

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 28 March 2017

Object: Jupiter – Non-Io-A

Observer: JB

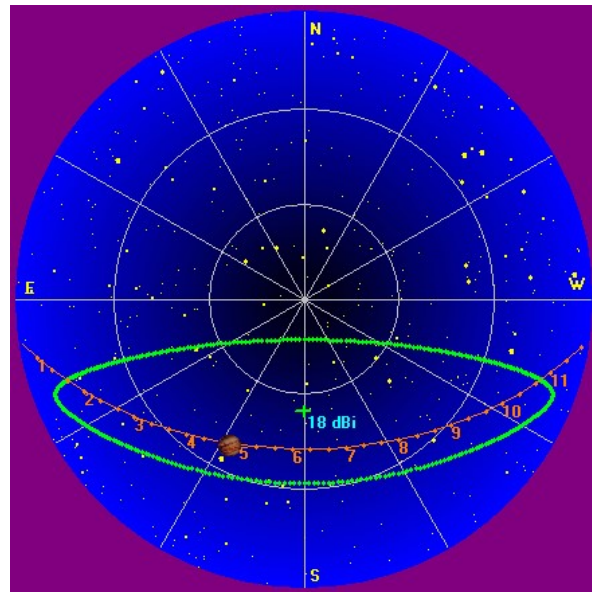
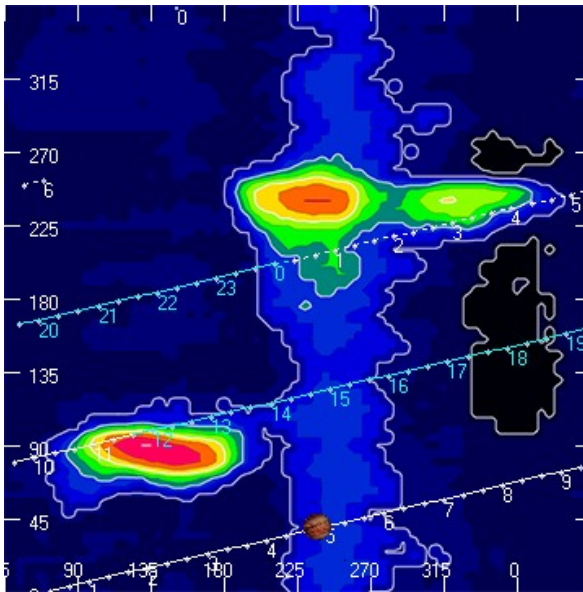
Start of pass:	0452 UT	Planetary K-index:	5
Jupiter Altitude:	39.6 degrees	Jupiter Azimuth:	153.5 degrees
Jupiter CML:	237.23	Jupiter Io Phase:	039.53
Jupiter RA:	13:15	Jupiter Dec:	-06:10
Hour Angle:	-01:21	Polarization	RCP
Sun Altitude:	-46.5 degrees	Sun Azimuth:	349.8 degrees
Sun RA:	00:21	Sun Dec:	02:18

End of pass:	0520 UT		
Jupiter Altitude:	41.6 degrees	Jupiter Azimuth:	162.3 degrees
Jupiter CML:	254.16	Jupiter Io Phase	043.45
Hour Angle:	-00:53		
Sun Altitude:	-47.0 degrees	Sun Azimuth:	000.0 degrees

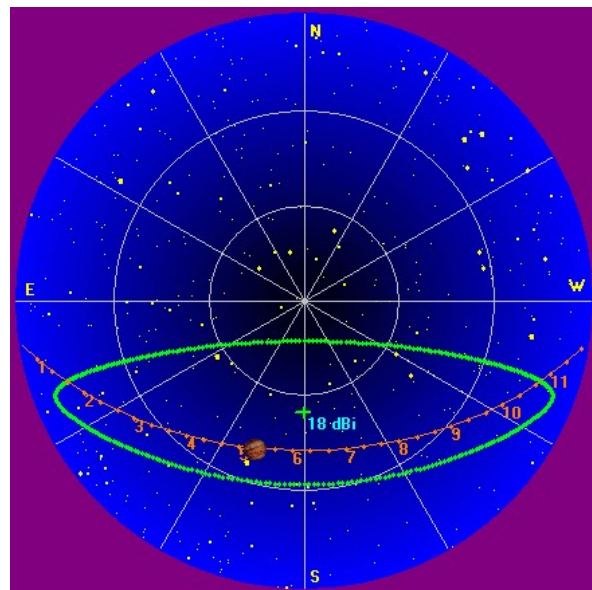
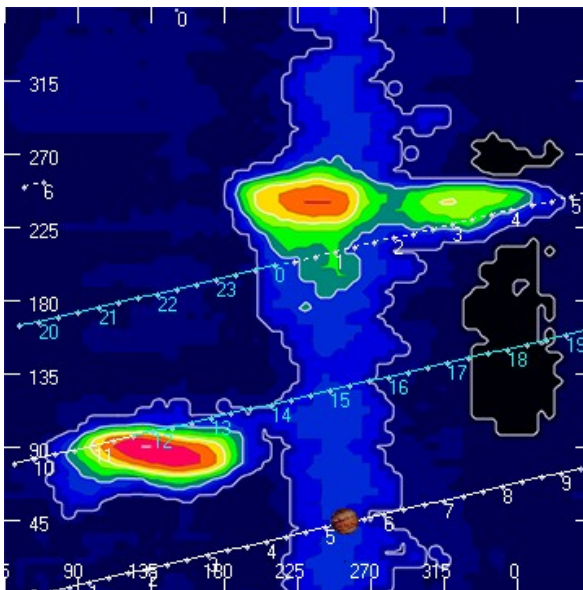
Observations made using:

