Environmental Impact Statement/

Overseas Environmental Impact Statement

Point Mugu Sea Range

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Appendix H Public Comment Responses

This appendix includes public comments on the Point Mugu Sea Range (PMSR) Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) and the Navy's responses to those comments.

H.1 Introduction

The Navy would like to thank the elected officials, federal regulatory and local resource agencies, business and community leaders, organizations, and individuals for reviewing the PMSR Draft EIS/OEIS and submitting comments. Public involvement is an essential aspect of the environmental impact review process.

H.2 Public Comment Period for the Draft Environmental Impact Statement/Overseas Environmental Impact Statement

The Draft EIS/OEIS public review and comment period began with notices of availability published in the Federal Register (FR) (85 FR 23011 and 85 FR 23022) on April 24, 2020. The Draft EIS/OEIS review and comment period was open from April 24, 2020 to June 8, 2020.

Due to federal and state guidance on social distancing in response to COVID 19, the Navy was unable to hold in-person public meetings as planned in May 2020. In lieu of the Draft EIS/OEIS public meetings, a dedicated voicemail line and email address was set up to facilitate verbal and written questions from the public. The public was also able to submit comments on the Draft EIS/OEIS through previously established channels (website and mail). In total, the Navy received six comment submissions from federal agencies, state agencies, federally recognized tribes, nongovernmental organizations, and individuals.

H.3 Comment Responses

Responses to all comments received on the Draft EIS/OEIS are included in this Appendix. Table H-1 presents the Navy's response to each comment received. All comments received on the Draft EIS/OEIS are part of the official project record. When applicable, the Navy's analyses were updated based on comments received.

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Table H-1: Response to Comments

	Comment	Navy Response
Federally Recognized Indian Tribes		
Rincon Band of Luiseño Indians (RBLI), Cheryl Madrigal		
RBLI-01	This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Band"), a federally recognized Indian Tribe and sovereign government. Thank you for providing us with the Notice of Availability of the Point Mugu Sea Range Draft Environmental Impact Statement/Overseas Environmental Impact Statement. The identified location is within the Territory of the Luiseño people, and is also within Rincon's specific area of Historic interest. From the provided document the Rincon Band understands that the U.S. Navy prepared above mentioned documents to assess the potential environmental consequences associated with continuing military readiness activities and to analyze impacts of proposed increase in research, development, acquisition, testing, evaluation and training activities.	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record.
RBLI-02	The Band would like to point out that we requested government-to-government consultation with our letter from March 19, 2020. As such consultation has not taken place at this point, the Rincon Band would like to reiterate the request and ask that it be noted that tribal consultation has not concluded. Due to the lack of consultation, the Band will comment on the Draft EIS/OEIS based on the documents that have been provided to us. The Band has the following comments and concerns (additions are in **green**, strike-outs are red):	The Navy apologizes for the delayed response to the Rincon Band's letter dated March 19, 2020. The Navy provided a written response to the Rincon Band's request for government-to-government consultation on June 30, 2020. The Navy offered to meet with the Rincon Band via teleconference due to COVID-19 conditions. The Rincon Band met with the Navy multiple times beginning on July 24, 2020, to engage in government-to-government consultation on activities associated with the PMSR throughout the Section 106 process. This engagement is conducted as a means to respectfully

