SeaNet

Extending the Internet to the Oceanographic Fleet

RVTEC Meeting - Nov. 12, 2002
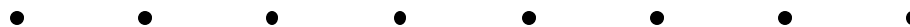
SeaNet Partners
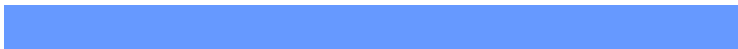
- WHOI - Andrew Maffei, Steve Lerner, Laura, Goepfert, Scott McCue

- LDEO - Dale Chayes, Richard Perry, Val Schmidt

- Geo-Prose - Ellen Kappel, Jennifer Ramarui

Current Status - Installations

- 9 SeaNet Systems deployed (Atlantis, Ewing, Melville, Pelican, Seward Johnson, Knorr, Endeavor, Jason II, portable)

- Integrated newer T&T Fleet F77 equipment for ISDN use with SeaNet with Jason II Keck funding.

- Notebook based SCN is now standard for new installs

- LDEO is exploring use of Fleet F77 "always on" service with SeaNet systems

- Planning installation of portable system(NERA-B and SCN) on R/V Seward Johnson II in Jan 2003 for 6 months

- Planning installation of SeaNet on R/V Alpha Helix (already has NERA-B)

SHIP/YEAR	1999	2000	2001	2002 (9/2002)	Total (Mbytes)
Atlantis	22/228/250 10:27:17 83087	26/777/803 2:2:50:29 338768	3/547/550 1:2:17:24 310926	44/502/546 1:10:38:37 504752	1,237.5
Ewing	62/182/244 19:10:34 128354	37/86/123 07:04:33 24820	42/124/166 05:51:40 27635	N/A	180
Knorr	0 0 0	18/365/383 11:26:33 586514	44/533/577 1:6:08:39 460151	3/712/715 1:01:11:07 117305	1,164.0
Portable System	0 0 0	0 0 0	23/564/587 1:3:37:32 260263	0/144/144 03:56:18 24696	285.0
Melville	7/34/41 46:44 6484	2/129/131 15:59:57 140607	0/52/52 01:53:36 7348	2/688/690 22:45:26 107771	262.2
Pelican	41/169/210 9:21:05 63471	89/118/207 11:03:53 61302	82/45/127 11:28:50 120523	11/50/61 4:18:17 53143	298.4
Seward Johnson	12/401/413 12:30:25 22323	2/826/828 1:3:38:52 50875	9/247/256 07:42:30 22734	4/244/248 09:31:00 105874	201.8
Total	144/1014/1158 2:04:16:05 303,719	174/2301/2475 5:04:04:17 1,202,886	203/2112/2315 4:15:00:11 1,209,580	64/2340/2404 4:04:20:45 913,541	3,629.7

Top line in each cell is # interactivecalls, # batch calls, total calls
Midle line in each cell is total connect time Days:Hours:Minutes:Seconds
Bottom line in each cell is total mumber of kilobytes transferred

Examples of SeaNet Science Use

- Email (still a major daily use of system)

- Ocean Explorer (Craig McLean - NOAA)

- DiveDiscover (Dan Fornari - WHOI)

- Extreme 2002 (Craig Cary - U of Deleware)

- Jason II Sea Trials

- Send email to seanet-support@seanet.int for more info

Current Status - SeaNet Cmail

- Cmail application is a standard part of newer SeaNet distributions

- Cmail currently being used by Seward Johnson, Melville, Atlantis, Knorr. Pelican soon.

- Send email to seanet-support@seanet.int for more info.

INMARSAT-B v.s. Fleet F77

- Capabilities: voice, Fax, BLSD, BHSD (64 kbps), Distress

- Advantages: proven track record w shipboard PBX and SeaNet, good voice quality

- Disadvantages: no MPDS service

- Capabilities: voice (low quality/low cost, high quality/high cost), audio channel, HSD (64kbps), MPDS (mobile packet data service), Distress(GMDSS)

- Advantages: smaller and lighter antenna, easy integration, MPDS, lower purchase cost, compatible with future upgrades, priority call capability, built-in GPS & heading

- Disadvantages: lower quality voice, no fax, cost of HSD?, Voice call routing from shore?

SeaNet Videoconferencing

- Low bandwidth videoconferencing over TCP/IP demonstrated at Washington AGU and NSF during DiveDiscover cruise.

- Others interested should contact:
  seanet-support@seanet.int

Future Plans

- Continue ongoing operations via upcoming proposal to NSF (WHOI)

- New communications technologies research and testing (LDEO)

- Replace original SeaNet equipment with smaller notebook computer based system

- Provide ongoing support and advice to UNOLS community on wireless communications for vessels.