

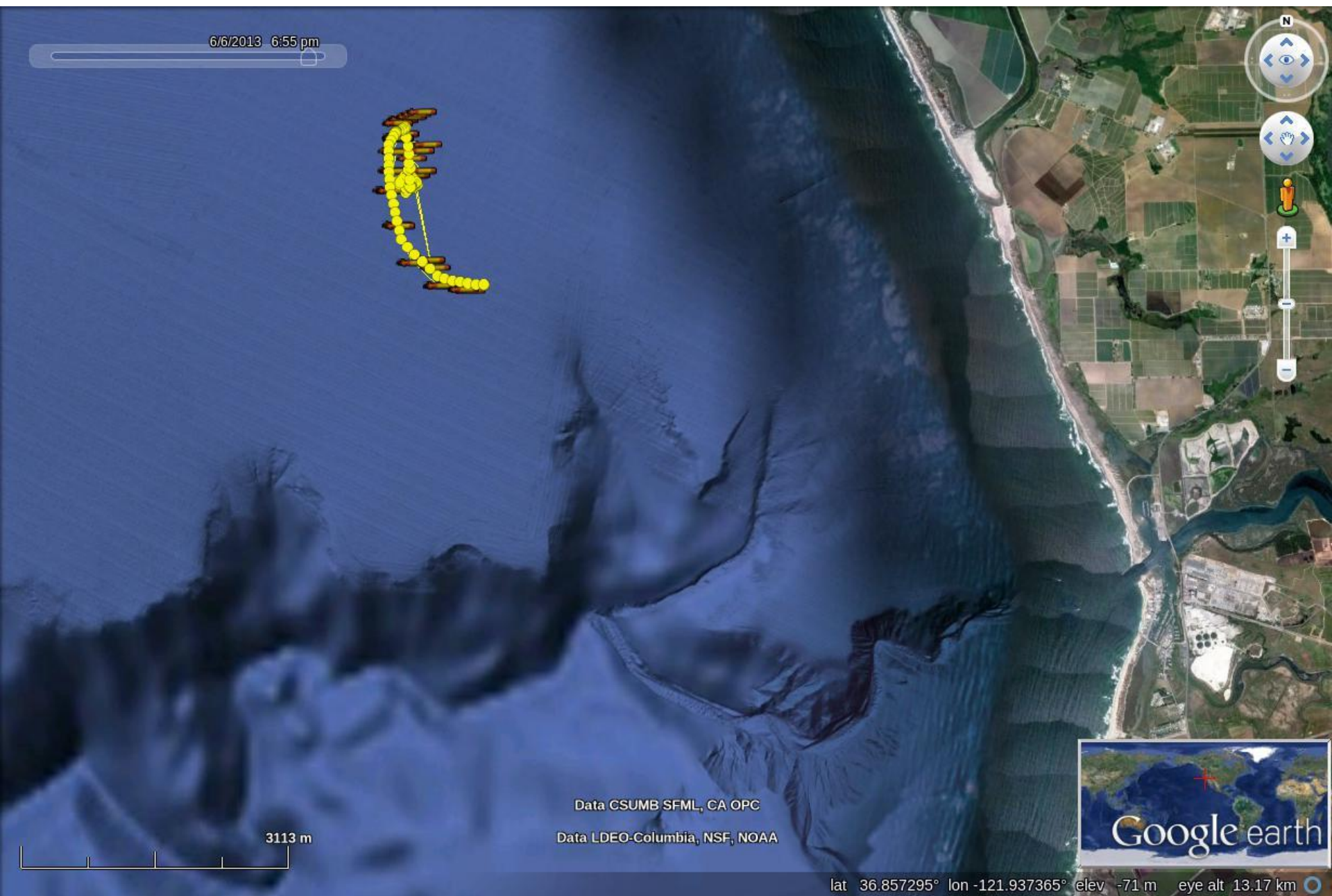
DAT homing on LRAUV

field tests with
LRAUV *Daphne* and Wave Glider *Tex*

2013-06-04 to 2013-06-06

M J Stanway, B Kieft, B Hobson, T Hoover, and J G Bellingham

