“The Committee is concerned that hydrography, coastal research, fisheries, marine mammal, essential fish habitat, oceanic and atmospheric research and other requirements may continue to go unmet given NOAA’s current [ship] procurement and contracting Plans.”

“The Committee requests that NOAA provide a ship and aircraft fleet modernization plan to the Committees on Appropriations, as well as relevant authorization committees.”
Approach

Ships
• Ship Recapitalization Plan
• Interim Study (FSV 5 and 6)
• Report to Congress

Aircraft
• Aircraft Recapitalization Plan
• Report to Congress
Ship Recapitalization Plan
Development

Mission
Needs
Assessment

Requirements
Development

Analysis of
Alternatives

Optimization
Analysis

Ship
Recapitalization
Plan
Mission Needs Assessment

An assessment of the NOAA programs that require at-sea data-acquisition support and the shortfalls in NOAA’s ability to provide the services required by its customers performing the agency missions more efficiently or effectively.

A Mission Needs Statement (MNS) will summarize these Missions, quantify the shortfalls and their impacts, and provide justification for the need for agency action to resolve these shortfalls.
Mission needs and functional requirements will be translated into high-level preliminary operational performance requirements that will describe the capabilities and parameters for proposed solutions.

An **Operational Requirements Document (ORD)** will establish minimum and optimum performance standards for recommended operationally effective at-sea data-acquisition systems.
An Analysis of Alternatives (AoA) will explore a number of potential solutions for satisfying NOAA’s shipboard data-acquisition needs in terms of ship size and ownership. If determined that a NOAA ship is most appropriate for satisfying particular NOAA missions, then further analysis will recommend whether investments in current assets or new assets are most appropriate.
Optimization Analysis

Analysis to determine the optimum mix of Government-owned and contractor-owned ships, staffing models, Optempo, and homeports in terms of cost- and mission-effectiveness needed to satisfy NOAA’s shipboard data-acquisition requirements.
The preceding analyses will provide the foundation for developing intermediate- and long-term investment strategies for recapitalizing the NOAA Fleet (FY 2009 - 2024).
Recapitalization Plan Framework

Data Collection Requirements
Validated & Verified

Air
Sea
Space

Ship
Buoys
Other Technology

Class I Ship
Class II Ship
Class III Ship

UNOLS/Commercial/Other

Fleet Condition Assessment
NOAA Ship
Fleet Investment Plan

Fleet & Ship Mission Effectiveness Analysis

Mission Needs Statement

Operational Requirements (Specific)

Level 1 Trade-offs
Level 2 Trade-offs
Level 3 Trade-offs
Level 4 Trade-offs

Fleet Mix Optimization Model
At-Sea Data-Acquisition
Mission Needs

Validated Operational Requirements

Satellite

Ship

Aircraft

Class I

Class II

Class III

Class IV

Other Technologies
• AUVs
• AAVs
• Buoys & Drifters
• Telecommunications
• Others

Satellite RQmnts

Aircraft RQmnts

Contractor-Owned Ships

Government-Owned Ships

Existing NOAA Ships

Material Condition Assessments

INVESTMENTS IN EXISTING FLEET

Conversion

GOGO

GOCO

Alternatives for Supporting NOAA
At-sea Data-acquisition Requirements

GOGO – Gov’t Owned/Gov’t Operated
GOCO – Gov’t Owned/Contractor Operated
COCO – Contractor Owned/Contractor Operated
COGO – Contractor Owned/Gov’t Operated
This interim report will address FSV 5 and 6 mission needs, operational requirements, and alternatives to support the FY 2009 request for initial funding.
A summary of the findings and recommendations contained in the comprehensive Ship Recapitalization Plan will serve as the basis for the Report to Congress.
<table>
<thead>
<tr>
<th>Phase</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission Needs Statement</td>
<td>late-Mar</td>
</tr>
<tr>
<td>Interim Report (FSV 5 and 6)</td>
<td>31 Mar</td>
</tr>
<tr>
<td>Operational Requirements Document</td>
<td>late-Apr</td>
</tr>
<tr>
<td>Analysis of Alternatives</td>
<td>mid-Jul</td>
</tr>
<tr>
<td>Optimization Analysis</td>
<td>late-Aug</td>
</tr>
<tr>
<td>Comprehensive Plan</td>
<td>mid-Oct</td>
</tr>
<tr>
<td>Report to Congress</td>
<td>late-Oct</td>
</tr>
</tbody>
</table>
HSRP Contributions

• Comment on Recapitalization Plan development approach

• Review/comment on Draft Recapitalization Plan (Sep 2006)
SWATH CMV Update

- Two-phased fixed-price contract
  - Phase 1 – Design competition
    VT Halter Marine, Inc. selected Sep 2004
  - Phase 2 - Contract design effort with option for detailed design and construction - Exercised Sep 2006

- Scheduled keel laying – 15 Jun 2007 (Mrs. Sununu – sponsor)
- Contract delivery date – 18 Jun 2008
- Appropriations sufficient to exercise design/construction option
  - FY 02-06 appropriations minus $8.0M in rescissions = $19.1M
- Available funding insufficient to fund additional
  - management reserves
  - vessel capacity improvements (dynamic positioning, integrated bridge system, increased A-frame and crane loads)
  - spare parts and outfitting
**SWATH CMV Update**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length Overall</td>
<td>37.7 m (123.6 ft)</td>
</tr>
<tr>
<td>Propulsion Power</td>
<td>2,900 HP</td>
</tr>
<tr>
<td>Beam</td>
<td>18.5 m (60.7 ft)</td>
</tr>
<tr>
<td>Design Speed</td>
<td>12.4 knots</td>
</tr>
<tr>
<td>Draft</td>
<td>3.65 m (12 ft)</td>
</tr>
<tr>
<td>Endurance</td>
<td>2,750 nm/10-day mission</td>
</tr>
<tr>
<td>Displacement</td>
<td>720 Mt (708.4 LT)</td>
</tr>
<tr>
<td>Complement</td>
<td>14 persons</td>
</tr>
</tbody>
</table>
Damage Assessment Aircraft Acquisition Update

- Changes in NOS sensor suite require lower-slower flight profiles
- Replace Citation II jet with a multi-mission turbo prop aircraft
- Acquisition funded under Hurricane Katrina supplemental bill ($12M)
- Aircraft acquisition
  - Sources Sought Notice – Jan 2007
  - Request for Proposals – Mar 2007
  - Contract Award – Jun 2007
  - Aircraft Delivery – NLT Jun 2008
  - Aircraft Operational – Oct 2008
- Instrumentation
  - NOS considering large format digital camera and topo lidar
  - Aircraft acquisition cost will determine funds available for final instrumentation package
All aircraft (new and pre-owned) will be considered. The following are examples of aircraft meeting the minimum requirements:

- Raytheon Aircraft Corporation
  King Air 350
- Viking Aircraft Corporation
  Twin Otter Series 400
- Piaggio Aerospace Corporation
  P-180 Avanti II
- SkyTruck
  M28 SkyTruck