

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 12 March 2017

Object: Jupiter – Io-B

Observer: Unattended

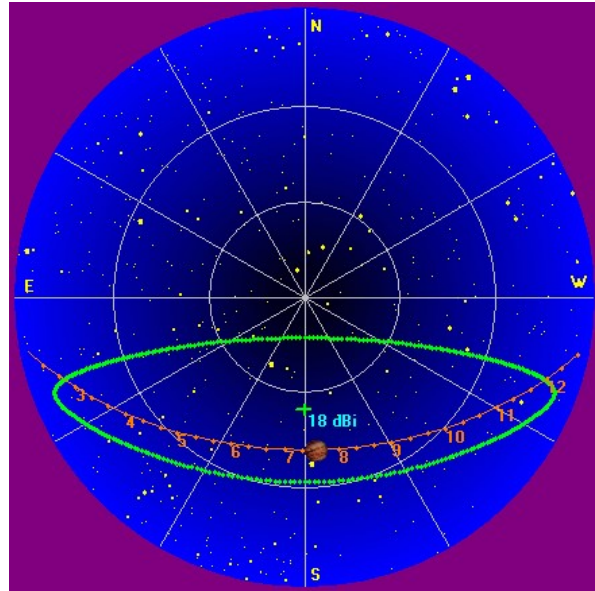
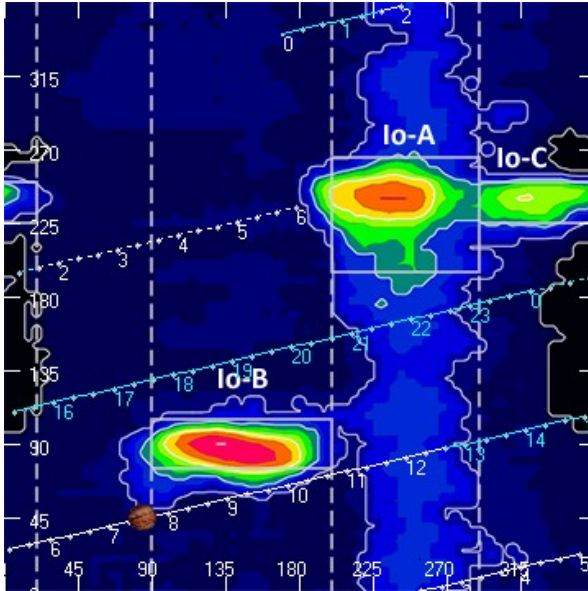
Start of pass:	0740 UT	Planetary K-index:	
Jupiter Altitude:	42.4 degrees	Jupiter Azimuth:	184.3 degrees
Jupiter CML:	84.95	Jupiter Io Phase:	044.88
Jupiter RA:	13:21	Jupiter Dec:	-06:51
Hour Angle:	00:13	Polarization	RCP
Sun Altitude:	-43.0 degrees	Sun Azimuth:	047.4 degrees
Sun RA:	23:23	Sun Dec:	-03:57

End of pass:	0945 UT		
Jupiter Altitude:	32.2 degrees	Jupiter Azimuth:	223.4 degrees
Jupiter CML:	163.55	Jupiter Io Phase	063.11
Hour Angle:	02:23		
Sun Altitude:	-21.3 degrees	Sun Azimuth:	076.2 degrees

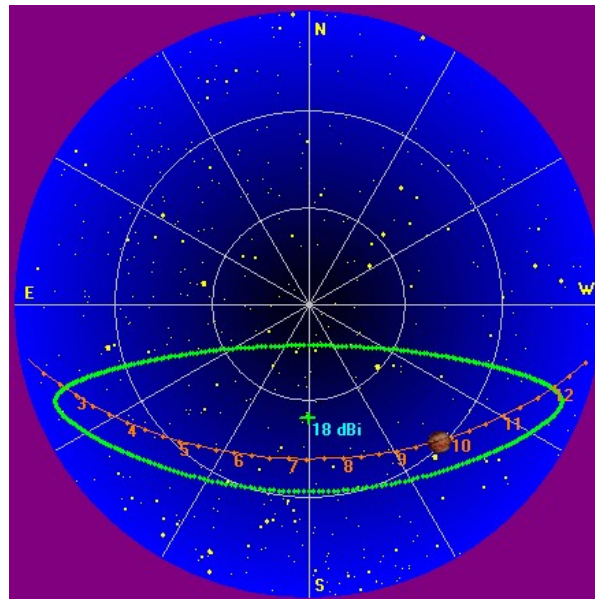
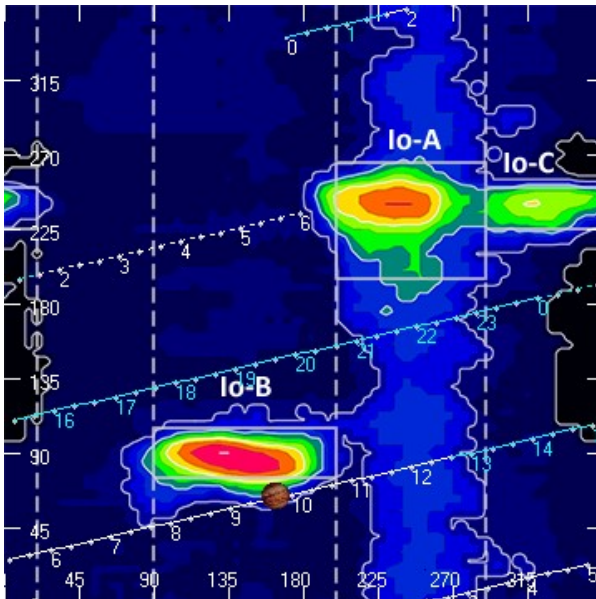
Observations made using:

