

HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq



Date: 21 May 2017

Object: Jupiter – Non-Io-C

Observer: Unattended

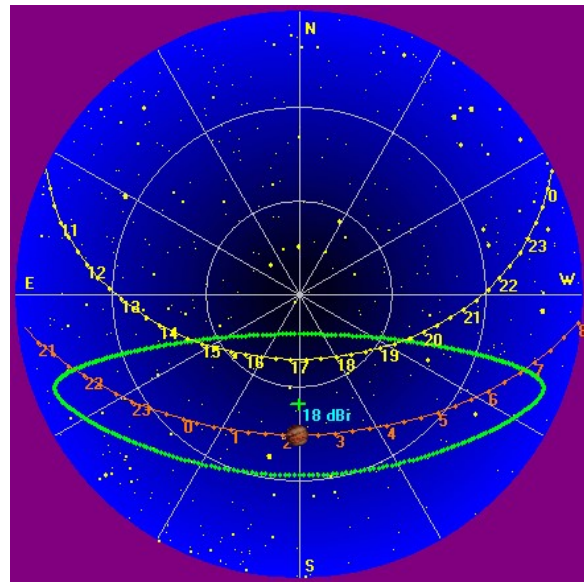
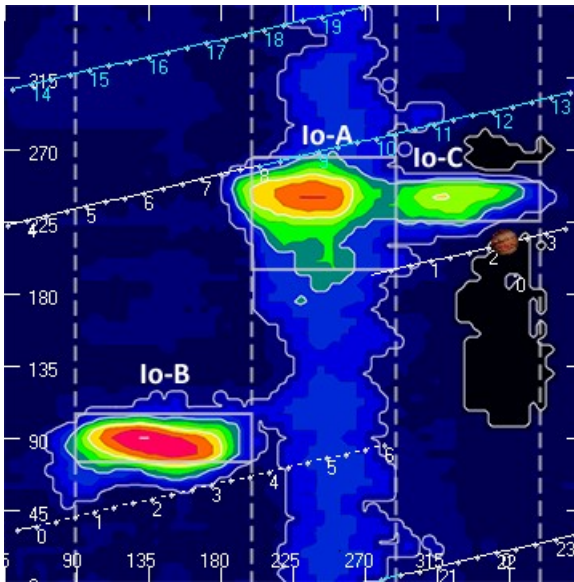
Start of pass:	0217 UT	Planetary K-index:	3
Jupiter Altitude (deg):	45.3	Jupiter Azimuth (deg):	179.6
Jupiter CML:	357.34	Jupiter Io Phase:	211.63
Jupiter RA (hr/min):	12:52	Jupiter Dec (hr/min):	-03:59
Hour Angle (hr/min):	-00:01	Polarization	LCP
Sun Altitude (deg):	-17.4	Sun Azimuth (deg):	317.5
Sun RA (hr/min):	03:45	Sun Dec (hr/min):	19:48

End of pass:			
Jupiter Altitude (deg):		Jupiter Azimuth (deg):	
Jupiter CML:		Jupiter Io Phase	
Hour Angle (hr/min):			
Sun Altitude (deg):		Sun Azimuth (deg):	

Observations made using:

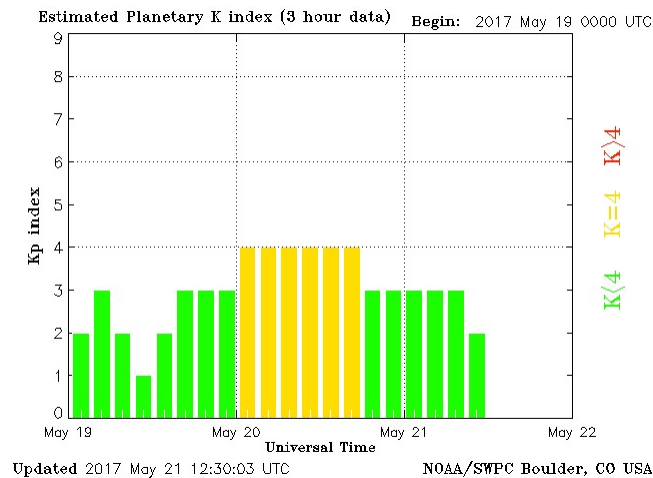
1. FSX-8S fed by the TFD array
 - a. 7.7 dB loss between TFD and Multicouplers.
 - b. Connect to array through HNRAO Multicoupler #1 and #2, port 2
 - i. HNRAO Multicoupler #1 – TFD/LCP
 - ii. HNRAO Multicoupler #2 – TFD/RCP
 1. Port 1 having 10 dB of gain, all other ports have 3 dB gain.
2. FSX-2 fed 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

