R/V Savannah Mid-life Refit

- 92’ LOA
- 27’ beam
- 8.5 ft draft
- 16 science crew
Vessel Build

• Delivered to Skidaway in September 2001 (18 yrs ago)
• $3.1 Million project funded by:
  • USG BOR – Capital Improvement
  • NSF – ship supplied equipment grant
  • SkIO institutional funds

R/V Bluefin (1972, 72’ trawler)
Planning

• 2017
  – First pitch to UGA and BOR

• 2018
  – Ship Advisory Committee
  – Science Advisory Committee

• 2019
  – Condition Survey
  – State budget request
• SKIO Internal Funds - $30K
• Condition Survey
  – Internal hull inspections
  – Electrical Distribution
  – Steering
  – Switch gear
  – Fire main
  – Machinery rooms
  – Ventilation
  – Berthing
  – Accommodations
  – Weather decks
• Specified Project Cost Estimates
  – List generated from ship committee’s
Mid-life Projects

Service Life Extension
- Main engine/gear overhauls
- Re-power generators
- Switchboard
- Tank/bilge resurfacing
- Pipe replacement
- Bow thruster replacement/DP consideration
- HVAC overhaul

Mission Enhancements
- Main deck extension
- A-frame clearance
- J-frame modifications
- Acoustic platform modifications
- Accommodations
- Lab upgrades
- LED lighting
- New CTD winch
## Mid-Life Cost Estimate Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Engineering - Naval Architect</td>
<td>$ 400,000</td>
</tr>
<tr>
<td>Baseline Dry Dock Work (extended duration)</td>
<td>$ 559,650</td>
</tr>
<tr>
<td>Service Life Extension Work</td>
<td>$ 1,144,458</td>
</tr>
<tr>
<td>Mission Enhancements</td>
<td>$ 1,481,910</td>
</tr>
<tr>
<td>20% mark up for change orders and expected overages</td>
<td>$ 717,204</td>
</tr>
<tr>
<td><strong>Total Estimate</strong></td>
<td><strong>$ 4,303,221</strong></td>
</tr>
</tbody>
</table>
Funding

• Current support: University of Georgia, SKIO, and NSF

• Plan A:
  • State budget line item as a B-budget enhancement
  • **Recent UPDATE:** Oct 2019 Governors office announcement that B-budget requests will **not** be accepted

• Plan B:
  • Internally fund (UGA/SKIO) along with ship MOSA/NSF
  • Focus on service life extension items
  • Mission enhancements projects delayed until B-budget funding opportunity returns
  • Other sources...EPA DERA, NSF programs, UNOLS/FIC guidance
# Revised Budget

## Mid-Life Cost Estimate Summary

**November 11, 2019**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>$ 559,650</td>
</tr>
<tr>
<td>Service Life Extension</td>
<td>$ 1,151,808</td>
</tr>
<tr>
<td>Safety System Updates (from NSF ship inspection)</td>
<td>$ 152,706</td>
</tr>
<tr>
<td>Design and Engineering/Shipyard Oversight - Naval Architect</td>
<td>$ 300,000</td>
</tr>
<tr>
<td>20% mark up for change orders and expected overages</td>
<td>$ 432,833</td>
</tr>
<tr>
<td><strong>Total Project Estimate</strong></td>
<td><strong>$ 2,596,996</strong></td>
</tr>
</tbody>
</table>
# Mid-Life Revenue Summary

<table>
<thead>
<tr>
<th></th>
<th>Total Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>UGA Internal Fund (request)</td>
<td>$1.9M</td>
</tr>
<tr>
<td>Ship MOSA Funds (estimate)</td>
<td>$300K</td>
</tr>
<tr>
<td>NSF Contribution</td>
<td>$398K</td>
</tr>
<tr>
<td><strong>Total Estimate</strong></td>
<td><strong>$2.6M</strong></td>
</tr>
</tbody>
</table>

November 11, 2019
Current Status

• Standing by for UGA internal budget commitment
• 2021 shipyard planned for SLE projects
• 2023 shipyard for mission enhancements projects
  – Dependent on B-budget funding opportunity
  – Other funding sources