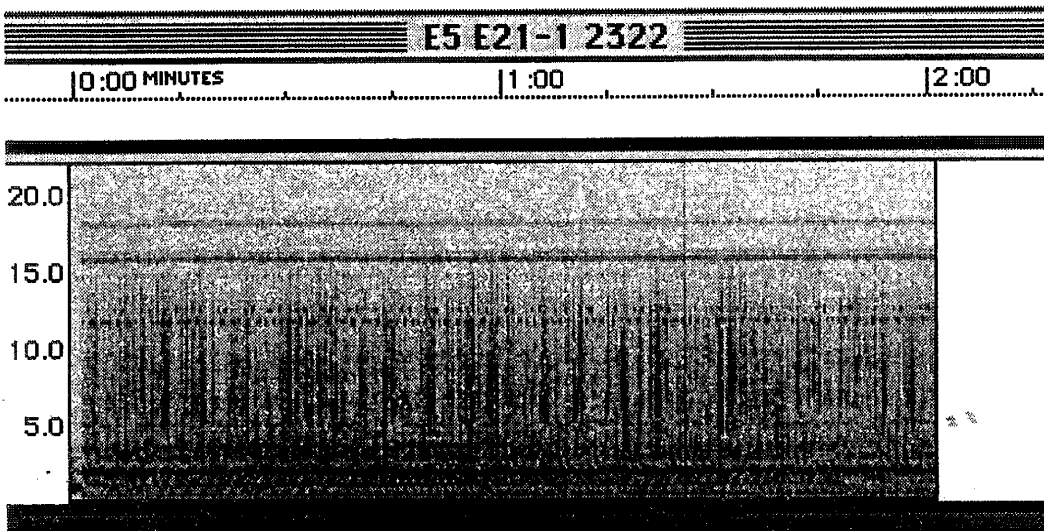


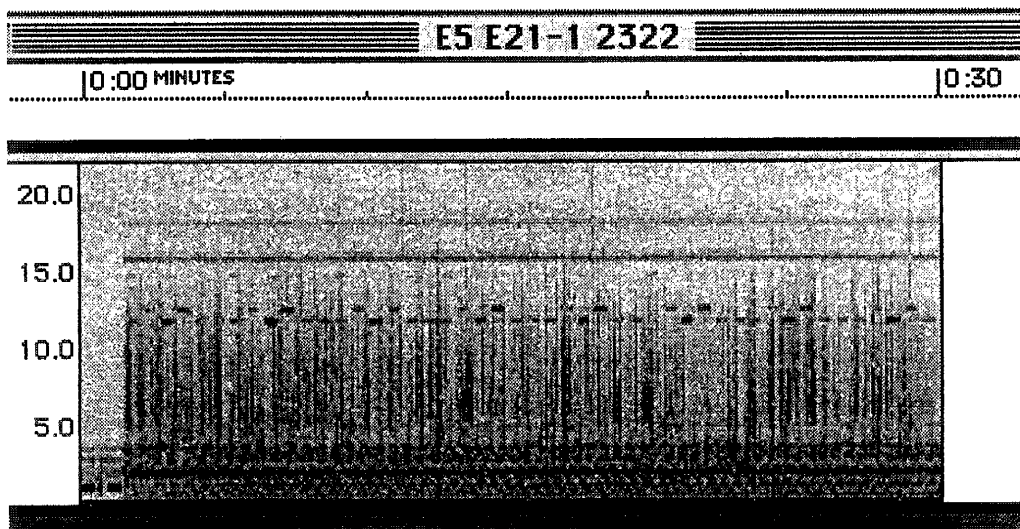
INTMINS Data

The following spectrograms are taken from data tapes submitted by INSPIRE observers. The first view shown will be that of the entire two-minute interval analyzed. At the top of the image is the sound filename which consists of the operation number, the name of the observer, the state or country where the observations were made and the start time of the operation. Subsequent views will be of portions of the first. Use the time scale at the top to determine the length of the view. Unless otherwise noted, the start time of the cropped view is the same as the start time of the operation.

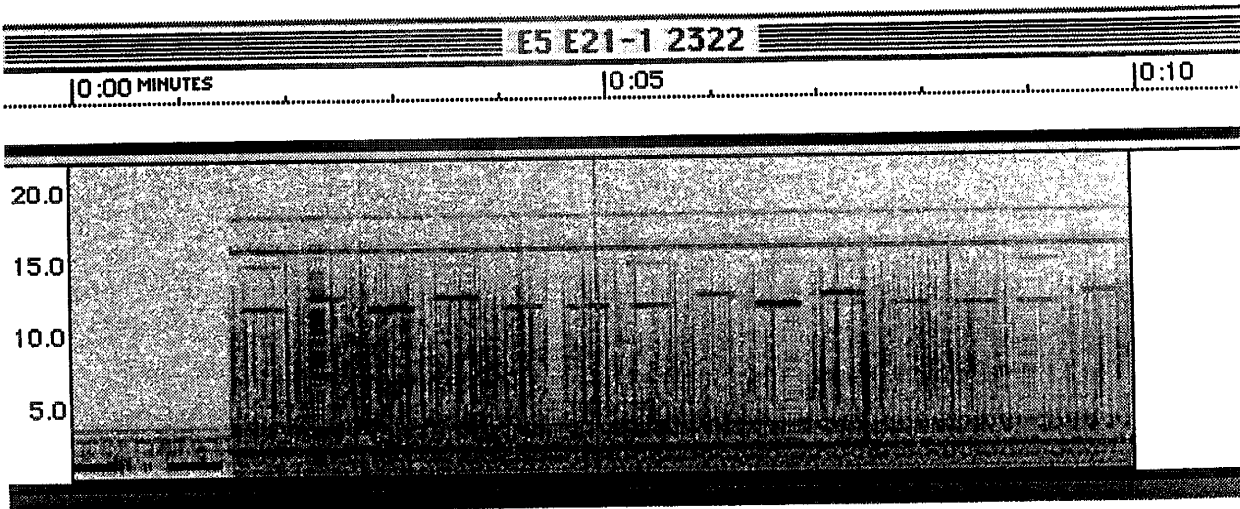
E21-1



Team E5 Renato Romero, Cumiana, Italy. Medium density sferics. A 0-22.1 kHz range was used to show the presence of Russian ALPHA navigation signal between 12 and 14 kilohertz.

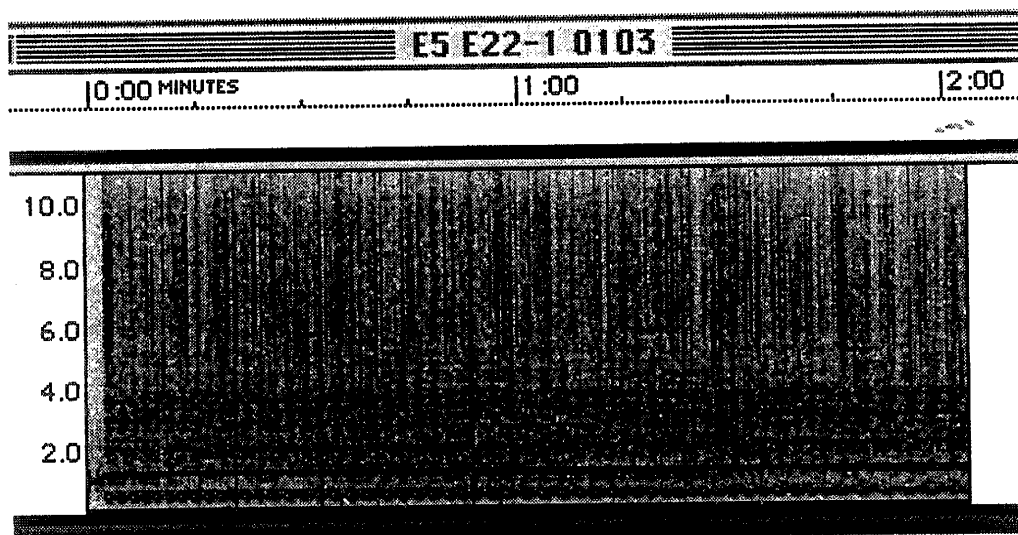


The first 30 seconds of the above file. At the beginning of the spectrogram is the signal from the European MSF time station; ALPHA dashes appear above 12 kHz.



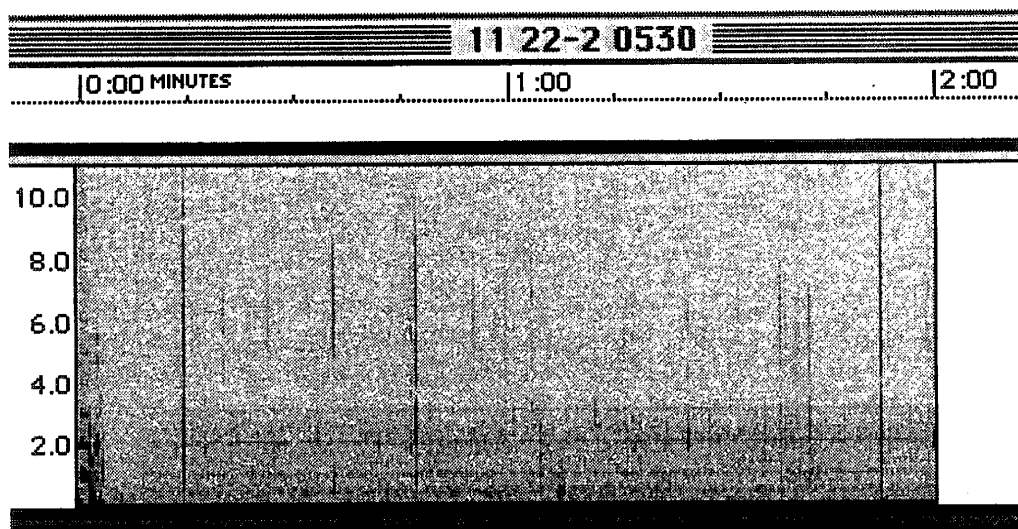
The first 10 seconds showing detail of both MSF and ALPHA. Note that ALPHA signals repeat over about a 4-second interval.

