HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq

Date: 12 February 2017

Object: Jupiter – Non-Io-A

Observer: Unattended

Start of pass:	**0856 UT**		
Jupiter Altitude:	**41.5 degrees**	**Jupiter Azimuth:**	**172.7 degrees**
Jupiter CML:	**235.62**	**Jupiter Io Phase:**	**116.16**
Jupiter RA:	**13:27**	**Jupiter Dec:**	**-07:32**
Hour Angle:	**-00:22**	**Polarization**	**RCP**
Sun Altitude:	**-37.9 degrees**	**Sun Azimuth:**	**075.0 egrees**
Sun RA:	**21:37**	**Sun Dec:**	**-14:12**

End of pass:	**0914 UT**		
Jupiter Altitude:	**41.8 degrees**	**Jupiter Azimuth:**	**178.7 degreees**
Jupiter CML:	**246.5**	**Jupiter Io Phase**	**118.69**
Hour Angle:	**-00:04**		
Sun Altitude:	**-34.5 degrees**	**Sun Azimuth:**	**078.5 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’
    a. 12’ phase cable - phased for 2016-17 season
    b. Calibrated 4 February 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 4 February 2017

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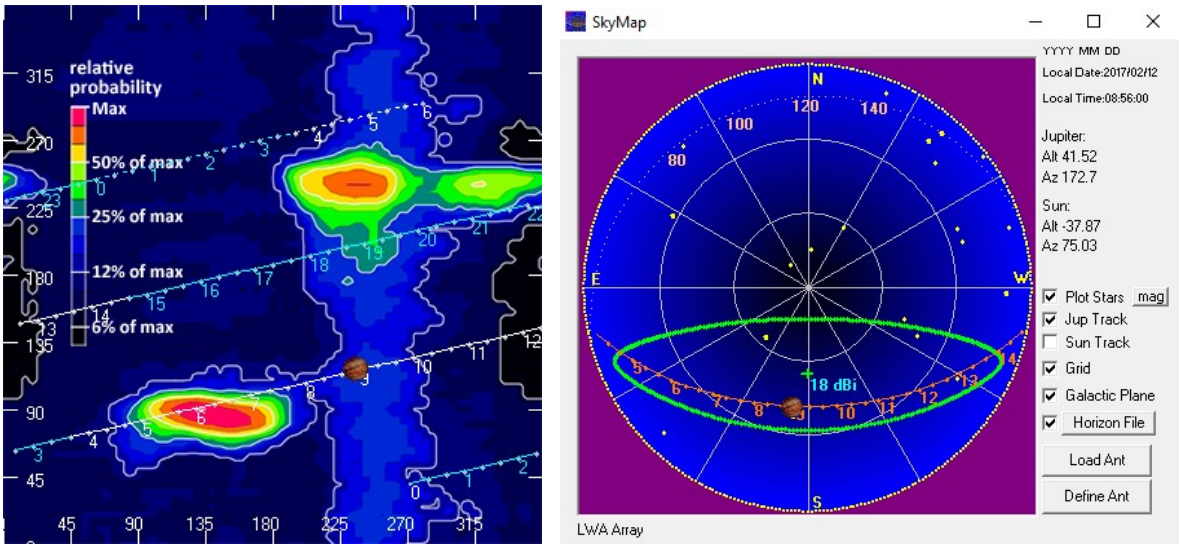
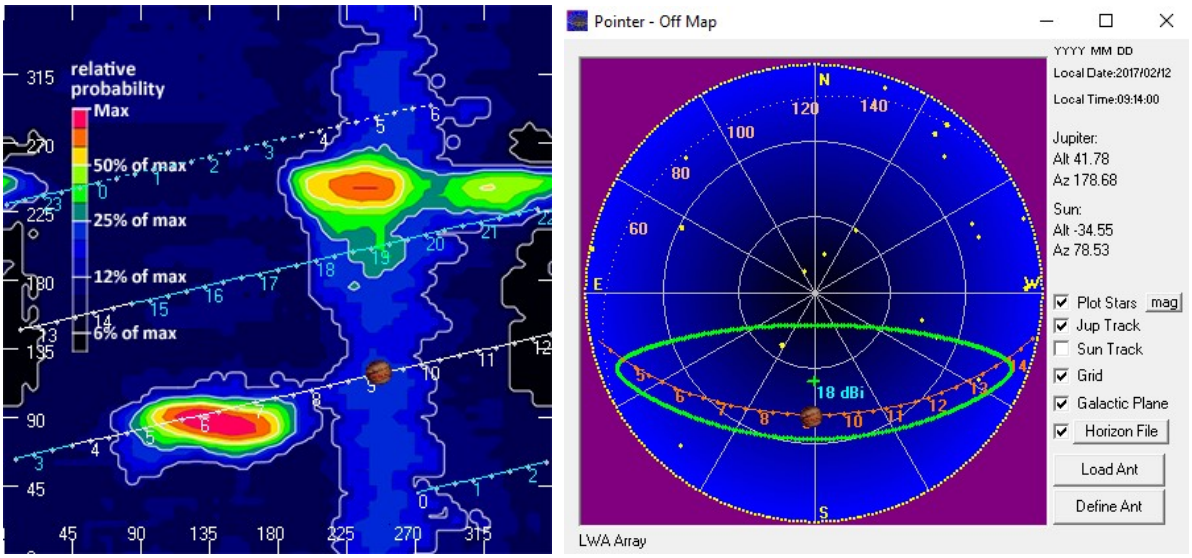


