on the objective state road map. Provide the team leader with a vehicle and driver, a compass, a state road map marked with all three points (their approximate locations) and a topographical map marked with all three exact locations.

Brief Team Leader: Tell the team leader what the signs at each point look like. Tell the team leader to travel to each point, record the number on the sign, and then return to you within 1 hour. (You may allow more time if the route chose requires driving at slow speeds).

NOTE: If you are testing a group of people, pick more than three points, and have each person go to different combinations of points.

Evaluation

Performance measures	Results	
1. Successfully finds all three points, and reports the numbers	P	F
2. Returns within 1 hour	P	F
3. Does not perform any unsafe action (such as speeding), or direct the driver to perform any un-safe action.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0301
DETERMINE DISTRESS BEACON BEARING

CONDITIONS

You are a member of a ground team searching for an distress beacon that is at least 1/2 a mile away. You have been given the task of operating the detection finding (DF) equipment.

OJECTIVES

Indicate the direction to the distress beacon +/- 10 degrees within 10 minutes.

TRAINING AND EVALUATION

Training Outline

1. The majority of CAP search missions are electronic searches for distress beacons. Correct use of DF equipment is critical to these searches. The first step to locating distress beacon is to determine the general direction to the location of the distress beacon. (NOTE: This section was written using the popular L-tronics LH-16 l-per as the DF unit. Technical procedures should be adapted by units with other equipment).

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2. To determine the bearing to a distress beacon:

a. Assemble the LH-16 on the antenna mast assembly and hold vertically in front of you, such that you can see the receiver controls.

b. Turn the unit on, turn the volume and sensitivity full up, set the MODE knob to DF. Set the FREQUENCY KNOB to the appropriate frequency (121.775 for practice distress beacons, 121.5 and 243 (military distress beacons or harmonic transmitted by basic distress beacons) for actual distress beacons, many military aircraft carry civilian distress beacons; civilian distress beacons by law transmit on both frequencies.). Listen for the distress beacon signal. If you have no signal, move to some other location where you do.

c. Once you have the signal, swing the antenna slowly through a full circle around you and determine where the needle centers. If it centers more than twice, analyze your location to determine if you might be dealing with more than one signal, reflections or interference from power lines, etc. Remember all directions where the needle centers.

d. Switch to the REC mode and determine where the signal strength is greatest (needle deflected farthest to the right, signal direction is off the left antenna mast). The strongest signal direction should be in one of the same directions that the needle centered in the DF mode.

e. Switch back to the DF mode and locate where the needle centers in the direction where the REC mode receives a maximum signal. While one person keeps the unit aligned on the signal, another stands behind him and takes a compass bearing (see task O-0201 - Use a Compass.)

f. As you get closer to the signal, decrease the sensitivity to avoid overloading the receiver.

Additional Information

More detailed information on this topic is available in Chapter 6 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Set up a practice beacon transmitting on 121.775 MHz at least one half mile away from the test site. Take a set of DF equipment, and ensure that one can get a good strong signal to the practice beacon (verify the direction off a map). With a compass, determine the magnetic bearing to the practice beacon. Disassemble the DF equipment and give it to the student.

Brief Student: Tell the student to assemble the DF gear, determine the direction to the practice beacon, and point it out to you. When he points, check the bearing with a compass.

Evaluation

Performance measures	Results	
1. Correctly put the DF equipment into operation.	P	F
2. Uses DF and REC (as applicable) to determine the direction to the practice beacon.	P	F
3. Points out the direction to the practice beacon +/- 10 degrees.	P	F
4. Completes all steps within 10 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0302
LOCATE A DISTRESS BEACON

CONDITIONS

You are a member of a ground team searching for a distress beacon (ELT/EPIRB). You have been given the task of operating the detection finding (DF) equipment. You have used the direction finding (DF) technique to close in on the signal, and now you know the distress beacon is nearby.

OJECTIVES

Within 30 minutes, use signal strength techniques to locate a practice beacon located within 200 meters of your location. (This is for a wooded area. More time should be allotted for an urban or airport environment).

