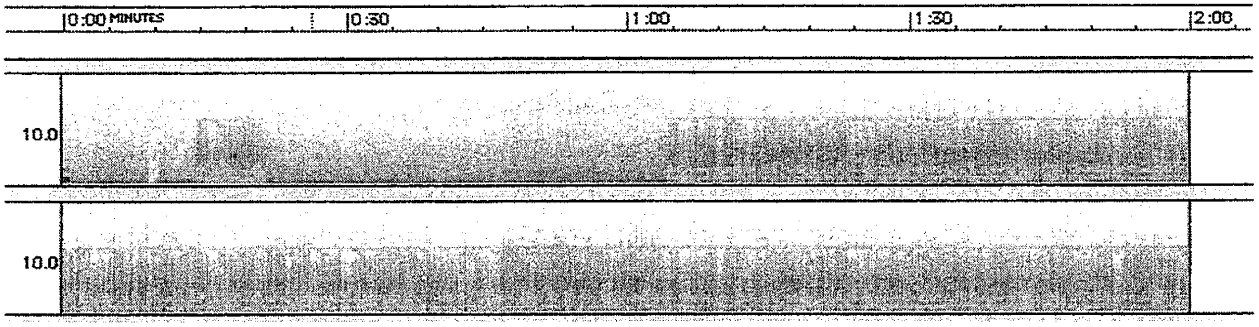
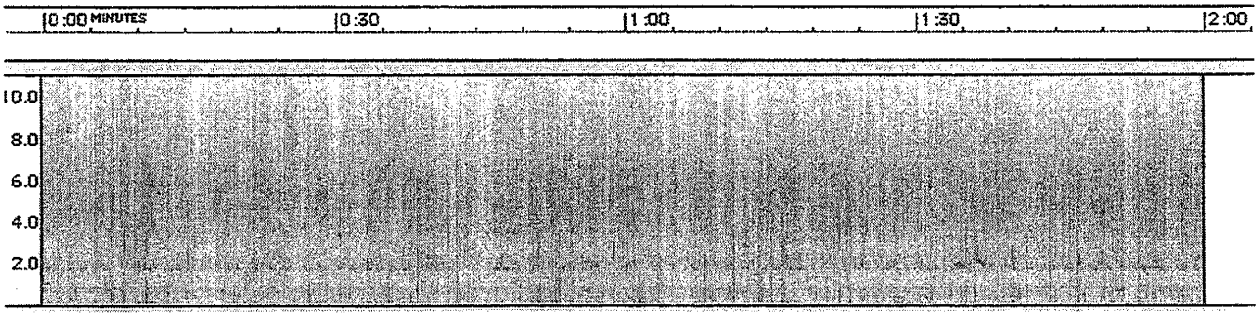
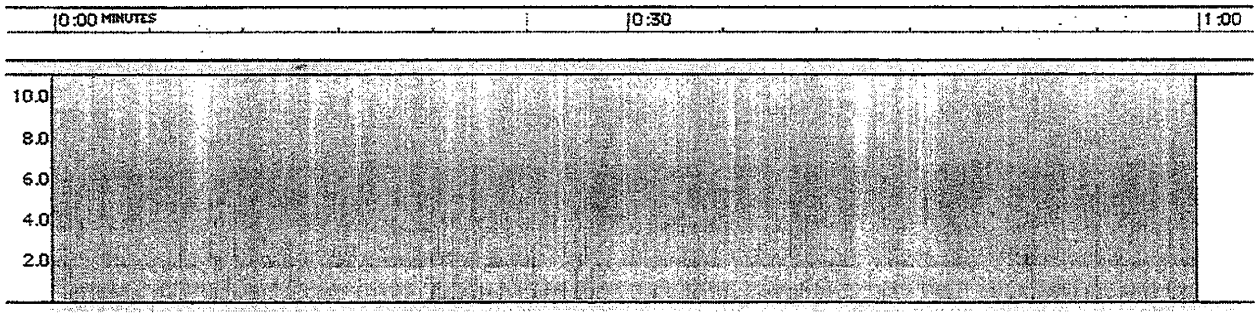
11-20-03 Robert Bennett Las Cruces, NM



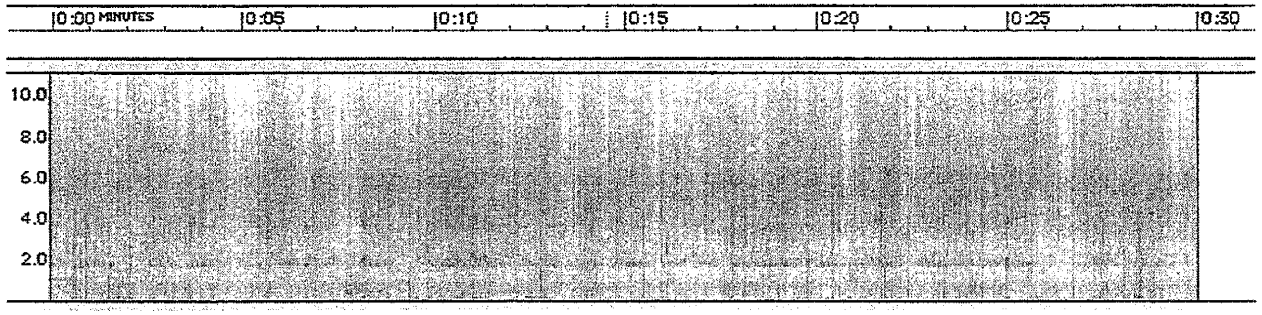
0346 UT 2046 MST WWV on top track with sections of data switched in occasionally. Data from a VLF3 receiver on the bottom track. Dense sferics and tweeks.



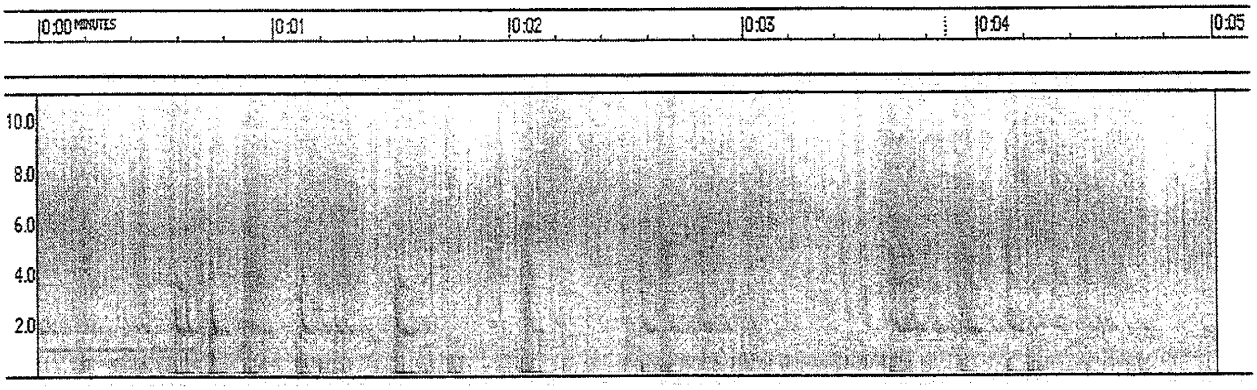
Data track using 0-11 kHz frequency range.



First minute.



First 30 seconds.

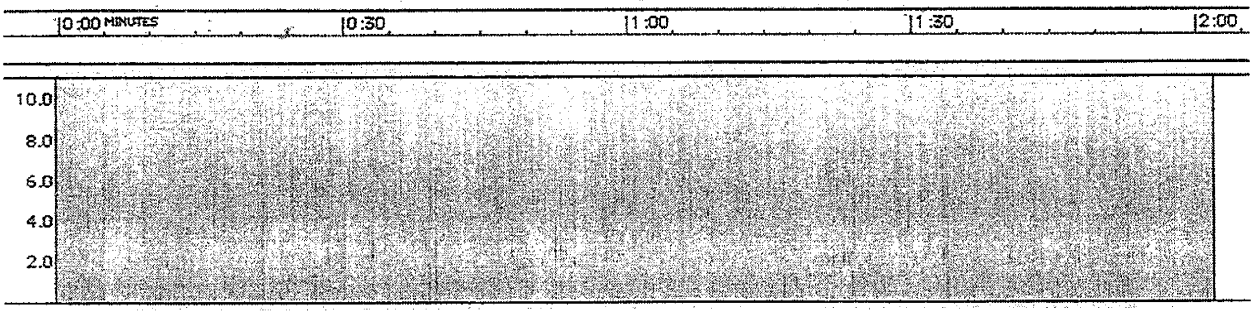


The first 5 seconds showing many individual tweeks.

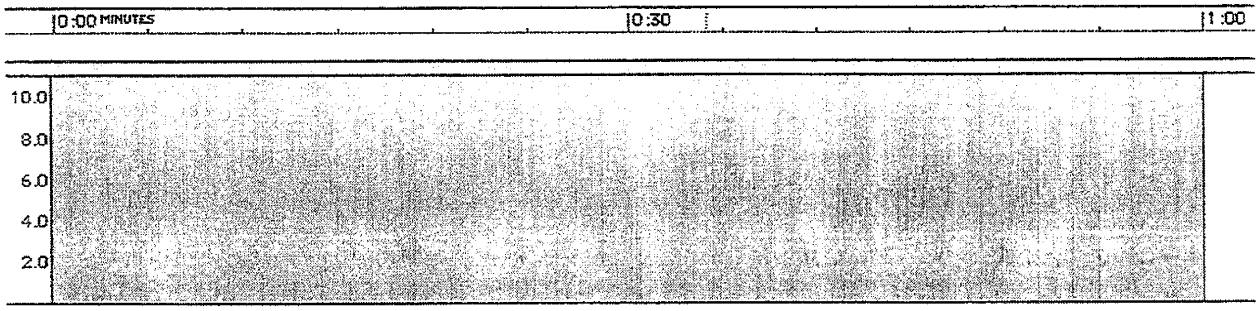
Robert reports:

