RAF Data Status

DEEPWAVE Meeting

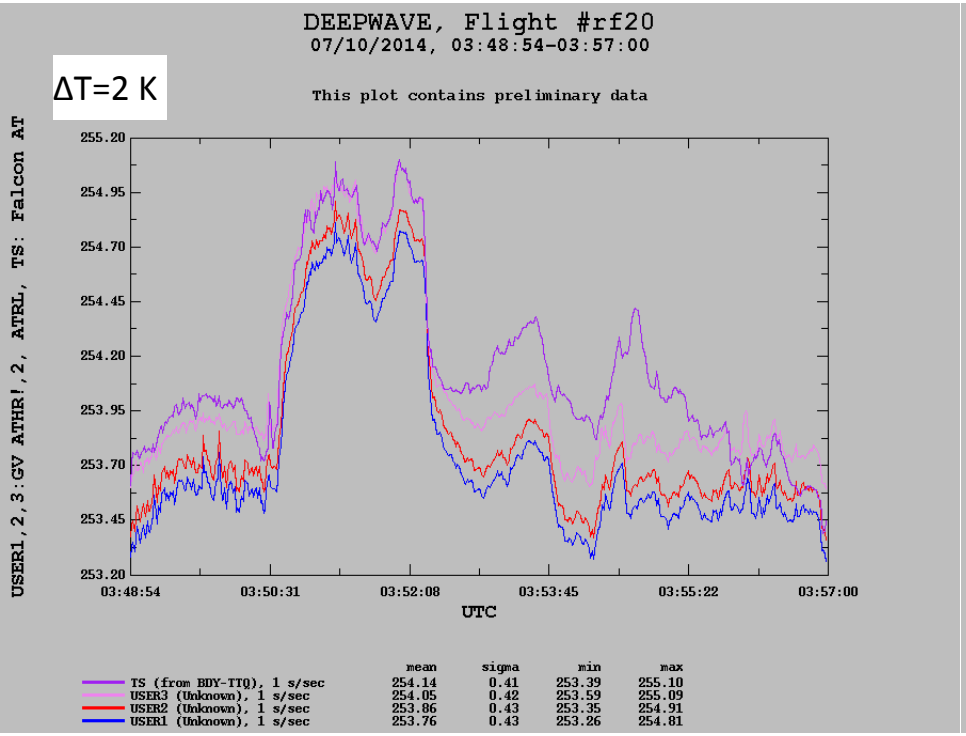
23 Oct 2014

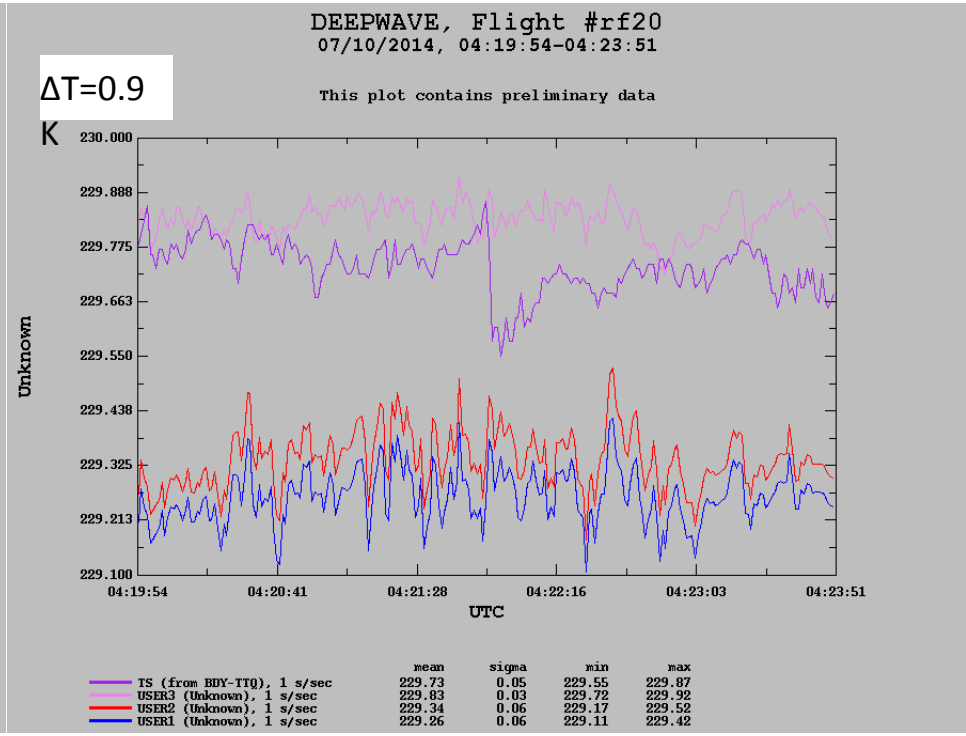
Overview

- Timeline for release: Six months after conclusion of project (on schedule for Jan 2015 delivery)
- State parameters
  - Winds: Two flights out
  - Temperatures
- UHSAS
  - Flow issues throughout project
  - Approximately half of the flights will be no good
- Position Information
  - Several GPS/OmniSTAR issues

