

QuikScat and WindSat underflights with TODWL

G. D. Emmitt, C. O'Handley and S. Greco

Simpson Weather Associates

Lidar Working Group Meeting

Snowmass

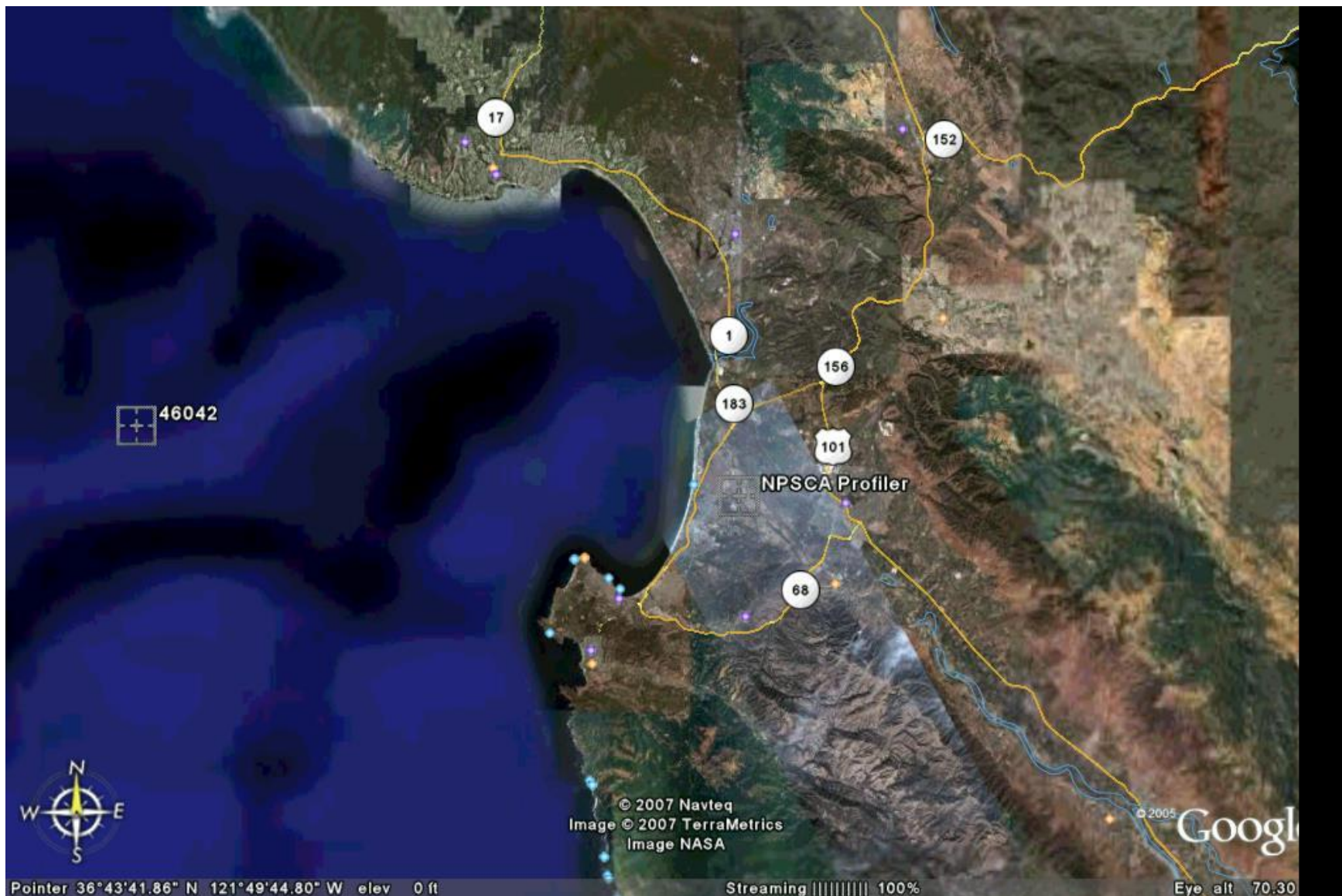
July 17 – 20 2007

Objectives

- Investigate the influence of OLEs and near surface jets on OVW retrievals and air-sea flux parameterizations
- Investigate the accuracy of PBL wind profiles derived for OVWs
- Obtain high spatially resolved wind profiles within footprint and processing “pixels” of both a scatterometer (QuikScat) and a polarimetric radiometers (WindSat)