	Comment	Navy Response
		exchange information, increase dialogue and understanding, build trust, and maintain productive relationships.
RBLI-03	**General comment on the increased testing and training activities** As the use of explosives will potentially prevent any archaeological survey work of such areas in the future, the Band is concerned with the proposed increase of testing and training activities which will presumably require extra use of sea range. The Band assumes that technology will eventually allow for more intensive research of submerged archaeological resources. It has been identified in the EIS/OEIS that underwater areas around San Nicolas Island have the potential for submerged archaeological sites. The Band assumes that this will apply to the other islands and the mainland as well. Therefore, the Band recommends to exclude such close-to-shore areas as target areas to avoid any impacts of explosives and thereby preserve these areas for further research. Furthermore, the Rincon Band asks to be provided with existing archaeological surveys that extended their scope to underwater tribal cultural resources.	The Proposed Action does not include the use of explosives on San Nicolas Island (SNI), nor are there any impact (target) areas close to shore or at the water's edge. The proposed increase in testing and training does not apply to activities occurring on SNI or the nearshore areas of SNI. While there is no increase in the number of activities proposed for SNI over what was previously analyzed in the 2002 PMSR EIS/OEIS and other environmental planning documents for the PMSR, there is a likelihood of an increase in the annual level of activities over what has been historically conducted. For example, up to 40 launch events were analyzed previously, which remains the proposed tempo analyzed in the PMSR Draft EIS/OEIS; however, historically the average number of annual launches from SNI is 6 events. The Navy has not conducted underwater archaeological surveys at the PMSR. Existing information on submerged resources is based on a review of the *Channel Islands National Park and Channel Islands National Marine Sanctuary: Submerged Cultural Resources Assessment* and an existing database provided by its Environmental Project Office. The Navy has not conducted studies to investigate the potential for submerged archaeological sites around any of the Channel Islands or adjacent mainland. Recent work by Braje et al. (2019) investigating offshore areas around the Northern Channel Islands, specifically between Santa Cruz and Santa Rosa Islands, has produced promising results in the potential for submerged archaeological sites to occur in the nearshore environment of these islands. However, the only submerged cultural resources currently identified within the PMSR are historic shipwrecks and military aircraft.

	Comment	Navy Response
RBLI-04	**<u>Comments on specific sections in the EIS/OEIS</u>** **5.1.1.10 Cultural Resources** "The Contractor, through the Facilities Engineering Acquisition Division…will immediately stop work in the vicinity of the discovery, secure the area, and notify the NBVC Cultural Resources Manager". **No further ground disturbance shall occur within 100 feet of the discovery until the NBVC Cultural Resources Manager in consultation with affiliated Tribes approves the measures to protect the cultural resource(s).**	The Final EIS/OEIS has been updated to reflect the following change in Section 5.1.1.10 (Cultural Resources): • No further ground disturbance shall occur within 30 meters (100 feet) of the discovery until consultation, as appropriate, has been completed.
RBLI-05	As this would mostly address potential findings under water or along the shoreline, additional language needs to be included that will clarify "vicinity" in nautical miles or other commonly used measure. However, the vicinity should be equal to precautions taken on land.	The procedures outlined in Section 5.1.1.10 (Cultural Resources) apply only to terrestrial cultural resources. The Final EIS/OEIS has been updated to reflect the following change: • If underwater prehistoric archaeological resources are identified, the Navy will consult on any potential findings to develop a Standard Operating Procedure (SOP) and appropriate mitigation.
RBLI-06	"The NBVC Cultural Resources Manager will notify Public Works Officer, State Historic Properties Officer, **affiliated Tribes**, and other parties as appropriate; notification will include the nature of the discovery, steps being taken in response, and any time constraints, if applicable."	The Final EIS/OEIS has been updated to reflect the following changes: • "The NBVC Cultural Resources Manager will notify the Public Works Officer, State Historic Preservation Officer, Tribes, and other parties as appropriate…" • The Navy will update Section 3.10 of the Final EIS/OEIS to define "Tribes" as those federally recognized Indian Tribes that attach religious and cultural significance to historic properties on SNI.

	Comment	Navy Response
RBLI-07	"The NBVC Cultural Resources Manager will consult with State Historic Properties Officer, affiliated Tribes, and other parties as appropriate to determine the appropriate actions."	The Final EIS/OEIS has been updated to reflect the following changes: • The NBVC Cultural Resources Manager will consult with the State Historic Preservation Officer, Tribes, and other parties as appropriate to determine the appropriate actions. • The Navy will update Section 3.10 of the Final EIS/OEIS to define "Tribes" as those federally recognized Indian Tribes that attach religious and cultural significance to historic properties on SNI.
RBLI-08	"~~Those resources not meeting National Historic Properties Act eligibility criteria require no further management treatment, except under specific conditions in which construction monitoring has been recommended.~~" The significance of tribal cultural resources and the treatment of any findings will be determined in consultation with the affiliated Tribes.	The Section 106 process includes consultation between the Navy, SHPO, and Tribes when determining the eligibility of sites for listing in the National Register of Historic Places (NRHP). Section 106 requires the Navy consider the effects on historic properties (i.e., those that are eligible for the NRHP). Tribal cultural resources are not a resource type defined in the National Historic Preservation Act (NHPA) or its implementing regulations; therefore, the Navy retains this language.
RBLI-9	**5.2.2.3.2 Incident Reports** The Navy will provide an annual report to affiliated Tribes including but not limited to information on impacts on birds, marine mammals, sea turtles, and ESA-listed species, and all cultural resources.	The Navy has made information available to the public regarding launch events from SNI on the Navy's Marine Species Monitoring webpage: https://navymarinespeciesmonitoring.us/reporting/pacific/ The Navy does not have a publicly available incident report as requested; however, Tribes would be notified of any incident involving cultural resources.
RBLI-10	**5.2.3 Mitigation Development Process** In consultation with the consulting affiliated Tribes, the Navy will develop measures to offset the impacts to natural and cultural resources by developing, enhancing, and creating protected natural habitats, further survey work, and exploring recovery methods to excavate	Section 5.2.3 (Mitigation Development Process) addresses mitigation measures for natural resources. If mitigation measures for cultural resources are required, they will be developed in consultation with the SHPO, Tribes, and Advisory Council on Historic Preservation (ACHP) as appropriate.

