

FORAX™-HARC-Mini

(Fiber Optic Remote Antenna eXtension — High Antennas for Radio Communications)

Extended Range for Emergency Radio Comms



It's an emergency and you are in the field. Even when you bring along a 100-ft transportable antenna tower, you always want more range for your radios. And now there is a solution for extending that distance: fly an antenna high overhead using HARC-Mini.

HARC-Mini answers the need for a field expedient solution to lofting a radio antenna as high as 500 ft (150 m). With configurations weighing as little as 2.8 lbs (1.25 kg) plus antenna, just add a small balloon — or even a lifting kite — and you are communicating. Communications have good margin out to 25 miles (40 km) from 500 feet over level ground.

Lightweight, modular HARC-Mini antennas are easily changed in the field. The specific antenna you need is snapped on in seconds. Antennas are already available for several frequency bands in the 30–512 MHz range, and antennas up to 2 GHz are imminent.

HARC-Mini is optimized for Half-Duplex (Push-To-Talk) radios operating with any land mobile radio including P25, TETRA, heritage trunking systems, VHF voice, UHF voice, and AM. Various battery sizes and external power options are available, making HARC-Mini universally configurable.



HARC-Mini on small helium balloon

Tether with optical fiber

Wide-area comms to balloon's visual horizon



Comms into canyons, over terrain



Radio at Command Post

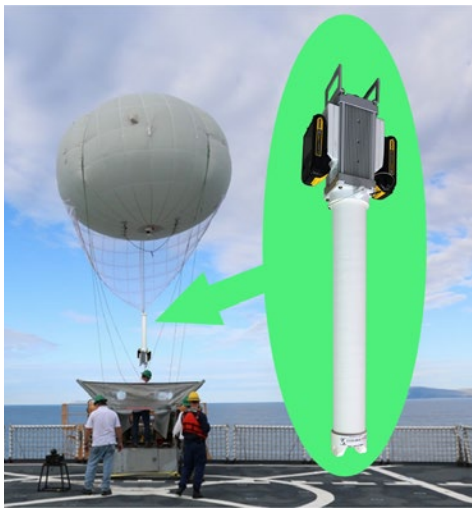
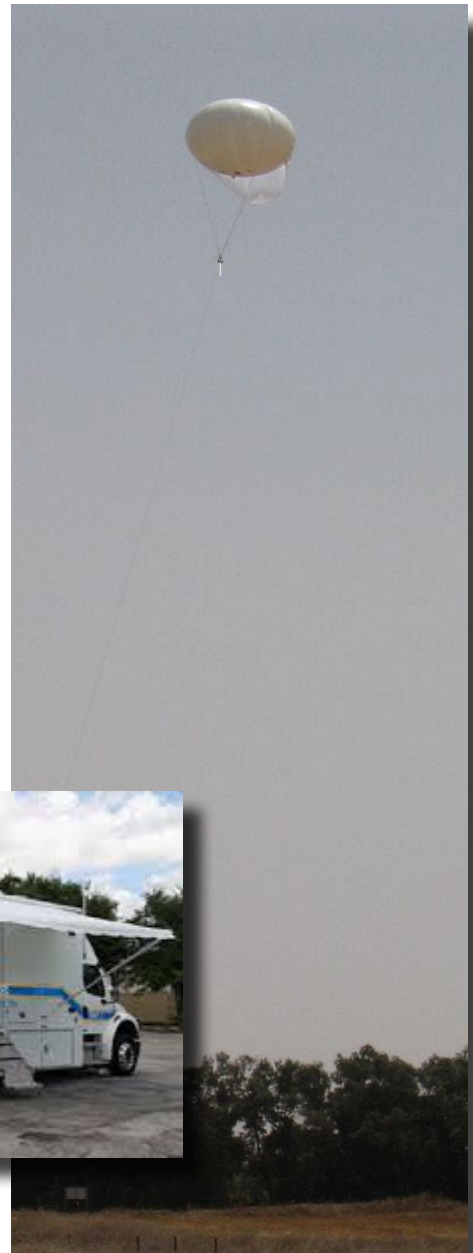


Product Characteristics

Frequency Range 30 MHz–512 MHz
 RF Connectors TNC
 RF Input Power 1–5 W || 20 W Survivable
 RF Transmit Power 2 W (30–512 MHz)
 Fiber Connector..... FC-APC
 Fiber Type One single mode fiber

Physical / Environmental

Dimensions 5”W x 3.25”D x 10”H
 Weight 2.75 lb. without batteries
 Temps, Operating -10 to +60C
 Temps, Storage -40 to +80 C



Other FORAX-HARC configurations are available, for larger aerostats

| | HARC-4S2U | HARC-2S1U | HARC-WNW |
|------------------|---|---|--|
| Radios supported | <ul style="list-style-type: none"> • 4-VHF including SINCGARS (SNAP interface included) • 2-UHF, any waveform (e.g., ANW2, SRW, EPLRS, voice) | <ul style="list-style-type: none"> • 2-SINCGARS retrans pair (SNAP interface included) or 1-VHF • 2-UHF, any waveform (e.g., ANW2, SRW, EPLRS, voice) | <ul style="list-style-type: none"> • 1-WNW (GMR RFCB connectivity included) |
| Airborne weight | ~ 95-lb with antennas + cables | ~ 35-lb with antennas + cables | ~ 34-lb with antennas + cables |
| Packaging | Modular Form Factor | Lightweight Form Factor | Lightweight Form Factor |