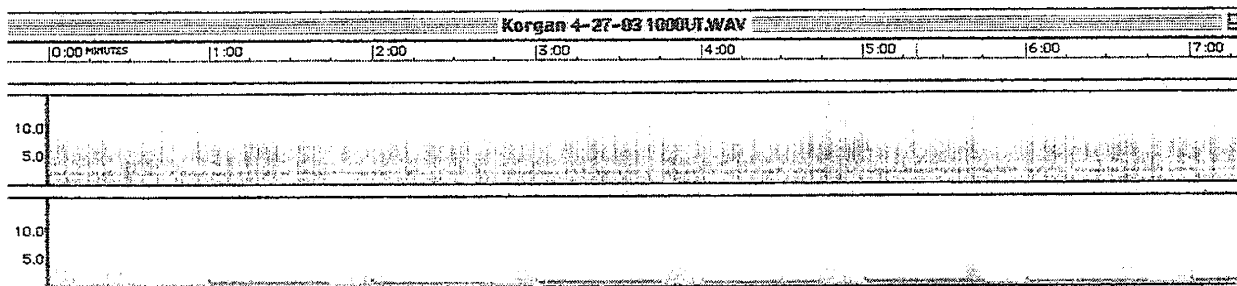
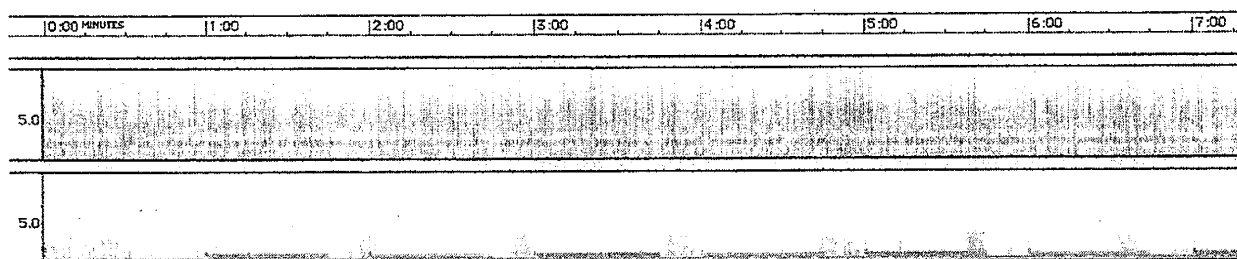


4-27-03 Shawn Korgan

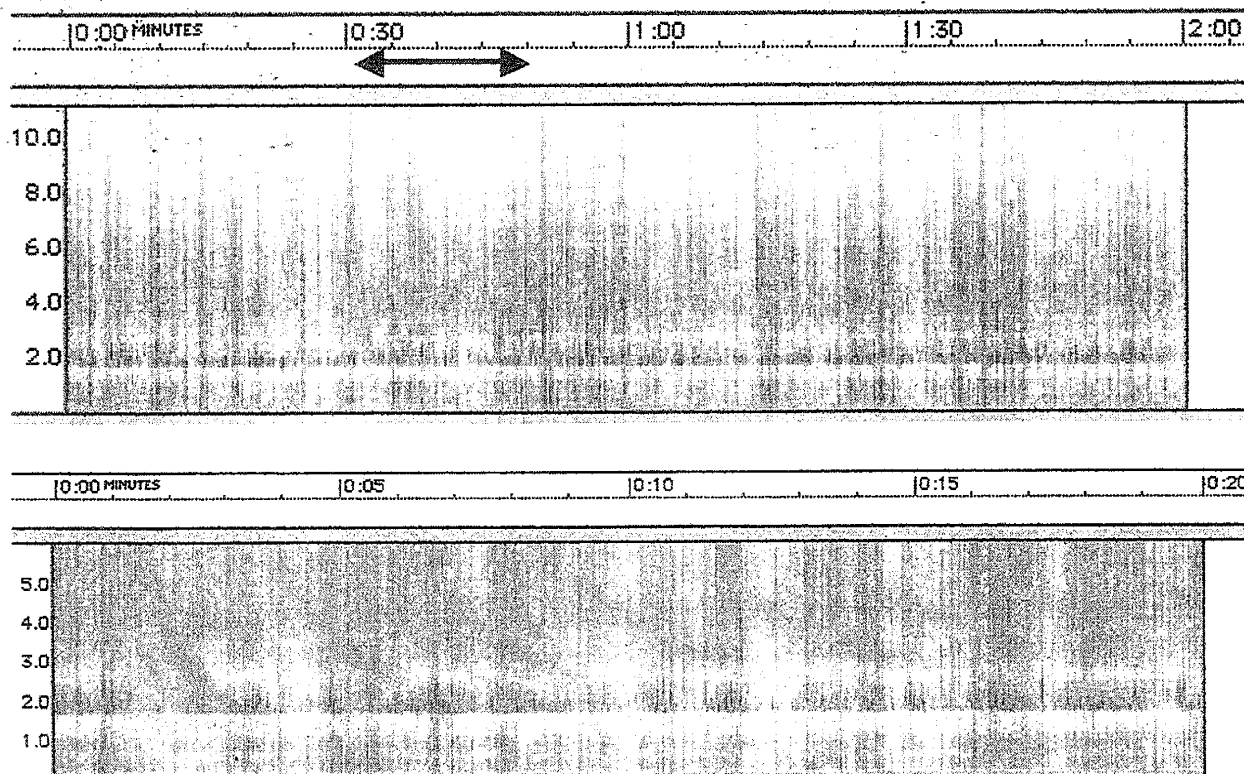
Gilcrest, CO



Shawn provided .WAV files of his sessions. This is a 7-minute file starting at 10 UT on 4-27-03. Data on the top track, WWV on the bottom track.

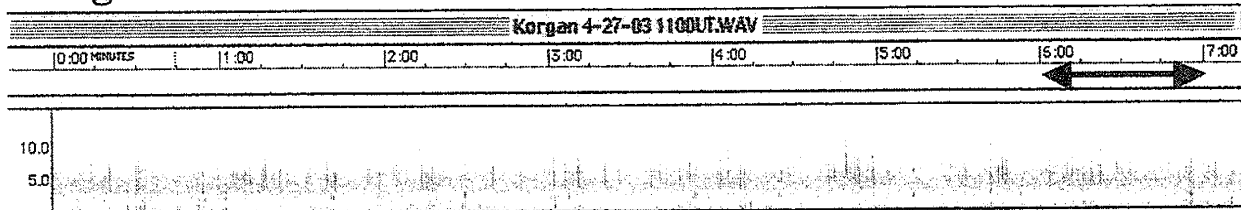


The first 2 minutes.



Whistler with many echoes.