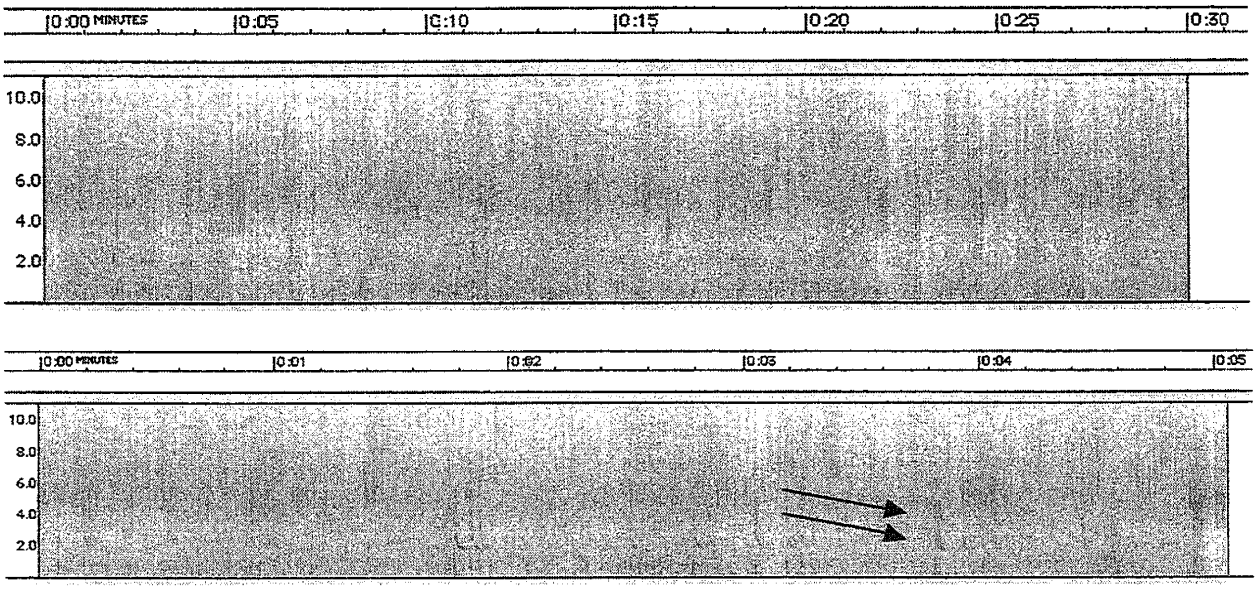
On 20 Nov, I monitored overnight. I started monitoring at about 8:00 PM Mountain Time. I made recordings during the 2040-2115 and 2120-2150 MST periods. I continued observing until 0200 MST on 21 Nov after which I went to sleep. I did not make any more recordings on 20/21 Nov. In general, I found the sferic and tweek levels and frequency to be very high when I started and slowly decreased in the early morning hours. The levels were so high that I could not hear the normally loud Loran signal. The monitoring conditions were otherwise excellent; the temperature at 2000 MST was 45 degrees F and slowly dropped to 36 degrees by sunup on the 21st. There was no moon and no wind and it was very dry in the desert. I experimented with both a 6-foot vertical whip (E-Field Probe) and a 120 foot long wire antenna. The Natural Radio signal levels were very high on both antennas but when using the whip, I did not hear any traces of either Loran or 60~ power line noise. However, using the long wire, I heard both Loran and some 60~ pick up. For some reason, the natural radio signal slowly decreased in amplitude and by 0200 on 21 Nov, I could clearly hear Loran on the 6-foot whip.

