HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq

Date: 10 February 2017

Object: Jupiter – Non-Io-A

Observer: Unattended

Start of pass:	**0730 UT**		
Jupiter Altitude:	**34.9 degrees**	**Jupiter Azimuth:**	**144.1 degree**
Jupiter CML:	**242.38**	**Jupiter Io Phase:**	**057.44**
Jupiter RA:	**13:27**	**Jupiter Dec:**	**-07:33**
Hour Angle:	**-01:56**	**Polarization**	**RHC**
Sun Altitude:	**-53.1 degrees**	**Sun Azimuth:**	**054.5 degrees**
Sun RA:	**21:29**	**Sun Dec:**	**-14:52**

End of pass:	**0751 UT**		
Jupiter Altitude:	**37.0 degrees**	**Jupiter Azimuth:**	**149.9 degrees**
Jupiter CML:	**255.07**	**Jupiter Io Phase**	**060.38**
Hour Angle:	**-01:35**		
Sun Altitude:	**-49.7 degrees**	**Sun Azimuth:**	**060.6 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’ – phased for 2016-17 season
    a. Calibrated 4 February 2017
    b. 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 4 February 2017

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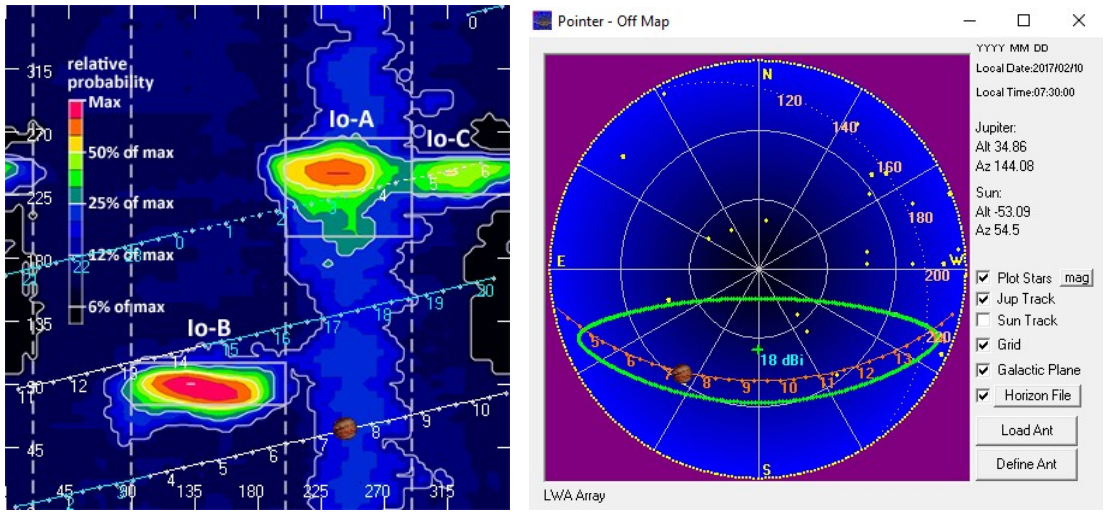
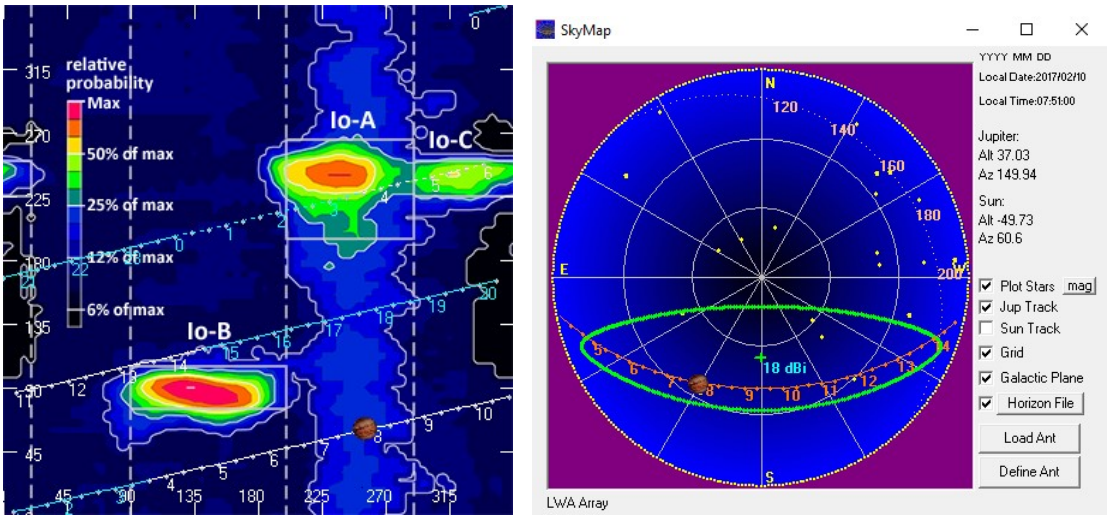