TRAINING AND EVALUATION

Training Outline

1. Once the team has moved close to the distress beacon using the DF technique, that technique may become less effective. You know you are close when the signal is loud even with the sensitivity turned down. At this point signal strength techniques may be used easily. There are two techniques - normal signal strength and body blocking. These techniques can be used with DF equipment, or any portable radio or scanner that can pick up the distress beacon frequency (121.775 for practice, 121.5 and 243 for civilian and military distress beacons respectively).

2. To locate the distress beacon:

a. Assemble the DF gear or radio and tune to the appropriate frequency. Use a short antenna (such as a "rubber duck" flexible antenna). Ensure you can hear the signal of the distress beacon. Adjust the sensitivity and volume so that you can barely hear the signal.

b. Body Blocking. To determine a bearing to the distress beacon, place the receiver at waist level and rotate in a circle until weakest signal is heard. At this point the target distress beacon should be directly behind you, since your body is blocking the signal from the distress beacon.

c. Signal Strength. If you are sure the distress beacon is located nearby (for example, if you are at an airfield and you are sure it is in one of the planes) simple walk through the area.. As the signal strength increases rapidly, you are getting closer to the distress beacon. Decrease the sensitivity (or increase squelch), reduce the antenna height or slightly offset the receiver frequency as you get closer to permit body-blocking.

Additional Information

More detailed information on this topic is available in Chapter 6 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Hide a practice beacon transmitting on the practice frequency approximately 200 meters from the test site. Take a set of DF equipment, and ensure that one can get a good strong signal to the practice beacon. Disassemble the DF equipment and give it to the student. The evaluator should be prepared to document the time it takes each student to locate the practice beacon. If multiple students have difficulty locating the practice beacon within the time allotted, the evaluator may need to re-evaluate students or the time allotted based on location.

Brief Student: Tell the student to locate the practice beacon within 30 minutes (add more time if the practice beacon is in an urban or airport environment).

Evaluation

Performance measures	Results	
Within 30 minutes the individual:		
1. Correctly puts the DF equipment into operation.	P	F
2. Locates the distress beacon/practice beacon within 30 minutes (more may be needed for urban/airport searches)	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0303
DEACTIVATE A DISTRESS BEACON

CONDITIONS

You are part of a ground team that has found a distress beacon. Either there were no victims, or the victims have been taken care of, and the site is considered safe.

OBJECTIVES

Take the proper steps to deactivate the distress beacon.

TRAINING AND EVALUATION

Training Outline

1. It is essential to turn off any distress beacon (ELTs, EPIRBs, PLBs, or other transmitters. A transmitting distress beacon can mask other distress signals. The vast majority of distress beacon finds are non-distress situations, where an distress beacon has gone off accidentally. In a distress situation, the primary responsibility is to help any victims. Additionally, no one should put themselves in danger to deactivate an distress beacon.

2. Once the distress beacon has been found the following procedures should be followed (only a, c, e and f apply in distress situations):

a. Immediately report the find to mission base.

b. Attempt to locate the aircraft/boat owner in order to gain access to the distress beacon.

c. If the owner is unavailable, contact the FBO or harbor master and local law enforcement officials to permit access to the aircraft or boat.

d. Locate and deactivate the distress beacon, monitoring 121.5 Mhz to insure the signal ceases. If possible disconnect the battery. Distress Beacons are normally located in the tail section of small planes. Large commercial planes sometimes have a small access door on the fuselage to access an on/off switch to the distress beacon. ALWAYS MAKE SURE THE SIGNAL HAS STOPPED - YOU MIGHT HAVE THE WRONG DISTRESS BEACON.

e. Leave a distress beacon deactivation sticker, so that the owner knows that his distress beacon has been deactivated if not present when silenced. If you don’t have a sticker, leave a note where the pilot will find it.

f. Immediately inform the incident commander and pass on the following information:

1) Manufacturer, make, model and serial # of the distress beacon.
2). Battery type and expiration date.
3) Time of deactivation.
4) Aircraft or boat ID # (if appropriate)
5) Any other pertinent information.

g. If the distress beacon cannot be deactivated, disconnect the antenna or construct an 'antenna tent' with aluminum foil so that the signal will no longer interfere with SARSAT. While this process is going on, the team leader should contact the incident commander to keep him informed and to receive further instructions.

