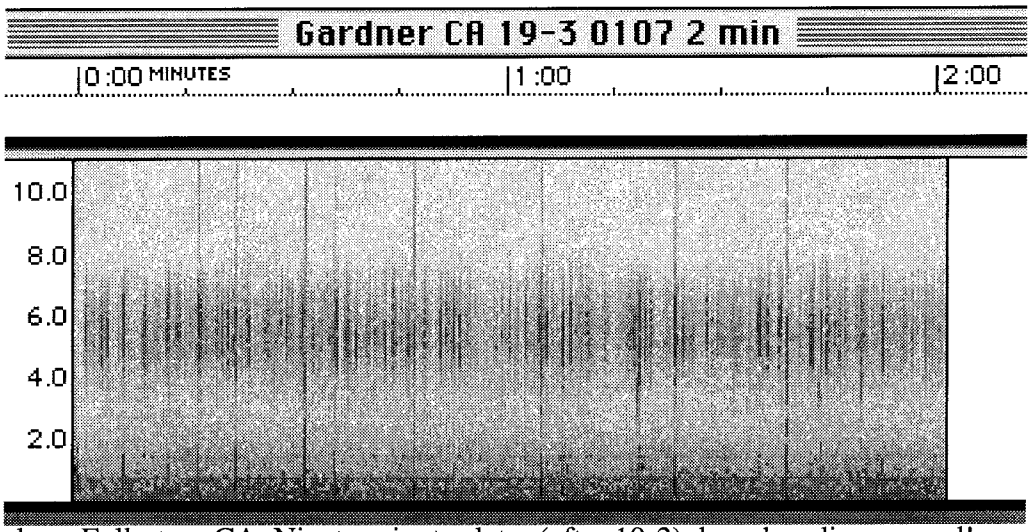
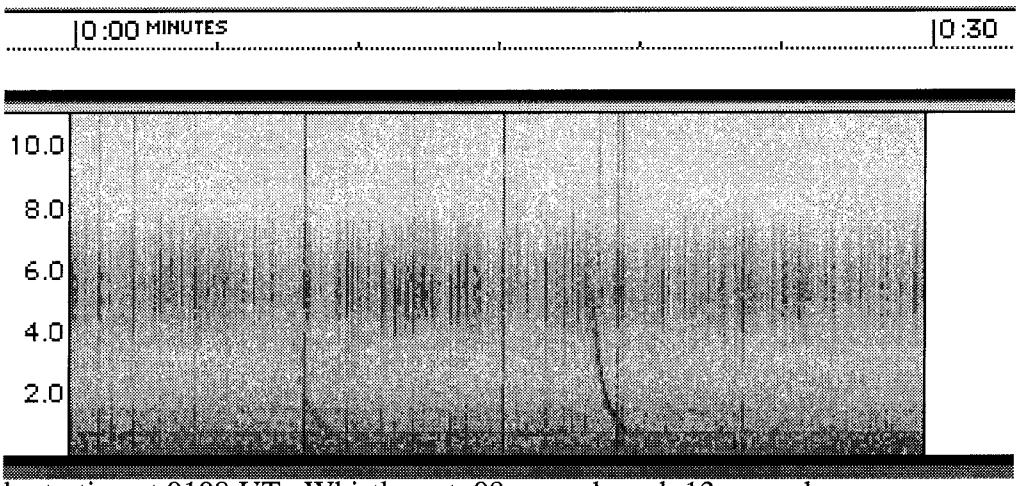
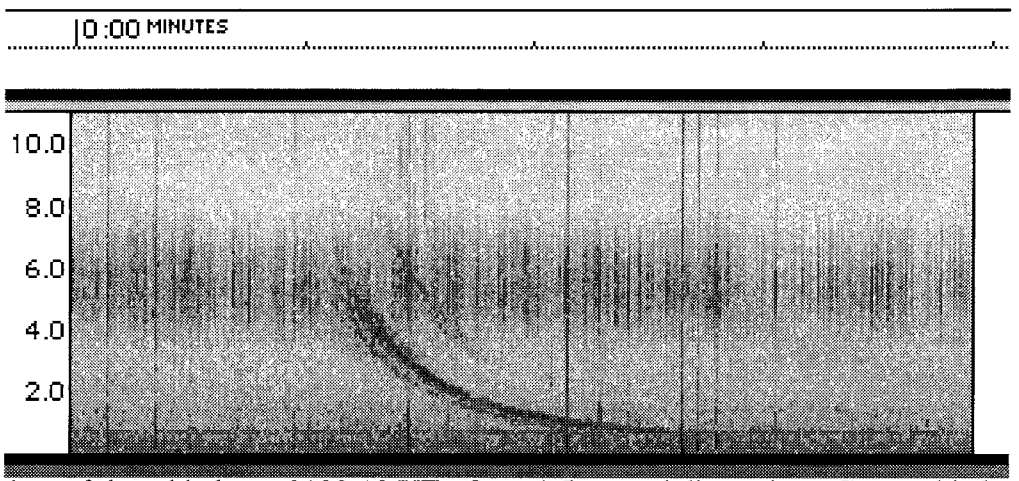
19-3



Kent Gardner, Fullerton, CA Ninety minutes later (after 19-2), hum has disappeared!