	Comment	Navy Response
	remnants due to military use (unexploded bombs, rockets and shells).	
Federal Agencies		
US Environmental Protection Agency, Region 9 (EPA9), Jean Prijatel		
EPA9-01	The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The Navy proposes to increase the tempo of military Research Development Testing and Evaluation and training activities at the Point Mugu Sea Range and new mission areas and platforms above those covered in the 2002 Point Mugu Sea Range EIS. The current EIS will support the issuance of federal regulatory permits and authorizations under the Marine Mammal Protection Act and the Endangered Species Act. The EPA recommends that the Navy recover as much ocean expended testing and training materials as possible and consider rectifying the impacts from materials that are not recoverable; incorporate seasonal and geographic considerations into resource protection measures for marine mammals as originally identified during scoping; and provide additional information in the Final EIS regarding entanglement impacts to sea turtles from decelerators/parachutes. Please see our attached detailed comments. Effective October 22, 2018, the EPA no longer includes	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record. Your comment regarding expended materials is addressed below (see tagged response).

	Comment	Navy Response
	ratings in our comment letters. Information about this change and the EPA's continued roles and responsibilities in the review of federal actions can be found on our website at: https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act. The EPA appreciates the opportunity to review this DEIS. When the FEIS is released for public review, please send one copy to the address above (mail code: TIP-2).	
EPA9-02	**<u>Recovering and Mitigating Expended Materials</u>** The proposed action involves the launch of jet-assisted take-off (JATO) or rocket-assisted take-off (RATO) bottles and their associated targets from Naval Base Ventura County Point Mugu Building 55 Launch Complex, from pads adjacent to Holiday Beach and from launch areas on San Nicolas Island. According to the DEIS, soon after launch the bottle falls off and typically lands 700–1,400 feet in front of the launch site, and those launched from Naval Base Ventura County Point Mugu generally land in or near Mugu Lagoon (p. 5-37), a regionally significant salt marsh containing sensitive resources (p. 3.2-4). If the launch occurs from an operational pad adjacent to the beach, RATO bottles may expend into the near shore environment. The DEIS indicates that the Navy has implemented a JATO/RATO bottle removal program for the salt marsh in front of Building PM-55, which includes seasonal restrictions on recovery activities due to the presence of sensitive species (p. 5-37). It states that RATO bottles are recovered "whenever practical and resources are available" (p. 3.2-41). The beach launch pads are located	While not part of the Proposed Action, clean up actions to remove the historical backlog of spent JATO/RATO bottles at Point Mugu and SNI is planned. Moving forward, NAWCWD has instituted a new policy to fund cleanup before any test requiring JATO/RATO bottles at Point Mugu. Activities at SNI do not typically require JATO/RATO bottles. Much of the shoreline at Point Mugu is off limits due to protections for nesting birds (e.g., least terns, snowy plover, cormorants). Family Beach on Point Mugu is the only beach open to military personnel and civilians and is cleaned on an as-needed basis, coordinated with USFWS. Additionally, there are other events conducted by volunteers and coordinated by installation environmental staff to include three marsh clean-up events and multiple events on Family Beach. Access to SNI beaches is extremely limited due to the presence of protected species (e.g., nesting birds and hauled-out pinnipeds), so conducting island-wide beach cleanups is not practical. However, clean-up events for SNI are tracked by Ocean Conservancy, with past events held in 2014, 2016, and 2020. In 2014, 485 pounds of debris were collected; in 2016, 2,142 pounds of debris were collected off two beaches. In 2020, the Navy removed 2,194 pounds of marine debris from SNI. Accumulated materials found and removed from the beach are most often trash from agriculture and the general public (e.g., agricultural plastic, plastic bags, straws, plastic forks/spoons/knives, derelict

