SW06 / NLIWI component

- water column moorings (Duda / Nash / Lynch)
- mesoscale circulation - gliders/towfish (Glenn / Gawarkiewicz)
- shipboard wave tracking (Moum / Henyey)
- aircraft radar (Plant)
- satellite radar (Graber)
- ocean modeling (Scotti / Fringer / Holm)
Wave tracking experiments – Named waves times catalogued on SW06 website for reference
2 stages of evolution of a named wave tracked through the array

120 kHz backscatter

wave horizontal velocity

wave vertical velocity

turbulence
Vertical velocity at mooring SW37 (70 m)

variance in the 100-5000-s band is a good indicator of NLIW passage and intensity

this means we have an objective method for identifying the waves
Largest amplitude waves in neap tides, \textit{not} spring tides
Wave timing and intensity are variable relative to the phase of the tide – this is not the South China Sea!
One pertinent objective – feedback welcome

• attempt to identify a few times and locations where the wave field is extremely well-illuminated by the full suite of measurements (incl. satellite, ship radar, moorings, ship) [Perlin / Nash / Duda / Moum]

• extend observations from these times to the full array with the aid of oceanographic modeling

• these can provide a well-resolved test bed for acoustics modeling
Data availability

some processed data has been deposited in SW06 data bank and can be accessed from website

Art Newhall has assembled wave catalogues on website

numerous data sets have been provided upon individual request

contact relevant PI and we can help