Korgan



INSPIRE Data

(copy as needed)

INSPIRE Observer Team

DAWN RIVERSTeam Number: 3-1

Coordinated Observation Date:

Apr 12, 2003Receiver SK-1Tape Start Time (UT) 11:00Tape Start Time (Local) 5:00 AM MST

Local weather:

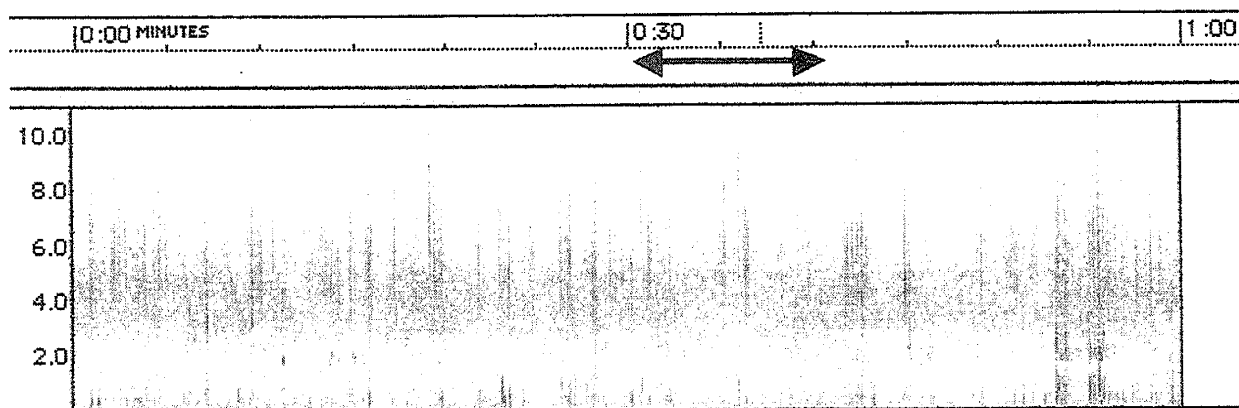
Calm, partly cloudy, 45°

Code: M - Mark (WWV or Voice) S - sferics T - tweet W - whistler A - Alpha C - chorus
 Sferic Density: D: 2 Scale of 1-5 (1 - Very Low, 3 - Medium, 5 - Very High)

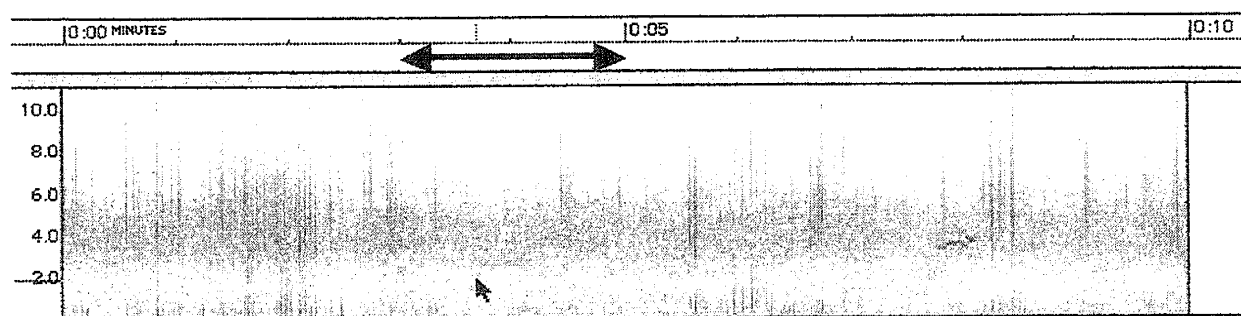
	Time (UT)	Entry	Observer
00	01	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	11	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	29	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	35	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	39	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	48	M-WWV M-V STC <u>W</u> with echoes D: <u>2</u>	
	53	M-WWV M-V STC <u>W</u> D: <u>1</u>	
02	03	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	15	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	53	M-WWV M-V STC <u>W</u> frog. tape? D: <u>1</u>	
04	30	M-WWV M-V STC <u>W</u> D: <u>1</u>	
05	39	M-WWV M-V STC <u>W</u> with several echoes D: <u>1</u>	
	55	M-WWV M-V STC <u>W</u> D: <u>1</u>	
06	07	M-WWV M-V STC <u>W</u> with many echoes D: <u>2</u>	
	27	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	34	M-WWV M-V STC <u>W</u> emission D: <u>1</u>	
	52	M-WWV M-V STC <u>W</u> D: <u>1</u>	
	58	M-WWV M-V STC <u>W</u> D: <u>1</u>	

Note the emission logged at 110634 MDT. That is the target.

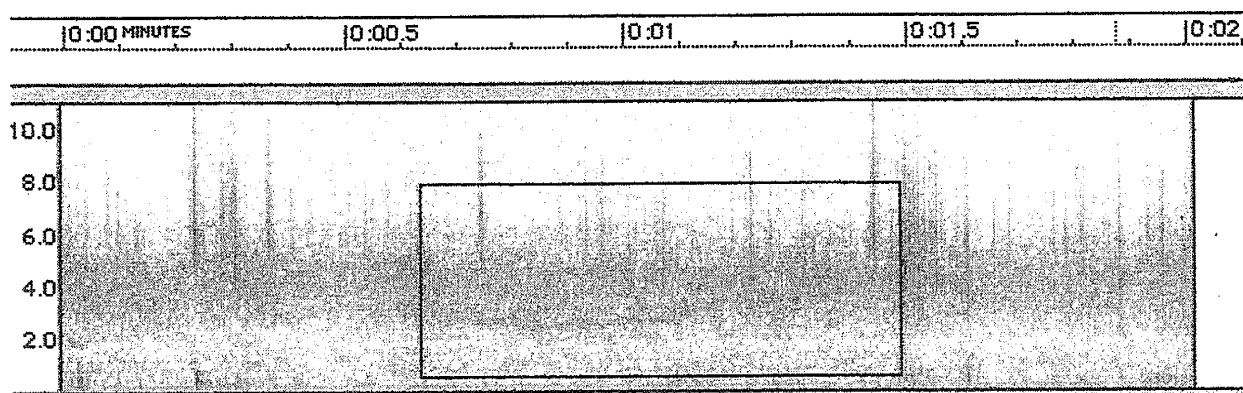
Korgan



From time 1106 UT to 1107 UT.

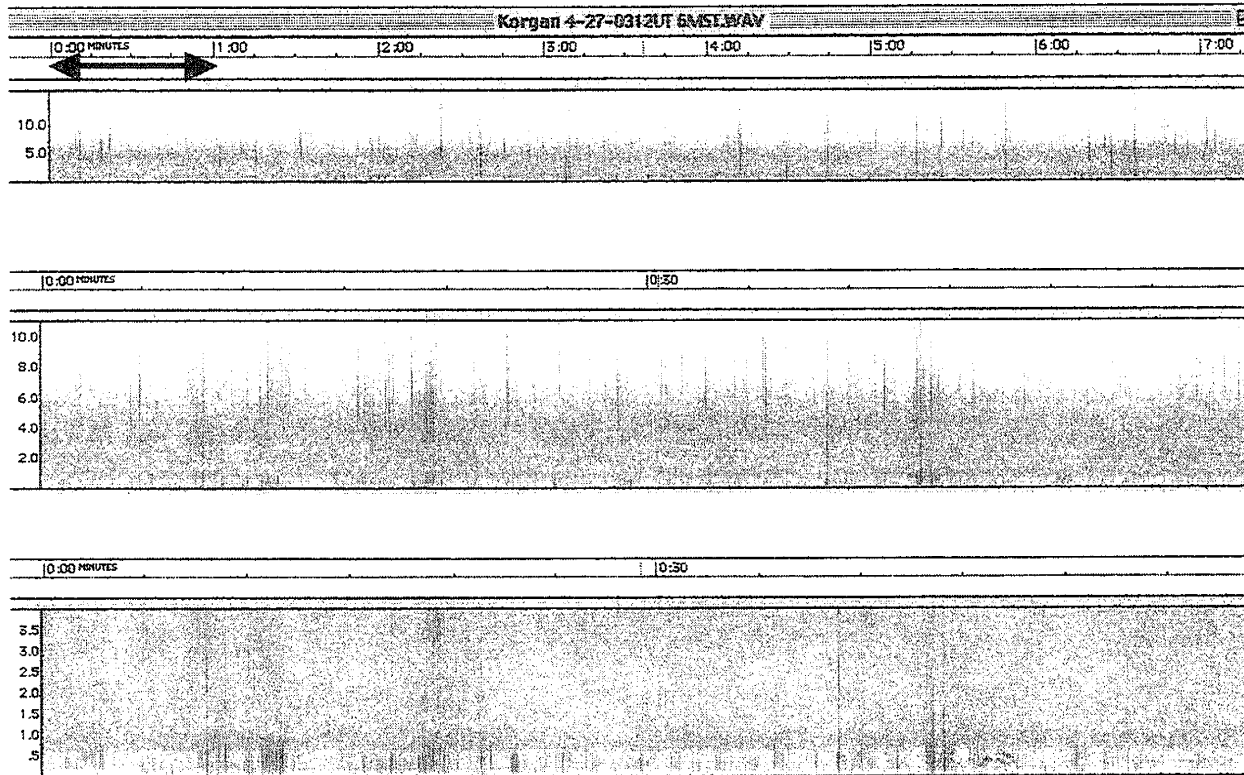


The small arrow points to the emission.

