

DIVE OPERATIONAL RISK MANAGEMENT

Date	Dive Unit	Dive Location	DM/LD
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Pre-Dive Checklist

- All divers authorized to dive
- DEAP and DOP completed
- Each diver informed of assigned duties
- Each diver's training appropriate for assigned duties
- Topside personnel understand duties, signals & recall method
- If applicable, Safe Ship Form (NF 57-03-22) initiated

If applicable, repetitive dive designations determined

Safety equipment present and functional, to include:

- Emergency Oxygen Kit
- First Aid Kit
- AED
- Backboard (optional)
- Dive Flag(s)
- No-Decompression Tables

Briefing conducted, to include:

- Entry and exit points identified
- Maximum depth and bottom time
- Unique hazards identified & mitigation discussed
- Recall method discussed
- 500 psi post-dive pressure rule
- COVID-19 symptom query (Temp >100.4F, cough, aches, loss of taste/smell, shortness of breath)

Risk Levels							
Risk Factors	1 Very Low	2-3 Low	4-5 Medium	6-7 Medium-High	8-9 High	10 Very High	Risk Score
Resources:	Excellent	Very Good	Good	Marginal	Poor	Very Poor	
Underwater Conditions:	Very Forgiving	Forgiving	Moderately Forgiving	Unforgiving	Very Unforgiving	Dangerous	
Surface Conditions:	Excellent	Very Good	Good	Marginal	Poor	Very Poor	
Team Selection:	Excellent Team	Good Team	Adequate Team	Marginal Team	Poor Team	Very Poor Team	
Team Fitness:	Excellent Fitness	Good Fitness	Adequate Fitness	Marginal Fitness	Poor Fitness	Very Poor Fitness	
Mission Complexity:	Simple	Standard	Moderately Complex	Complex	Very Complex	Extremely Complex	
GREEN	Sum = 0-23 – Low Risk: Proceed with operations, continue to monitor conditions.					GAR SCORE:	
AMBER	Sum = 24-44 – Medium Risk: Proceed with operations and vigilantly monitor conditions for deterioration.						
RED	Sum = 45-60 – High Risk: Postpone operations. Consult supervisors for approval if operation cannot be postponed.						

Note: If any two scores ≥ 7 or one score ≥ 8 , regardless of total score, postpone operation and evaluate cause for high scores. If unable to mitigate, seek higher level approval before proceeding.

Post-Dive Checklist

- Dive buddies have remained together for 30 min
- Personal and support gear cleaned and stowed
- If applicable, Safe Ship Form (NF 57-03-22) completed
- Post-dive debriefing conducted including flying after diving procedures

Name of person completing ORM

Date

Note: Examples are not hard limits, they are intended to be examples of conditions representative of corresponding risk.

NOAA DIVING PROGRAM Operational Risk Management (GAR Model)

Risk Factor	Risk Factor Levels						Risk Score
	0-1 Very Low	2-3 Low	4-5 Medium	5-6 Medium-High	7-8 High	9-10 Very High	
Resources: Diving and Support Equipment, Rescue Response, Communications	Excellent All systems operational. <20 min rescue response, excellent cell phone comms.	Very Good All systems operational. <45 min rescue response, good cell phone comms.	Good All necessary systems operational. 60 - 90 min rescue response, good VHF comms.	Moderately Forgiving Sub-optimal condition of some systems but operational. 1 - 2 hr rescue response. Limited VHF comms.	Poor Sub-optimal condition of some systems but operational. >2 hr rescue response, good Sat phone comms.	Very Poor Sub-optimal condition of some systems but operational. >6 hr rescue response, marginal Sat phone comms.	
Underwater Conditions: Depth, Temperature, Visibility, Current, Tides, Marine Life	Very Forgiving Protected water, bottom <60 fsw, water temp >75 F, current <0.25 kts, visibility >40 ft, minimal marine life risk.	Forgiving Sheltered water, bottom <80 fsw, water temp >70 F, current <0.5 kts, visibility >30 ft, minimal marine life risk.	Moderately Forgiving Open water, bottom <100 fsw, water temp >65 F, current <0.75 kts, visibility >20 ft, moderate marine life risk.	Unforgiving Open ocean, bottom <130 fsw, water temp >60 F, current <1 kt, visibility >10 ft, moderate marine life risk.	Very Unforgiving Open ocean, bottom <150 fsw, water temp >50 F, current <2 kts, visibility >5 ft, significant marine life risk.	Dangerous Open ocean, unreachable bottom, water temp <50 F, current >2 kts, visibility <5 ft, significant marine life risk.	
Surface Conditions: Wind and Sea State, Weather Forecast, Vessel Traffic	Excellent Calm wind and seas, forecast good, minimal traffic.	Very Good <2 ft seas and/or 5-10 knot winds, forecast fair, occasional traffic.	Good 2-3 ft seas and/or 10-15 knot winds, forecast fair, periodic traffic.	Marginal 3-4 ft seas and/or 10-15 knot winds, forecast marginal, frequent traffic.	Poor 4-5 ft seas and/or 15-20 knot winds, forecast poor, frequent heavy traffic.	Very Poor >5 ft seas and/or >20 knot winds, forecast poor, frequent and unpredictable heavy traffic.	
Team Selection: Experience, training and familiarity, safe manning levels	Excellent Team Expert divers and support personnel, fully trained and familiar with operation.	Very Good Team Well qualified divers and support personnel, fully trained and familiar with operation.	Appropriate Team Qualified divers and support personnel, adequately trained and familiar with operation.	Marginal Team Marginal divers and support personnel, adequately trained and familiar with operation.	Poor Team Marginal divers and support personnel, adequately trained and familiar with operation.	Very Poor Team Marginal divers and support personnel, adequately trained but unfamiliar with ops.	
Team Fitness: Physical and mental fitness of Divers, Topside Support, Vessel Crew	Excellent Fitness Minimal physical/mental activity required. Team in excellent fitness for required activity. All well rested.	Good Fitness Minor physical/mental activity required. Team is rested. No physical/mental stress observed. Sufficient rest periods scheduled.	Appropriate Fitness Moderate physical/mental activity required. Team able to accomplish tasks with minimal fatigue. Sufficient rest periods scheduled.	Marginal Fitness Moderate physical/mental activity required. Some fatigue observed. Minimal rest periods scheduled.	Poor Fitness Heavy physical/mental activity required. Moderate fatigue observed. Minimal rest periods scheduled.	Very Poor Fitness Heavy physical/mental activity required. Significant fatigue observed. Minimal rest periods scheduled.	
Mission Complexity: New or familiar, special tools or equipment, team size, entry/exit, liveboating	Simple Simple and familiar tasks with no specialized equipment or tasks needed other than basic diving and observation. Easy entry/exit.	Standard Simple but unfamiliar tasks with no specialized equipment or tasks needed other than basic diving and observation. Easy entry/exit.	Moderately Complex Moderately complex but familiar tasks with some specialized equipment and skills needed. Moderate entry/exit.	Complex Moderately complex and unfamiliar tasks with some specialized equipment and skills needed. Moderate entry exit.	Very Complex Complex but familiar tasks requiring specialized tools and techniques in a team operation. Difficult entry/exit.	Extremely Complex Complex and unfamiliar tasks requiring specialized tools and techniques in a team operation. Difficult entry/exit.	

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GAR
SCORE: