

---

---

# Appendix F: Training and Testing Activities Matrices



**Supplemental Environmental Impact Statement/  
Overseas Environmental Impact Statement  
Mariana Islands Training and Testing**

**TABLE OF CONTENTS**

**APPENDIX F      TRAINING AND TESTING ACTIVITIES MATRICES..... F-1**

**List of Figures**

There are no figures in this appendix.

**List of Tables**

Table F-1: Stressors by Training Activity ..... F-3  
Table F-2: Stressors by Testing Activity..... F-10  
Table F-3: Stressors by Resource ..... F-12

This page intentionally left blank.

---

## APPENDIX F TRAINING AND TESTING ACTIVITIES MATRICES

This appendix contains three matrices. The first two matrices (Table F-1 and Table F-2) in this appendix list the training and testing activities that occur in the Mariana Islands Training and Testing Study Area and their associated stressors. The third matrix (Table F-3) lists the resources analyzed in this Supplemental Environmental Impact Statement/Overseas Environmental Impact Statement and the stressors they are potentially affected by.

This page intentionally left blank.

Table F-1: Stressors by Training Activity

Mariana Islands Training Activity	Biological Resources																	Physical Resources					Human Resources <sup>2</sup>																					
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors					Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors			Public Health & Safety Stressors																
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In-Air Explosions	In-Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>												
Legend																			= Decrease in number of events from 2015 Final MITT EIS/OEIS					= Increase in number of events from 2015 Final MITT EIS/OEIS																				
<b>Major Training Exercises</b>																																												
Joint Expeditionary Exercise	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓								
Joint Multi-Strike Group Exercise (decrease for Alt 1 only)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓								
Marine Air Ground Task Force Exercise (Amphibious) – Battalion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓								
<b>Air Warfare (AW)</b>																																												
Air Combat Maneuver (ACM)			✓			✓				✓									✓		✓														✓	✓								
Air Defense Exercise (ADEX)		✓	✓			✓			✓	✓									✓							✓		✓	✓								✓							
Air Intercept Control (AIC)			✓							✓									✓																			✓	✓					
Gunnery Exercise (Air-to-Air) Medium-Caliber GUNEX A-A			✓	✓		✓				✓	✓						✓		✓		✓					✓	✓	✓	✓										✓					
Gunnery Exercise (Surface-to-Air) Large-Caliber GUNEX S-A		✓	✓	✓	✓	✓			✓	✓	✓						✓		✓	✓	✓		✓		✓	✓	✓	✓										✓	✓					
Gunnery Exercise (Surface-to-Air) Medium-Caliber GUNEX S-A		✓	✓	✓	✓	✓			✓	✓	✓						✓		✓		✓		✓		✓	✓	✓	✓												✓				
Missile Exercise (Air-to-Air) MISSILEX A-A		✓	✓	✓	✓	✓			✓	✓	✓					✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓													✓			
Missile Exercise (Surface-to-Air) MISSILEX S-A		✓	✓	✓	✓	✓			✓	✓	✓						✓	✓	✓	✓	✓	✓			✓	✓	✓	✓														✓		
<b>Amphibious Warfare (AW)</b>																																												
Amphibious Rehearsal, No Landing		✓							✓										✓							✓	✓		✓													✓		

Amphibious Assault		✓	✓							✓	✓								✓					✓	✓		✓			✓
--------------------	--	---	---	--	--	--	--	--	--	---	---	--	--	--	--	--	--	--	---	--	--	--	--	---	---	--	---	--	--	---

Table F-1: Stressors by Training Activity (continued)

Mariana Islands Training Activity	Biological Resources														Physical Resources						Human Resources <sup>2</sup>											
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors					Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors		Public Health & Safety Stressors					
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In-Air Explosions	In-Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>
<b>Amphibious Warfare (AW) (Continued)</b>																																
Amphibious Raid		✓	✓						✓	✓									✓						✓	✓		✓			✓	
Humanitarian Assistance/Disaster Relief Operations		✓	✓			✓			✓	✓									✓						✓	✓		✓			✓	
Naval Surface Fire Support Exercise – Land-based target (Land) (increase Alt 2 only)		✓		✓	✓		✓		✓										✓							✓	✓				✓	
Noncombatant Evacuation Operation		✓	✓			✓			✓	✓									✓		✓	✓	✓			✓		✓			✓	
Special Purpose Marine Air Ground Task Force Exercise		✓	✓	✓	✓	✓			✓	✓	✓						✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Unmanned Aerial Vehicle – Intelligence, Surveillance, and Reconnaissance			✓							✓									✓						✓	✓	✓	✓			✓	
<b>Anti-Submarine Warfare (ASW)</b>																																
Torpedo Exercise (TORPEX) – Helicopter (increase Alt 2 only)	✓	✓	✓			✓			✓	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Torpedo Exercise (TORPEX) – Maritime Patrol Aircraft (increase Alt 2 only)	✓		✓			✓			✓	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Torpedo Exercise (TORPEX) – Submarine	✓	✓							✓		✓				✓		✓				✓				✓			✓	✓	✓	✓	✓
Torpedo Exercise (TORPEX) – Surface	✓	✓				✓			✓		✓				✓	✓		✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓
Tracking Exercise (TRACKEX) – Helicopter	✓		✓			✓			✓	✓	✓				✓	✓		✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓





Table F-1: Stressors by Training Activity (continued)

Mariana Islands Training Activity	Biological Resources																Physical Resources						Human Resources <sup>2</sup>												
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors					Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors			Public Health & Safety Stressors							
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In-Air Explosions	In-Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>			
<b>Anti-Submarine Warfare (ASW) (Continued)</b>																																			
Tracking Exercise (TRACKEX) – Maritime Patrol Aircraft	✓		✓			✓			✓	✓	✓					✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓		✓		✓		
Tracking Exercise (TRACKEX)– Submarine	✓	✓							✓		✓					✓					✓					✓			✓	✓		✓		✓	
Tracking Exercise (TRACKEX) – Surface	✓	✓				✓	✓		✓		✓					✓			✓						✓	✓	✓	✓	✓	✓		✓		✓	
Small Joint Coordinated ASW Exercise (Multi-Sail/GUAMEX)	✓	✓	✓			✓			✓	✓	✓					✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Electronic Warfare (EW)</b>																																			
Counter Targeting Chaff Exercise – Aircraft			✓							✓	✓							✓	✓				✓				✓						✓		✓
Counter Targeting Chaff Exercise – Ship		✓							✓		✓							✓	✓				✓			✓									✓
Counter Targeting Flare Exercise – Aircraft			✓			✓				✓	✓							✓	✓		✓		✓				✓								✓
Electronic Warfare Operations		✓	✓			✓			✓	✓									✓								✓	✓	✓						✓
<b>Expeditionary Warfare</b>																																			
Parachute Insertion		✓	✓						✓	✓									✓	✓			✓		✓	✓	✓	✓						✓	
Personnel Insertion/Extraction		✓	✓						✓	✓									✓							✓	✓		✓						✓
<b>Mine Warfare (MIW)</b>																																			
Civilian Port Defense	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Limpet Mine Neutralization System		✓			✓				✓										✓	✓	✓	✓				✓	✓	✓	✓	✓	✓				✓

Table F-1: Stressors by Training Activity (continued)

Mariana Islands Training Activity	Biological Resources															Physical Resources						Human Resources <sup>2</sup>														
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors					Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors			Public Health & Safety Stressors								
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In-Air Explosions	In-Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>				
<b>Mine Warfare (MIW) (Continued)</b>																																				
Mine Neutralization – Remotely Operated Vehicle Sonar (ASQ-235 [AQS-20], SLQ-48)	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓			✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Mine Countermeasure Exercise – Surface Ship Sonar (SQQ-32, MCM)	✓	✓				✓			✓			✓								✓							✓			✓		✓		✓	✓	
Mine Countermeasure – Towed Mine Neutralization		✓	✓			✓	✓		✓	✓		✓								✓						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Airborne Mine Countermeasure – Towed Mine Detection	✓	✓	✓						✓	✓		✓								✓						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mine Countermeasure Exercise – Towed Sonar (AQS-20, LCS)	✓	✓				✓	✓		✓	✓		✓								✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mine Laying		✓	✓							✓	✓	✓								✓		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mine Neutralization – Explosive Ordnance Disposal		✓	✓		✓				✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Submarine Mine Exercise	✓								✓		✓	✓																				✓		✓	✓	
Surface Ship Object Detection	✓	✓							✓			✓								✓						✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Underwater Demolition Qualification/Certification		✓	✓		✓	✓			✓	✓	✓	✓						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Strike Warfare (STW)</b>																																				
Bombing Exercise (Air-to-Ground)			✓							✓	✓									✓		✓			✓	✓		✓								
Gunnery Exercise (Air-to-Ground)			✓	✓						✓	✓						✓			✓		✓			✓	✓		✓								
Missile Exercise (MISSILEX)		✓	✓	✓					✓	✓	✓									✓		✓			✓	✓		✓								

Table F-1: Stressors by Training Activity (continued)

Mariana Islands Training Activity	Biological Resources															Physical Resources					Human Resources <sup>2</sup>															
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors					Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors			Public Health & Safety Stressors								
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In-Air Explosions	In-Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>				
<b>Surface Warfare (SUW)</b>																																				
Bombing Exercise (Air-to-Surface)		✓	✓	✓		✓				✓	✓	✓						✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Gunnery Exercise (Air-to-Surface) – Medium-Caliber		✓	✓	✓	✓	✓				✓	✓	✓						✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Gunnery Exercise (Air-to-Surface) – Small-Caliber		✓	✓	✓						✓	✓	✓						✓	✓	✓		✓				✓	✓	✓	✓					✓	✓	
Gunnery Exercise (Surface-to-Surface) Boat – Small- and Medium-Caliber		✓		✓	✓					✓		✓						✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Gunnery Exercise (Surface-to-Surface) Ship – Large-Caliber		✓		✓	✓	✓				✓		✓						✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gunnery Exercise (Surface-to-Surface) Ship – Small- and Medium-Caliber		✓		✓	✓	✓	✓			✓		✓						✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Laser Targeting (at sea)		✓	✓						✓	✓	✓									✓								✓		✓		✓	✓	✓	✓	✓
Maritime Security Operations		✓	✓	✓	✓	✓				✓	✓	✓						✓		✓	✓							✓	✓	✓	✓	✓	✓	✓	✓	✓
Missile Exercise (Air-to-Surface) MISSILEX		✓	✓	✓	✓	✓	✓			✓	✓	✓						✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Missile Exercise (Air-to-Surface) Rocket		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓						✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Missile Exercise (Surface-to-Surface)		✓		✓	✓	✓	✓		✓	✓		✓						✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sinking Exercise		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Other Training Activities</b>																																				
Direct Action (Tactical Air Control Party)		✓	✓							✓	✓									✓																





Radar and Other System Testing		✓	✓				✓	✓	✓	✓	✓	✓							✓				✓		✓	✓	✓	✓		✓	✓
--------------------------------	--	---	---	--	--	--	---	---	---	---	---	---	--	--	--	--	--	--	---	--	--	--	---	--	---	---	---	---	--	---	---

Table F-2: Stressors by Testing Activity (continued)

Mariana Islands Testing Activity	Biological Resources															Physical Resources					Human Resources <sup>2</sup>												
	Acoustic Stressors				Explosives		Energy Stressors			Physical Disturbance and Strike Stressors				Entanglement Stressors		Ingestion Stressors		Air Quality Stressor	Sediments and Water Quality Stressors			Cultural Resource Stressors		Socioeconomic Stressors		Public Health & Safety Stressors							
	Sonar & Other Transducers	Vessel Noise	Aircraft Noise	Weapons Noise	In Air Explosions	In Water Explosions	In-Air Electromagnetic Devices	In-Water Electromagnetic Devices	High Energy Lasers	Vessels & In-water Devices	Aircraft & Aerial Targets	Military Expended Material	Seafloor Devices	Ground Disturbance	Wildfires	Wires & Cables	Decelerators/Parachutes	Military Expended Materials – Munitions	Military Expended Materials – Other than Munitions	Criteria Air Pollutants	Explosives	Metals	Chemicals	Other Materials <sup>1</sup>	Explosives <sup>3</sup>	Physical Disturbance & Strike <sup>4</sup>	Accessibility <sup>5</sup>	Airborne Acoustics <sup>6</sup>	Physical Disturbance & Strike <sup>4</sup>	Underwater Energy <sup>7</sup>	In-Air Energy <sup>8</sup>	Physical Interactions <sup>9</sup>	
<b>Mine Warfare (MIW)</b>																																	
Mine Countermeasure and Neutralization Testing	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓			✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
<b>Surface Warfare</b>																																	
Kinetic Energy Weapon Testing		✓		✓	✓		✓			✓	✓	✓						✓	✓	✓		✓			✓	✓	✓	✓		✓	✓		
<b>Vessel Evaluation</b>																																	
Undersea Warfare Testing	✓	✓	✓				✓			✓	✓	✓				✓	✓		✓	✓		✓			✓	✓	✓	✓	✓	✓	✓		
<b>Other Testing Activities</b>																																	
Simulant Testing		✓	✓				✓			✓	✓									✓			✓	✓			✓	✓			✓		
<b>OFFICE OF NAVAL RESEARCH</b>																																	
Acoustic and Oceanographic Research		✓								✓			✓							✓								✓	✓	✓	✓	✓	✓
															Legend	= Decrease in number of events from 2015 Final MITT EIS/OEIS					= Increase in number of events from 2015 Final MITT EIS/OEIS												

<sup>1</sup> Other Materials include marine markers and flares, chaff, towed and stationary targets, and miscellaneous components of other expended objects

<sup>2</sup> Area of interest is U.S. Territorial Waters (seaward of the mean high water line to 12 nautical miles and any inshore waters)

<sup>3</sup> Vibration and shock waves from underwater explosions.

