

WOODS HOLE OCEANOGRAPHIC INSTITUTION



“Piracy at Sea”

Prepared by Richard F. Pittenger
19 October 2001



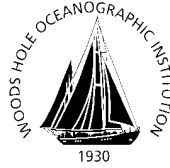
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What is “Piracy”?

Where is it happening?

What are we doing about it?

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Definition of “Piracy”
According to the
International Marine Bureau (IMB)

“An act of boarding or attempting to board any ship with the intent to commit theft or any other crime and with the intent or capability to use force in the furtherance of that act.”

Source: ICC International Chamber of Commerce

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Attacks in South America 1 January to 31 December 2000



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Attacks in South East Asia and the Far East 1 January to 31 December 2000



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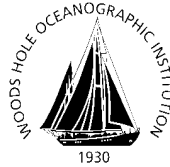


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Attacks in Africa and the Middle East 1 January to 31 December 2000



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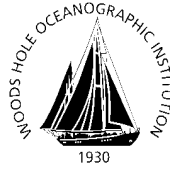
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Year 2000 Piracy Statistics

- Attacks 469**
- Boardings 307**
- Hijackings 8**
- Killed 72**
- Injured 99**

http://www.iccwbo.org/ccs/imb_piracy/weekly_piracy_report.asp

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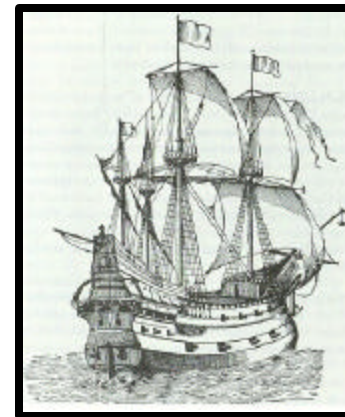


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Pirates of Long Ago



Clashed by pirates.



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Present Day Pirate/Fishing Boats