Additional Information

More detailed information on this topic is available in Chapter 6 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: Provide the team member with a distress beacon or a mockup with a power switch, battery and data plate. Have a distress beacon deactivation sticker available, but don't provide it unless the team member mentions it.

Brief Team Leader: Tell the team leader that he has located an active distress beacon in a locked airplane at an airport. Ask the team member what steps he or she would take to deactivate it. When the team member states that he/she would try to find the owner, ask the team member what he/she would do if the owner is not available. After this, give the team member the distress beacon and ask him to demonstrate what he/she would do. Finally, ask what the team member would do if the distress beacon could not be deactivated.

Evaluation

Performance measures	Results	
The team member states he or she would:		
1. Immediately report the find to mission base.	P	F
2. Attempt to find owner	P	F
3. If owner is not available, attempt to locate FBO, marina operator or law enforcement.	P	F
4. Turns off distress beacon and disconnects battery (actually demonstrates this) .	P	F
5. Monitor 121.5 to ensure distress beacon is deactivated.	P	F
6. Leave a distress beacon sticker or note behind	P	F
7. Inform the mission coordinator: (actually gather this information off the distress beacon)	P	F
a. Manufacturer, make, model and serial # of the distress beacon. b. Battery type and expiration date. c. Time of deactivation. d. Aircraft or boat ID # (if applicable) e. Any other pertinent information.		
8. If the distress beacon cannot be deactivated, cover the antenna with an antenna tent.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0304
TRIANGULATE ON A DISTRESS BEACON SIGNAL

CONDITIONS

You are part of a ground or urban direction finding team assigned to locate a distress beacon that is 4 kilometers away. Your team has a direction finder, and has taken magnetic azimuths to the distress beacon from two points that are at least 45 degrees apart. You have a map, protractor, straightedge and a pencil.

OBJECTIVE

Utilizing the azimuths recorded, within 10 minutes, plot the location of the distress beacon within 500 meters by triangulation on a topographic map or aeronautical chart.

TRAINING AND EVALUATION

Training Outline

1. When involved in a distress beacon search, the ground or urban direction finding team will probably be given a fairly large area to cover. Through the use of triangulation, the team leader can quickly narrow the search area.

2. In order to locate a distress beacon by triangulation:

a. Conduct a map study to determine where to take reading from. Specifically look for:

1) High terrain features. these are normally places where you are most likely to receive the signal.

2) Travel routes.- to determine how to traverse the area.

3) Presence of major power lines and buildings, which can block the distress beacon signal. These are bad places to take a reading.

b. Obtaining readings from at least two locations. Two methods can be used to determine where to take readings.

1) Connect the DF unit to an external 1/4 wave-2 meter antenna mounted on the team vehicle. Drive around the search area in a set pattern until the signal is heard, at which point direction finding can be accomplished using the mast antenna assembly.

2) Drive to high, clear locations and attempt to take readings using the mast antenna assembly. If no signal is heard, proceed to the next location.

c. At each site where a reading can be taken.

1) Plot the point on the map where you took the reading.

2) Determine the azimuth to the distress beacon (see task O-0301: Determine Distress Beacon Bearing).

3) Plot the azimuth on the map, making sure to convert from magnetic to grid azimuth (see task Determine and Plot Azimuths on a Map).

4) Remember to report each reading to mission base. Include your location, the bearing to the distress beacon, and the signal strength.

d**. TRIANGULATION:** Extend the line you drew for each azimuth until they cross. The distress beacon should be located at or near the intersection of the lines (this technique is most accurate when the lines intersect at a 90 degree angle. The more parallel the lines, the less accurate the plot). Take additional readings and draw more lines to increase the accuracy of the plot.

Additional Information

More detailed information on this topic is available in Chapters 5 and 6 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: On a map, determine a distress beacon location. Determine two points where DF readings could be taken and mark them on a map. Make sure to choose two points which will result in azimuths to the practice beacon that will intersect at no less than a 45 degree angle and are about 4 kilometers from the practice beacon. Determine the azimuth from both points to the practice beacon location, but don't mark these, or the practice beacon location on the map. Convert the azimuths to magnetic azimuths. On a sheet of paper, write down the practice beacon location and the magnetic azimuths from each point. Provide the individual to be tested with the map, a pencil, a protractor, and a straight edge.