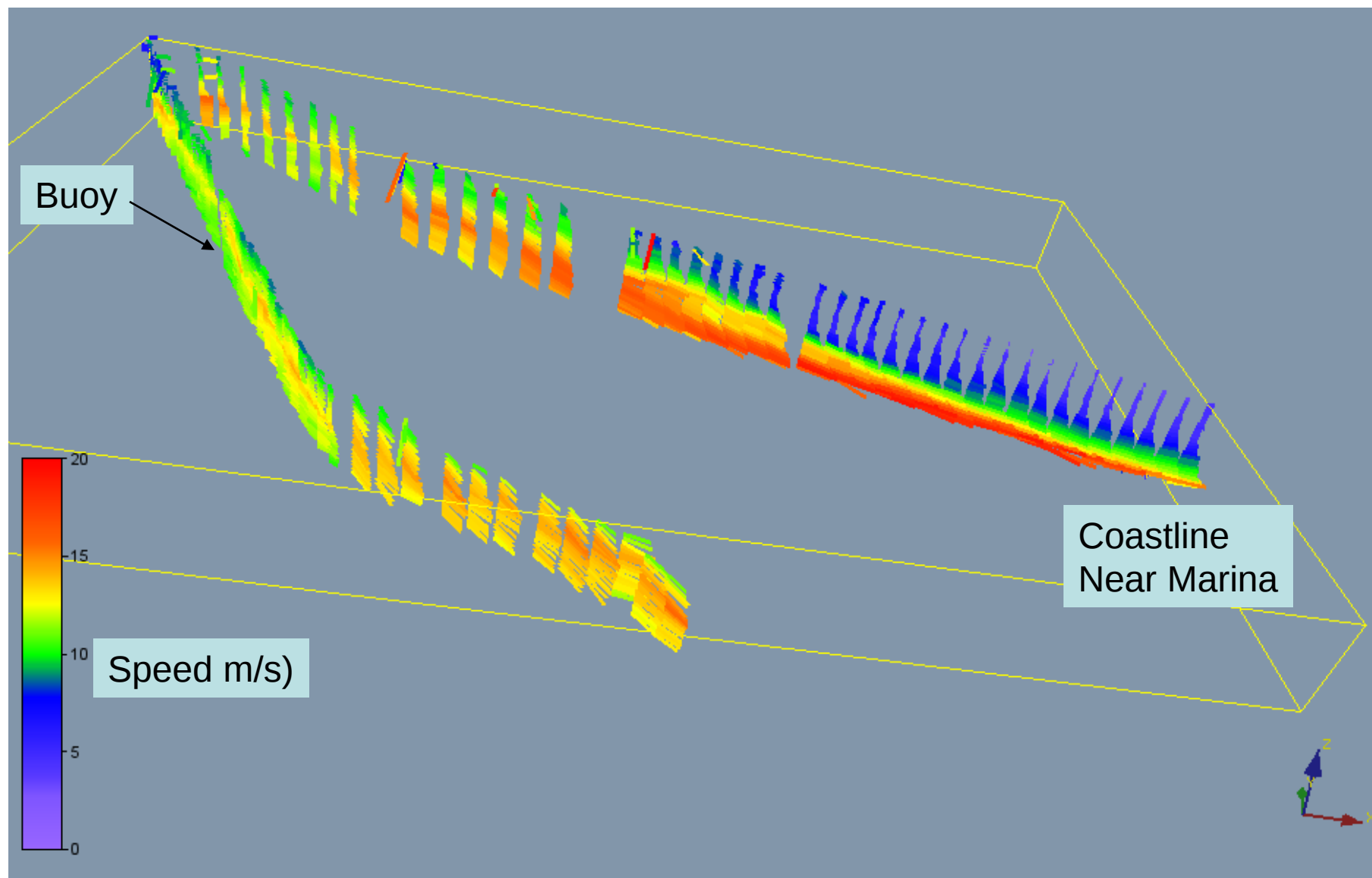
April Underflights with TODWL and the STV

