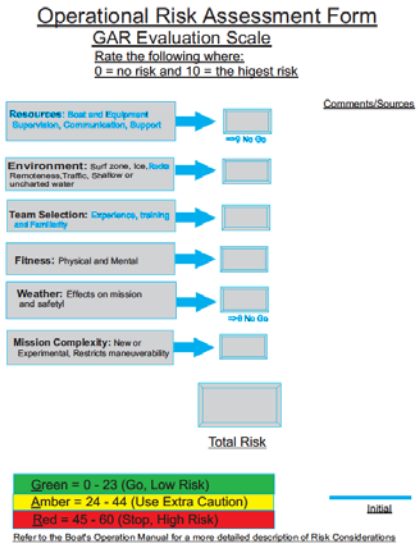
The NOAA Small Boat Standards and Procedures Manual, 4th Edition

Section 5: Procedures for Risk Analysis and Management



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What's New?

- **Three step process: Baseline Assessment, Mission Based Risk Assessment, GAR**
- **Requires independent assessment of the boat/asset and the mission**
- **Promotes greater thought and flexibility in assigning assets and missions.**
- **Requires the VOC, OIC and P.I. to fully participate in the Operational Risk Management process.**

Three Step Process

1) **Baseline Assessment – should articulate the capabilities and limitations of the boat.**
2) **Mission Based Risk Assessment – should articulate the requirements and limitations of the science and tasks to be conducted.**
3) **GAR – risk assessment based on both the capabilities of the boat and mission requirements**

Baseline Assessment

- **Risk assessment to evaluate the capabilities of the boat.**
- **Tool to communicate practical limitations and operational parameters of the boat.**
- **Team effort that should include operators that have first hand knowledge of the boat and operations.**
- **Define and narrow the range of acceptable risk in each of the GAR categories**

Mission Based Risk Assessment

- **Risk assessment to evaluate the mission equipment, operations, and personnel.**
- **Tool to communicate boat requirements such as; infrastructure, speed, deck space, lifting capabilities, cruise duration, operational area, etc.**
- **Team effort that should include P.I., SME, scientist, and operators.**
- **Identifies the range of acceptable risk in each of the GAR categories for the mission**

Why the Change?

- This is an opportunity to expand our definition of risk
- Assessments are based on success to the mission.
- Allows managers to match vessel capabilities to mission requirements
- Refine GAR scale to include both boat and mission limitations.

Participation is Essential to be Effective

Requires the OIC, VOC and P.I.'s Involvement throughout the process.

Some considerations:

- **New or less experienced staff may have good input**
- **Having all members involved creates a solid sense of ownership for the process and evolution**
- **Team members will feel they are part of the entire project and have a "voice"**
- **It creates an environment where team members feel comfortable to speak up if they perceive a risk**

Risk Acceptance Authority

Risk Management is a process to ensure no **unnecessary** risks will be accepted. However…

- Acceptance of some level of risk is necessary
- Acceptance must be made at the appropriate level*
- Acceptance authority (level of leadership authorized to accept risk) is determine by the **level** and **duration** of risk associate with the operation

* Risk decisions should be made at the lowest level capable of designating resources to address the risk and accept the possible consequences related to the level of risk associated with a hazard.

Example of Risk Acceptance Authority

Levels of risk	Duration of risk				
	24-hours or less	1 month or less	1 year or less	More than 1 year, less than 5 years	Permanent or greater than 5 years
High risk	Flag Officers/SES Leaders[1]	DAAs[1]	AAs[1]/DAAs	AAs	DUSO
Serious risk	Program Directors/DROs	Program Directors/DROs	DAAs[1]	AAs	AAs
Medium risk	Supervisors	Supervisors	Supervisors	Program Directors[1] /DROs	Program Directors[1] /DROs
Low risk	Supervisors	Supervisors	Supervisors	Supervisors	Supervisors

[1] May delegate in writing to accept at the next lower level in accordance with paragraph E above.

Risk Acceptance Authority

Other Considerations for Acceptance of Risk

- If risk increases during the operation then the appropriate risk acceptance authority should be notified before proceeding.
- Don’t push decision making down any faster than the learning level will accommodate
- Get decisions to the right level and create a trail of accountability
- Assure like decisions are made at like levels
- Assure the decisions are made in a timely fashion and provide flexibility as required by NOAA operation/operations.

Mitigation and Elimination of Risk

Mitigation steps in order of priority

- Substitution – using different assets
- Engineering Controls – use of mechanical stuff
- Administrative Controls – training, reducing exposure, adjusting mission timelines, etc.
- PPE – use of personal protective equipment




Summary

1. This process will expand the assessment of risk to include risk to mission success.
2. Ensure we maintain the discipline of looking at the building blocks of risk; the boat, the mission/environment - and pull it all together at the GAR
3. Improve communication between OIC and scientific party

Questions