	Comment	Navy Response
	directly inland of sandy beach habitat; the DEIS does not reference any removal actions from these areas, nor for San Nicolas Island. The proposed action also would continue to expend plastic into the ocean that is not practicable to recover, such as plastic end caps from chaff cartridges and plastic pistons from flare cartridges that "may be caught in currents and gyres or entangled in floating kelp and could remain in the water column for hours to weeks or indefinitely" (p. 3-24), thus contributing to the substantial plastic marine debris problem identified in the study area (3.2-17). **Recommendation:** Since most military expended materials are not practical or possible to recover, we recommend the Navy commit sufficient resources for recovery of JATO/RATO bottles and other military expended materials that are recoverable in the Mugu Lagoon and nearshore environments, consistent with restrictions to avoid disturbance to sensitive species. Discuss in the FEIS, mitigation for plastic expended military materials that cannot be practicably recovered. The Council on Environmental Quality's 5-part definition of mitigation includes "rectifying the impact by repairing, rehabilitating, or restoring the affected environment" (40 CFR 1508.20 (c)). Since plastic end caps and plastic pistons will continue to contribute to ocean plastic pollution (although in slightly reduced numbers under the preferred alternative) and because plastic pollution is extremely difficult to abate, the Navy could partially mitigate this impact through other actions such as increased year-round removal of plastic waste from beaches in the sea range and other Southern California beaches and removal efforts	fishing gear, and tires). Additionally, the Navy has implemented a marine debris program for SNI that includes annual beach cleanups as a requirement of the Integrated Natural Resources Management Plan and as a conservation measure to offset potential effects to Essential Fish Habitat from military expended materials. The plan will also include conducting a one-year marine debris sampling and characterization study. The Navy will continue to track the cleanups in the Ocean Conservancy database. Public beach cleanups in the area are organized by local organizations, in which Navy personnel are welcome to participate. While initiating engineering changes to the design of the systems tested on the range is out of scope for this EIS/OEIS, as a good steward of the environment, the Navy will continue to pursue options for researching viable alternatives for military expended materials (MEM). Thus far, it has been challenging to meet performance requirements with alternative materials (e.g., biodegradable materials) given functional characteristics and space and weight constraints. The Sea Range Division can be part of the feedback loop and will encourage Program Offices to look for more environmentally friendly options to plastics where the options can meet performance criteria. However, any proposal to investigate alternative options to current materials through the Strategic Environmental Research and Development Program/Environmental Security Technology Certification Program would be initiated through the Program Offices.

	Comment	Navy Response
	in the near shore environment. We also recommend discussing in the FEIS the potential for chaff and flare cartridges to be produced without plastic components in the future. Consider and discuss whether this could be a topic for investigation via the Strategic Environmental Research and Development Program/ Environmental Security Technology Certification Program in a future call for proposals. We are aware of the good work that the Navy's Space and Naval Warfare Systems Command (SPAWAR) is doing in investigating plastics impacts on marine life and we recommend that the Navy engage with SPAWAR staff to research mitigation options to reduce the Navy's contribution to this cumulative impact that has been increasingly recognized as a key threat to marine ecosystems throughout the world.	
EPA9-03	**<u>Mitigation for Marine Mammal Impacts</u>** In the EPA's scoping comments, dated June 19, 2018, we expressed appreciation for the resource protection measures identified on the project fact sheet dated May 2018, particularly the seasonal and geographic considerations that the fact sheet identified as protective measures that the Navy implements to reduce or avoid effects on marine species. The seasonal considerations would include marine mammal abundance during certain times of the year, and geographic considerations would consider the locations of marine mammal groups and feeding activities in specific geographic locations. The DEIS does not include seasonal or geographic considerations in its resource protection measures and the current fact sheet, dated April 2020, no longer references them.	Consideration of seasonal and geographic mitigation measures is part of the analyses presented in the Final EIS/OEIS in Chapter 5 (Standard Operating Procedures and Mitigation). In coordination with the National Marine Fisheries Service (NMFS), the Navy has developed protective measures to avoid or reduce potential impacts on marine mammals and with USFWS measures to protect specific bird species. For example, as presented in Section 5.3.5 (Vehicle Launch Activities at San Nicolas Island), the Navy has procedural measures in place to reduce or avoid impacts on pinnipeds hauled out at SNI during pupping and breeding season, to the extent practical. Furthermore, measures for Point Mugu Beach missile launch operations (see Table 5.3-10) include seasonal restrictions to protect nesting bird species. Procedural measures for unmanned aircraft operations, as presented in Table 5.3-12 ("Procedural Mitigation for Unmanned Aircraft