Brief Team Leader: Tell the team leader that he is leading a team on a practice beacon search. Ask the team leader to describe two methods of finding a points to take DF readings from. Then tell the team leader that his team has taken readings from the two marked points. Give the team leader the magnetic azimuth from each point, and tell him or her to locate the practice beacon by triangulation within 10 minutes.

Evaluation

Performance measures	Results	
1. Describes both methods of determining locations to DF from.	P	F
2. Locates the practice beacon within 500 meters.	P	F
3. Completes step 2 within 10 minutes.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0420
PERFORM AN AIRFIELD SEARCH (RAMP CHECK)

CONDITIONS

You are leading a ground team that has been tasked to search an airfield and have just arrived at the airfield.

OBJECTIVES

Take all steps necessary to determine if the missing aircraft is at this airport.

TRAINING AND EVALUATION

Training Outline

1. During a missing aircraft search, one of the first priorities of the mission is to investigate airfields in the surrounding area. This investigation is to determine if the missing aircraft may have landed, refueled, or stopped over to avoid weather. Missing planes can be found at the wrong airport for many reasons. The pilot might have landed successfully and gone about his business, not realizing that people are looking for him. Sometimes, aircraft crash near an airport they were trying to land at, or just took off from.

2. Your team may be tasked to search one or more airfields, or you may come across an airfield during a search. In either case, you should follow the following steps:

a. **Contact the Owner**. The first priority is to contact the airfield owner/operator or fixed base operator (FBO). This individual will permit you access to controlled airfields and will also be helpful in obtaining any records. If no FBO is present, you may proceed to search the airfield within the limits of safety and trespassing laws.

b. **Brief your people.** Make sure all your team members know what the missing aircraft looks like, and what it's tail number is. Remind them of possible search clues, including

1) The missing plane itself.

2) Any plane that comes close to the description (it's possible your briefing at mission base contained an error)

3) Any clues that a plane might have crashed near the airport, such as bad weather in the vicinity at the time the plane was lost, trees knocked down, people reporting hearing/seeing something strange, etc. See Task O-0408 - Identify Aircraft Search Clues for more details.

c. **Conduct the search.** Have your team conduct the following search actions (you may divide your team up as you see fit, making sure that inexperienced members are teamed with more experienced members):

1) **Check records.** Check any landing/take-off records at the airport for information on the missing aircraft. Also check any fuel purchase logs. Look for the tail number of the plane you are looking for.

2) **Conduct Interviews**. Interview people at the airport (See Task O-1101 - Conduct Witness Interview). Airport workers, maintenance personnel, or perhaps somebody just 'hanging around' may have seen the missing aircraft or know someone who might have seen it. All of these types of leads must be thoroughly

investigated. Continue to conduct interviews over time - people come and go at airfields all the time, and the person who saw the search target might not be there when you arrive.

3) **Check the flight line**. Have personnel walk down the flight line / tarmac and check the registration numbers on all aircraft parked on the airfield. Look into hangars and check numbers. Each of these should be conducted within regulations and local laws. If on a controlled airport, notify ground control and/or operations before entering operational areas like the ramps and hangars. Use good judgment in deciding to enter hangars or aircraft; you are not normally going to find a person in distress within a hangar or parked airplane, so waiting for law enforcement personnel, the aircraft owner, or the FBO to open it is totally reasonable.

e. **Leave a phone number**. If the search results are negative, leave the mission base phone number and a contact name (normally the incident commander) with the FBO. Request that he continue asking about the missing aircraft to people who come into the airport. Any information that he develops can then be forwarded directly to mission base. **Note: Do not leave the airfield until you receive permission from mission base.**

Additional Information

More detailed information on this topic is available in Chapters 7, 18, and 19 of the Ground Team Member and Leader Reference Text.

Evaluation Preparation

Setup: Prepare a diagram of an airfield (or conduct the test at an actual airfield). Prepare a description of a missing aircraft and its pilot as well as the incident commander's name and phone number. The team leader may use any equipment in his field gear (including this guide).