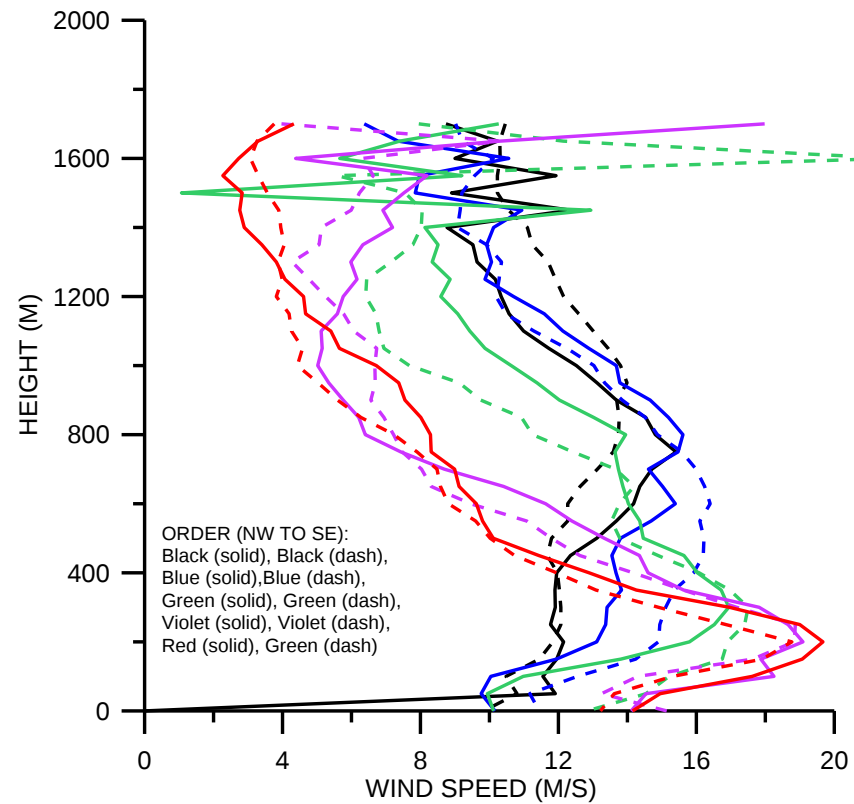
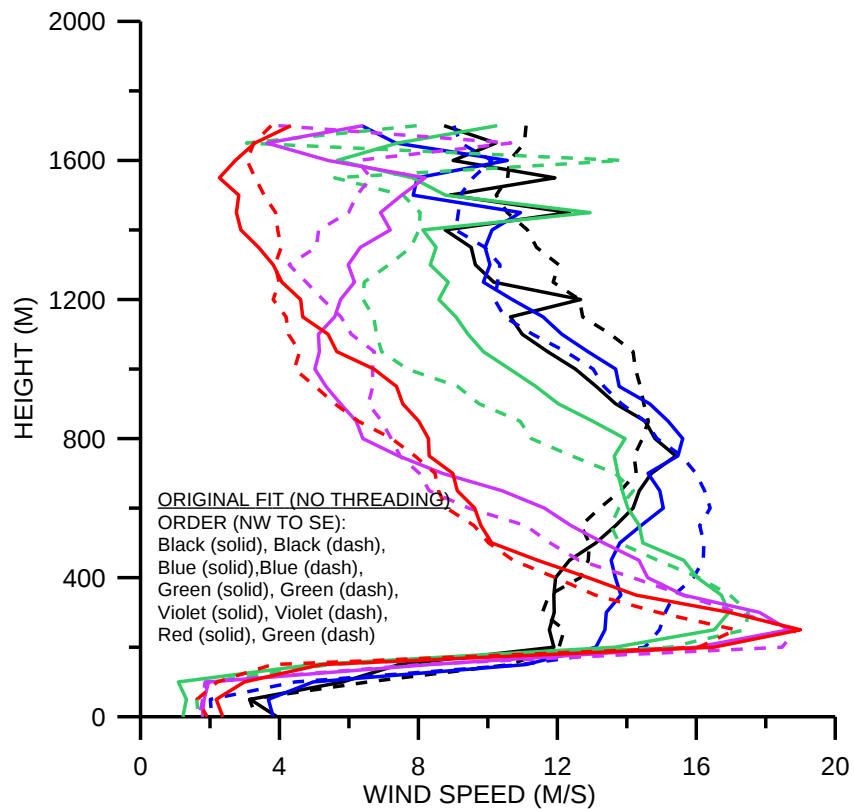
- Two underflights
 - 5:30 pm PDT April 16, 2007
 - 6:07 pm PDT April 18, 2007
- Off coast near and over Monterey Bay
- Flight altitude of 1900 m
- Conical scanning down
- 500 m repeat



