

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 27 April 2017

Object: Jupiter – Non-Io-B

Observer: Unattended

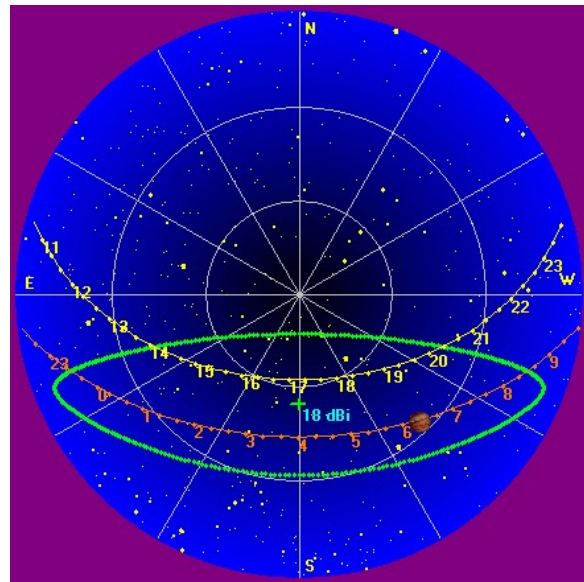
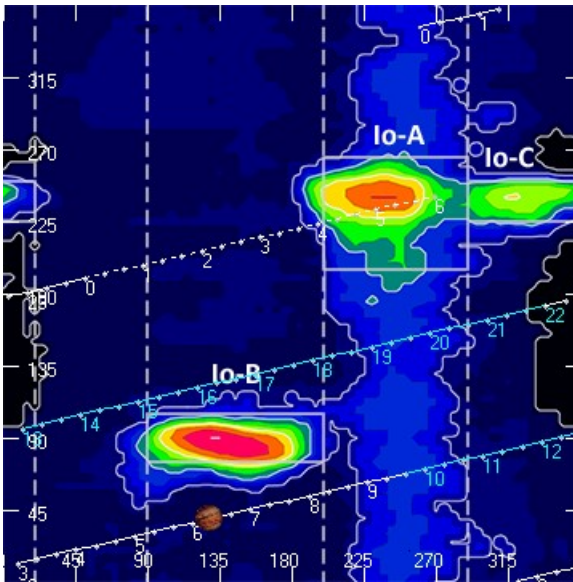
Start of pass:	0618 UT	Planetary K-index:	3
Jupiter Altitude:	34.7 degrees	Jupiter Azimuth:	223.2 degrees
Jupiter CML:	128.89	Jupiter Io Phase:	039.90
Jupiter RA:	13:01	Jupiter Dec:	-04:45
Hour Angle:	02:17	Polarization	RCP
Sun Altitude:	-33.9 degrees	Sun Azimuth:	019.4 degrees
Sun RA:	02:12	Sun Dec:	13:18

End of pass:	0712 UT		
Jupiter Altitude:	26.9 degrees	Jupiter Azimuth:	236.0 degrees
Jupiter CML:	161.54	Jupiter Io Phase	047.48
Hour Angle:	03:12		
Sun Altitude:	-29.3 degrees	Sun Azimuth:	033.9 degrees