Beginning of Pass

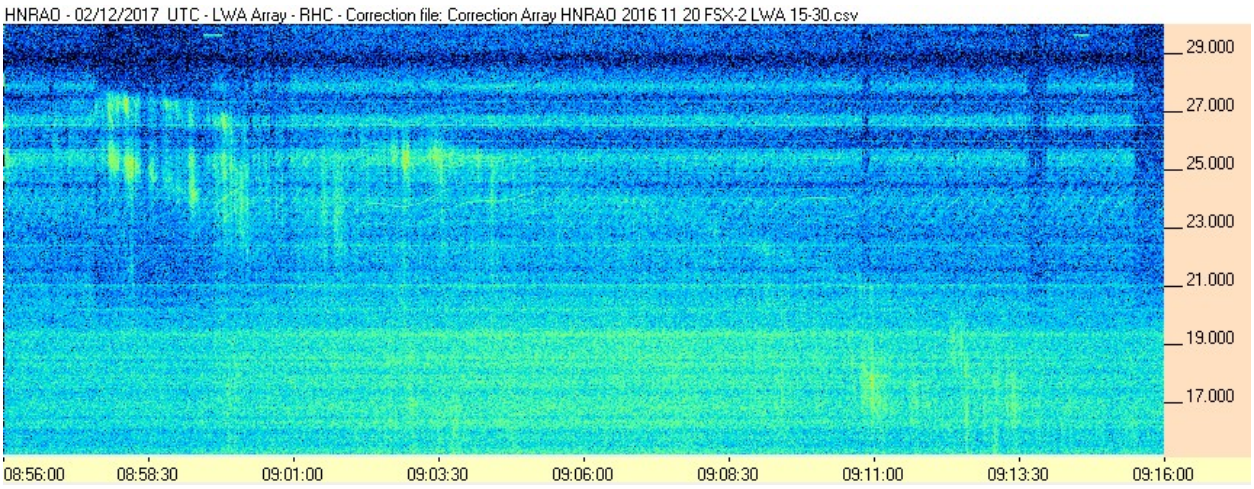


End of Pass

A very brief period of Non-Io-A emission. Beginning at 0856 UT at 28 MHz, descending drift L-bursts through 0914 UT, dropping below 15 MHz. Negative slope modulation lanes at 0858 UT to start, but RFI and precipitation static prevents resolution to make further positive identification. Measurements at 0857:45 UT shows approximately a negative 67 kH/s modulation lane drift rate. The Io-B storm preceding this Non-Io-A also showed approximately a negative 67 kH/s modulation lane drift rate.

Precipitation static prevented observation of any Radio JOVE, 20.1 MHz activity.

