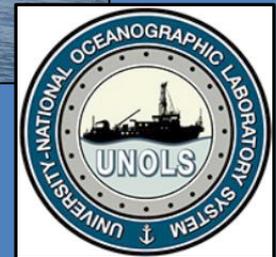


R/V Savannah Mid-life Refit



- 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

Survey

Lay, Pittman & Associates

March 2019

- 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

Budget

Mid-Life Cost Estimate Summary

	Total Detail
Design and Engineering - Naval Architect	\$ 400,000
Baseline Dry Dock Work (extended duration)	\$ 559,650
Service Life Extension Work	\$ 1,144,458
Mission Enhancements	\$ 1,481,910
20% mark up for change orders and expected overages	\$ 717,204
Total Estimate	\$ 4,303,221

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

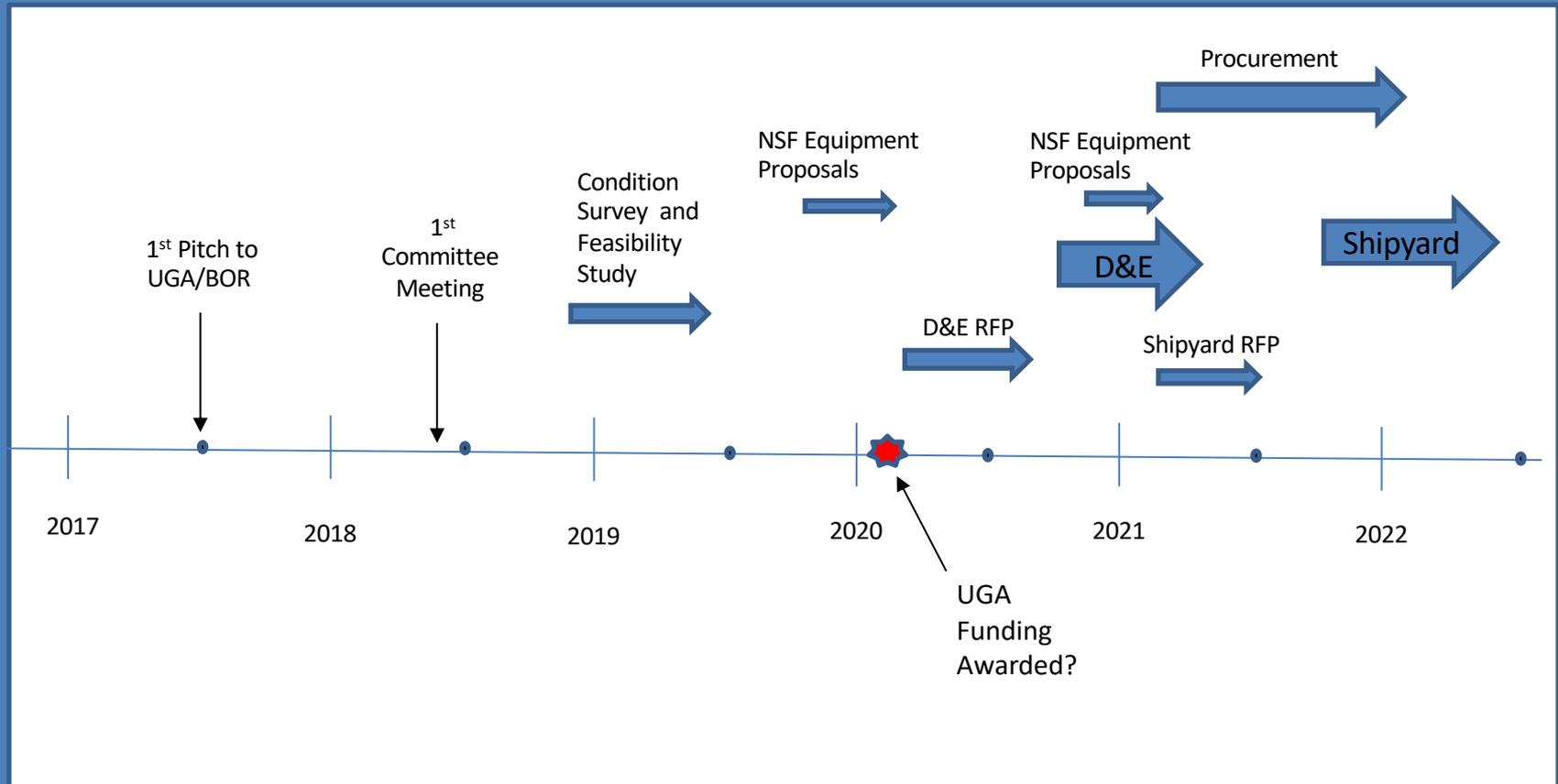
Revised Budget

Mid-Life Cost Estimate Summary	
November 11, 2019	
	Total Detail
Maintenance	\$ 559,650
Service Life Extension	\$ 1,151,808
Safety System Updates (from NSF ship inspection)	\$ 152,706
Design and Engineering/Shipyard Oversight - Naval Architect	\$ 300,000
20% mark up for change orders and expected overages	\$ 432,833
Total Project Estimate	\$ 2,596,996

Revenue

Mid-Life Revenue Summary	
November 11, 2019	
	Total Detail
UGA Internal Fund (request)	\$1.9M
Ship MOSA Funds (estimate)	\$300K
NSF Contribution	\$398K
Total Estimate	\$2.6M

Timeline



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