11-22-03 Robert Bennett **Las Cruces, NM**

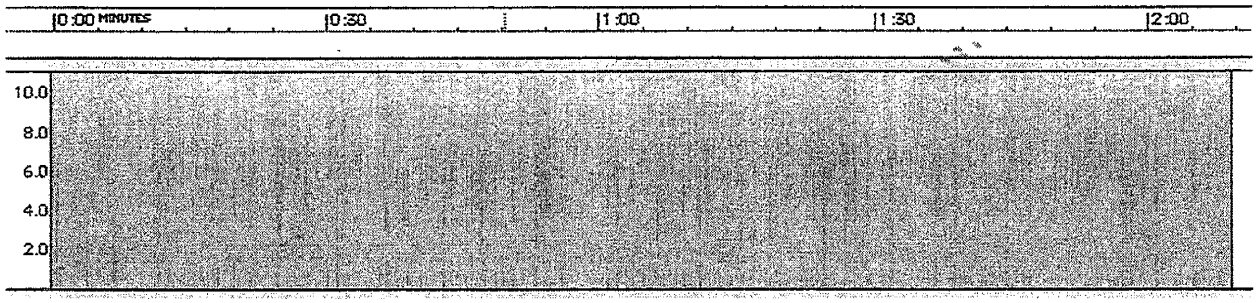


1217 UT Dense sferics and tweeks.

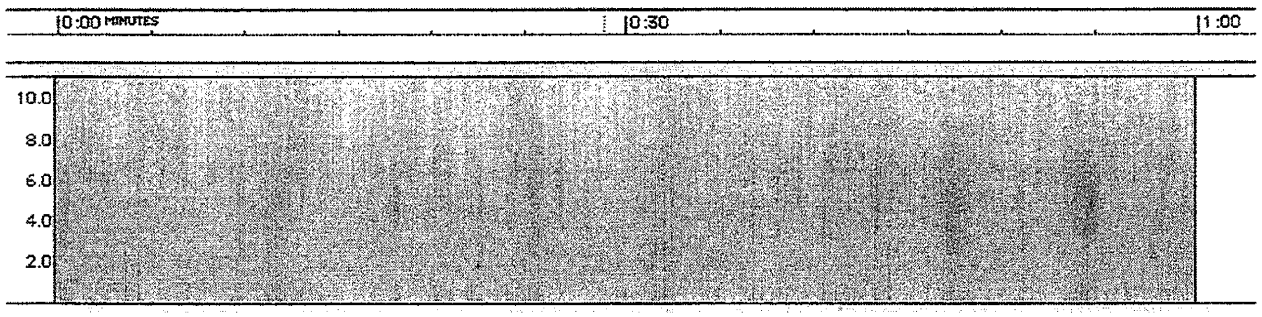


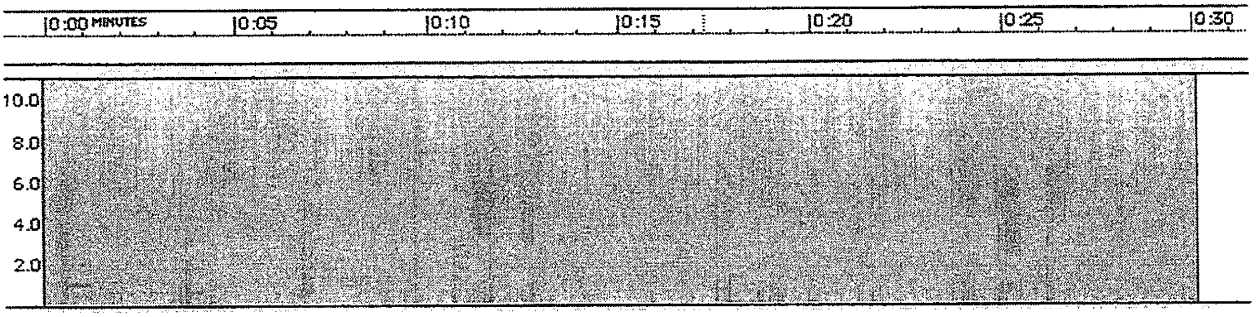


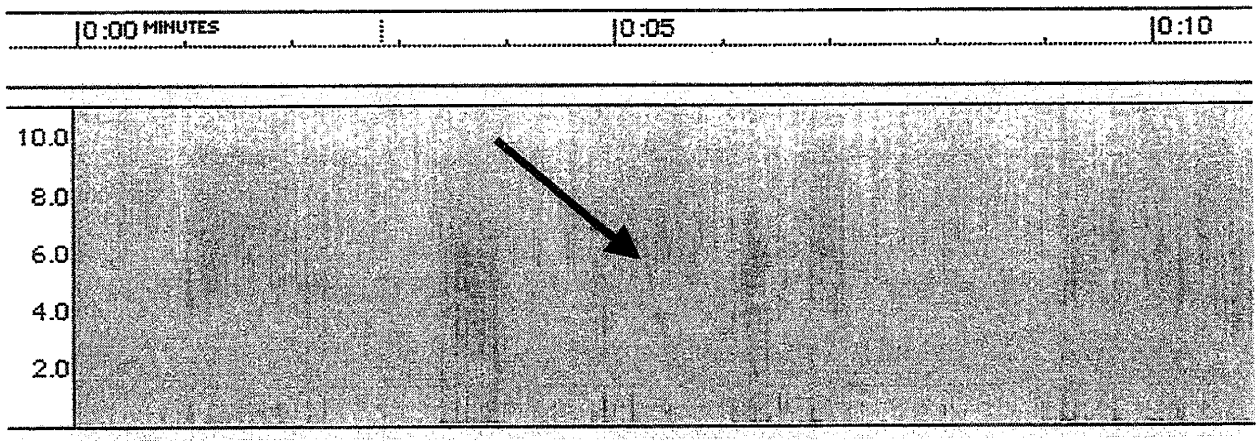
Note the tweek at 3.8 seconds with a harmonic of the tweek "hook" at about 4 kHz. This indicates a strong tweek.



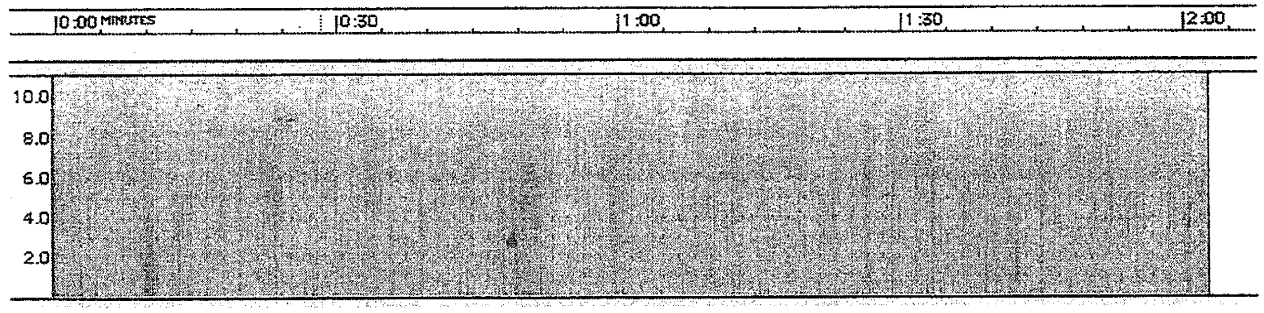
1305 UT Dense sferics, tweeks are rare.



