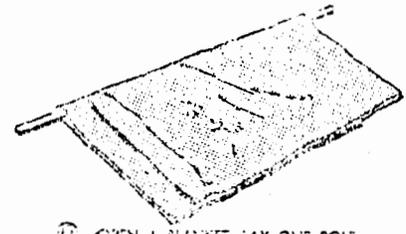
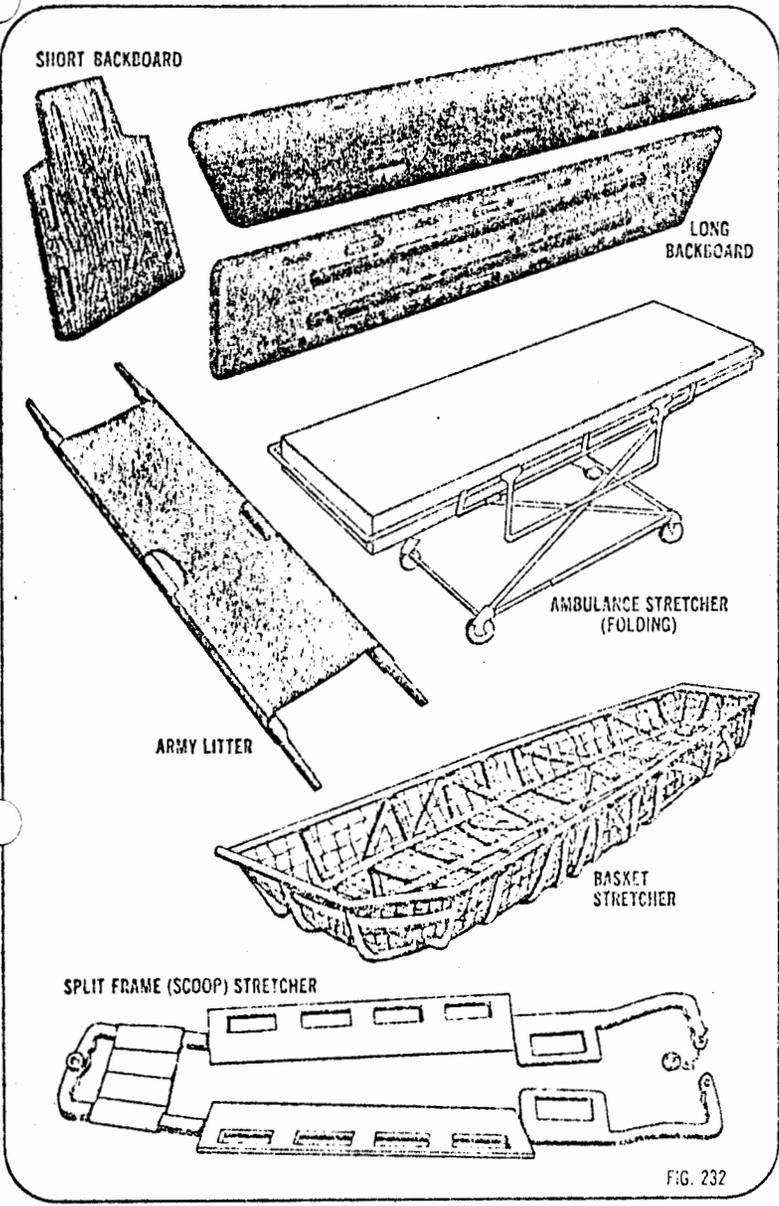
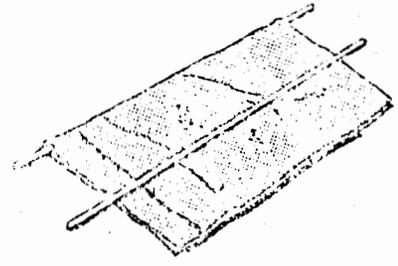


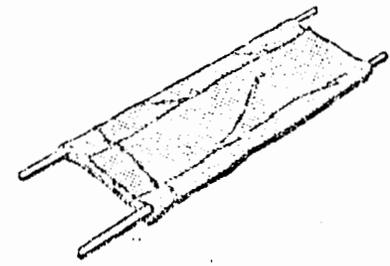
Handout #3: Mountain rescue



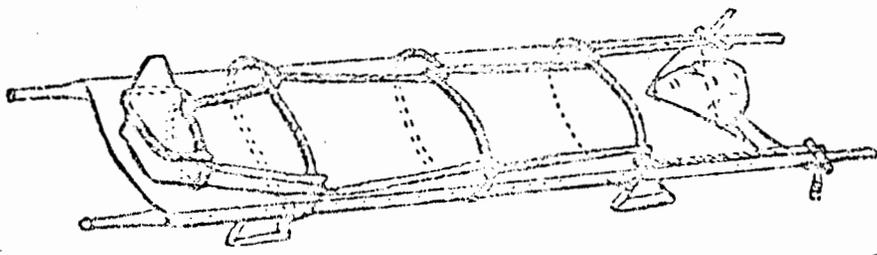
1 OPEN A BLANKET, LAY ONE POLE LENGTHWISE ACROSS THE CENTER AND FOLD BLANKET OVER IT

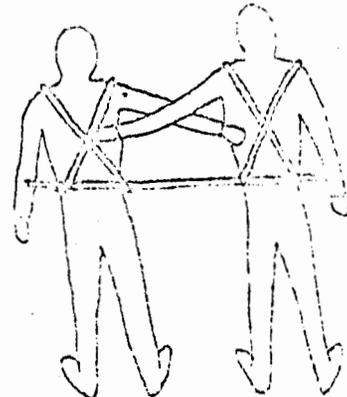
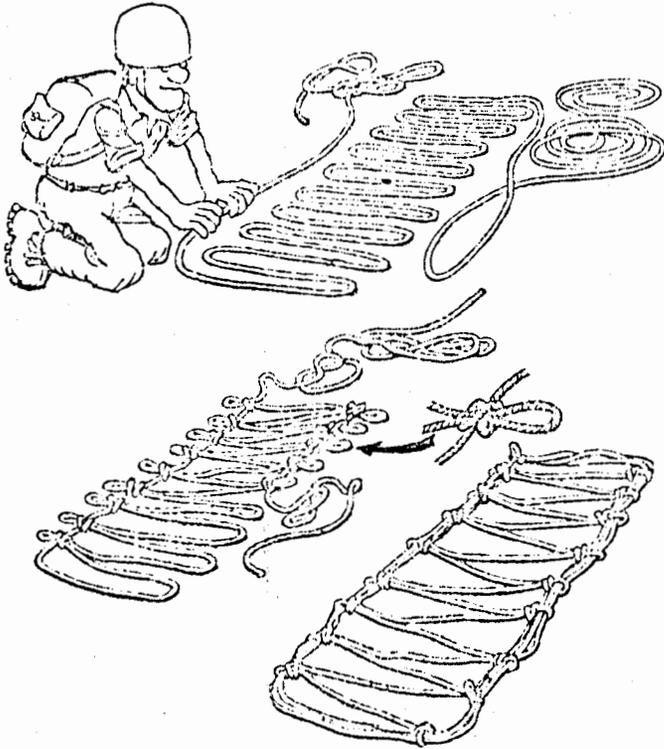
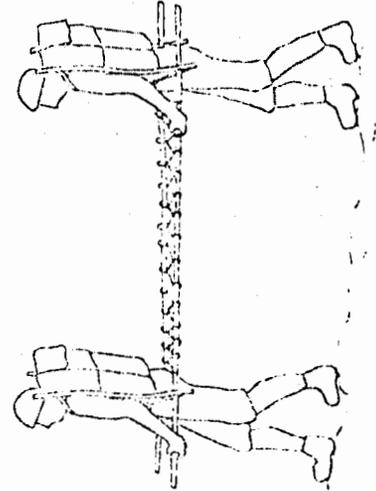
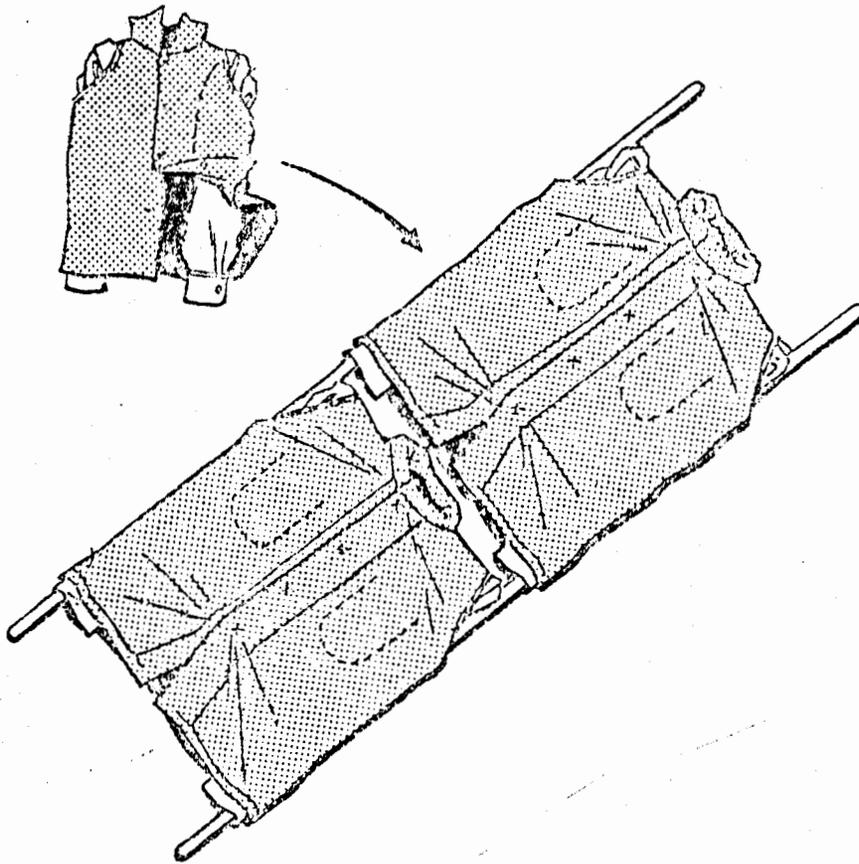


