EW_Drift-Faraday-Imaging September 2015 Campaign Report

This is an analysis of RTIs during EWDrift-Faraday-Imaging campaign from September 22 to September 25, 2015. We show the RTIs and results.

EW_DRIFT-FARADAY-IMAGING:

September, 22:

- _ Start the campaign from 07:00 hours.
- _Moon event around 07:20.
- _Falls of transmitters at 11:45 and 16:55.
- _ Spread F from 19 to 23:30 hours.
- _ % Operation/17h: 99.41

Log:

_ 22 Sep 07:10 Start campaign.

Staff in charge

07-20: I. Manay. 20-24: A. Belleza.

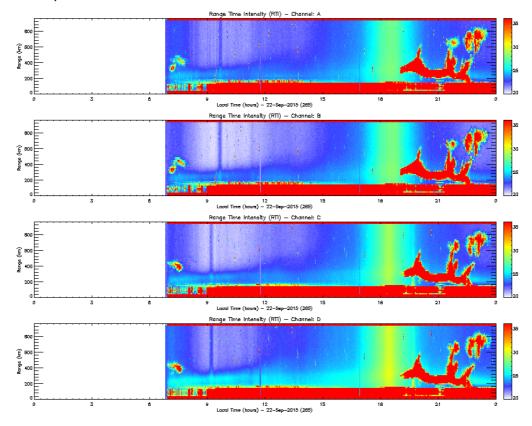


Figure 1.Rti EW_DRIFT 2015-09-22.

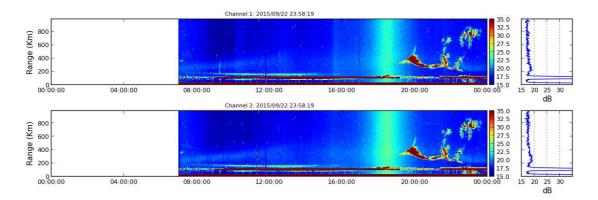


Figure 2. Rti FARADAY 2015-09-22.

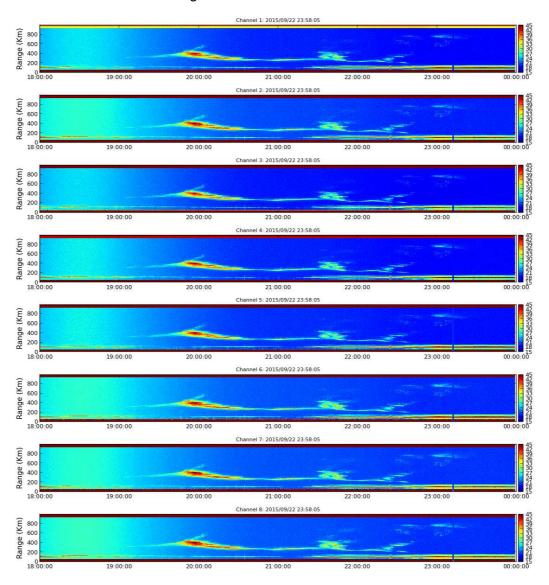


Figure 3. RTI IMAGING 2015-09-22 18:00-24:00.

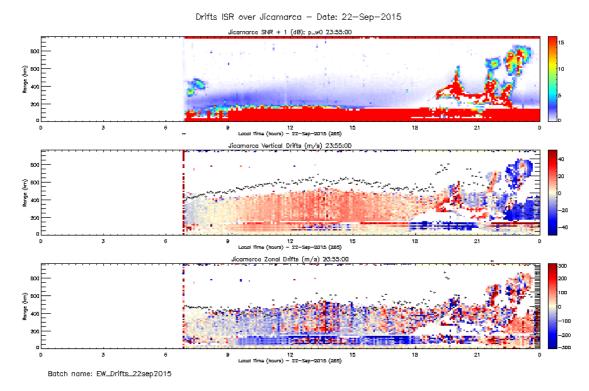


Figure 4. Drifts 2015-09-22.

September, 23:

- _ Falls of transmitters at 03:40, 07:22, 08:50, 11:00, 18:12.
- _ Spread F from 19 to 24 hours.
- _ % operation/24h: 97.97.

Log:

- _ 23 Sep 07:22 Fall of transmitters.
- _ 23 Sep 08:50 Transmitter went down.
- $_$ 23 Sep 11:00 Transmitter turned off for a connection checking. The channel A noise floor was too strong.
- _ 23 Sep 18:12 Transmitter went down.
- _ 23 Sep 23:15 Restart EW Drift and Faraday batches.

Staff in charge

00-08: A. Belleza. 08-20: J. Verástegui. 20-24: P. Cóndor.