	Comment	Navy Response
	According to the DEIS, the Navy declines any geographic mitigation approach with a static boundary (p. 5-47), including any part of the several Biologically Important Areas (BIAs) that were identified. These include the Santa Barbara Channel and San Miguel BIAs, which were the most heavily used of the two BIAs for blue whales within the sea range and the least used areas for military readiness activities (p. 5-47). No seasonal resource protection measures are included. The DEIS also cites several studies where researchers suggested that a dynamic management approach may be the most effective means of mitigating impacts on individuals and populations of marine mammals (p. 3.7-123). While the Navy rejected a geographic mitigation approach with a static boundary, it is not clear if a more dynamic approach was considered where conditions in a given time period could guide selection of training time and location. We understand that the Navy agrees that the ability to use near real-time oceanographic data to predict the presence of marine species in real time is a promising management tool but feels it is not yet developed for use;[1] however, components could still be integrated into mitigation actions on a trial basis. The proposed mitigation for marine mammals relies almost entirely on lookout personnel observing for marine mammals but notes the inherent limitations of this method since the likelihood of sighting individual animals is largely dependent on observation conditions and animal behavior (p. 5-9). If marine mammal detection remains the only method of mitigation, it is appropriate to invest in better methods of detection; therefore, it is encouraging that the DEIS states that the Navy has funded a number of	Operations"), include protections for nesting birds and pinniped rookeries during pupping and breeding seasons through restrictions on overflights below a specific altitude to the extent practicable. Biologically important areas as defined in Ferguson et al. (2015b) are not exclusionary zones (closure areas) and are not analogous to marine protected areas or critical habitat under the ESA, but rather were identified as resource management tools to "aid the National Oceanic and Atmospheric Administration and other federal agencies in … analyses and planning as required under multiple U.S. statutes," such as the National Environmental Policy Act (NEPA), MMPA, and ESA, "to characterize and minimize the impacts of anthropogenic activities on cetaceans and to achieve conservation and protection goals" (Ferguson et al., 2015b). Although NMFS considers each area's boundary to be dynamic and subject to change based on new information (Ferguson et al., 2015a), the Navy's assessments in the DEIS/OEIS are based on the areas as they were described by the Cetacean Density and Distribution Mapping Working Group source documents (Van Parijs et al., 2015). As new data become available, the Navy and NMFS will continue to reassess the data via the adaptive management process discussed in Chapter 5 (Standard Operating Procedures and Mitigation), Section 5.2.2.2 (Monitoring, Research, and Reporting Initiatives). Section 5.3.6.2 (Geographic Mitigation) includes a detailed discussion of time-area management considerations for blue whale, humpback whale, gray whale, the Morro Bay harbor porpoise small and resident population, and the leatherback sea turtle. Real-time and avoidance or shut-down response when marine mammals are observed is considered a dynamic approach and is effective given year-to-year variability in environmental factors, such as changes in ocean temperatures and prey availability off California in an El Niño year.