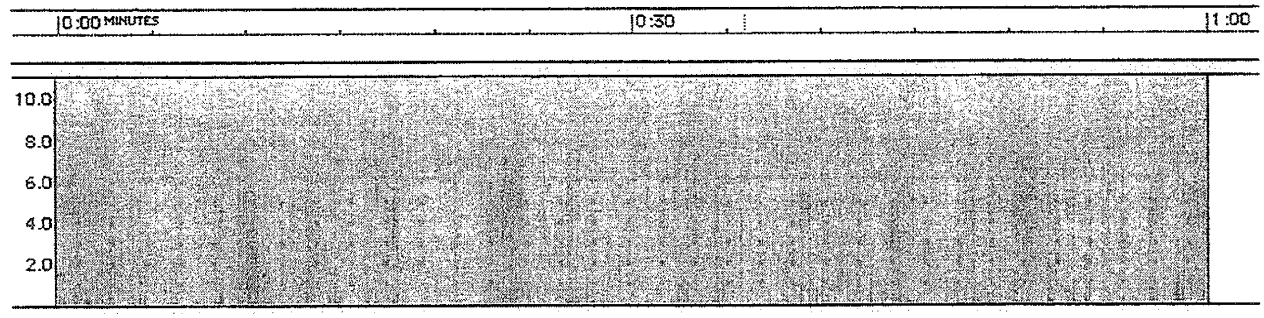


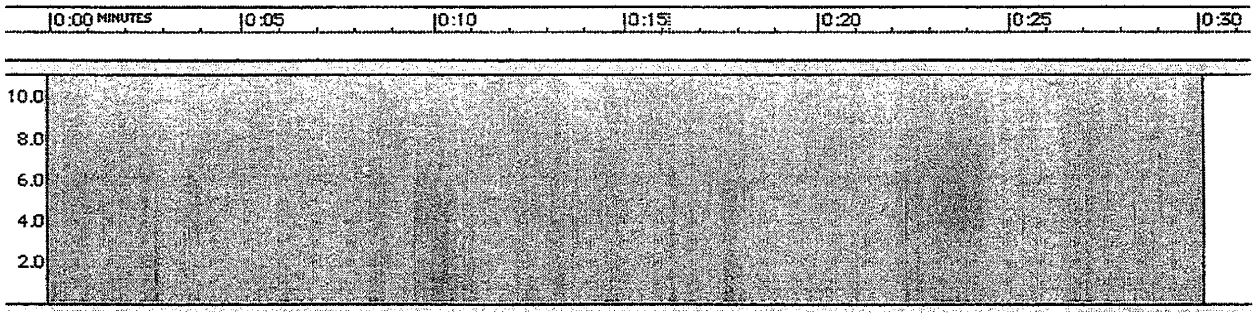


Segment starting at 1 minute showing a whistler at 1306:05 UT.

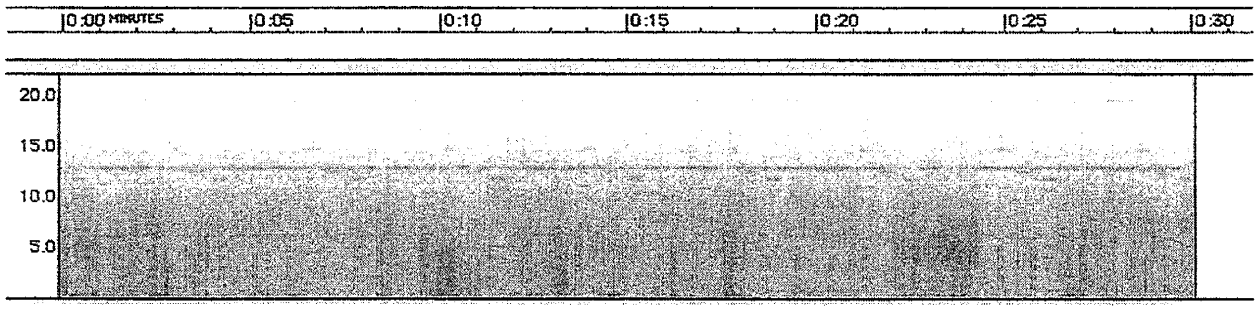


1400 UT 0700 MST Dense sferics, strong Loran



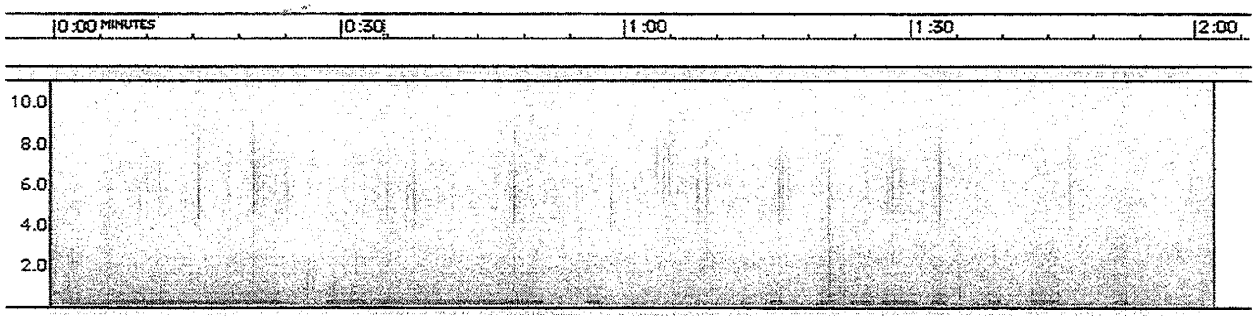


The vertical sets of dots are Loran.