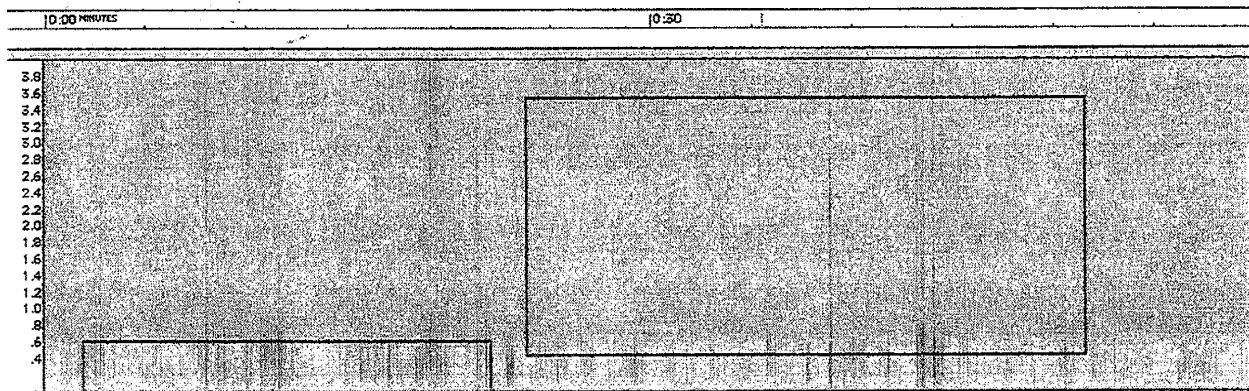


Emission logged at 110634 UT.

Korgan

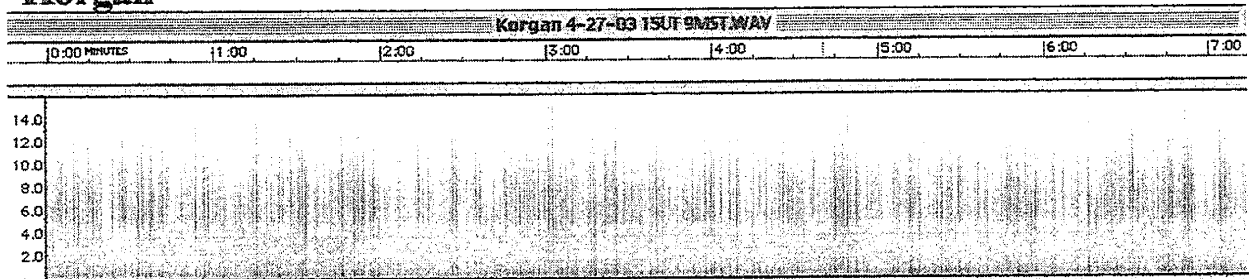


The first minute using a frequency range of 0-4 kHz.

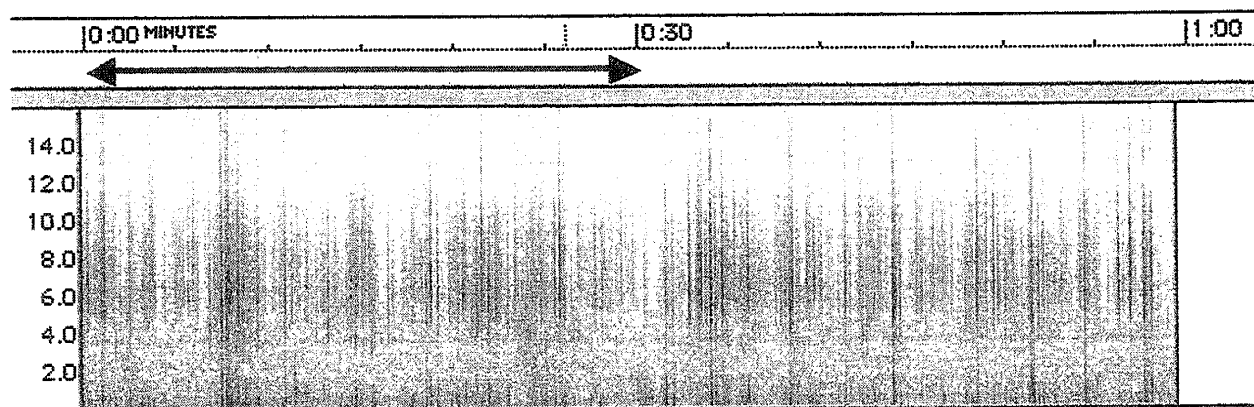
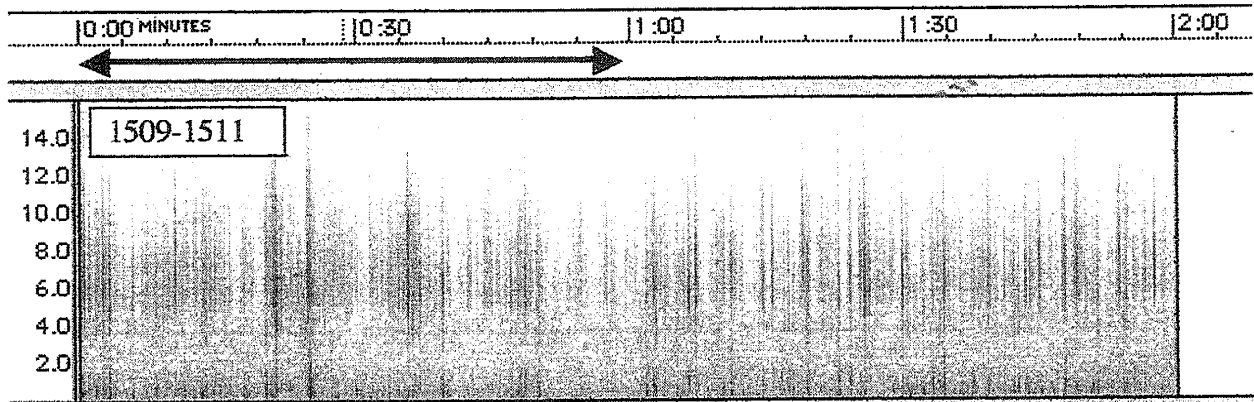


He first rectangle shows the strong sferics that are getting through the high pass filter of the VLF3. The second rectangle shows the sferics as a dense collection of vertical lines.