2 PLACE THE SECOND POLE ACROSS THE CENTER OF THE NEW FOLD



3 FOLD THE FREE EDGES OF THE BLANKET OVER THE SECOND POLE





TWO MAN SLING AND POLE CARRY

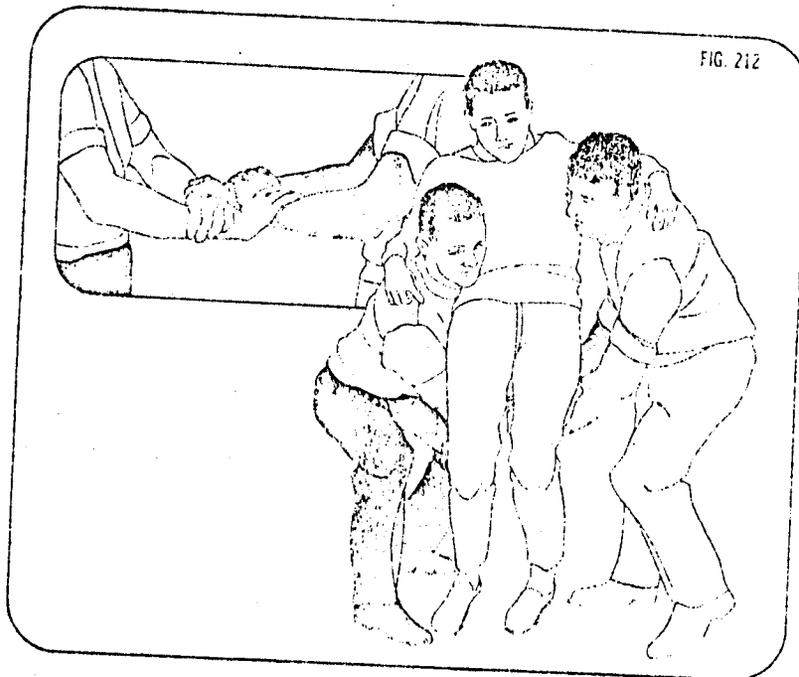
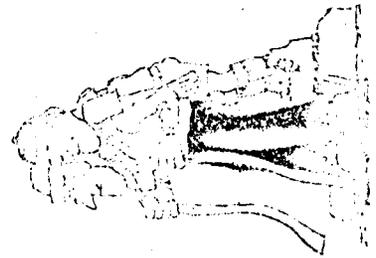
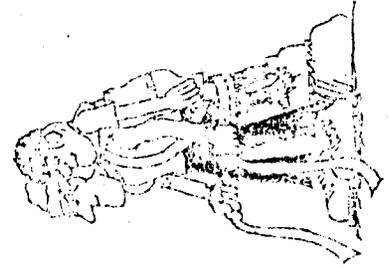
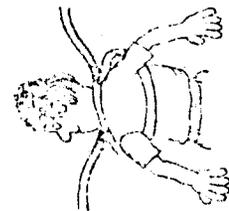
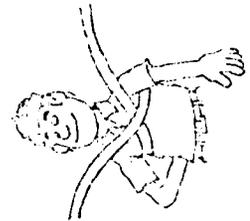


