

EW_Drift-Imaging January 2016 Campaign Report

This is an analysis of RTIs during EWDrift-Faraday-Imaging campaign from January 04 to January 10, 2016. Due to lack of transmitter, we only ran Faraday for less than 6 hours, that data is not considered in this report. We show the RTIs and results.

EW_DRIFT-IMAGING:

January, 04:

_ Start the campaign from 16:20 hours.

_ 18:50 Fail of transmitter due to failure of Driver TX 1. To continue with the experiment, Imaging will not work.

_ Spread F from 22:00 to 03:20 hours.

_ % Operation/17h: 65.17

Log:

_ 04 Jan 17:15 Start campaign.

_ 04 Jan 18:50 Transmitter were down due to the failure of Driver 1.

_ 04 Jan 22:10 Transmitter were operating, Imaging is not running.

Staff in charge

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

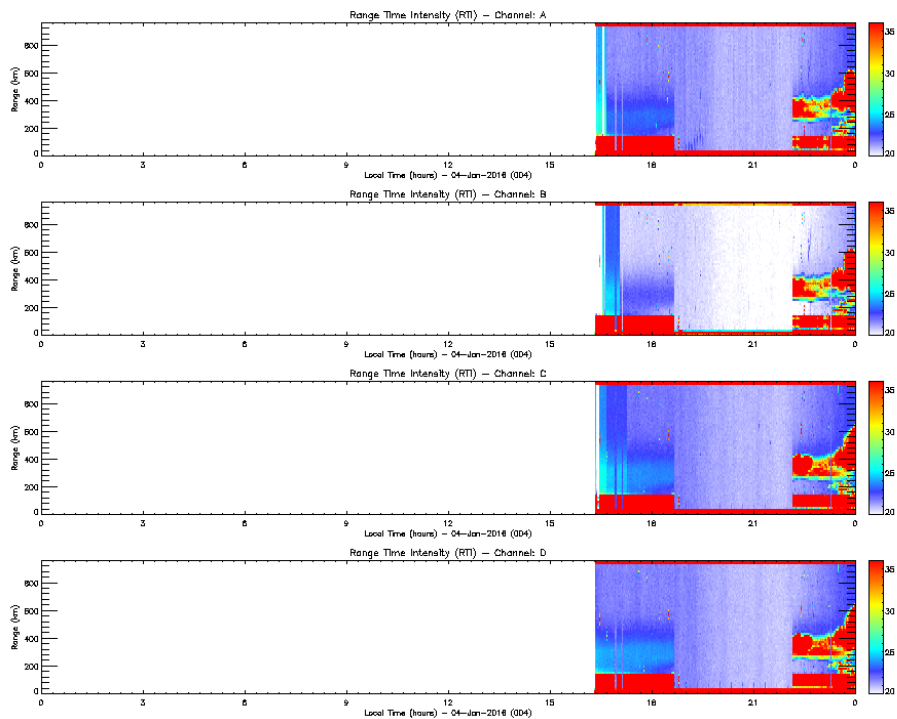


Figure 1.Rti EW_DRIFT 2016-01-05.

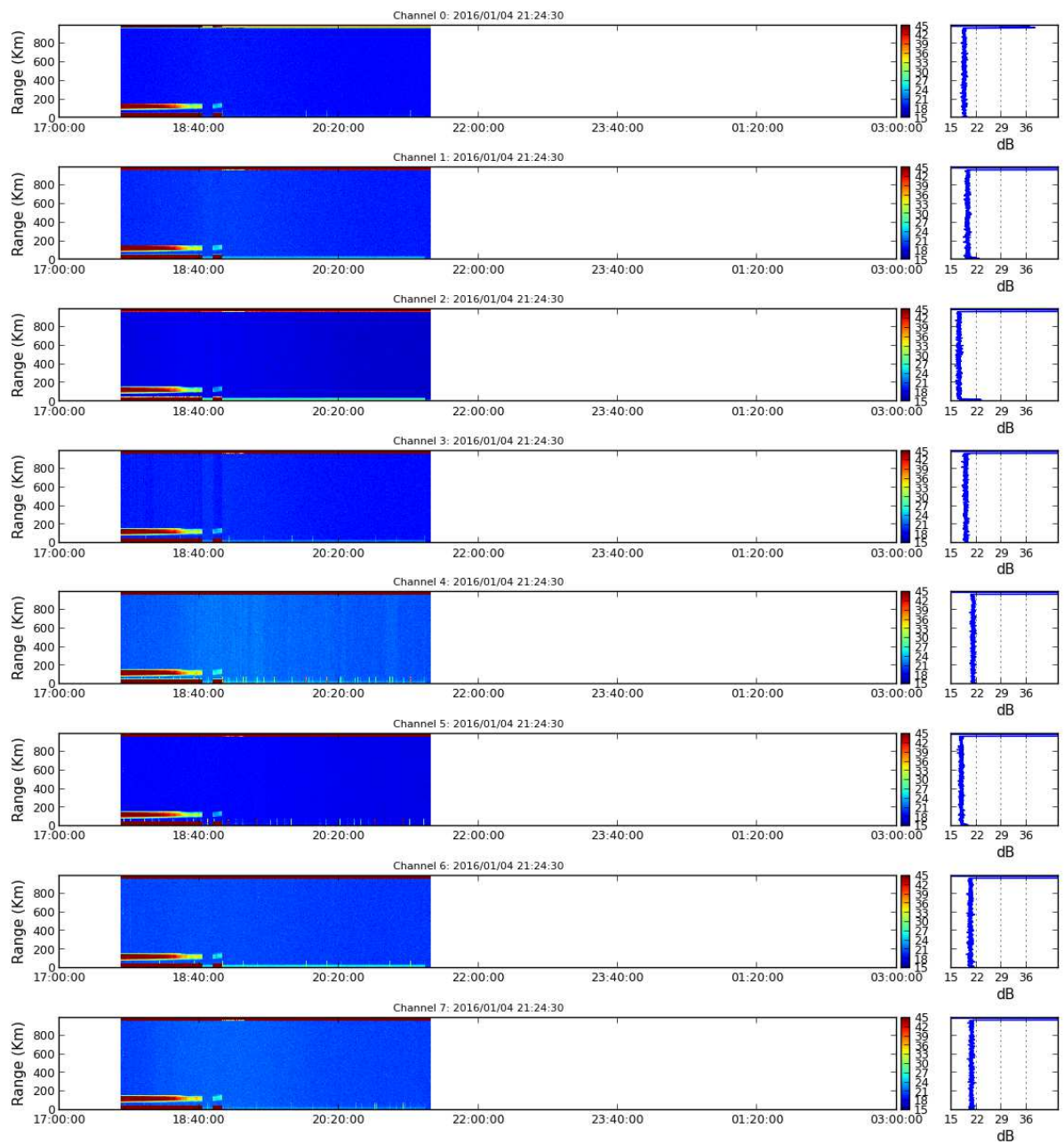


Figure 2. Rti Imaging 2016-01-04 (17:50 – 21:00)

Drifts obtained:

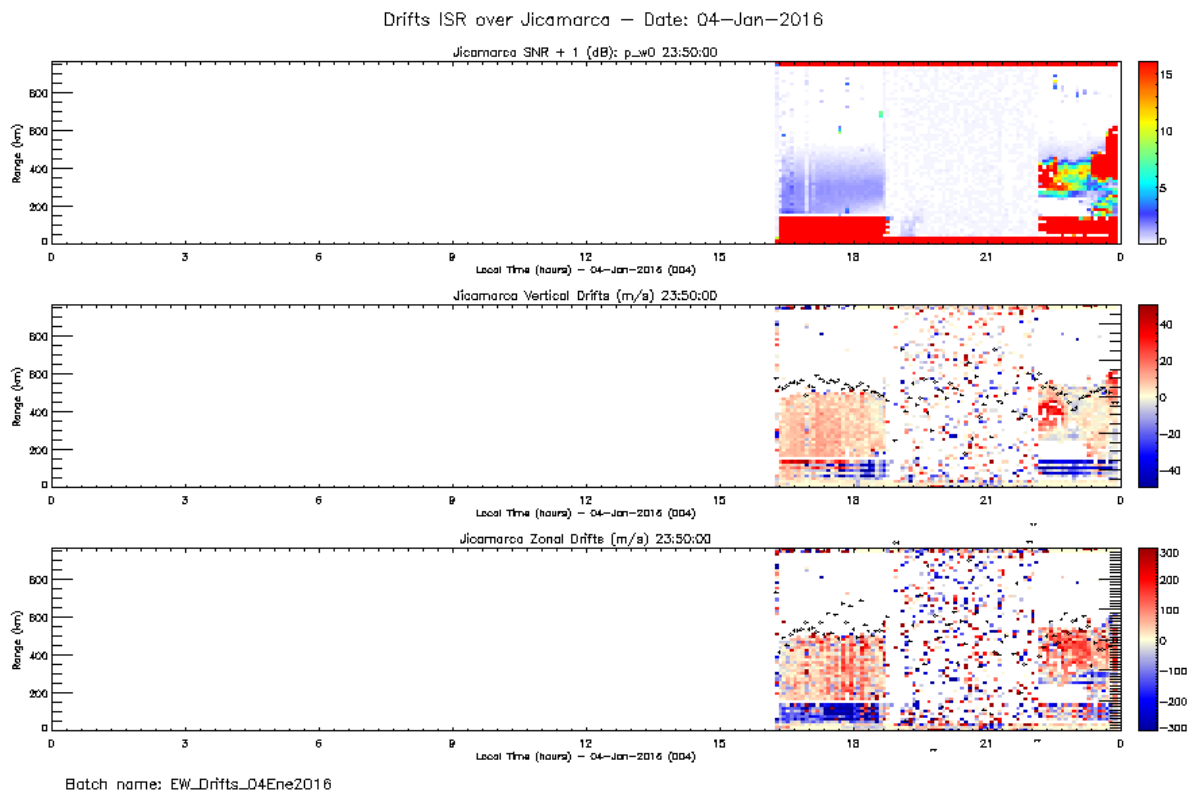


Figure 3. Drifts 2016-01-04

January 05:

- _ At 10:30 to 11:45 Transmitter were off due to change of Spark Gaps.
- _ At 14:39 to 14:46 Transmitter were off due to replacement of TR in South Quarter.
- _ At 15:42 to 17:49 Transmitter were off to fix Channel 5 of Imaging.
- _ Noise around 5 am, due to failure of capacitor in transmitter, wasn't detected then, but was fixed before the campaign ended. It is most seen in channel B.
- _ At 22:00 there is a transmitter failure and Imaging reduces sensitivity
- _ Spread F from 19 to 24 hours.
- _ % operation/24h: 92.92

Log:

- _ 05 Jan 10:30 TX Off
- _ 05 Jan 11:45 TX On
- _ 05 Jan 14:39 Transmitter Off
- _ 05 Jan 14:46 Transmitter On

Staff in charge

00-08: A. Valdez. 08-20: P. Condor, 20-24 A. Belleza

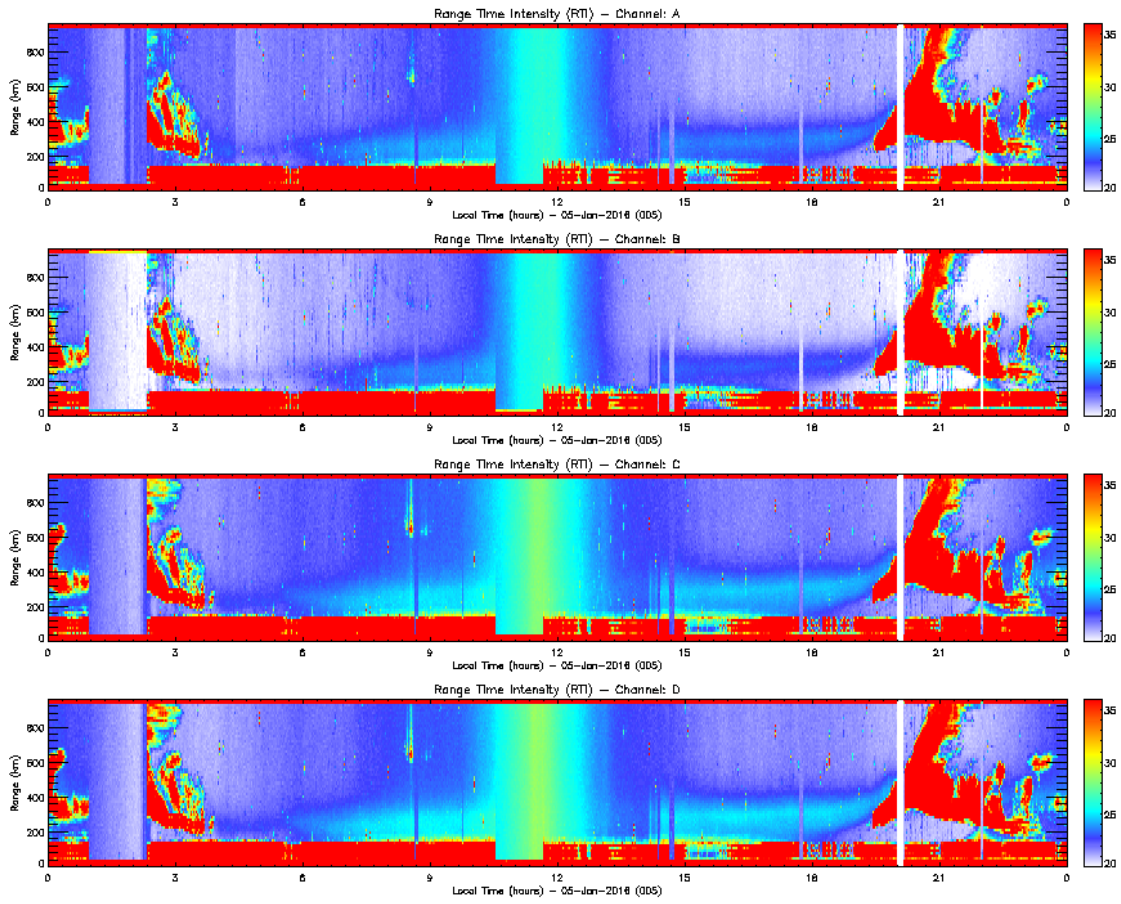


Figure 4. Drifts 05-01-2016.

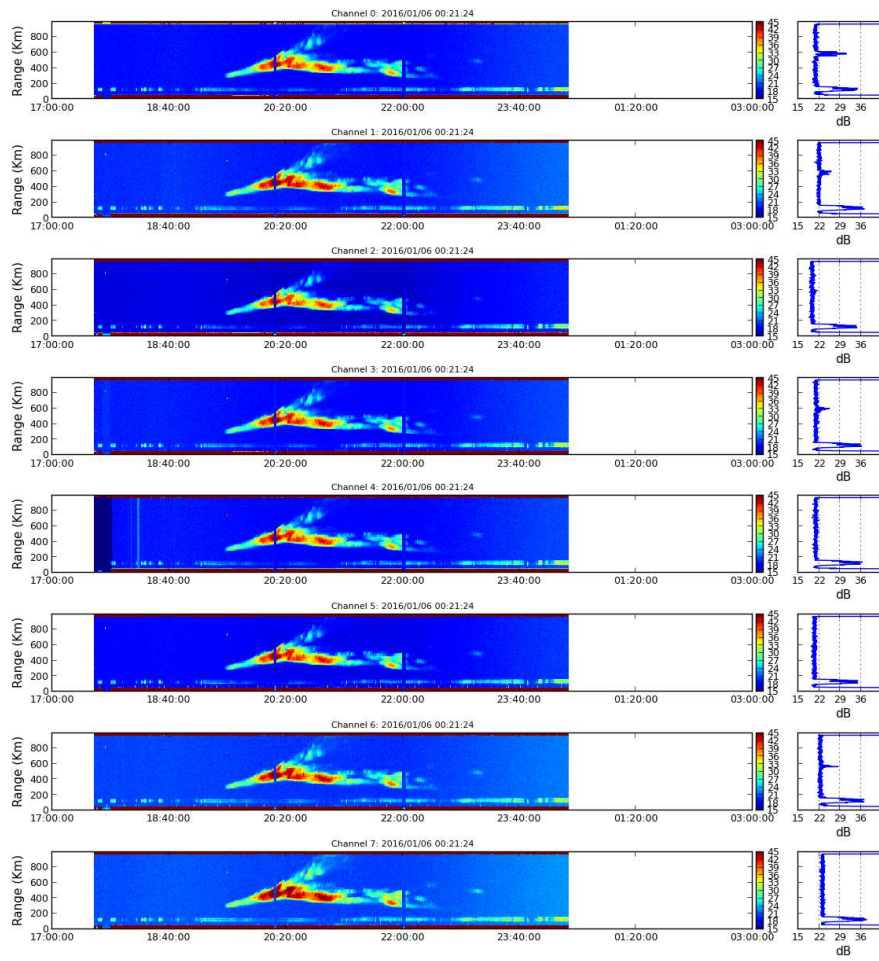


Figure 4. Rti Imaging 05-01-2016 (17:40 – 24:10)