E22-1

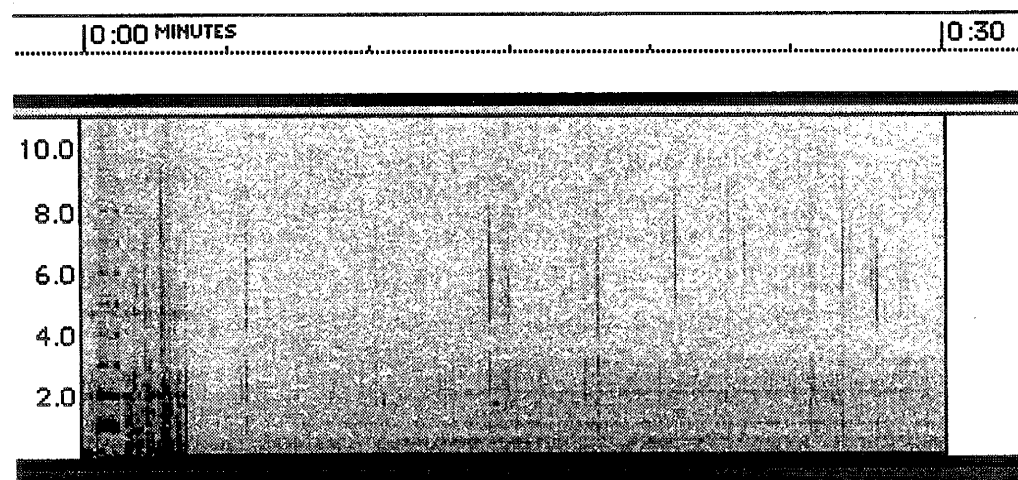
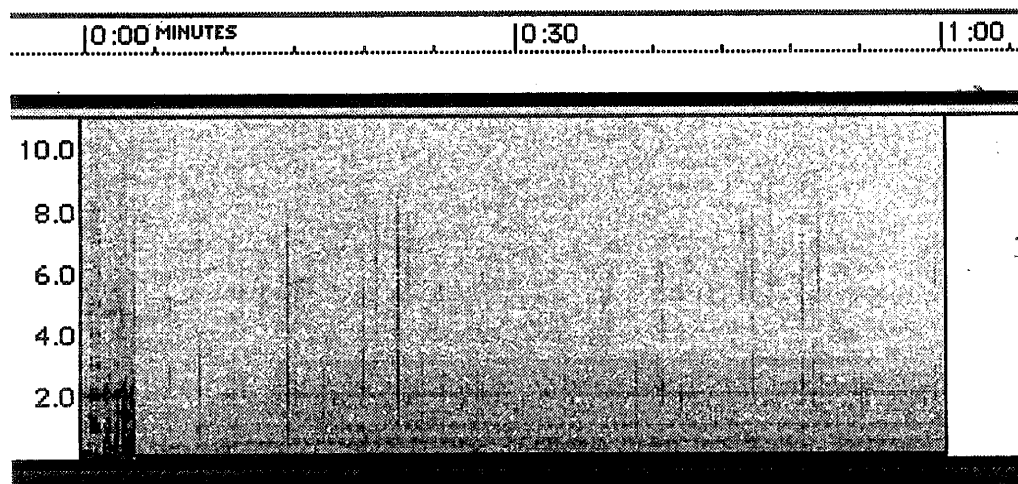


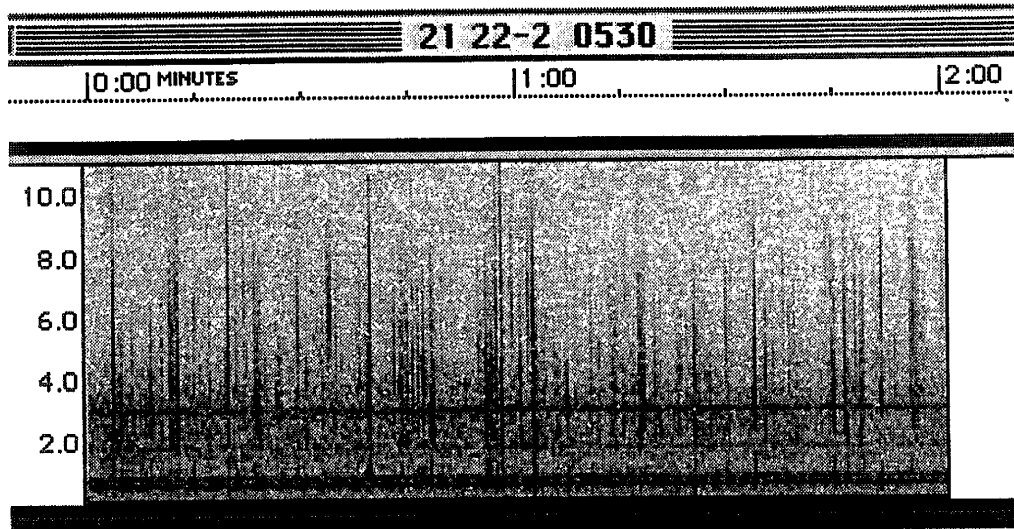
Team E5 Renato Romero, Cumiana, Italy. Dense sferics.

22-2

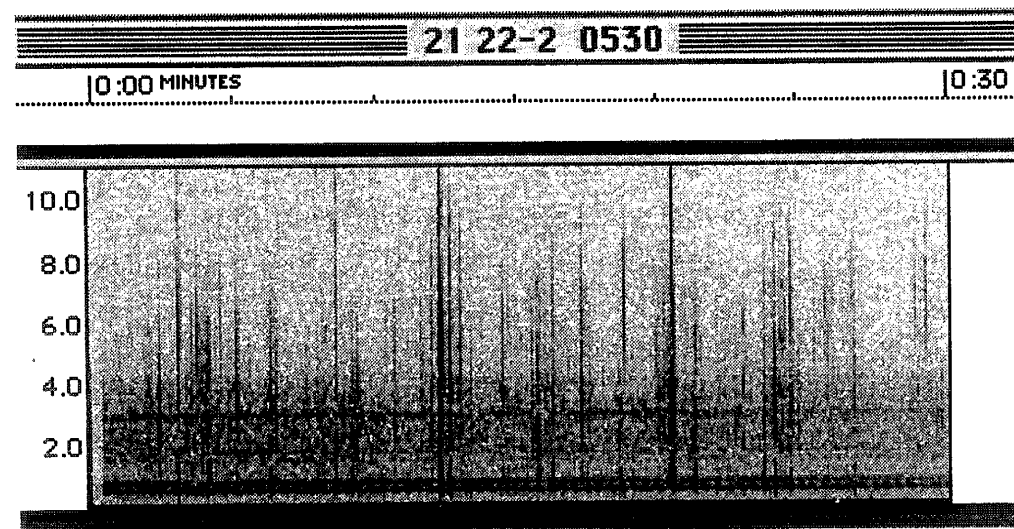
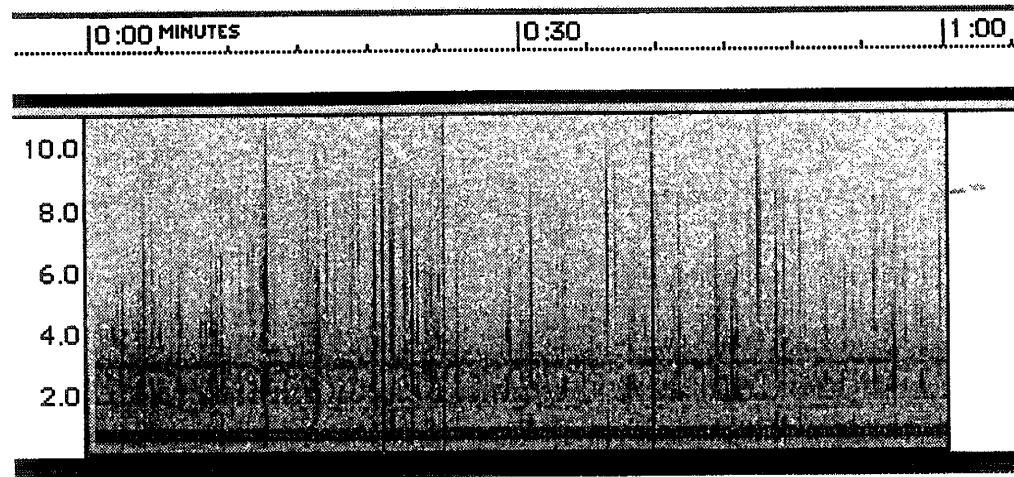


Team 11 Mark Mueller, Brown Deer High School, Brown Deer, Wisconsin.
Very quiet conditions with good signal presence. WWV tone shows at the start of the file.