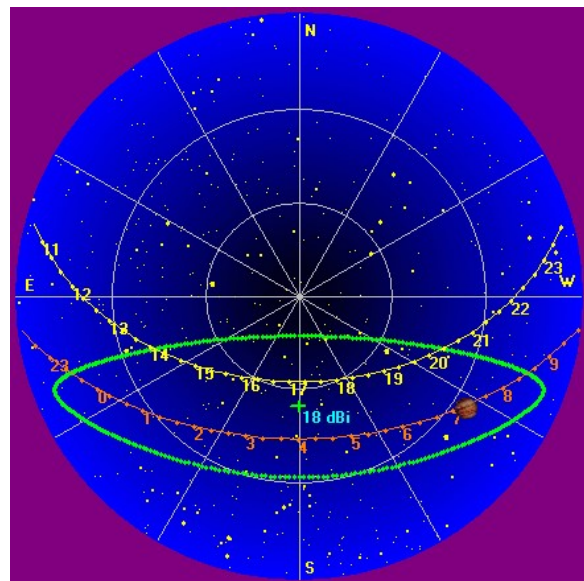
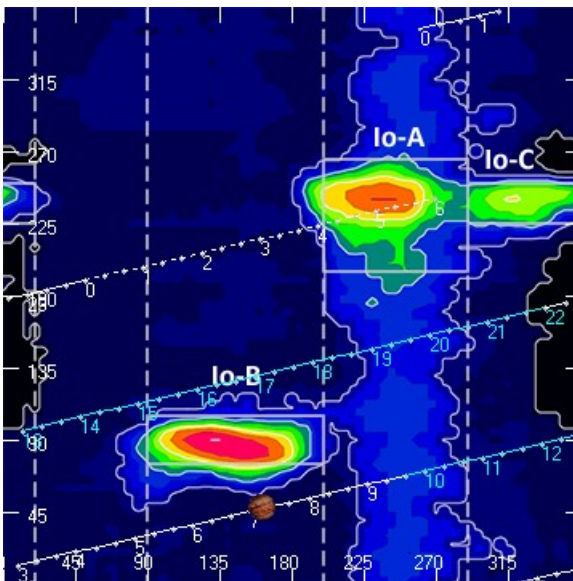
Observations made using:

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 @ 13'
 - a. 12' 6" phase cable - phased for 2016-17 season
 - b. Calibrated 19 April 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 19 April 2017
5. SDRPlay
 - a. RSP1 (2) and RSP2 (1)

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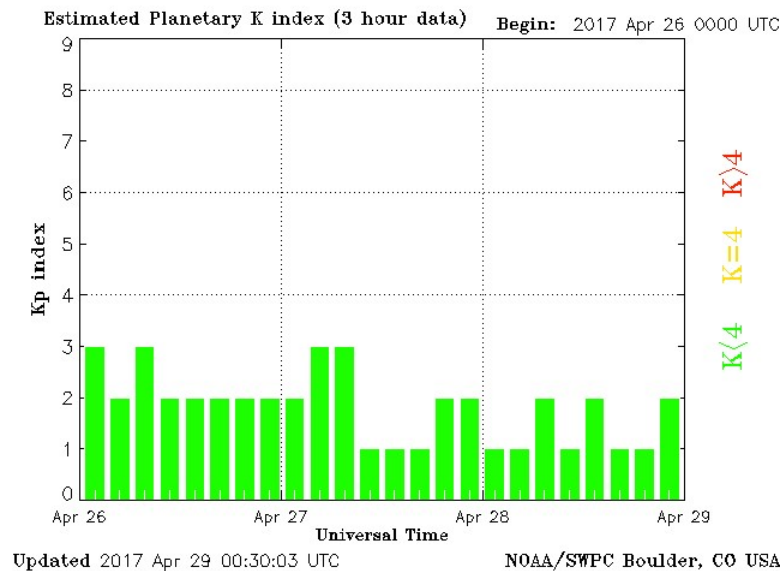


Beginning of Pass



End of Pass

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A brief and weak Non-Io-B storm lasting a little less than an hour. Positive drift L-bursts with positive drift modulation lanes ranging from 16 MHz to nearly 20 MHz. Measurements of the drift rate of these modulation lanes were challenging but several measurements were attempted. Due to the weakness in strength of the features, accuracy was not expected to be high.

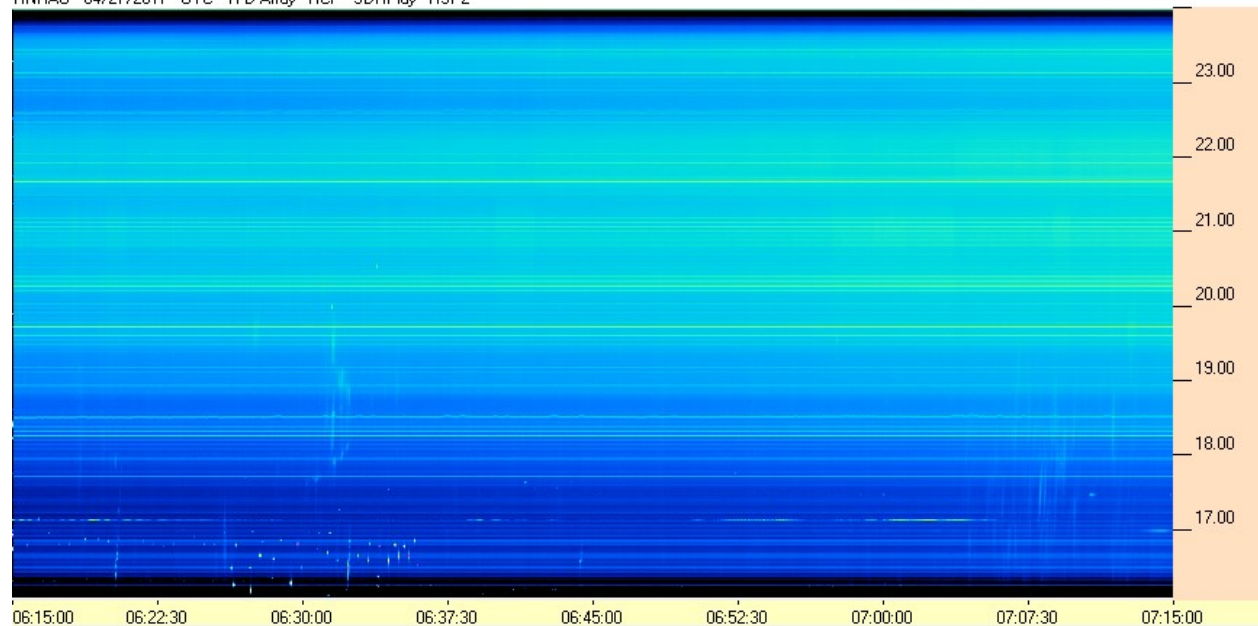
Emissions were only visible with the SDRPlay RSP2 spectrograph.

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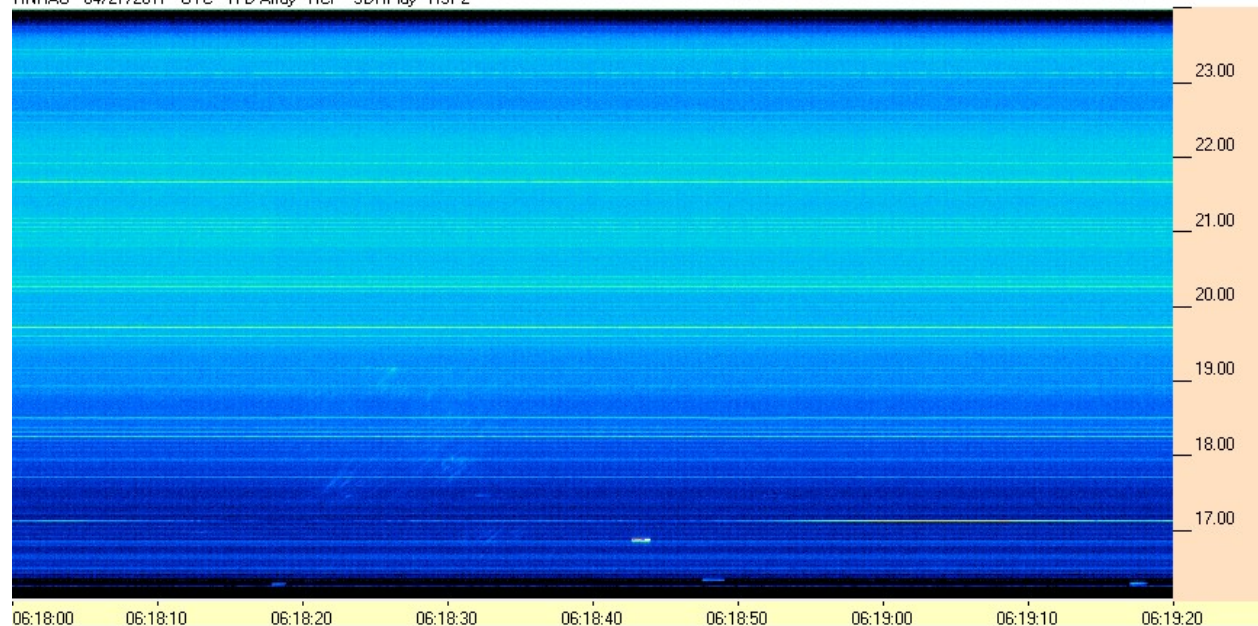