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 and RSP2

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Beginning of Pass



End of Pass

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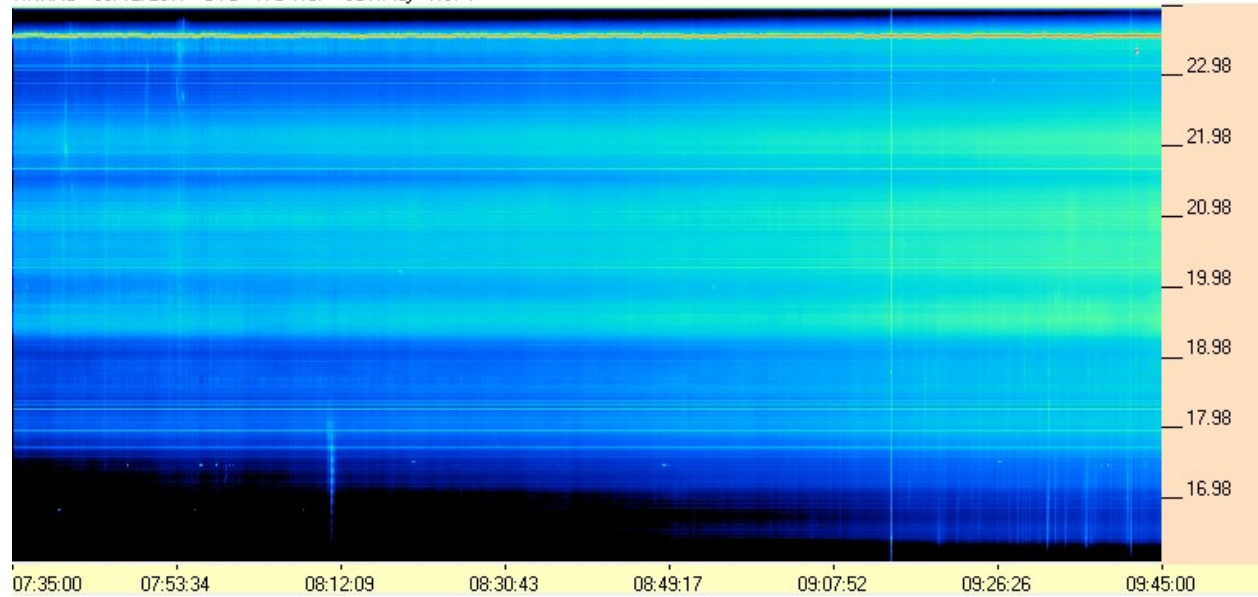
A weak Io-B storm this morning. L-bursts with positive drift modulation lanes measured at the beginning about 130 kHz/sec. They remained constant throughout the duration of the storm, ending with a slope of about 131 kHz/sec. Emissions seen with the RSP1 spectrograph spanned 16 MHz to 24 MHz. Resolution did not permit the identification of any S-bursts. If they were present, I was not able to detect them in the data.

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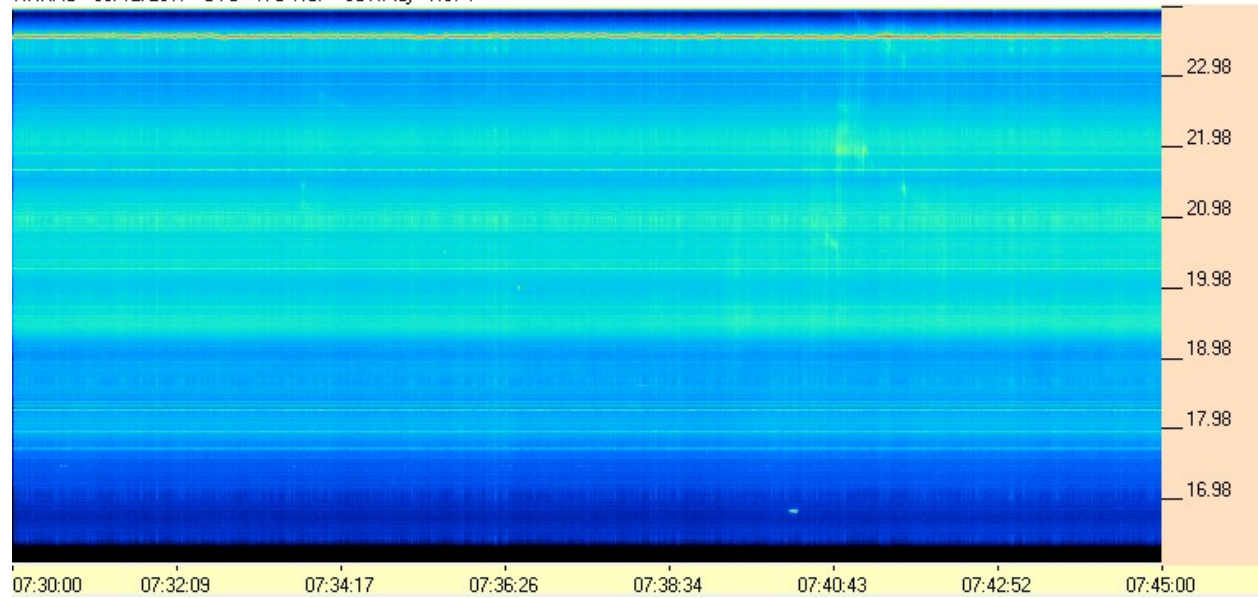


