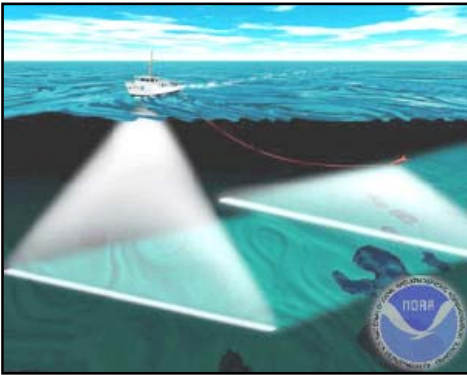

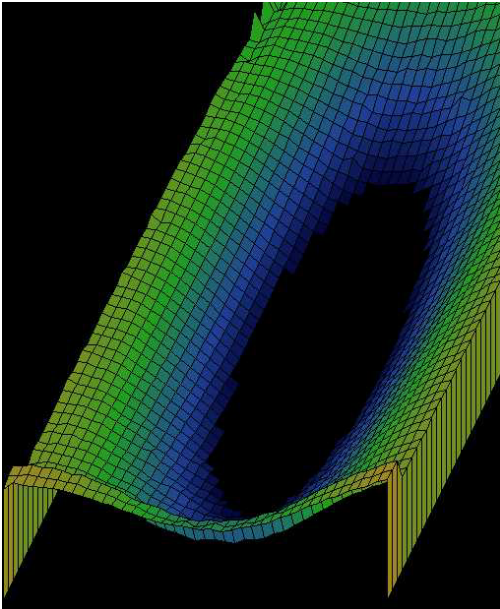
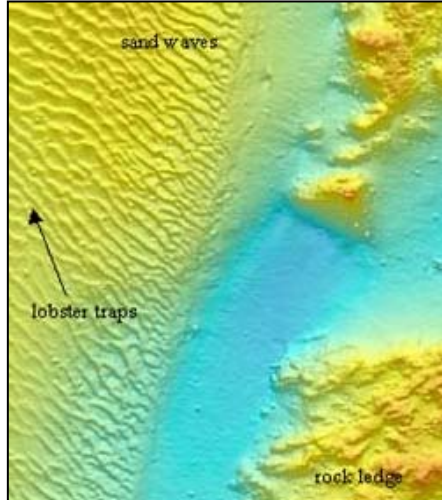
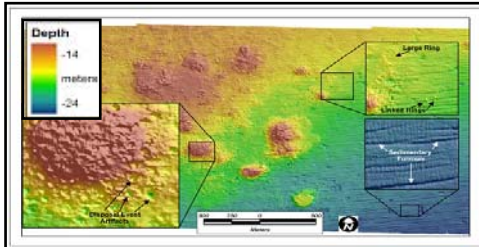




## Summary View of Multibeam Survey Technique



Application	Data Coverage	Resolution			Key Points
		Vertical	Horizontal	Image	
Bathymetry	Medium Swath 2-7 times water depth Point Data	cm	m	m	<ul style="list-style-type: none"> <li>Point Dataset, dense data</li> <li>Far greater coverage than single beam, higher resolution</li> <li>Backscatter data can be used to characterize sediment</li> <li>Common Frequency Ranges: 200 – 450 kHz</li> <li>Coverage limited in shallow water</li> <li>High costs and complexity for acquisition and processing</li> </ul>
Data Collection <sup>1</sup>		Raw Data <sup>1</sup>			Processed Data <sup>2</sup>
 <p>Illustration of a research vessel with a hull-mounted multibeam sonar and a towed side-scan sonar system.</p>  <p>Operator station for the shallow and deep-water multibeam data sonar systems. All system operation occurs through computer interface.</p>		 <p>Bathymetry is plotted in real time on the computer screen as multibeam data are collected.</p>			 <p>High-resolution multibeam bathymetry can distinguish very small bottom features.</p>  <p>A color, hill-shaded model view of a high-resolution multibeam data set acquired in the vicinity of Central Long Island Sound Dredged Material Disposal Site in New York.</p>

<sup>1</sup>Data collection and raw data images provided by NOAA Coast Survey.

<sup>2</sup>Processed data images provided by Science Applications International Corporation.