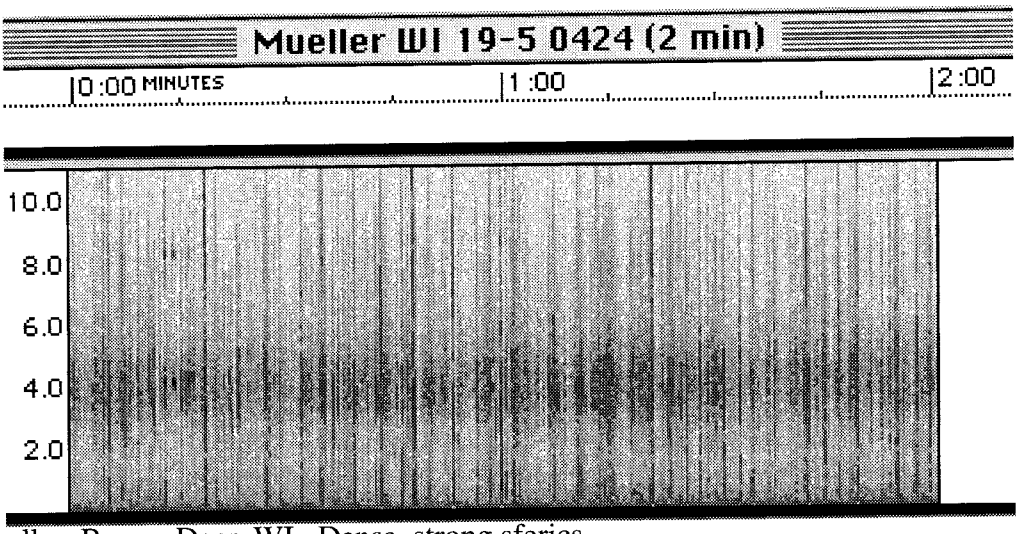


30 seconds starting at 0108 UT. Whistlers at :08 seconds and :13 seconds.

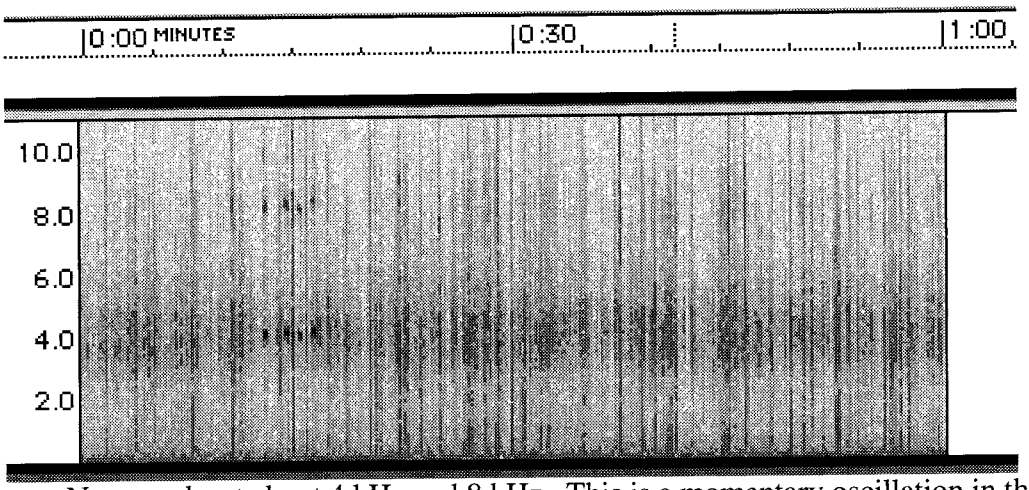


Closeup view of the whistler at 0108:13 UT. Over 1.5 second dispersion. Great whistler!

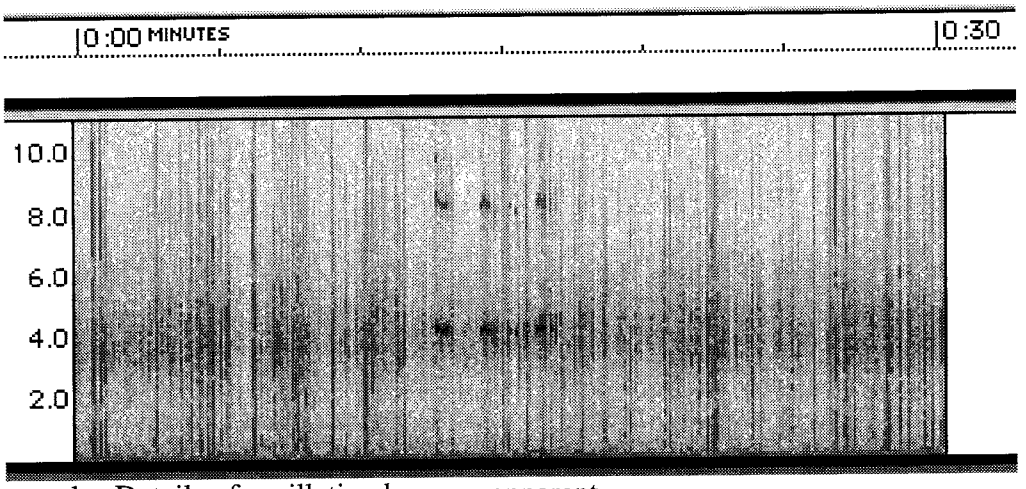
19-5



Mark Mueller, Brown Deer, WI Dense, strong sferics.

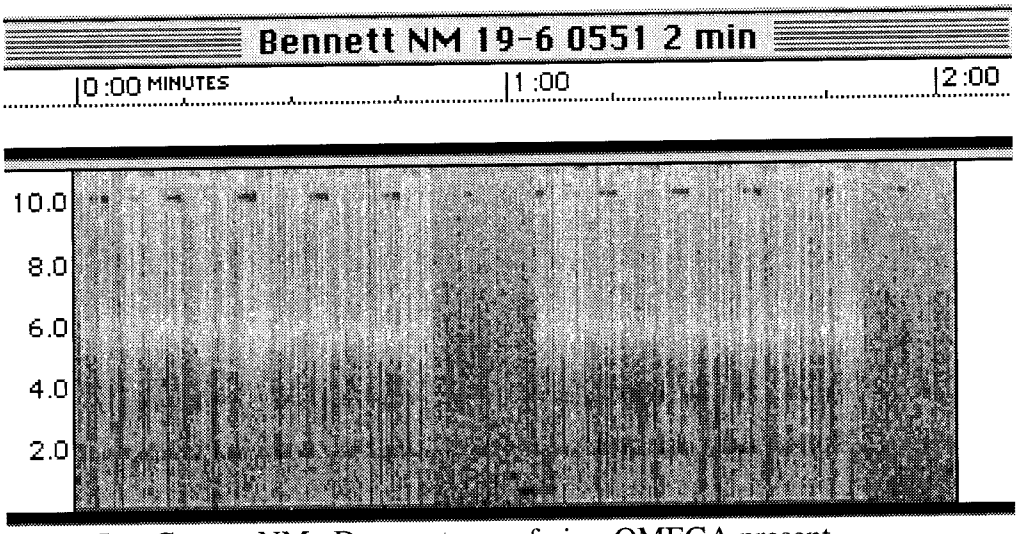


First minute. Note marks at about 4 kHz and 8 kHz. This is a momentary oscillation in the receiver at 4 kHz and the first harmonic. Sounds like a high pitched squeal.