1. FSX-8S fed by the TFD array
 - a. 7.7 dB loss between TFD and Multicouplers.
 - b. Connect to array through HNRAO Multicoupler #1 and #2, port 2
 - i. HNRAO Multicoupler #1 – TFD/LCP
 - ii. HNRAO Multicoupler #2 – TFD/RCP
 1. Port 1 having 10 dB of gain, all other ports have 3 dB gain.
2. FSX-2 fed by the LWA array directly
 - a. LWA element configuration – 90 degrees
3. JOVE 2 receiver fed by phased JOVE dipoles @ 10'
 - a. 12' phase cable - phased for 2016-17 season
 - b. Calibrated 6 March 2017
 - c. Connected to dipoles through HNRAO Multicoupler #3, port 1.
 - i. 3.165 dB loss between Multicoupler and dipoles.
4. Icom R75 receiver fed by experimental DDRR antenna directly.
 - a. Calibrated 6 March 2017
5. SDRPlay
 - a. RSP1 (2) and RSP2 (1)

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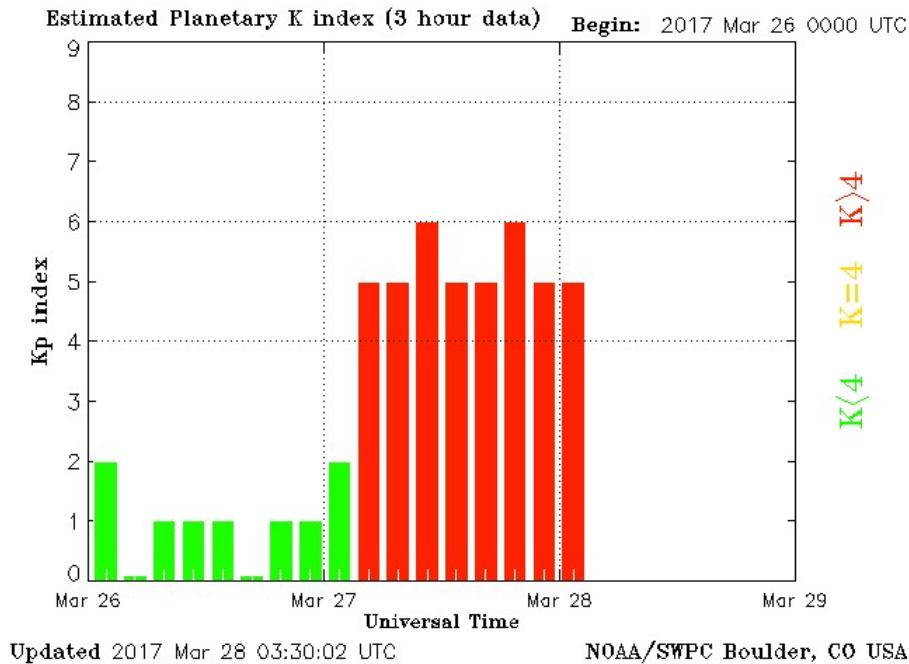


Beginning of Pass



End of Pass

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This will be the first Jupiter emissions observed with the SDRPlay, RSP2 SDR receiver.

A stronger Non-Io-A storm than has been seen lately. Negative drift L-bursts with negative drift modulation lanes. A particularly strong period of L-burst emission at 0455 UT. All spectrographs compared to show a frequency range of 15-24 MHz observed here.

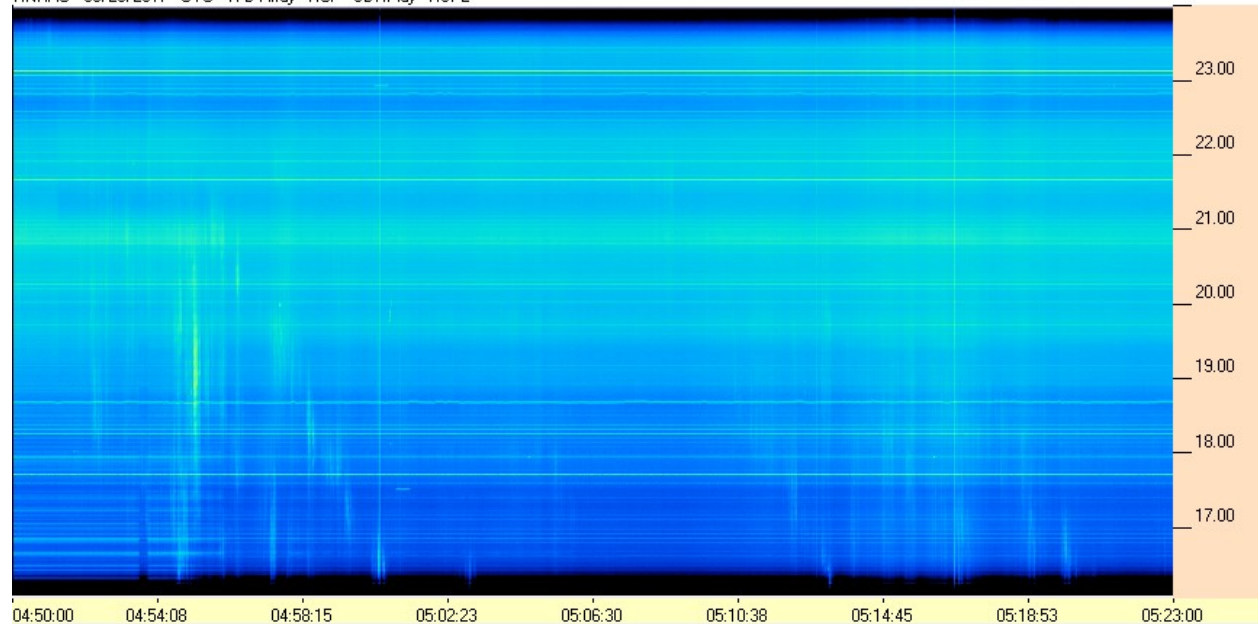
Measured modulation lanes at various parts of the pass ranged from a low of -84 kHz/sec to a high of -105 kHz/sec with an average of 96 kHz/sec.