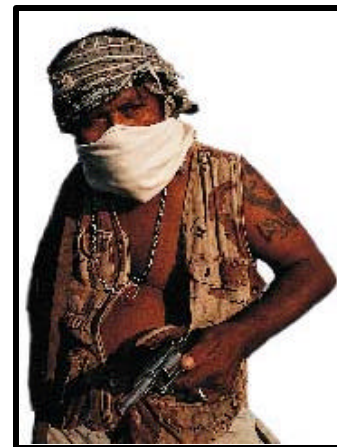


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Present Day Pirates



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Victims

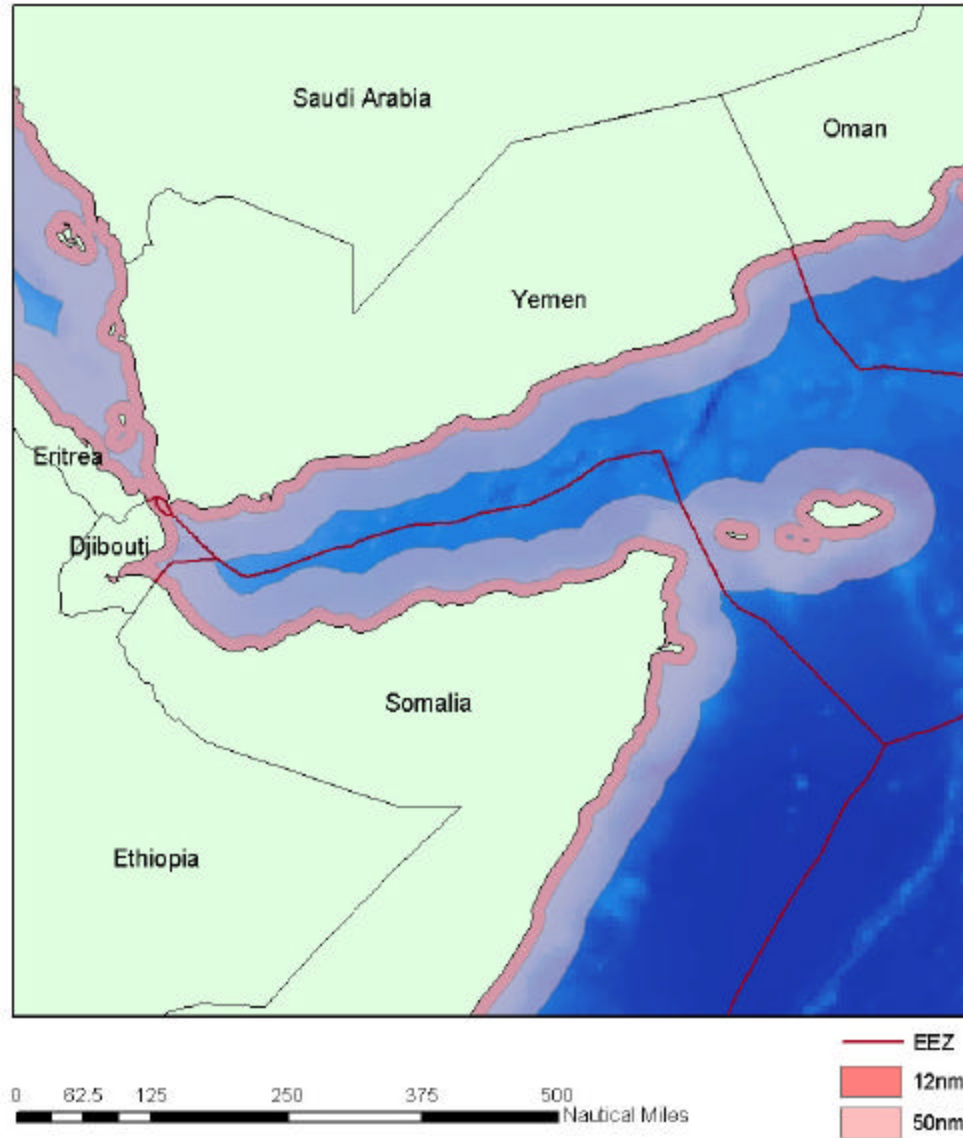