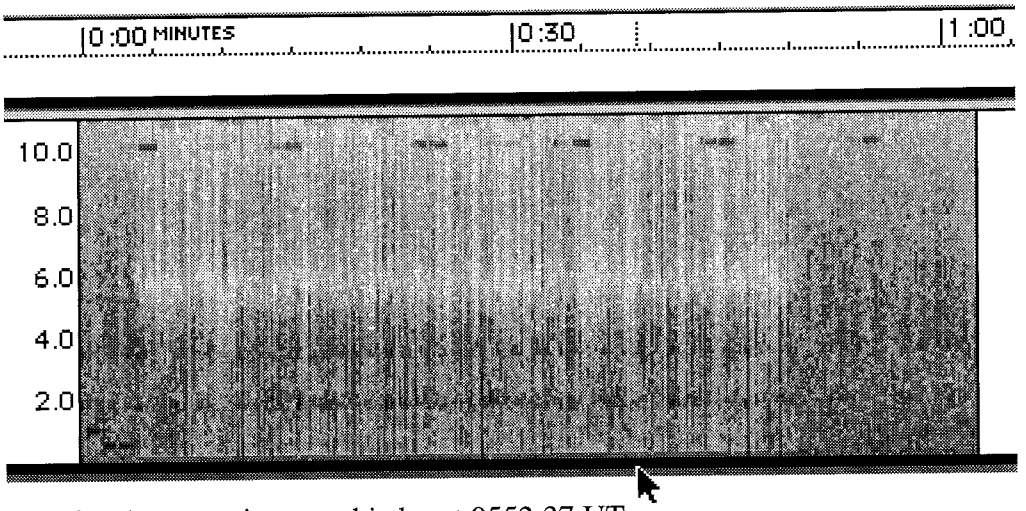


First 30 seconds. Details of oscillation become apparent.

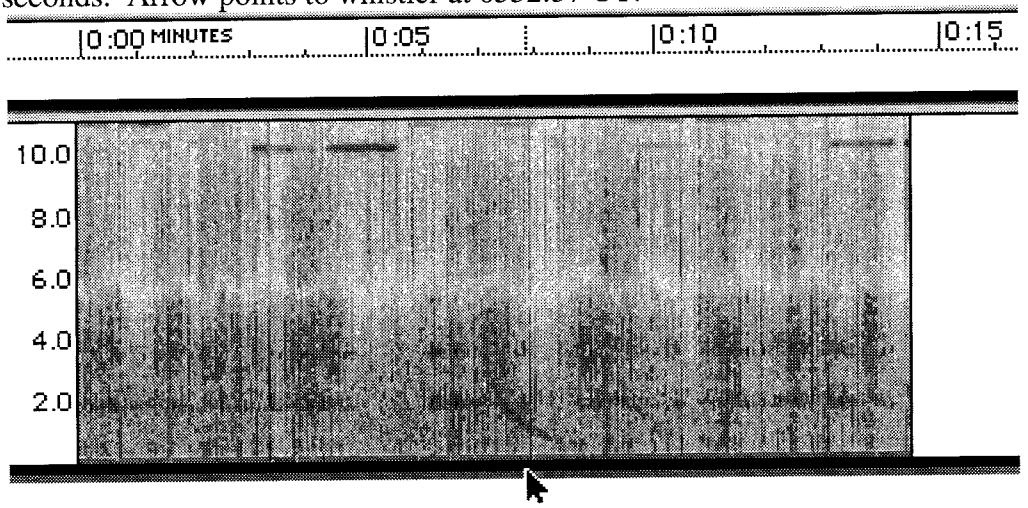
19-6



Robert Bennett, Las Cruces, NM Dense, strong sferics, OMEGA present.

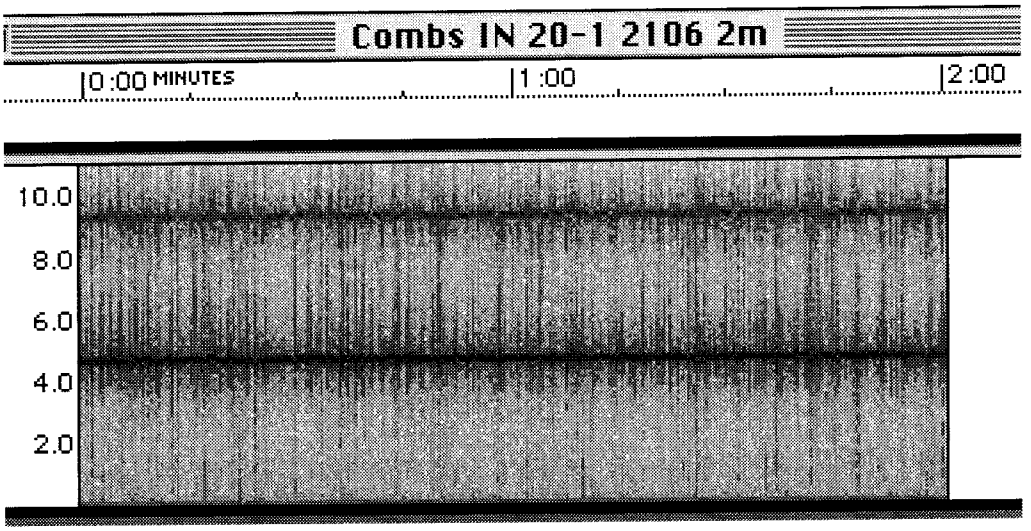


First 30 seconds. Arrow points to whistler at 0552:37 UT.