2013-06-06, 8-10 km NW of MBARI



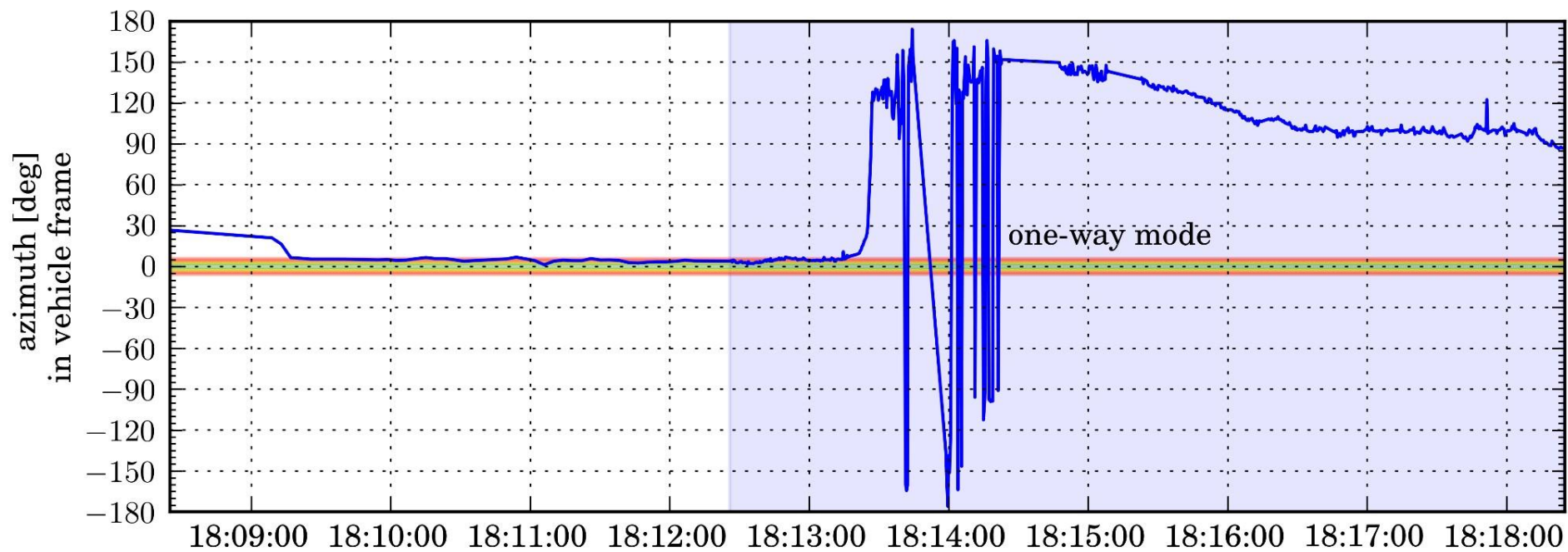
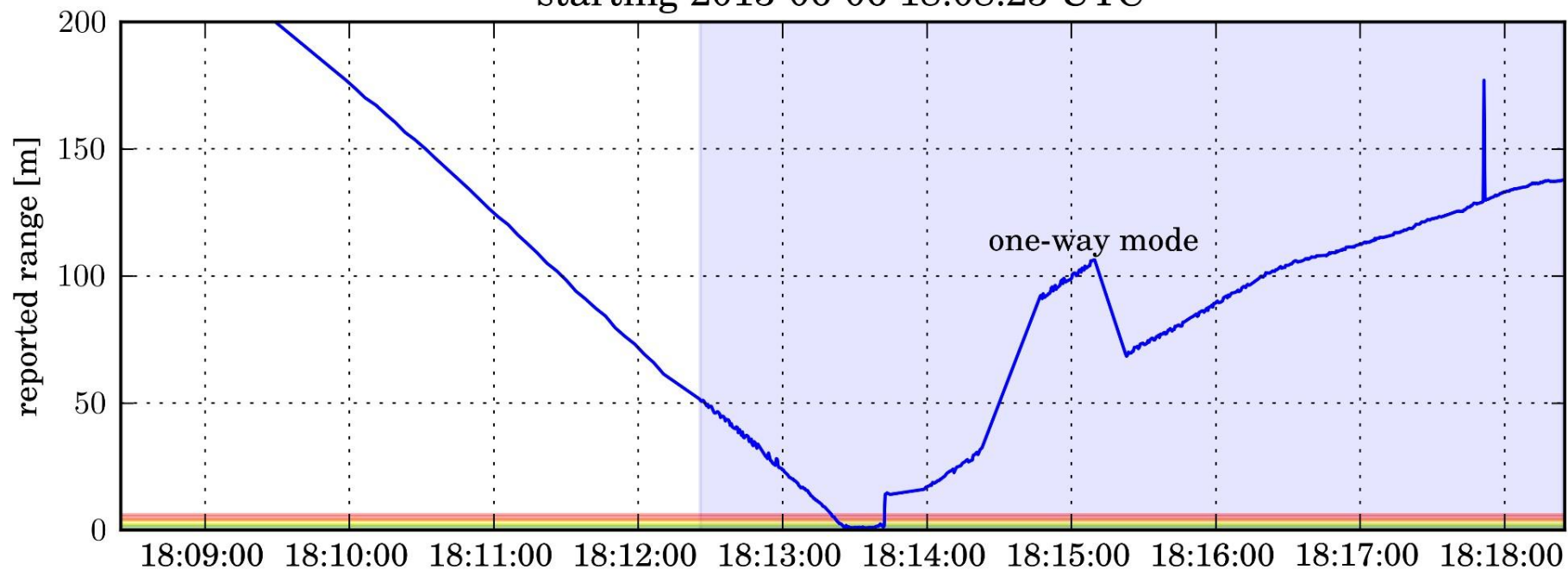
We'll look at the data in 2 sets of plots:

- timeseries
- view from above in vehicle reference frame

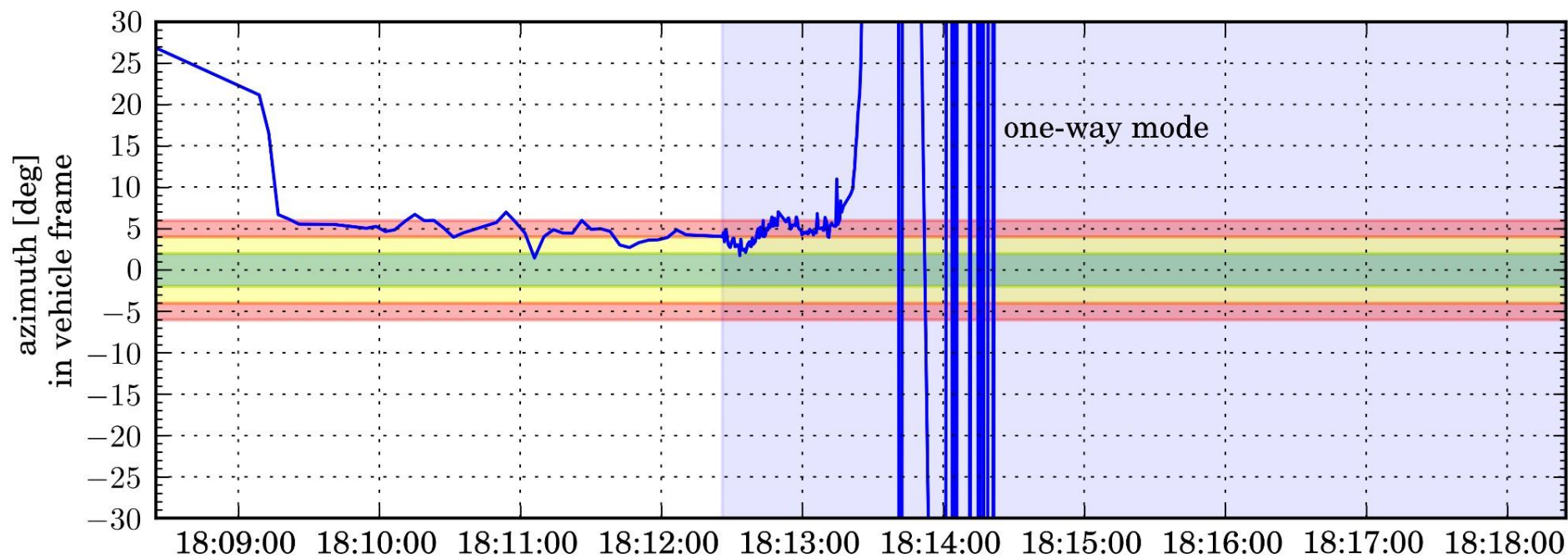
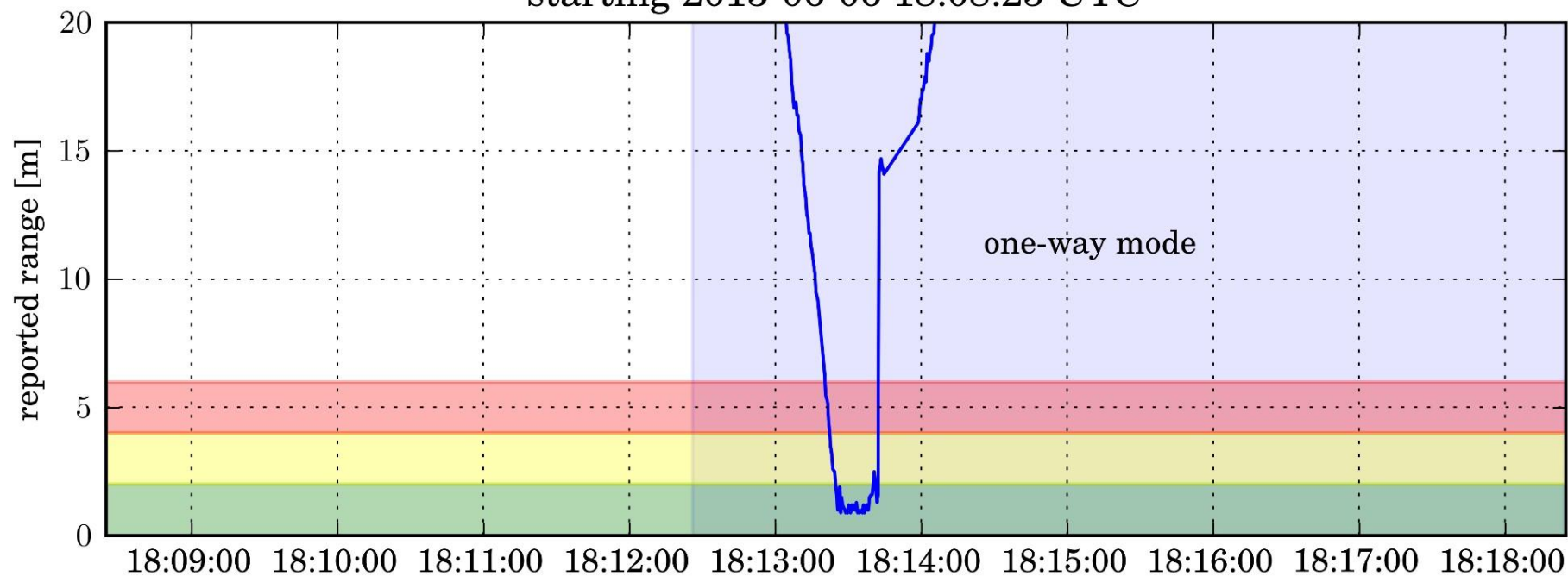
timeseries plots

- light blue shading at right side indicates one-way mode
 - video capture started at the same time
- horizontal target threshold bands show desired measurements during approach
 - reported range
 - red: 4-6 meters
 - yellow: 2-4 meters
 - green: 0-2 meters
 - azimuth (in vehicle coordinates, 0° straight-ahead)
 - red: $\pm 6^\circ$
 - yellow: $\pm 4^\circ$
 - green: $\pm 2^\circ$