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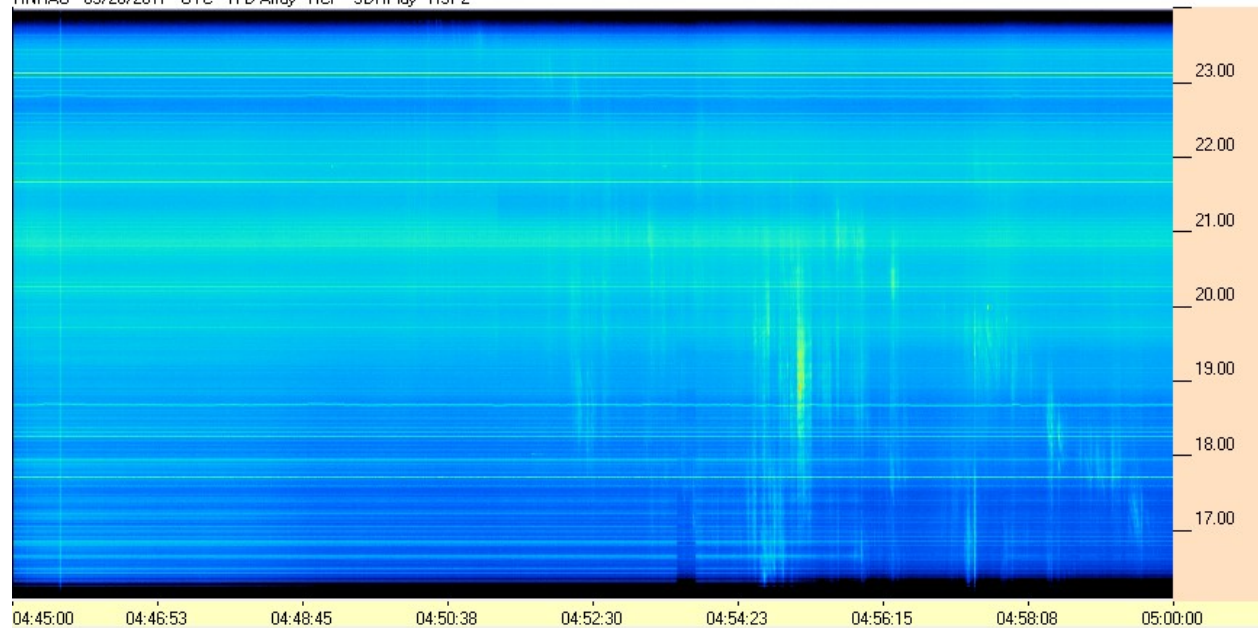


RSP2/TFD Pair

HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



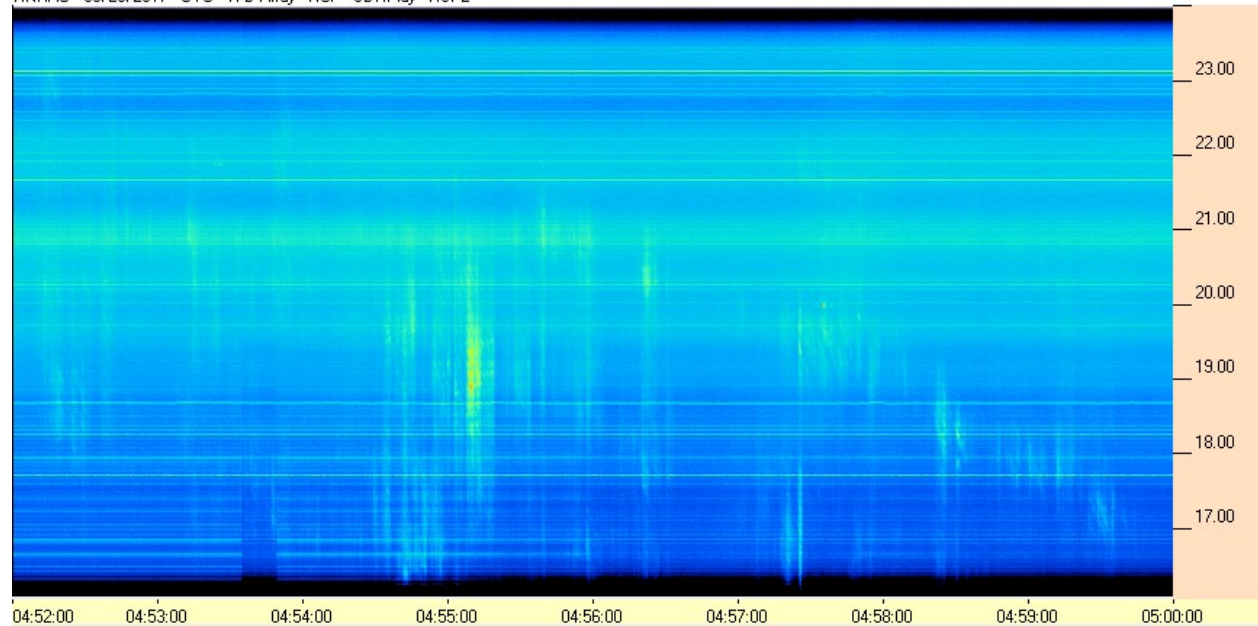
HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



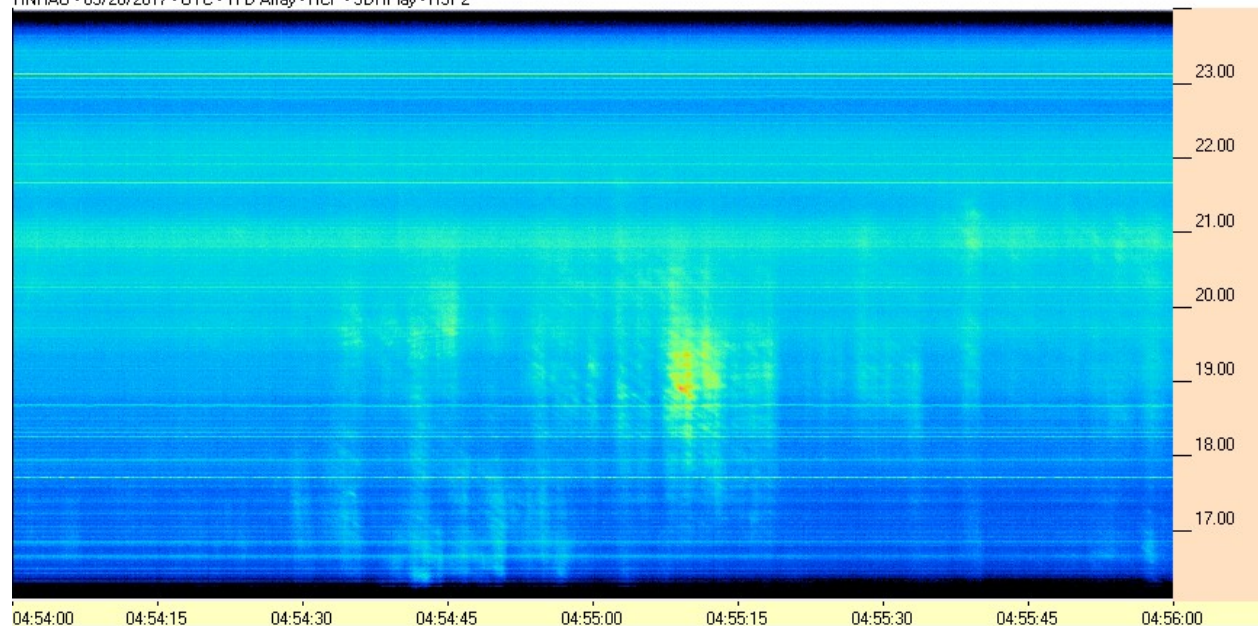
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HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



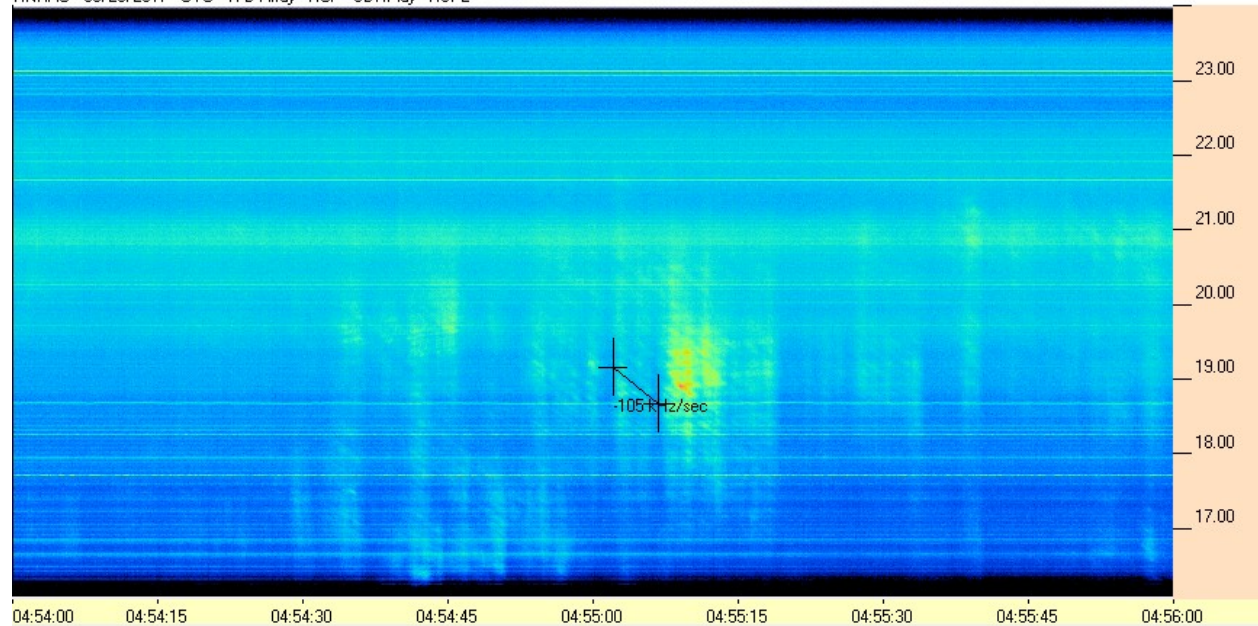
HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