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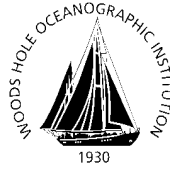


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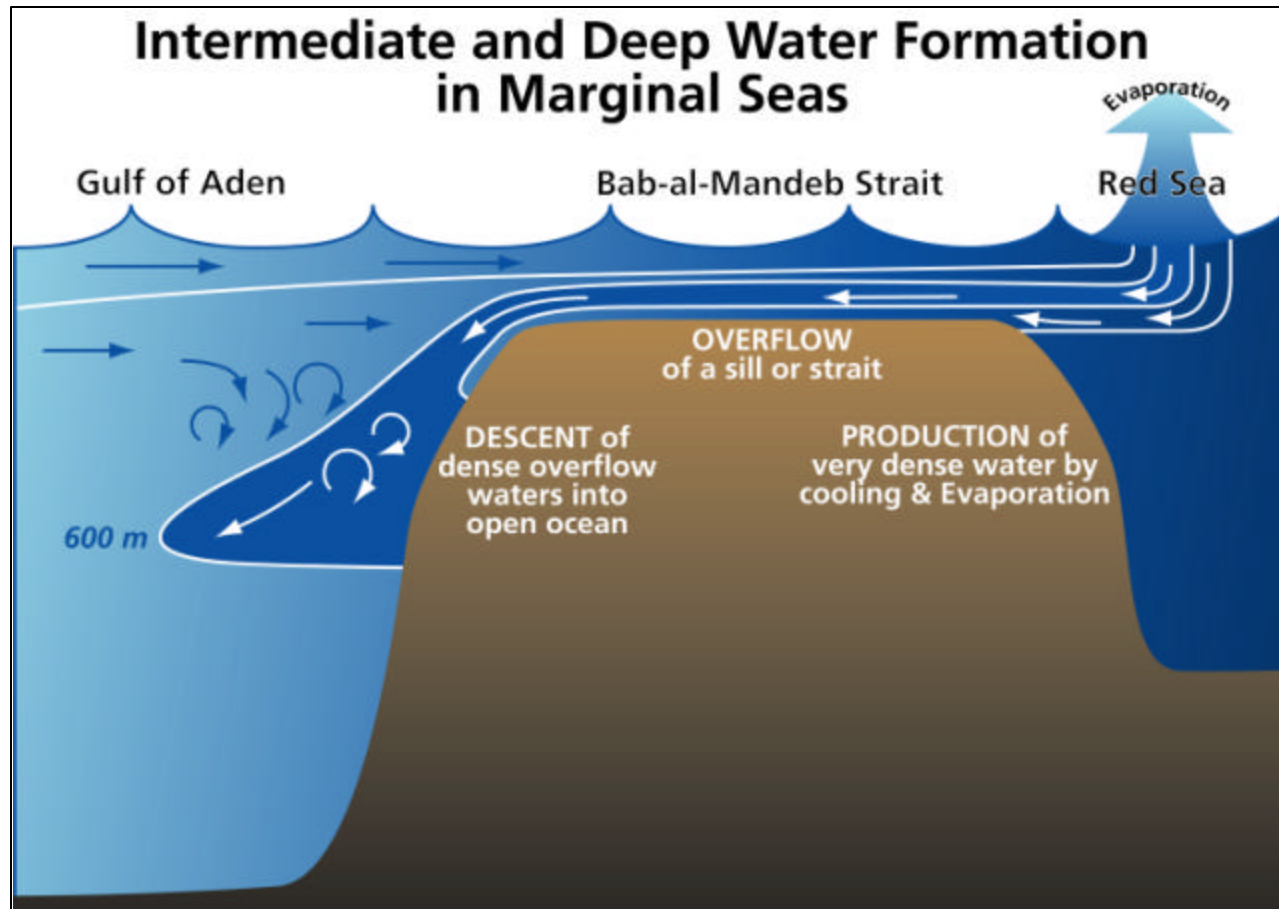
Gulf of Aden



