

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 13 April 2017

Object: Jupiter Non-Io-A

Observer: Unattended

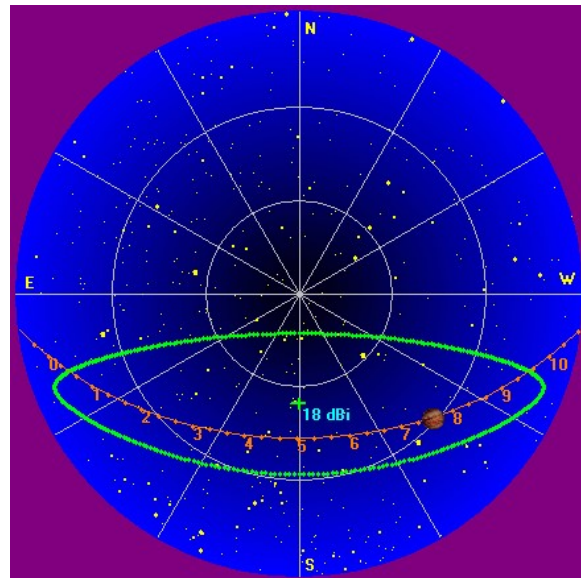
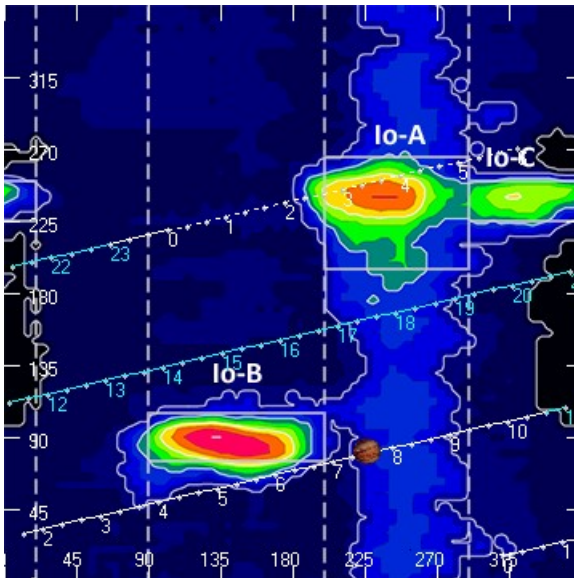
Start of pass:	0736 UT	Planetary K-index:	1
Jupiter Altitude:	32.1 degrees	Jupiter Azimuth:	226.7 degrees
Jupiter CML:	226.49	Jupiter Io Phase:	080.06
Jupiter RA:	13:07	Jupiter Dec:	-05:24
Hour Angle:	02:33	Polarization	RCP
Sun Altitude:	-31.3 degrees	Sun Azimuth:	041.5 degrees
Sun RA:	01:20	Sun Dec:	08:27

End of pass:	0736 UT		
Jupiter Altitude:		Jupiter Azimuth:	
Jupiter CML:		Jupiter Io Phase	
Hour Angle:			
Sun Altitude:		Sun Azimuth:	

Observations made using:

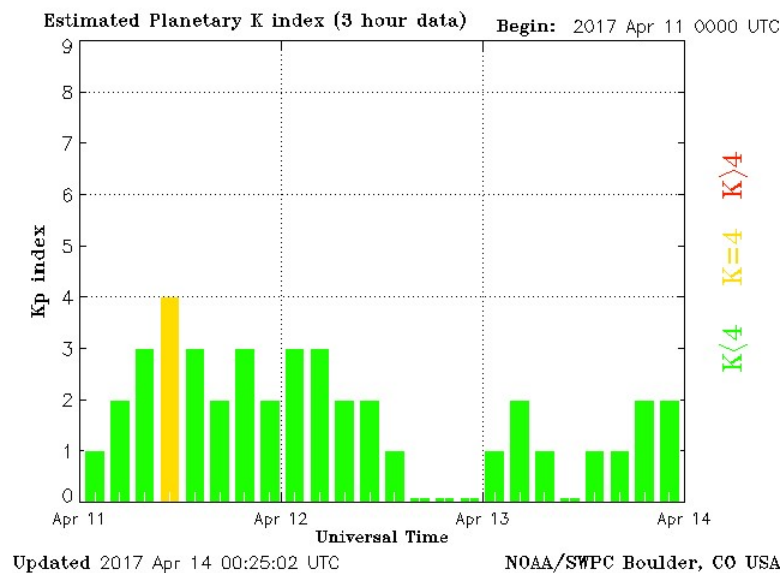
1. FSX-8S fed by the TFD array
 - a. 7.7 dB loss between TFD and Multicouplers.
 - b. Connect to array through HNRAO Multicoupler #1 and #2, port 2
 - i. HNRAO Multicoupler #1 – TFD/LCP
 - ii. HNRAO Multicoupler #2 – TFD/RCP
 1. Port 1 having 10 dB of gain, all other ports have 3 dB gain.
2. FSX-2 fed 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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MODE	CML RANGE	Io RANGE	MAX F	POLAR	ARC	NOTES
Io-D	0-200	95-130	18	LH	Early	Also called "fourth source"
Io-B	(105 - 185)	(80-110)	39.5	RH	Early	Also called "early source"
non Io-B	80-200	0-360	38	RH	Early	Voyager info
Io-A	(200-270)	(205-260)	38	RH	Late	Also called "main source"
non-Io-A	(230-280)	0-360	38	RH	Late	
Io-C	(300-20)	(225-260)	36	RH&LH	Late	Also called "third source"
non-Io-C	300-360	0-360	32	RH&LH	Late	Voyager info