Brief Team Leader: Verbally brief the team leader on the missing aircraft. Tell him that he has a ground team consisting of himself, one other senior (GTM qualified) and 5 cadets (3 GTM, 2 Trainee). Tell the team leader to describe, in sequence how he will search the airport. Tell him that you will play the role of the FBO. After he has described the search, tell him he did not find the plane, and ask him what he would do now.

Evaluation

Performance measures	Results	
The team leader:		
1. Contacts the FBO and identifies himself and mission	P	F
2. Briefs his team on the missing aircraft and personnel, and what to look for.	P	F
3. Describes how he would use his team to:		
a. Check for landing/takeoff/refueling logs.	P	F
b. Conduct interviews of people at the airport.	P	F
c. Search the flight line and hangers	P	F
4. Does not leave inexperienced team members to operate without supervision.	P	F
5. Requests and receives permission to depart from mission base.	P	F
6. Leaves mission base information with the FBO before departing	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0001
BASIC COMMUNICATIONS PROCEDURES FOR ES OPERATIONS

CONDITIONS

You are a member of the CAP mission staff performing a task in which the use of a radio is necessary.

OBJECTIVES

Properly operate a CAP radio.

TRAINING AND EVALUATION

Training Information Outline

1. From time to time, duties may require the use of a CAP radio. This is not a difficult task, but does require some knowledge of operating procedures and equipment.

2. You should be able to demonstrate the following skills:

a. Demonstrate the proper method to contact another station.
b. Demonstrate knowledge of call signs.
c. Demonstrate knowledge of basic prowords.
d. Demonstrate ability to operate basic radio equipment.
e. Demonstrate knowledge of prohibited practices.
f. Demonstrate knowledge of National communications policies.
g. Demonstrate knowledge of local operating practices.
h. Demonstrate knowledge of region, wing, and local policies.

Additional Information

Additional information is available in CAPR 100-1 Vol. 1 and the "Radiotelephone Procedures Guide."

Evaluation Preparation

Setup: The student is provided with a basic radio (volume, squelch, channel controls) and asked to communicate with another station. At least one radio will be needed for this exercise. The pro-words "roger," "over," "out," affirmative," should be used. The exchange should go through several transmissions with questions and answers. Prohibitive practices, such as "chit chat," should be used or discussed.

Brief Student: The student is at mission base and has been assigned the task of reporting when the director of the local office of emergency management arrives for his/her tour of the facility.

Evaluation:

Performance measures	Results	
1. Listen before transmitting	P	F
2. Demonstrate calling procedures including call signs	P	F
3. Demonstrate use/understanding of basic prowords	P	F
4. Demonstrate understanding of radio equipment including finding local repeater/simplex	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0002
PERFORM RADIO OPERATING PROCEDURES

CONDITIONS

You are a mission radio operator at a mission base.

OBJECTIVE

Properly operate a mission base radio system.

TRAINING AND EVALUATION

Training Information Outline

1. A Mission Radio Operator is required to maintain communications with all mission assets (aircraft, ground teams, flight line and forward bases). This allows for sending new instructions, reporting mission information and as a safety measure for keeping track of people in the field.

2. You should be able to demonstrate the following skills:

a. Demonstrate the proper method to contact another station.
b. Demonstrate knowledge of the International Phonetic Alphabet.
c. Demonstrate knowledge of CAP Prowords.
d. Demonstrate knowledge of international urgency signals.
e. Demonstrate the ability to maintain a communications status board.
f. Demonstrate a familiarity with standard equipment and local communications operations.
g. Demonstrate the proper use of standard radio equipment.
   1) Set volume and squelch levels appropriately
   2) Demonstrate proper use of microphone

Additional Information

Additional information on this topic can be found in The Radiotelephone Procedures Guide.

Evaluation Preparation

Setup: Provide the student with a message to reassign an aircraft to another grid, a status board, a radio, paper and pencil/pen.

Brief Student: Ask the student how they would contact an aircraft flying a sortie. Tell the student that he needs to transmit the change of grid assignment to the aircraft. Transmit an urgency signal to the student and ask them to identify the meaning of the signal and what action that they should take.