<sup>4</sup> Physical disturbance and strike stressors resulting from in-water devices, military expended materials, seafloor devices, pile driving, and vibration from sonic booms in U.S. territorial waters (seaward of the mean high water line to 12 nautical miles).

<sup>5</sup> Availability of access on the ocean and in the air

<sup>6</sup> Loud noises from weapons firing, in-air explosions, and sonic booms

<sup>7</sup> Active sonar, underwater explosions, air guns, vessel movements, mine warfare training devices, and unmanned underwater systems

<sup>8</sup> Sources of electromagnetic energy and lasers

<sup>9</sup> Interaction of Navy or Marine Corps aircraft, vessels, and equipment with general public

Note: A check indicates training and/or testing events that trigger the stressor as it applies to the specific resource.





Table F-3: Stressors by Resource (continued)

<i>Stressors vs. Resource</i>	<i>Biological Resources</i>														<i>Physical Resources</i>					<i>Human Resources<sup>2</sup></i>											
	<i>Acoustic Stressors</i>				<i>Explosives</i>		<i>Energy Stressors</i>			<i>Physical Disturbance and Strike Stressors</i>					<i>Entanglement Stressors</i>		<i>Ingestion Stressors</i>		<i>Air Quality Stressor</i>	<i>Sediments and Water Quality Stressors</i>			<i>Cultural Resource Stressors</i>		<i>Socioeconomic Stressors</i>			<i>Public Health &amp; Safety Stressors</i>			
	<i>Sonar &amp; Other Transducers</i>	<i>Vessel Noise</i>	<i>Aircraft Noise</i>	<i>Weapons Noise</i>	<i>In Air Explosions</i>	<i>In Water Explosions</i>	<i>In-Air Electromagnetic Devices</i>	<i>In-Water Electromagnetic Devices</i>	<i>High Energy Lasers</i>	<i>Vessels &amp; In-water Devices</i>	<i>Aircraft &amp; Aerial Targets</i>	<i>Military Expended Material</i>	<i>Seafloor Devices</i>	<i>Ground Disturbance</i>	<i>Wildfires</i>	<i>Wires &amp; Cables</i>	<i>Decelerators/Parachutes</i>	<i>Military Expended Materials – Munitions</i>	<i>Military Expended Materials – Other than Munitions</i>	<i>Criteria Air Pollutants</i>	<i>Explosives</i>	<i>Metals</i>	<i>Chemicals</i>	<i>Other Materials<sup>1</sup></i>	<i>Explosives<sup>3</sup></i>	<i>Physical Disturbance &amp; Strike<sup>4</sup></i>	<i>Accessibility<sup>5</sup></i>	<i>Airborne Acoustics<sup>6</sup></i>	<i>Physical Disturbance &amp; Strike<sup>4</sup></i>	<i>Underwater Energy<sup>7</sup></i>	<i>In-Air Energy<sup>8</sup></i>

<sup>1</sup> Other Materials include marine markers and flares, chaff, towed and stationary targets, and miscellaneous components of other expended objects

<sup>2</sup> Area of interest is U.S. Territorial Waters (seaward of the mean high water line to 12 nautical miles and any inshore waters)

<sup>3</sup> Vibration and shock waves from underwater explosions.

<sup>4</sup> Physical disturbance and strike stressors resulting from in-water devices, military expended materials, seafloor devices, pile driving, and vibration from sonic booms in U.S. territorial waters (seaward of the mean high water line to 12 nautical miles).

<sup>5</sup> Availability of access on the ocean and in the air

<sup>6</sup> Loud noises from weapons firing, in-air explosions, and sonic booms

<sup>7</sup> Active sonar, underwater explosions, air guns, vessel movements, mine warfare training devices, and unmanned underwater systems

<sup>8</sup> Sources of electromagnetic energy and lasers

<sup>9</sup> Interaction of Navy or Marine Corps aircraft, vessels, and equipment with general public

Note: A check indicates training and/or testing events that trigger the stressor as it applies to the specific resource.