

Solar Minimum ALE NVIS Project

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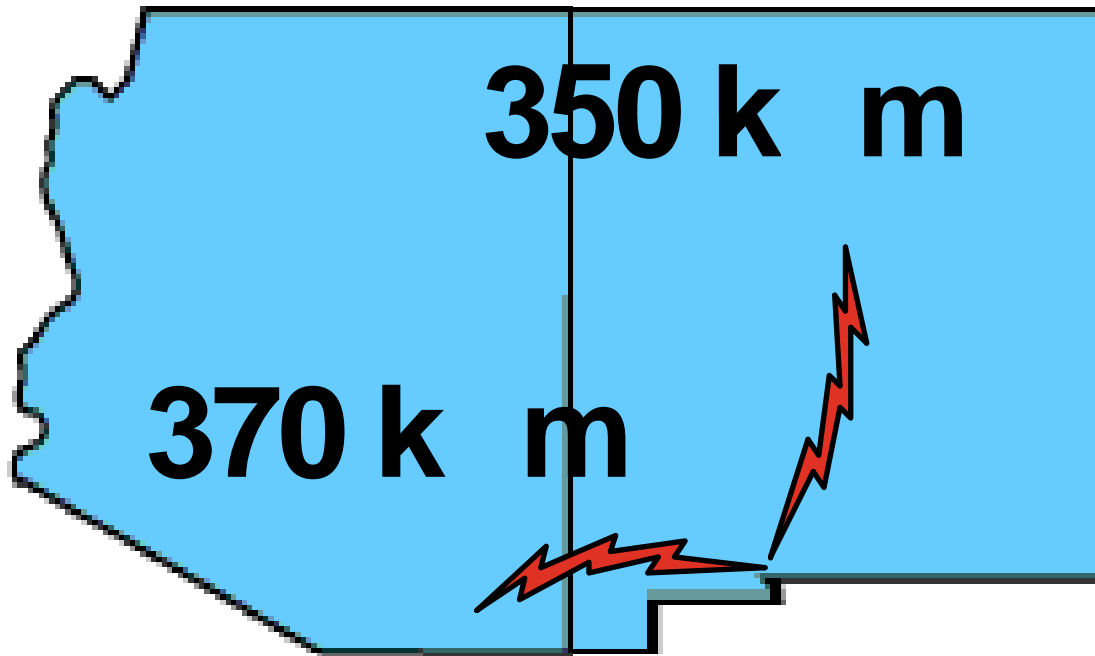
Heading into a Solar Minimum

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Purpose of Study

- Will ionization at solar minimum support NVIS operation at temperate latitudes?
- What frequency bands will be required?
(Impact of ITU Action Item 1.13)
- Will ALE be effective?

NVIS Paths



Equipment

- ALE radios at NMSU, JITC, Albuquerque
- 100 W
- Broadband horizontal dipole antennas
(flat and inverted V)