SDRPlay RSP2/TFD Pair

HNRAO - 04/27/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



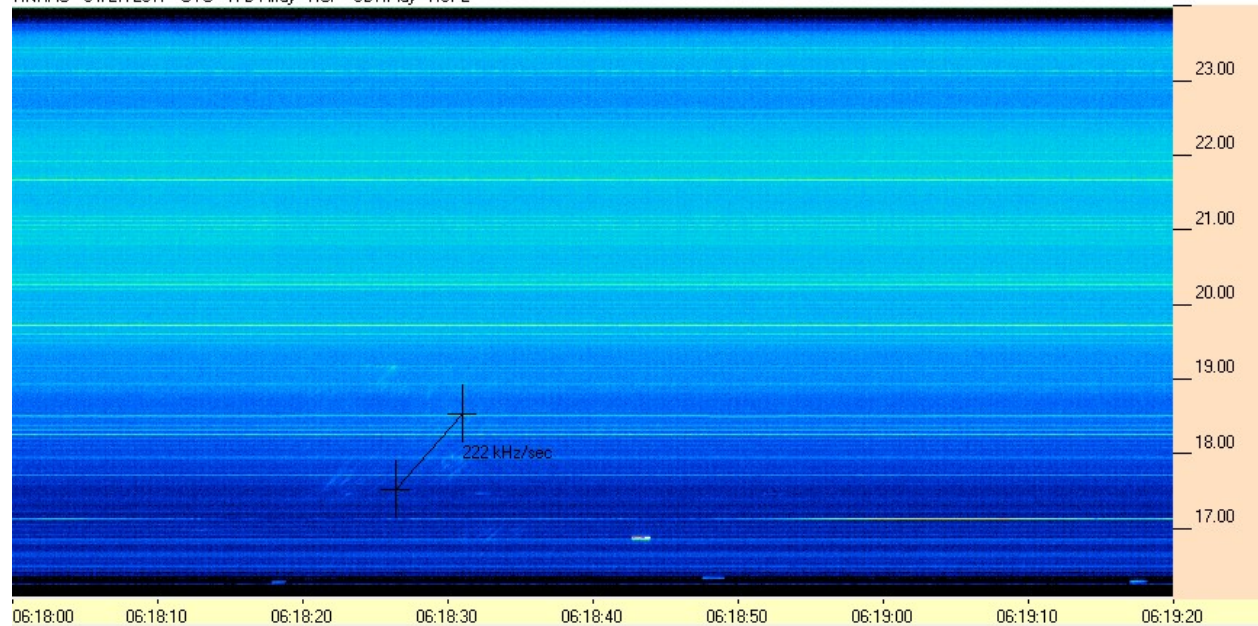
HNRAO - 04/27/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