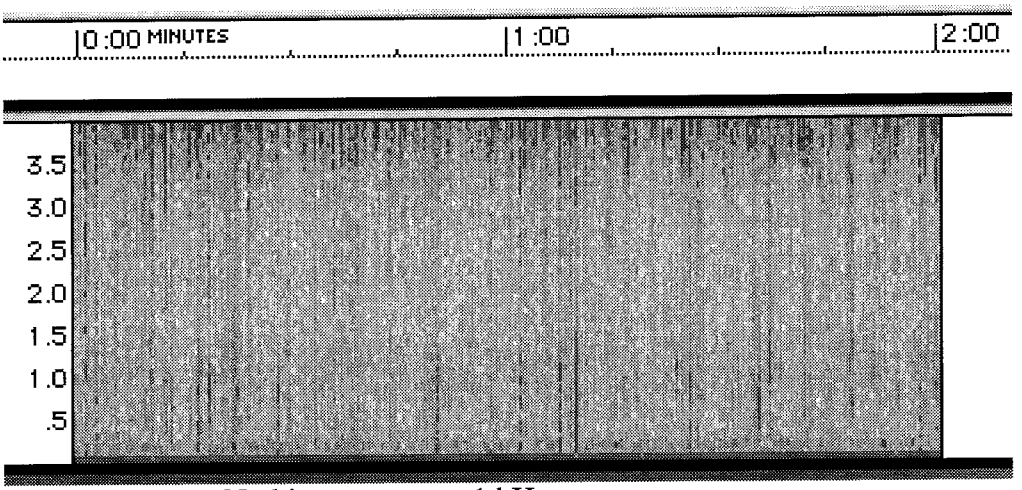


Whistler closeup. Three OMEGA stations are present: HI at :03 and :13, ND at :04, Japan at :10.

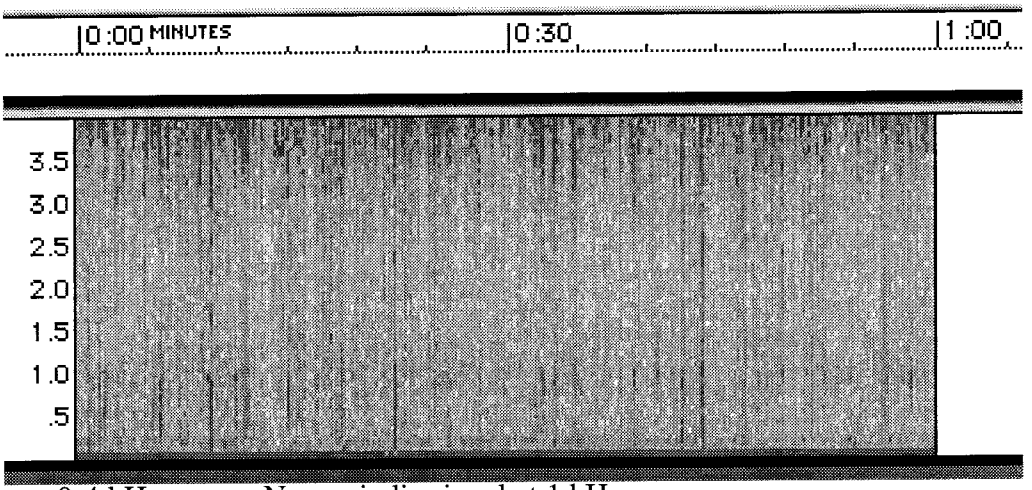
20-1



Bill combs, Crawfordsville, IN High pitched oscillation appears at about 4.7 kHz and 9.4 kHz.

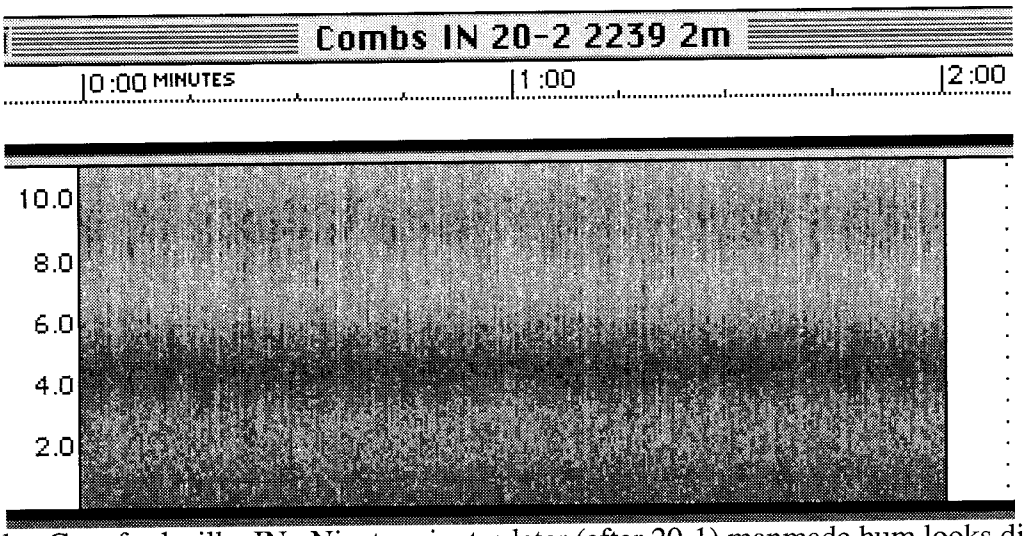


0-4 kHz frequency range. Nothing appears at 1 kHz.

