

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

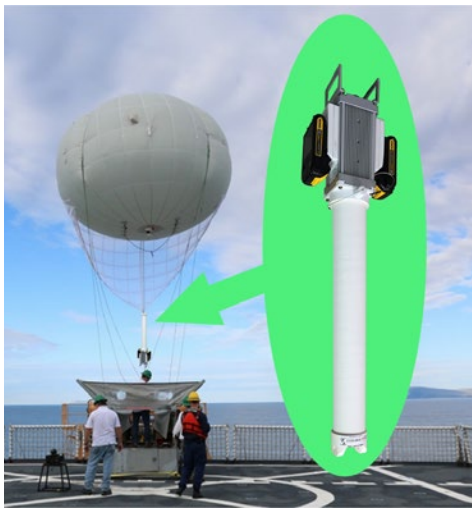
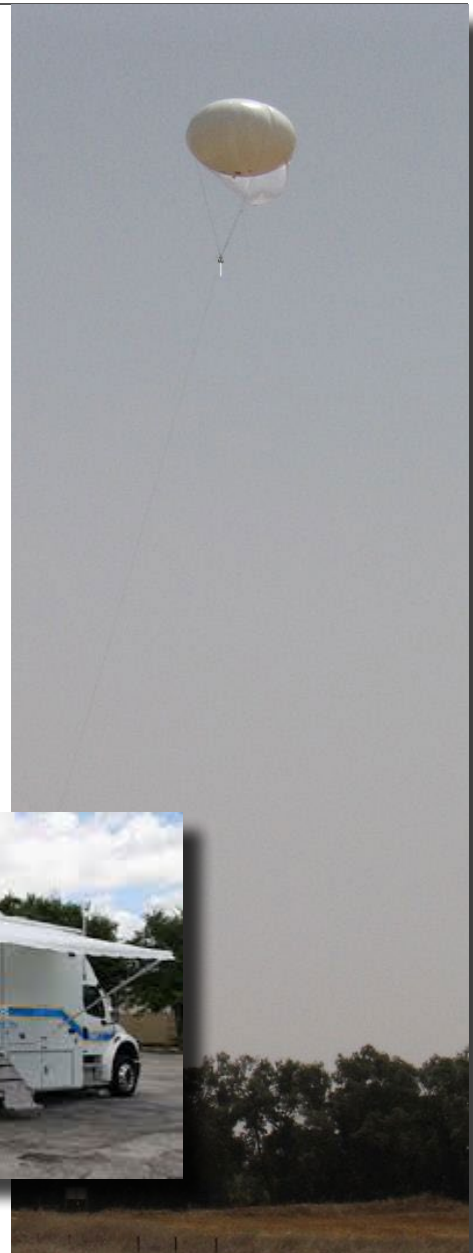


Product Characteristics

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 Type One single mode fiber
 Fiber Connector..... SC-APC
 AIU includes weather-tight connector features

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