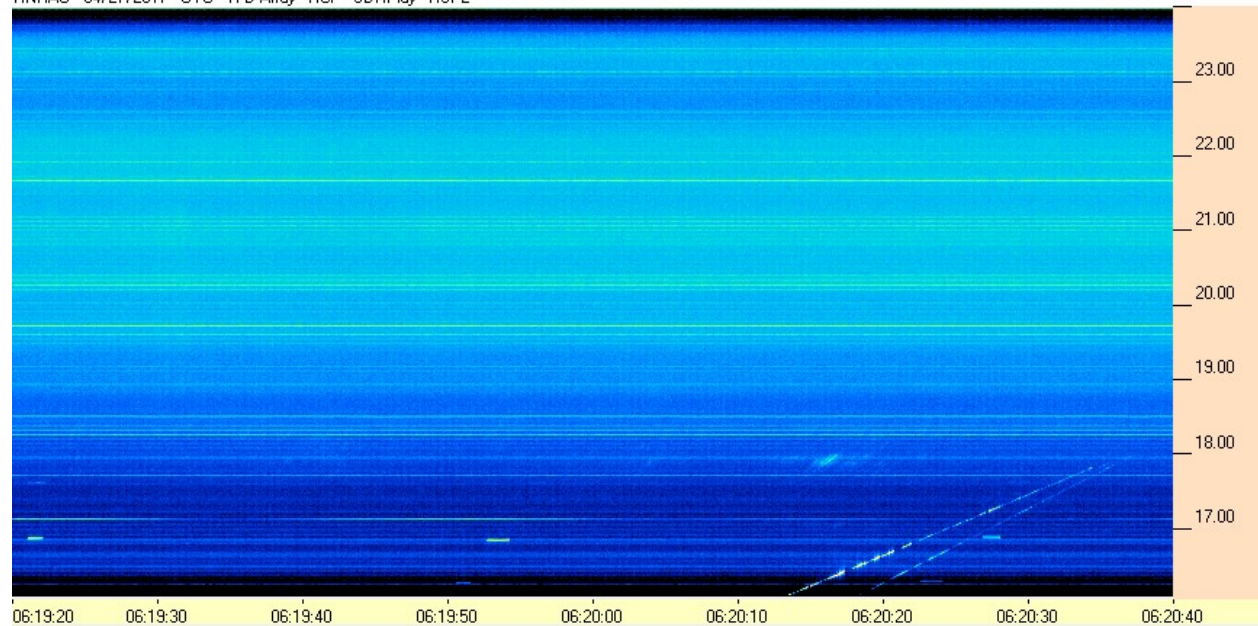
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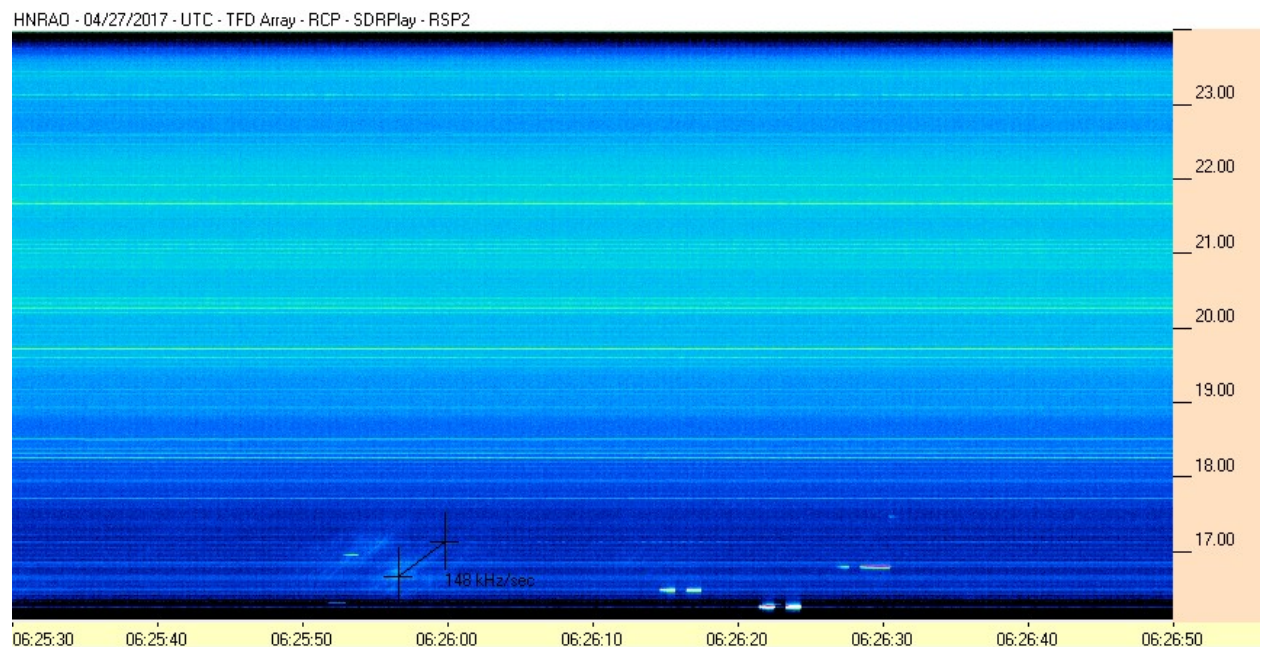