FSX-2/LWA Pair



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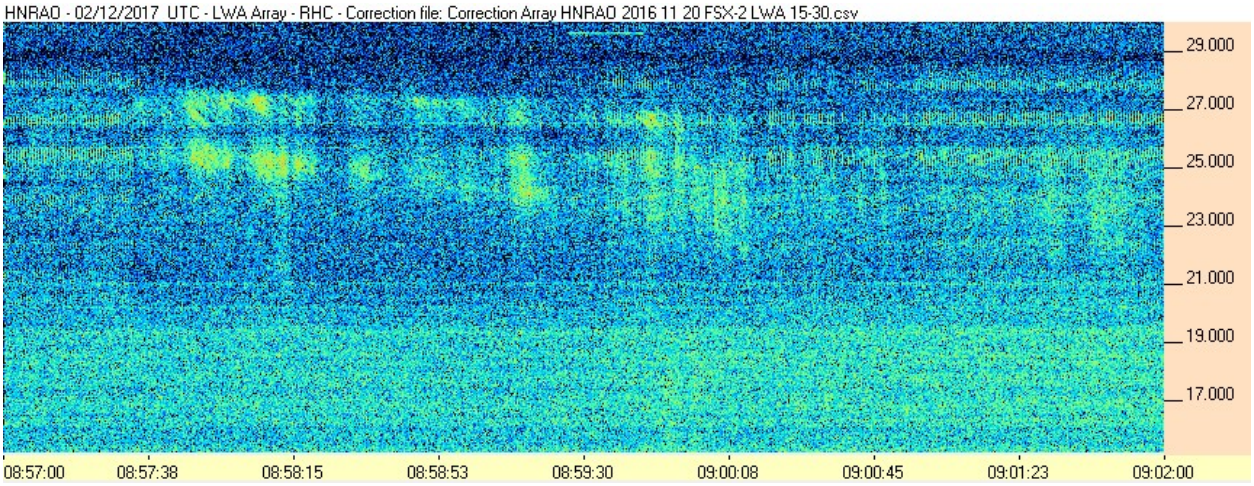