Evaluation:

Performance measures	Results	
1. Demonstrate setting volume and squelch levels for proper function	P	F
2. Demonstrate proper microphone technique	P	F
3. Demonstrate listening before transmitting	P	F
4. Properly call and acknowledge aircraft	P	F
5. Send change of grid assignment, using proper phonetics and prowords	P	F
6. Correctly interpret urgency signal and take appropriate action	P	F
7. Update mission communications status boards	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0003
EMPLOY APPROPRIATE RADIO FREQUENCIES AND REPEATERS

CONDITIONS

You are the radio operator for a ground team, and have been told by the team leader to contact another station. You must choose what frequency to use.

OBJECTIVE

Within 2 minutes, identify the appropriate frequencies and channels used for ground operations.

TRAINING AND EVALUATION

Training Information Outline

1. Ground Search and Rescue Teams use a number of VHF-FM frequencies to communicate with mission base, other ground teams, and aircraft.

2. Frequency assignments are usually given by the communications unit leader based on the following.

a. Simplex Frequencies (VHF-FM): Short range communications where units are operating on the same transmit and receive frequency

b. Duplex Frequencies. Longer range communications are accomplished through the use of a repeater. All repeaters are accessed by transmitting a subaudible tone through the radio. The 100.0 Hz tone will activate any CAP repeater, but is used only in emergencies and to request the proper tone frequency for the repeater in use. Other tones are programmed into the radio as required. The communications unit leader will brief teams on what frequency and tones to use to access local repeaters.

c. VHF-AM (Airband) SAR Frequencies: These are dedicated frequencies authorized for training and actual missions that can be accessed by any aircraft.

d. National HF Frequencies: These are frequencies coordinated by National Headquarters. Some teams may be deployed with HF radios on these frequencies during disasters to serve as relay points out of affected areas.

e. Region HF Frequencies: These are frequencies established for HF operations within a region. Teams may also be deployed and operate on these frequencies to transmit greater distances than traditional VHF-FM assets used by ground teams.

f. Other frequencies are used to communicate with police, Coast Guard, and other SAR agencies. Again, the communications unit leader will brief on the use of these frequencies.

Additional Information

Additional information on frequencies used in CAP and repeater locations can be found in CAPR 100-1 Vol. 1, chapters 7, 9, & 10, and The Communications Directory. Wing Communications Operations and Training plans will also contain important information for your area.

Evaluation Preparation

Setup: Prepare a list of the five frequency groups listed above for your area of operation with assignments in each group. Give the list to the trainee. The student may use any item from his field gear, including this book or a "cheat sheet".

Brief Team Leader: Tell the student to identify each frequency and its use, within 2 minutes total time.

Evaluation:

Performance measures	Results	
The individual identifies:		
1. Identifies the primary simplex frequency and its use.	P	F
2. Identifies the alternate simplex frequency and its use.	P	F
3. Identifies the ground to ground frequency and its use.	P	F
4. Identifies the primary duplex frequency pair and its use.	P	F
5. Identifies the alternate duplex frequency pair and its use.	P	F
6. Identifies the primary HF SSB frequency for the region	P	F
7. Identifies the alternate HF-SSB frequency for the region	P	F
8. Completes all steps within 2.5 minutes	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

L-0101
INSPECT A VEHICLE

CONDITIONS

You are part of a ground team preparing to leave on a sortie that you will need to use a vehicle.

OJECTIVES

Demonstrate how to properly inspect the ground team's vehicle.

TRAINING AND EVALUATION

Training Outline

1. Ground teams almost always utilize a vehicle as part of accomplishing their missions. To insure that the team vehicle is safe and ready for the sortie, a vehicle inspection is required prior to every sortie.

