

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 25 April 2017

Object: Jupiter – Non-Io-C

Observer: JB

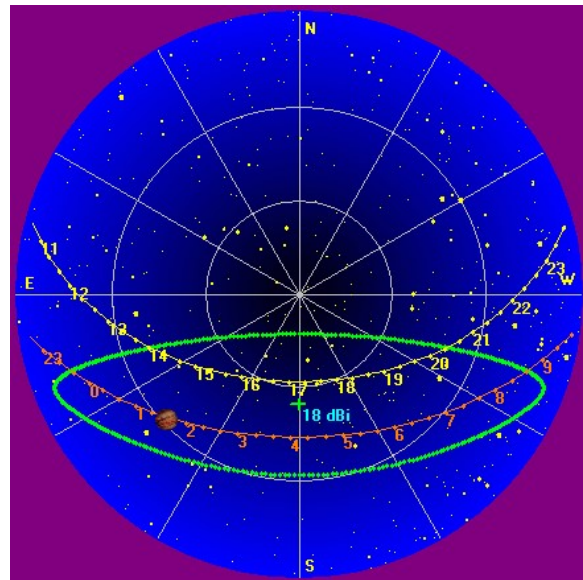
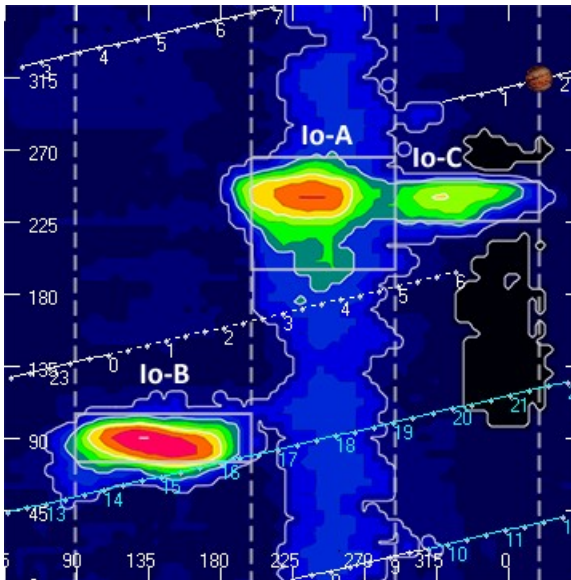
Start of pass:	0140 UT	Planetary K-index:	4
Jupiter Altitude:	33.0 degrees	Jupiter Azimuth:	133.7 degrees
Jupiter CML:	19.56	Jupiter Io Phase:	313.92
Jupiter RA:	13:01	Jupiter Dec:	-04:51
Hour Angle:	-02:30	Polarization	LCP
Sun Altitude:	-17.6 degrees	Sun Azimuth:	305.0 degrees
Sun RA:	02:04	Sun Dec:	12:34

End of pass:	0147 UT		
Jupiter Altitude:	33.9 degrees	Jupiter Azimuth:	135.4 degrees
Jupiter CML:	23.79	Jupiter Io Phase	314.91
Hour Angle:	-02:23		
Sun Altitude:	-18.7 degrees	Sun Azimuth:	306.4 degrees

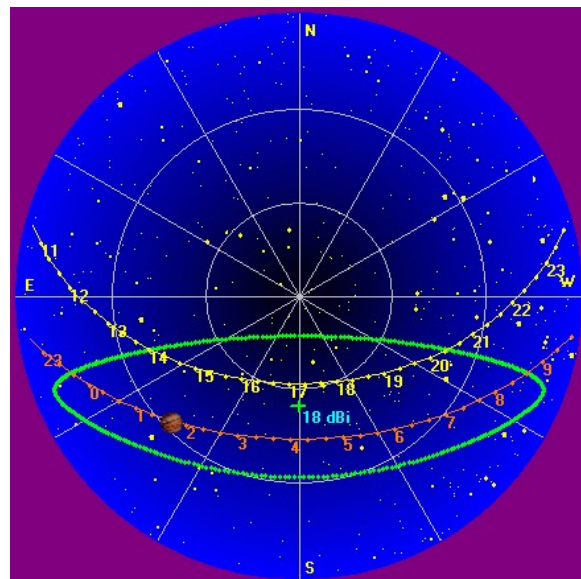
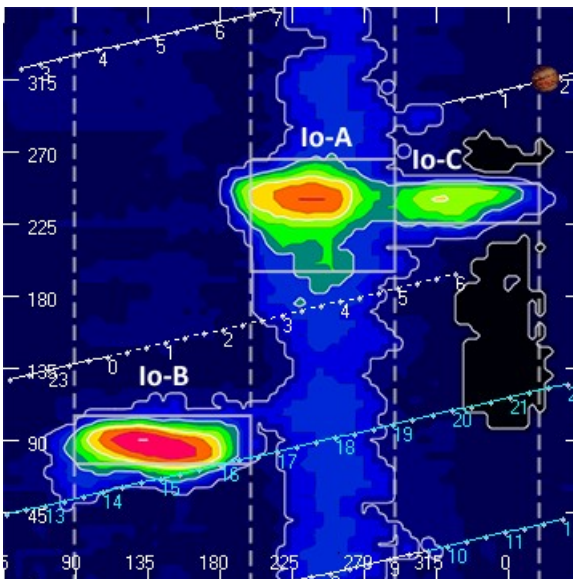
Observations made using:

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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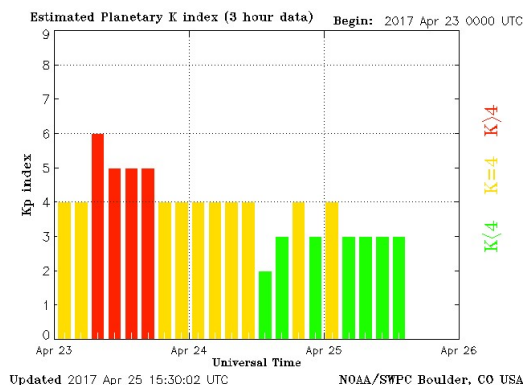


Beginning of Pass



End of Pass

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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

A very brief and weak group of Jupiter emissions. The closest CML/Io values indicate a Non-Io-C pass.

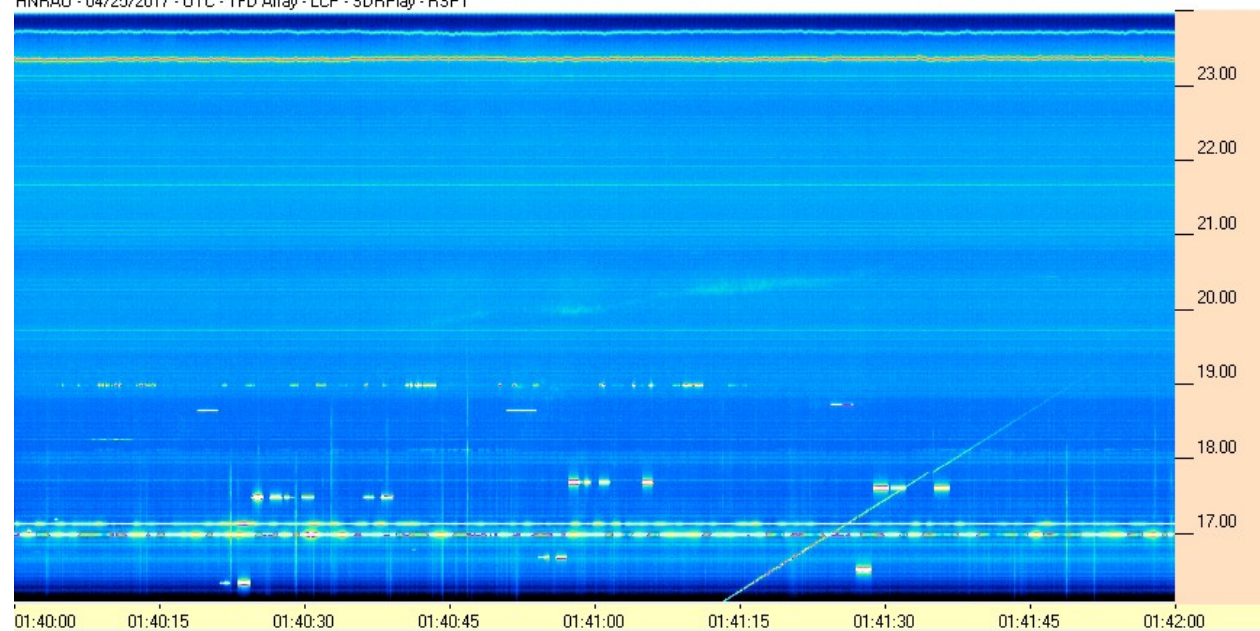
Weak L-bursts with a n “N-like” event spanning 20-21 MHz from 0141 UT through 0141:45 UT. Very weak L-bursts from 0145:45 UT through 0147 UT. Modulation lanes barely visible but too weak to measure.

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SDRPlay RSP1/TFD Pair

HNRAO - 04/25/2017 - UTC - TFD Array - LCP - SDRPlay - RSP1



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