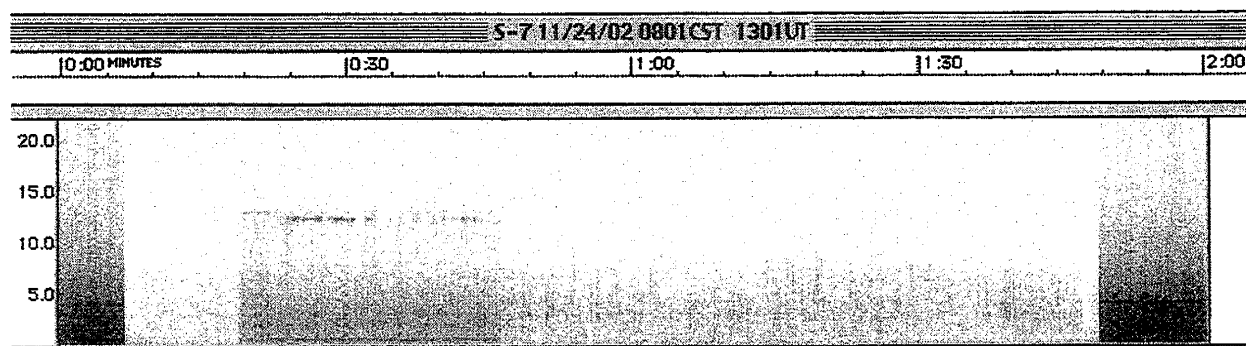


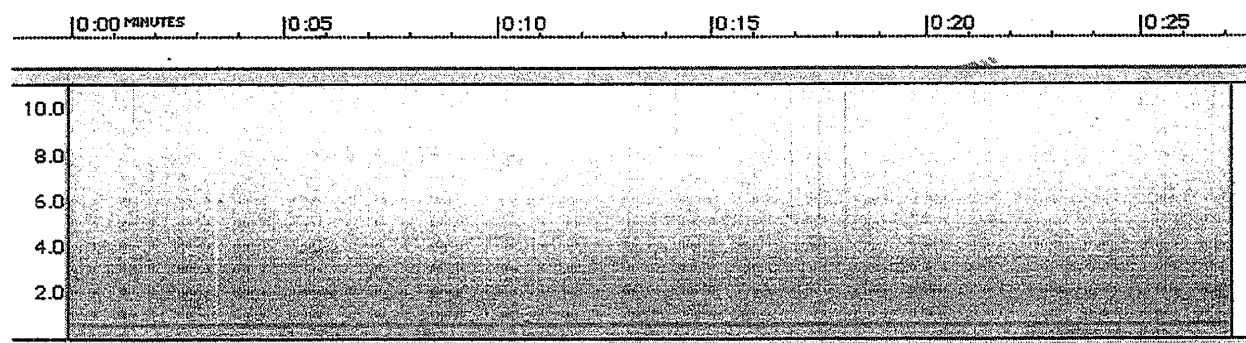
11/24/2002 Team S-7 Bill Combs, Crawfordsville High School

Crawfordsville, IN

11/24/2002 1301 UT

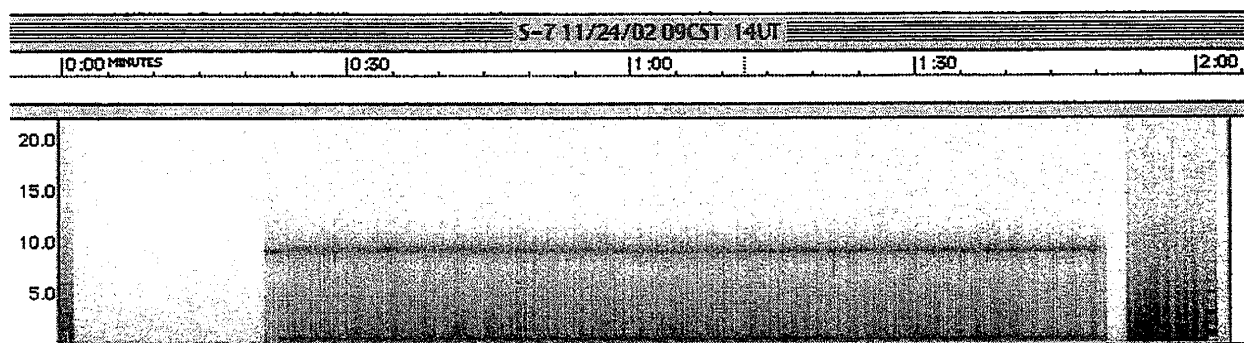


This tape starts with about 10 seconds of WWV, 15 seconds of silence while switching inputs, 30 seconds of good data (sferics and LORAN) and then a TV signal showed up masking all future data. The site is very quiet with almost no hum band.