SDRPlay/RSP1 TFD Pair

HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



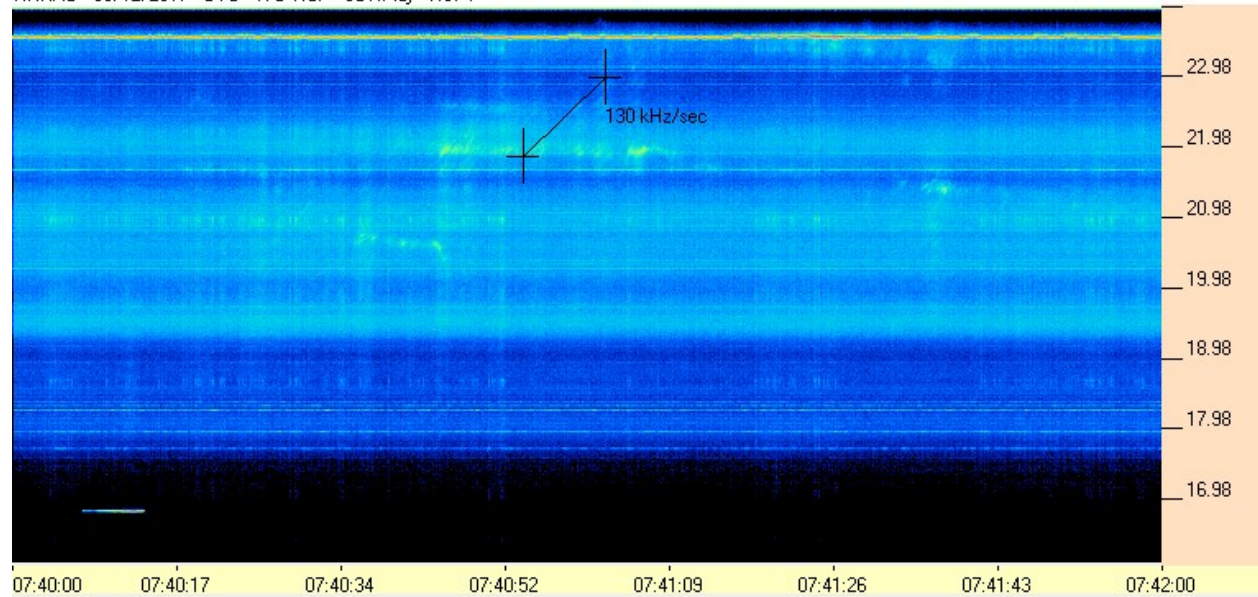
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



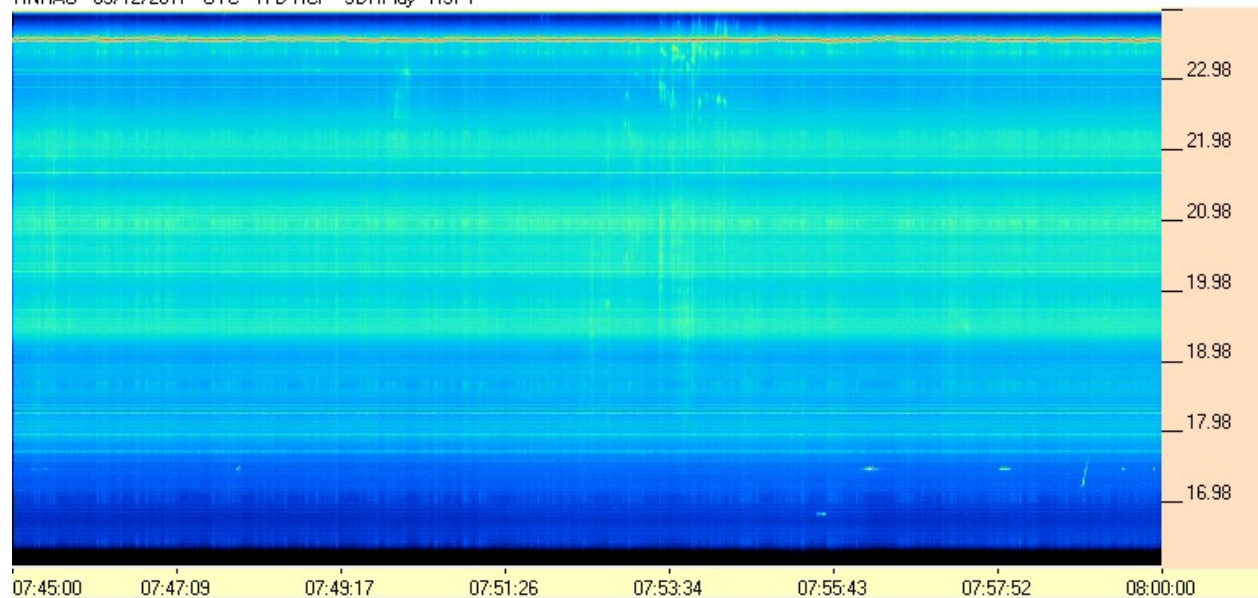
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HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