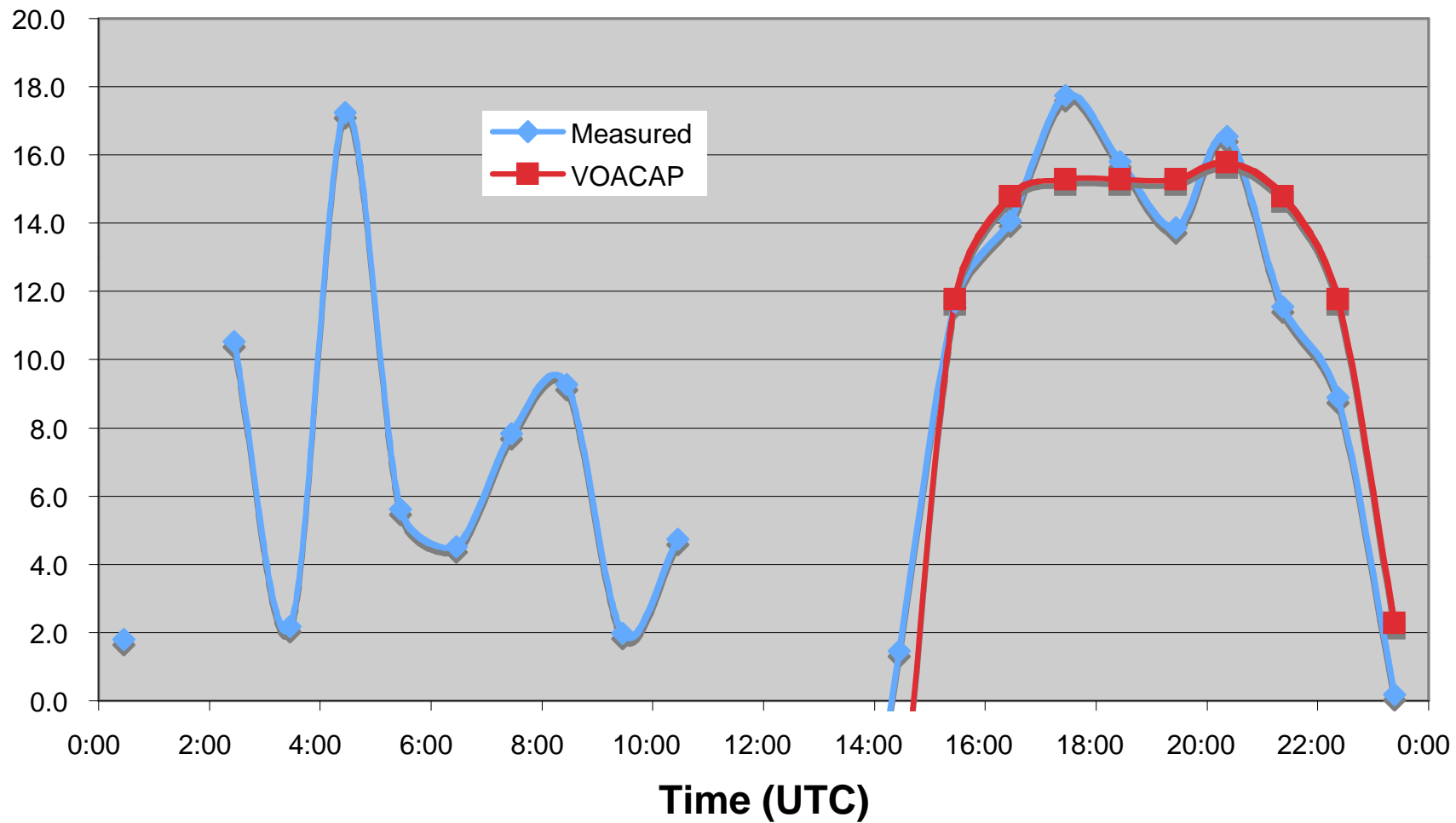
Obligatory Antenna Picture



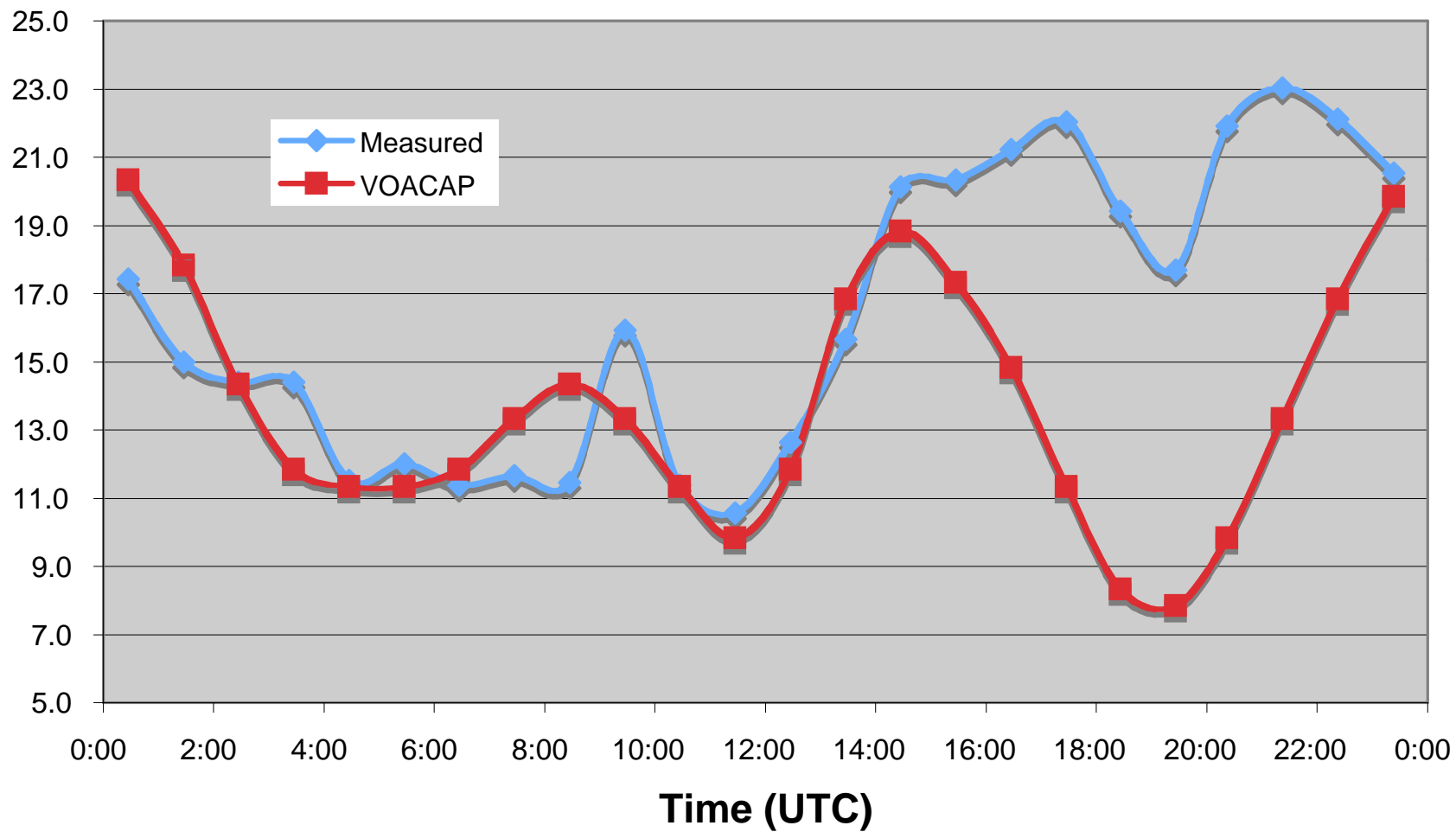
Measurement Approach

- Sounding on 5 Frequencies (DRJ at NMSU)
 - 3.1, 4.5, 5.7, 6.8, and 9.1 MHz
- SNR recorded by receiving ALE radios
- Compared to VOACAP predictions

SNR - LRU to FTH - Nov 2005 - 9.1 MHz



SNR: LRU to FTH - Nov 2005 - 4.5 MHz



Status

- JITC back on line after software rebuild
- Albuquerque to come on line late July
- Plan to continue through the minimum, report new results at future HFIA meetings