RVTEC Nov 2014 – UHDAS/ADCP
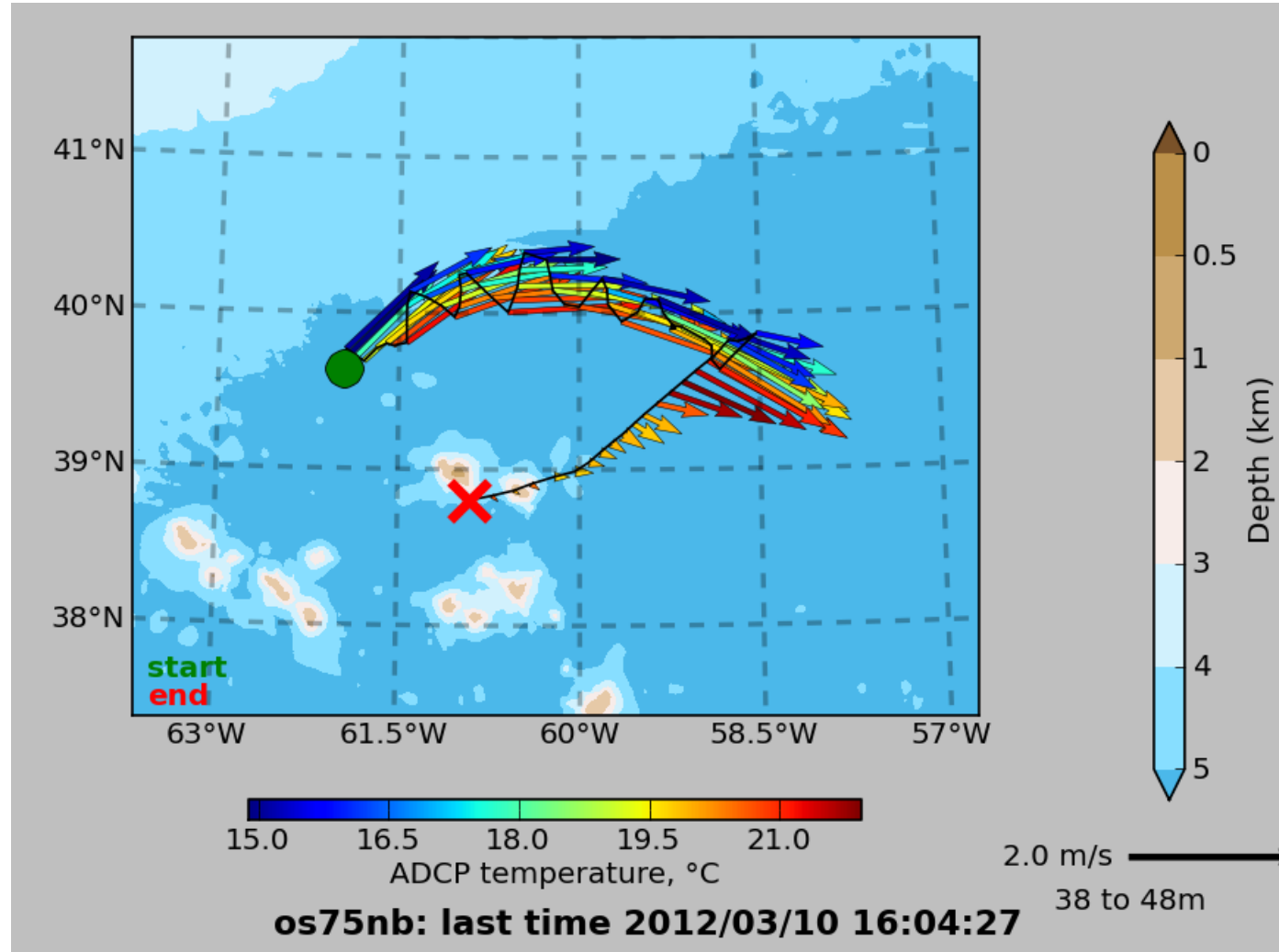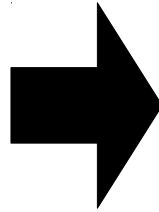

primitive data

ocean velocities

UHDAS/ADCP status

Review UHDAS Concept:

- Acquisition: reliable, robust, duplicate feeds

- Monitoring and remote troubleshooting

- Processing

    – Balance real-time output and post-cruise recovery

    – Minimal effort to "touch up" (if all goes well)

    – Portable code and documentation

- Happy Scientists, Techs

More information:
>   Improve ADCP data – (Wed Nov 19 13:15) ADCP and Echosounder Tools and Tips
>   Acoustic Interference – (Thurs Nov 20 09:45) Sonar Interference

UHDAS Systems (2014)

- **16 UNOLS ships**: Atlantic Explorer, Atlantis, Endeavor, Kilo Moana, Knorr, Langseth, Melville, New Horizon, Oceanus, Pelican, Point Sur, R.Revelle, Sikuliaq, R.G.Sproul, T.G.Thompson, F.G.Walton Smith

- 3 polar ships: Healy, L.M.Gould, N.B.Palmer

- 2 NOAA ships: Hi`ialakai, Ron Brown

- 2 "other" ships: Ka`imikai O Kanaloa, Falkor

- 1 "cooperative" installation – Tioga

UHDAS Systems: changes in 2014

- Moved up to Ubuntu 14.04
- "futurized" for Python2/Python3 Compatibility

- **Newly installed (new ship)**: Pelican, Sikuliaq, Falkor
- **Updated in 2014:**
  - **12.04:** Oceanus**,** Healy, Endeavor
  - **14.04:** Kilo Moana, KOK, New Horizon, R.Revelle, F.G.Walton Smith, L.M.Gould, N.B.Palmer, Ron Brown

Problems-2014 (some ongoing)

- Langseth (OS75 broken 2013, repaired, still broken)

- Hi`ialakai (yard period, cable stepped on/broken)

- Ron Brown (ADCP out/ADCP in; broken)

- Walton Smith (WH1200 delivered mute from RDI)

- Healy Headings (Ashtech kept working)

Other random notes:

- **Most Improved**: Walton Smith
  - POSMV is 100% good!
  - WH600 replaced
- Remote Install: Revelle (First remote install at SIO)
- Calibration by comparison (Revelle, Walton Smith)
- Scientists using virtual computer at sea (Oceanus)

New Ships (2015)

- Sally Ride

- Neil Armstrong

- Preparing to Install UHDAS on NOAA ships
  - 15 ships over 3 years
  - hire new person

New Challenges (2015)

- Acoustic Interference
  - NOAA ships with EK60 mandate
  - Sikuliaq, Sally Ride, Neil Armstrong
    - Kongsburg = Sonar Integrator
    - Large number of modern sonars

Continuing Request:
Keep us in the loop regarding

- New ADCP (requires configuration, calibration)
  - Includes special needs by Science
- Changes in serial feeds
- New attitude devices (we like to evaluate them)
- changes in networking
  - route to ship
  - infrastructure on ship

Protocol

- Always run "End Cruise" before archiving

- If rsync (regular backup)

    - **ALWAYS** use complete cruise name

Final request

… as always:

Send your needy scientists to Jules