

**HNRAO Observing Log**  
**40.673181 N – 80.437885 W**  
**EN90sq**



**Date: 28 January 2017**

**Object: Jupiter – Non-Io-B**

**Observer: Unattended**

|                          |                      |                          |                      |
|--------------------------|----------------------|--------------------------|----------------------|
| <b>Start of pass:</b>    | <b>0925 UT</b>       |                          |                      |
| <b>Jupiter Altitude:</b> | <b>40.3 degrees</b>  | <b>Jupiter Azimuth:</b>  | <b>163.2 degrees</b> |
| <b>Jupiter CML:</b>      | <b>154.06</b>        | <b>Jupiter Io Phase:</b> | <b>308.28</b>        |
| <b>Jupiter RA:</b>       | <b>13:26</b>         | <b>Jupiter Dec:</b>      | <b>-07:32</b>        |
| <b>Hour Angle:</b>       | <b>-00:51</b>        |                          |                      |
| <b>Sun Altitude:</b>     | <b>-34.9 degrees</b> | <b>Sun Azimuth:</b>      | <b>085.0 degrees</b> |
| <b>Sun RA:</b>           | <b>20:36</b>         | <b>Sun Dec:</b>          | <b>-18:35</b>        |

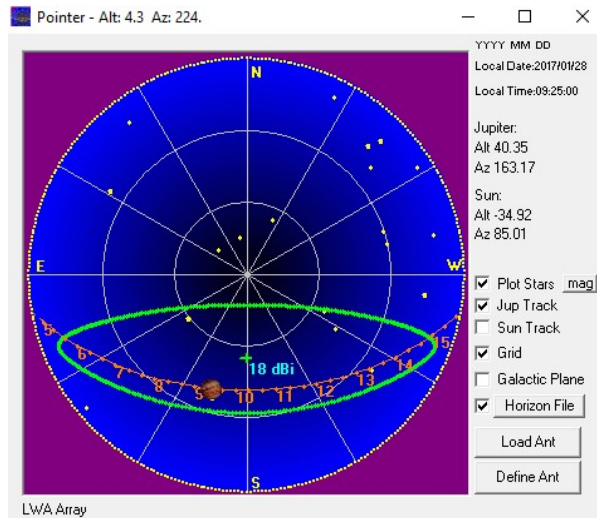
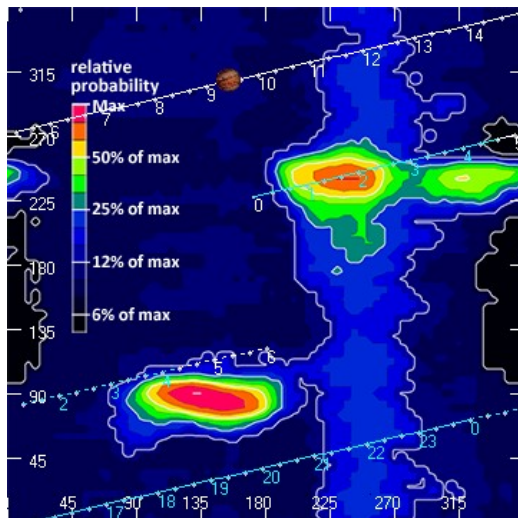
|                          |                      |                         |                      |
|--------------------------|----------------------|-------------------------|----------------------|
| <b>End of pass:</b>      | <b>0933 UT</b>       |                         |                      |
| <b>Jupiter Altitude:</b> | <b>40.8 degrees</b>  | <b>Jupiter Azimuth:</b> | <b>086.4 degrees</b> |
| <b>Jupiter CML:</b>      | <b>158.89</b>        | <b>Jupiter Io Phase</b> | <b>309.42</b>        |
| <b>Hour Angle:</b>       | <b>-00:43</b>        |                         |                      |
| <b>Sun Altitude:</b>     | <b>-33.4 degrees</b> | <b>Sun Azimuth:</b>     | <b>086.4 degrees</b> |

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Observations made using:

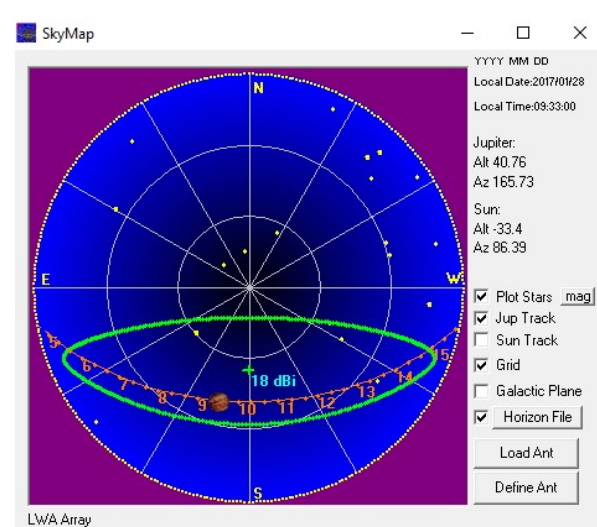
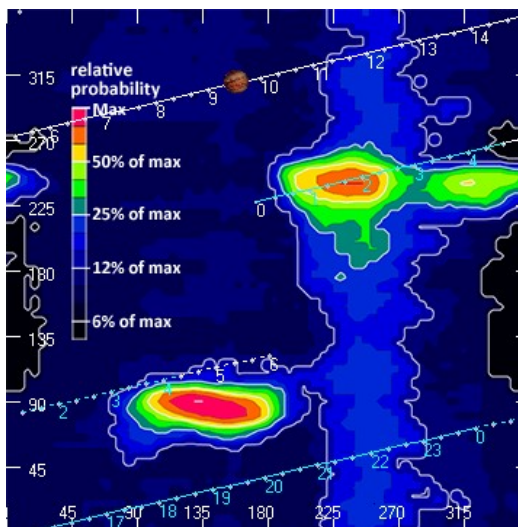
1. FSX-8S fed by the TFD array
  - a. Connect to array through HNRAO Multicoupler #1 and #2, port 2
    - i. HNRAO Multicoupler #1 – TFD/LCP
    - ii. HNRAO Multicoupler #2 – TFD/RCP
    - iii. Port 1 having 10 dB of gain, all other ports on Multicoupler have approximately 3 dB gain.
2. FSX-2 fed by 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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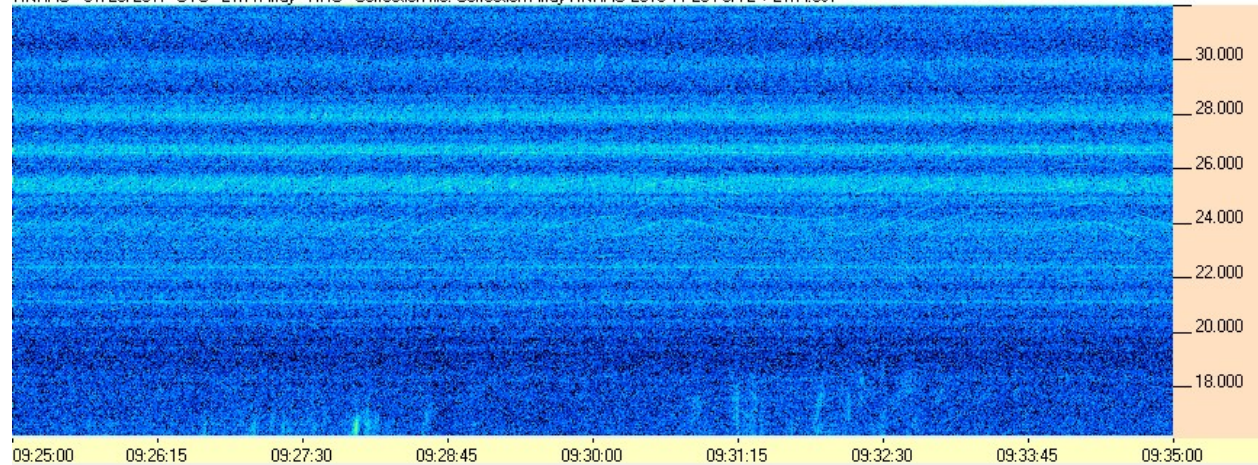
A very brief Non-Io-B event early this morning. Positive slope RCP L-bursts from 0925 UT to 0933 UT. The strongest period of emissions observed here was at 0928 UT with the single strongest L-burst emission. Frequency ranged from 16 MHz to about 19 MHz. This was an unattended observation so no galactic background measurements were taken. The emissions did not go high enough for Radio JOVE observers. It was surprising to me that there wasn't any Non-Io-A following this event between 1200 UT and 1330 UT. The FSX-2/LWA pair observed the event better than the FSX-8S/TFD pair. Power line RFI continues to be a problem at the observatory.

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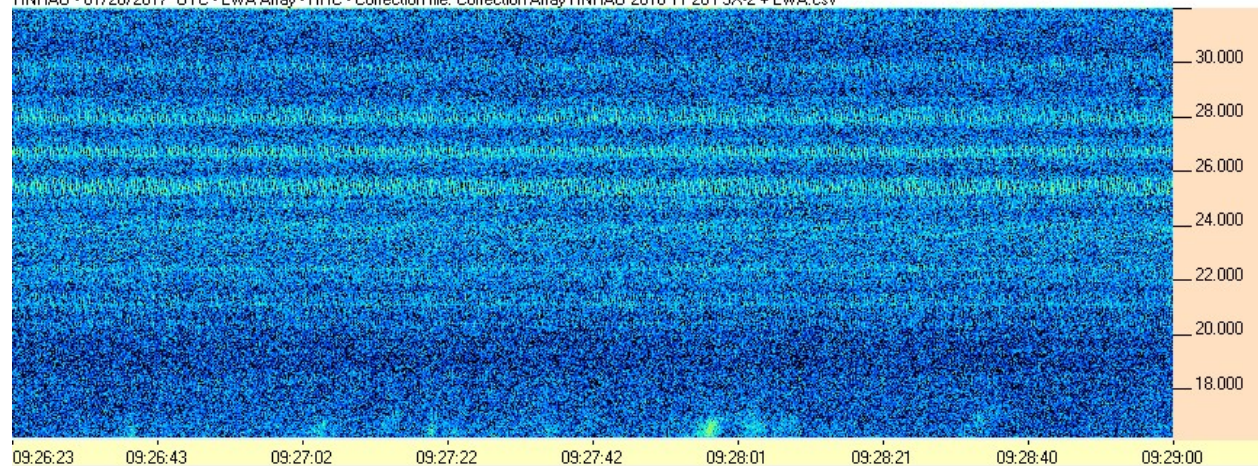


**FSX-2/LWA Pair**

HNRAO - 01/28/2017 UTC - LWA Array - RHC - Correction file: Correction Array HNRAO 2016 11 20 FSX-2 + LWA.csv



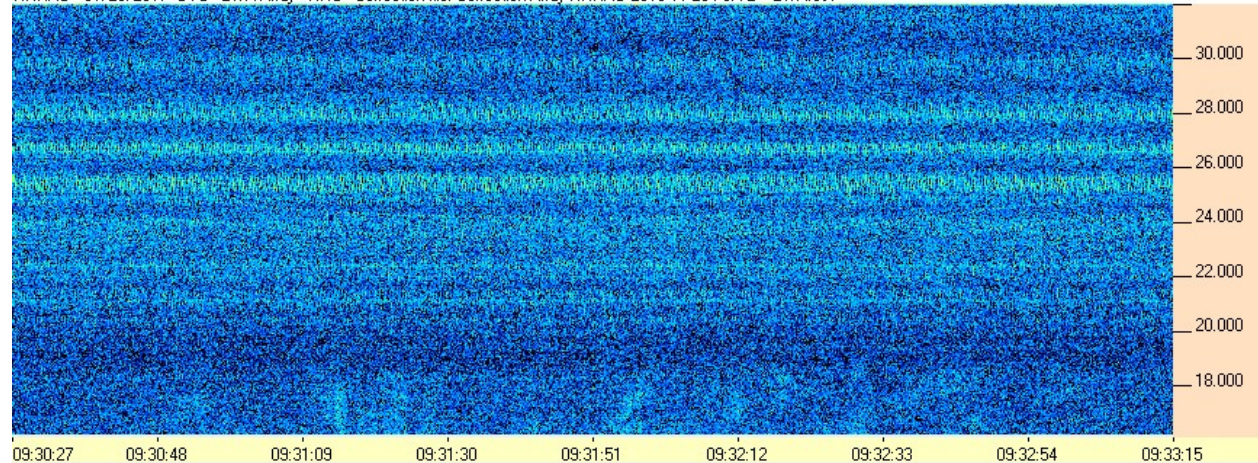
HNRAO - 01/28/2017 UTC - LWA Array - RHC - Correction file: Correction Array HNRAO 2016 11 20 FSX-2 + LWA.csv