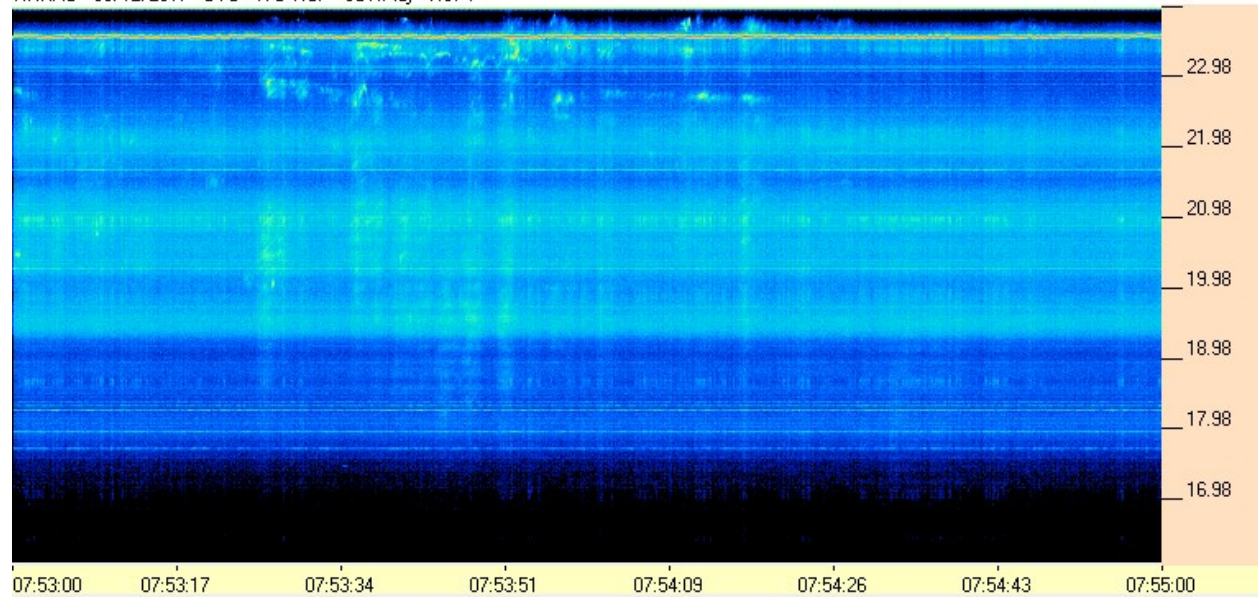
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



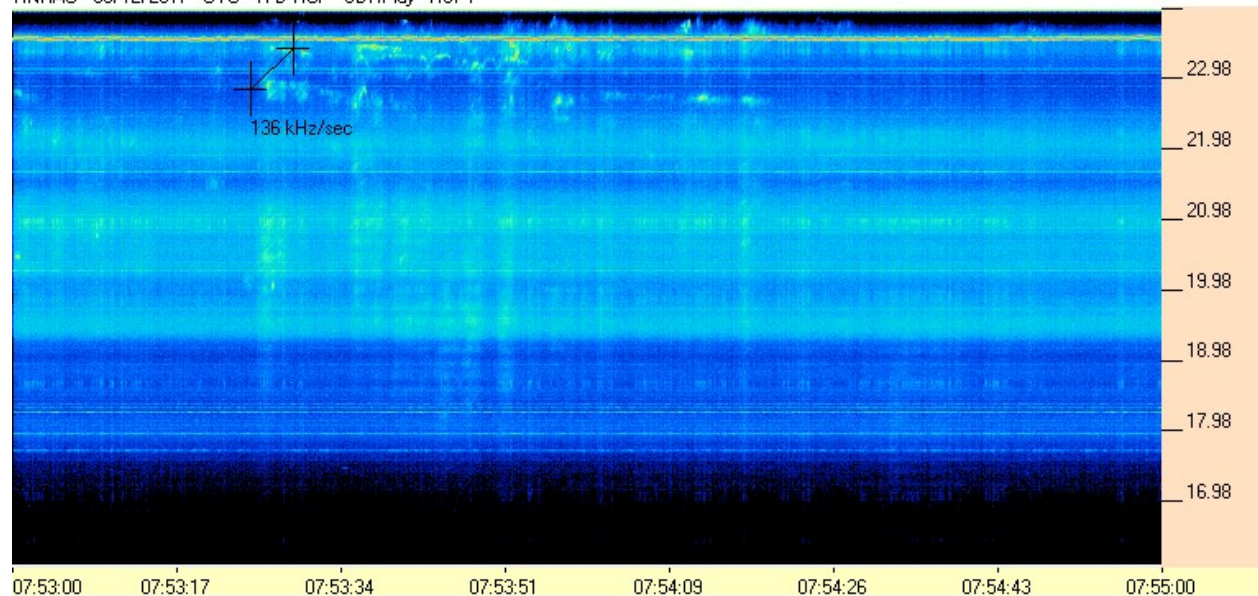
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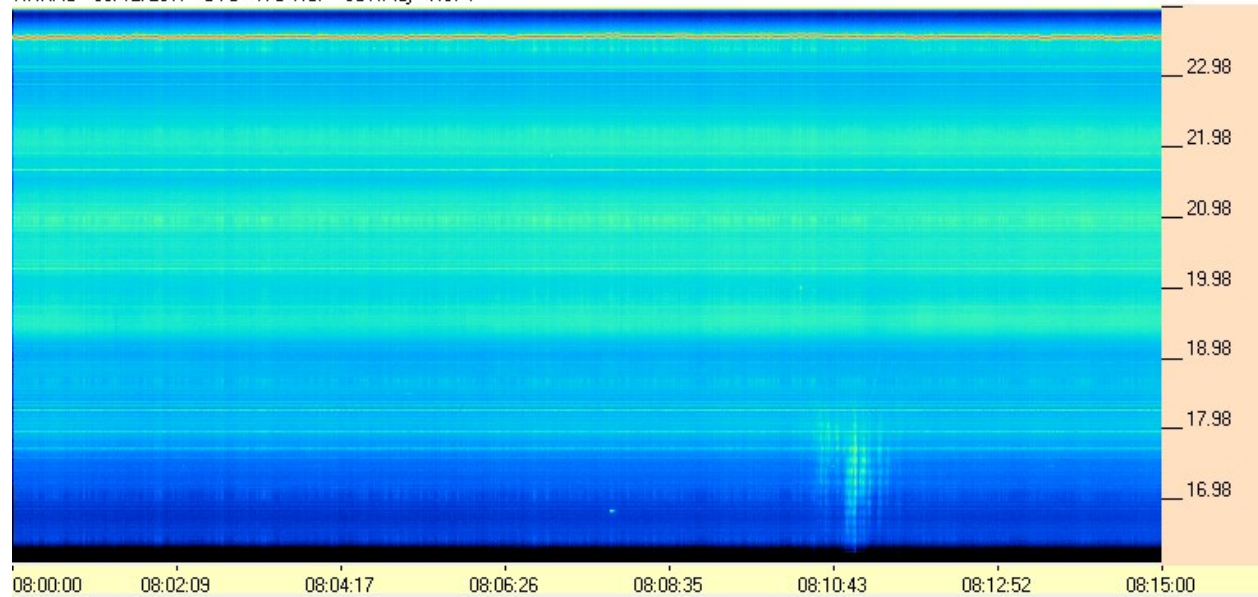
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



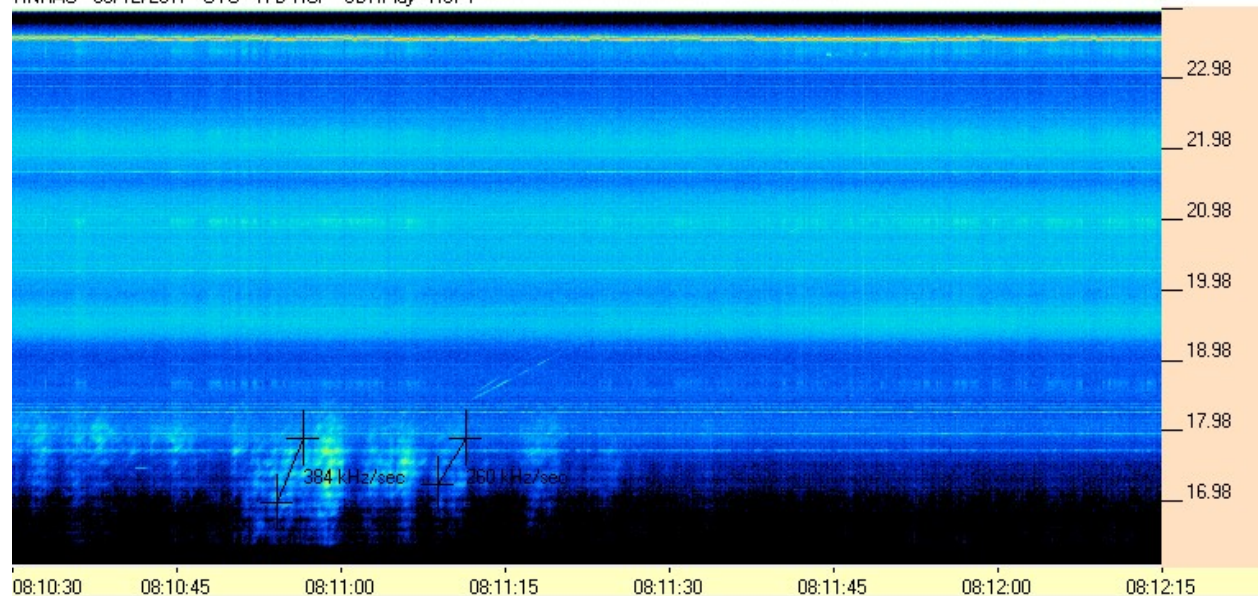
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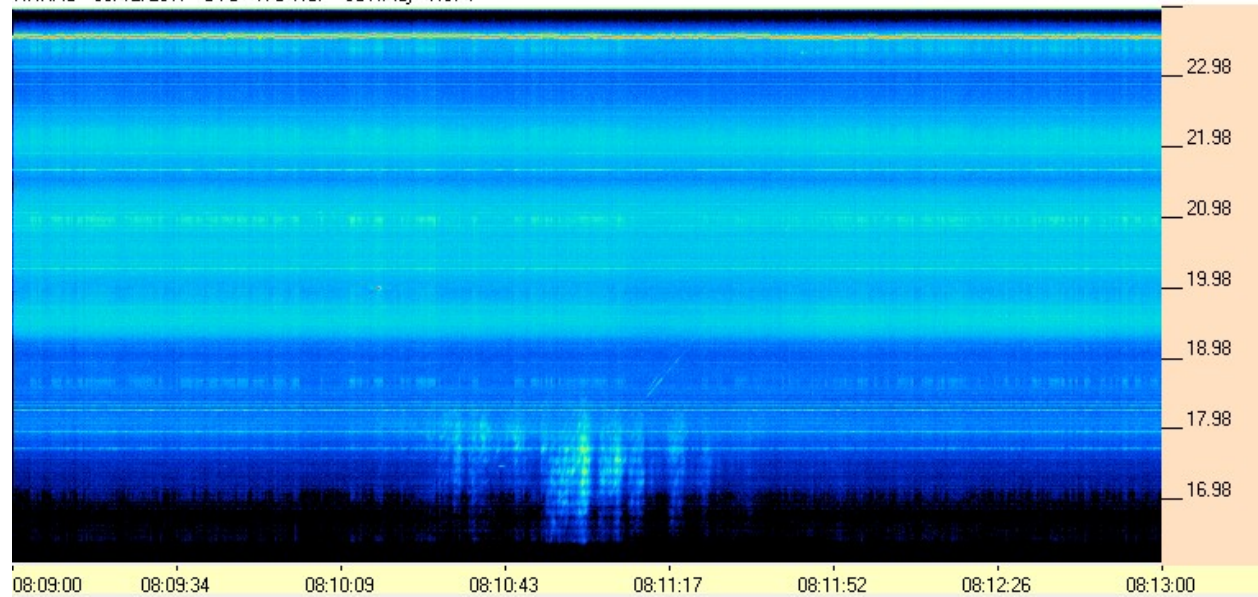
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