Inter-Comparison Flight

- Temperature comparisons between the G-V and the DLR FALCON (RF20)





Courtesy of Dick Frieson

GPS Measurements

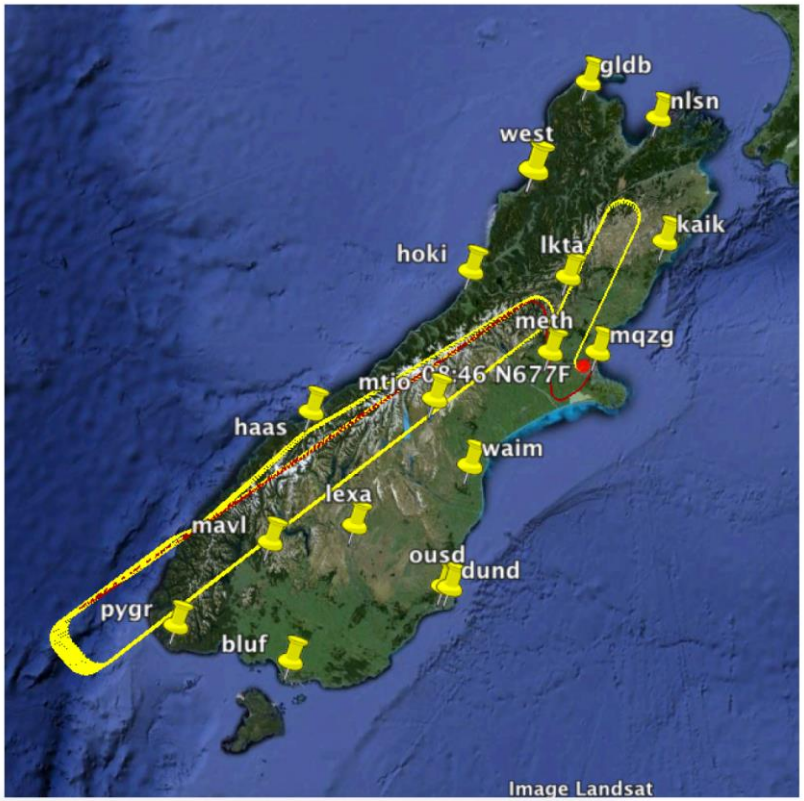
- Two types of high accuracy position information
  - OmniSTAR: Uses geosynchronous satellite, real-time
  - D-GPS: Uses ground station, at least one day to process

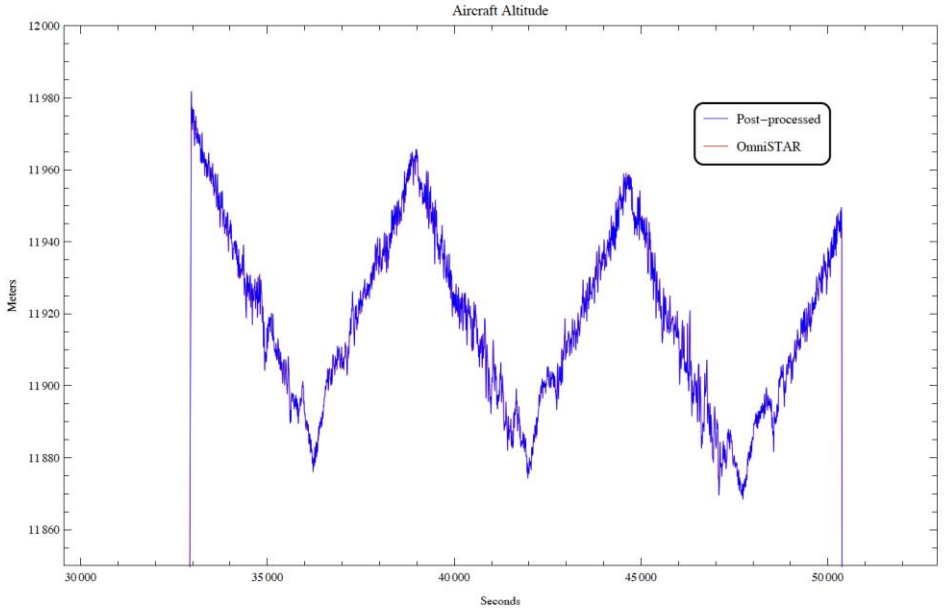
	OmniSTAR XP	Post-processed differential
Horizontal accuracy spec.	$< \pm 15$ cm, 2σ	Minimum 1 cm + 1 ppm, 1σ (10 cm per 100 km from ground reference station).
Estimated RMS altitude uncertainty	± 16 cm	20 cm per 100 km.
Data delay	Real-time. Corrections are included in position output by the receiver.	Minimum 1 day, > 1 week for best results.
Processing effort	None	1 day per flight