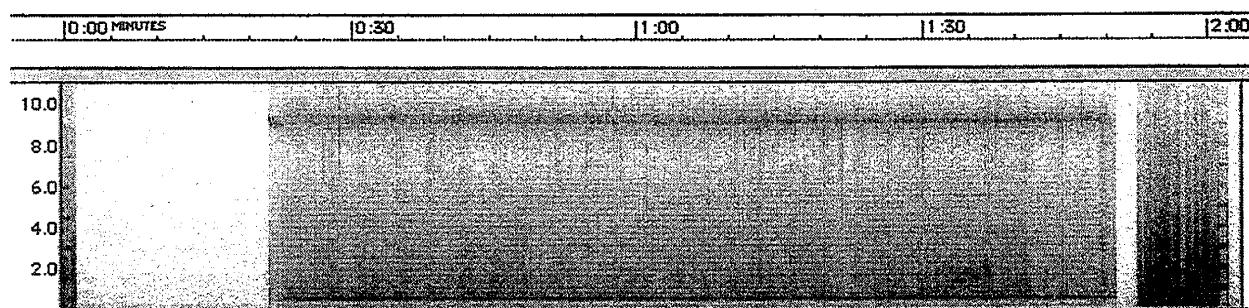


This is the "good" data segment. Strong sferics, little hum.

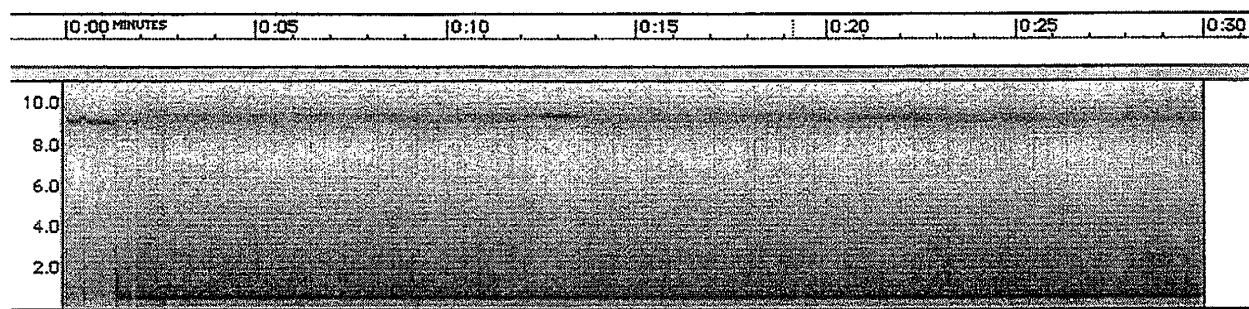
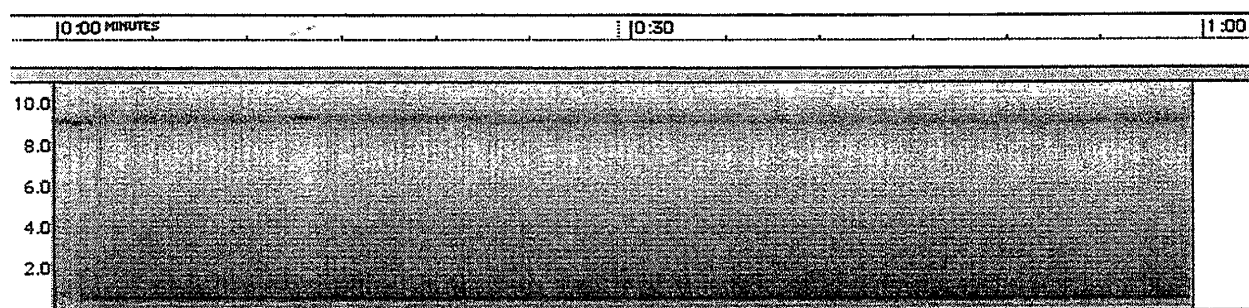
11/24/2002 1400 UT



An hour later, the TV signal is gone, but a very noisy manmade source is present just below 10 kHz. This apparently was turned on between 1300 and 1400 UT.



WWV tones begin and end this spectrogram. The receiver is working well, picking up sferics audible with the strong manmade signal.



LORAN and the strong signal below 10 kHz dominate this spectrogram. Sferics are audible and visible.

A large fire in the National Forest near our home burned an area including my observing site. The Forest was closed until further notice and remains closed now – probably until snow season is over. At an elevation of 4400 feet, not much snow falls there, but they close the road from first snow until last snow so they don't have to patrol that area. The remoteness from development is the best feature of this site and it is only a half hour from school.

Since that site could not be used, I had to come up with a Plan B. The desert east of here used to be a good place to observe, but it has become so developed that there doesn't seem to be anywhere that does not have power lines. One place I have been to before has escaped development so far, but it is over 200 miles from home and the last several miles of that is desert washboard road. This is not an ideal site to take students to since it would involve camping and all that entails with students (equipping them, special permission, food, etc.). Since that did not seem feasible, I invited my wife to go camping with me, so off we went to Mid Hills Campground near Kelso, CA.

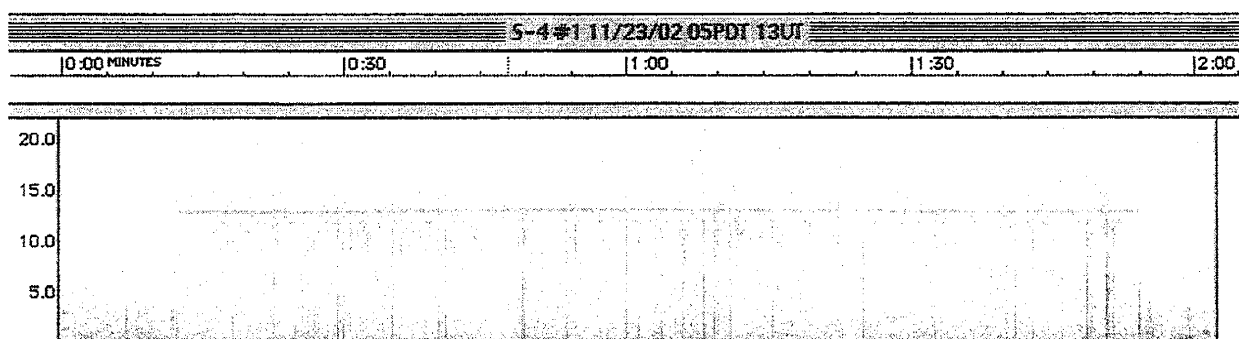
The site is beautiful. At about 4000', the campground is in a pinon pine forest with beautiful rock formations all around. Water is provided and the pit toilets have concrete floors and so are a step above the worst. Beth was happy.

I set up 3 receivers:

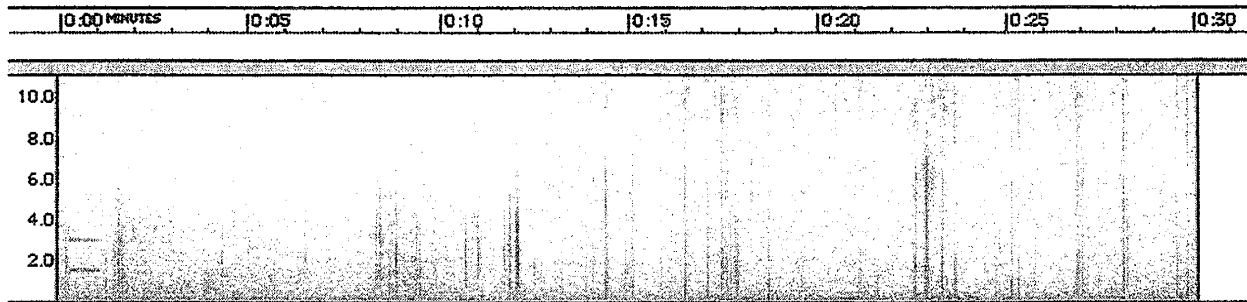
- Receiver #1 ACTIVE B-field receiver with a loop antenna
- Receiver #2 INSPIRE RS-4 receiver with 6' whip antenna
- Receiver #3 INSPIRE VLF-3 receiver with 6' whip antenna

I got up at 4:30 AM so I could start taping at 5 AM (1300 UT) to match the recordings at 8 AM EST on the East Coast. I then recorded at each hour through 9 AM PST. I did this on both days of the Coordinated Observations.

