Simplified Voyage Data Recorders

(LAST REPORT - GROUP PURCHASE COMPLETE)

■ SHIPS: Thompson, Revelle, Atlantis, Langseth, Kilo Moana, Melville, Knorr

■ **TYPE**: Furuno VR-3000S

ORDERED: November 2007

■ **RECEIVED**: January 2008

■ Installation Requirements: In the case of cargo ships of 3,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2007 but not later than 1 July 2010;

GEOTRACES SYSTEM UPDATE

- Voyage completed on Knorr in July 2008
- Design completed & Modifications were made to Knorr in March 2009:
 - Stanchion added in Thruster Room to increase support to Trawl Crane Crutch
 - Strengthening of Trawl Crane Crutch
- Design completed & fabrication on-going for transition foundation between winch and deck.

GEOTRACES SYSTEM UPDATE

- Design Dwgs approved by ABS Houston & USCG Marine Safety Center
- Installations conducted in the presence of ABS Surveyors & USCG inspectors
- Voyage schedule to depart HI on 6 May 2009

FUTURE

- 2009 SSSE Proposal included request to shift over-boarding method to integrated A-Frame
- Design to address integration with all

Fleet Broadband Pilot Project

SHIP	Antenna Purchased & Received	Antenna Installed &
Atlantis	$\sqrt{}$	Operating
Knorr	$\sqrt{}$	$\sqrt{}$
Oceanus	$\sqrt{}$	$\sqrt{}$
Sharp	$\sqrt{}$	$\sqrt{}$
Cape Hatteras	$\sqrt{}$	$\sqrt{}$
Atlantic Explorer	$\sqrt{}$	$\sqrt{}$
Revelle	$\sqrt{}$	$\sqrt{}$
Melville	$\sqrt{}$	$\sqrt{}$
New Horizon	$\sqrt{}$	$\sqrt{}$
Sproul	$\sqrt{}$	$\sqrt{}$
Wecoma	$\sqrt{}$	$\sqrt{}$
Endeavor	$\sqrt{}$	$\sqrt{}$
Point Sur	$\sqrt{}$	

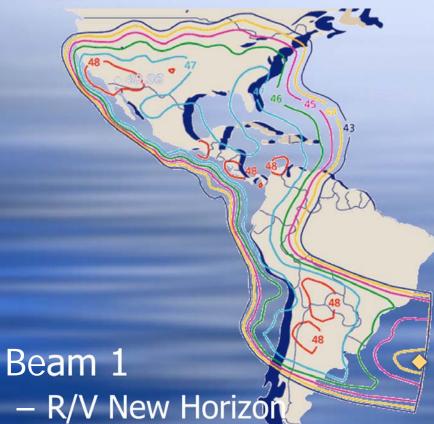
Fleet Broadband Pilot Project

- Requested FBB Antennas in 2009:
 - Langseth
 - Thompson
 - Clifford Barnes
 - Invoice Processing and Tracking of Satellite Use continues at WHOI

Fleet Broadband Pilot Project

- FBB Workshop in Woods Hole 19 May
- Netlimiter Monitor: Used to reduce background processing by 85%
- In one 10 hr period using this software and turning off background processes brought usage from 4.85 MB to .64 MB
- Saved 12 MB in one 24 hr period.
- Performance improvement; bandwidth is not being stolen any more by background processes.

Ku-Band Coverage (SatMex5)



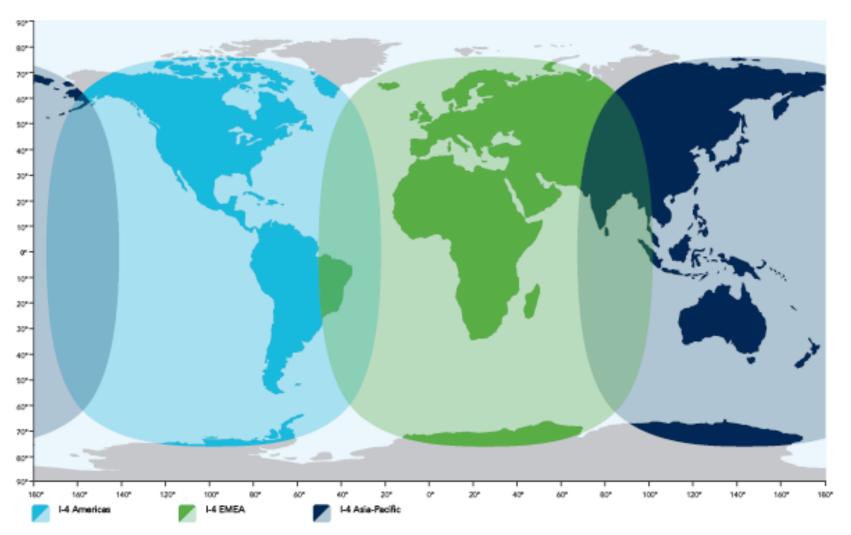
- R/V Point Sur
- R/V Wecoma

Beam 2

- R/V Endeavor
- R/V Oceanus
- R/V Pelican
- R/V Walton Smith

February 24, 2009

FleetBroadband I-4 satellite coverage - post repositioning



This map depicts immersely expectations of coverage post repositioning of its i-4 setallites. This map does not represent a guarantee of service. The evaluation of service at the edge of coverage excess fluctuates depending on various conditions.

