RVTEC 2009 Subcommittee:

EDUCATION AND TRAINING

How-To Manuals
What they should be

- Procedural
  - Step by step, easy for anyone to replicate
  - Standardization of procedures
  - Consistency
  - Historical record for science → DATE Revisions!!
- Compilations also work
  - Shipboard Technicians' notes
  - Science groups' notes
    - Assign a zealous grad student!!!
    - Review, revise & approve
  - Manufacturers' web pages

How-To Manuals
What to Include

- Photos
  - 'A picture is worth a thousand words'
  - Paint is very useful for adding text and arrows
  - Compressed when possible for email

- Equipment specs, drawings, pin-outs
  - Include these for reference

MTG Past Examples - Autosal

Autosalinograph Procedure

January 2002
University of Miami Marine Technology Group

B. Stauffer

MTG Past Examples – CTD Deck setup

Procedure for

CTD
DECK SETUP &
DEPLOYMENT

By

University of Miami
Marine Technology Group

July 13, 1999

MTG Past Examples – DO Titration

Procedure for

AUTOMATED OXYGEN TITRATION ANALYSIS using the WINKLER TITRATION METHOD

By

University of Miami's Marine Technology Group

August 14, 2000

2009 Training

HiSeasNet WORKSHOP
UCSD/SIO
LA JOLLA, CA

WORKSHOP HIGHLIGHTS

- NSF funded workshop

- Attendance from 7 institutions, 11 participants

- Mirrored an East Coast event ; WHOI, 2008

- Karl Kapusta (CommSystems) & Steve Foley (UCSD) led instruction

- Ku-band antenna leased for the 4-day workshop for hands-on learning

- Blended classroom/hands-on in the parking lot with the antenna

Key Points from HSN Workshop

- Satellite theory background
- SeaTel antenna system background, operations & troubleshooting
- Comtech modem operations & troubleshooting
- Amplifiers
- Codan RF operations & troubleshooting
- HiSeasNet data flow & troubleshooting
- HiSeasNet structure, policies, procedures
- Karl & Steve would break 'stuff' and the students would work to fix it
- Positive feedback following the class re: comfort with the equipment and experience with everyday scenarios

Future Technician Training

- Interest in several training opportunities
  - ADCPs in Action, Teledyne RD Instruments
  - CTD/TSGs/mod sensors, Sea-Bird Electronics
  - Fiber Optic training, Fiber Instrument Sales (Nationwide) or Corning
    - Focus on crimp-on
  - Salinometers, Guildline Instruments or (OSI – Standard seawater provider)
  - HiSeasNet again?
  - Basic Safety Training
  - Depthsounders, Knudsen Systems
  - Applanix, POSMV Inertial Positioning system
  - LabView, National Instruments
  - Computer Certifications (A+, CompTIA, etc)
  - Electronics 101

More Suggestions

- Rigging
- Crane Ops and/or basic Hydraulic Systems
- Multibeam Systems
- [NOAA's DAC System]
- ISO/Quality Assurance/Quality Improvement
- Team Building – Jung/Myers-Briggs Type Indicator [MBTI]

Bene's: Manuals & Certs

- "Certified" Shipboard Support Technicians
- Flexibility for individuals
  - Retention
  - Opportunity
- Fleet wide affinity
  - Equipment Loans
- Cross Training
- Better educated & confident techs
  - Our 'LIAISONS'
- Resources for greenies