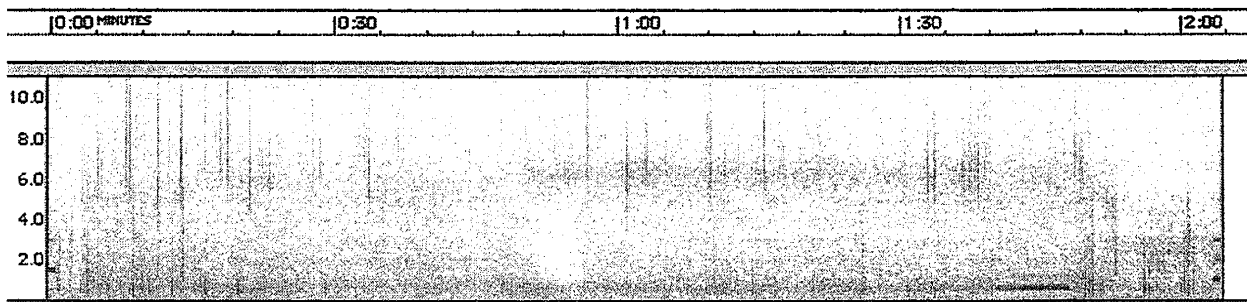
11/23/2002 1300 UT



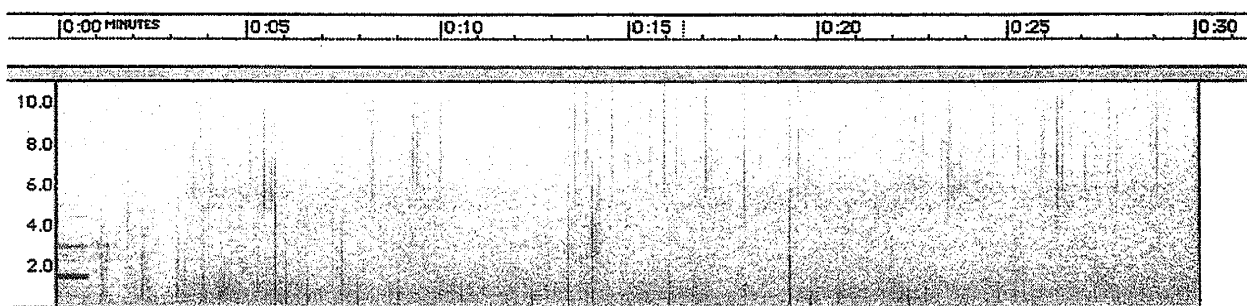
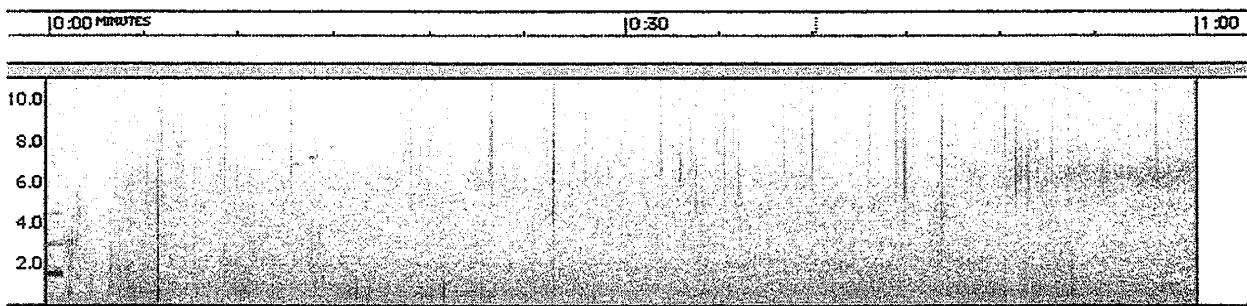
Receiver #1.