FIG. 212



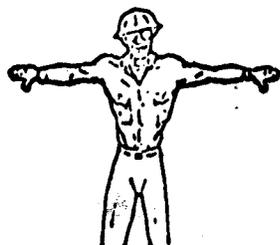
HELICOPTER SIGNALS

THESE SIGNALS ARE ADVISORY AND THE PILOT IS UNDER NO OBLIGATION TO OBEY THEM. CONDITIONS BEYOND THE CONTROL OF THE PILOT OR FACTORS UNKNOWN TO THE GROUND SIGNALMAN MAY MAKE IT NECESSARY OR ADVISABLE TO DISREGARD THE SIGNALS.

★ WHEN THESE SIGNALS ARE USED IT IS IMPORTANT THAT THE SIGNALMAN POSITION HIMSELF BEYOND THE PATH OF THE MAIN ROTOR WHERE HE MAY BE READILY OBSERVED.



CLEAR TO START ENGINE
MAKE A CIRCULAR MOTION ABOVE HEAD WITH RIGHT ARM



HOLD ON GROUND
EXTEND ARMS HORIZONTALLY, THUMBS POINTING DOWN



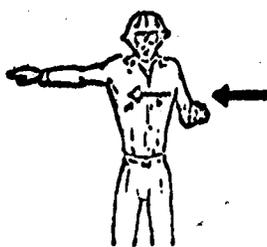
CLEAR TO LIFT
EXTEND ARMS HORIZONTALLY, PALMS UP



MOVE THE HELICOPTER BACK
EXTEND ARMS FORWARD AND "PUSH" THE HELICOPTER AWAY



MOVE THE HELICOPTER FORWARD
EXTEND ARMS FORWARD AND WAVE THE HELICOPTER TOWARD YOU



MOVE TO SIGNALMAN'S RIGHT
EXTEND RIGHT ARM HORIZONTALLY AND MOTION TO RIGHT WITH PALM OF LEFT HAND



MOVE TO SIGNALMAN'S LEFT
EXTEND LEFT ARM HORIZONTALLY AND MOTION TO LEFT WITH PALM OF RIGHT HAND



RELEASE SLING LOAD
CONTACT LEFT FORE-ARM WITH RIGHT HAND, PALM EXTENDED



CLEARED FOR TAKE OFF
EXTEND BOTH ARMS ABOVE HEAD, THUMBS UP



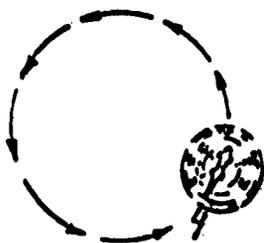
WAVE OFF, DO NOT LAND
WAVE ARMS FROM THE SIDE HORIZONTALLY TO OVERHEAD



LAND HERE, MY BACK IS INTO THE WIND
EXTEND ARMS TOWARD LANDING AREA WITH WIND AT YOUR BACK



SHUT DOWN
CROSS NECK WITH RIGHT HAND, PALM DOWN.



INDICATE WIND DIRECTION (CIRCLE)



Figure 6
NO (YAW BACK AND FORTH)



YES (PITCH UP AND DOWN).

altitude for speed to gain more lift.

Corridors are the other choice. They should be thirty-five or forty paces wide, and, ideally, one hundred twenty paces long. They should also be aligned as much as possible with the wind. The sharper the angle of the crosswind, the less desirable the corridor, although the situation may require using it anyway.