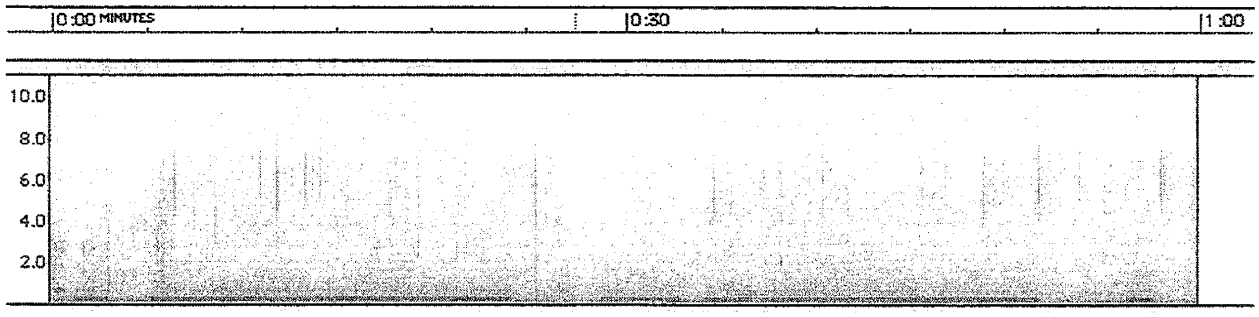


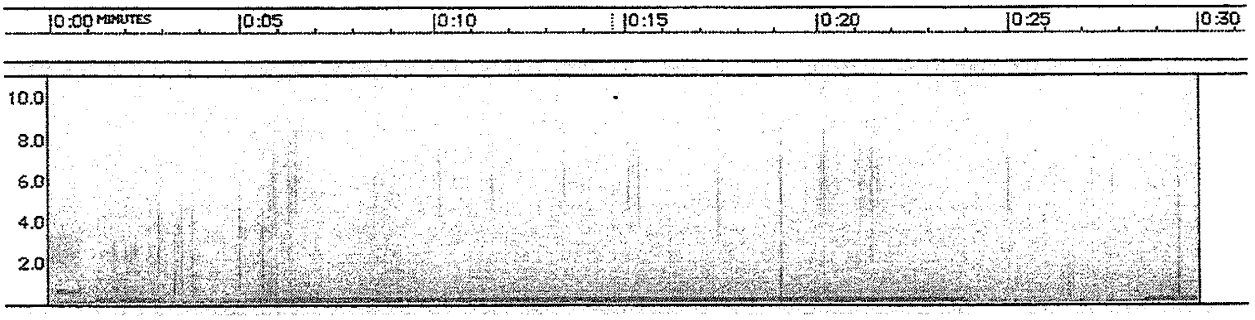
The first 30 seconds using a 0-22 kHz frequency range. Russian Alpha navigation dashes are clearly visible (and audible on the tape) between 12 and 15 kHz. A steady carrier also appears at about 13 kHz. Robert reported rising wind and deteriorating observing conditions.

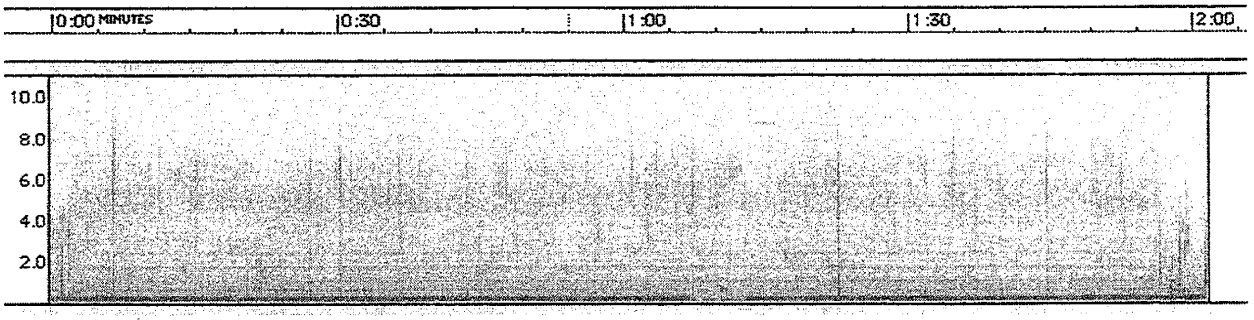
12-16-03 Chaffey High School Ontario, CA



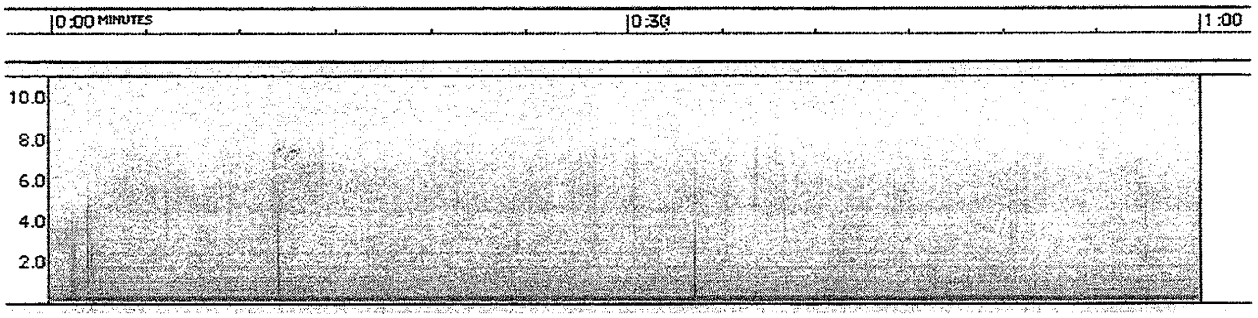
12/16/03 0102 UT Dearzy Martinez, Tiffany Steele Some sferics and tweeks.