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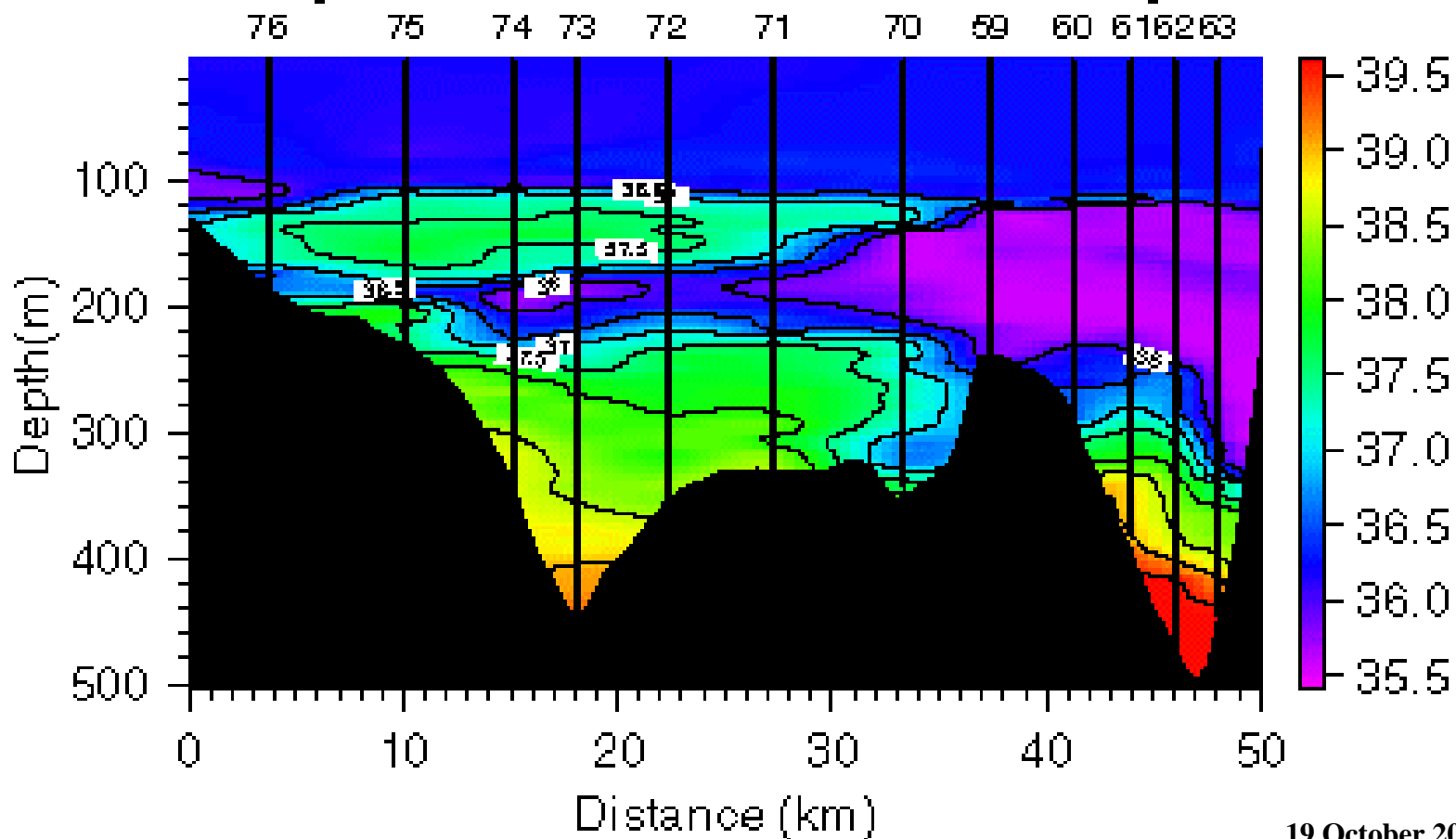