	Comment	Navy Response
	passive acoustic monitoring efforts in the study area (p. 3.7-149). This effort, along with that of independent researchers,[2] could yield additional tools for marine mammal detection. **Recommendations**: In the FEIS, • Consider geographic avoidance areas for the Santa Barbara Channel and the San Miguel BIA since they are heavily used by blue whales and least used by the military. • Explore integrating components of dynamic geographic mitigation to gather information and advance its development for use in military training. • Discuss the acoustic monitoring efforts the Navy is funding and any coordination occurring with the ocean research community's efforts to use passive acoustic monitoring to detect marine mammals to reduce commercial ship strikes. Should either of these efforts yield a usable tool for detecting marine mammals, we recommend it be incorporated into the at-sea procedural mitigation to increase the effectiveness of the Navy's detection abilities. [1] Response to comments, Mariana Islands Testing and Training Final EIS, June 2020 [2] https://boi.ucsb.edu/active_projects/whale-strikes	Because the BIAs only reflect a higher probability of occurrence on average, their avoidance could, in fact, result in an activity being scheduled where, on a given day, there are more marine mammals present outside a statically bounded BIA than inside it. For example, multiple satellite tag data sets (Mate et al., 2018) indicate variability in core area use between years and, in some instances, little or no documented presence in a BIA despite tagged individuals using nearby areas or transiting past a BIA, suggesting there may be more marine mammals outside the BIAs mapped boundaries than inside during a given season. For blue whales, see Section 3.7.4.2.1.2 (Habitat and Geographic Range); for fin whales, see Section 3.7.4.2.3.2 (Habitat and Geographic Range); and for humpback whales, see Section 3.7.4.2.5.2 (Habitat and Geographic Range). Navy training and testing events occur over extremely short time scales relative to the multi-year data supporting delineation of the biologically important areas. As a result of the dynamic presence or absence of prey in any one area and the associated response of blue whales to prey location, the seasonal avoidance of a statically bounded area such as the Blue Whale Feeding Areas is unlikely to be effective at reducing impacts on blue whales, including blue whale feeding behavior. To account for the dynamic and variable presence of prey and feeding blue whales in the PMSR Study Area, the most effective mitigation measures are those that the Navy already employs based on the immediate and actual detected presence of the species in the location where an event will take place or is occurring. As Navy presents in the Chapter 5 of the Final EIS/OEIS, before an activity is to occur, Navy uses available appropriate assets (e.g. lookouts, radar) to investigate the area to identify any human safety concerns (e.g., vessels or aircraft in the vicinity; see Section 5.1.1.1, De-Conflicting Sea Space and Airspace) as a standard operating

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		procedure. For biological resources, the Navy implements relevant procedural mitigation measures for that activity (see Section 5.2.3.4, Implementing At-Sea Procedural Mitigation). See Section 5.3.6.2 (Geographic Mitigation) for a detailed discussion relative to "geographic avoidance." As presented in the Section 3.7.4.2.1.2 (Habitat and Geographic Range) for blue whales and Figure 3.7-2, the Navy is aware of and considered the presence of the BIAs in the environmental consequences for the Proposed Action in Section 3.7.5.4.1.1 (Explosives/Blue Whales). The Santa Barbara Channel is predominantly outside the boundaries of the PMSR, with the exception of the airspace (Warning Areas 289E/W) for aircraft transiting from the airfield at Point Mugu to the PMSR and the airspace offshore San Luis Obispo County, where very little activity typically occurs. The Navy generally avoids any activity overlapping the Channel due to safety concerns and the vast amount of vessel traffic occurring in the Channel. As for the San Miguel BIA, the BIA overlaps the Channel Islands National Marine Sanctuary (CINMS) and the Channel Islands National Park (CINP) boundaries, which are areas the Navy does not schedule testing and training. Any Navy activity that would occur within these boundaries would typically include vessels and targets transiting through the area to the PMSR. No explosives or gunnery events would occur within the BIA or the boundaries of the CINMS or National Park. To that effect, the CINMS and CINP act as "de facto" mitigation areas. However, CINMS regulations allow for some types of Navy activities to occur within the boundaries. Chapter 5 (Standard Operating Procedures and Mitigation) of the Final EIS/OEIS discusses and reflects the integration of standard operating procedures and mitigation measures along with consideration of

	Comment	Navy Response
		evolving and emergent technologies. Section 3.7.5.7 (Consideration of Results from Monitoring of Navy Activities At-Sea) contains details regarding research having relevance to the PMSR. There are no applicable passive acoustic monitoring arrays within the PMSR that could both detect marine mammals and alert vessels in the area to their presence as a means to reduce commercial ship strikes (see for example, Urazghildiiev et al. (2020) for the requirements in this regard). However, the Navy queries "real-time" whale/dolphin sighting record sources in the days leading up to an event. These include Whale Safe (whalesafe.com), Island Packers marine mammal sightings updated on their website daily (islandpackers.com/marine-mammal-sightings), and any recent reports of cetacean strandings in the local area. Whale Safe focuses on three large cetacean species (blue, humpback, and fin whales), whereas Island Packers reports on a broad range of cetacean species they observe. Unfortunately, these sources of information focus on the Santa Barbara Channel area and are highly biased towards areas where whale watch boats travel (particularly the route between Santa Barbara Harbor and Painted Cave at Santa Cruz Island). The Whale Safe acoustic buoy is located on the north side of Santa Cruz Island, favoring whale detections in the Santa Barbara channel, and there is a lag time in reporting whale detections based on time needed for upload of data, analysis, and quality control (24–48 hours). Aerial surveys conducted by the Channel Islands National Marine Sanctuary are relatively infrequent and target the shipping lanes in the Santa Barbara Channel. The blue whale distribution model used by Whale Safe provides a general view of predicted distributions, but it is not updated on a frequency that is useful for day-to-day or even week-to-week predictions.