One brief Non-Io-A emission barely above galactic background. This was one single emission. lasting a few seconds, but identifiable as Jupiter by the modulation lanes. 16 MHz – 17 MHz. One measurable modulation lane. A positive drift of 38 kHz/sec.

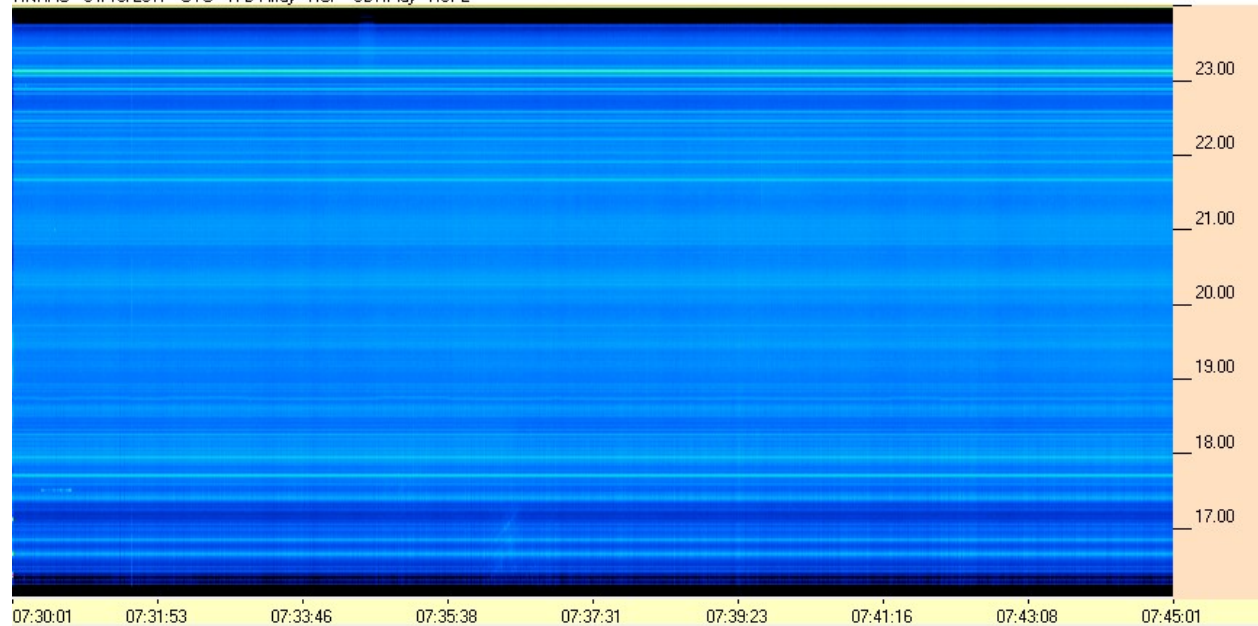
No other observations can be made.

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SDRPlay RSP2/TFD Pair

HNRAO - 04/13/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2



HNRAO - 04/13/2017 - UTC - TFD Array - RCP - SDRPlay - RSP2