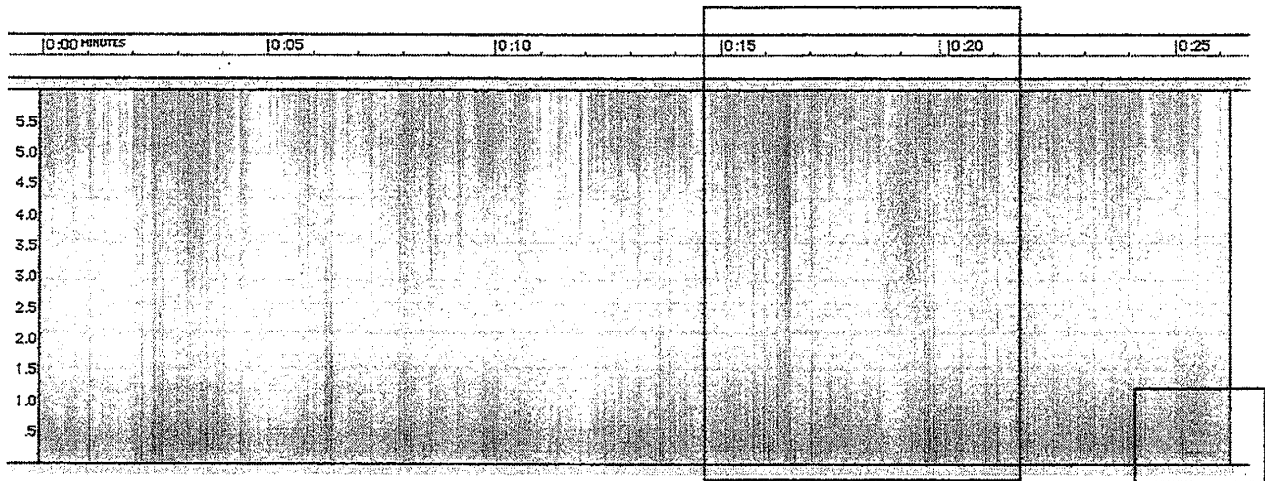
Korgan



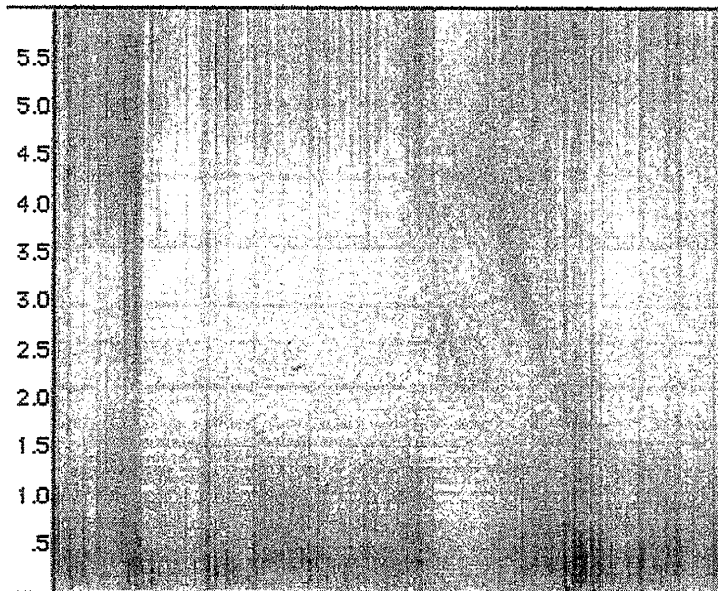
09	04	M-WWVM-V	STCW	fly	D: 2
	10	M-WWVM-V	STCW	fly	D: 1
	13	M-WWVM-V	STCW	fly	D: 2
	26	M-WWVM-V	STCW	with echo	D: 2
	32	M-WWVM-V	STCW	fly	D: 1
10	02	M-WWVM-V	STCW		



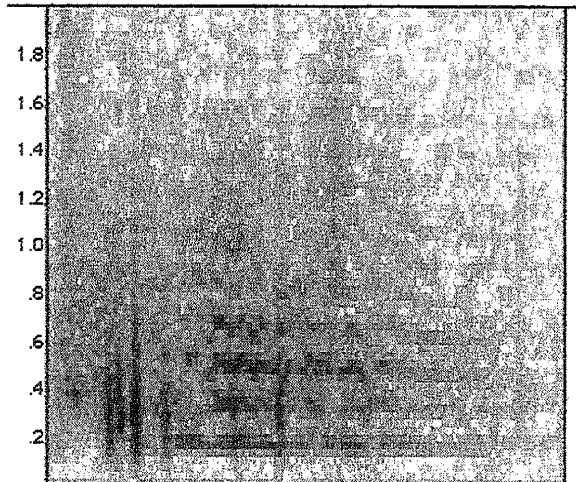
Korgan



The first box holds a whistler; the second is the fly.



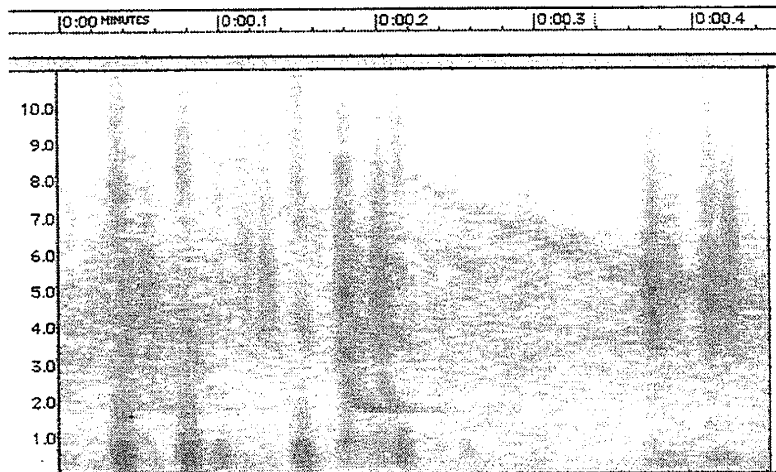
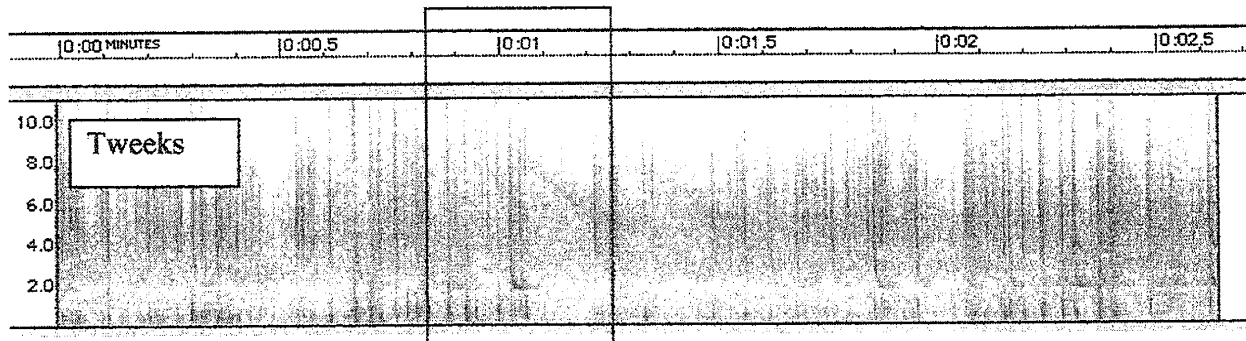
Whistler logged at 150926 "with echo". On closer examination of the spectrogram, it is actually a double whistler and a 2-hop one at that. The originating sferics appear at the far left of the sample.