Beginning of Pass



End of Pass

A weak Non-Io-A pass this morning observed here from 0730 UT until 0751 UT. As has been typical this Jupiter apparition, weak emissions. Limited resolution from this site due to continued power line RFI. Had the RFI been any worse, it's possible this event would have gone unnoticed.

L-bursts from 19 MHz to 15 MHz. Emissions begin about 0730 UT at 15 MHz and slowly climb in frequency until about 0742 UT peaking about 19 MHz, then descended in frequency until passing from view below 15 MHz at 0751 UT. All L-bursts appear to be negative drift, with the single strongest burst visible here at 0747:38 UT.

The FSX-2/LWA pair resolved this event in greater detail than the FSX-8S/TFD pair.

Nothing was seen passing through the Radio JOVE frequency of 20.1 MHz at this observatory. Others may have different results.

End of Report

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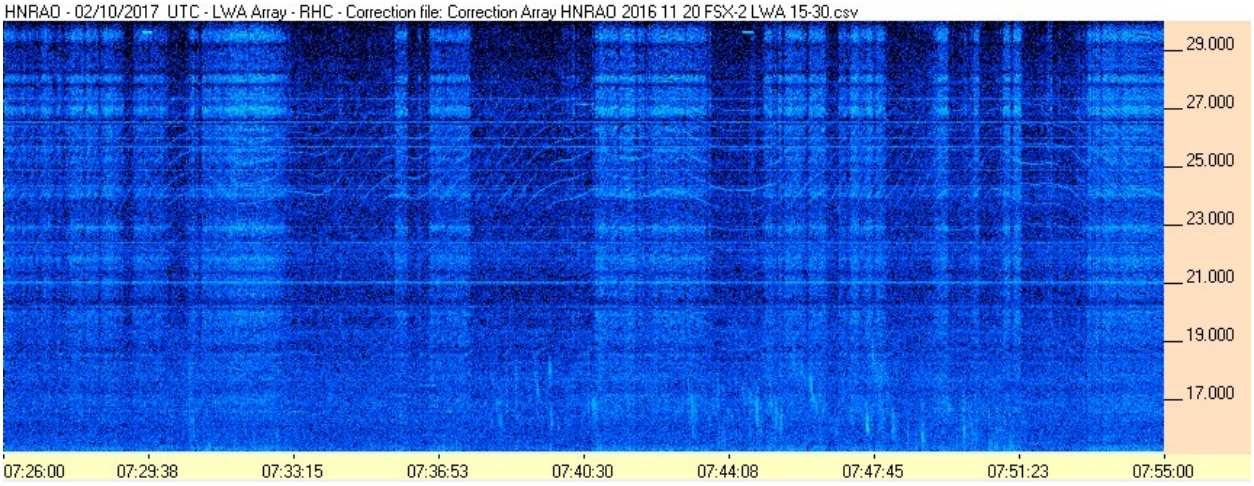
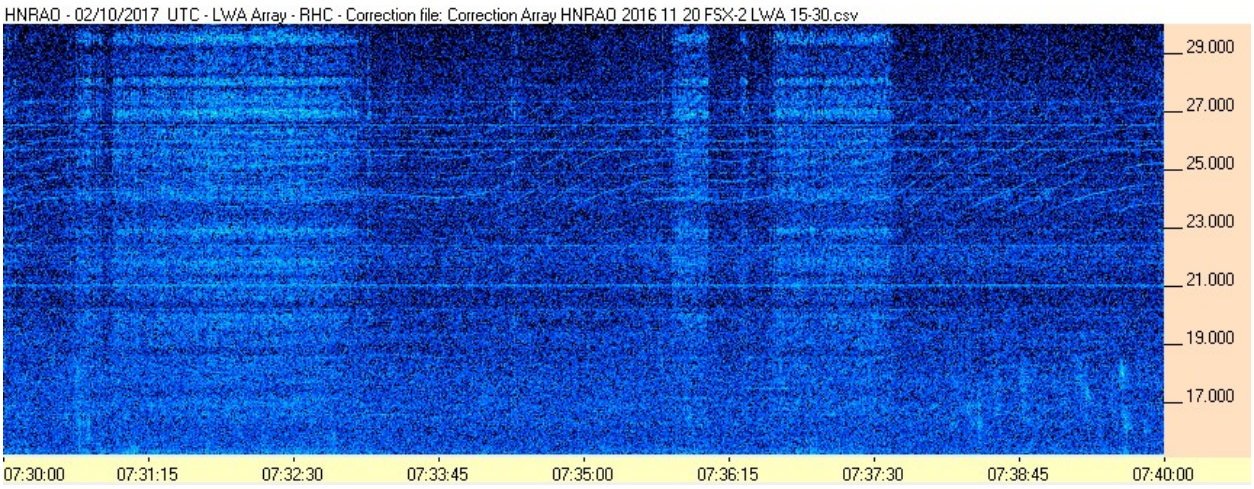
FSX-2/LWA Pair