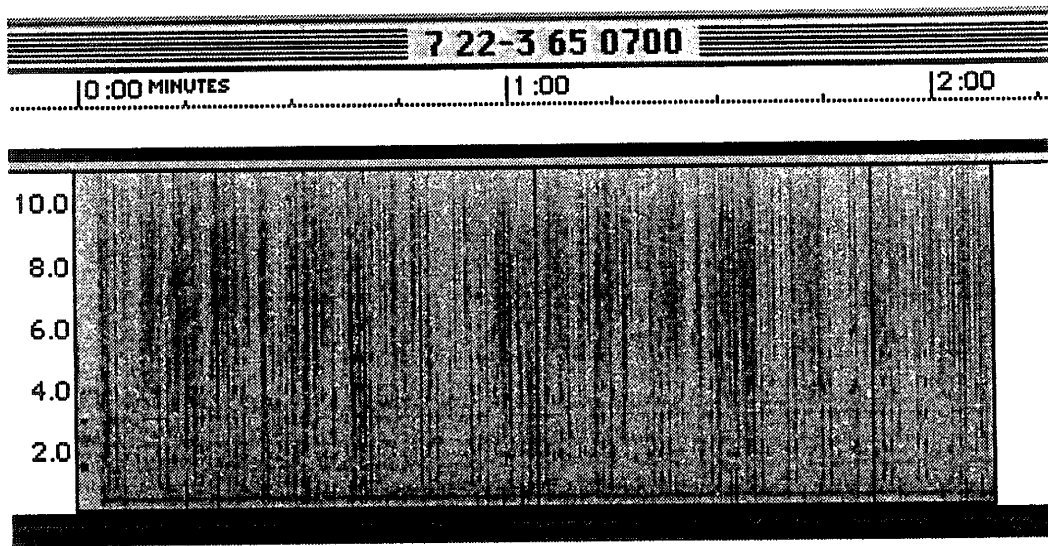




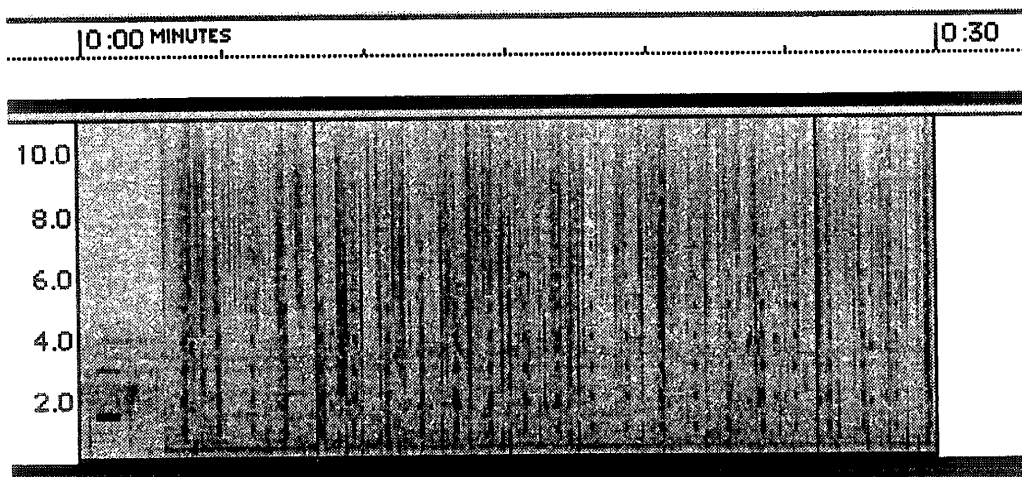
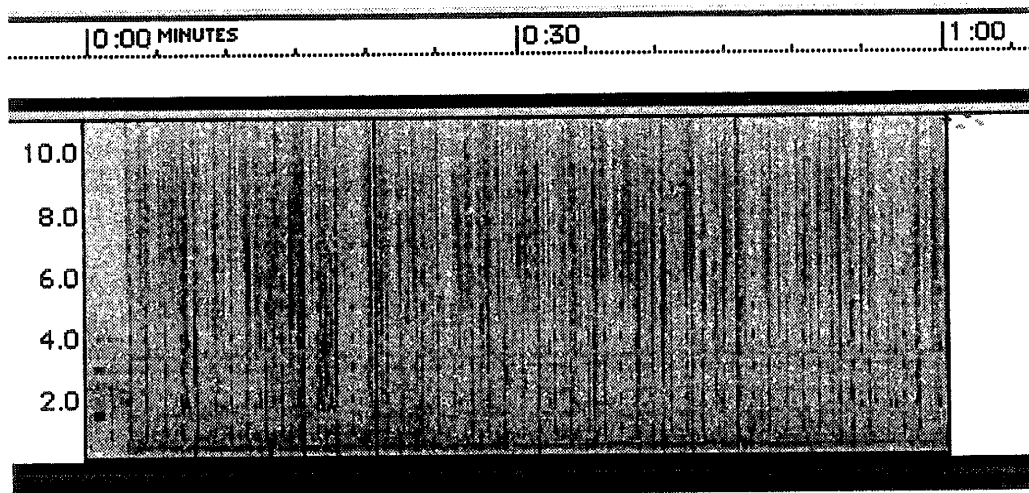
Team 21 Phil Hartzell, Aurora, Nebraska. Observation made south and west of Mark Mueller's.



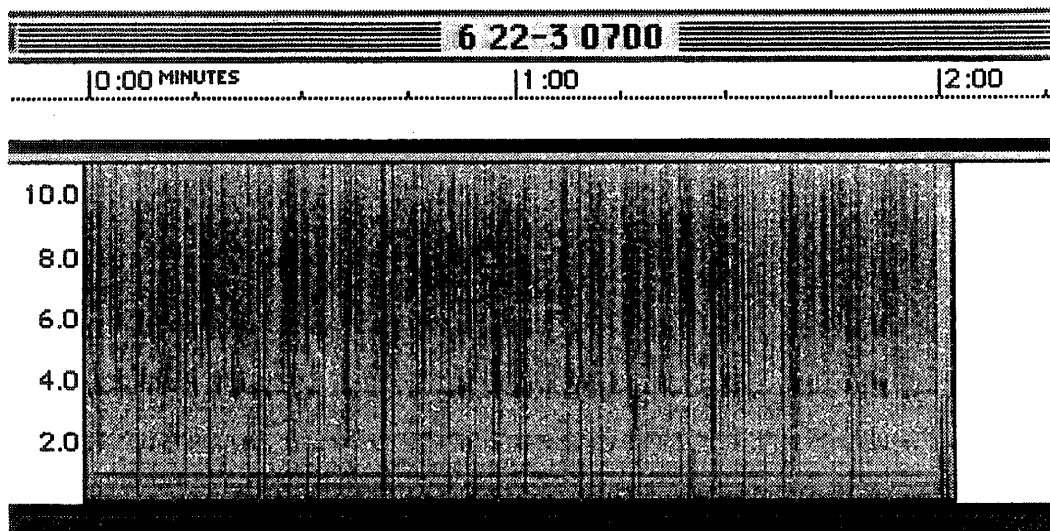
22-3



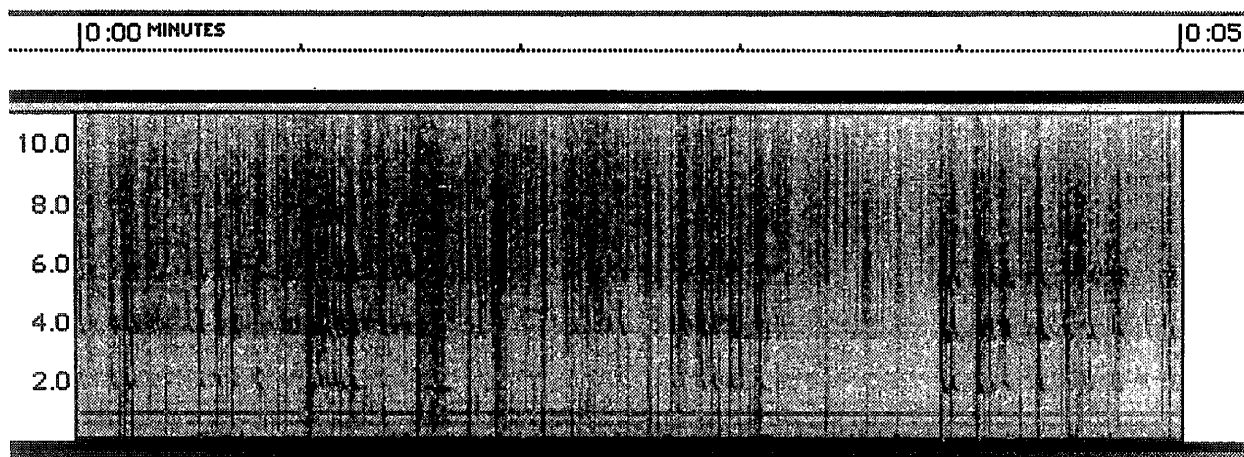
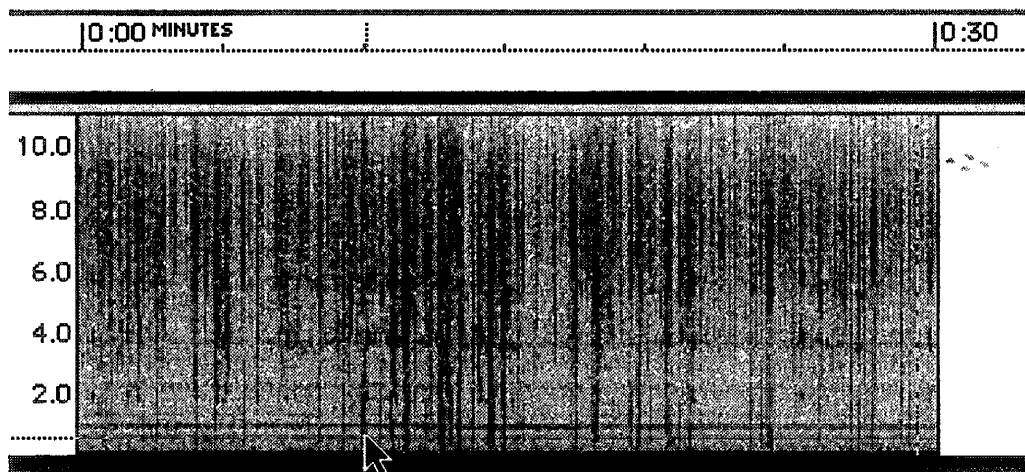
Team 7 Dean Knight, Sonoma Valley High School, Sonoma, California. LORAN present.