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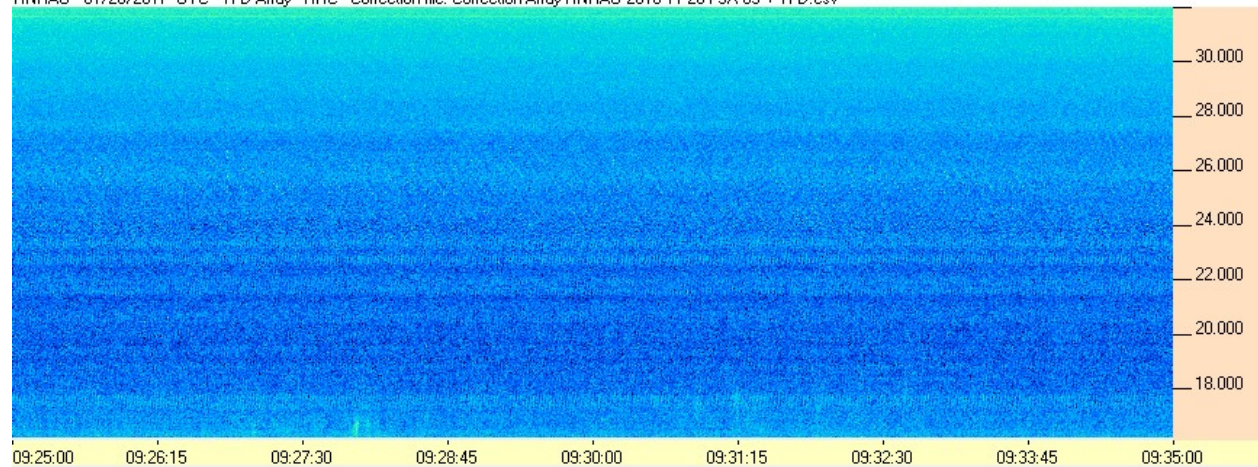


HNRAO - 01/28/2017 UTC - LWA Array - RHC - Correction file: Correction Array HNRAO 2016 11 20 FSX-2 + LWA.csv



**FSX-8S/TFD Pair**

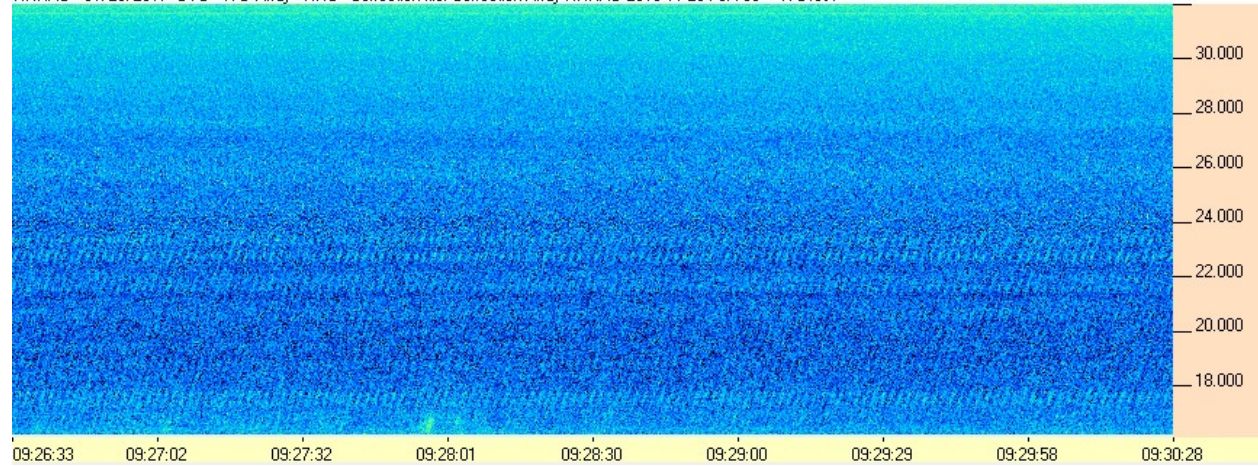
HNRAO - 01/28/2017 UTC - TFD Array - RHC - Correction file: Correction Array HNRAO 2016 11 20 FSX-8S + TFD.csv



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