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Salinity Plume Section 3 - February 2001



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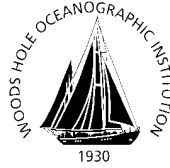


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WHOI Preps

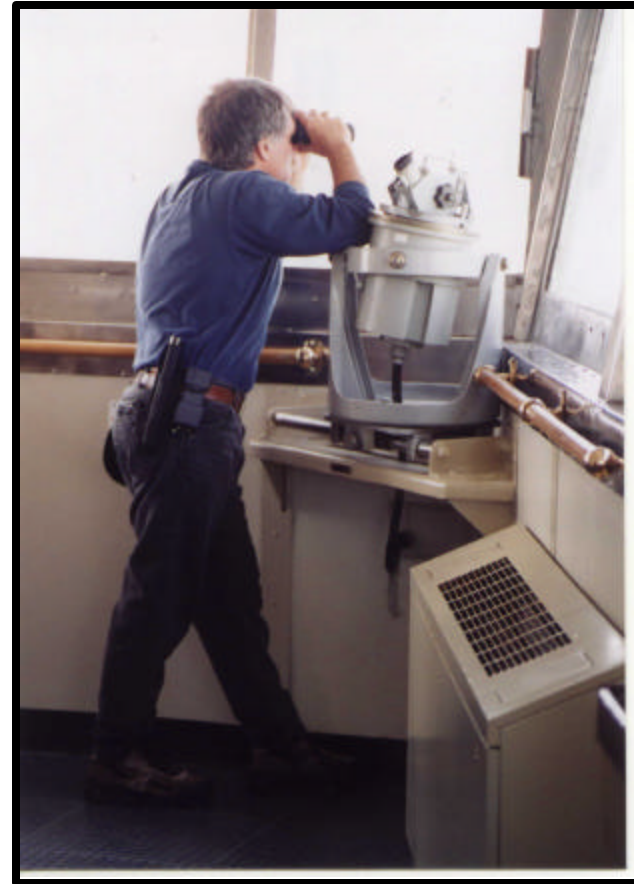
- **Refused to go to any ports in the region**
 - **Embarked - Mombasa, Kenya**
 - **Disembarked - Seychelles**
- **Conferred with Science, Crew, Security Experts, Federal Agencies.**
- **Asked for intelligence support.**
- **Hired security consultants.**

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- **Consultants: Former Special Forces, Presidential Security, Seals.**
- **Help organize, train crew and science party.**
- **Served as extra look-outs and key members of crew response.**
- **Advised on doing research stations “smartly”.**
- **Gave crew and science a level of comfort so they could concentrate on their tasks.**