First 30 seconds of Operation 22-3.

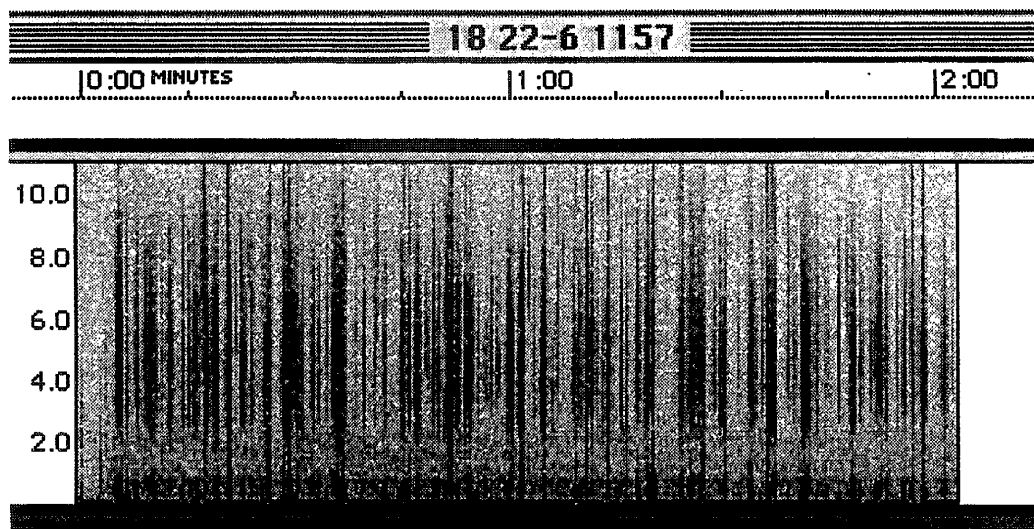


Team 6 Bill Pine, Chaffey High School, Ontario, California. Dense sferics and tweeks. Observation made about 700 kilometers south of Dean Knight.

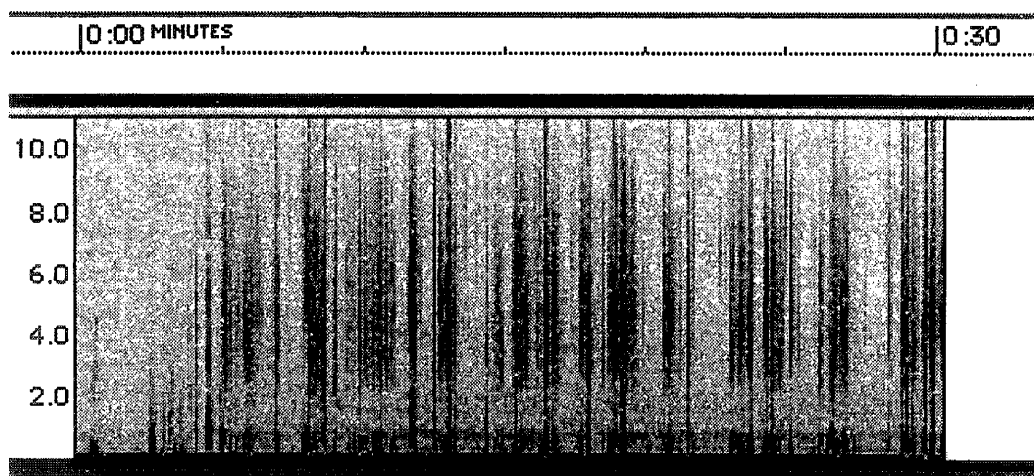
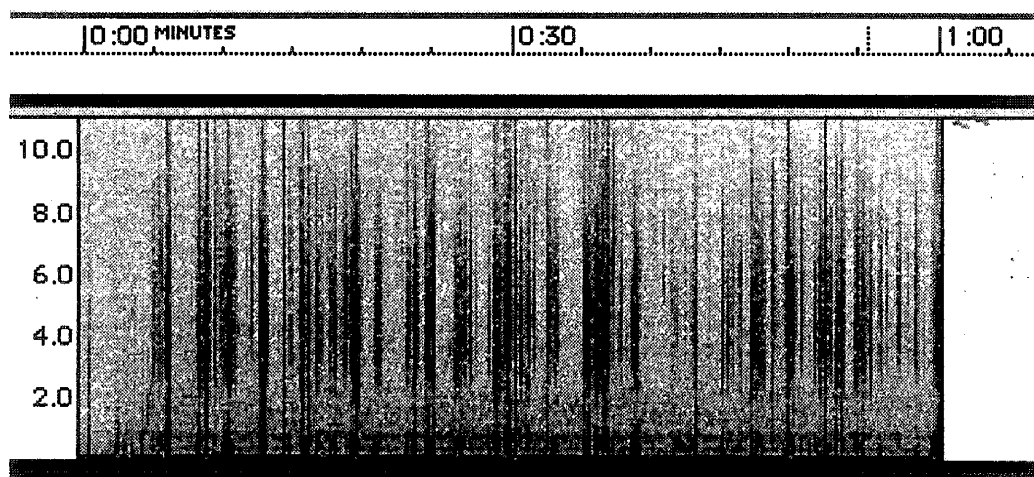


Close-up showing tweek "hooks" at about 2 kHz with harmonics at 4, 6 and 8 kHz.