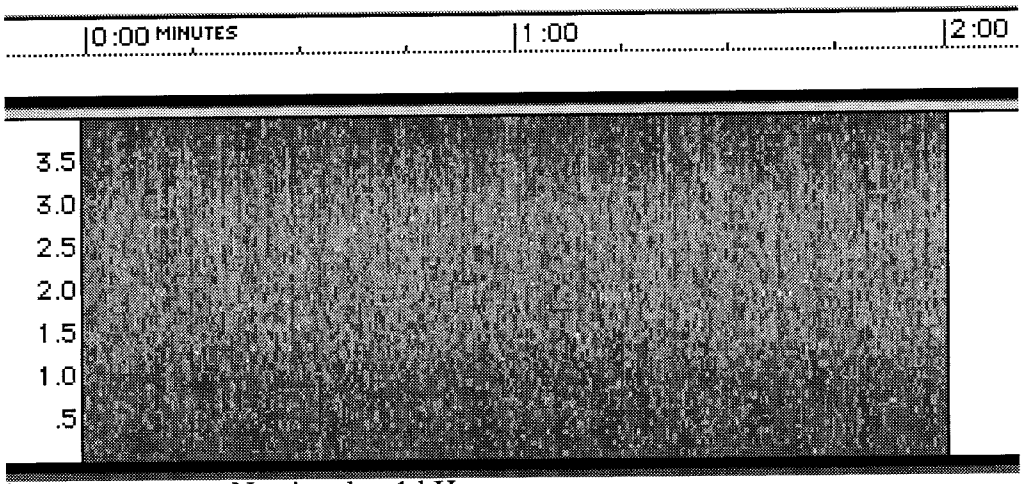


first minute, 0-4 kHz range. No, periodic signal at 1 kHz.

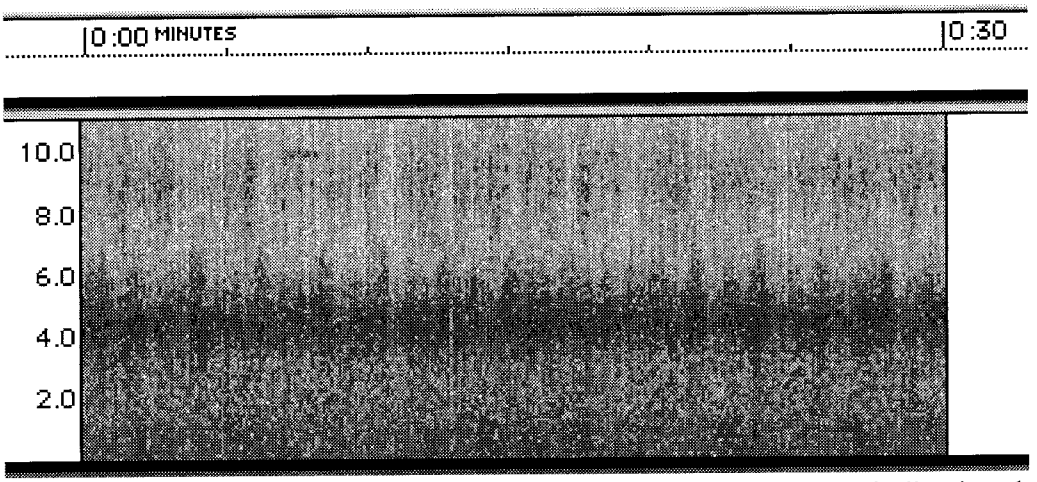
20-2



Bill Combs, Crawfordsville, IN Ninety minutes later (after 20-1) manmade hum looks different.

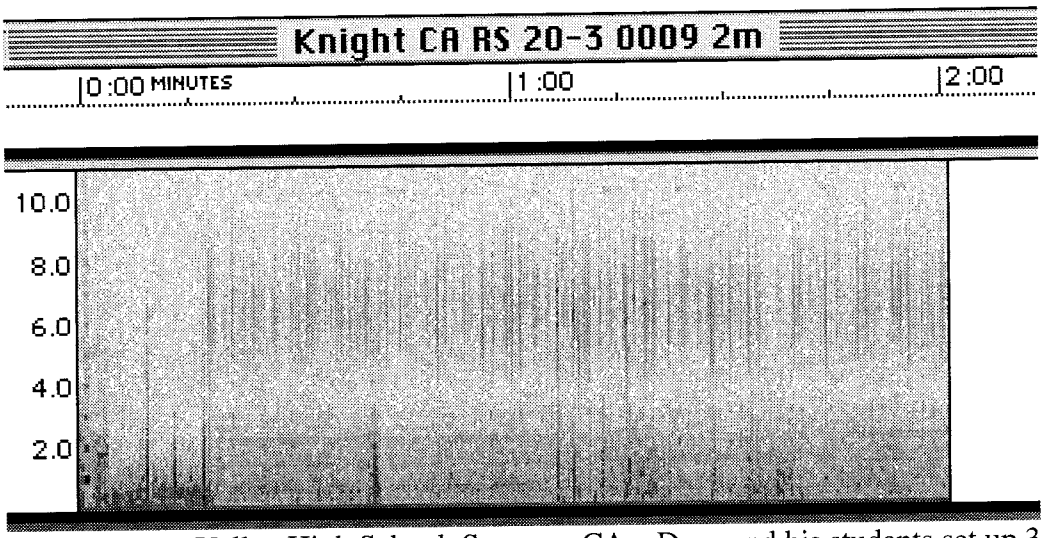


0-4 kHz frequency range. No signal at 1 kHz.

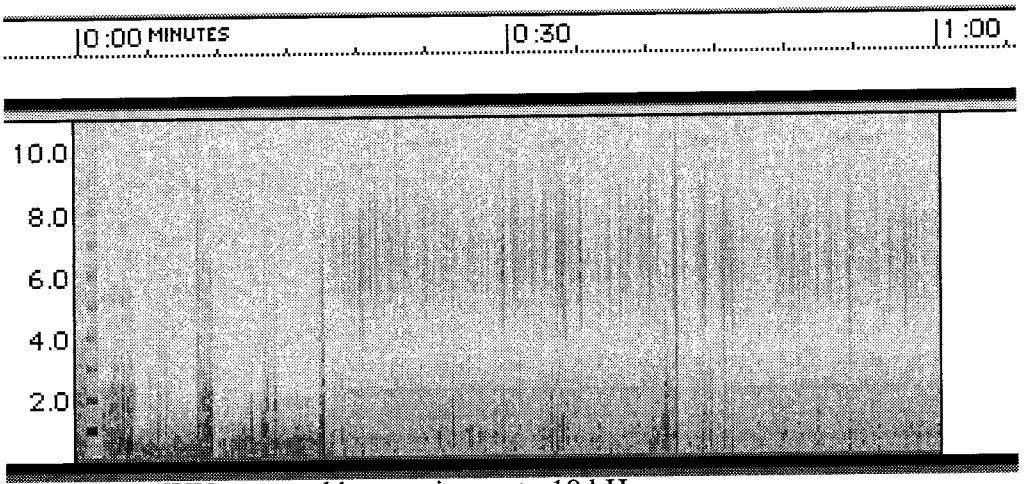


First 30 seconds, 0-11 kHz frequency range. Note OMEGA signal is present indicating the receiver is working properly.

