Weather Balloons, Wave Gliders
and other
Hitchhikers

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Climatology (NCEP-NCAR Reanalysis)

Anomaly 1990-99

- SLP
- SAT
- Vector Wind

Anomaly 2002-11

- SLP
- SAT
- Vector Wind
Impact of changing a wind field in the Beaufort Sea
Impact of $\Delta$ sea ice & heat on atmospheric circulation

Weather balloon transects to sample MABL

Wave Gliders & other automatons

Onboard wx / rad.
Arctic Wave Glider (PMEL/Liquid Robotics)
Arctic Wave Glider Data
2011 Deployment

Red = 0.5 m Blue = 6.0 m
2008 Plume Explosion

Only MODIS sequence available since 2000
Mackenzie River plume (July 19, 2011)
Mackenzie River plume (Sept. 6, 2002)

MODIS true color