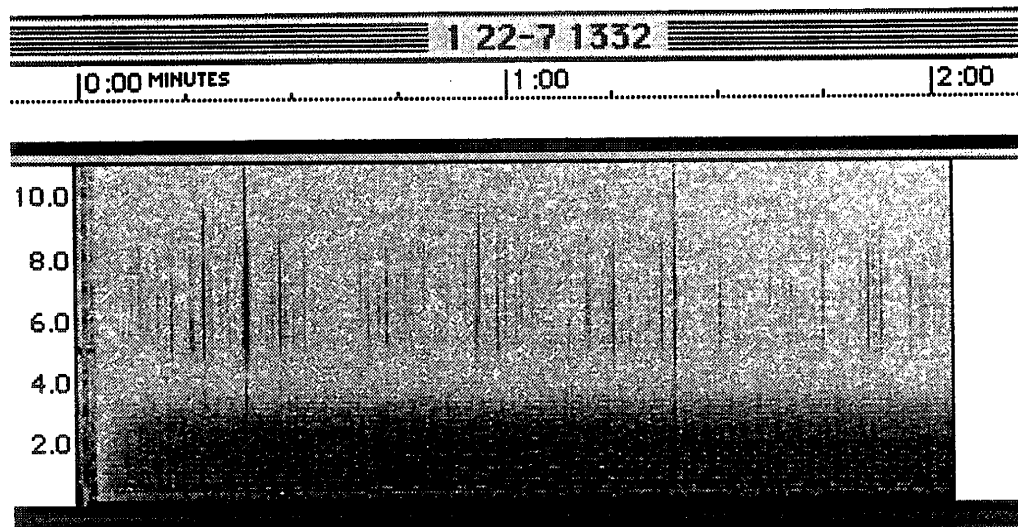
22-6



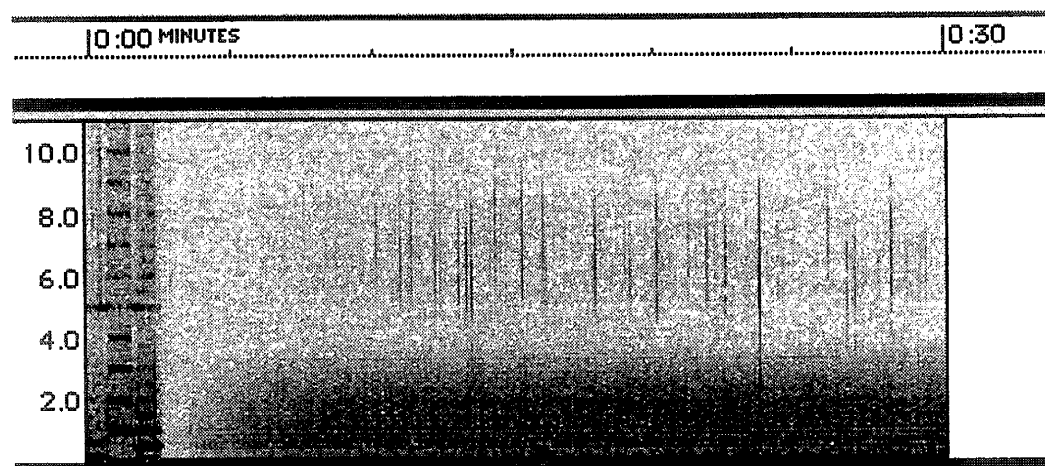
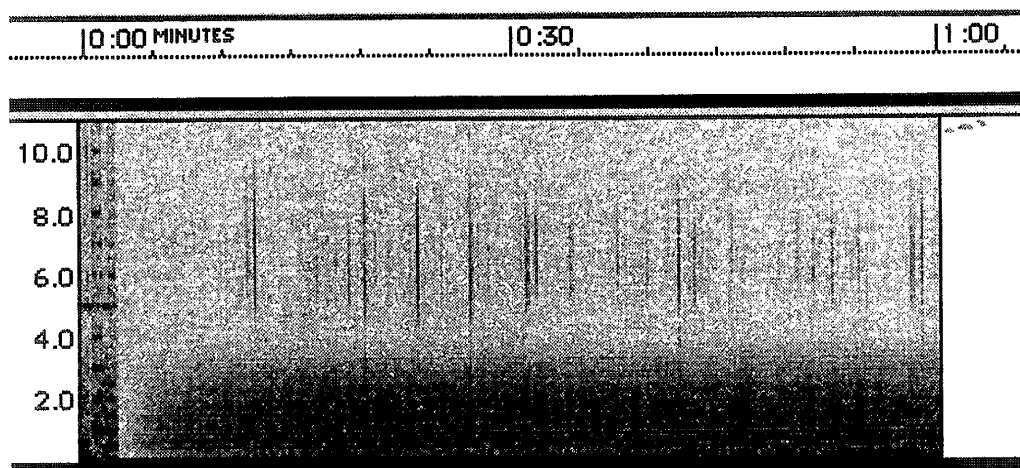
Team 18 David Jones, Columbus, Georgia. Dense sferics.



22-7

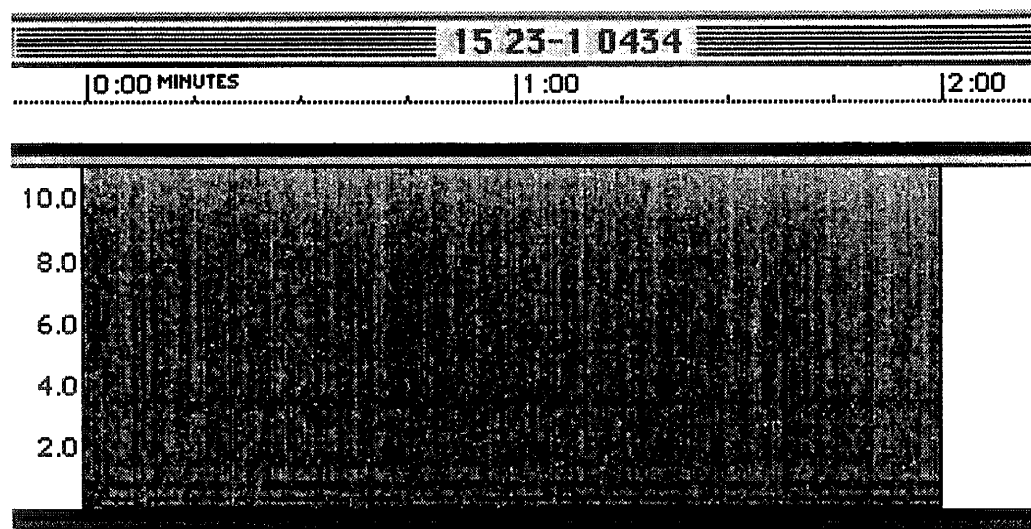


Team 1 Jack Lamb, Belton, Texas. Good sferics, lots of hum.

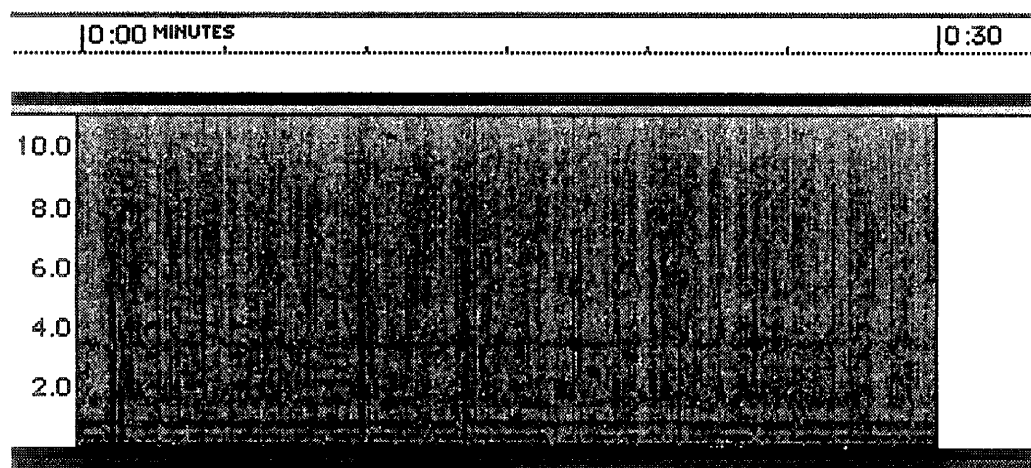
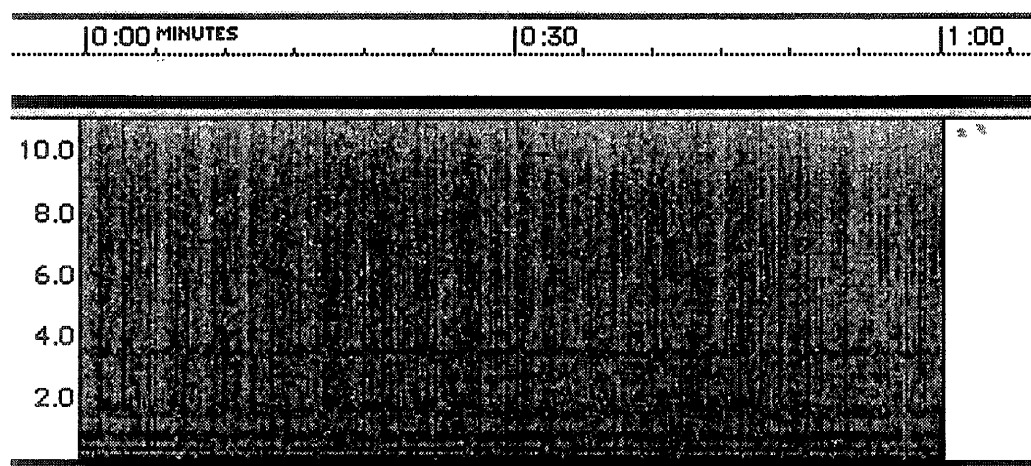


Spectrogram starts with WWV tones.