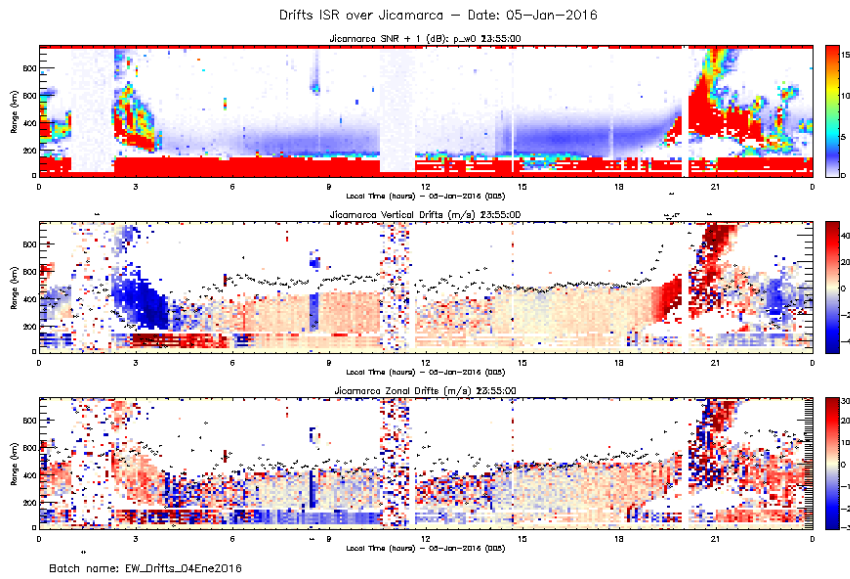


Figure 5. EW Drift 05-01-2016

January, 06:

_ Interference at 03 hours by Moon.

_ Interference at 03 due to a capacitor at transmitter (was corrected later)

_ Interference at 6 due to a capacitor at transmitter.

_ Spread F from 19 to 03 hours.

_ Almost no Spread F in Imaging

_ % operation/24h: 99.65

Log:

_ 06 Jan 17:40 Start Imaging.

Staff in charge

00-08: A. Belleza, 08-20: J. Espinoza, 20-24 I. Manay

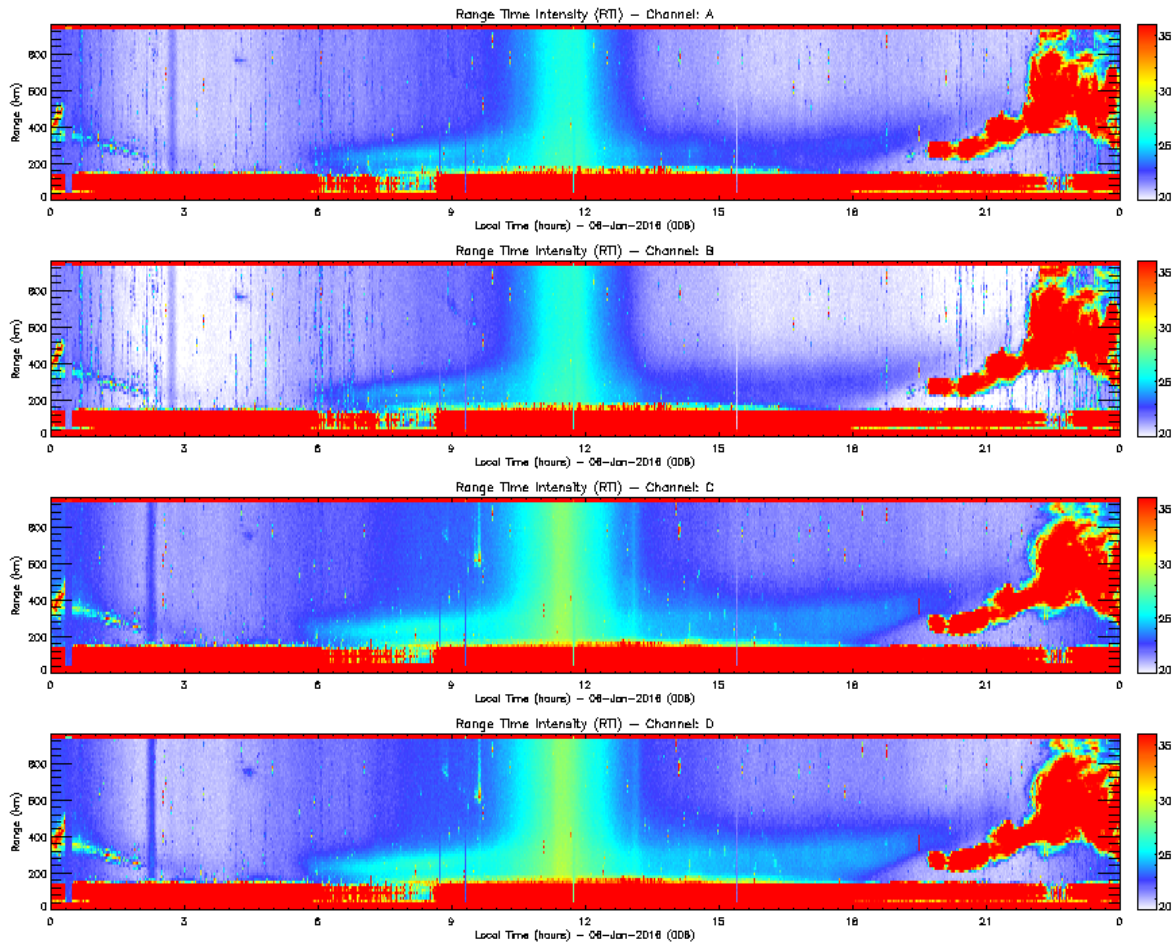


Figure 6. EW Drift RTI 06-01-2016

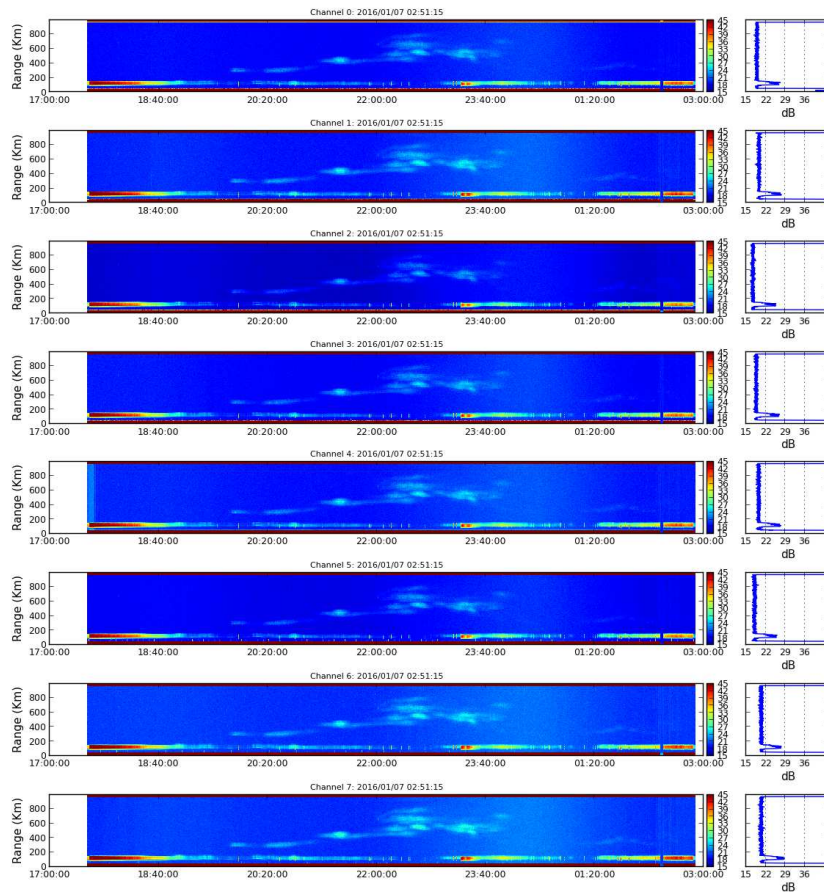


Figure 7. Rti IMAGING 06-01-2016 18:00-03:00.