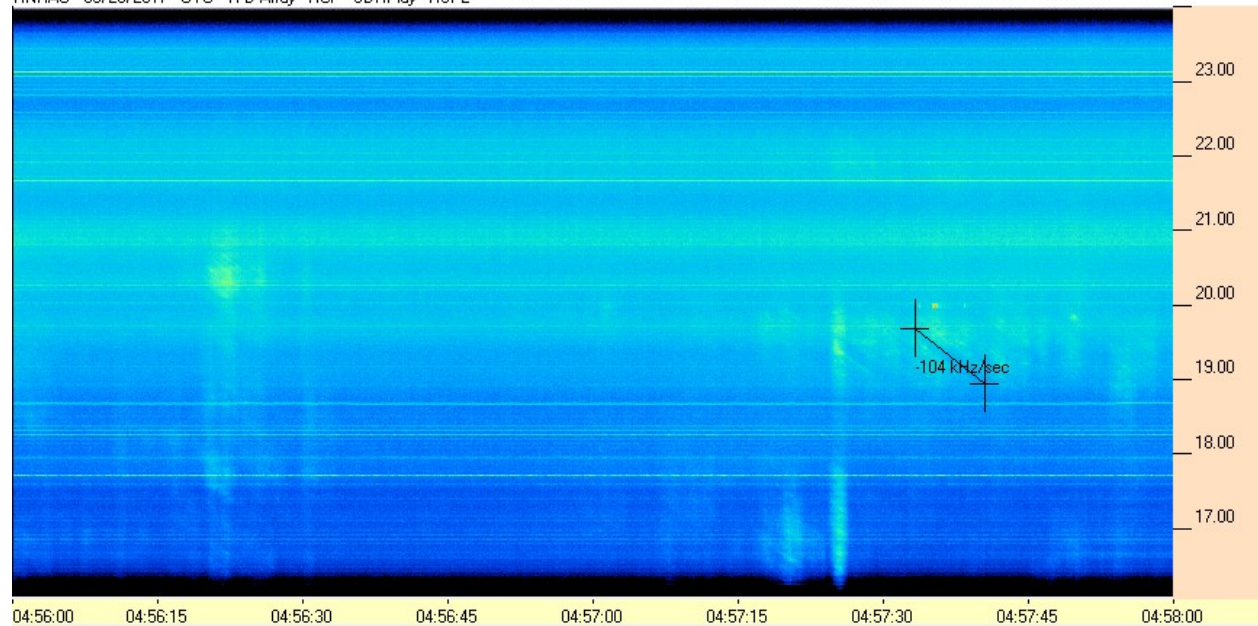
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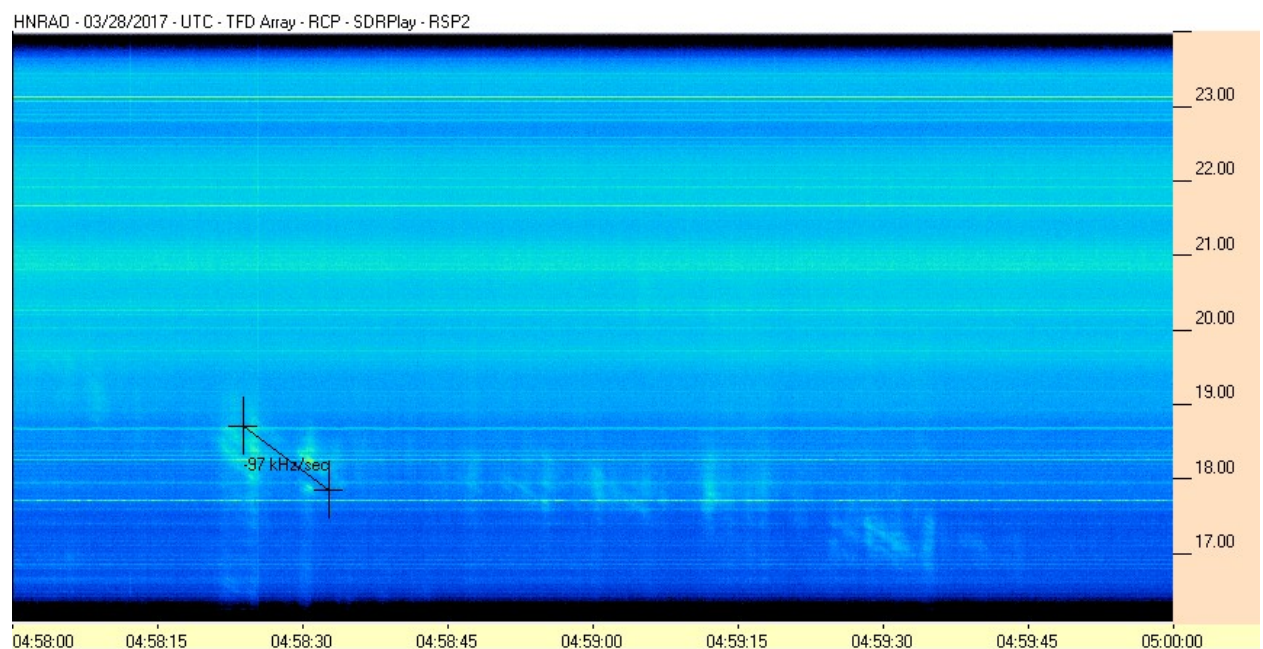
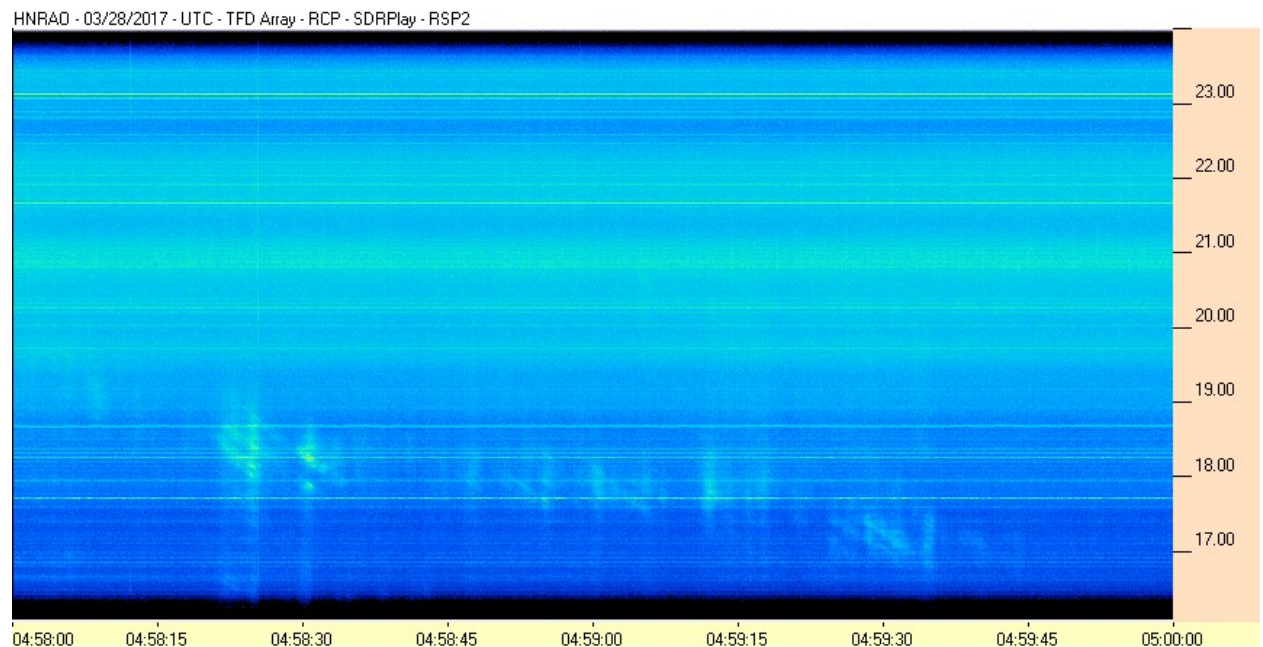
HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



