HNRAO Observing Log
40.673181 N – 80.437885 W
EN90sq

Date: 29 January 2017

Object: Jupiter – Io-D (?)

Observer: Unattended

Start of pass:	**0856 UT**		
Jupiter Altitude:	**38.6 degrees**	**Jupiter Azimuth:**	**155.4 degrees**
Jupiter CML:	**287.11**	**Jupiter Io Phase:**	**147.00**
Jupiter RA:	**13:26**	**Jupiter Dec:**	**-07:33**
Hour Angle:	**-01:17**	**Emission**	**LCP**
Sun Altitude:	**-40.2 degrees**	**Sun Azimuth:**	**079.4 degrees**
Sun RA:	**20:41**	**Sun Dec:**	**-18:20**

End of pass:	**0910 UT**		
Jupiter Altitude:	**39.7 degrees**	**Jupiter Azimuth:**	**159.6 degrees**
Jupiter CML:	**295.57**	**Jupiter Io Phase**	**148.97**
Hour Angle:	**-01:03**		
Sun Altitude:	**-37.6 degrees**	**Sun Azimuth:**	**082.0 degrees**

Observations made using:

1. FSX-8S fed by the TFD array
    a. Connect to array through HNRAO Multicoupler #1 and #2, port 2
        i. HNRAO Multicoupler #1 – TFD/LCP
        ii. HNRAO Multicoupler #2 – TFD/RCP
        iii. Port 1 having 10 dB of gain, all other ports on Multicoupler have approximately 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 28 Nov. 2016
    b. Connected to dipoles through HNRAO Multicoupler #3, port 1.
4. Icom R75 receiver fed by experimental DDRR antenna directly.
    a. Calibrated 28 Nov. 2016

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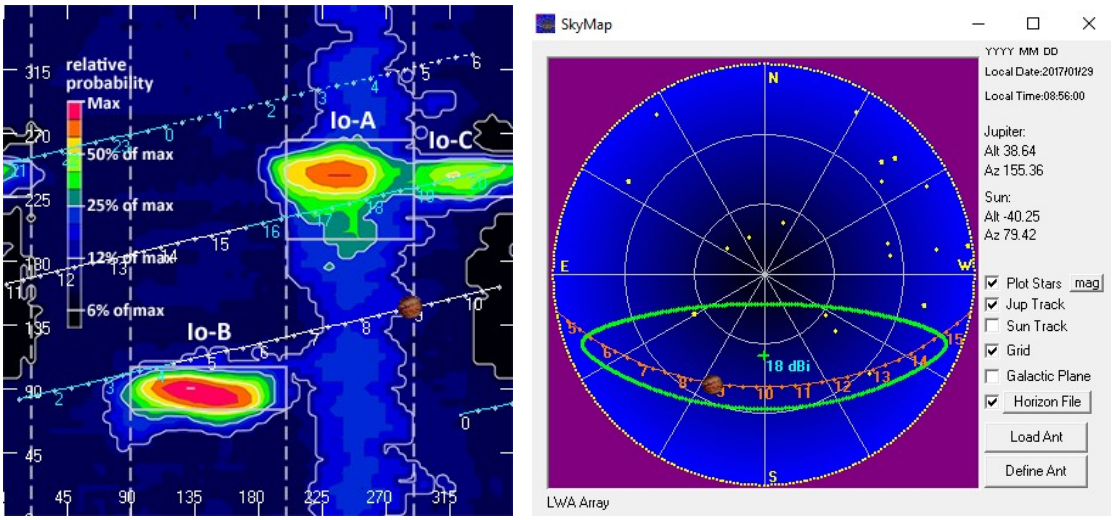
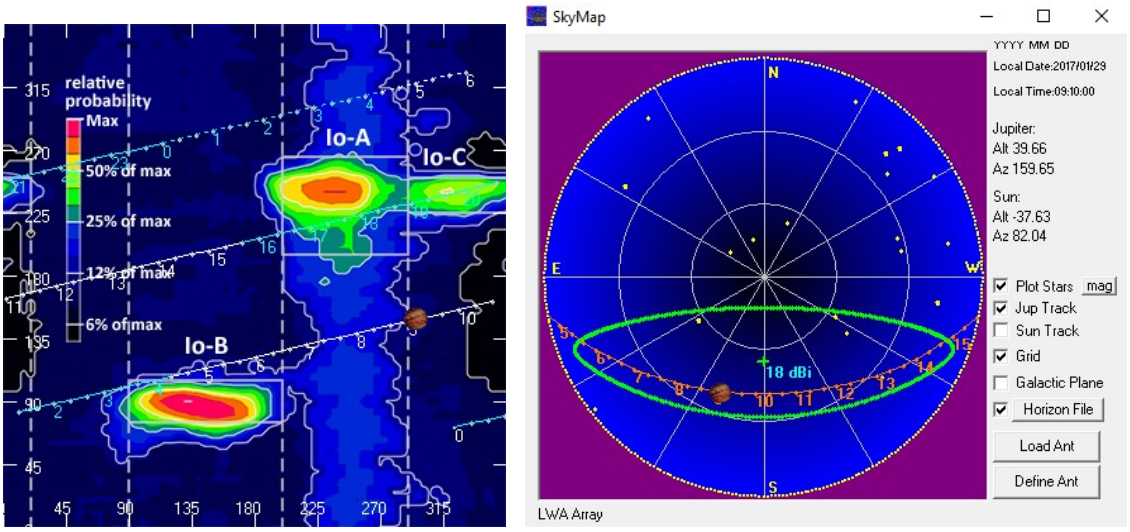


Beginning of Pass



End of Pass

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A brief report on what is apparently an Io-D emission. Although I observed the very weak emission, LGM Alachua and AJ4CO saw it much stronger. LCP positive arc between 16 MHz and 19 MHz. Being LCP and appearing in that part of the Io/CML plot leads to the conclusion that it is Io-D, although it's farther away from the area typically associated with Io-D. So, while I have listed this as an Io-D event, it's not 100% conclusive.