

Five hours of emission, Io-B and Io-D plus non-Io-C and strong non-Io-A. Interesting morphology for non-Io-A. The emission envelopes are nearly perfectly linear, not curved. We have seen this before with non-Io- emission, but usually only with one arc, not a whole slew of them one after the next. In total, the five hours saw emission from both sides (leading and trailing edges) of both emission cones (northern and southern hemisphere).

Note that the Io-B main arc shows up slightly LCP in the spectrograms. This is an instrument effect. Nancay recorded definite RCP emission at the time. The TFD array does not do so well at polarization when the source is very far off axis. This is the first time the instrument has been observed to definitely flip the received polarization. Theoretically that shouldn't happen – but antennas are real, not theoretical.

RCP dominant L bursting 1533–1551 UTC from 18 to 30 MHz, positive frequency drift emission envelope. (Io-B)

LCP dominant L bursting 1645–1829 UTC from 16 to 23 MHz, positive frequency drift emission envelopes. (Io-D)

LCP dominant L bursting 1828–2046 UTC from 16 to 23 MHz, negative frequency drift emission envelopes. (non-Io-C)

RCP dominant L bursting 1832–2026 UTC from 16 to 28 MHz, negative frequency drift emission envelopes. (non-Io-A)

Jupiter was -48° to +30° off axis.

Jupiter was trailing the Sun by 19°.



Jupiter's location at midpoint of observed emission (1809 UTC)

Sky map with array HPBW in green.



CML-Io phase plane.

AJ4C0 Observatory 31 Aug 2016 + DPS on TFD Array + RCP + Correction Array 2014 12 18 B.csv + Offset 2050 Gain 5.0





AJ4C0 Observatory 31 Aug 2016 - DPS on TFD Array - RCP-LCP - Correction Array 2014 12 18 B.csv - Offset 50 Gain 2.0



- 19.0 - 18.0 - 17.0





AJ4C0 Observatory 31 Aug 2016 - DPS on TFD Array - RCP - Correction Array 2014 12 18 B.csv - Offset 2050 Gain 5.0





AJ4C0 Observatory 31 Aug 2016 + DPS on TFD Array + RCP-LCP + Correction Array 2014 12 18 B.csv + Offset 50 Gain 2.0

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AJ4CO Observatory 31 Aug 2016 + DPS on TFD Array + RCP + Correction Array 2014 12 18 B.csv + Offset 2050, Gain 5.0





AJ4CO Observatory 31 Aug 2016 - DPS on TFD Array - RCP-LCP - Correction Array 2014 12 18 B.csv - Offset 50 Gain 2.0



- 18.0 - 17.0





AJ4C0 Observatory 31 Aug 2016 - DPS on TFD Array - RCP - Correction Array 2014 12 18 B.csv - Offset 2050 Gain 5.0





AJ4CO Observatory 31 Aug 2016 + DPS on TFD Array + RCP-LCP + Correction Array 2014 12 18 B.csv + Offset 50 Gain 2.0

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