



Battlespace On Demand

Linking Forecasts to Decisions



Decision Superiority: Making better decisions faster than the adversary

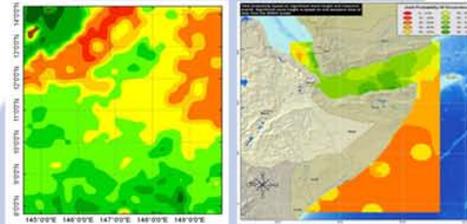
Decision



- ▲ Options
- ▲ Courses of Action
- ▲ Sensor Employment
- ▲ Asset Allocation
- ▲ Timing
- ▲ Quantified Risk

3

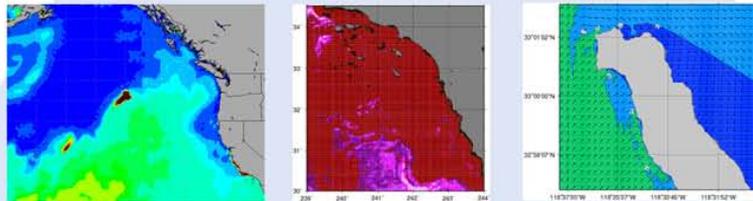
Performance



- ▲ How the predicted environment affects the Fleet and Joint Forces

2

Environment



- ▲ The predicted environment

1

Data



- ▲ Observations, measurements, satellites, gliders, buoys, etc.

0

INITIAL AND BOUNDARY CONDITIONS

Piracy Operating Capability, Somalia

Scale 1:15,000,000

Warning: Not for Navigation or Targeting

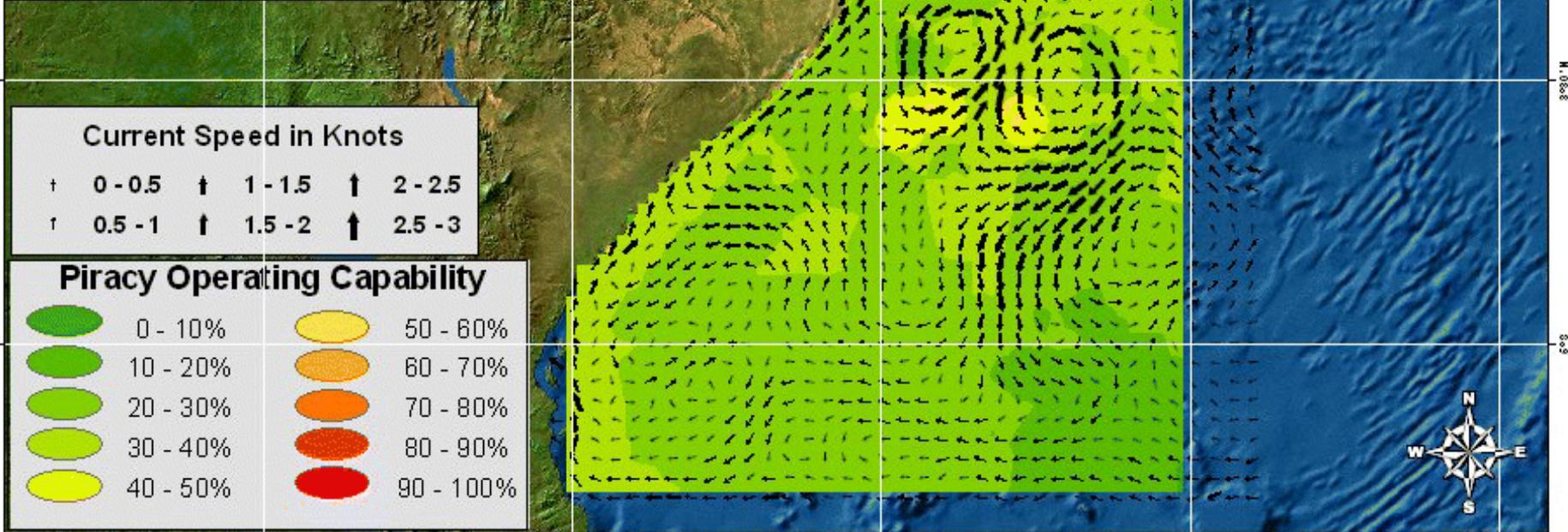
Piracy Operating Capability Surface (JPOCS)



30°E 40°E 50°E 60°E 70°E

- Total probability based on significant wave height and historical events. Significant wave height carries an 80% weight while the events carry the other 20%.
- Product is a work in progress and more parameters will be added as available.
- Update cycle: Daily (~1600Z)
(Refresh browser for latest version)
- Update 19JUN09 The Piracy Surface has been updated to include wave/current interaction. This offset either increases or decreases the wave height.
- Update 25JUN09 The Piracy Surface has been updated to include DNI intel on previous piracy attacks from 2005-present.
- Update 26JUN09 The Piracy Surface has been updated with a color change. Feedback indicated that the color pallet needed to be inverted. This mean that green is now a lower probability and red a higher probability for vessels to encounter pirates.
- Feedback appreciated.

20SEP09 12:00AM



Current Speed in Knots		
↑ 0 - 0.5	↑ 1 - 1.5	↑ 2 - 2.5
↑ 0.5 - 1	↑ 1.5 - 2	↑ 2.5 - 3

Piracy Operating Capability	
	0 - 10%
	10 - 20%
	20 - 30%
	30 - 40%
	40 - 50%
	50 - 60%
	60 - 70%
	70 - 80%
	80 - 90%
	90 - 100%



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Conversion Factors:
 Meters to Feet: Multiply by 3.281
 Kilometer to Nautical Miles: Multiply by 0.53996

White grid and marks are representative of Geographic Lat/Long WGS-84

The Future?

Climate Change, Aviation Safety, Energy Conservation, Severe

Tier 3 – Decision Layer

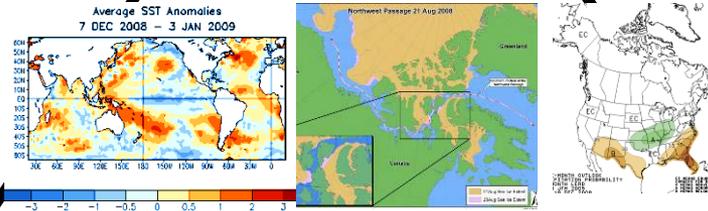
- Options / Courses of Action
- Resource Allocation
- Quantify Risk

Weather Mitigation



**Arctic / Energy
Climate
Ecosystem
ATC Management**

Tier 2 – Performance Layer



Tier 1 – NUOPC Output

