

# RVTEC 2011 – UHDAS/ADCP

## UHDAS Goals

- Acquisition: reliable, robust, duplicate feeds
- Monitoring and **remote troubleshooting**
- Processing
  - Balance real-time output and post-cruise recovery
  - Minimal effort to “touch up”
  - Portable code and **documentation**
- Happy Scientists
- Happy Techs

# UHDAS Installations

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- **13 UNOLS ships:** Kilo Moana, M.G.Langseth, Thomas G. Thompson, Atlantis, Knorr, Oceanus, Wecoma, Endeavor, Atlantic Explorer, R.G.Sproul, Roger Revelle, New Horizon, Melville
- **3 polar ships:** Healy, L.M.Gould, N.B.Palmer
- **3 NOAA ships:** Hi`ialakai, Ka`imimoana, Ron Brown
- **1 “other” ship:** Ka`imikai O Kanaloa

# Improvements since last RVTEC

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- General
  - Started using elog
  - Consolidated all ship metadata
- Processing
  - **All python (no more matlab license fees)**
  - Interactive tools (editing, viewing)
- Reporting
  - Improvements in email message

# Improvements (continued)

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- UHDAS Installation
  - PXE network installer
  - More automated (more work to do)
- Documentation
  - Improved organization
  - Updated to include
    - installation for Python processing
    - Processing with new Python code

# Improvements (continued)

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- Processing VmDAS Data (RDI's Acquisition system)
  - Windows installation of Python processing
  - VmWare virtual machine (Ubuntu processing)
  - Python processing of LTA and ENR data
  - Evaluation tools improving (work in progress)

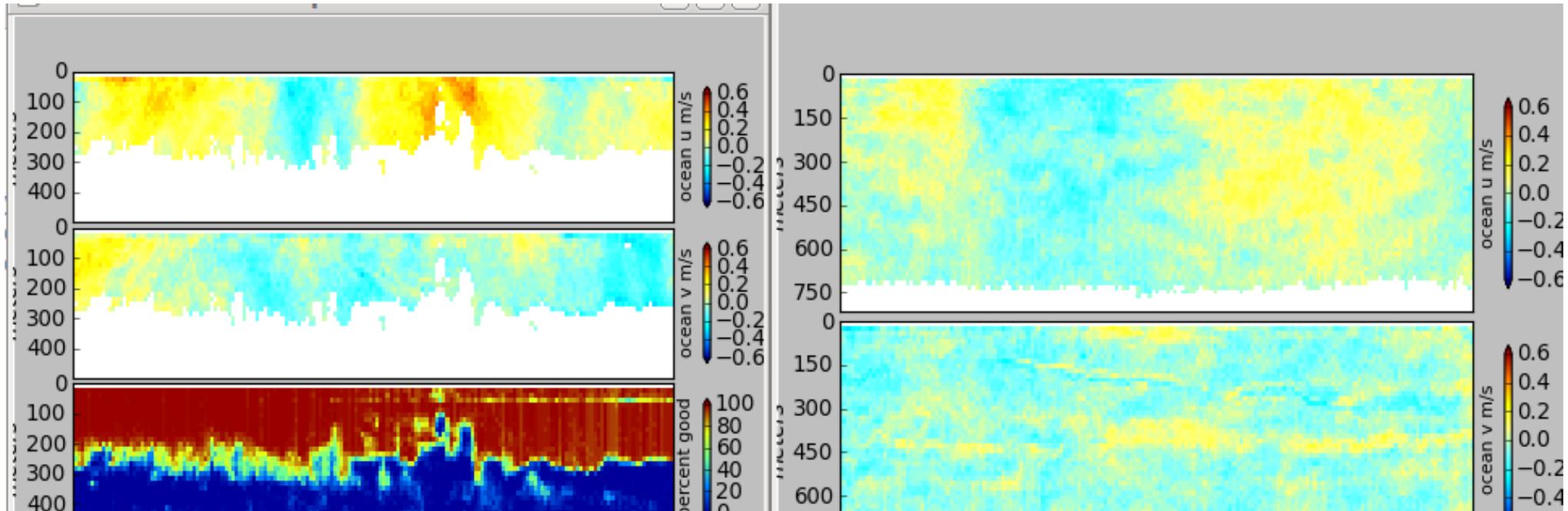
# Installations since RVTEC

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- Update to Python Processing:
  - nbp, lmg, en, km, kn, mv, nh, rr, ka, hly, kk
- New UHDAS Installations
  - Sproul (NB300) replaced DAS2.48
  - Langseth (new ADCP)
- New Instruments
  - Temporary only: Oceanus and Melville (WH300)

# Dramatic Improvement Award: Healy

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- Range increased (doubled)
- Electrical interference greatly reduced

# Best cruise name

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“hijules”

2011/09/04 20:40:02  
rigel 2.6.24-26-generic

Current cruise: hijules \*\*\* not logging \*\*\*

---- heading correction ----

not logging: no heading correction calculated at this time

----- uptime -----

20:40:02 up 180 days, 22:35, 2 users, load average: 0.08, 0.02, 0.01

----- ntpq -p -----

remote	refid	st	t	when	poll	reach	delay	offset	jitter
*cuckoo.wecoma	.GPS.	1	u	387	1024	371	0.421	6.405	0.800

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# Problems

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- Minor
  - Ashtech (as usual)
  - Data feed failures (gyro, gps)
- Unexpected time sinks
  - Temporary instrument installations (require calib)
  - Windows users trying to install CODAS
  - Evaluation of pathological VmDAS datasets

# Expectations for 2012

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- Update rest of the ships to Python processing (try)
- 1 new installation (hope)
  - Pt Sur
- Challenge: new OS version in April
  - Serial ports
  - Software libraries/compatibility
- Work with R2R+NOAA regarding ADCP data

# Continuing Request: Keep us in the loop regarding

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- 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**

# KICDAS

- **K**nowledgable
- **I**nteractive
- **C**ollaborative
- **D**ata
- **A**cquisition
- **S**ystem

# How Scientists View Each Other

undergraduate

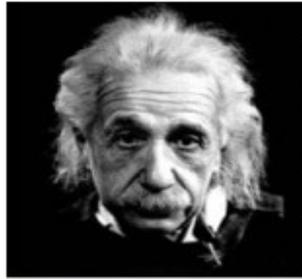
PhD student

postdoc

PI / Professor

technician

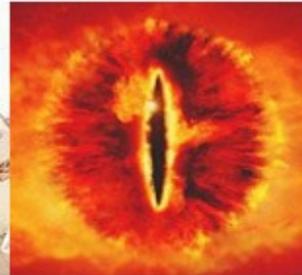
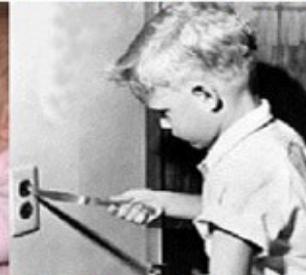
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undergraduate



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PhD student



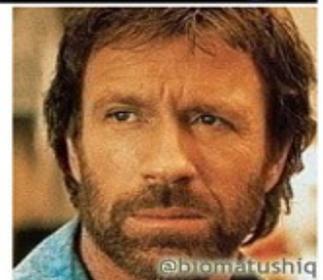
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postdoc



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PI / Professor



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