Drifts obtained:

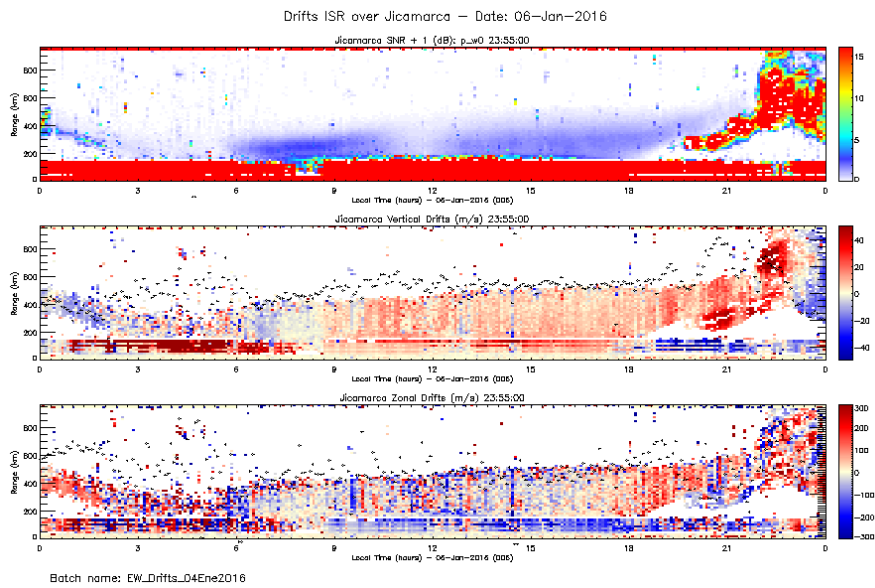


Figure 8. Drifts 06-01-2016.

January, 07:

_ Problem with transmitter at 02:25 for 2 minutes.

_ Spread F from 19 to 23:40 hours.

_ At 02:50 hours interference by Moon.

_ % operation/24h: 99.24

Log:

_ 07 Jan 02:25 Transmitter Off

_ 07 Jan 02:50 Imaging experiment is stopped

_ 07 Jan 17:50 Imaging on

Staff in charge:

00-08: I. Manay, 08-20: F. Montenegro, 20-24: A. Valdez.

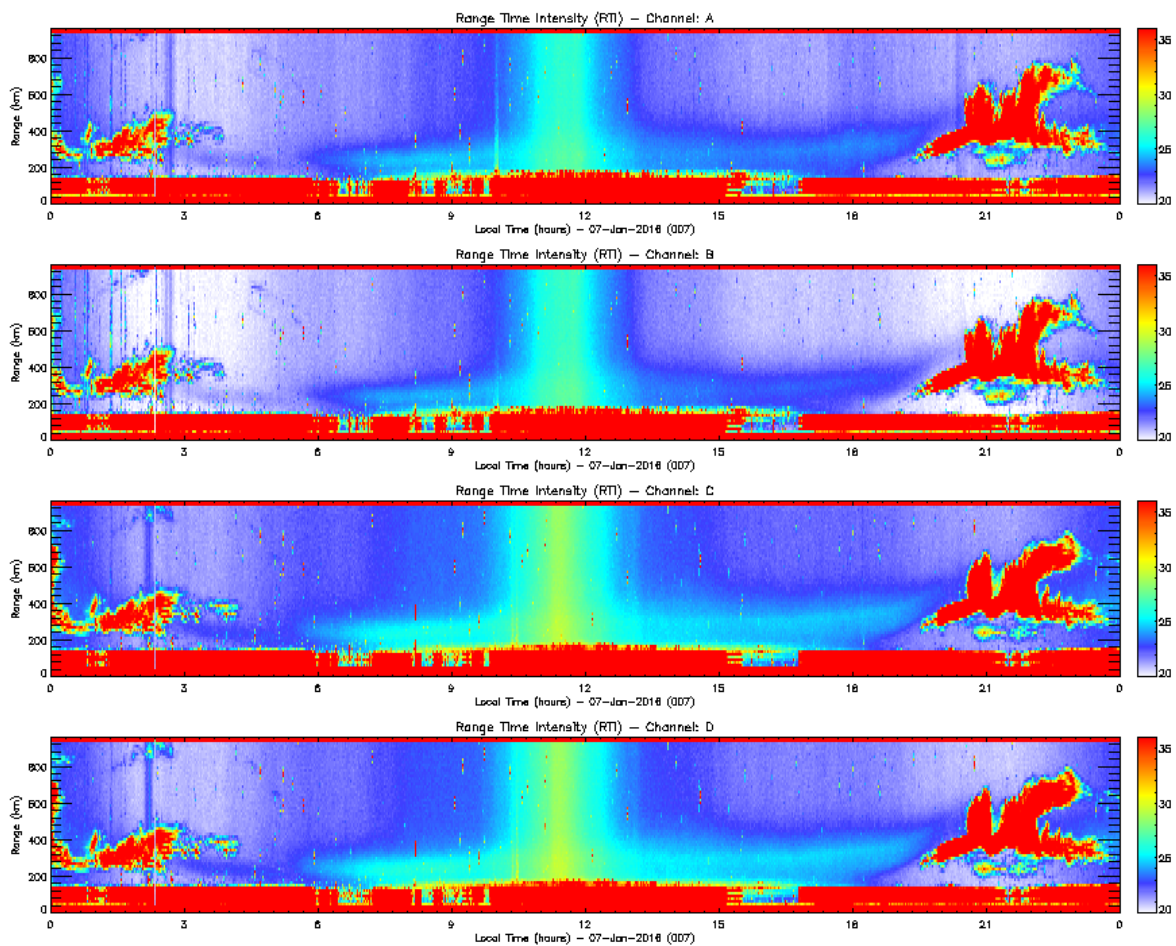


Figure 9. Rti EW_DRIFT 07-01-2016.

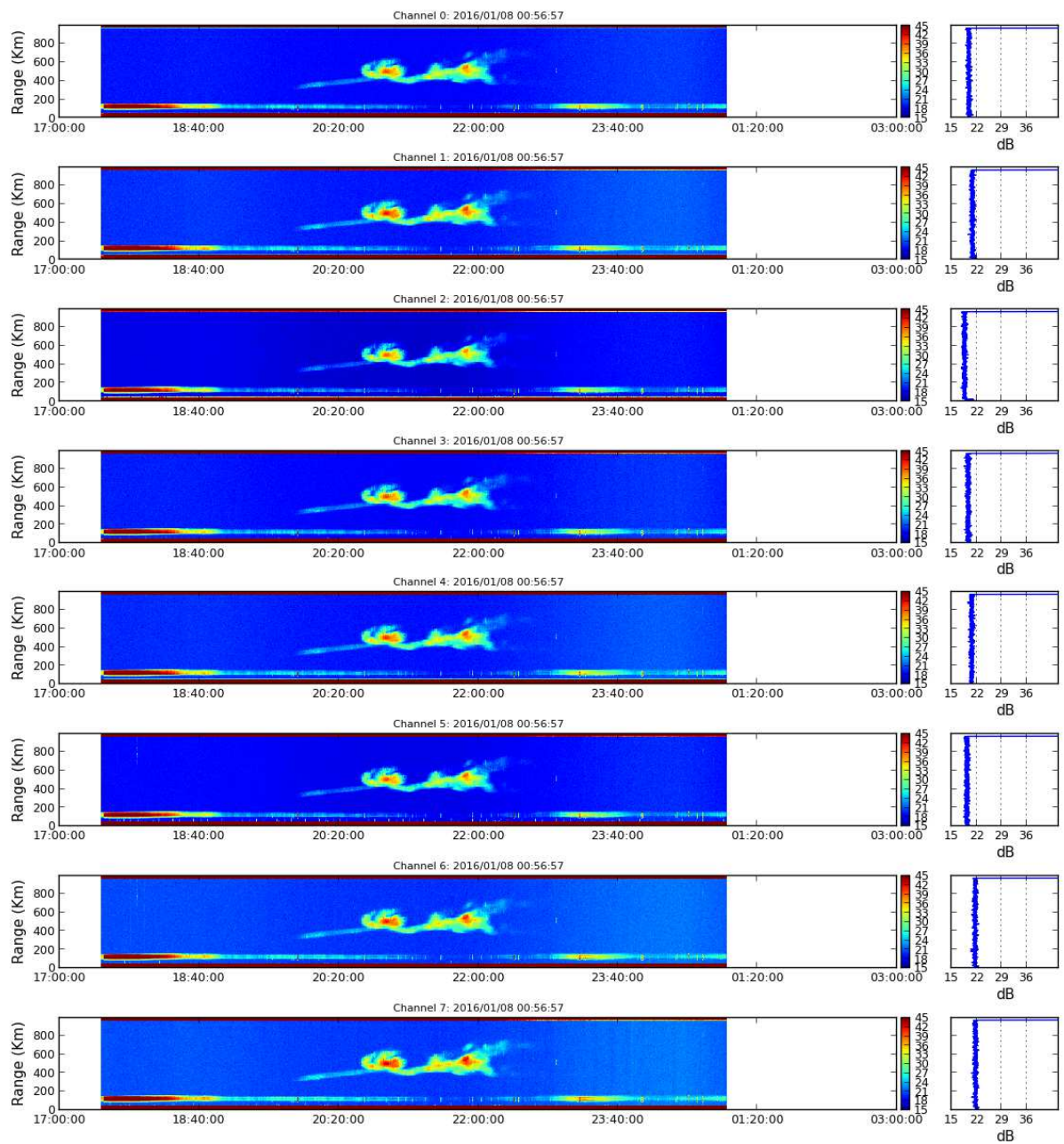


Figure 10. Rti Imaging 07-01-2016 (17:50 – 01:00)