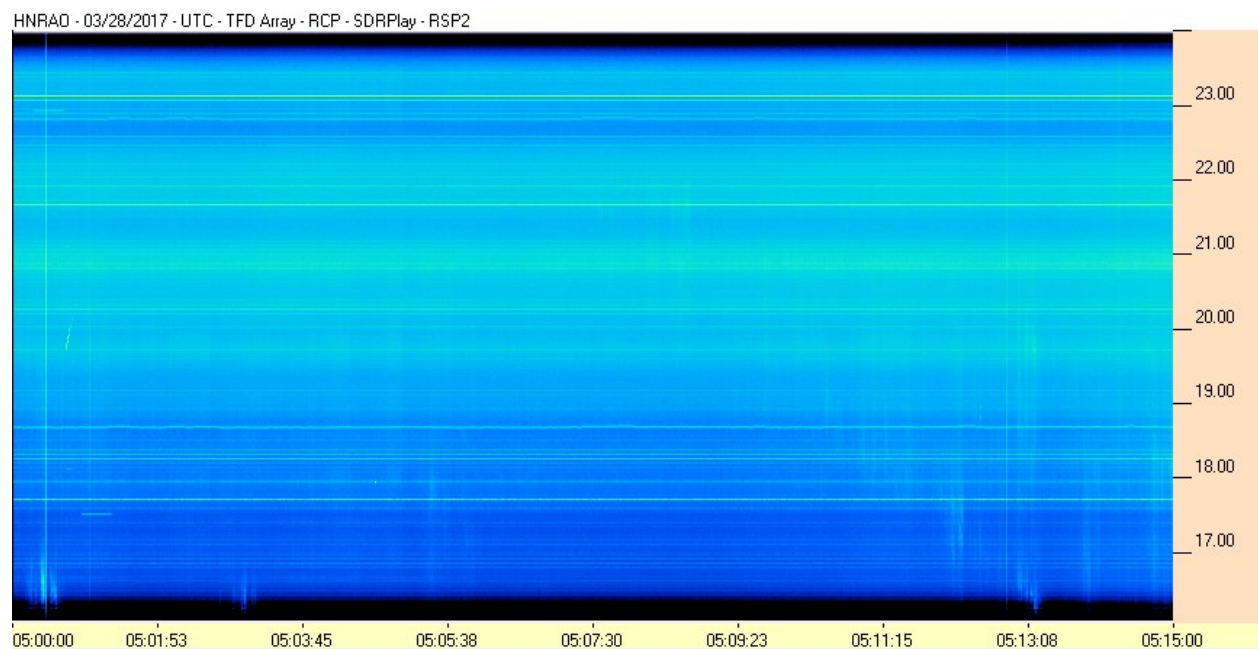
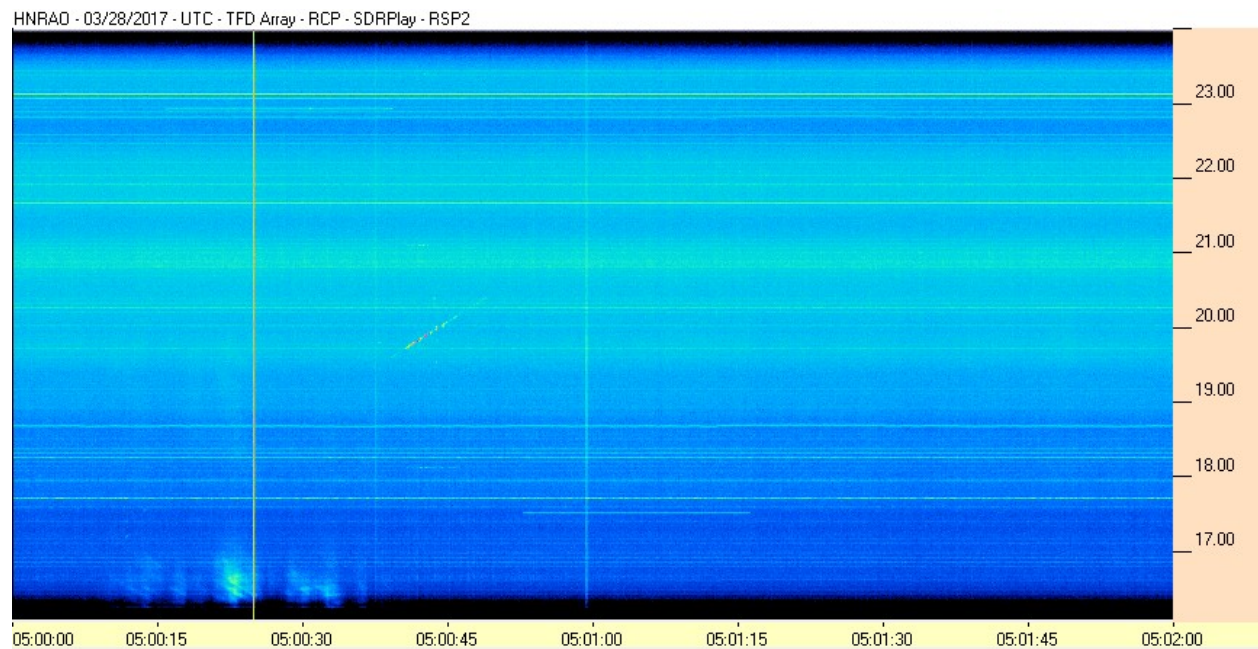
HNRAO - 03/28/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