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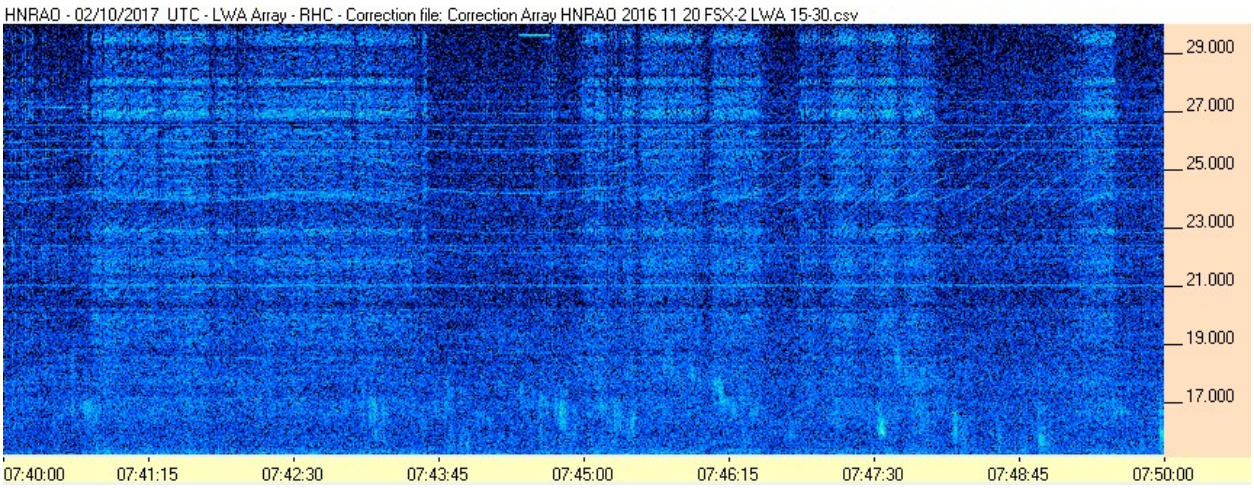