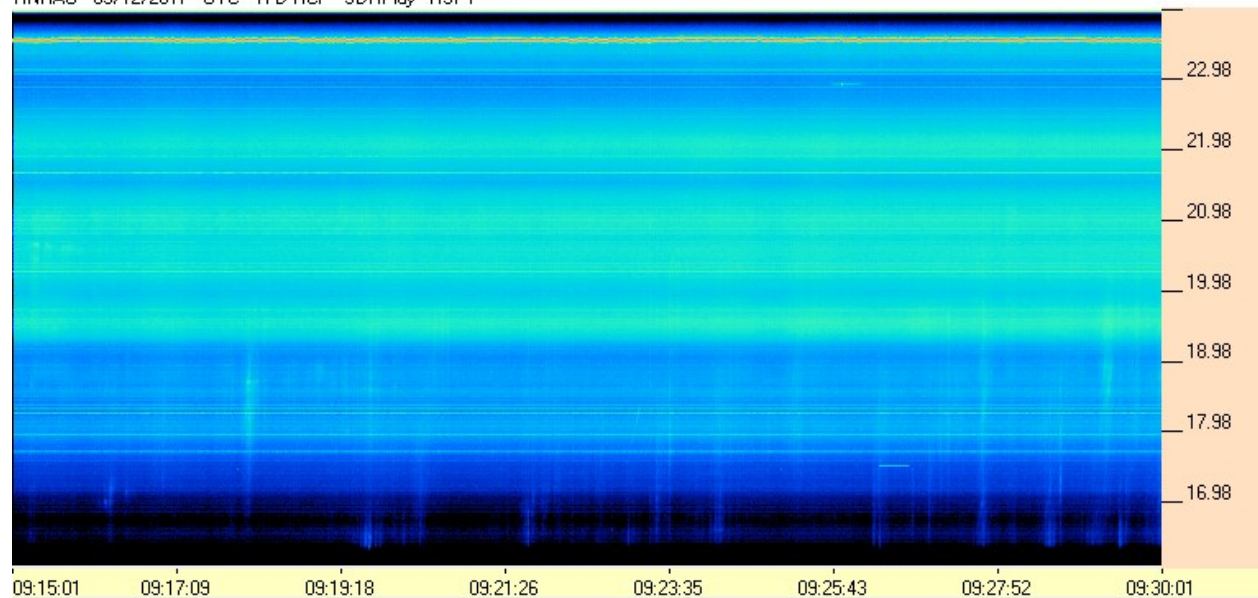
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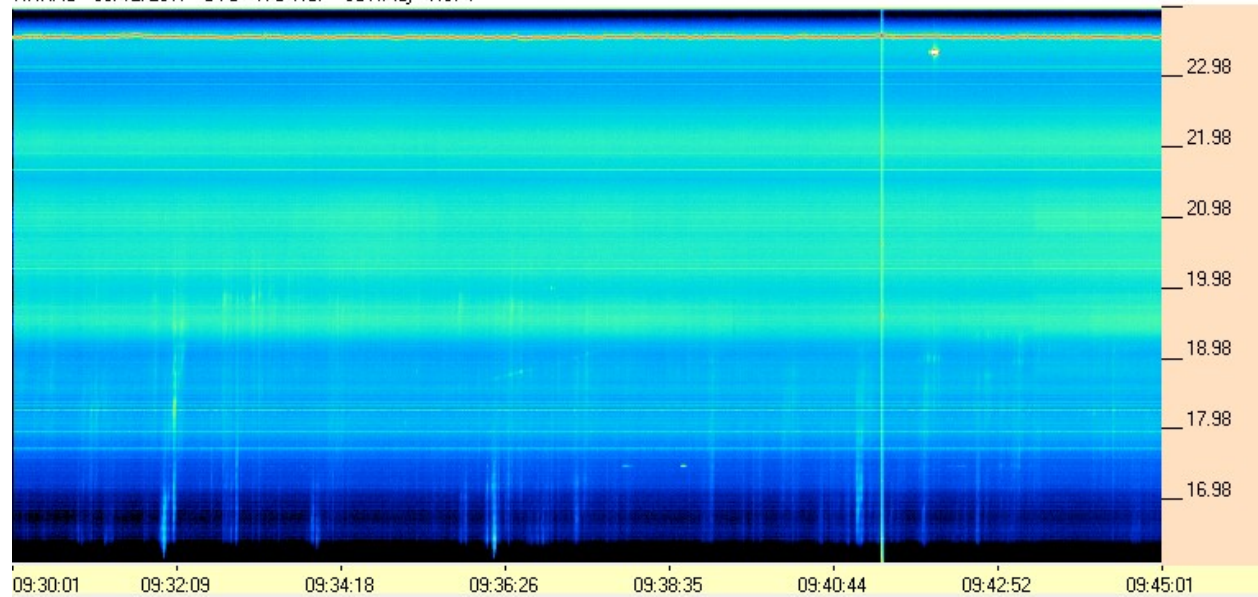
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



