

# Air-borne broadband interference detection by LOFAR (part 2)

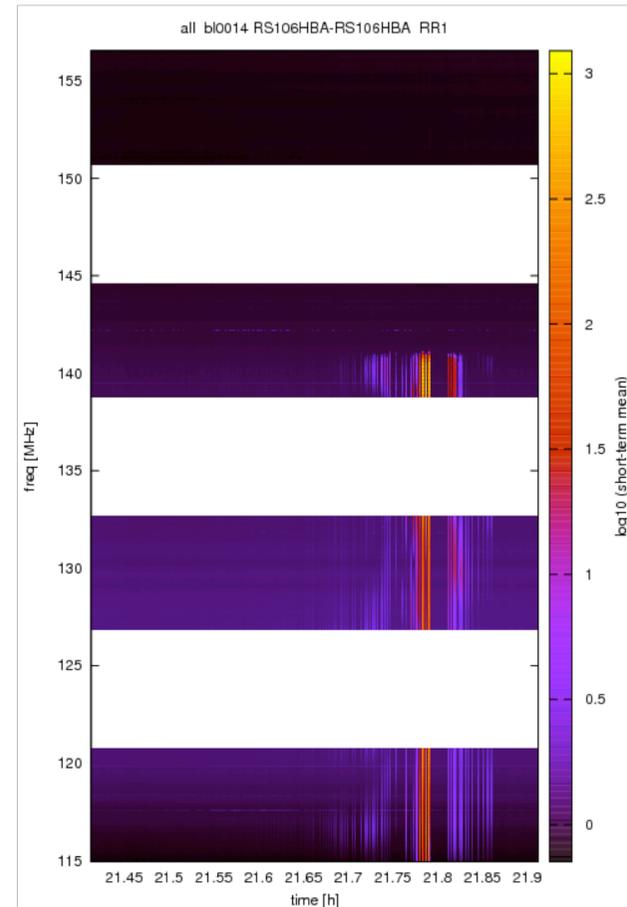
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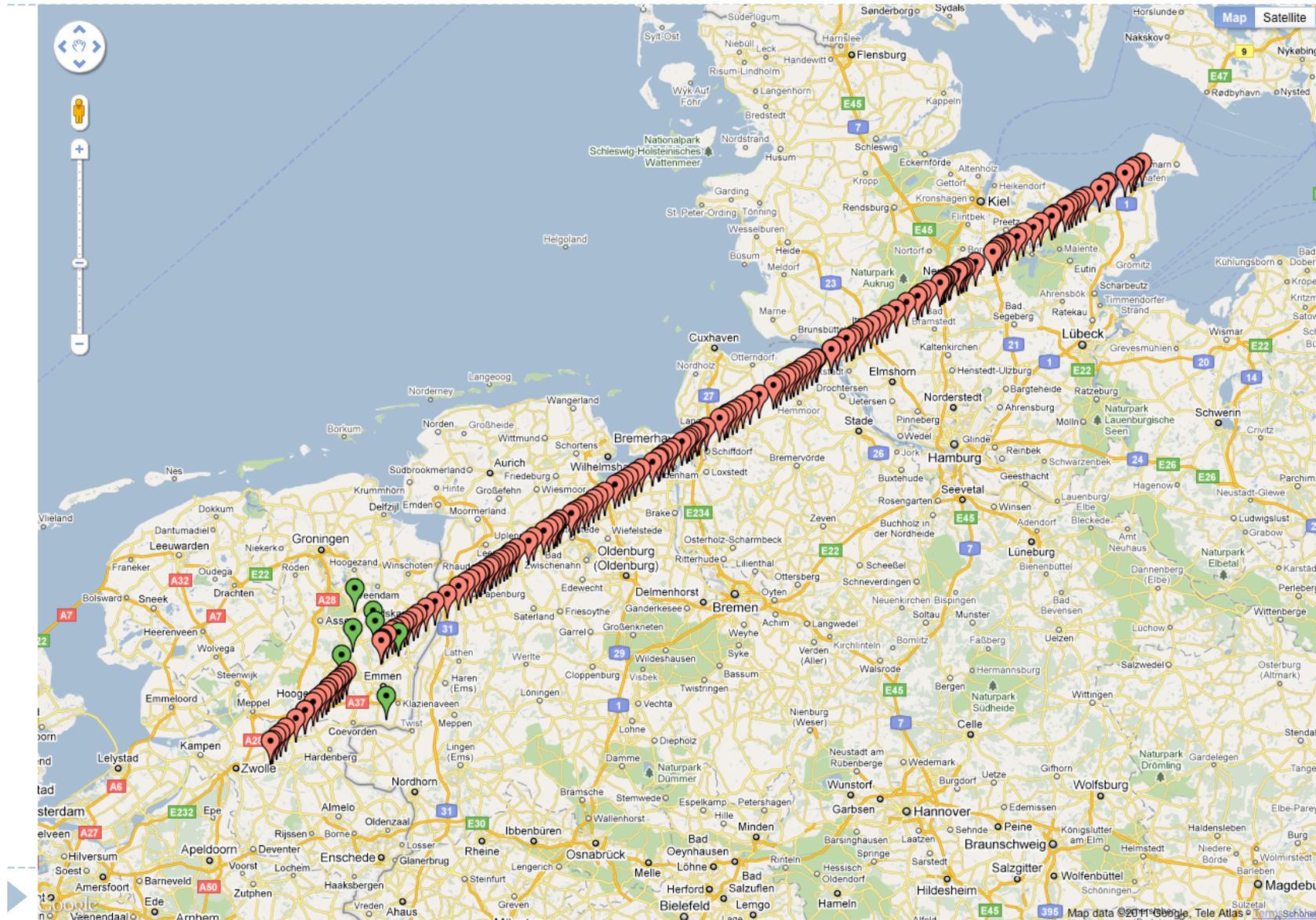
# LSM 23 March:

## RFI spikes

- strong spikes (< 1 sec) left after initial flagging
- had consistent phases and sometimes small delays
- seen on all Dutch baselines
- wide: < 115 MHz – 141 MHz
- beyond airband
- detectable for about 30 min



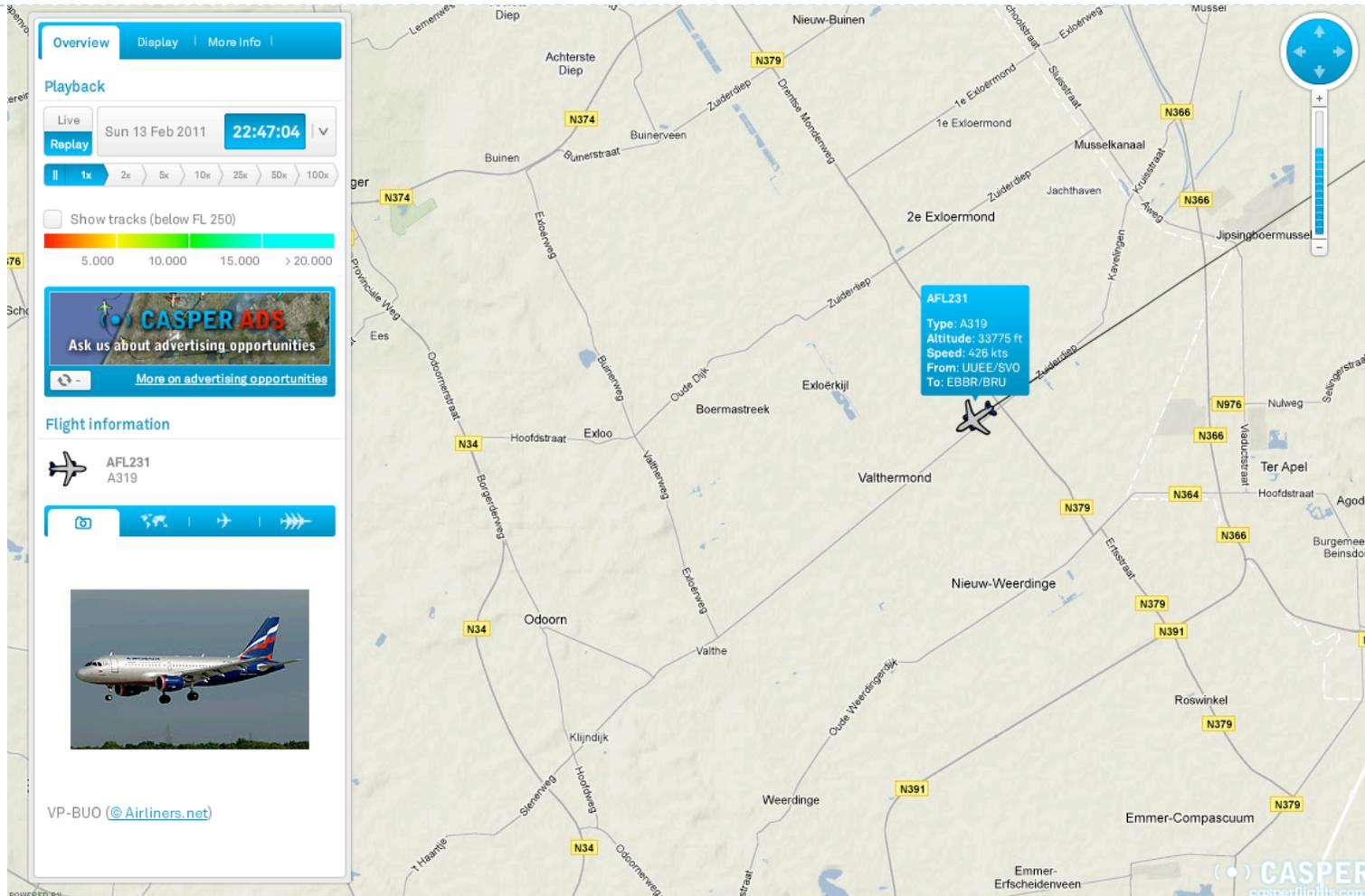
# Track reconstruction (1)



# Track reconstruction (2)

The screenshot displays a flight track reconstruction interface. On the left, a control panel includes an 'Overview' tab, 'Playback' controls (Live, Replay, Sun 13 Feb 2011, 22:47:04), speed settings (1x to 100x), and a 'Show tracks (below FL 250)' checkbox. Below this is a 'CASPER ADS' advertisement. The 'Flight information' section shows the flight number 'AFL231' and aircraft type 'A319'. At the bottom of the panel is an image of the aircraft and the text 'VP-BUO © Airlines.net'. The main map area shows a geographical region with various roads and landmarks. A flight track is visible, with a specific point highlighted by a blue box containing the following data: 'AFL231', 'Type: A319', 'Altitude: 33775 ft', 'Speed: 426 kts', 'From: EBBE/SVO', and 'To: EBBW/BRU'. The map also features a compass, zoom controls, and a 'Map/Satellite' toggle. The bottom right corner includes 'Map data ©2011 Google, Tele Atlas' and the 'CASPER' logo with the website 'casperlights.com'.

# Identification



Airbus A319-111 from Aeroflot  
Registration VP-BUO

Flight AFL231 of February 13, 2011  
Moscow - Brussels

## Eurocontrol report (Jan 2010): Status of AEROFLOT Squelch Burst Interference

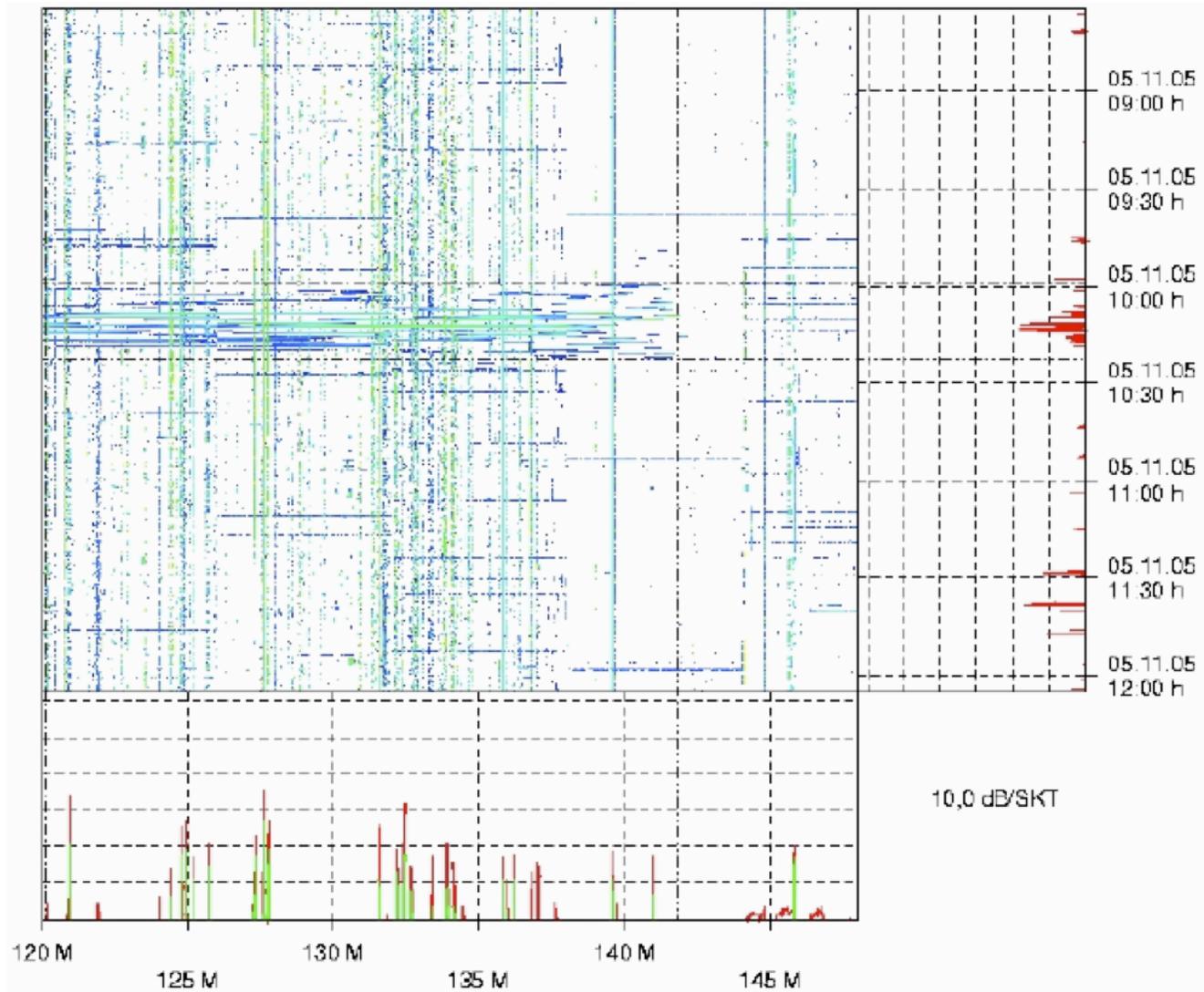
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### Report prepared by DFS:

- ▶ Since January 2005 non systematic audio perturbations from Airbus/Honeywell
- ▶ Interference only coming from Aeroflot aircraft ( $\geq 14$ )
- ▶ Interference generally appears when the aircraft goes from East to West
- ▶ Occurrence  $\sim$  once per week
- ▶ Alitalia uses same equipment in same configuration: no issues
- ▶ Airbus is investigating issue



# BNetzA in Leeheim (Germany)



# Honeywell RTA-44D



## RTA-44D Key Features

118.000 MHz to 136.992 MHz operation  
8.33 kHz and 25 kHz channel spacing  
ICAO Annex 10 FM immunity  
ACARS MSK (Mode A) Data Link capability  
Mode 2 (D8PSK) Data Link capability

Source: Data Sheet of Honeywell RTA-44D VDR,

[http://www.honeywellcommnav.com/documents/technical/44d\\_tech.pdf](http://www.honeywellcommnav.com/documents/technical/44d_tech.pdf)