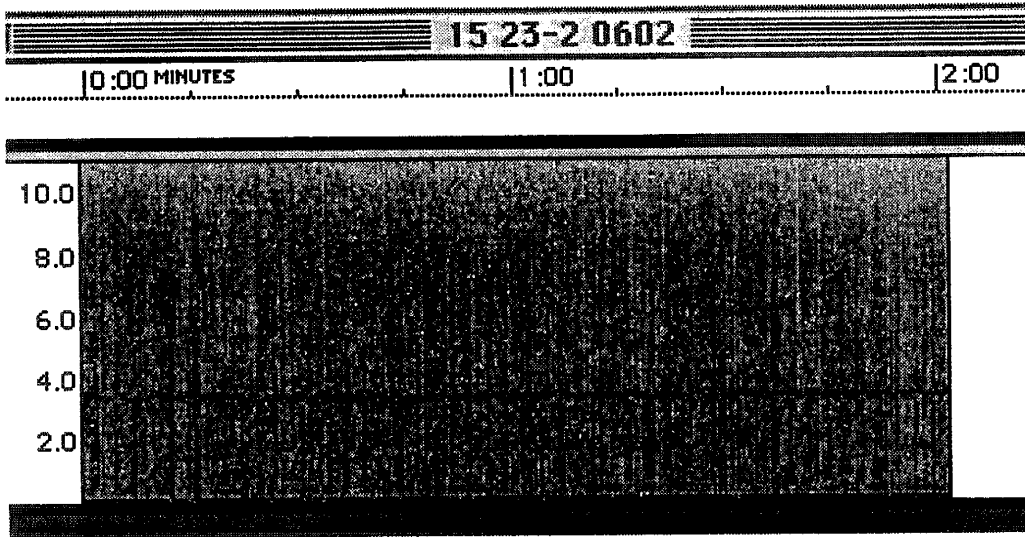
23-1



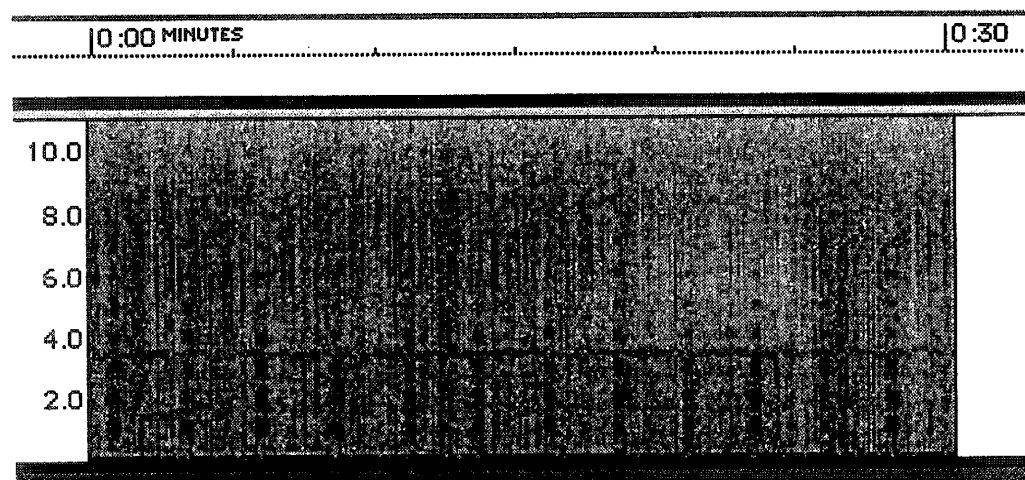
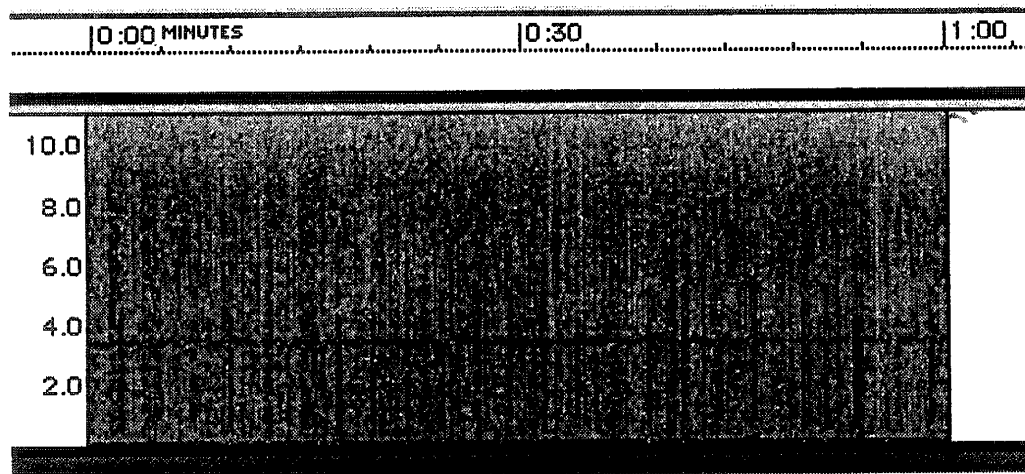
Team 15 Robert Bennett, Las Cruces, new Mexico. Dense sferics and tweeks.



23-2

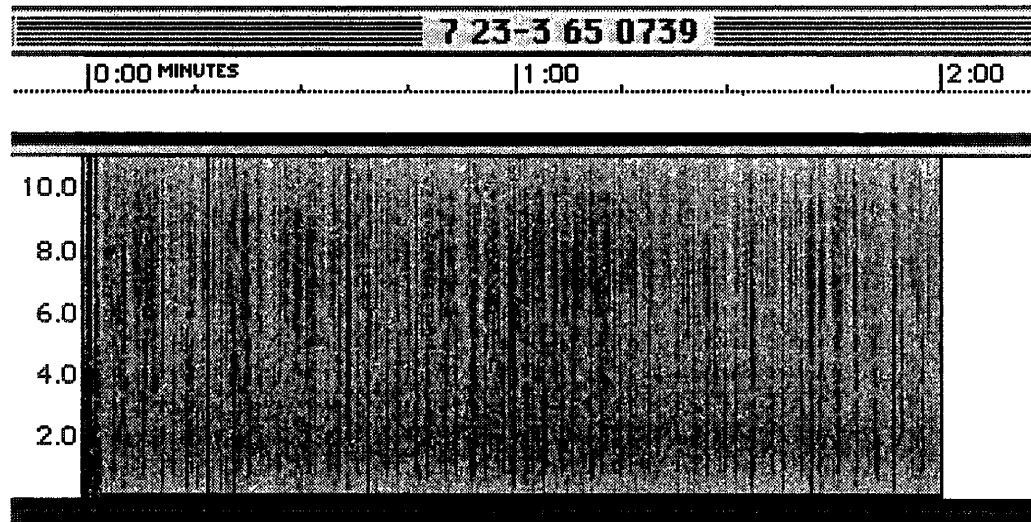


Team 15 Robert Bennett, Las Cruces, New Mexico. Similar conditions to 23-1.

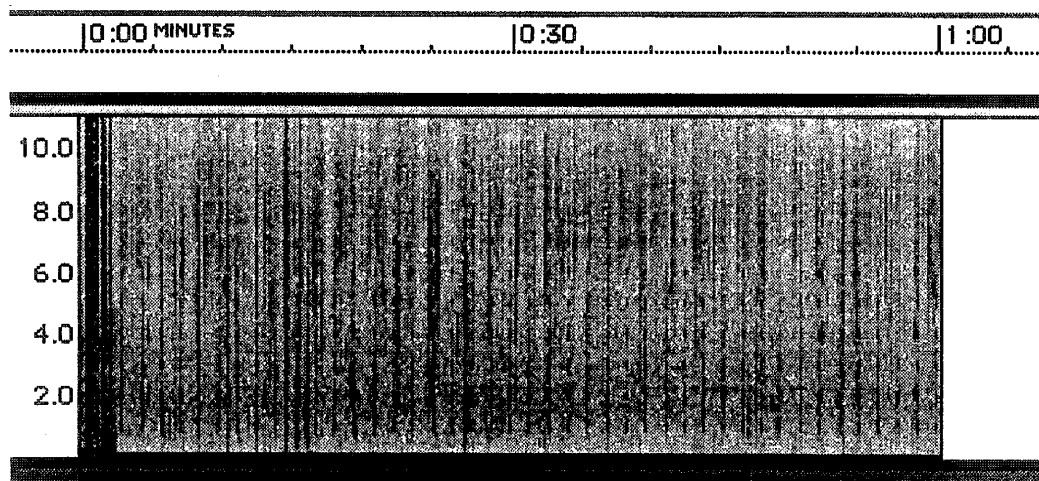
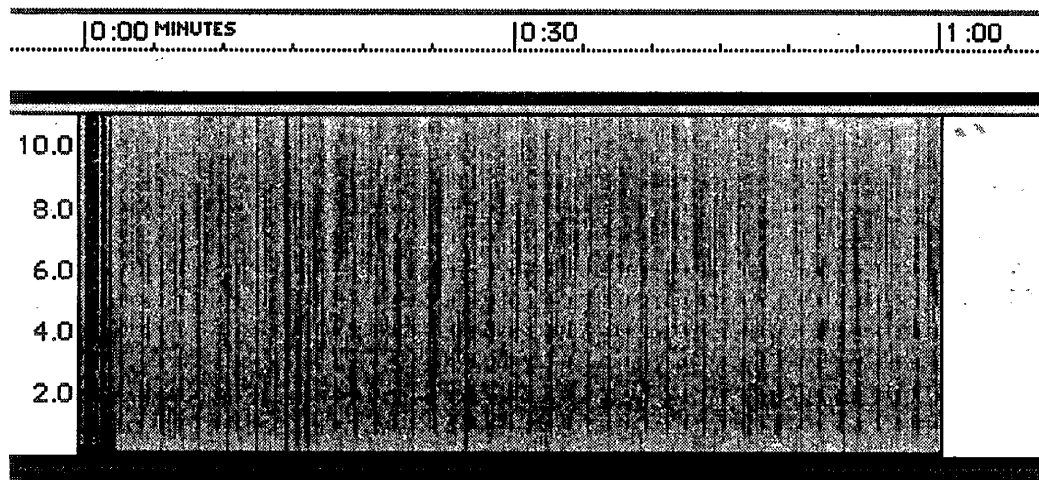


LORAN present.