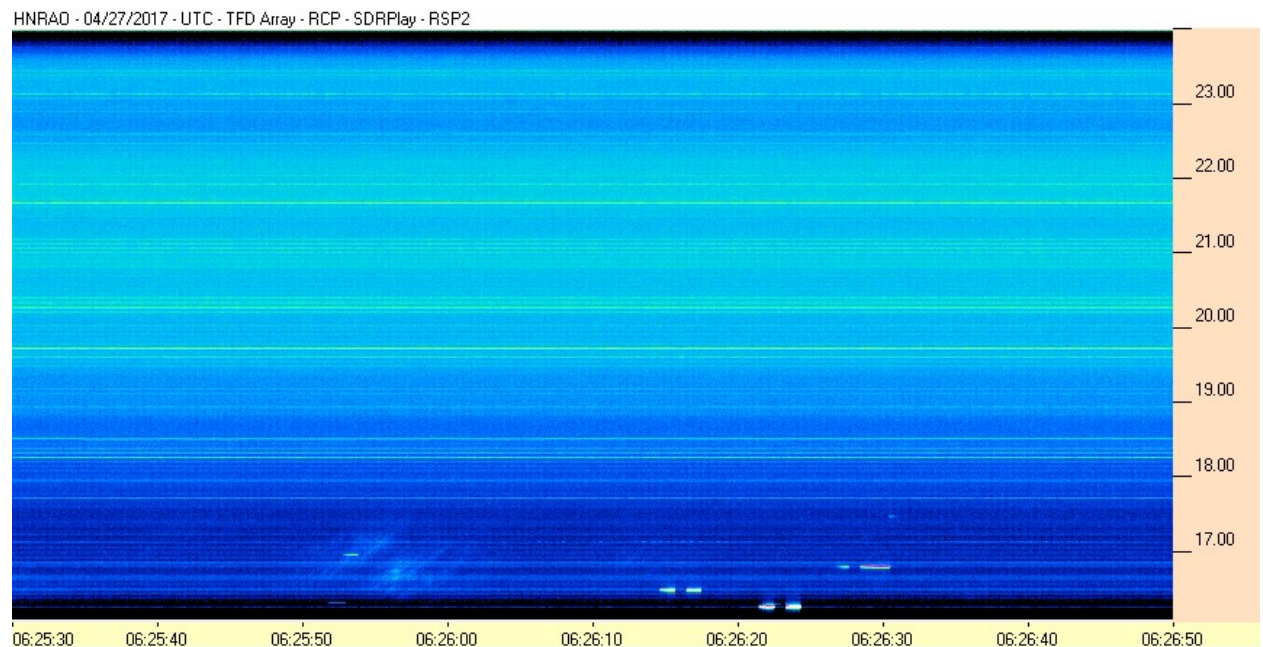
HNRAO - 04/27/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