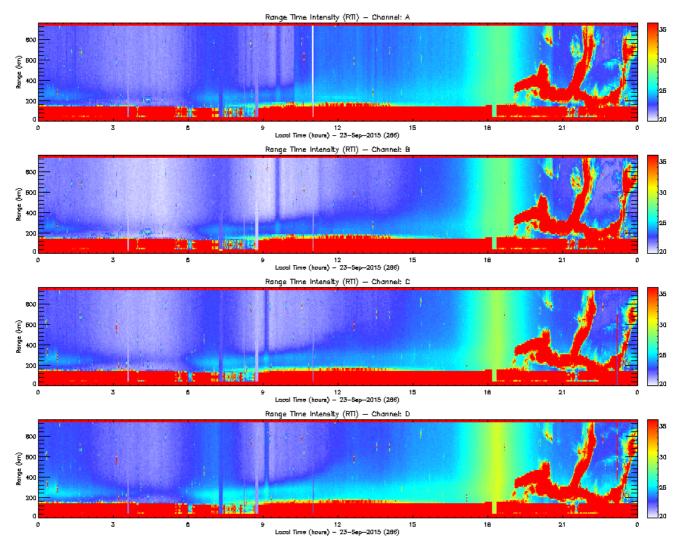


Figure 5. Rti EW_DRIFT 2015-09-23.

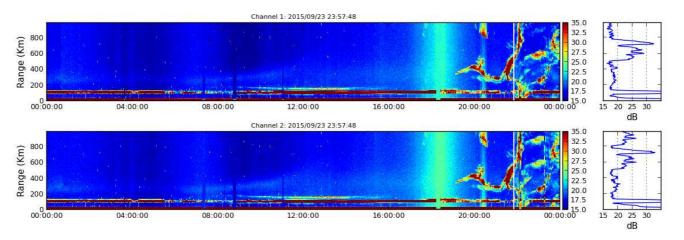


Figure 6. Rti FARADAY 2015-09-23.

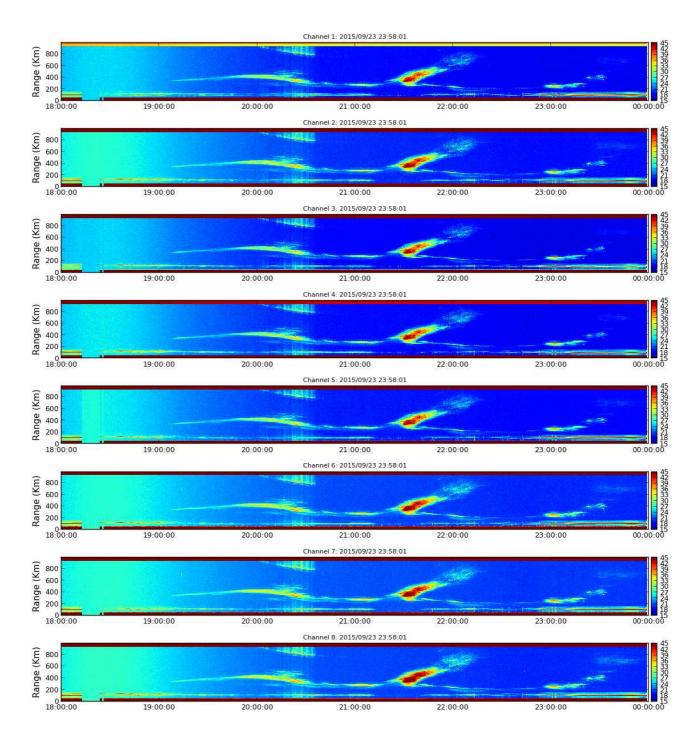


Figure 7. Rti IMAGING 2015-09-23 18:00-24:00.

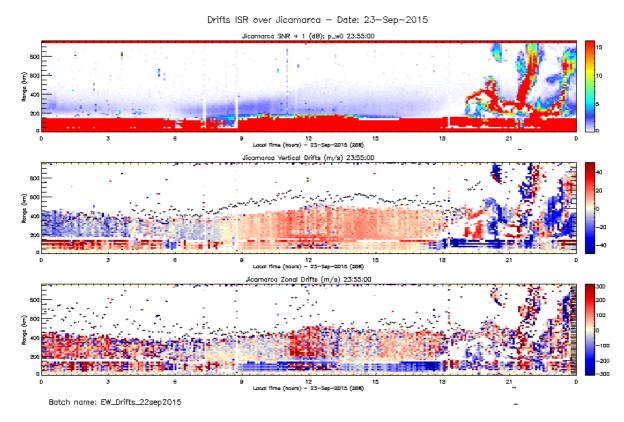


Figure 8. Drifts 2015-09-23.