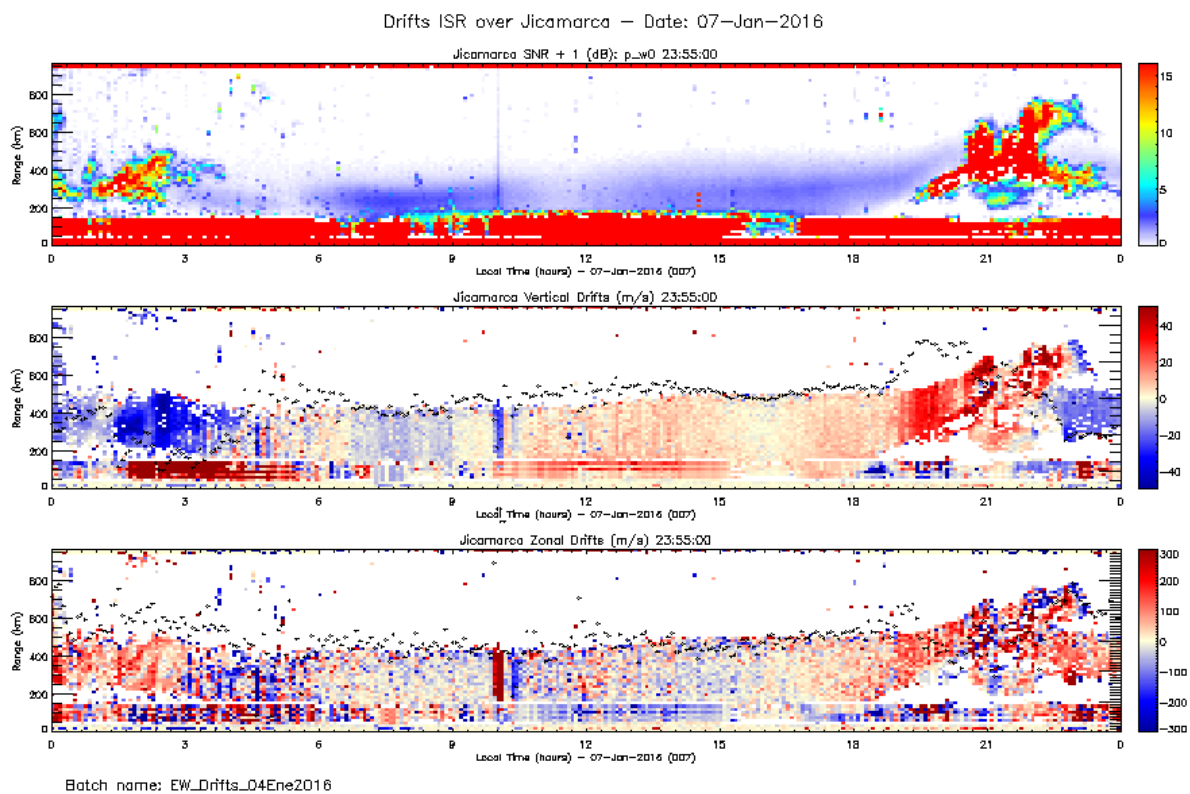


Figure 11. EW Drift 07-01-2016

January 08:

- _ At 02:50 Moon Interference
- _ At 06:00 for 10 minutes acquisition computer hanged up
- _ Spread F from 19 to 01 hours.

Log:

- _ 08 Jan 01:00 Turning off Imaging.
- _ 08 Jan 17:40 Turning on Imaging.
- _ % operation/24h: 98.0

Staff in charge:

00-08: A. Valdez, 08-20: K. Kuyeng, 20-24: P. Condor.