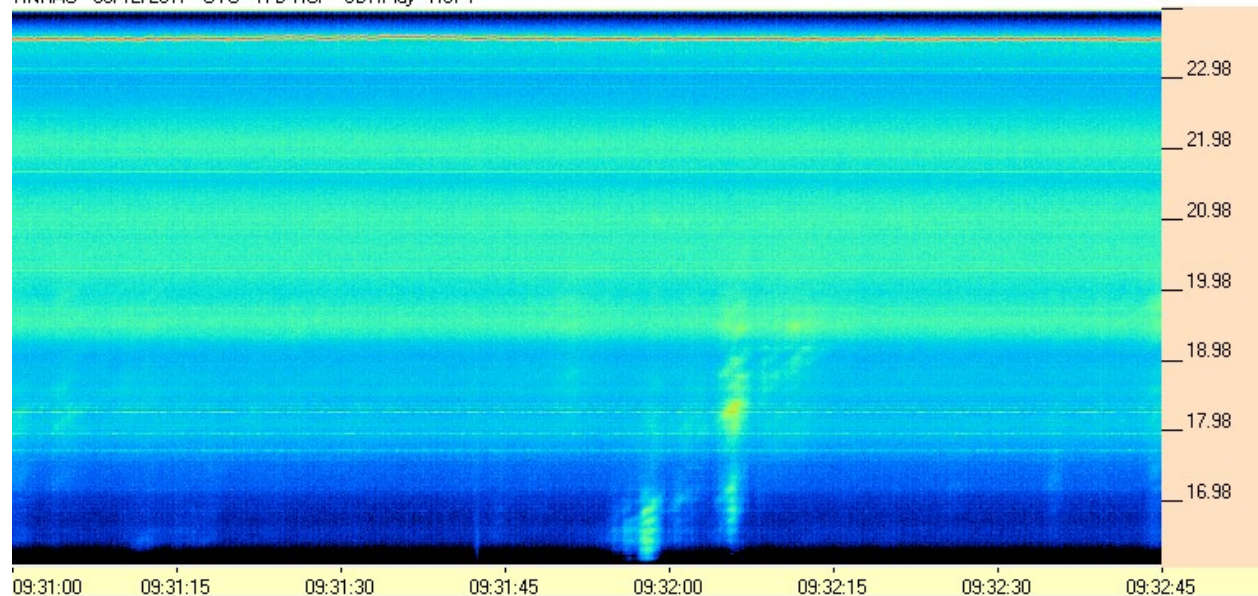
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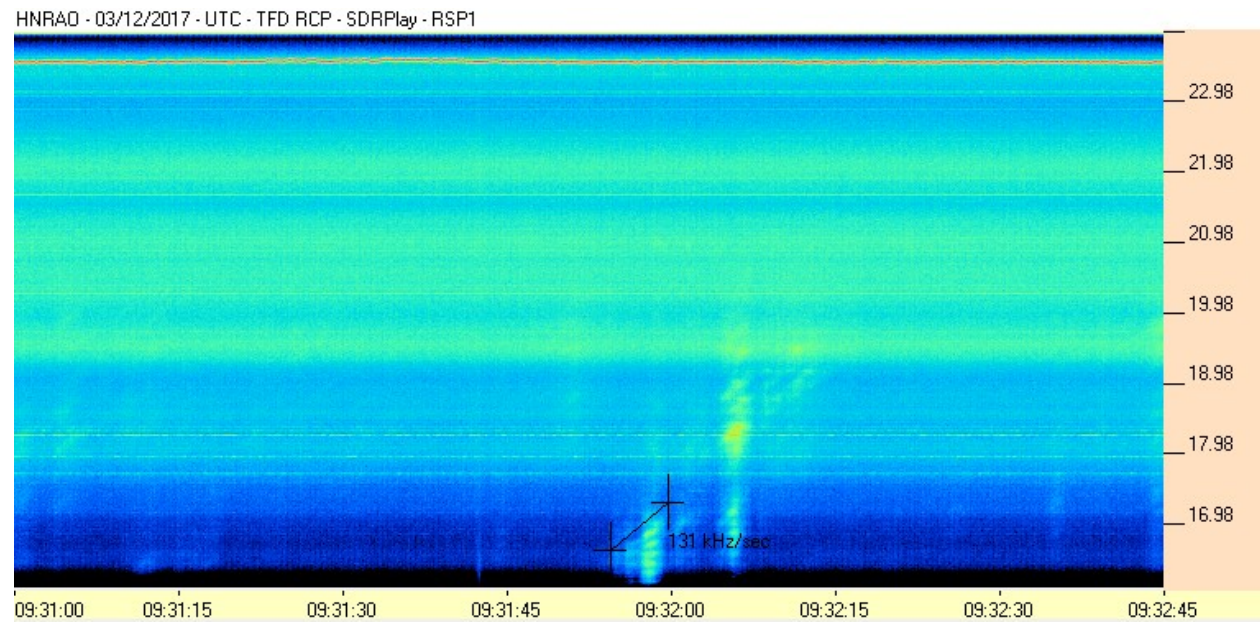
HNRAO - 03/12/2017 - UTC - TFD RCP - SDRPlay - RSP1