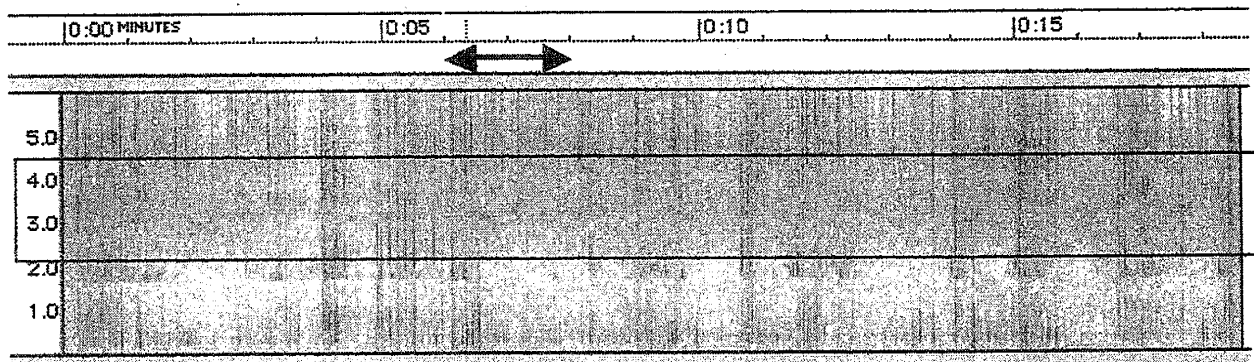
The characteristic signal from a fly!

Korgan

Shawn included some miscellaneous signals recorded on April 27, 2003.

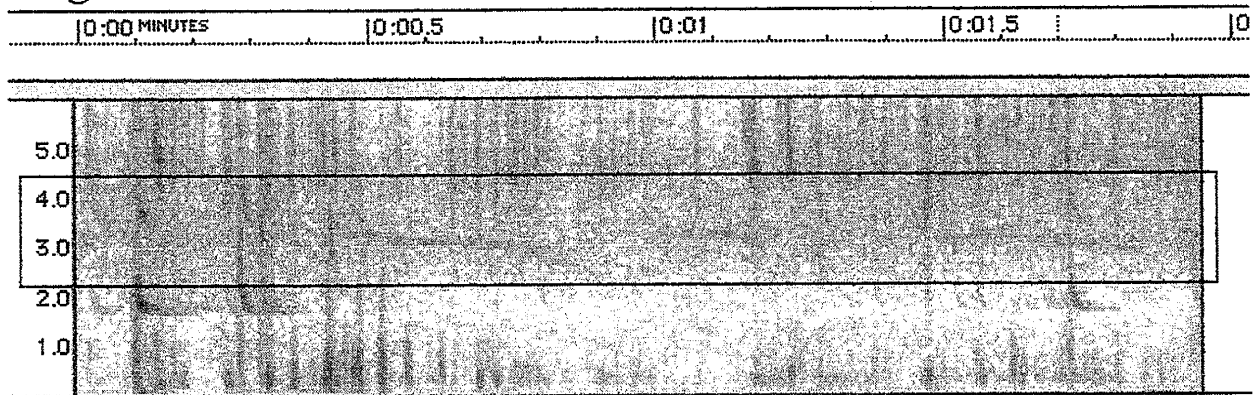


Close up of a double tweek with a whistler in the background.

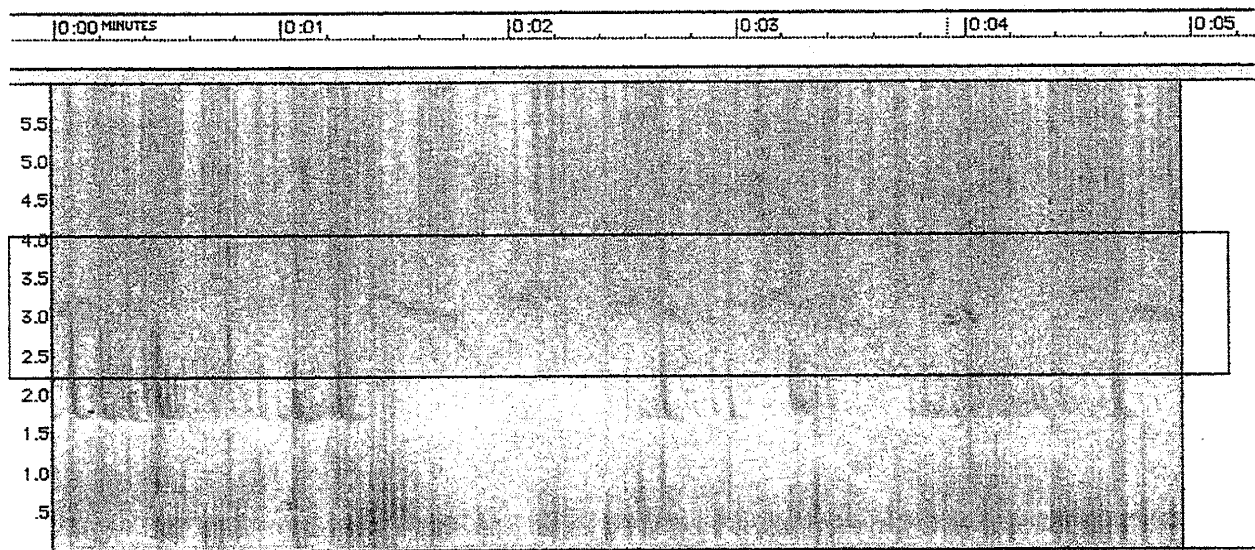


Chorus

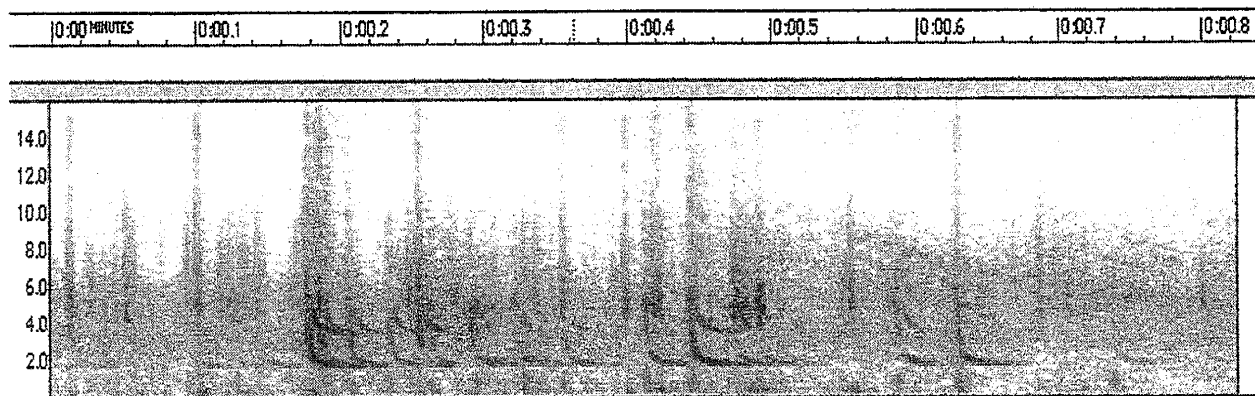
Korgan



Close up of the chorus emissions.