Whatever LZ is used, it should be cleared for enough to allow a fifteen degree take-off angle into the wind and still clear any obstacle at the end by ten feet (see figure 14-2).

Touchdown Pad. This is the area that the helicopter accurately lands in. It must be thirty paces by thirty three paces minimum. It should be cleared of all brush and obstacles down to one foot tall. The ground slope must not exceed five degrees. The pad should be at least sixteen paces from tree lines, cliffs, etc. Wind spilling over the edge of these into the LZ will cause turbulence, making hovering very difficult. Remember thirty by thirty three paces is not large enough to even turn around in; the pad should be larger if possible. The pad should be marked with an "H" in the middle. This should be formed with signal panels or some other easily seen material and should be staked down well, to prevent the helicopter from blowing it around. At night, the four corners can be marked with road flares. All loose brush and debris must be cleared well away.

Marking the Wind. The best way to mark the wind is with a smoke bomb. Other ways are bright streamers or a "T" with the long leg showing the wind direction. The "T" can replace the "H" on the touchdown pad (see figure 14-3). At night, a "T" should be made with flares or (better) flashlights. Whatever wind indicator is used, at no time should it obscure the touchdown pad.

14.3 LOADING THE HELICOPTER

When approaching a helicopter, always approach the helicopter in full view of the pilot. Ideally, approach forty-five degrees to the nose, but approach from the side is satisfactory. Always keep your head down, and never approach a helicopter from higher ground. All personnel not working directly with the helicopter should stay well clear of the pad.

14.4 HOIST OPERATIONS

Whenever possible, the helicopter should land for loading, but if this is not possible, a hoist will be used. Hoist operations are dangerous so great care should be used. Never touch the hoist cable before it touches the ground. Helicopters can build up a large static charge and you could receive a severe jolt. Never secure the cable to a fixed object, as a gust of wind would tear the helicopter apart. Be ready, so as not to make the pilot hover longer than necessary.

14.5 SAFETY RULES

1. All personnel should stay at least fifty feet from small helicopters and one hundred feet from larger models, unless directly working with the helicopter.
2. Always approach the helicopter from the side, so the pilot can see you at all times.
3. Keep your head down at all times! Remember, the slower the blade is moving, the ~~lower~~ it will dip.
4. Never approach or leave a helicopter from any side where the ground is higher than where the helicopter is standing, or you might walk into a rotor.

5. No smoking within one hundred feet of the helicopter.
6. Remember that the tail rotor cannot be seen when it is turning. Maintain a wide clearance of the tail area and NEVER stoop or walk under the tail boom.
7. Personnel working with the helicopter should wear their hardhat with the chin strap fastened, and should wear bright colored vests if available.
8. Keep long handled tools, ice axes, skis, litters, radio antennas and similar items parallel to the ground when approaching a helicopter.
9. Ropes and loose ends should be coiled and secured. Loose items should be tied down before nearing the helicopter.
10. NEVER load without the pilot's signal and supervision. Load carefully so not to interfere with controls, cables, and the pilot. NEVER approach the helicopter until the pilot gives the OK, as he may want to change the position of the helicopter after he has touched down.
11. Stay well clear of the helicopter on take-offs and landings. The pilot may swing the chopper around or dip the blades to one side.
12. Remember that a touchdown area of thirty by thirty three paces is only large enough to land in; it is not large enough to turn around in.
13. Always attempt to find an area that will permit a fifteen degree approach and take-off angle.
14. Remember, the taller the barriers at the ends, the longer the landing zone must be.
15. Attempt to find a landing zone that is generally oriented to the wind.
16. Remember that wires are difficult to see when approaching a landing zone.
17. Clear the touchdown area of all obstacles taller than one foot, and remove debris and brush out of the area.
18. Be sure to mark the landing zone properly.
19. Use the proper hand signals for assisting the pilot in landing.
20. Do not try to get more aircraft in the landing zone than it will safely accommodate.

14.6 REFERENCES

- Fear, Gene: Helicopter Operations and Personnel Safety. Washington State Department of Emergency Services, Tacoma, WA: second revision, 1976.
- MacInnes, Hamish: International Mountain Rescue Handbook. Charles Scribner's Sons, New York, NY. 1972.