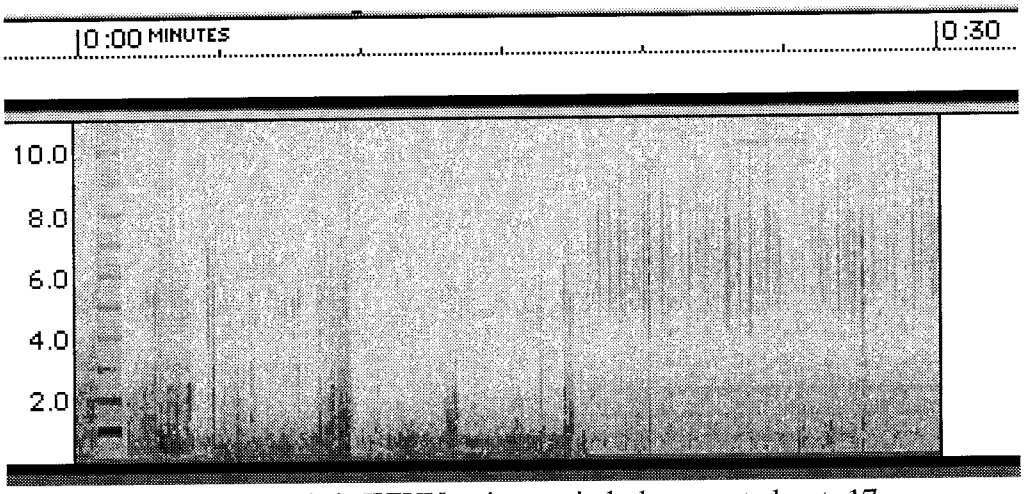
20-3



Dean Knight, Sonoma Valley High School, Sonoma, CA Dean and his students set up 3 receivers. WWV tone at the beginning, OMEGA present, medium density sferics.

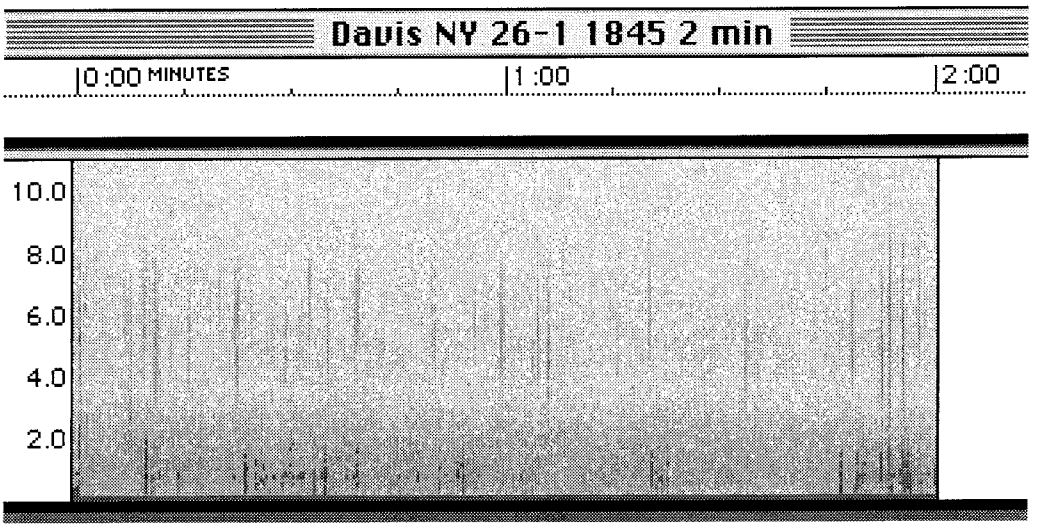


First minute. Note WWV tone and harmonics up to 10 kHz.

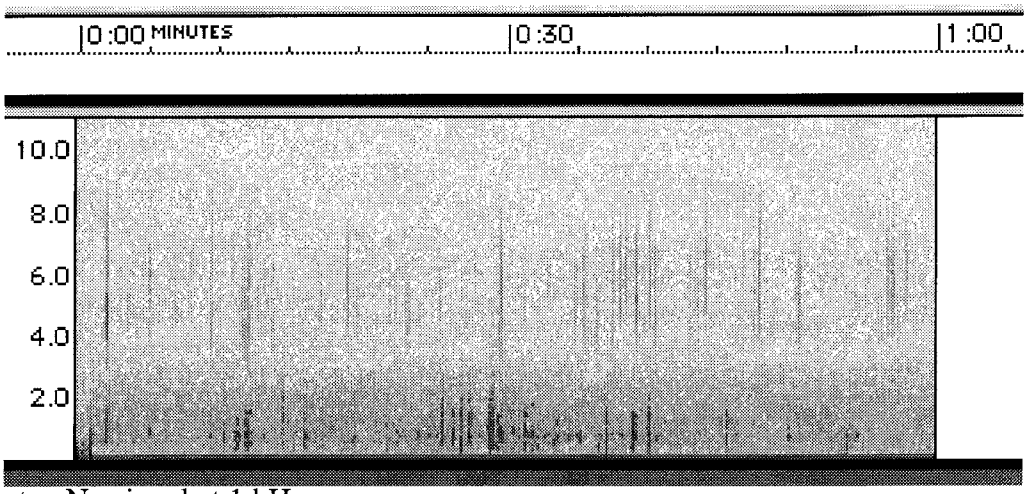


First 30 seconds. First 15 seconds is WWV voice; switch thrown at about :17 sec.