2. The following checklist can be used to accomplish these inspections or the current CAP-USAF Evaluation Checklist. Both accomplish the same basic need.

a. Before starting the vehicle
- 1) Check the engine oil level
- 2) Check to make sure that the battery is properly connected and relatively clean
- 3) Check the tires for damage and abnormalities
- 4) Check to make sure that there is a spare tire and a jack
- 5) Check engine coolant level
- 6) Check to make sure that all belts and hoses look normal
- 7) Check to make sure that there are enough safety belts for all passengers
- 8) Check for leaks under the vehicle and in the engine area
- 9) Check to see how clean the vehicle is inside and out
- 10) Check for and damage both internally and externally
- 11) Check to make sure that the inspection sticker (if applicable) and registration is current
- 12) Check Power Steering Fluid, Oil, and Windshield Cleaner levels
- 13) Check to make sure that there is extra fuel and water in labeled containers for emergencies.
- 14) Check to make sure that all necessary team equipment is loaded into the vehicle to include fire extinguisher and first aid kits.

b. After starting the vehicle
- 1) Check to make sure that all lights work
  - a) High and low beams
  - b) Front and Rear turning signals
  - c) Front and Rear caution lights
  - d) Reverse lights
  - e) Dome lights, and panel lights
- 2) Check to make sure that all instruments, horn, and windshield wipers work
- 3) Check all safety devices again, along with warning lights
- 4) Check the brakes and the steering
- 5) Check for unusual occurrences such as noise, odors, or unusual vibrations
- 6) Check gas level

a) If there is more than one tank, check both.

b) Don't just rely on gauges, visually check tanks, and driver records of travel.

7) Complete all Mission Paperwork necessary before leaving the mission base.

a) Make sure that it is readable.

b) Make sure it is signed by the approving officer, normally the Ground Branch Director or his designee.

c) Make sure to leave a copy with the approving officer and retain a copy for yourself.

d) If the daily inspection log has not been signed, makes sure the driver completes it before leaving mission base.

Additional Information

More detailed information on this topic is available in Chapter 3 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Ensure that there is a vehicle available for the student to inspect. The evaluator should create a minor problem such as removing the fire extinguisher, first aid kit or tire jack for the student to find. Evaluators will not damage vehicles or make them un-safe for operation or un-roadworthy for the test.

Brief Student: Tell the student to demonstrate a proper vehicle inspection.

Evaluation

Performance measures	Results	
1. Demonstrates a proper vehicle inspection noting the evaluator created problem.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

P-0101

KEEP A LOG

CONDITIONS

You have been assigned to keep a log on a mission, and must log the actions of your unit, section or team on the ICS Form 214 for use during debrief after the mission.

OJECTIVES

Correctly maintain a log of actions during an incident.

TRAINING AND EVALUATION

Training Outline

1. When working an incident, staff members are required to maintain a log of all significant actions. This is important for record keeping of the accomplishments and setbacks, determining search effectiveness during debriefing, and as a legal record of CAP actions amongst many other things.

2. The mission log is started once a unit or section is opened and maintained until personnel are called in and at home safely to the incident commander. A separate log should be maintained for each varying unit or section that is assigned to the incident, and subordinate units at varying levels will normally also keep a log. This log is turned in with the debriefing paperwork and becomes part of the official mission record.

3. The following actions are always recorded in the log:

FOR GROUND OPERATIONS

a. Departure and return times to mission base.

b. Routes taken to and from the search area.

c. Times of entering and leaving search areas.

d. Any time the search line changes direction.

e. Times/locations of clue detections or witness interviews.

f. Time/location of find.

g. Time/Location of communications checks.

h. Any event or action related to the team's ability to complete the sortie requirements (natural hazards encountered, injuries to team members, etc.).

i. Encounters or instructions from local authorities.

j. Encounters with the media.

k. Mileage/Flight time at key intersections, when leaving pavement, at other key locations, etc.

l. Time of distress beacon or other emergency signal acquisition.

m. Times distress beacon located and silenced. Also, if available, include the name(s) and organization(s) of person(s) involved in silencing the distress beacon, the manufacturer, serial number, dates of manufacture and battery expiration, vehicle information (type, vehicle registry, description), and the name of the owner.

n. Personnel assignments to and from the team/unit.

Note: this log (ICSF 214) may be kept as an attachment to the CAPF 109

FOR AIRCREW OPERATIONS

a. Briefing details.

b. Names of crew members.

c. Engine start time.

d. Take Off time.

e. Communications checks.

f. Time beginning assigned grid or route.

g. Time departing grid or route.

h. Significant weather, turbulence, other.

i. Time of landing.

j. Time of engine shutdown.

k. Crew changes if any.