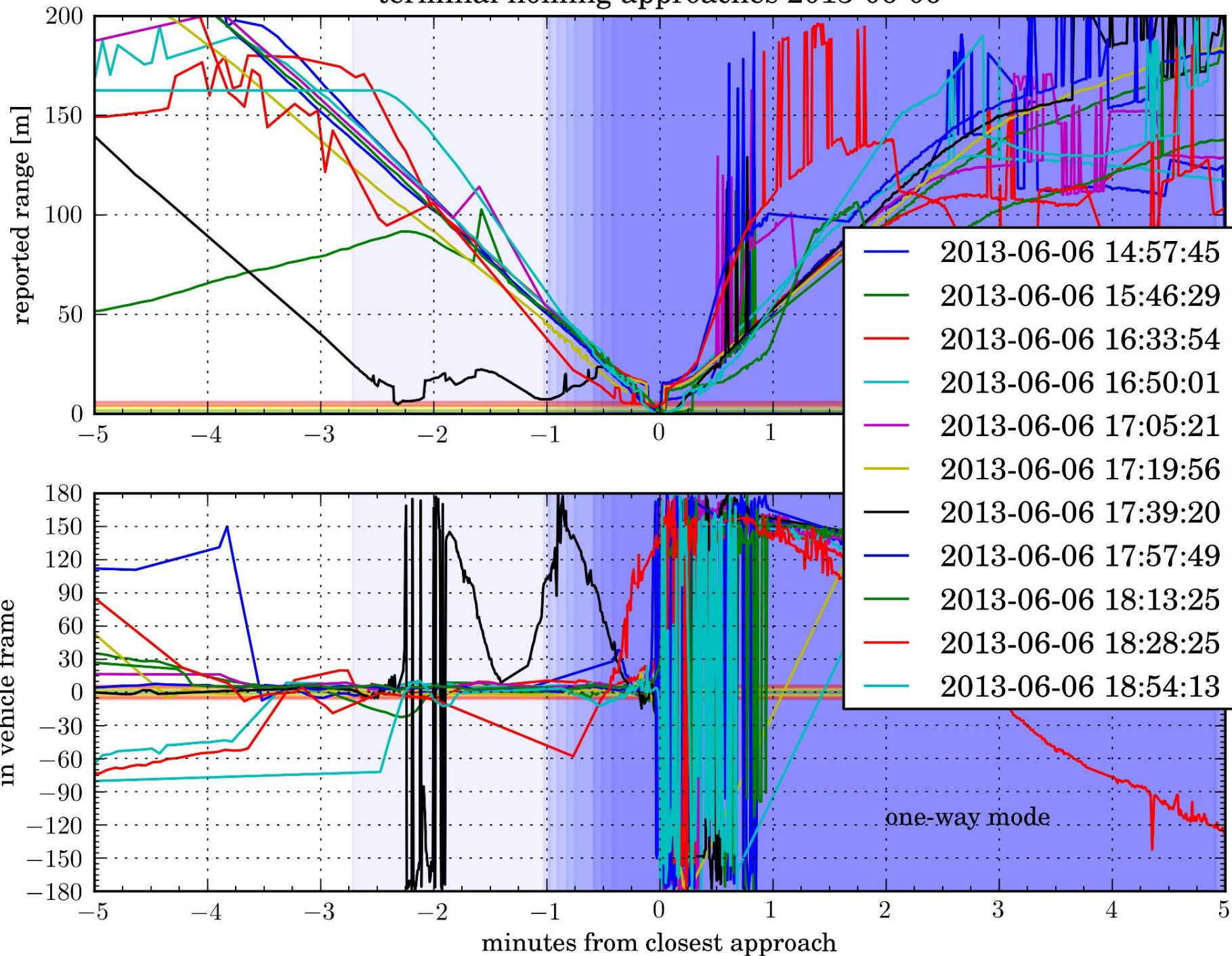
starting 2013-06-06 18:08:25 UTC



starting 2013-06-06 18:08:25 UTC