September, 24:

- _ Spread F from 19 to 22 hours.
- _ % operation/24h: 99.72

Log:

- _ 24 Sep 01:43 Off Imaging. (Not Spread-F)
- _ 24 Sep 05:50 Restart EW Drifts and faraday batches.
- _ 24 Sep 19:30 Weird behaviour at ew_drift A channel.

Staff in charge:

00-08: P. Cóndor. 08-20: I. Manay. 20-24: A. Valdez.

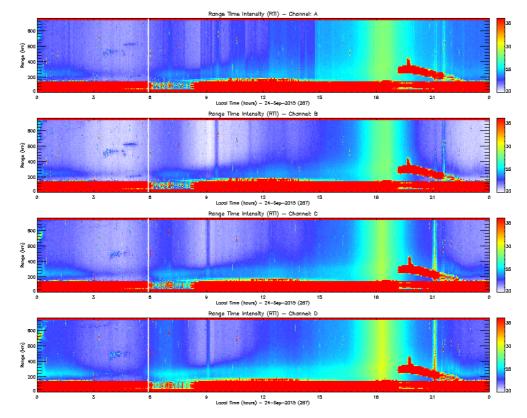


Figure 9. Rti EW_DRIFT 2015-09-24.

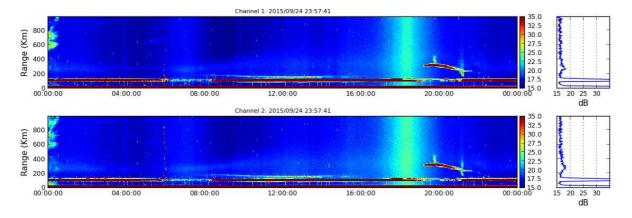


Figure 7. Rti FARADAY 2015-09-24.

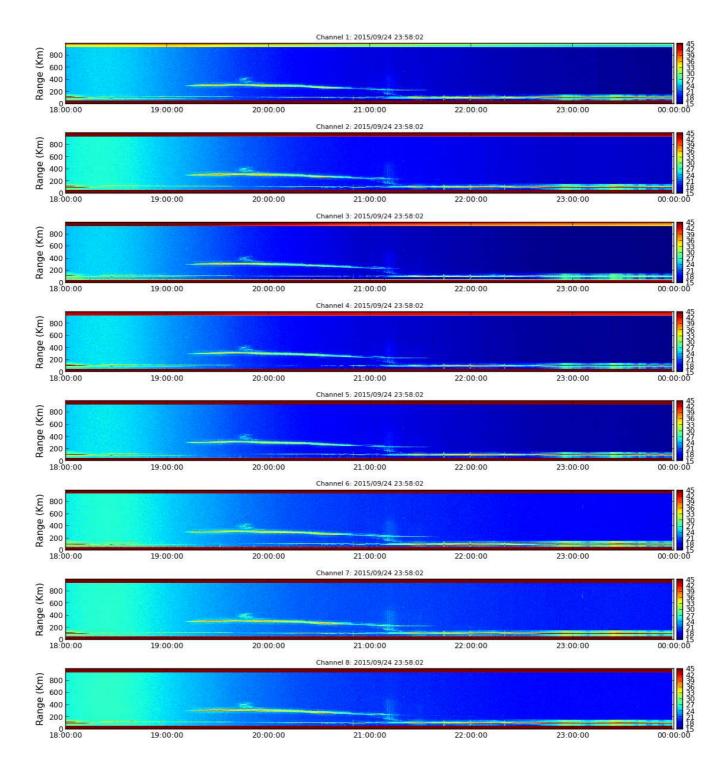


Figure 8. Rti IMAGING 2015-09-24 18:00-24:00.

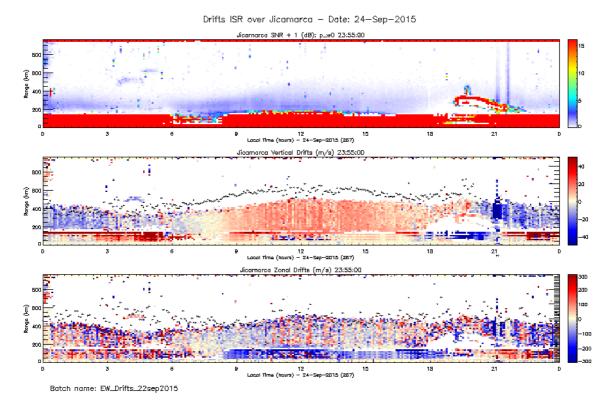


Figure 9. Drifts 2015-09-24.

September, 25:

- _ EW_Drift B channel with low noise and signal level, the opposite happened with the A channel.
- _ % operation/8h: 100

Log:

_ No error from transmitter or acquisition was reported.

Staff in charge:

00-08: A. Valdez.