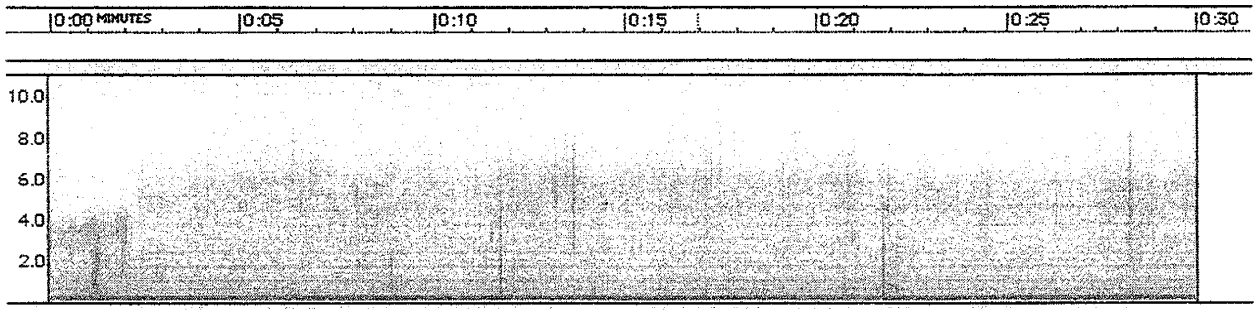






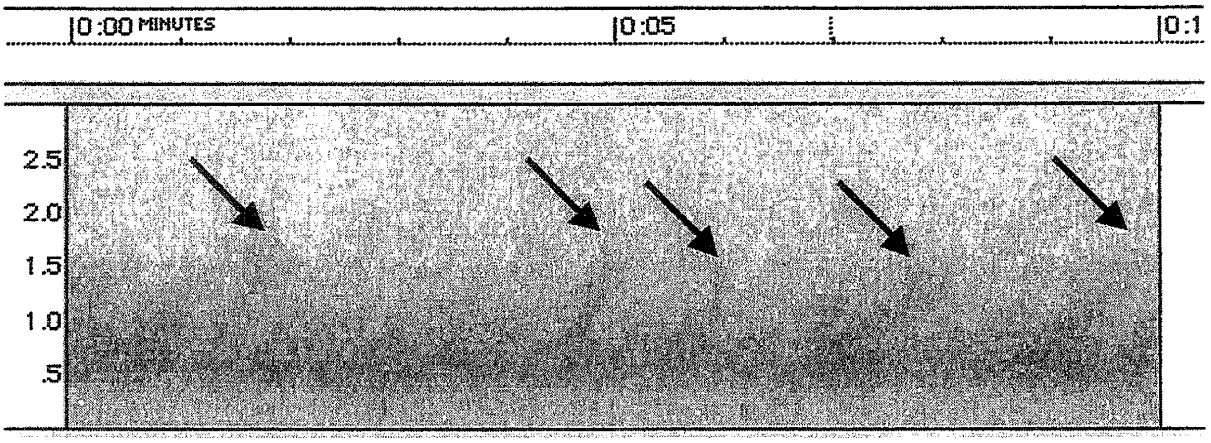
12/16/03 0129 UT Joelle Brown, Ana Guzman Some sferics and tweeks.