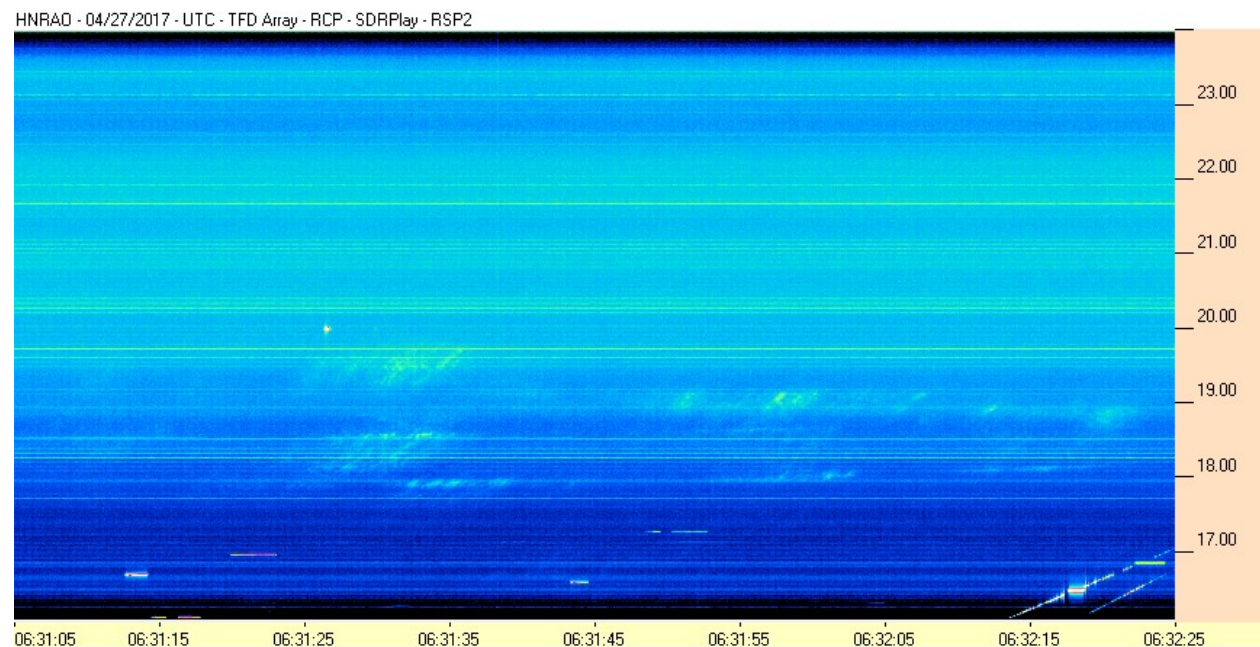
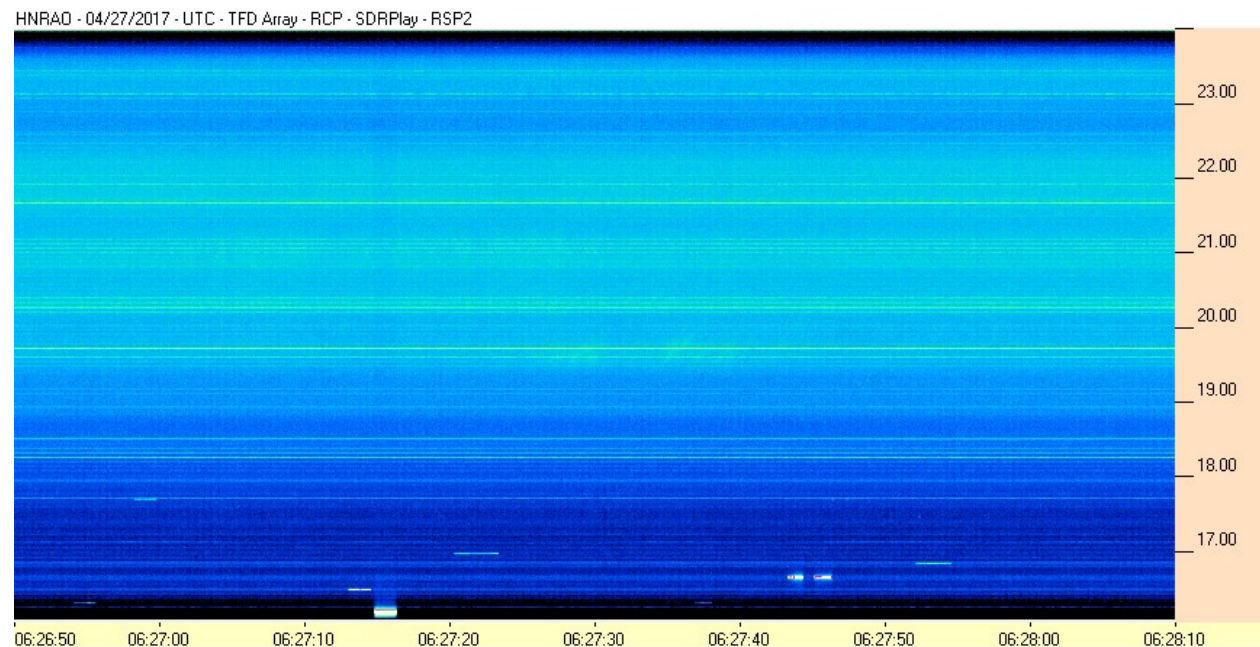
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