Note: this log (ICSF 214) may be kept as an attachment to the CAPF 104

FOR MISSION BASE STAFF OPERATIONS

a. Time/date unit or log started or activated.

b. Name of unit, supervisor, and individual keeping the log.

c. Notes from initial briefing.

d. Time and noted from staff meetings.

e. Significant events, actions taken, direction received or provided.

4. For each log entry, the log keeper writes down:

a. The time.

b. The event taking place (see list above)

c. Mileage and/or location as appropriate.

d. Name of individual annotating the log each time there is a change.

Additional Information

More detailed information on this topic is available in each emergency services reference text.

Evaluation Preparation

Setup: Prepare narrative of 10 events/actions and times. Provide the individual with the list, a pen, and an ICS Form 214.

Brief Student: Tell the student that he is the log keeper for his unit, and that the 10 events listed in the narrative have occurred. Tell him to log the events/actions on the on team log form.

Note: this evaluation can be accomplished during a training exercise by observing the events taking place and checking the log to see that they are properly annotated.

Evaluation

Performance measures	Results	
For each of the 10 events/actions, the student:		
1. Logs the time and event	P	F
2. Writes legibly and completely	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

SPECIALTY QUALIFICATION TRAINING RECORD (SQTR)
Urban Direction Finding Team

NAME (Last, First, MI)	CAPID	DATE ISSUED

Prerequisites

Item	Date Completed
Qualified GES	

The above listed member has completed the required prerequisite training for the urban direction finding team specialty.

_____ _____
UNIT/WING/REGION COMMANDER OR AUTHORIZED DESIGNEE'S SIGNATURE DATE

Familiarization and Preparatory Training

Task	Evaluator's CAPID and Date Completed
Complete Task O-0010 Prepare UDF Individual Equipment	
Complete Task P-0102 Conduct a Phone Alert	

The above listed member has completed the required familiarization and preparatory training requirements for the urban direction finding team specialty qualification and is authorized to serve in that specialty while supervised on training or actual missions.

_____ _____
UNIT/WING/REGION COMMANDER OR AUTHORIZED DESIGNEE'S SIGNATURE DATE

Advanced Training

Task	Evaluator's CAPID and Date Completed
Complete Task O-0201 Use a Compass	
Complete Task O-0205 Locate A Point On A Map Using The CAP Grid System	
Complete Task O-0214 Determine And Plot An Azimuth On A Map	
Complete Task O-0218 Locate Own Position On A Map Using Terrain Association	
Complete Task O-0220 Move From Point To Point In A Vehicle Using A Map	
Complete Task O-0301 Determine Distress Beacon Bearing	
Complete Task O-0302 Locate a Distress Beacon	
Complete Task O-0303 Deactivate a Distress Beacon	
Complete Task O-0304 Triangulate on a Distress Beacon Signal	
Complete Task O-0420 Perform an Airfield Search (Ramp check)	
Complete Task L-0001 Basic Radio Procedures for ES Operators	
Complete Task L-0002 Perform Radio Operations Procedures	
Complete Task L-0003 Employ appropriate radio frequencies and repeaters	
Complete Task L-0101 Inspect a vehicle	
Complete Task P-0101 Keep a Log	
Complete Basic Communications User Training	
Complete the appropriate portion of CAPT 117, *Emergency Services Continuing Education examinations*	

Exercise Participation

The above listed member satisfactorily participated as an urban direction finding team trainee under my direct supervision on mission number _____.

_____ _____

QUALIFIED SUPERVISOR'S SIGNATURE DATE

The above listed member satisfactorily participated as an urban direction finding team trainee under my direct supervision on mission number _____.

_____ _____

QUALIFIED SUPERVISOR'S SIGNATURE DATE

Unit Certification and Recommendation

The above listed member has completed the requirements for the urban direction finding team specialty qualification and is authorized to serve in that specialty on training or actual missions.

_____ _____

UNIT/WING/REGION COMMANDER OR AUTHORIZED DESIGNEE'S SIGNATURE DATE