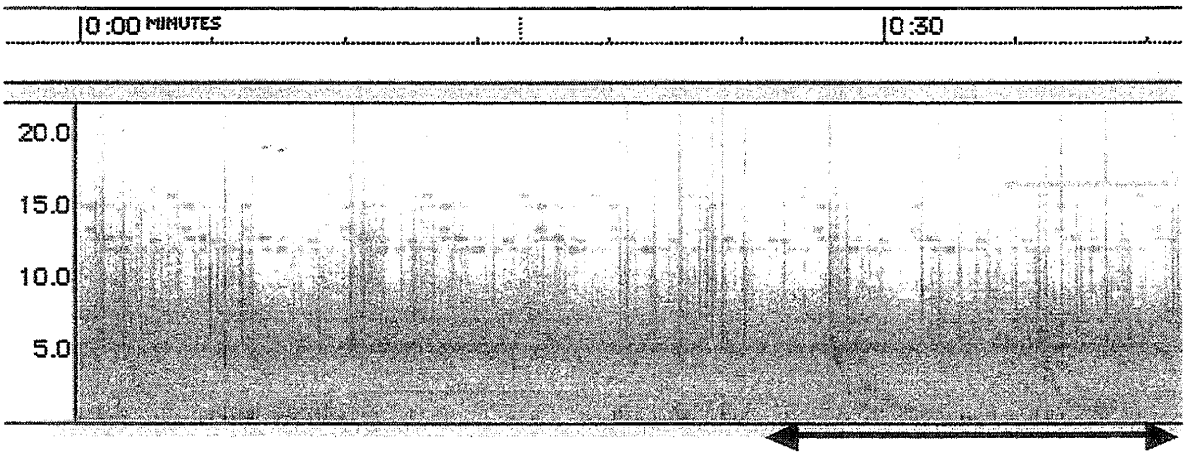


12-16-03 Shawn Korgan Gilcrest, CO
Recorded North of Fairbanks, Alaska

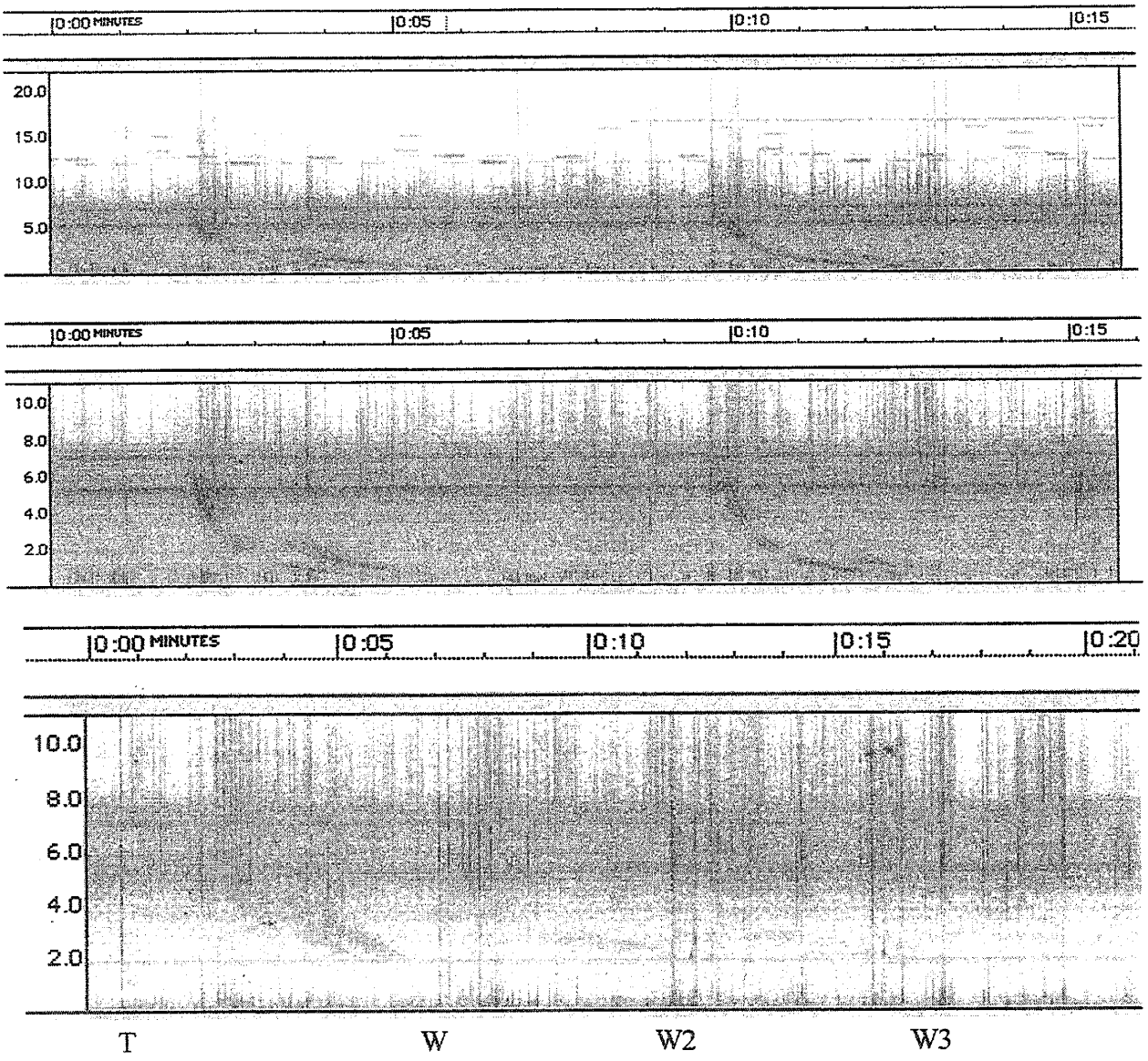
The following are some brief spectrograms of natural radio signals recorded by Shawn Korgan during the recent trip to Chatanika, Alaska.



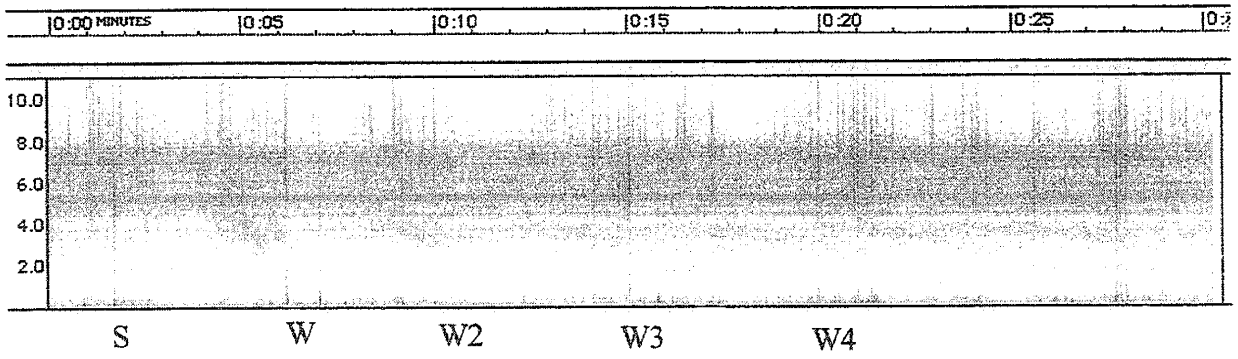
3-22-04 1200 Alaska Time (AT) Chorus sounds like birds chirping. On the spectrogram, chorus shows up as a series of rising tones. The arrows show the tops of the most prominent risers.



3/23/04 Whistler collection. This view, using a 0-22 kHz frequency range, shows Russian Alpha navigation signals as series of dashes between 12 and 15 kHz. The arrow indicates the segment enlarged below.



A whisler from later in the session. This sounds like a two-hop whistler originating with the strong tweek (T) followed by the whistler (W) and at least two echoes (W2 and W3).



Still later, a whistler (W) following a strong sferic (S). Several echoes follow the whistler.

Data Log Cover Sheet (copy as needed)

INSPIRE Observer Team _____ Team Number: ____

Equipment: Receiver _____

Recorder _____

Antenna _____

WWV radio _____

Site description: _____

Longitude: ____° ____ ' W Latitude: ____° ____ ' N

Personnel: _____ _____ _____

_____ _____ _____

Team Leader address: Name _____

Street _____

_____

City, State, Zip, Country _____

email: _____

Local Time to UT Conversion Table

EST + 5 = UT	EDT + 4 = UT
CST + 6 = UT	CDT + 5 = UT
MST + 7 = UT	MDT + 6 = UT
PST + 8 = UT	PDT + 7 = UT

INSPIRE Data (copy as needed)

INSPIRE Observer Team ____________________ Team Number: ____

Coordinated Observation Date: __________ Receiver ________

Tape Start Time (UT) __________ Tape Start Time (Local) __________

Local weather: ______________________________

Code: M - Mark (WWV or Voice) S - sferics T - tweek W - whistler A - Alpha C – chorus
Sferic Density: D: ___ Scale of 1-5 (1 – Very Low, 3 – Medium, 5 – Very High)

Time (UT)	Entry		Observer
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________
________	M-WWV M-V S T C W________________	D: ___	________