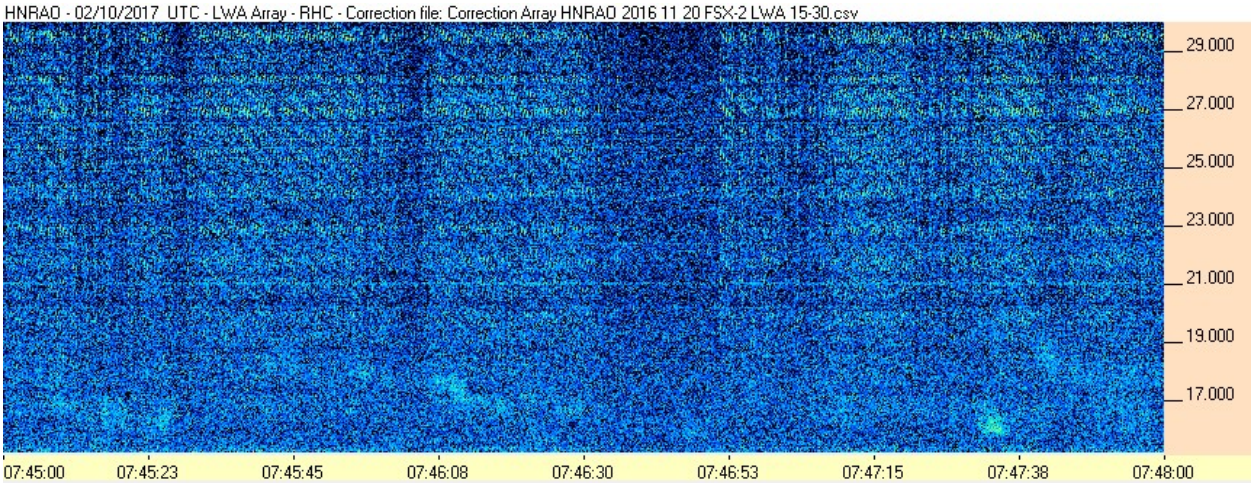

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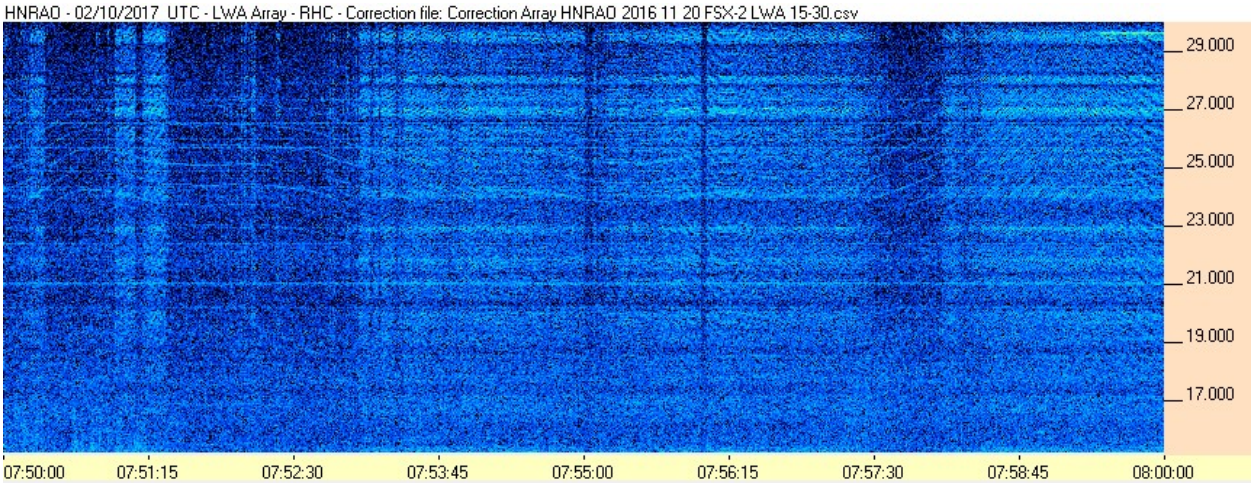
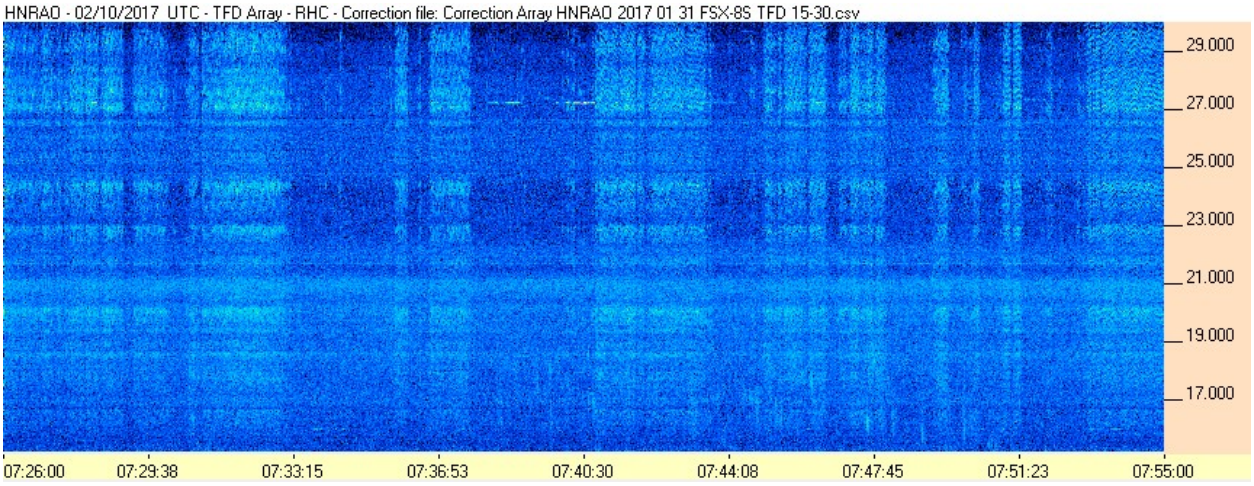