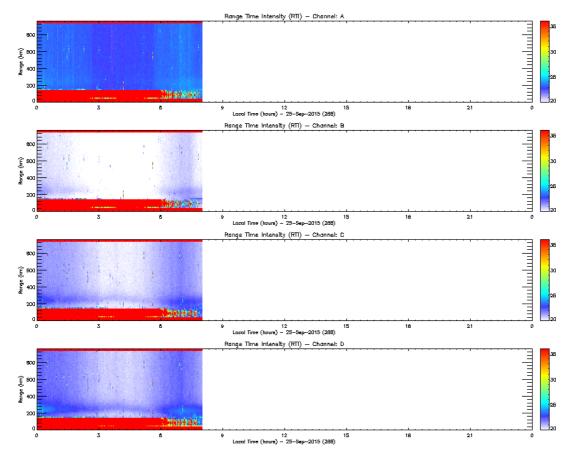


Figure 13. Rti EW_DRIFT 2015-09-25.

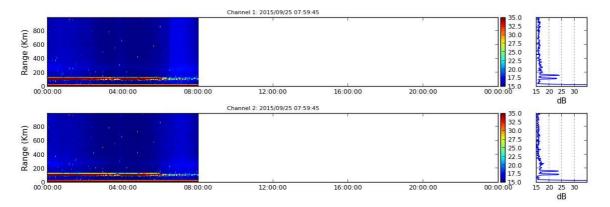


Figure 10. Rti FARADAY 2015-09-25.

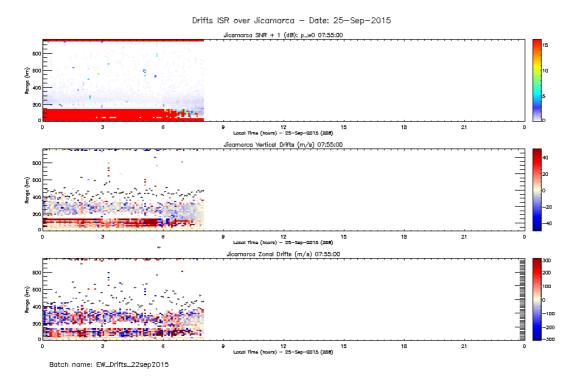


Figure 11. Drifts 2015-09-25.

Annex:

Sky noise for March 23, 2015:

SKY BRIGHTNESS AT 50 Mhz - Date: 22-Sep-2015 (265) Galaxy Pass at 18:29:00 LT (18:35:01 LST) Mean Sidereal Time (Hours) 10:00 12:00 14:00 16:00 18:00 20:00 22:00 2:00 0:00 100 Signal Strength (mA) 80 60 40 10 20 οĒ 0 0:00 2:00 4:00 12:00 14:00 16:00 18:00 20:00 22:00 6:00 8:00 Local Time (Hours)

Figure 17. Sky noise.

Antenna pattern

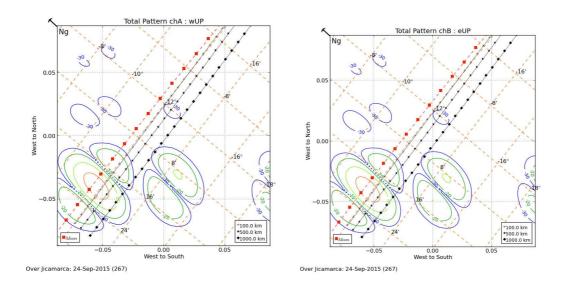


Figure 18. Antennas pattern EW_Drifts: Ch A and Ch B.

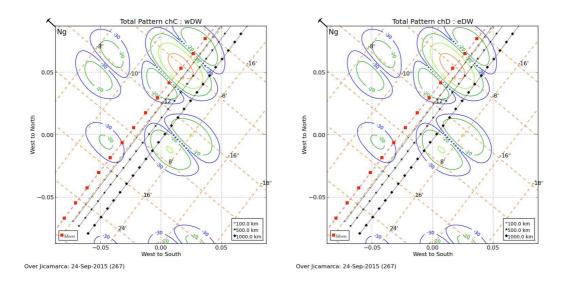


Figure 19. EW_Drifts: Ch C and Ch D.

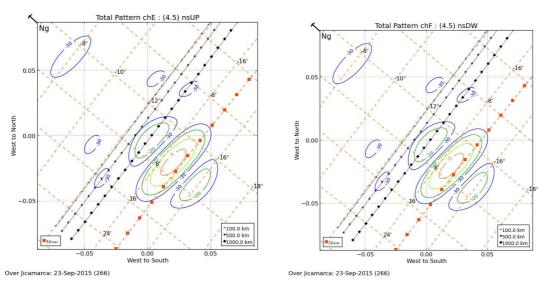


Figure 20. Faraday: Ch A and Ch B.