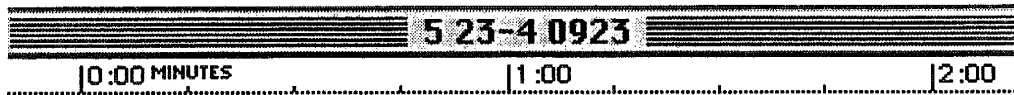
23-3



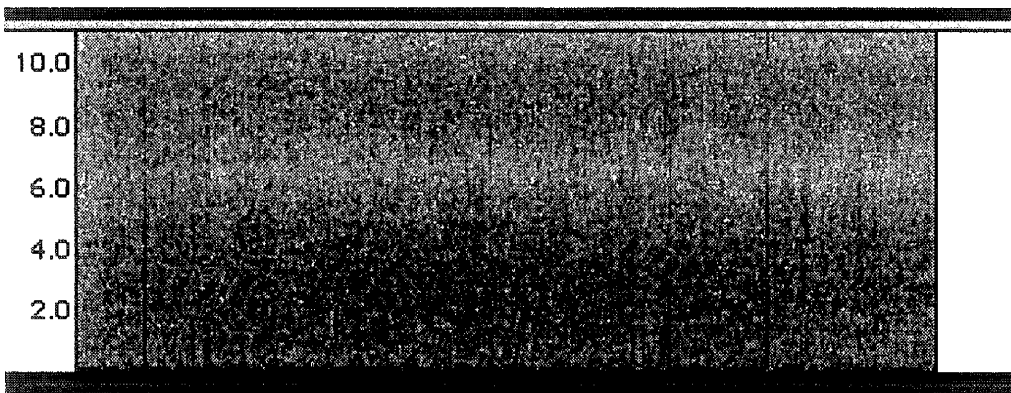
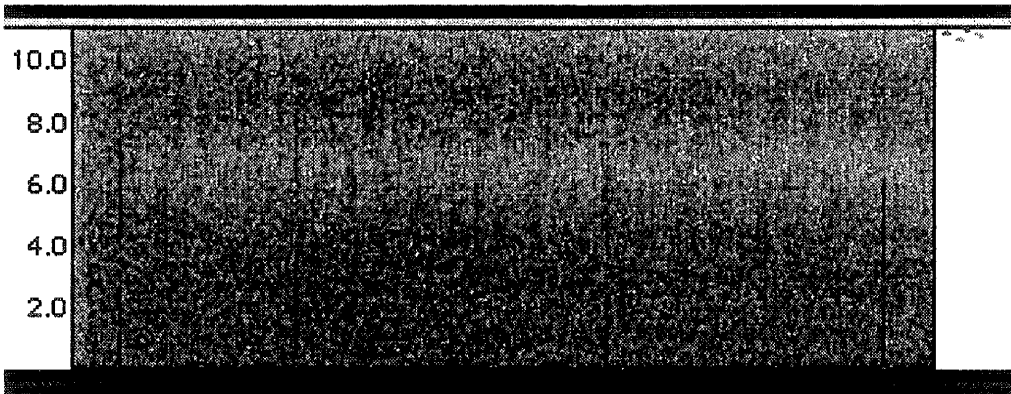
Team 7 Dean Knight, Sonoma Valley High School, Sonoma, California. Strong LORAN.



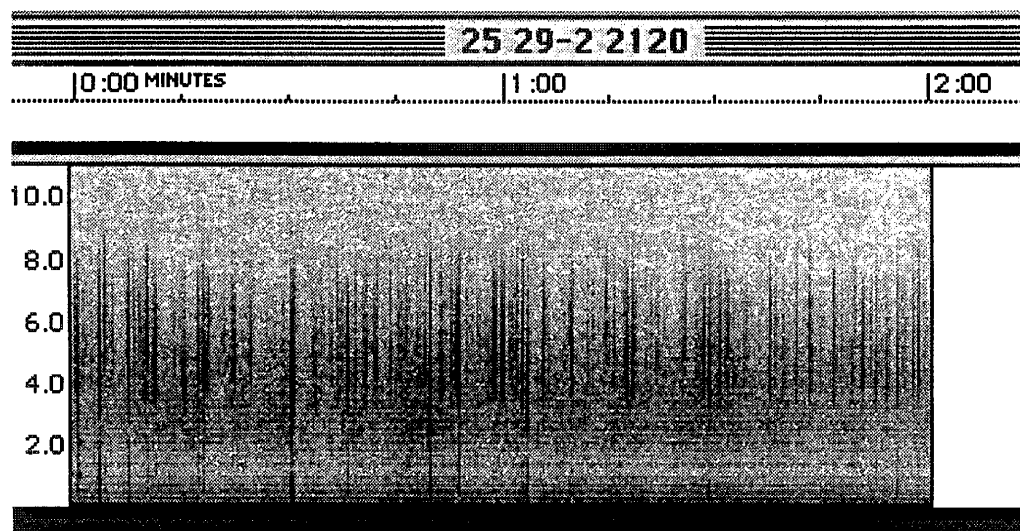
23-4



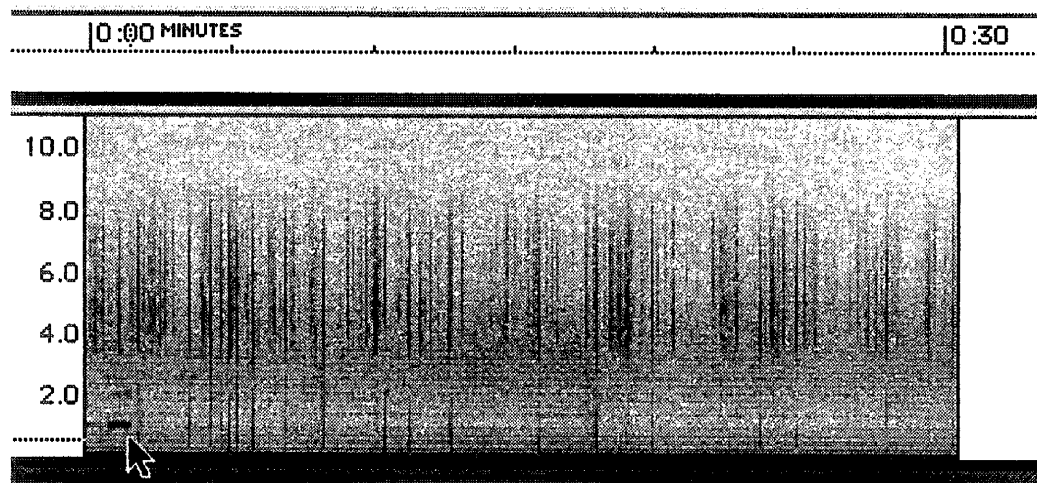
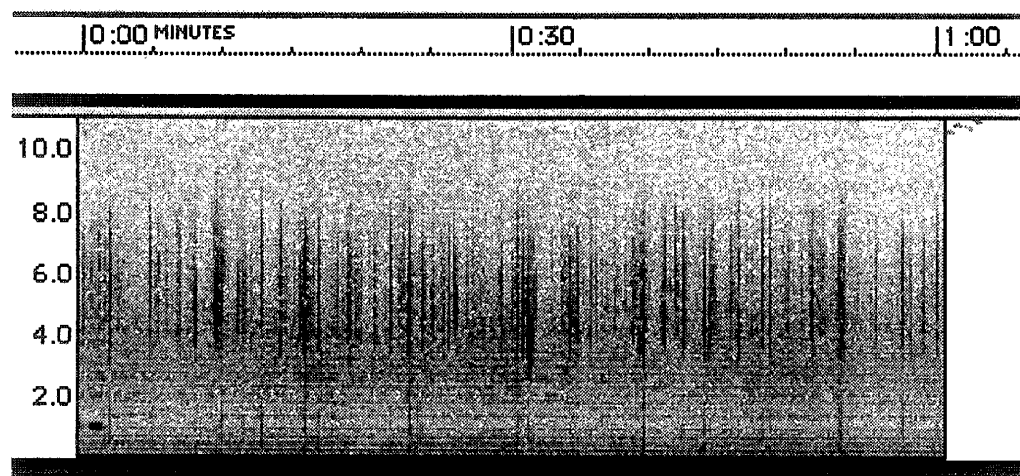
Jean-Claude Touzin, St. Vital, Quebec, Canada. Very quiet conditions.