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REDSOX I

11 February – 15 March 2001



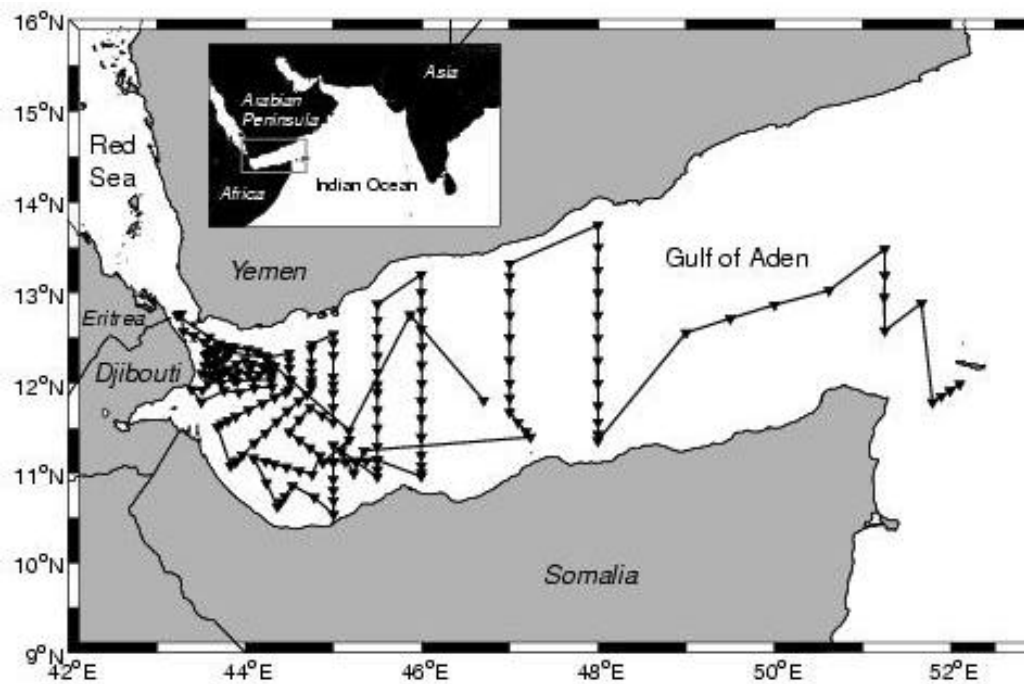
R/V Knorr

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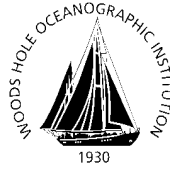
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REDSOX I Track Chart



R/V Knorr

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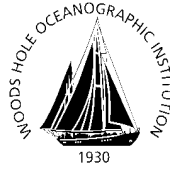
REDSOX II

12 August – 12 September 2001



R/V Ewing

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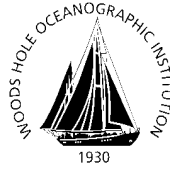


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REDSOX II Attackers

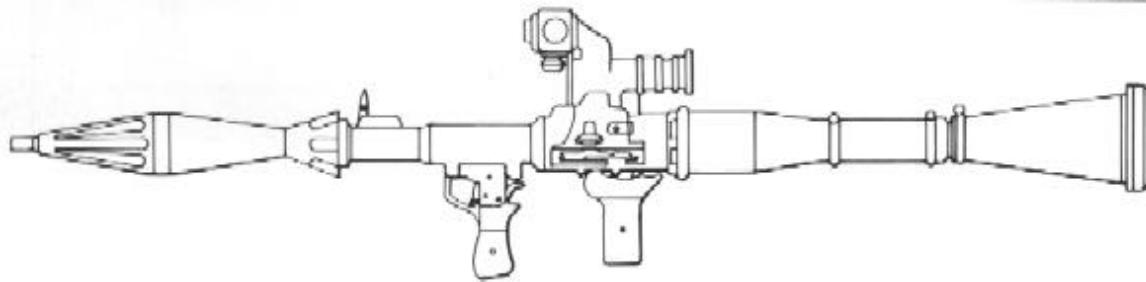


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Rocket Propelled Grenade (RPG)

