TM
Expeditionary HF
Making HF Tactically Relevant

eXpeditionary HF (X_{HF}™)

Patent Pending

The Revolutionary HF Antenna

Horizontal Fan

Expeditionary Antennas with…

Large Antenna Performance

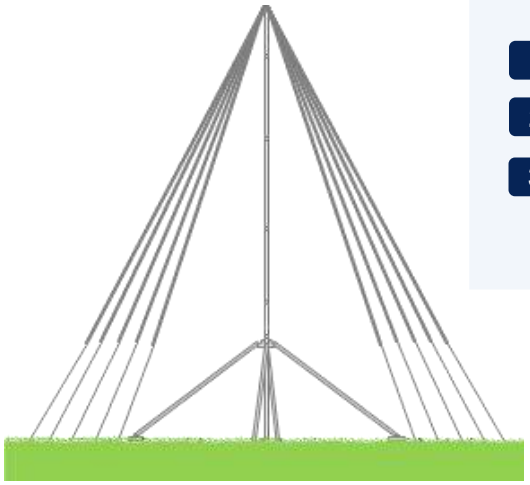
+ ***Significantly smaller and more user-friendly than other HF antennas***
  - Small footprint is a fraction of other antennas
  - Packs into three cases, transportable as checked luggage
  - Simple setup in 30 minutes or less with just 1 or 2 people

+ ***Global communications range across the entire HF band for transmit and receive***
+ ***Wideband:*** 3-30 MHz instantaneous bandwidth
+ ***Unprecedented performance across the entire HF frequency band:***
  - Consistent VSWR
  - Consistent Gain
  - Consistent Radiation Patterns

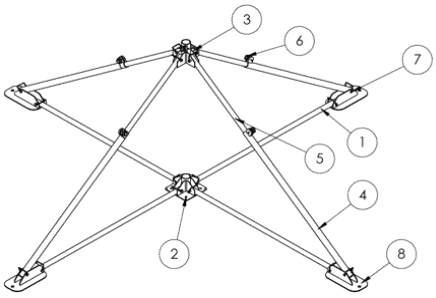
Three X_{HF} System Components

(shown below and to the left)

1. ***Quick Setup Quad-leg Base***
2. ***Telescoping Mast***
3. ***Antenna Elements***
   - *XHF-1000 (Vertical)*
   - *XHF-2000 (Horizontal)*



X_{HF} Telescoping Mast with Horizontal Antenna



X_{HF} Quick Setup Quad-leg Base

X_{HF} Transport Case – all three are the same size

Sabre
SABRE SYSTEMS

The Revolutionary HF Antenna

Horizontal Fan

TM
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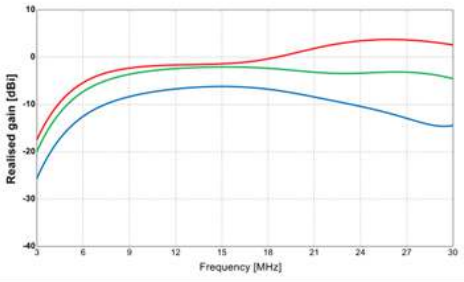
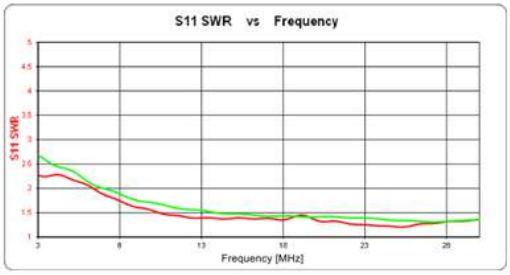
Expeditionary HF – Delivers reliable, unprecedented HF capability at transmit powers of over 1 kW

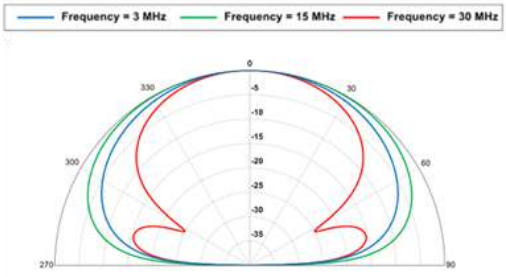
Consistent VSWR and gain across frequencies and takeoff angles providing exceptional user flexibility and performance



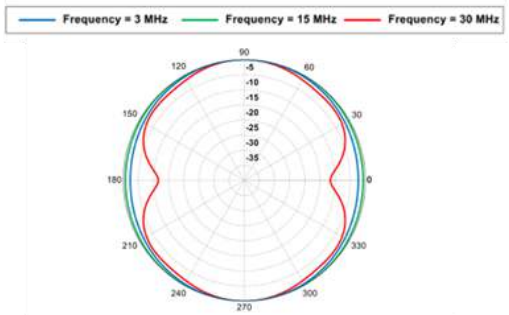
X_{HF} Horizontal Fan Gain versus Frequency- Takeoff Angle = 20 Deg (Blue), 45 Deg (Green), 90 Deg (Red) – Broadside



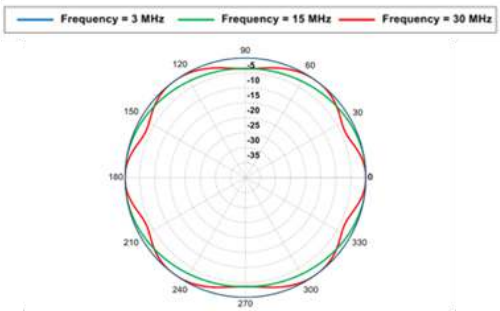
X_{HF} Horizontal Fan Antenna – VSWR versus Frequency– Modeled (Green), Measured (Red)



X_{HF} Horizontal Fan – Elevation Plot – Broadside



X_{HF} Horizontal Fan – Azimuth Plot – Takeoff Angle = 20 Deg



X_{HF} Horizontal Fan – Azimuth Plot – Takeoff Angle = 45 Deg

True Wideband HF… Instantaneous Full HF Bandwidth supports advanced waveforms and enables wideband operations – *no external tuner required!*

Optimized for Long-Range Communications…
while still providing excellent short and medium range performance

Contact Sabre Systems for more information…

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