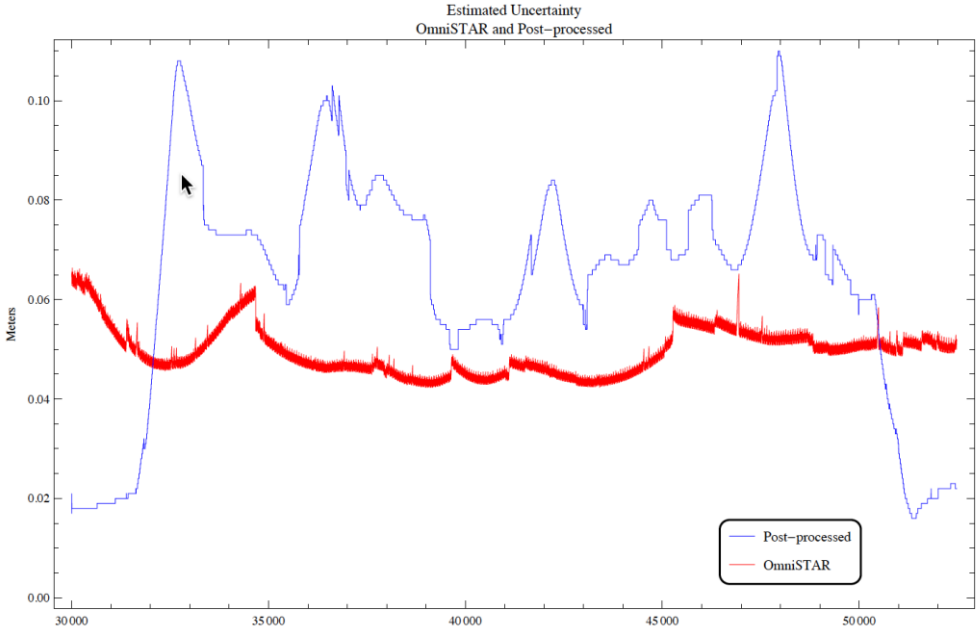
Courtesy of Stuart Beaton

Good Example (RF26)

Over land, constant altitude, good array of ground stations

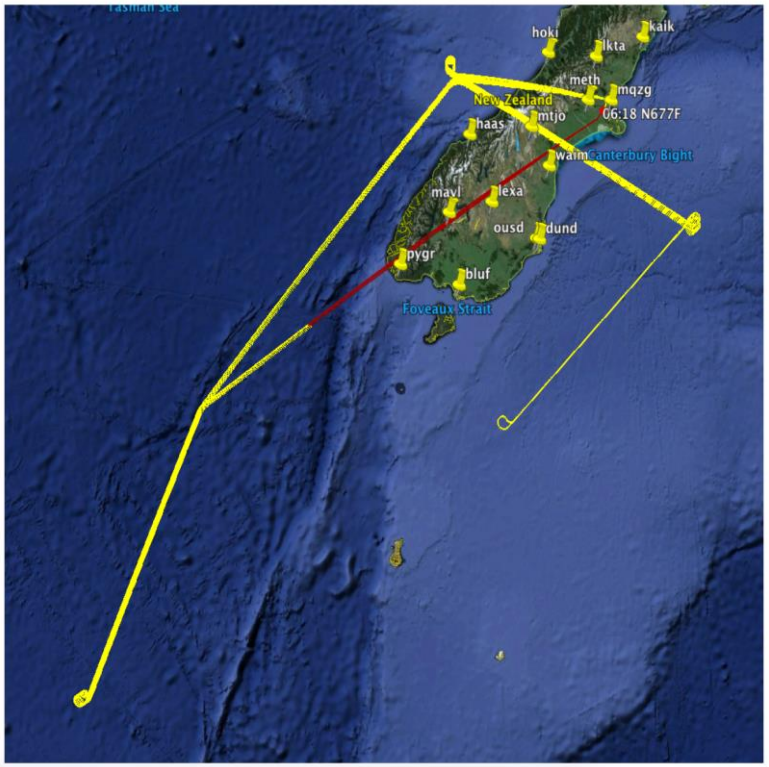


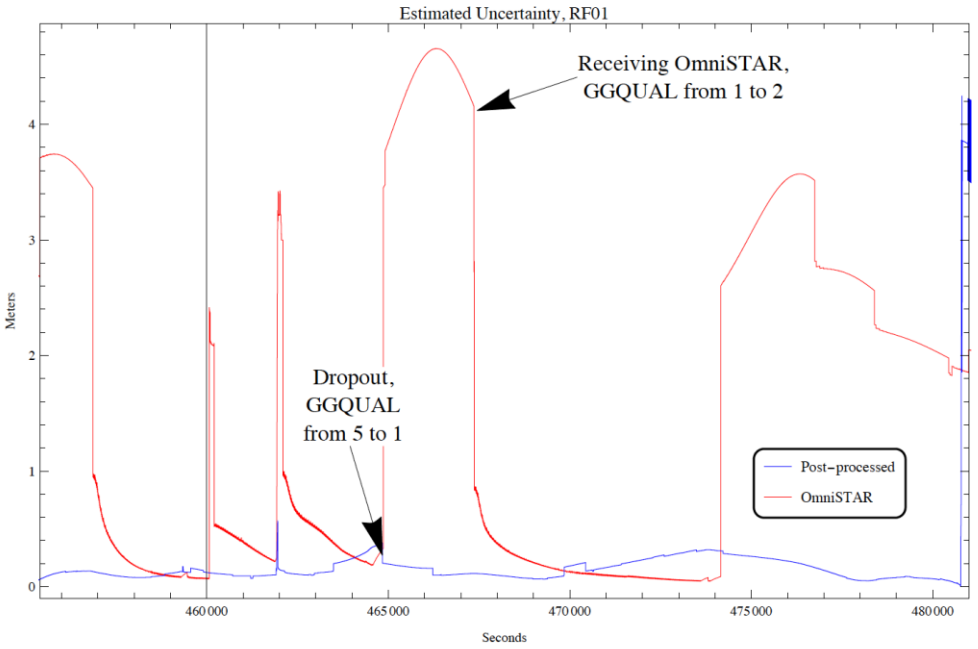


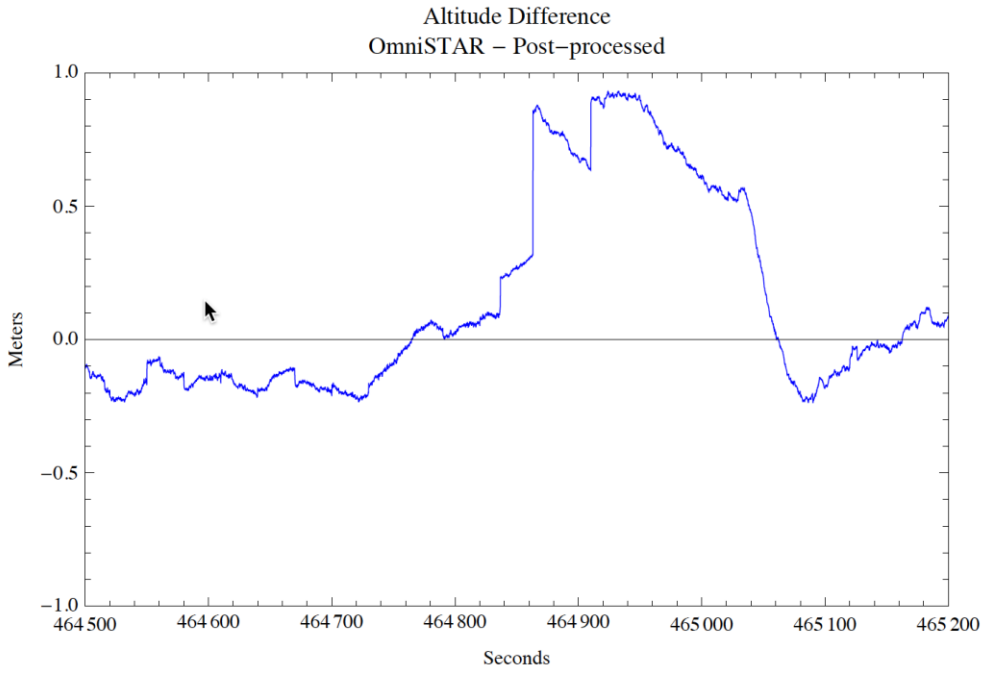


Courtesy of Stuart Beaton

OmniSTAR Dropout Example (RF01)







Courtesy of Stuart Beaton

Questions?