FSX-8S/TFD Pair



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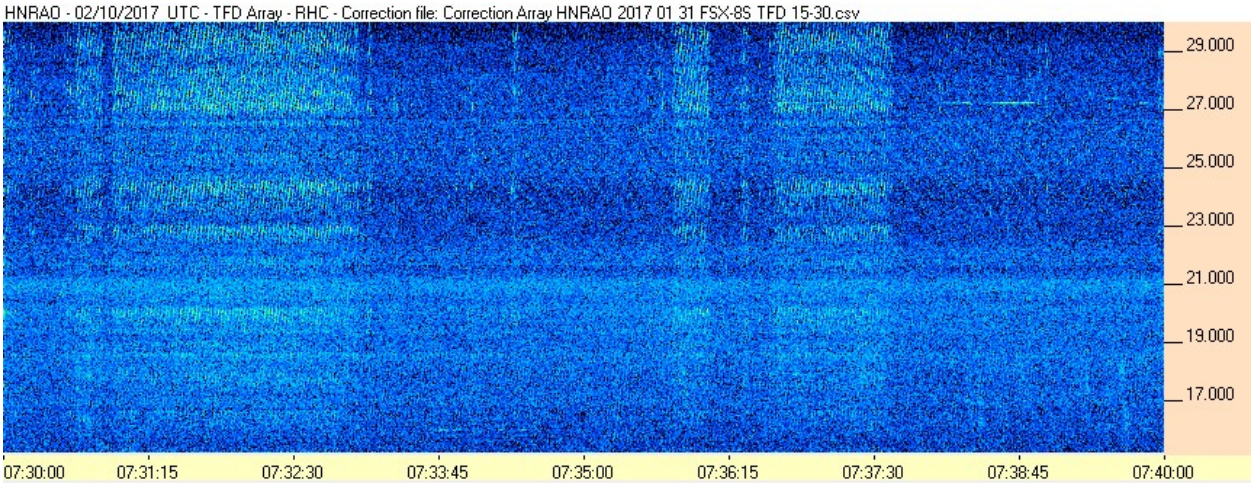

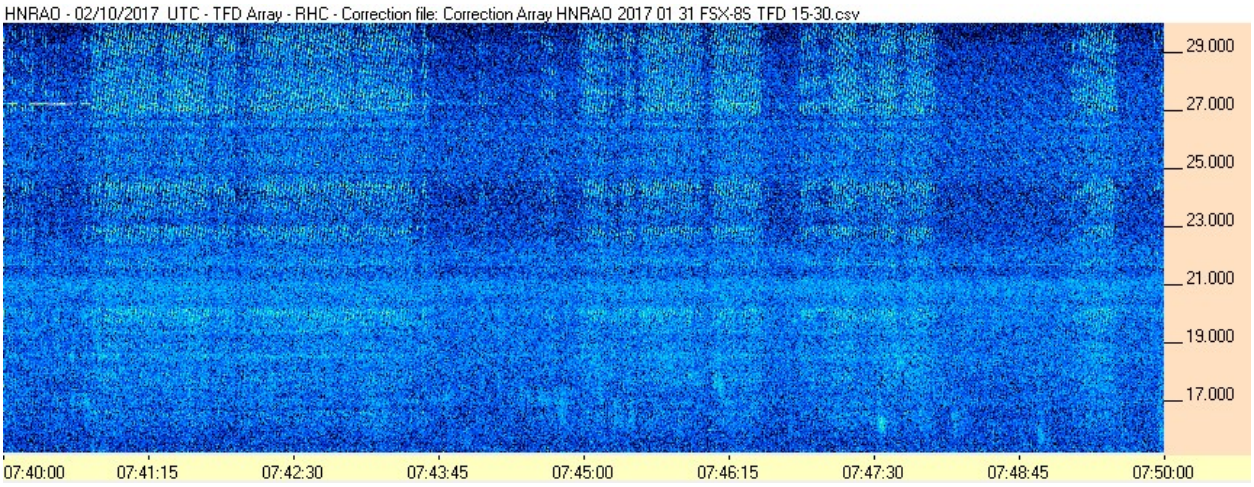

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