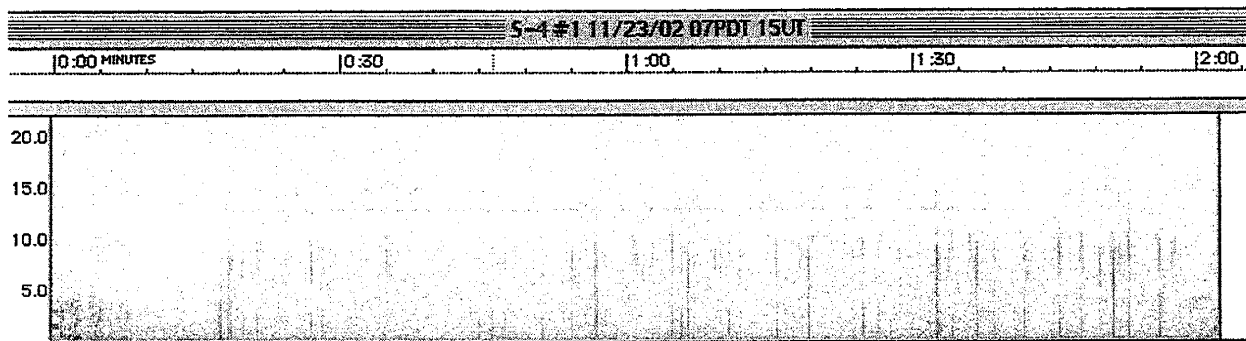
11/23/2002 1400 UT



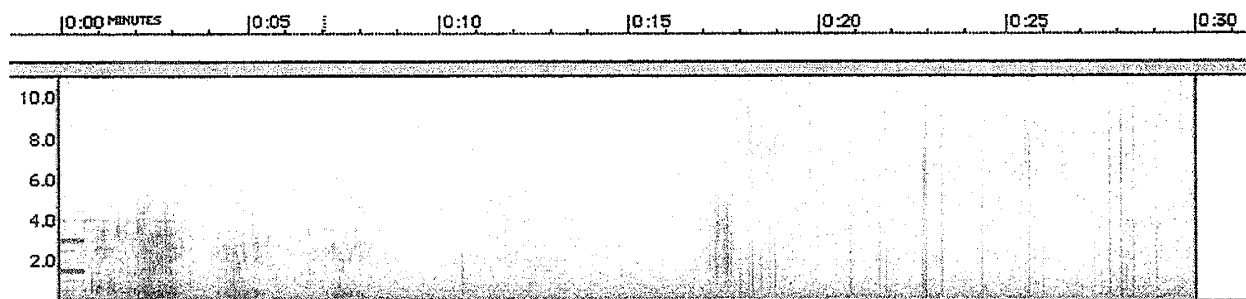
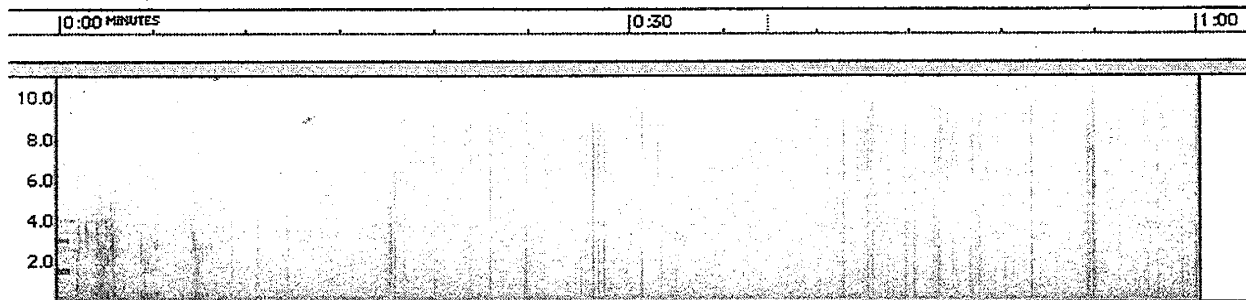
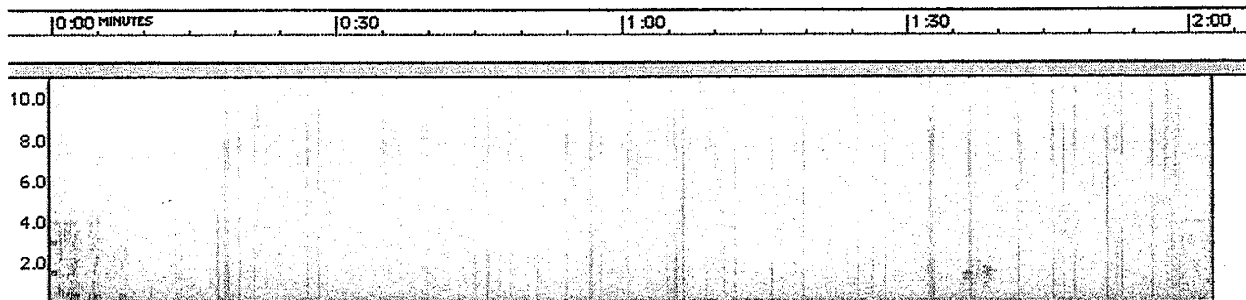
Receiver #3



11/23/2002 1500 UT

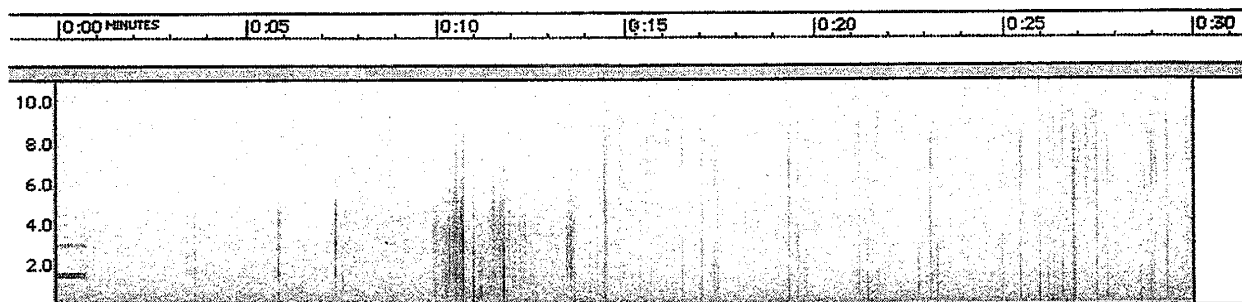


Receiver #1

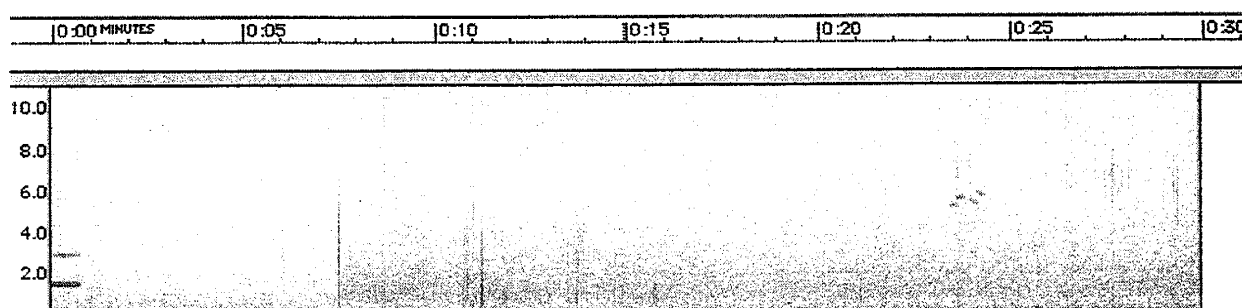


11/23/2002 1600 UT

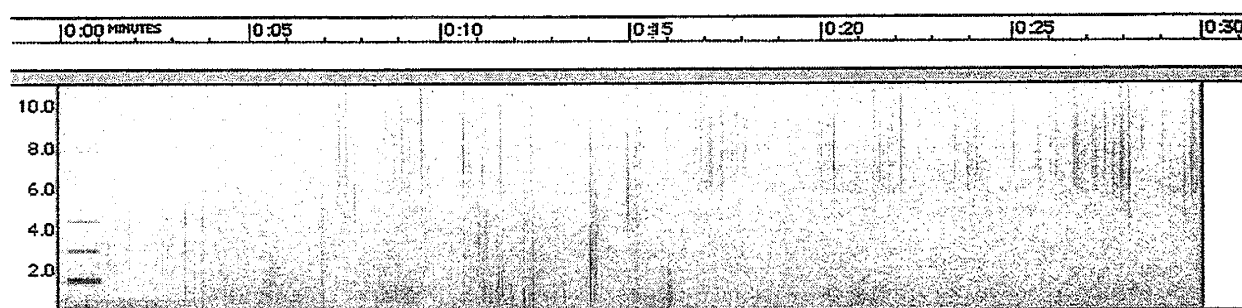
I had problems with Receiver #2 (RS-4), but finally got it working. The following spectrograms compare the receivers.



Receiver #1 ACTIVE



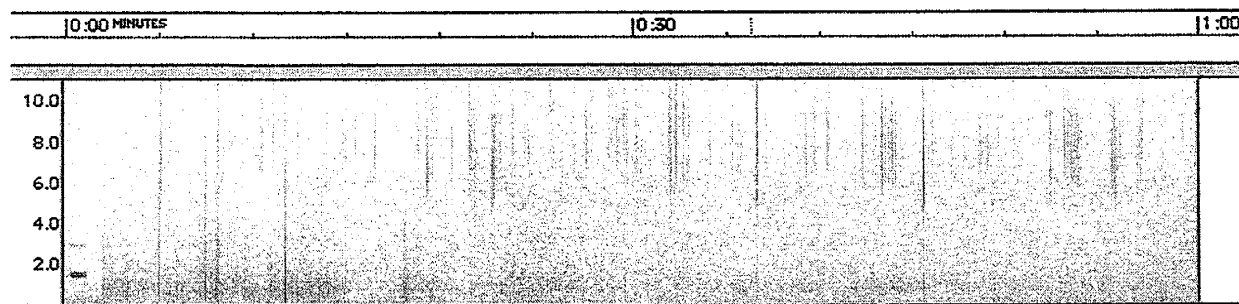
Receiver #2 RS-4



Receiver #3 VLF-3

While conditions were unusually quiet during the entire weekend, the VLF-3 outperformed the other receivers by a significant margin.

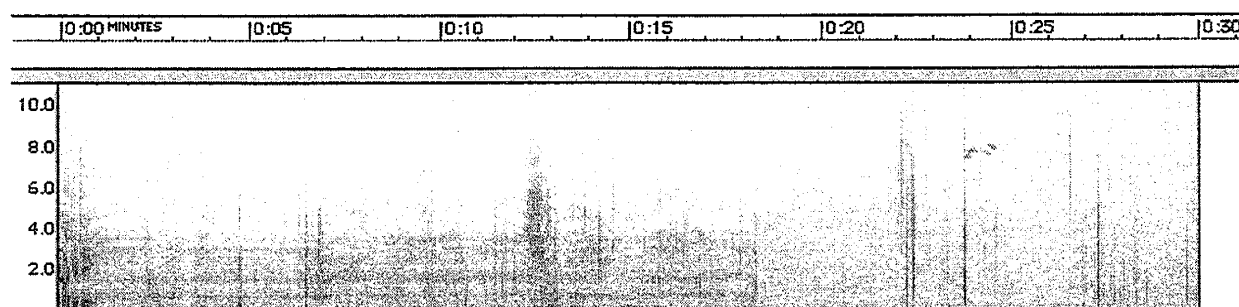
11/23/2002 1700 UT



Receiver #3

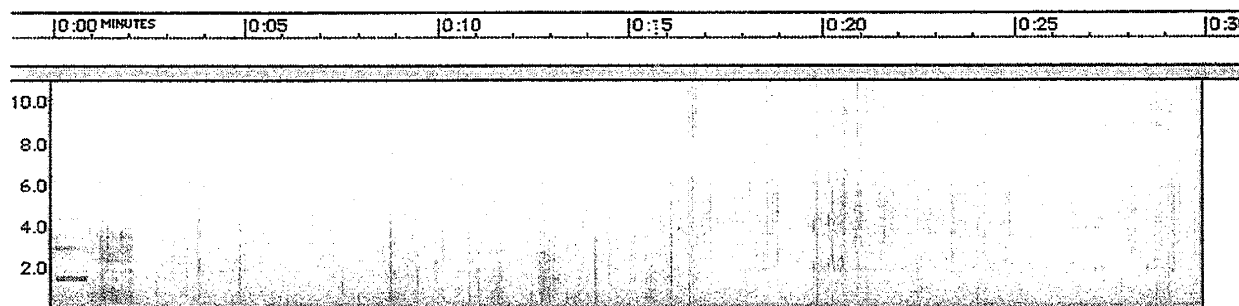
11/23/2002 1700 PST 0100 UT (11/24)

I made some observations at 5 PM local time in hopes of hearing something interesting.