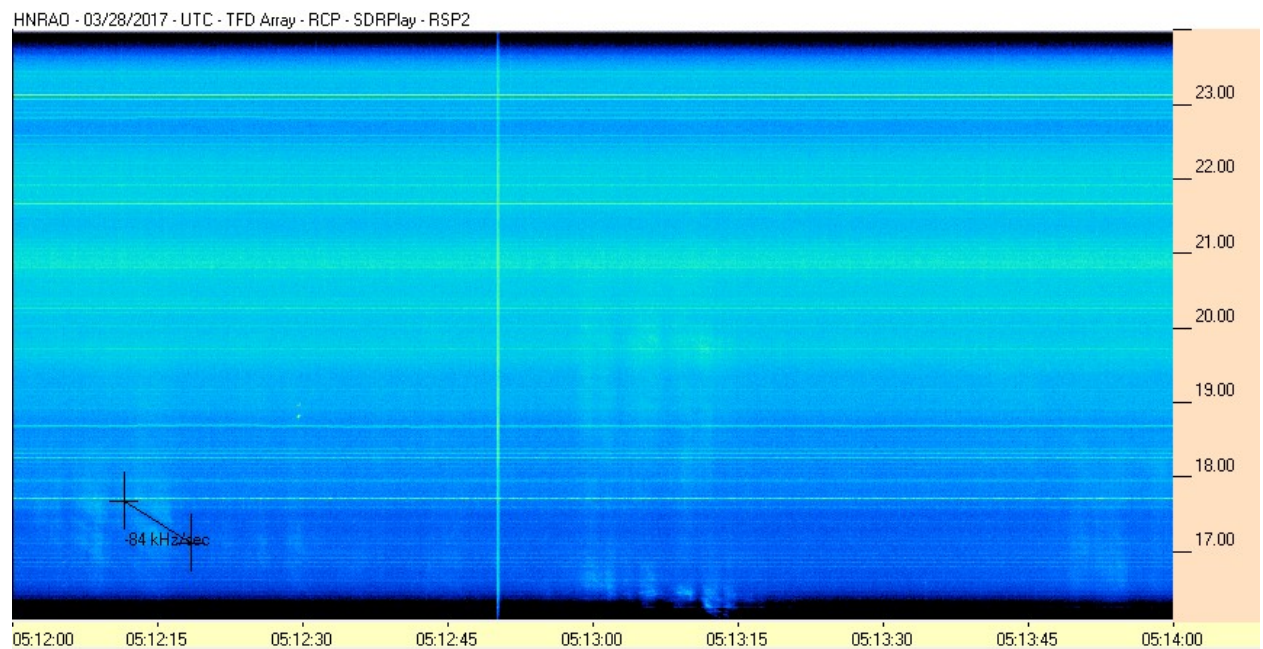
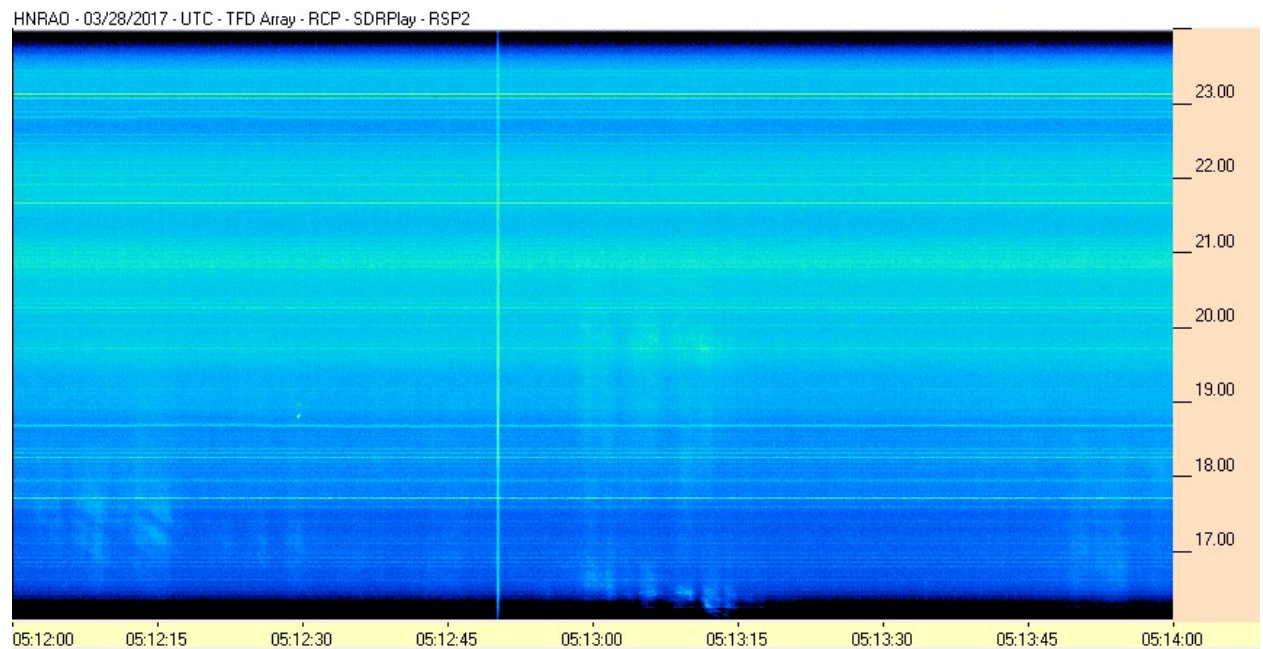
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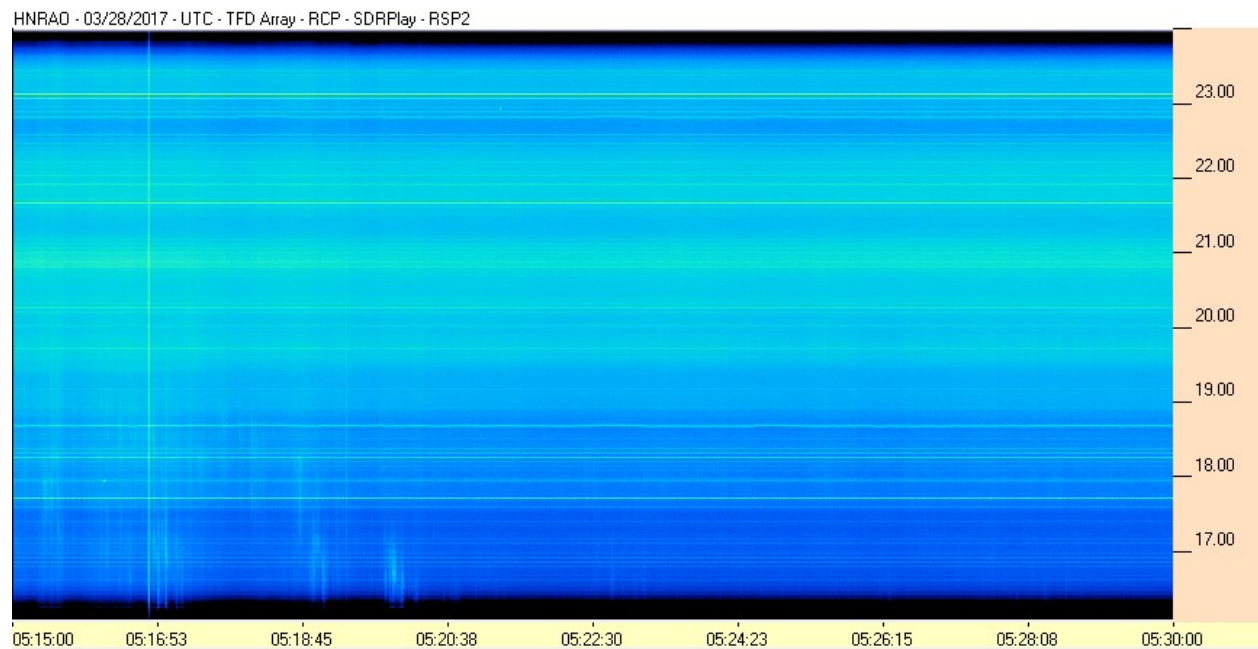
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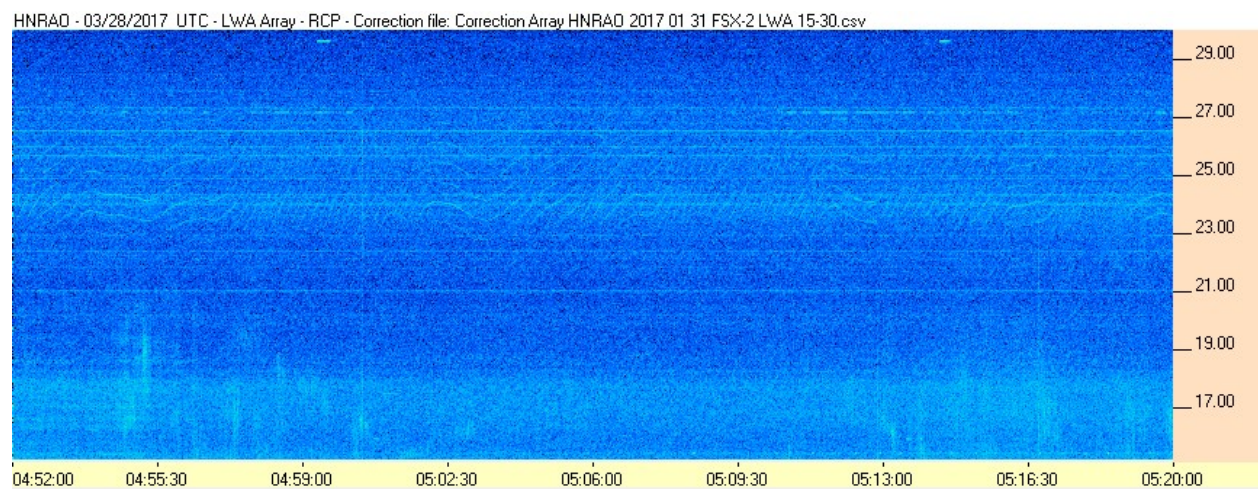
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FSX-2/LWA Pair