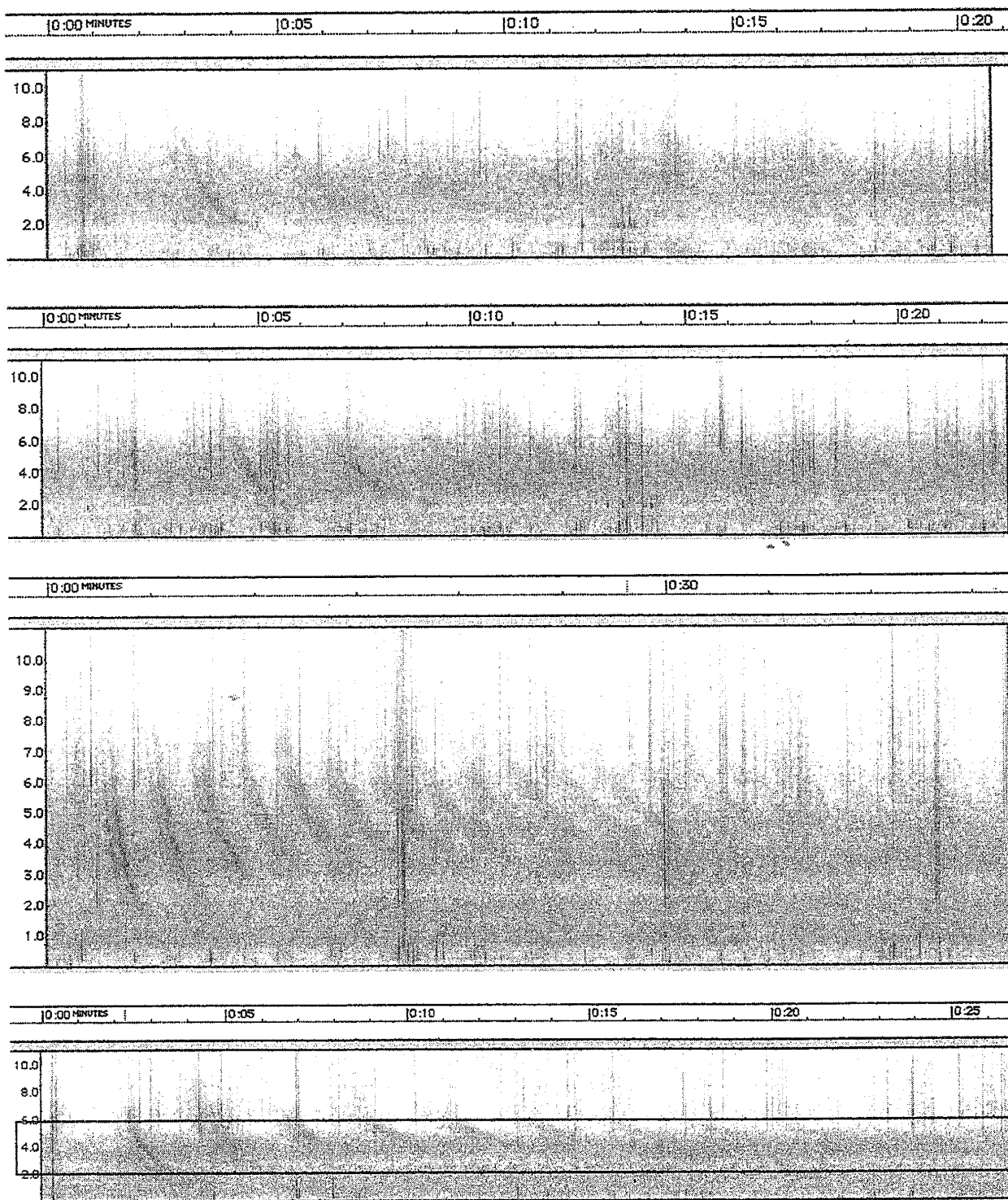
More chorus.



A 0.8 second spectrogram showing dense tweeks.

Korgan

2-hop whistlers with echo trains.

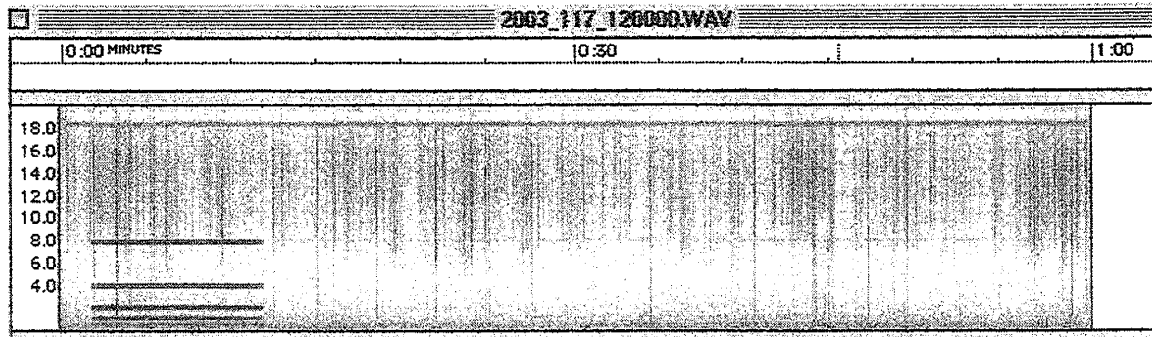


The box contains a band of hiss.

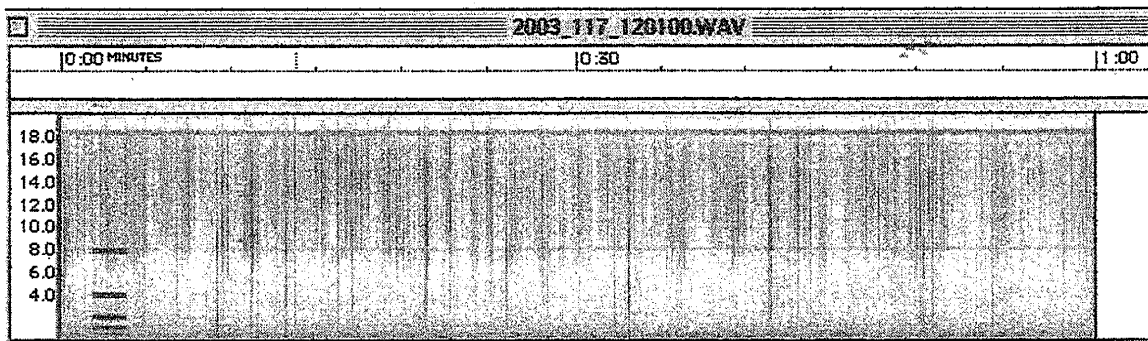
4-27-03 Andrew Collier
University of Natal

Durban, South Africa

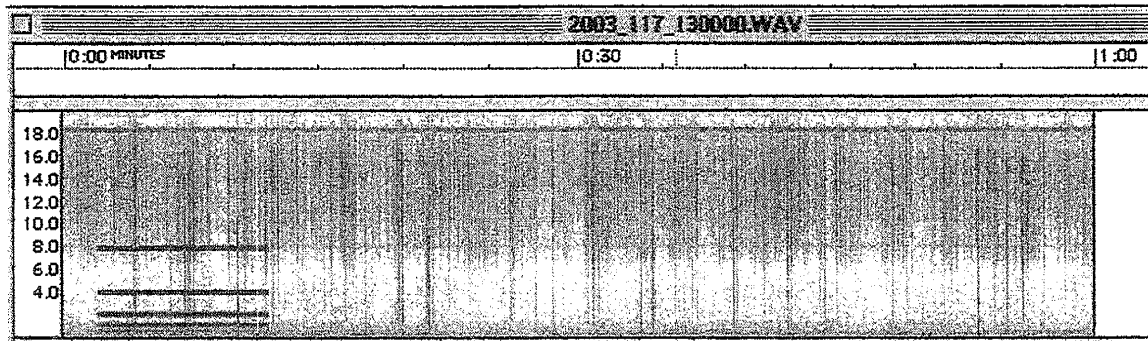
Andrew and Shawn Korgan did some coordinated observations with Shawn observing in Colorado and Andrew observing remotely with a receiver located on top of Mount Vesleskarvet in Antarctica. Andrew's observations consisted of stereo recordings of two loop antennas, one oriented north-south and the other oriented east-west.