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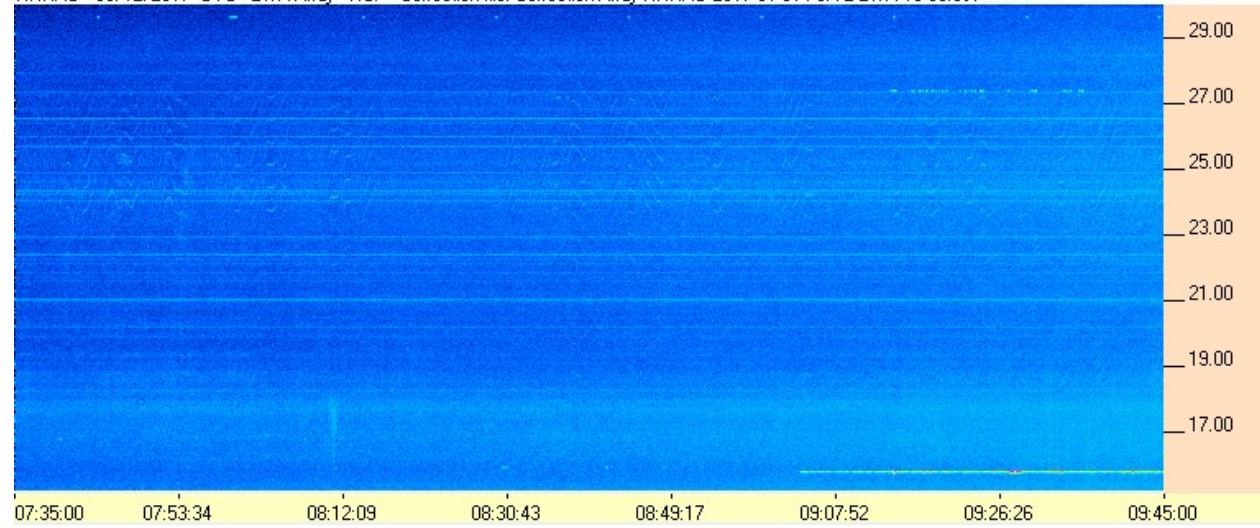


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FSX-2/LWA Pair

HNRAO - 03/12/2017 UTC - LWA Array - RCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-2 LWA 15-30.csv

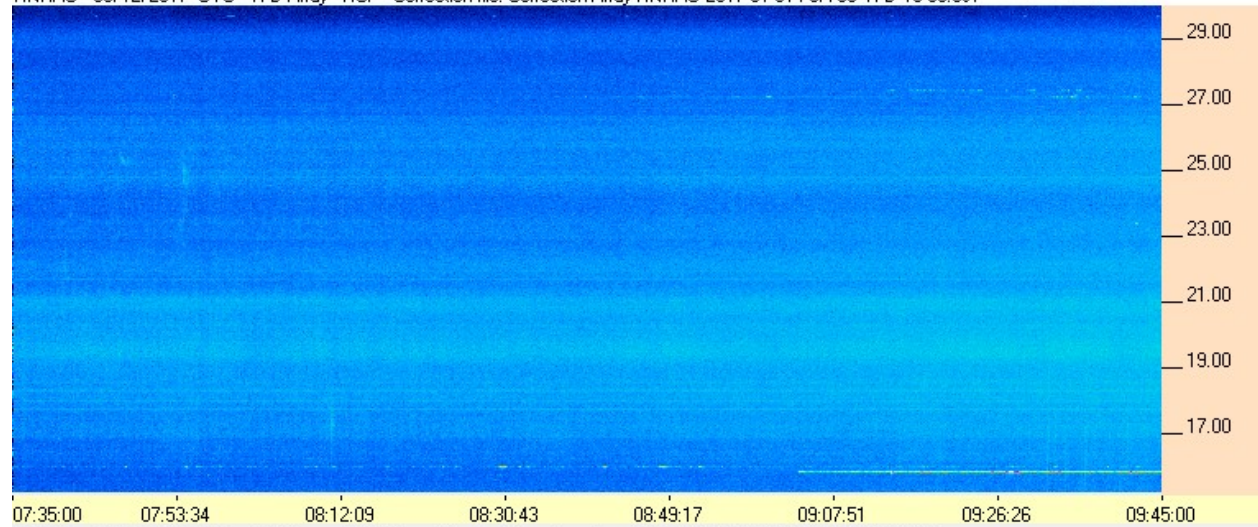


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FSX-8S/TFD Pair

HNRAO - 03/12/2017 UTC - TFD Array - RCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv



HNRAO - 03/12/2017 UTC - TFD Array - LCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv

