



External Review of the Northern Gulf Institute (NGI) Cooperative Institute

A Presentation to the
NOAA Science Advisory Board

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Review Panel Chair

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Outline



- Science Review Panel
- Overview of Cooperative Institute (CI)
- NGI Themes
- Findings and Recommendations
 - Strategic Plan
 - Science Review
 - Education and Outreach
 - Science Management
- Final Comments



Science Review Panel



Denise Reed, Chair

University of New Orleans

Rich Fulford

US Environmental Protection Agency

Ben Kirtman

University of Miami

Jane Smith

US Army Corps of Engineers

LaDon Swann

Mississippi-Alabama Sea Grant Consortium



NGI



- Established in open competition in 2016
 - A CI by the same name existed from 2006-2016
- Consortium CI
 - Mississippi State University (lead)
 - University of Southern Mississippi
 - Louisiana State University
 - Florida State University
 - Dauphin Island Sea Lab
 - University of Alabama Huntsville
- Not co-located, but works closely with AOML



NGI Themes



- Climate Change and Climate Variability
Effects on Regional Ecosystems
- Coastal Hazards
- Ecosystem Management
- Effective and Efficient Data Management
Systems Supporting a Data-driven Economy



Strategic Plan: Findings and Recommendations



- NGI research portfolio shows strong fidelity to its vision.
- Cooperative Agreement important mechanism to ensure that cutting edge expertise among NGI academic partners are adding value to how NOAA implements its mission.
- **Rec #1:** NGI leadership should continue to be vigilant in encouraging engagement from its academic partners and enabling the embedded NGI scientific staff to influence the implementation of the NGI science mission.
- **Rec #2:** Additional metrics should be developed that highlight the effectiveness and application of NGI R&D, e.g., citations, joint publications with NOAA researchers, application of results in NOAA operations, use by other agencies (e.g., models, model results, data sets, measurement methods, training workshops).



Science Review: Findings and Recommendations



- Scientific work of NGI is high quality, topical and strongly linked to the NOAA mission and NGI is poised to contribute to several of NOAA's S&T Focus Areas.
- NGI "hitting its stride" in terms of striking the balance between support for NOAA's operational needs and forward-looking research.
- Social science investments made by the NGI are timely and relevant.
- Rec #3: NGI leaders should continue to focus on integration of climate and global change into new project development.
- Rec #4: NGI should position itself to further the vision of regional ecosystem-based management through more direct contributions to NOAA EBM efforts, as well as EBM-specific outreach to external partners.
- Rec # 5: NGI should be proactive in promoting awareness of the Institute's expertise and increase their influence on how the NOAA science mission is implemented.



Education and Outreach: Findings and Recommendations



- Panel commends NGI for playing a leadership role in serving the educational needs of underserved communities.
- Rec #6: NGI should develop education and outreach metrics to track over time to determine the overall impact of the education and outreach program.
- Rec #7: NGI should undertake focused engagement with potential end users of NGI products outside of NOAA, e.g., other agencies, private sector, municipalities, to identify priority stakeholder needs and justify additional investments necessary to fully address the stakeholder defined topics.



Science Management: Findings and Recommendations



- Panel observed that NGI has been responsive to new opportunities to apply their work in many instances.
- Current leadership structure with a Director and three Associate Directors, with varied research backgrounds and interests, is well suited to guide the CI forward.
- **Rec #8:** Metrics should be developed to quantify diversity goals and outcomes that would provide NGI important information to demonstrate its impact on local communities and regional economies.



Final Comments

- Overall Rating: **Outstanding**
- NGI has consistently demonstrated achievement of agreed goals, making it an on-going resource commitment that enhances NOAA's resources to support collaborative research.



Questions?