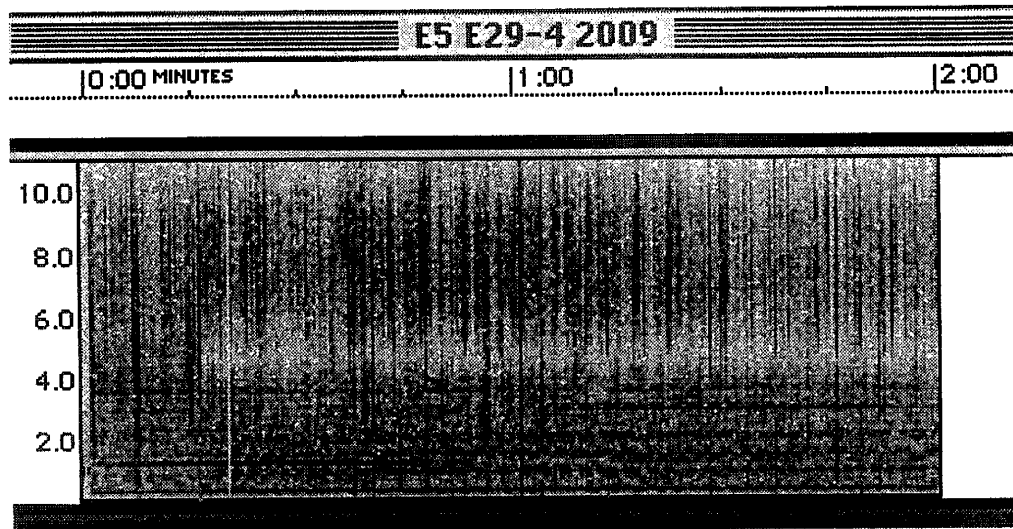
29-2



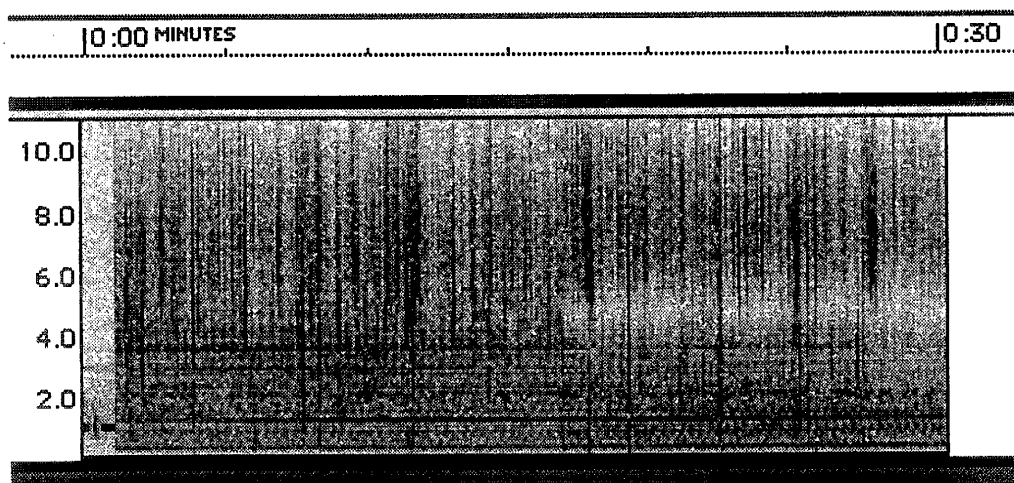
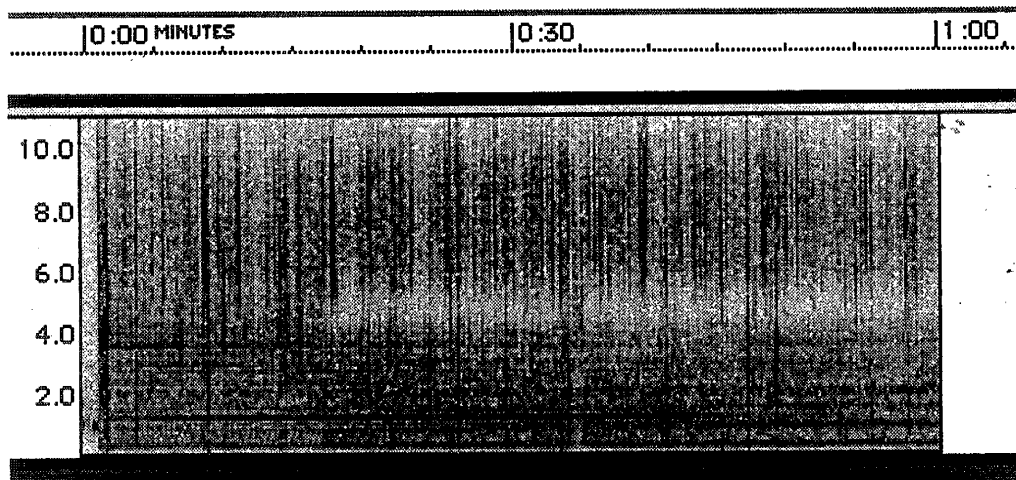
Team 25 Norm Anderson, Cedar Falls, Iowa. Medium density sferics, good signal.



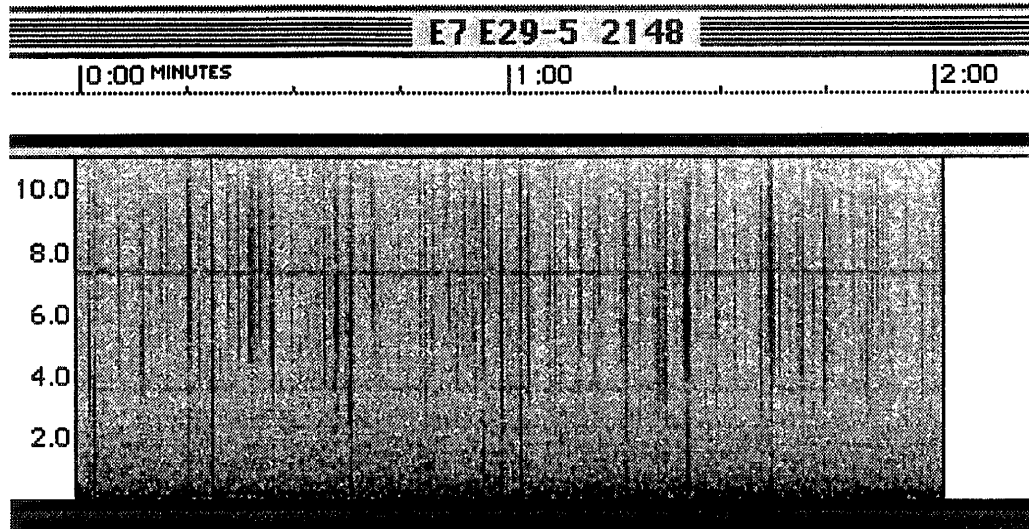
E29-4



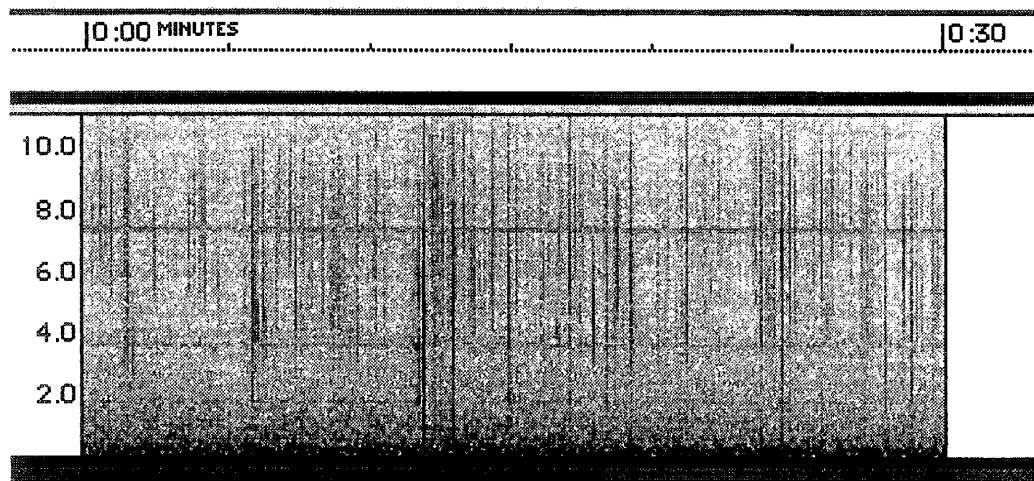
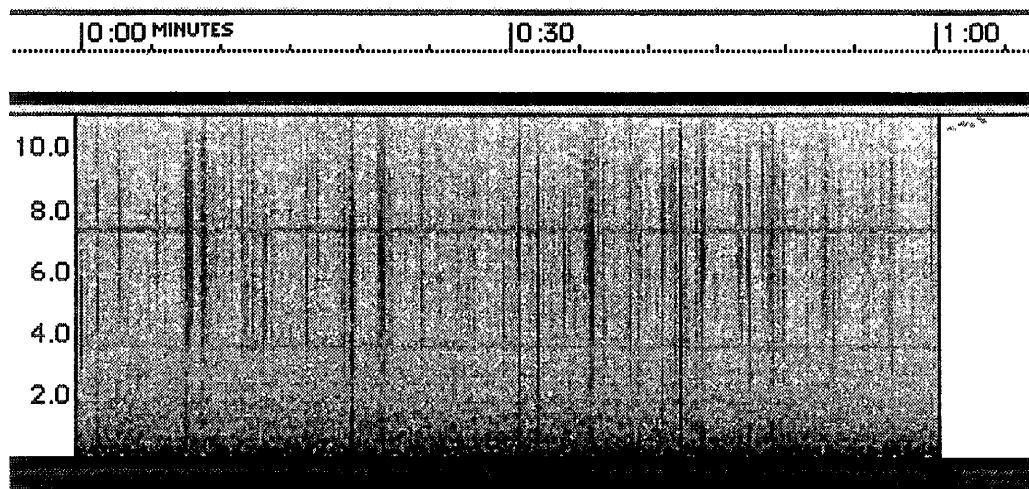
Team E5 Renato Romero, Cumiana, Italy. Dense sferics.



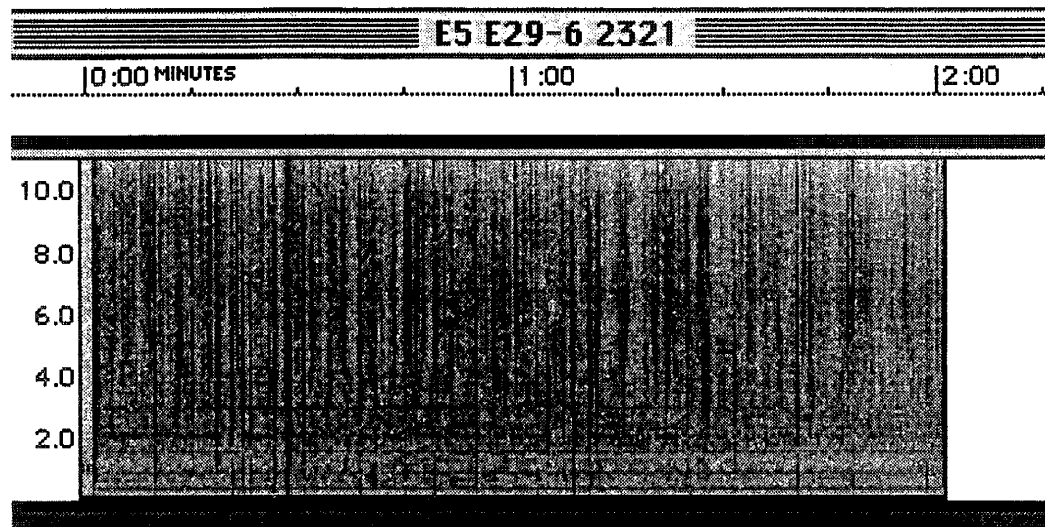
E29-5



Team E7 Alessandro Arrighi, Florence, Italy. Good sferics, medium density.



E29-6



Team E5 Renato Romero, Cumiana, Italy.