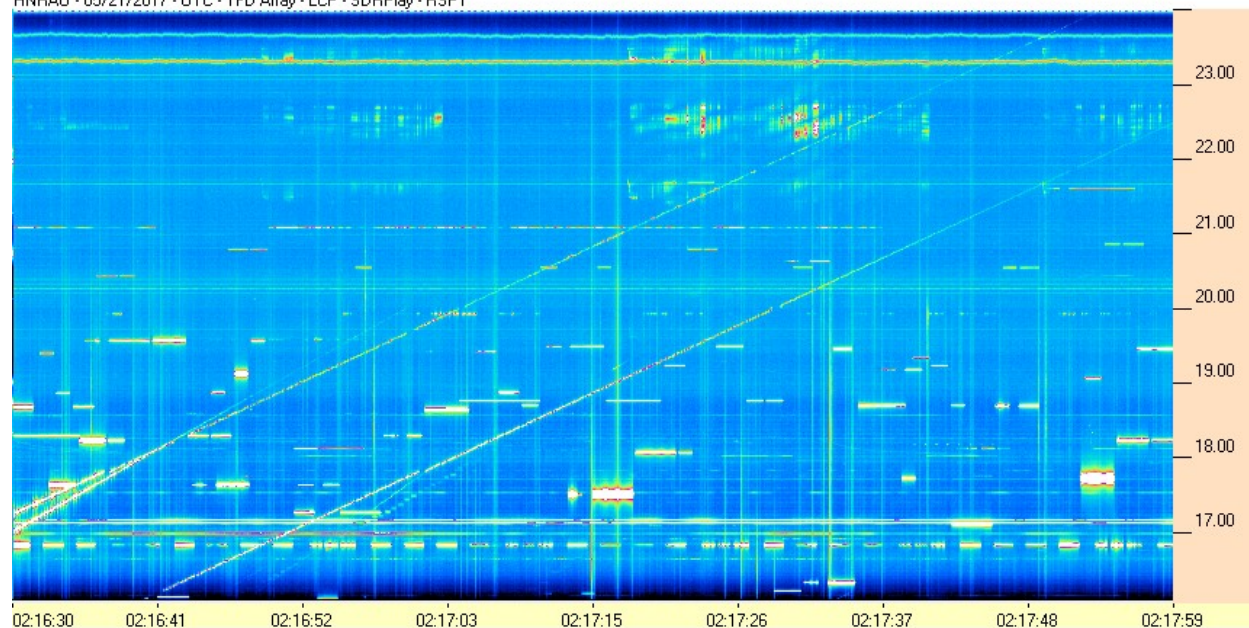
<https://www.radiosky.com/jupmodes.html>

Captured about 15 seconds of an LCP emission. Positive drift modulation lanes. A measurement shows 109 kHz/sec. No other activity.