First one minute starting on April 27 at 1200 UT.

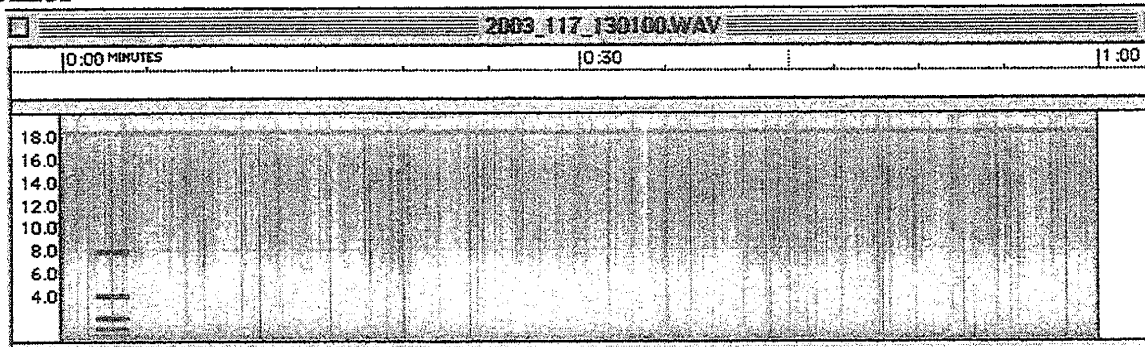


Second minute of the 1200 UT hour. Note the time mark tone near the start of each minute. The tone on the hour (1200 UT) has a longer duration than the other minute tones.



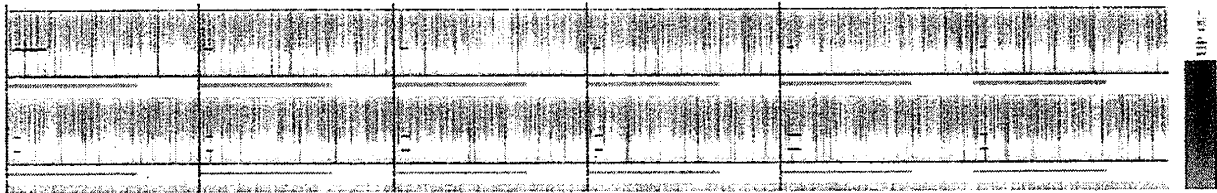
1300 – 1301 UT

Collier

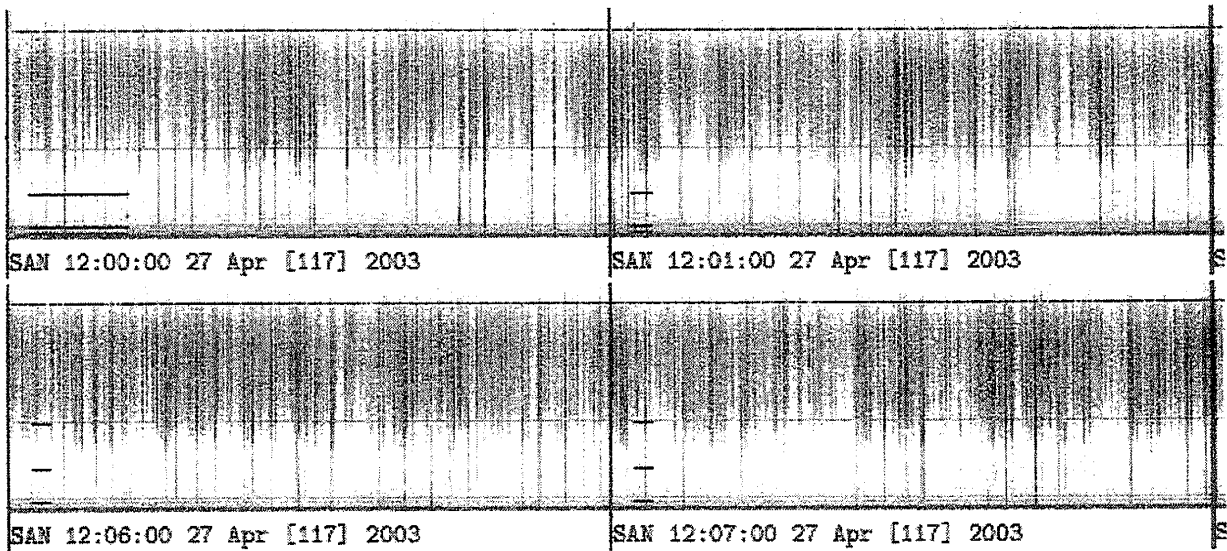


1301-1302 UT

Andrew also provided a PDF file containing spectrograms of his data.



This is the first 12 minutes starting at 1200 UT..

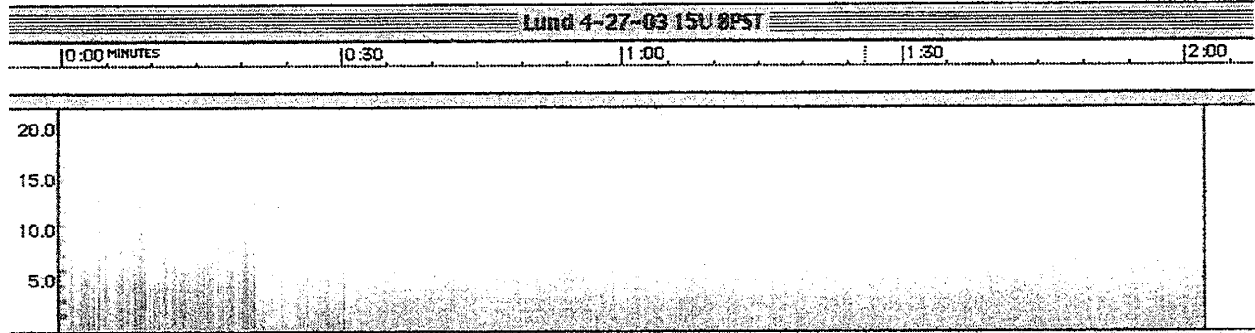


This is a close up showing detail from the four minutes in the upper left corner above.