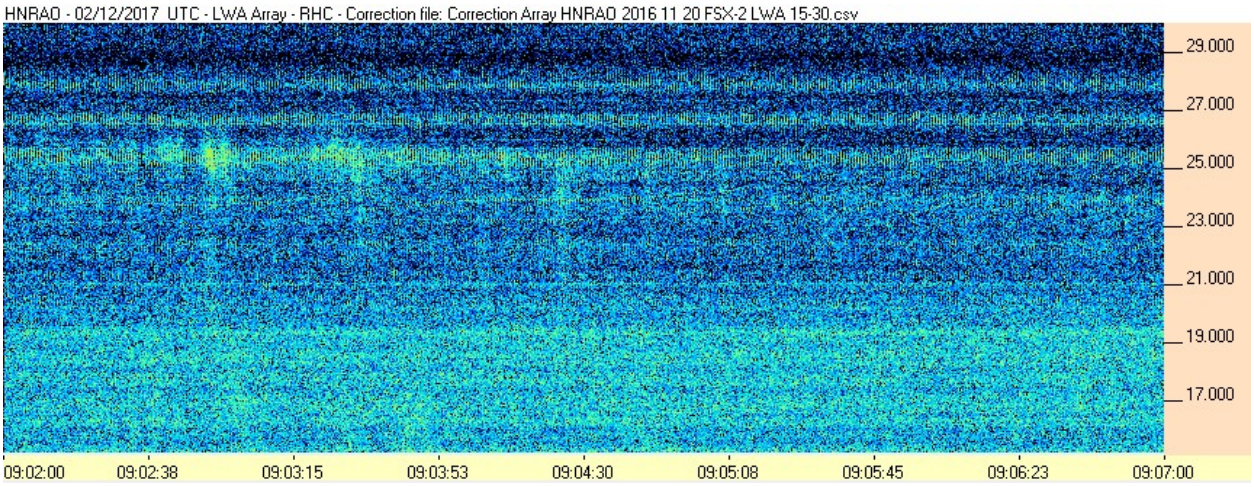

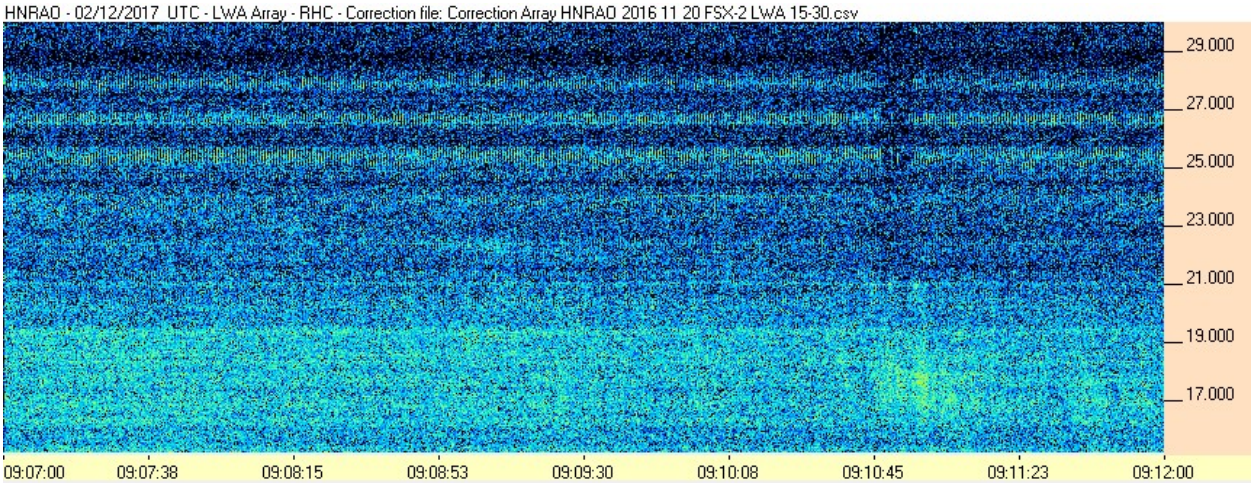

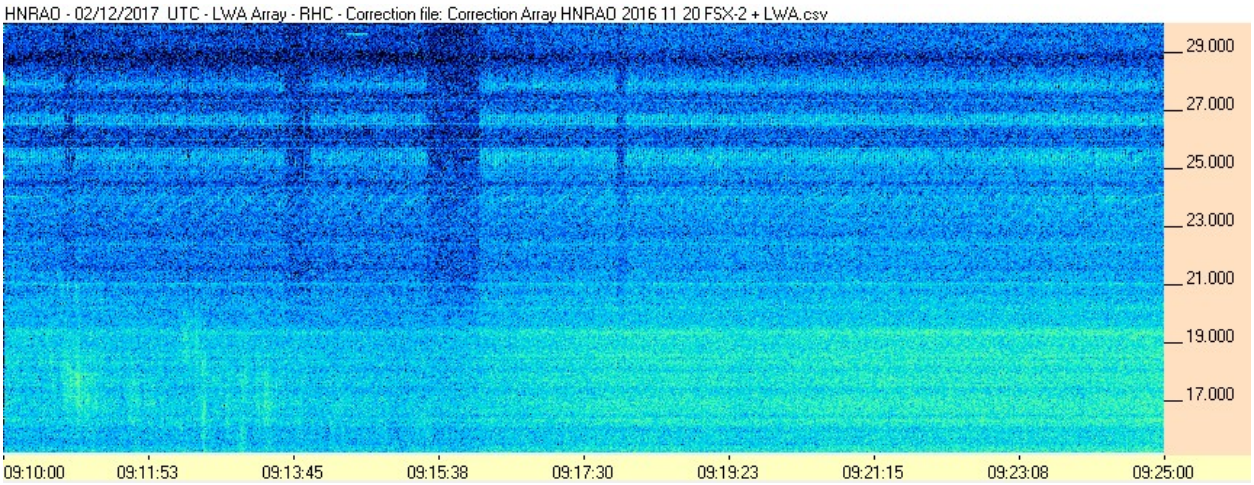

FSX-8S/TFD Pair