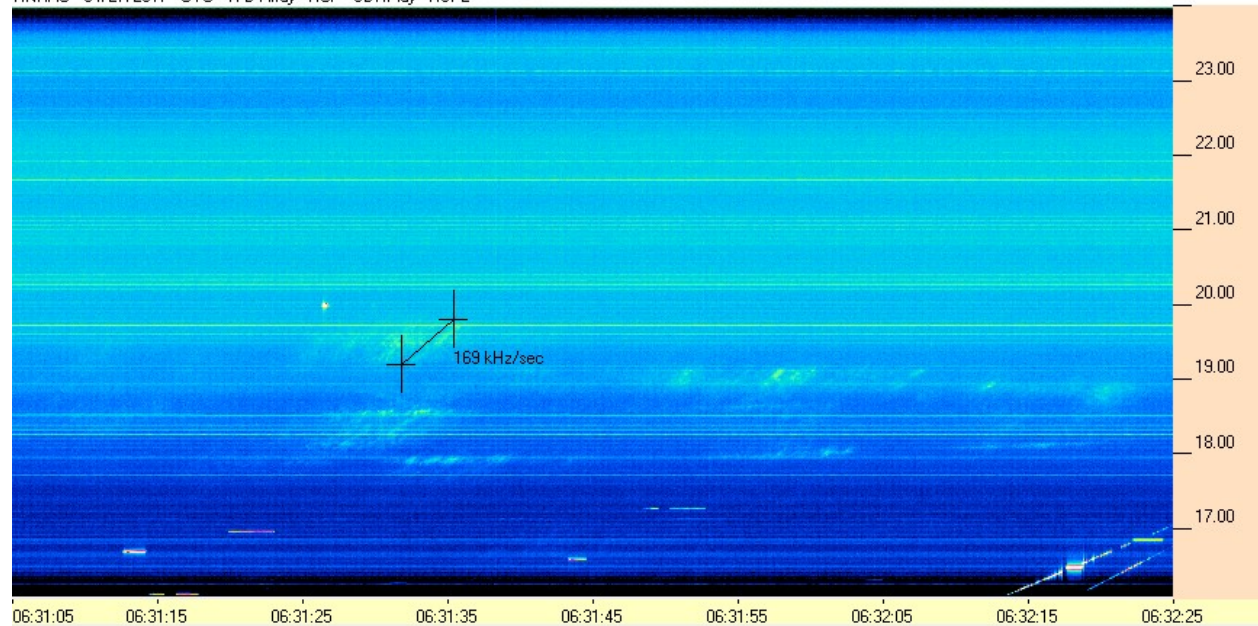
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