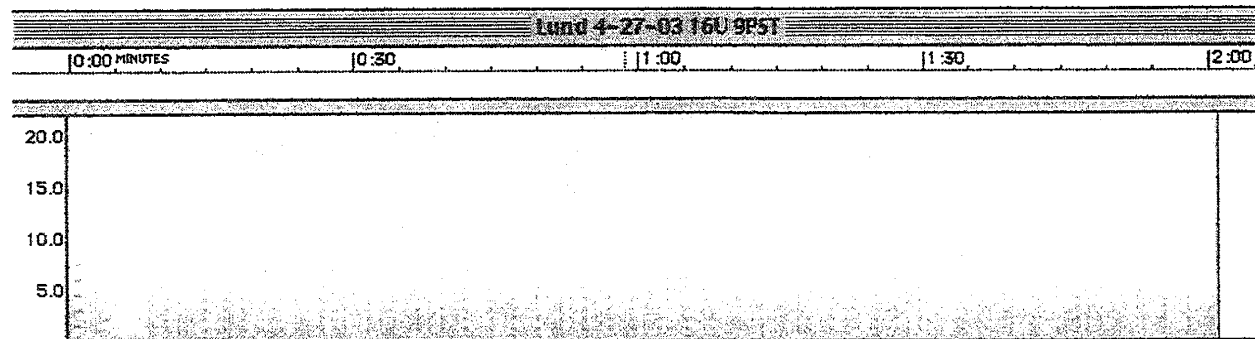
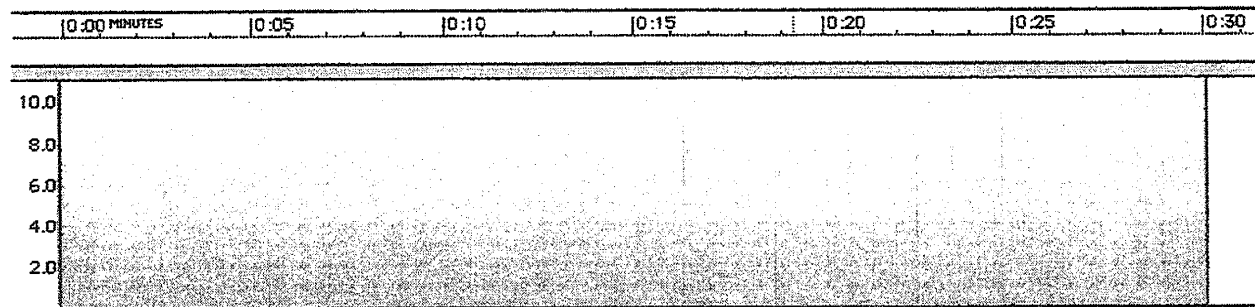
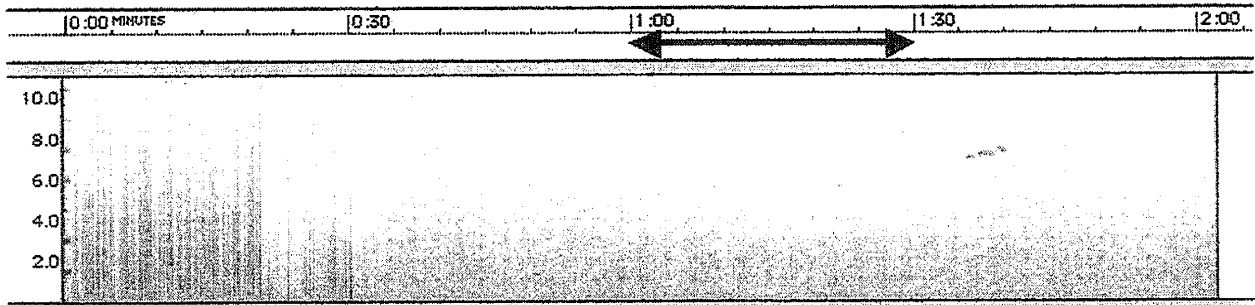
**4-27-03 Loren Lund
LaSalle High School**

Union Gap, WA

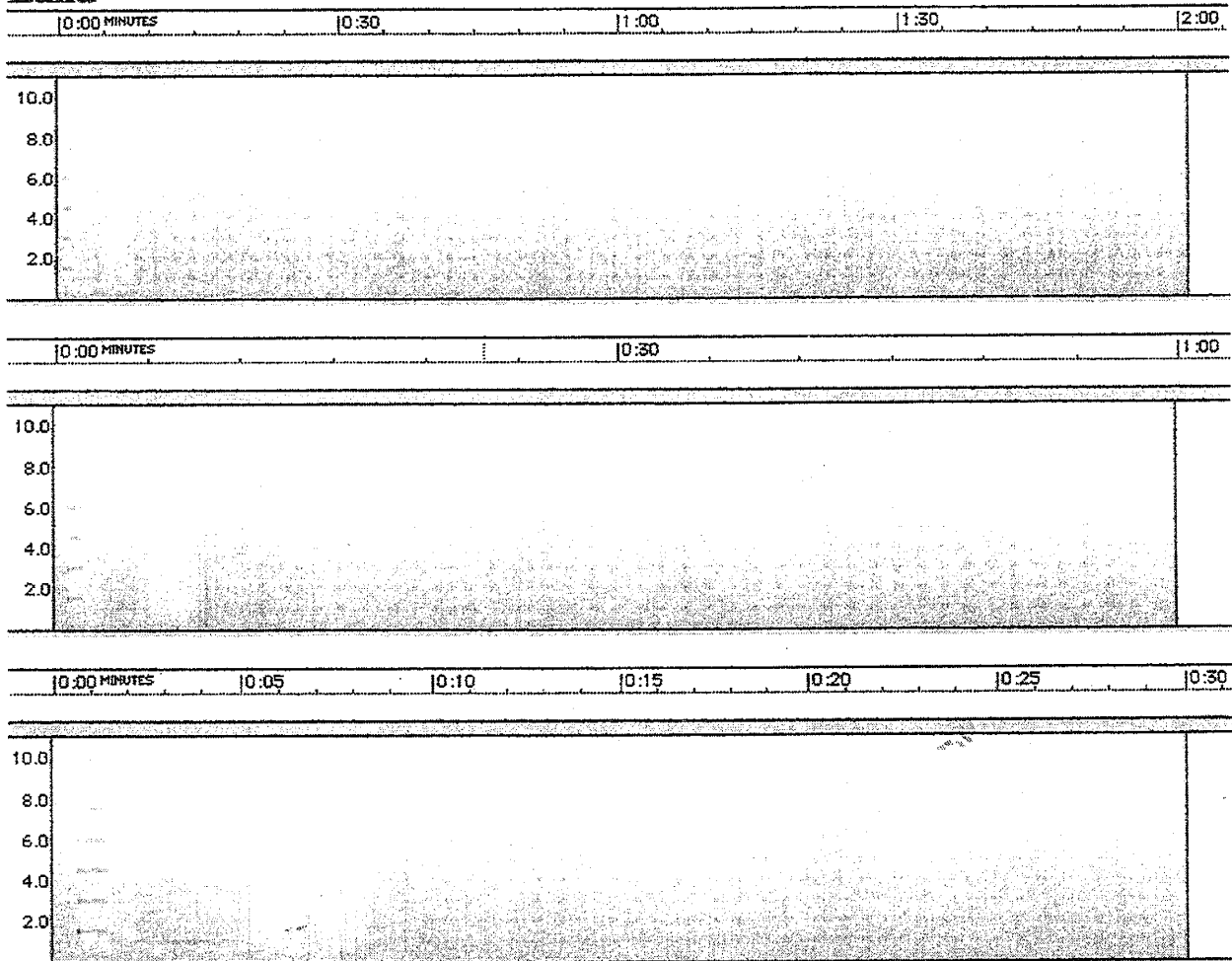
Loren and his son, Brian, observed on Sunday, April 27, 2003.



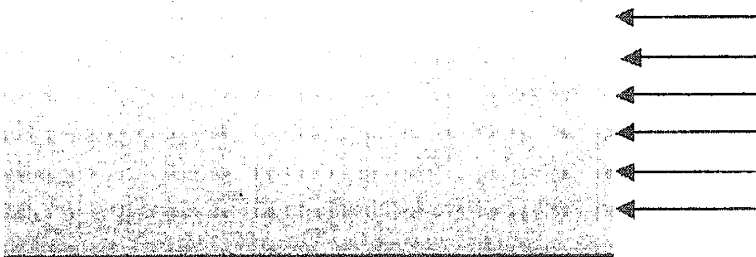
WWV appears for the first 30 seconds followed by VLF data. Sferics appear prominently, but at low density.. LORAN is also present indicating that the receiver is working well.



Lund



WWV appears at the start. LORAN shows up as horizontal rows of dots.



LORAN

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
CST + 6 = UT
MST + 7 = UT
PST + 8 = UT

EDT + 4 = UT
CDT + 5 = UT
MDT + 6 = 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) _____

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

Local weather: _____

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

[illegible]