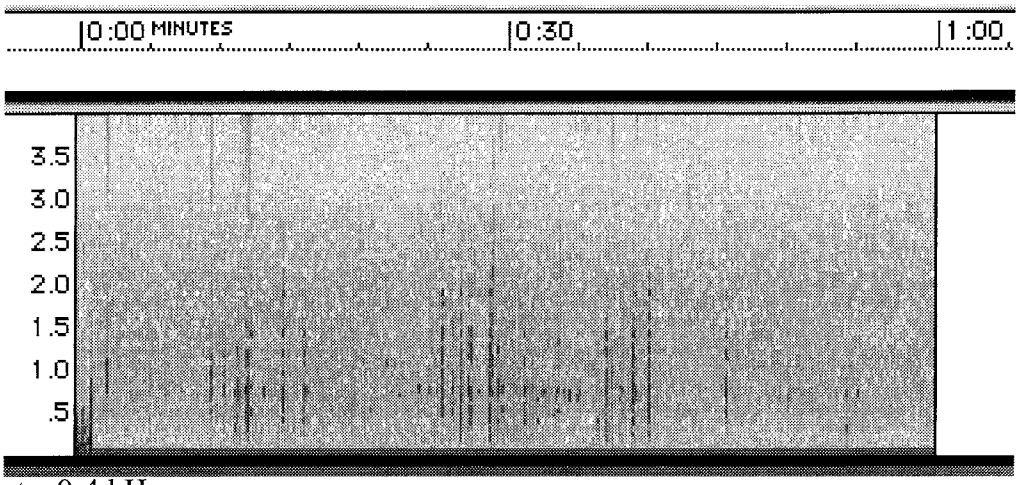
26-1



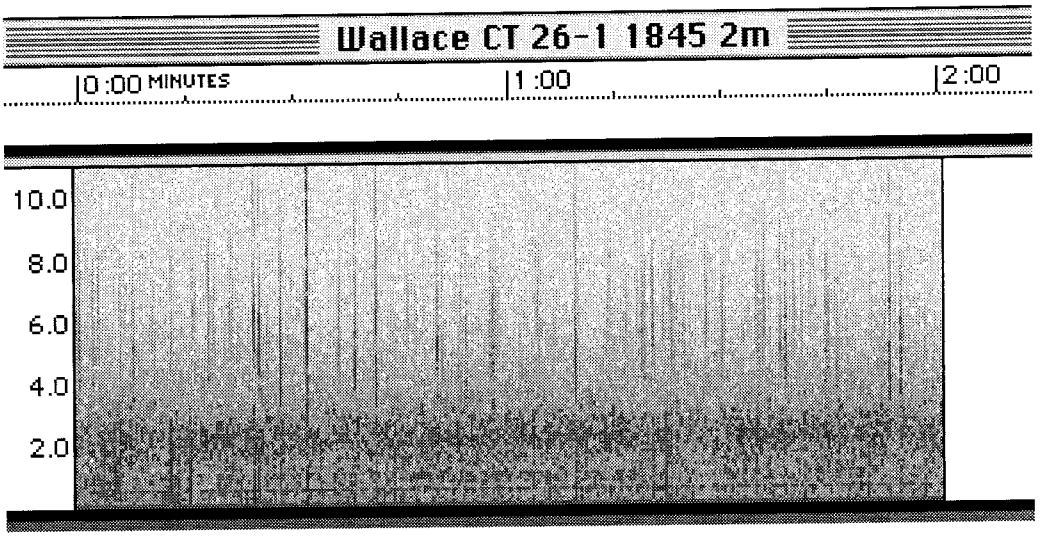
Stephen Davis, Fort Edwards, NY Medium density sferics.



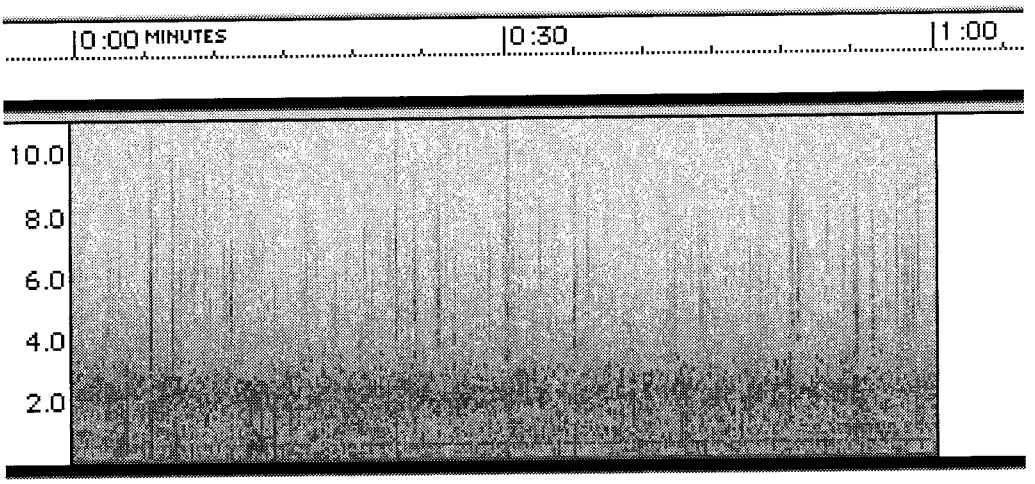
First minute. No signal at 1 kHz.



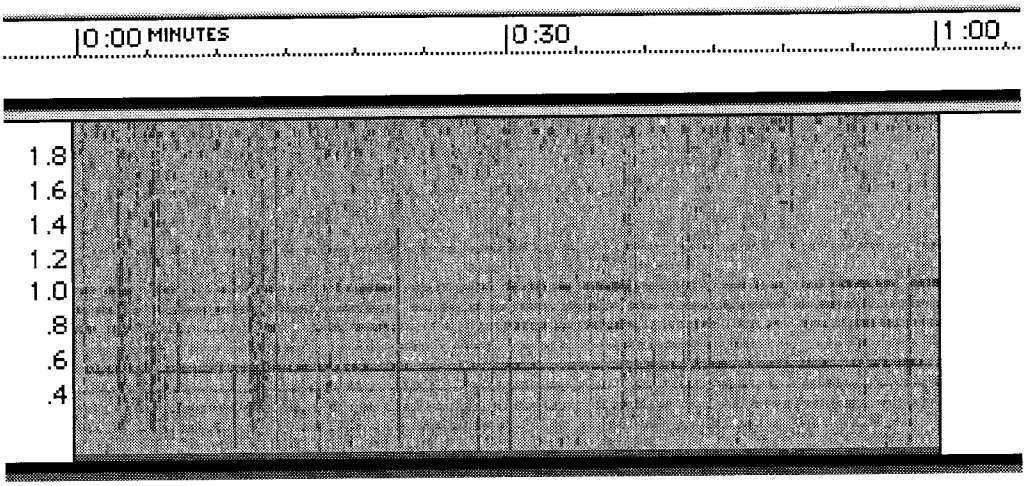
First minute, 0-4 kHz.