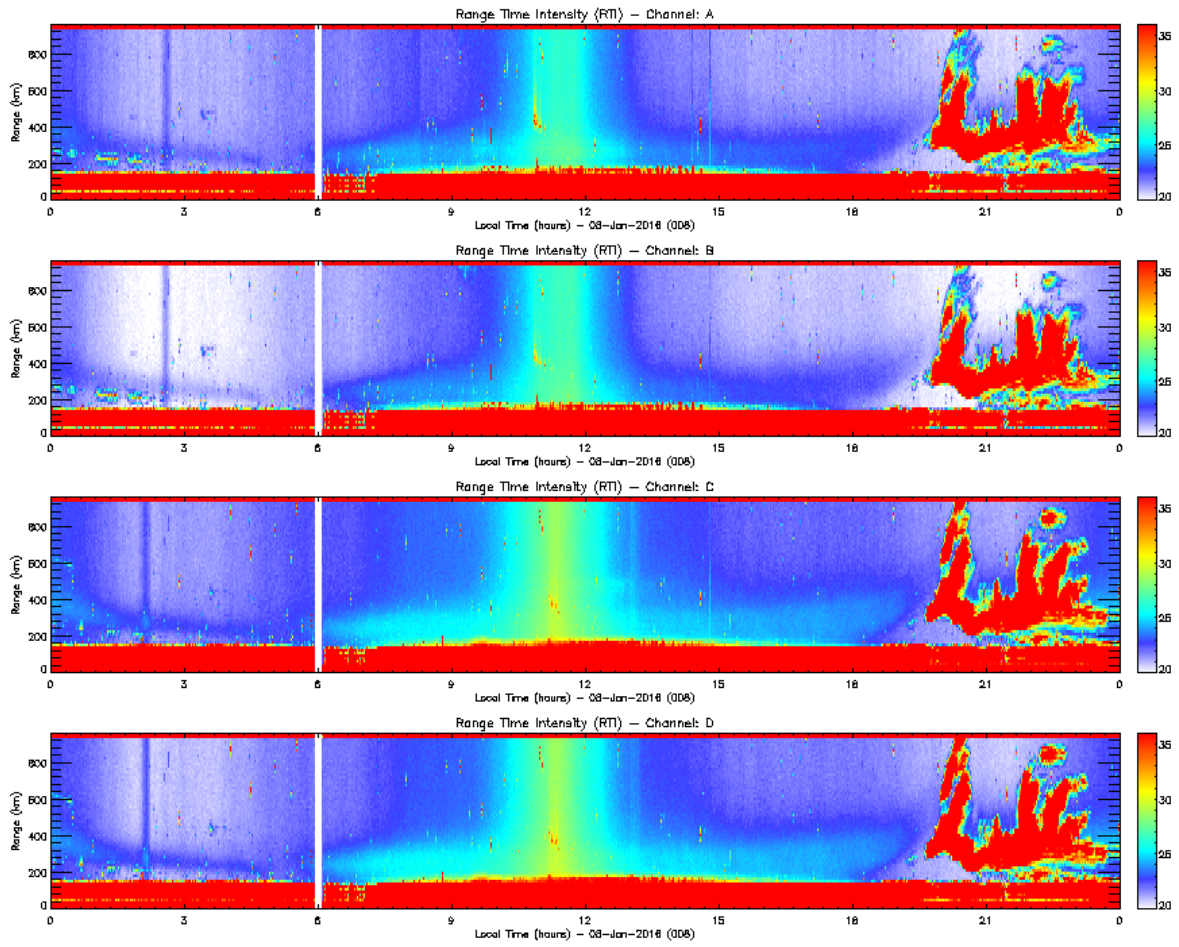


Figure 12. EW Drift Rti 08-01-2016

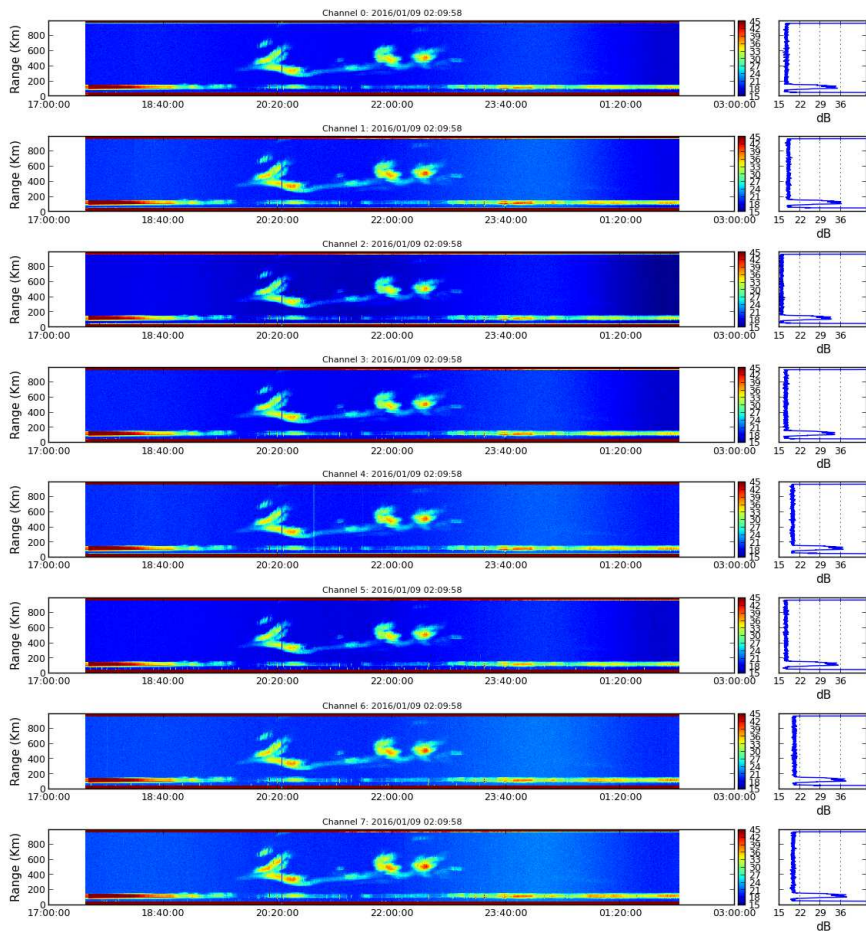


Figure 13. Imaging RTI 08-01-2016 (17:50 – 01:50)

Drifts obtained:

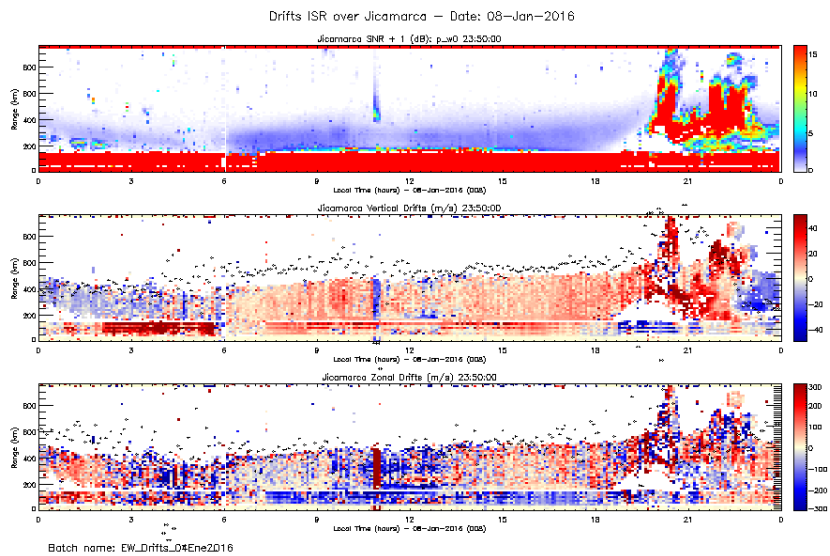


Figure 14. Drifts 08-01-2016

January, 09:

_ Strong Interference around 08:00 am, due to capacitor at transmitter.

_ Spread F from 19 to 24 hours.

_ Capacitor changed in the transmitter

Log:

_ 09 Jan 02:10 Turning off Imaging.

_ % operation/24h: 100.0

Staff in charge:

00-08: D. Lume. 08-20: A. Valdez, 20-24: P. Condor.