TODWL underflight 18 April 6:07 pm PST

Monterey Bay, California



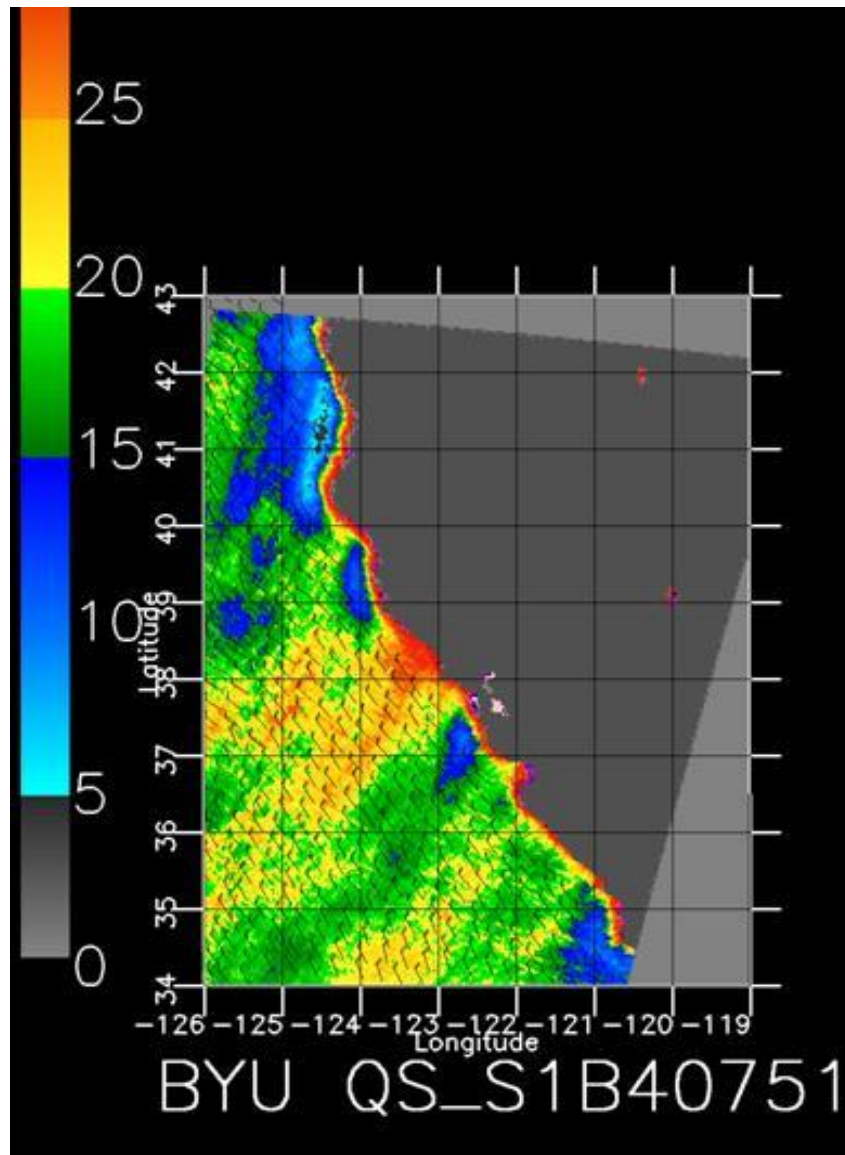


NOAA Buoy Winds

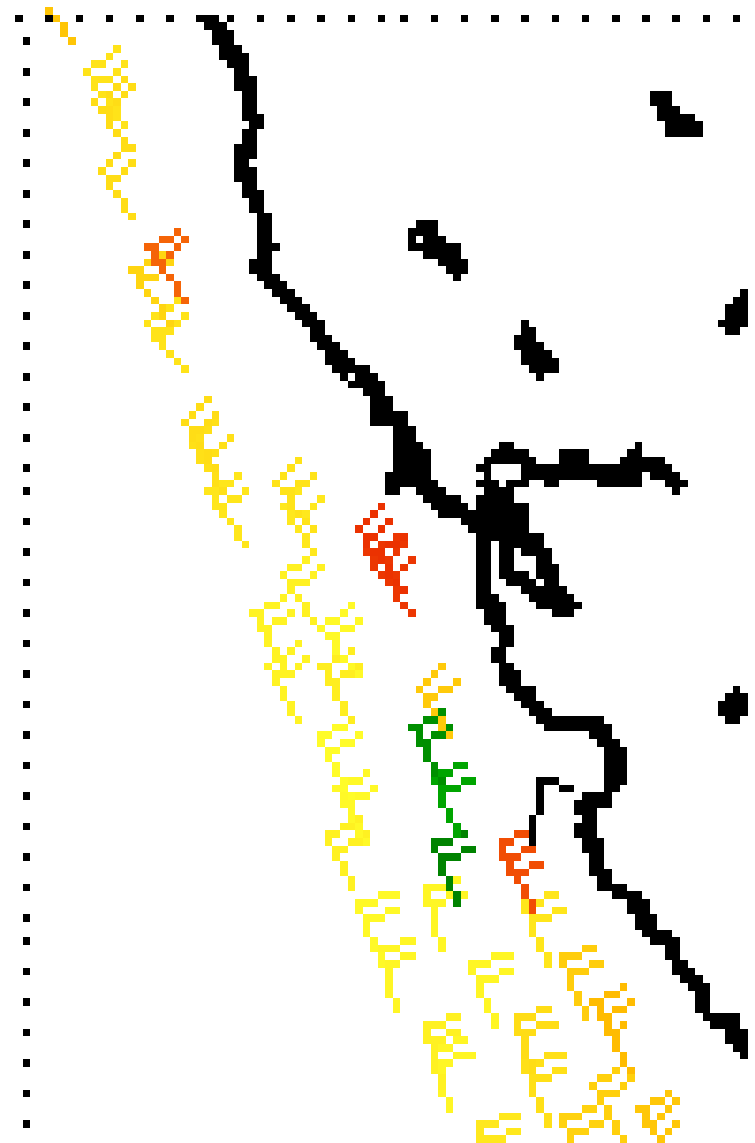
18 April 2007

6:30 am	NNW (336 deg)	8.7 kts
6:20 am	NNW (332 deg)	8.9 kts
6:10 am	NNW (333 deg)	8.9 kts
6:00 am	NNW (335 deg)	9.3 kts

QuikScat



WindSat



Plans

- Emmitt, Long and Velden proposal
 - Synergisms between space-based DWL and OVW technologies
 - Synergisms between space-based DWL and CMV.

Acknowledgements

- Funding for TODWL underflights from NPOESS (Steve Mango)
- Ultra High Resolution (UHR) processing of QuikScat data done by Dave Long (BYU)