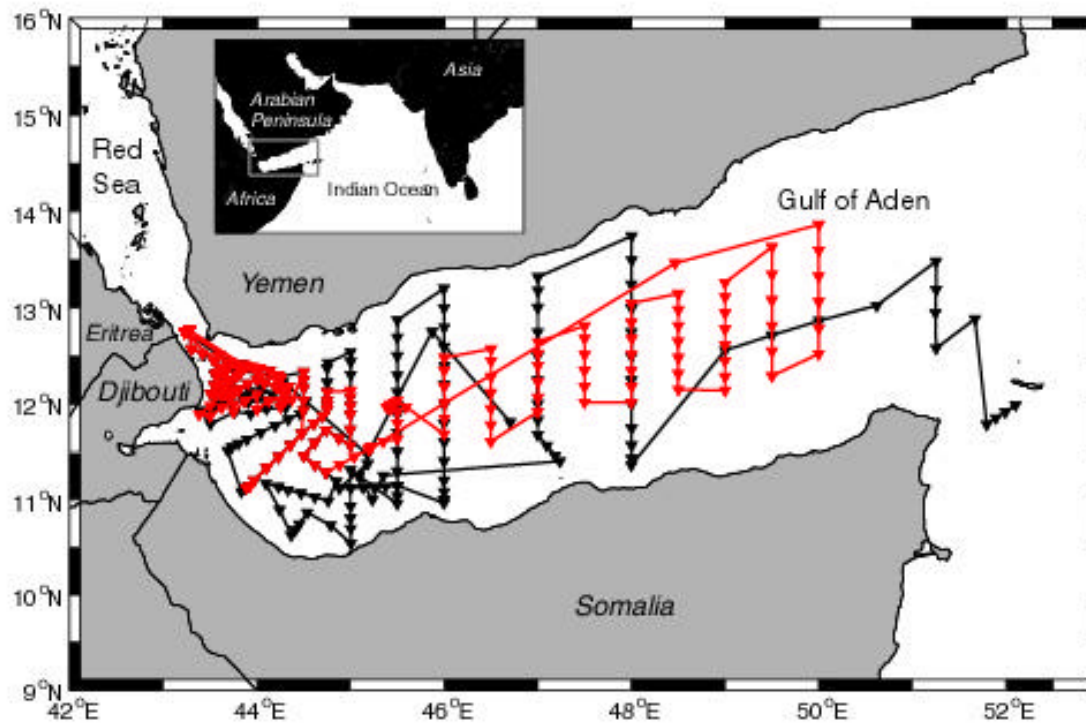


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REDSOX II Track Chart



R/V Ewing

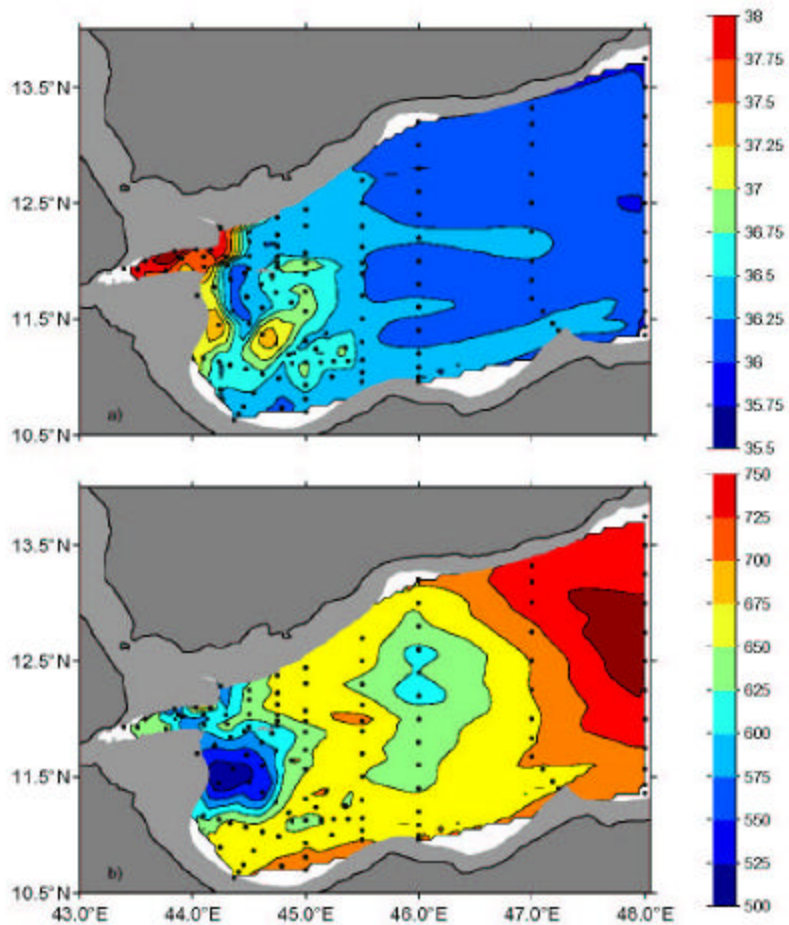
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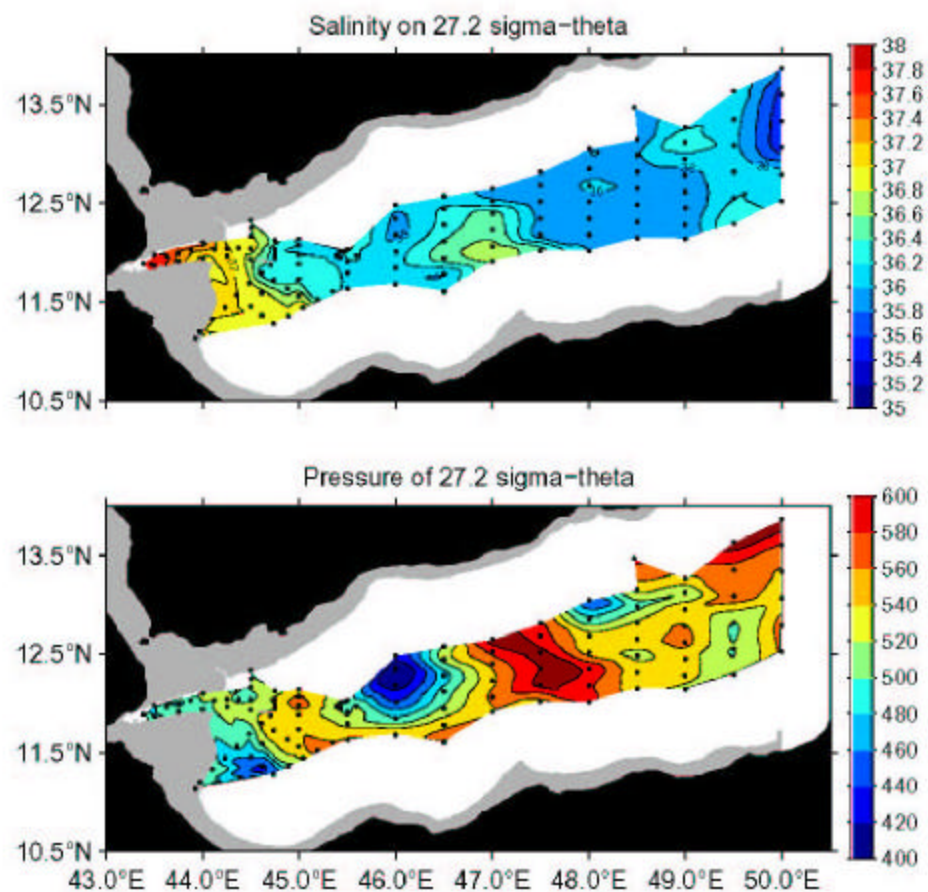
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Salinity/Pressure at 600m

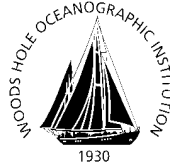
REDSOX I



REDSOX II



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What's Ahead?