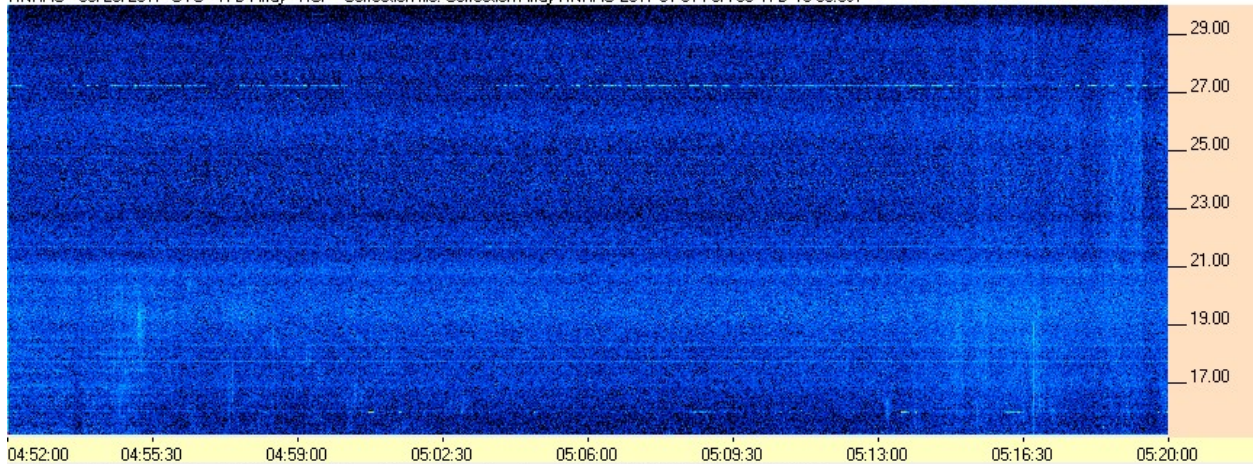


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FSX-8S/TFD Pair

HNRAO - 03/28/2017 UTC - TFD Array - RCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv



HNRAO - 03/28/2017 UTC - TFD Array - LCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv