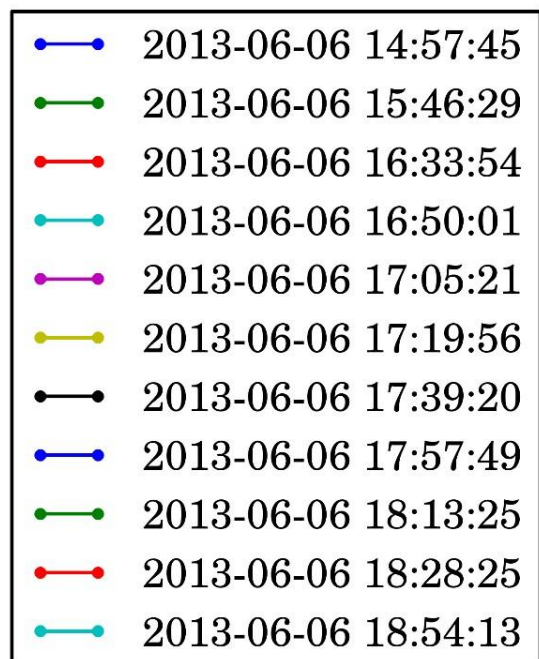
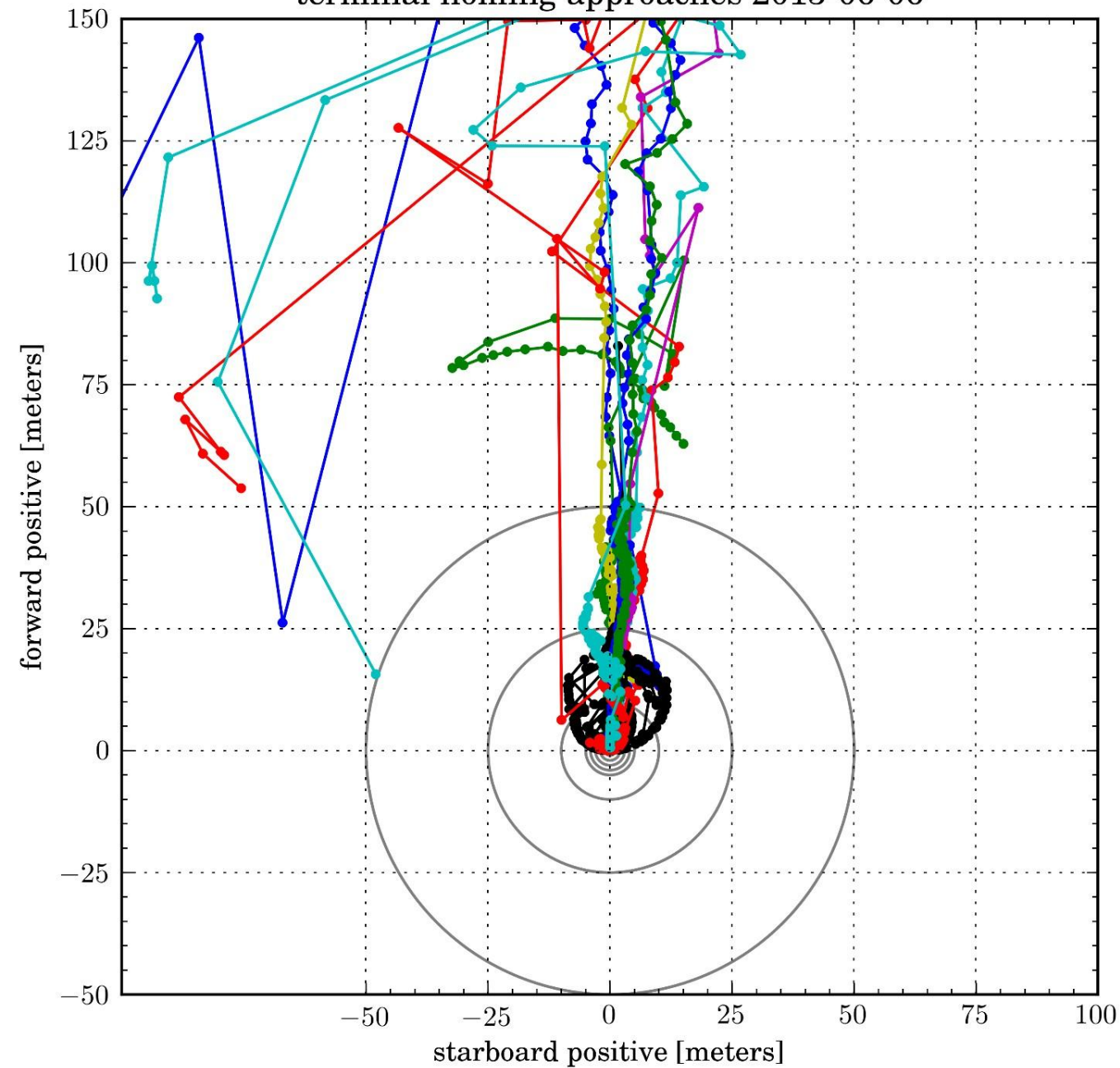
terminal homing approaches 2013-06-06



map view in vehicle coordinates

- range, azimuth, and elevation projected onto a two-dimensional plane
 - at the same depth as the vehicle
 - viewed from above
- vehicle at origin
 - bow points to top of page
 - starboard points toward right of page
- line starts 5 minutes before closest approach

terminal homing approaches 2013-06-06



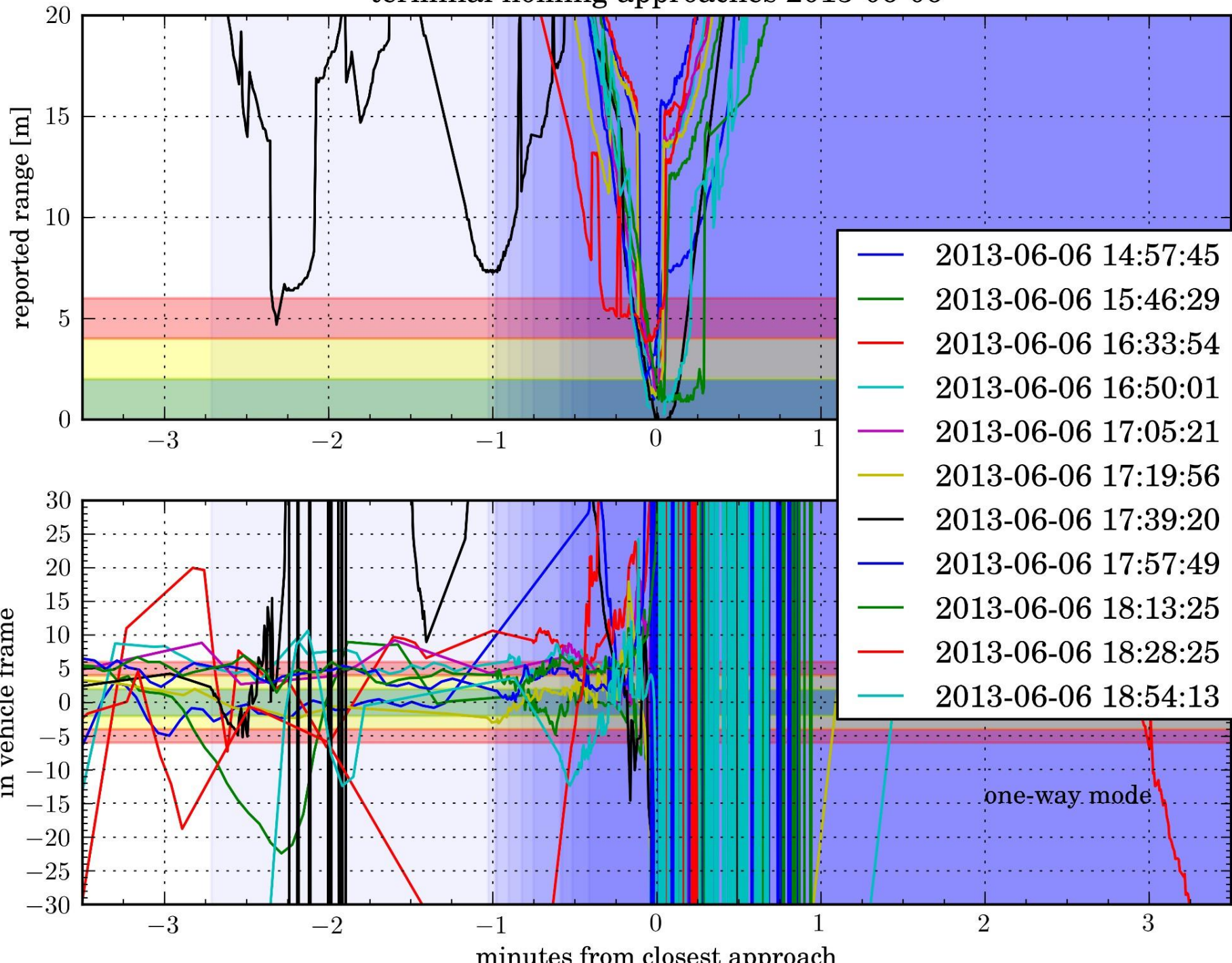
movies

- Video shows highlights from upward-looking self-contained plankton imager (SCPI) camera.
- On every approach from 2013-06-06, we see either the subsurface glider body or the tether, or both.
- (possibly) Animation of approach in vehicle coordinates.