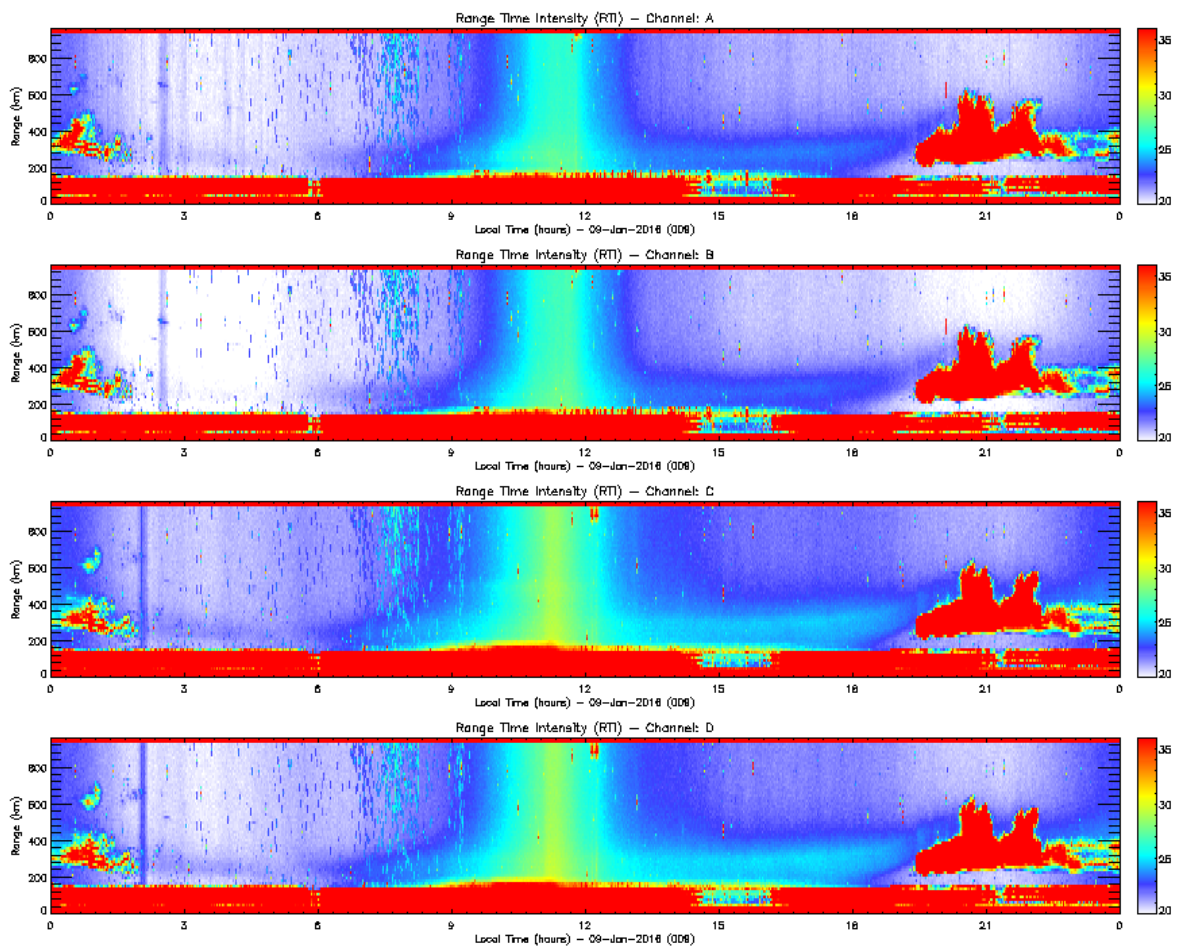


Figure 15. Rti EW Drift 01-09-2016

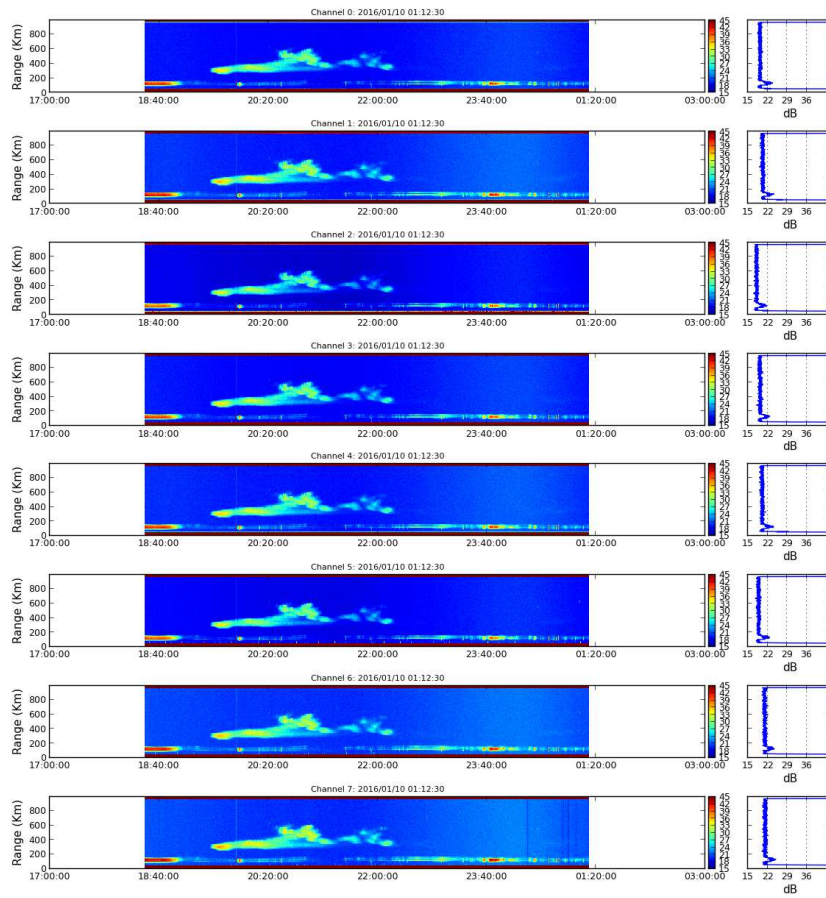


Figure 16. Rti IMAGING 09-01-2016 (18:20-01:10)

Drifts obtained:

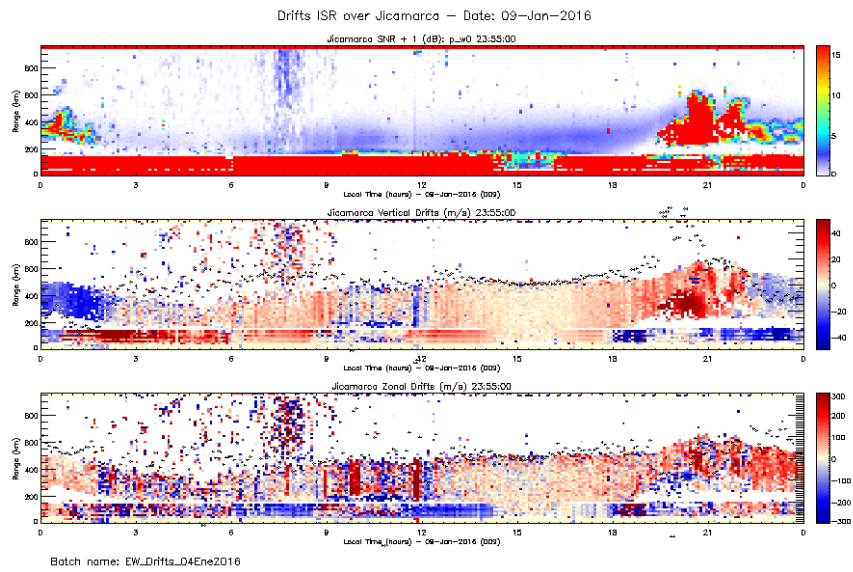


Figure 17. Drifts 09-01-2016.

January, 10:

_ Moon interference at 02:50

_ Spread F from 19:30 to 20:00 hours.

_ % operation/24h: 100

Log:

_ 10 Jan 01:15 Imaging is Off.

_ 10 Jan 18:40 Starting Imaging

_ 10 Jan 20:00 Campaign ended

Staff in charge:

00-08: A. Valdez 08-20: P. Condor

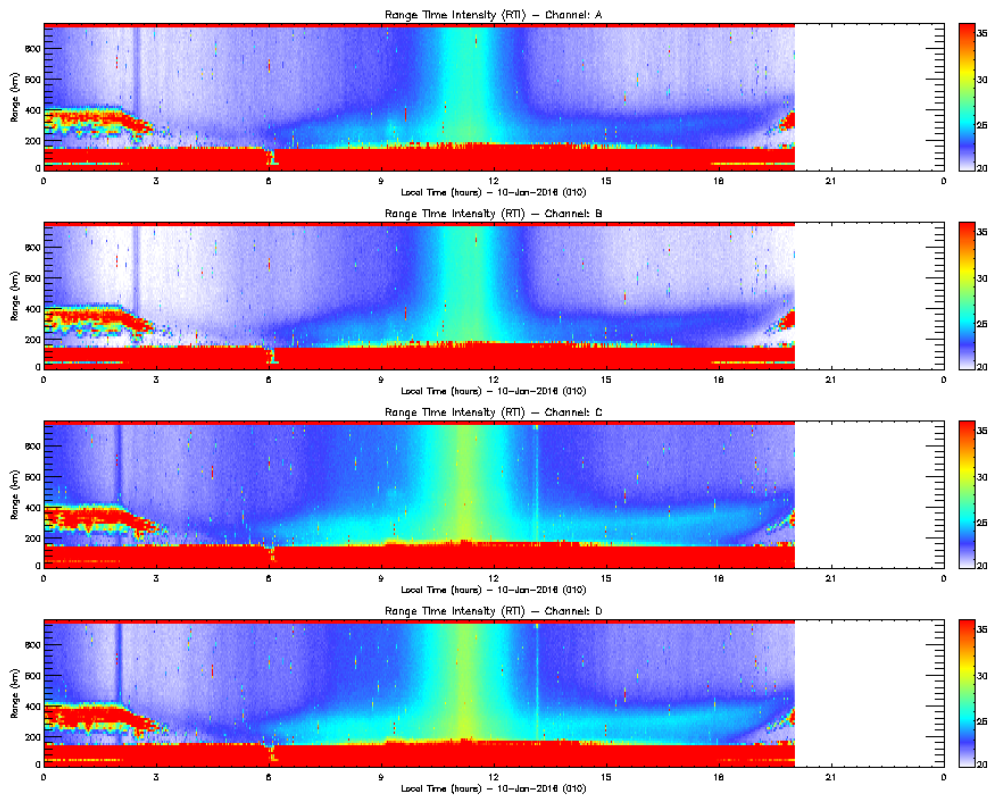


Figure 19. EW Drift Rti 10-01-2016

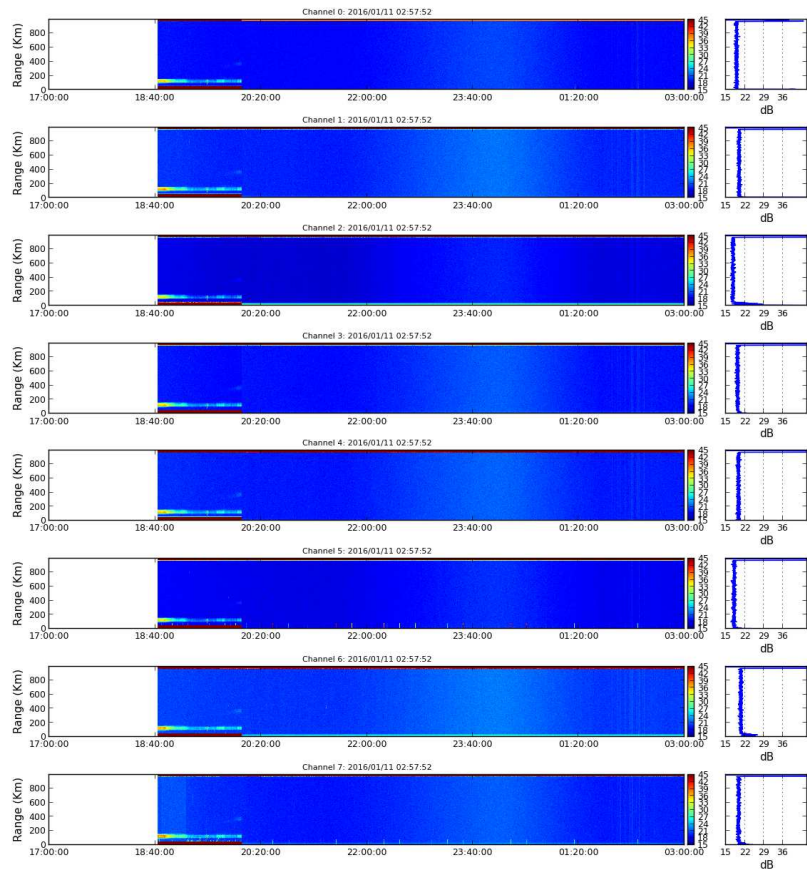


Figure 18. RTI Imaging 10-01-2016 (18:00 – 03:00)