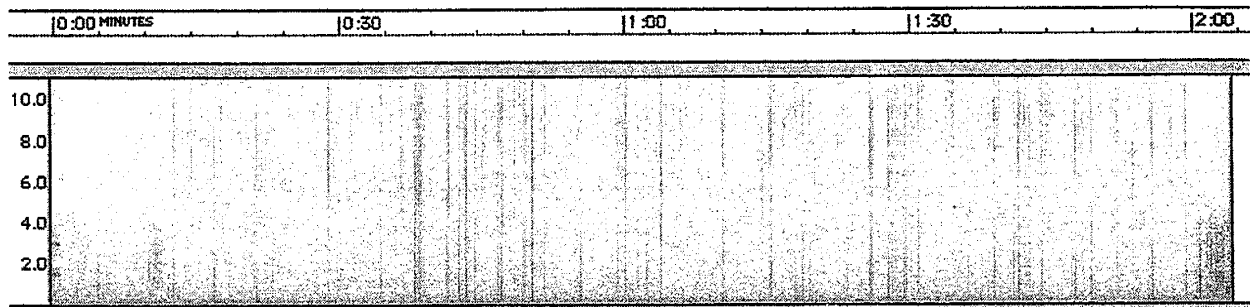
I had never listened at sunset before without hearing tweeks at least. Now I have.
Nothing but sferics.

11/23/2002 1800 PST 0200 UT (11/24)



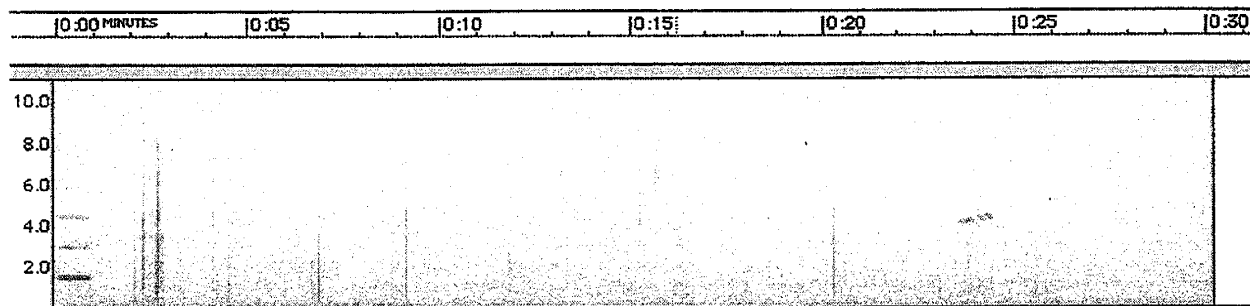
Receiver #1. An hour later and no change.

11/24/2002 1300 UT



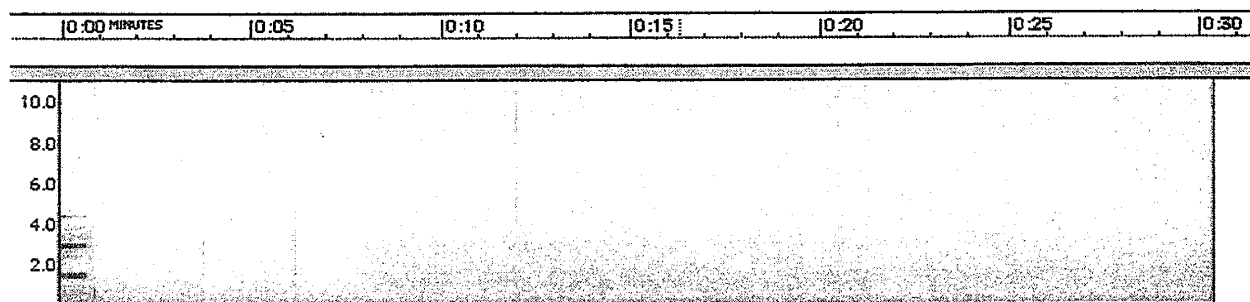
Receiver #1. Strong sferics, but nothing else.