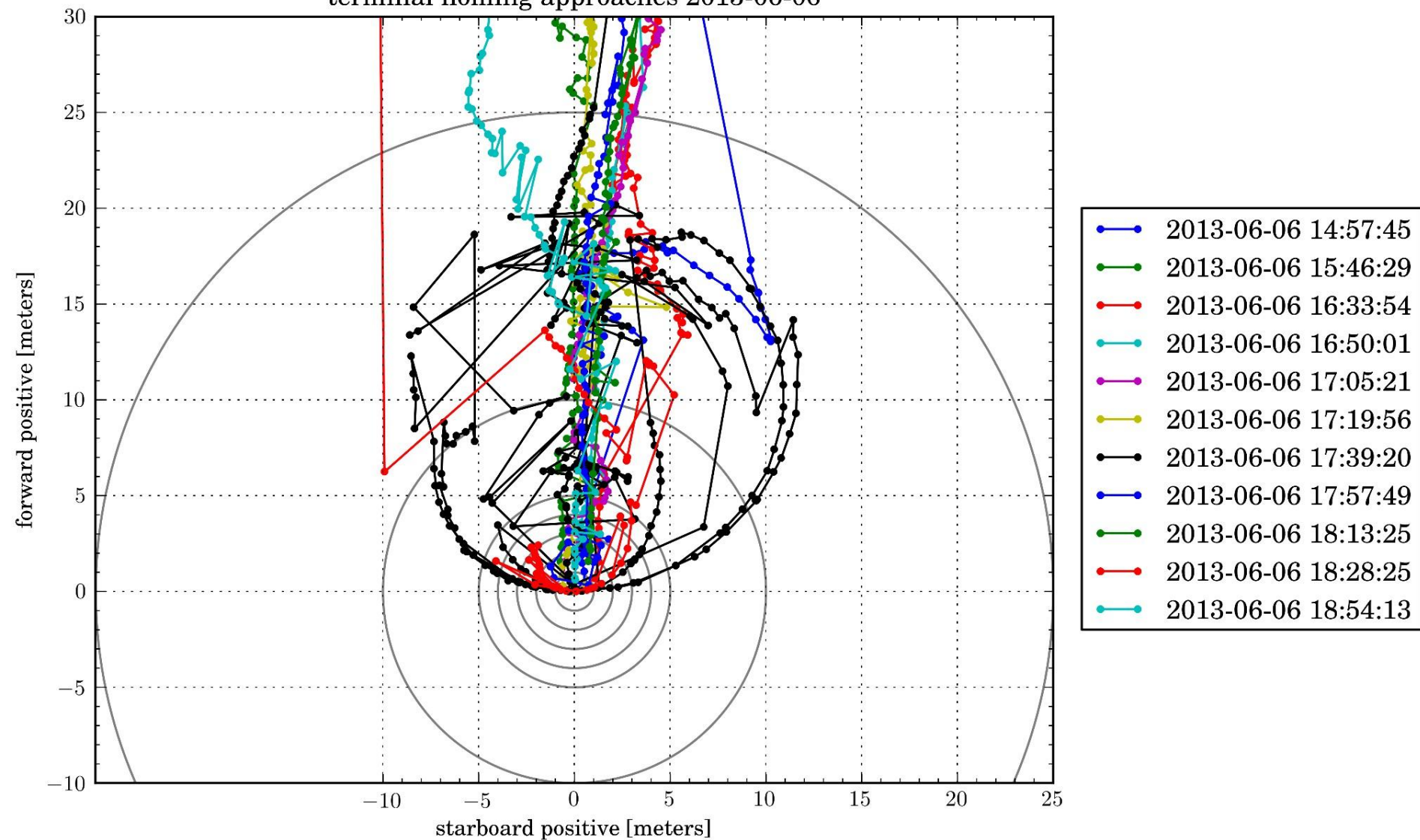
questions?

backups...

terminal homing approaches 2013-06-06



terminal homing approaches 2013-06-06



map view in target coordinates...