Jon Wallace, Litchfield, CT Another tape of 26-1 - similar to Stephen Davis's tape.

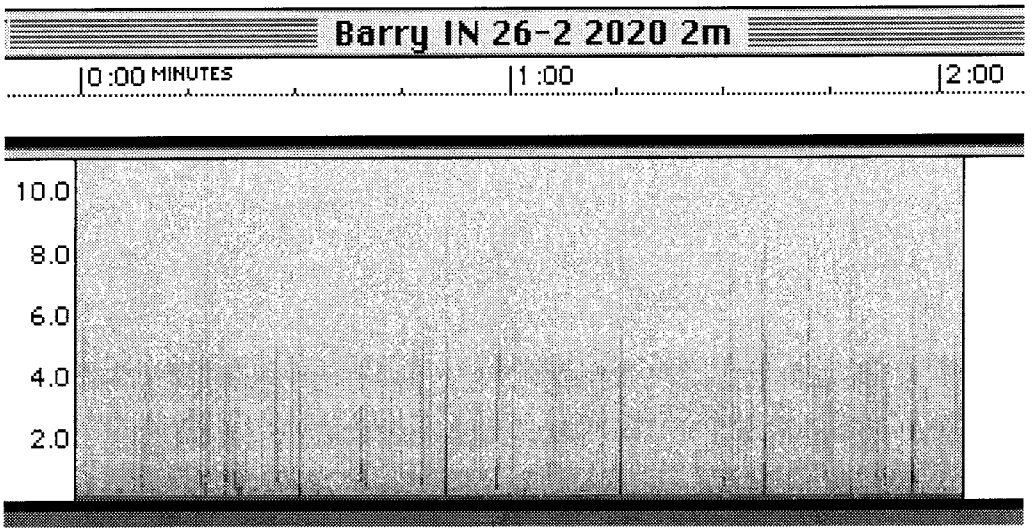


First minute.

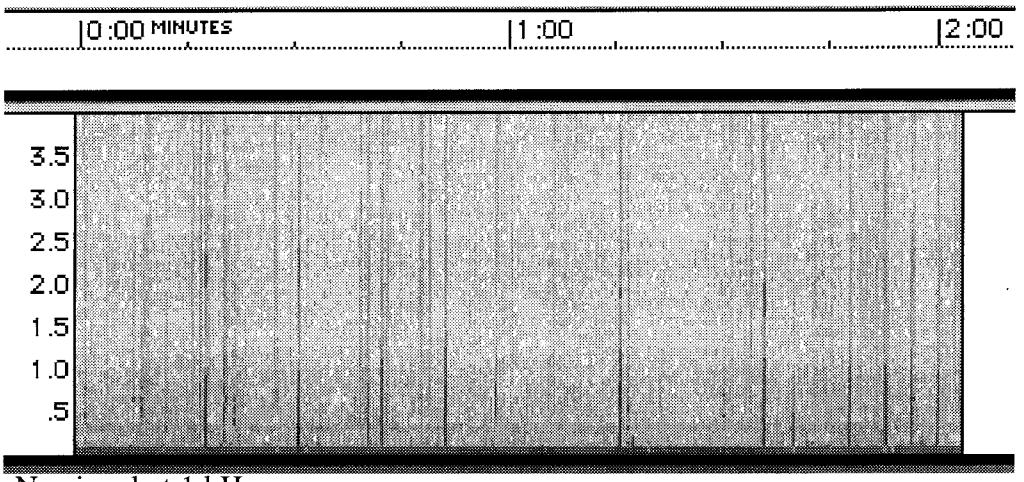


First minute. 0-2 kHz; note the hum lines, with one at 1 kHz. Unfortunately, the 10 sec ON/10 sec OFF pattern is not present.

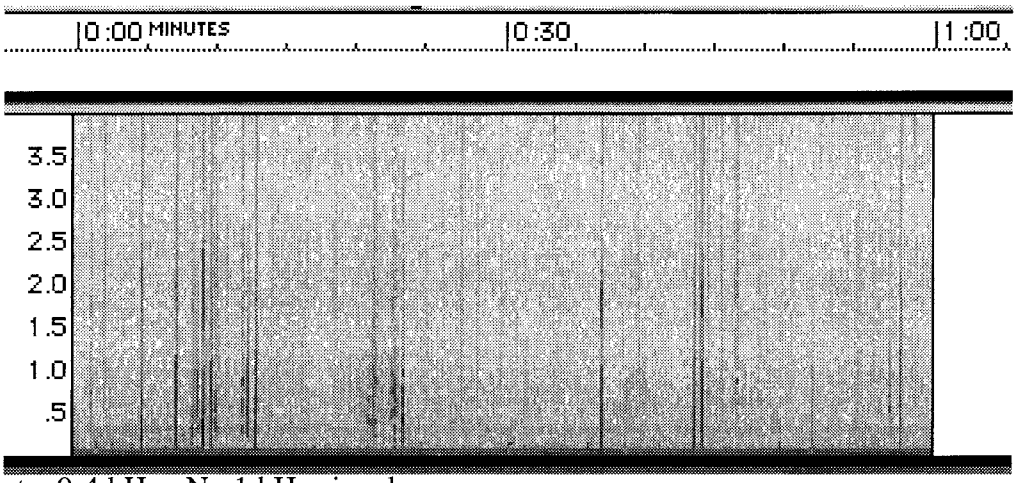
26-2



John Barry, Seeger High School, West Lebanon, IN Low density sferics.



0-4 kHz. No signal at 1 kHz.



First minute, 0-4 kHz. No 1 kHz signal.