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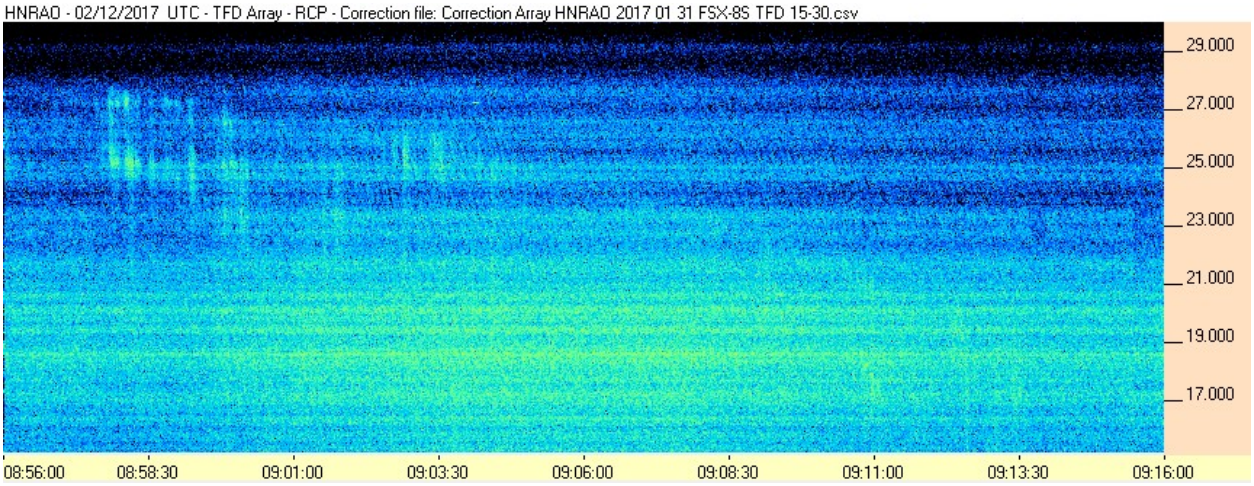

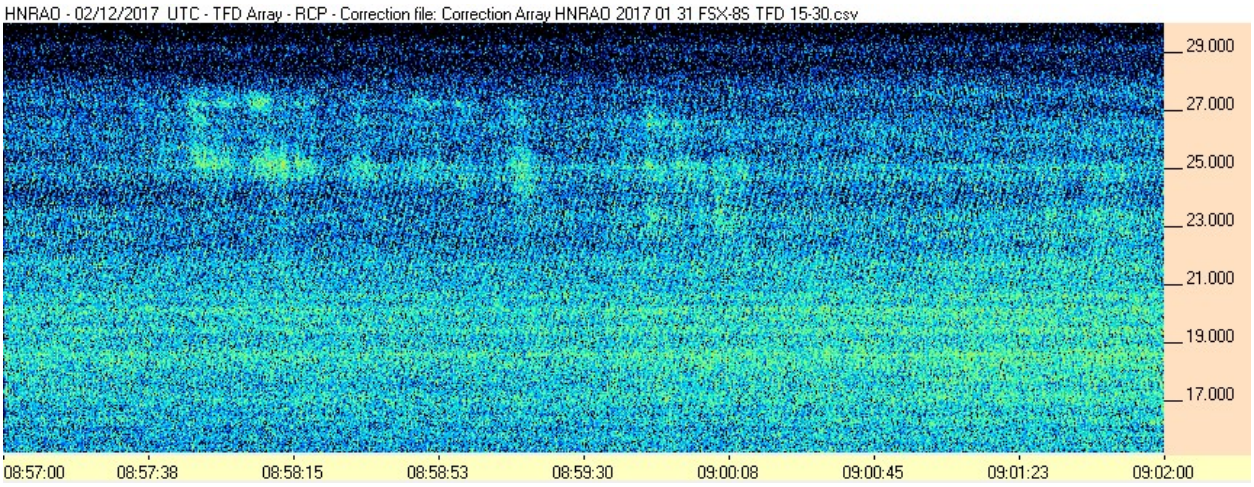

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