WHOI

- **We have no ship with cruises to high threat areas through 2002.**
- **Our ships are prepared (organization, procedures, training).**
- **We are plugged into intelligence sources (eyes open, ears to the ground).**

Federal Agencies and Science Community

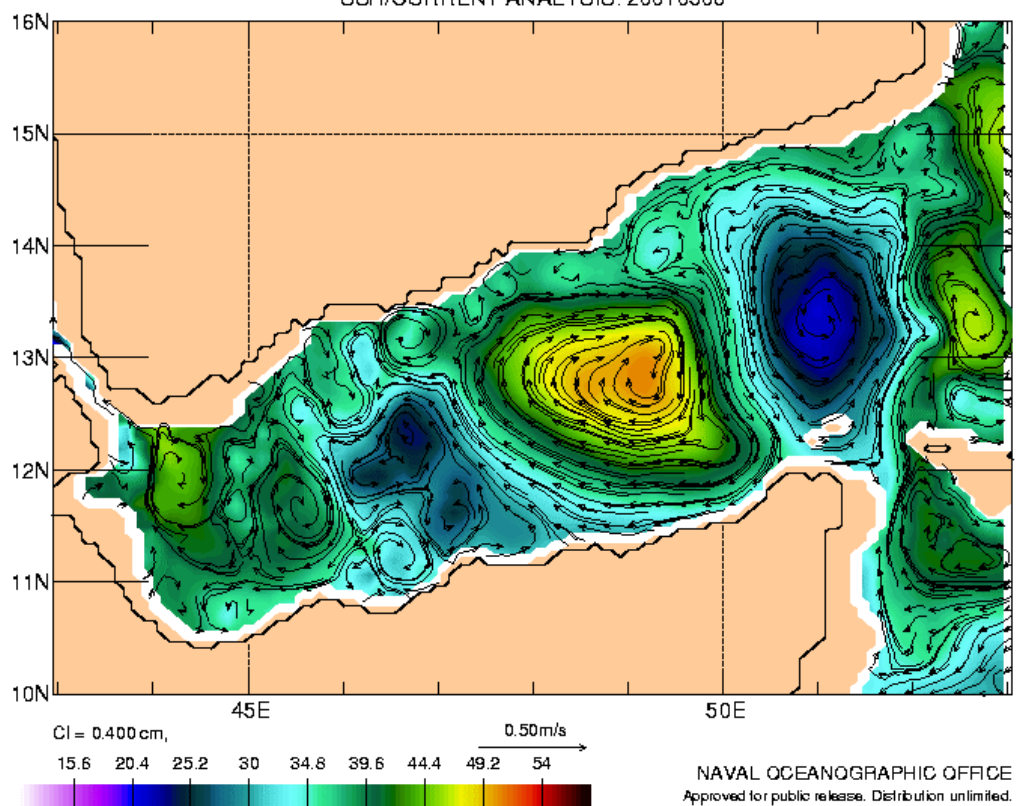
- **Issue has moved from *off-the-screen* to *number one*.**
- **Terrorism adds volatility and uncertainty.**
 - **What is the appropriate course of action?**

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UNCLASSIFIED: 1/16⁰ Global NLOM
SSH/CURRENT ANALYSIS: 20010308



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Why go to the Red Sea?

- **Formation site for high-salinity water that spreads throughout Indian Ocean.**
- **Outflow and spreading of high-salinity water into Gulf of Aden not investigated since the '60's, and never with modern oceanographic tools.**
- **Red Sea outflow has unique characteristics (seasonality, low latitude) that likely affect mixing and spreading into the Indian Ocean.**

Purpose

- **To map out the water properties (salinity) of the outflow as it leaves Bab el Mandeb, descends across the continental slope and spreads through the Gulf of Aden.**
- **To directly measure the currents associated with the outflow, and the surrounding waters, using acoustic current profilers and floats.**

Timing

- **Make observations during maximum and minimum outflow (winter and summer) to identify any differences in how deep the outflow descends and which pathways the outflow follows.**
- **Cruises scheduled for February-March (*R/V Knorr*) and August-September 2001 (*R/V Ewing*)**