Ortovox F1 Heli Search

training module

Search Technique - This training module has been developed based on the experience of the crew of the rescue helicopter Christoph 17 who are based in Kempten / Germany and have been using Ortovox F1 Heli systems since 1997.

Starting the search for a buried victim beginning at the point of disappearance and working your way downhill is the state of the art search technique. If a helicopter was to conduct the search from the point of disappearance and then down as usual, this demands the helicopter pilot to fly backwards and downwards. To fly downwards requires reducing the engine power. Pilots regard it as much safer to fly upwards. Flying backwards is also less safe due to lack of vision. Therefore a helicopter search should be conducted using a different search pattern as follows:

1) The helicopter search starts at the avalanche run out hovering about 10 to 20 meters above the debris (reference point 1).
2) The coarse search patterns looks similar to the traditional search. The search strip width shall not exceed 30 meters (reference point 2) and should go to at least 15 meters to the edge of the avalanche field (reference point 3).
3) Flag the area of the strongest signal (reference point 4) for the ground search team to conduct an immediate pin point search. Flag all strong signal areas as each could present an additional buried victim (in case of multiple burial).

Components of the Ortovox F1 Heli system - The Ortovox F1 Heli is a special receiver only to search for victims carrying an avalanche transceiver. The Ortovox F1 Heli is NOT equipped with a transmitter.

1) power - insert bayonet plug and twist with gentle pressure ¼ turn.
2) switch - Aus = Off (not receiving), other positions are ON and are also the distance related volume control settings.
3) batteries (2 x AA 1.5 Volt alkaline, eg E91, AM3, LR6)
4) loudspeaker
5) socket for earplug + intercom connection wire (RG-174)
6) visual search indicators (3 LED lights - green, orange, red)
7) plug for antenna cable
8) volume control - at first setting (70 m) unit is also switched on
9) external antenna plug - once attached unit is ready to receive
10) The first signal received can be heard through the loudspeaker.
11) Green and orange LEDs come up with increasing signal strength. Once Red LED appears, turn back volume to the next lower distance setting.
12) antenna wire - 2 meters - RG 58
13) external antenna - 120 x 25 mm - approx 200 grams

Benefits of the Ortovox F1 Heli

1) light weight + compact
2) easy to handle + operate
3) reasonably priced
4) effective search capability

The Ortovox F1 Heli is ready to receive when:
- the external antenna is attached
- the bayonet switch is plugged in
- the volume control switch is set to any distance related setting

The Ortovox F1 Heli is delivered in a padded box:
total weight (box, receiver, antenna) - approx 550 grams
size of box - 230 x 220 x 75 mm

The receiver shall be installed inside the cockpit (reference point 1). The external antenna shall be outside either fixed to the helicopter (reference point 2) or simply hang out (reference point 3).