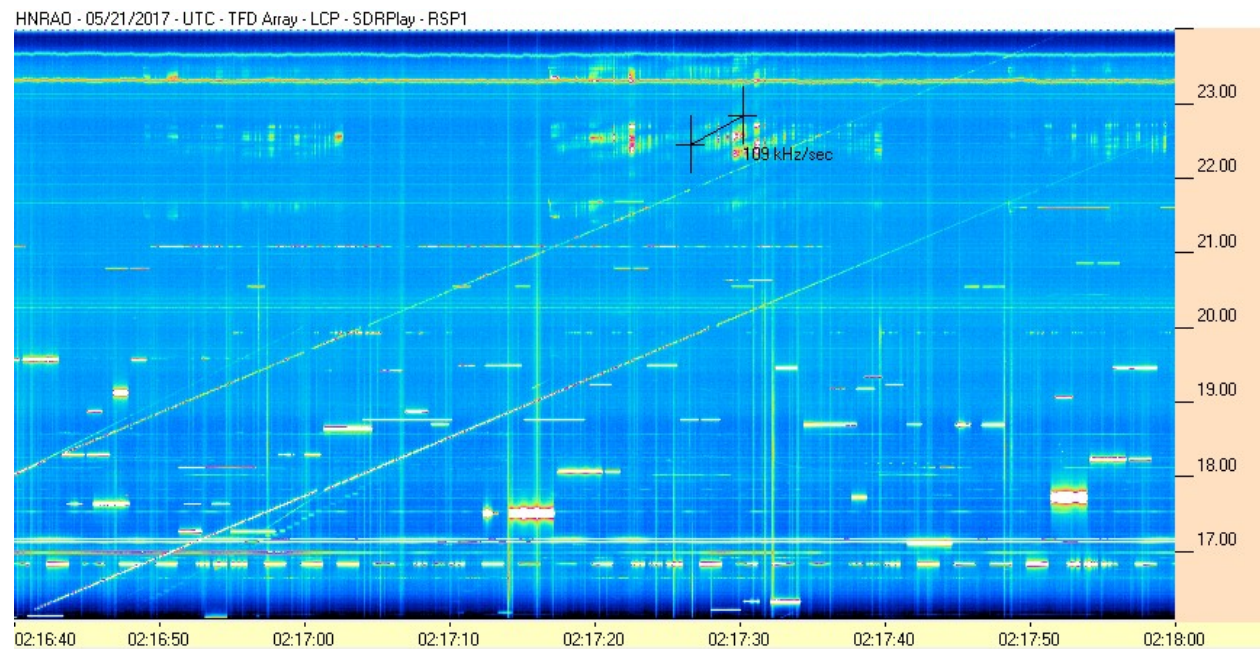
No Radio JOVE activity.

SDRPlay RSP1/TFD Pair

HNRAO - 05/21/2017 - UTC - TFD Array - LCP - SDRPlay - RSP1



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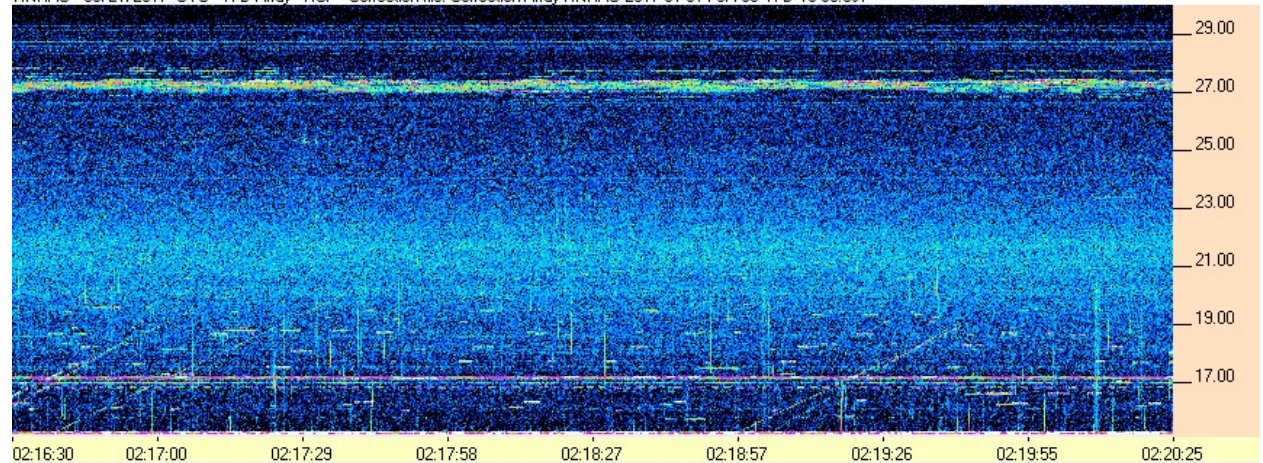


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FSX-8S/TFD Pair

HNRAO - 05/21/2017 UTC - TFD Array - RCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv



HNRAO - 05/21/2017 UTC - TFD Array - LCP - Correction file: Correction Array HNRAO 2017 01 31 FSX-8S TFD 15-30.csv