Drifts Obtained:

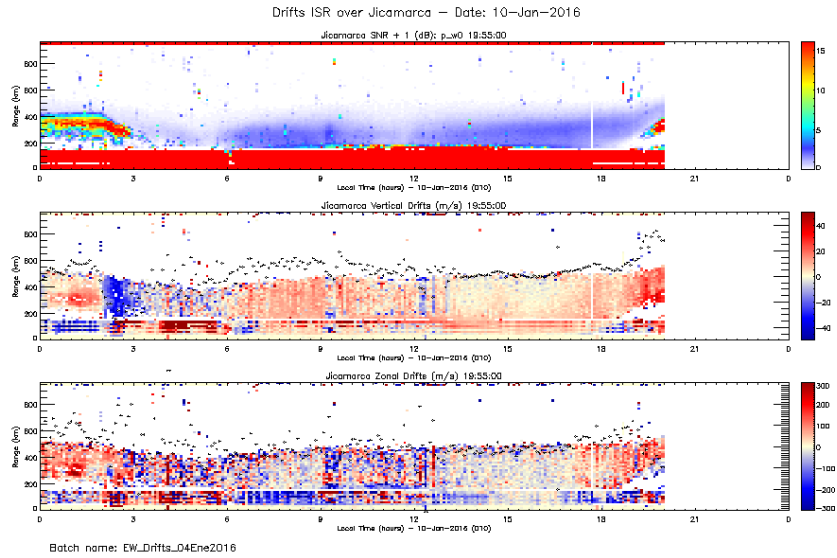


Figure 19. EW Drifts 10-01-2016.

Annex:

Sky noise for January 10, 2016:

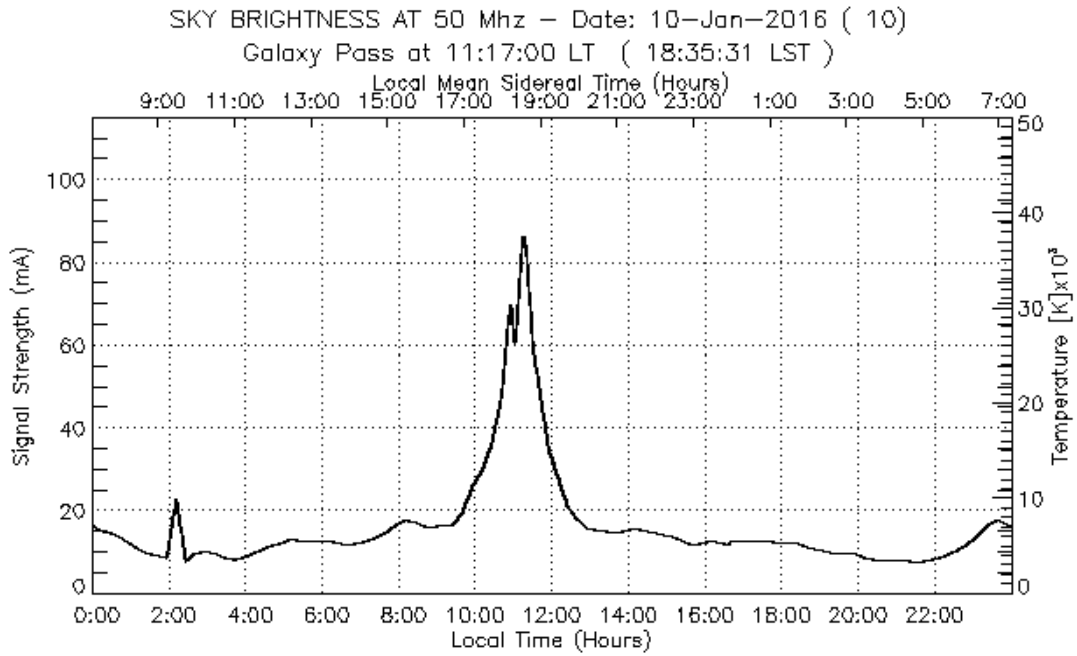


Figure 20. Sky noise.

Antenna pattern

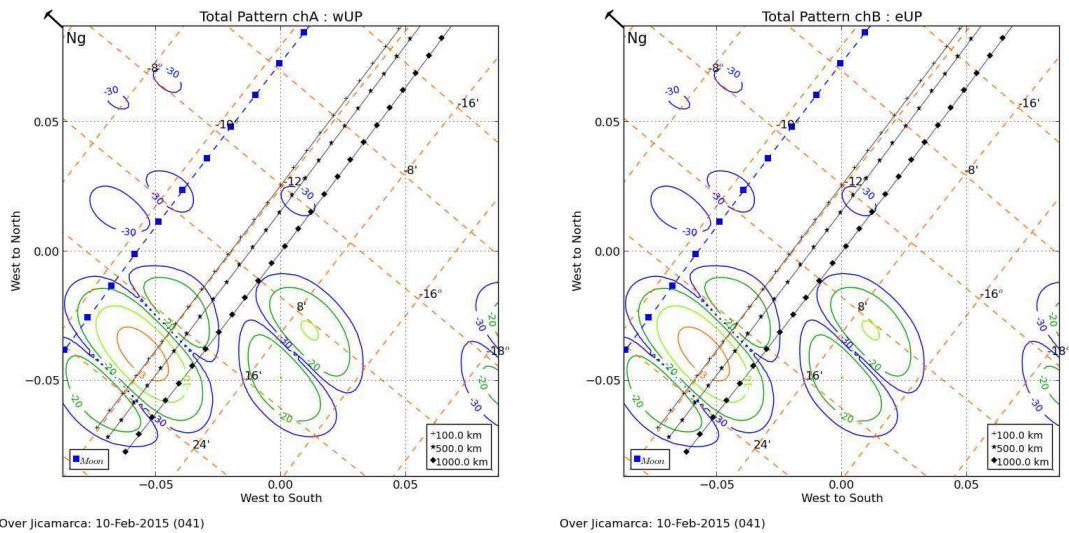
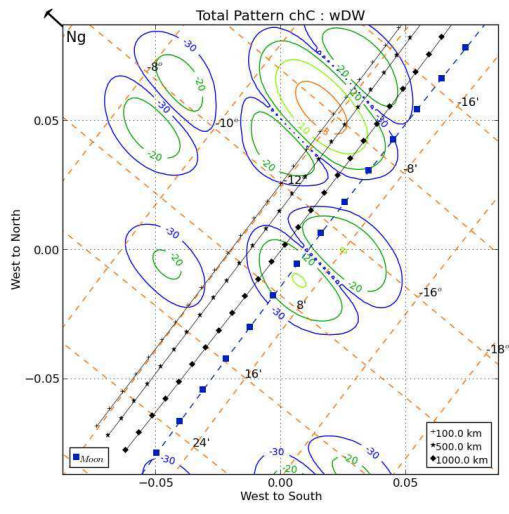
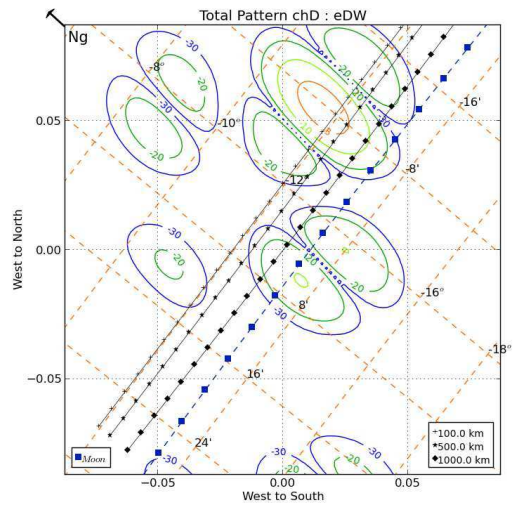


Figure 21. Antennas pattern EW_Drifts: Ch A and Ch B.



Over Jicamarca: 11-Feb-2015 (042)



Over Jicamarca: 11-Feb-2015 (042)

Figure 22. EW_Drifts: Ch C and Ch D.