11/24/2002 1400 UT



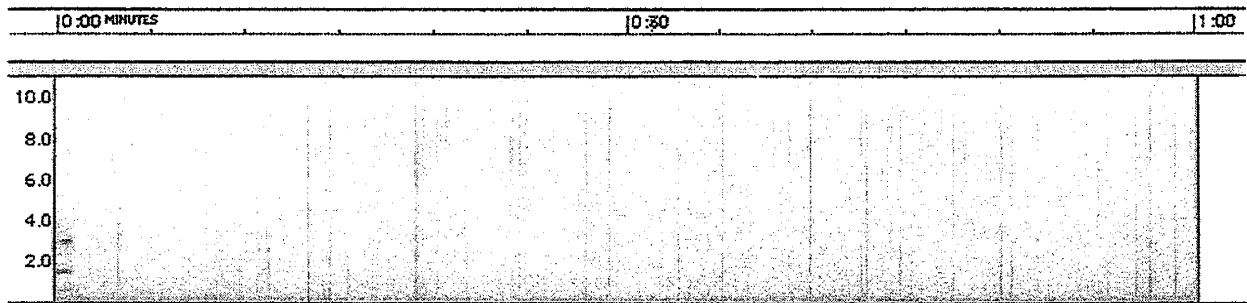
Receiver #3.

11/24/2002 1500 UT



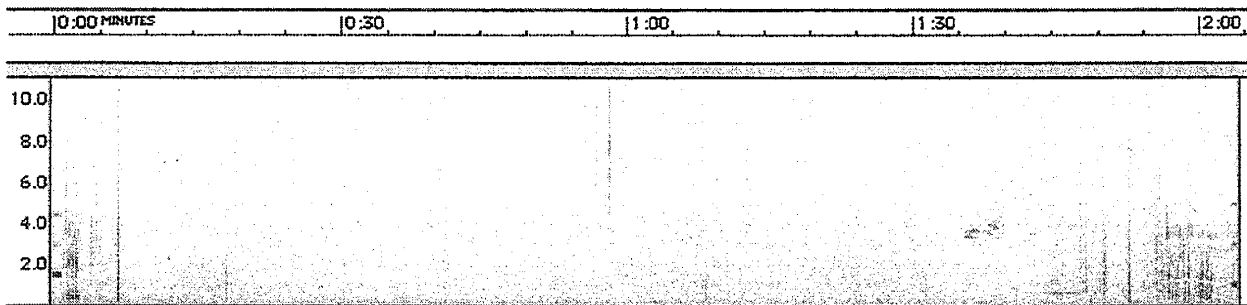
Receiver #2.

11/24/2002 1600 UT

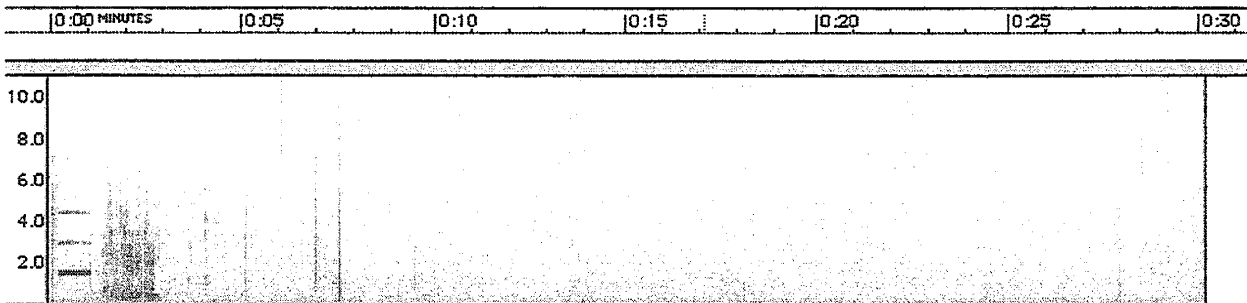
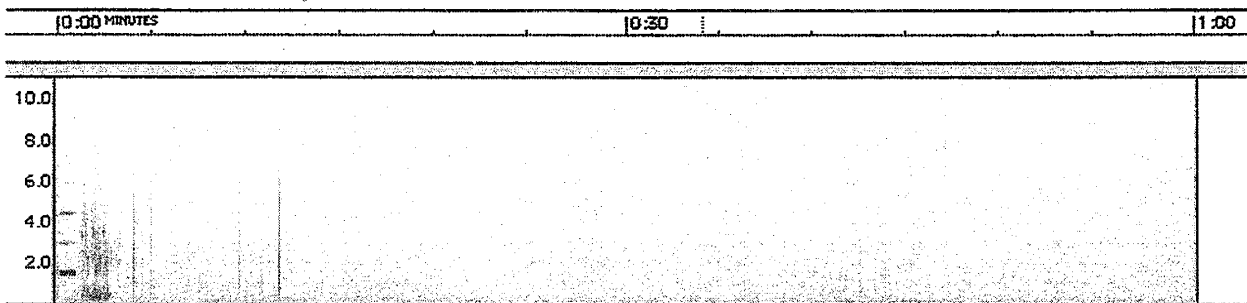


Receiver #1.

11/24/2002 1700 UT



Receiver #3.



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

(copy as needed)

Team Number: _____

Receiver _____

Tape Start Time (Local) _____

● 2019 年 12 月 1 日起，在《中华人民共和国外商投资法》施行前，外商投资企业从事《外商投资准入特别管理措施（负面清单）》禁止的投资领域活动的，适用《外商投资法》施行前的有关法律规定。

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)

[illegible]