	Comment	Navy Response
		The Navy uses recent marine mammal sighting data to determine general presence of marine mammal species in the Southern California area and issue alerts to event managers. These data are not used to alter schedules or siting of events because of geographic bias in marine mammal reporting, lag times in data reporting, and the highly dynamic nature of cetacean movements. The Navy instead focuses efforts on event participant awareness and marine mammal surveys in a hazard area within hours or minutes of an event. The time spent surveying for marine mammals varies with the size of the area being searched. A typical flight would include approximately 1–1.5 hours of search time for an area within 5 miles of the target location. Smaller search areas would require less time. In all cases, multiple passes are made over the target location. Effort does not change when there have been recent sightings in the general vicinity. In this way, the Navy's survey and notification efforts parallel efforts to notify ships to be more vigilant as they traverse designated shipping lanes. Note that whales that do not vocalize can never be detected using passive acoustic monitoring. Furthermore, whale vocalizations that are picked up via passive acoustic monitoring would only indicate presence and would not establish an animal's specific location or directional heading.
EPA9-04	**<u>Entanglement Impacts – Sea Turtles</u>** Additional information is needed to clarify the impact assessment regarding entanglement impacts to sea turtles from decelerators/parachutes. The DEIS states that large and extra-large parachutes are used in aerial targets (drones) in testing and training activities. Large parachutes	Additional information on the use of large and extra-large parachutes associated with drones has been added to the Final EIS/OEIS and incorporated into the analysis of impacts on sea turtles. Briefly, all parachutes found with the drone are recovered along with the drone, as long as the parachute has not already sunk. While most parachutes are recovered, anecdotal reports indicate that parachutes that are not

	Comment	Navy Response
	are between 30 and 50 feet in diameter and have suspension lines that vary in length from 40 to 70 feet, and extra-large parachutes are 80 feet in diameter with suspension lines up to 82 feet long. Each of the large parachutes have up to 28 lines, and the extra-large ones have up to 64 lines (p. 3.8-41). These drone parachutes do not have weights attached and, according to the DEIS, may remain on the ocean surface, be carried along in a current, or snagged on a hard structure near the bottom and remain wholly or partially in the water column for some time (p. 3.8-42). The DEIS discloses that the long suspension lines of large and extra- large parachutes would pose an entanglement risk to leatherback and loggerhead sea turtles (p. 3.8-41), as well as to marine mammals (p. ES-13). The training proposed under Preferred Alternative 1 would increase the number of aerial drones used in training by almost 70% (from 104 to 176 per year) (p. 3.8-45). The DEIS states that the Navy recovers most of the targets, 79% on average, but does not specify what percentage of the parachutes are recovered, indicating only that whenever possible, the parachute is recovered along with the target (p. 3.8-41). The increased entanglement risk from additional unrecovered aerial targets under the preferred alternative is acknowledged but the Navy has concluded that there is a low probability of a sea turtle encountering an unrecovered parachute due to the "low density of leatherback and loggerhead sea turtles in the Study Area" (p. 3.8-42). However, a different section of the DEIS states that leatherback and loggerhead sea turtles are expected to occur regularly in the study area in "substantial numbers" (p. 3.8-21) and that large numbers	recovered can sink within 20 minutes of detaching from the drone, limiting the amount of time a parachute would remain at or near the surface and pose an entanglement risk. In 2019, only 6 parachutes were not recovered out of the 98 aerial targets deployed. The target drones that are not planned to be recovered (approximately 29%) do not have a parachute and would not be an entanglement risk. The characterization of the number of leatherback and loggerhead sea turtles potentially occurring in the PMSR as "substantial" is relative to the negligible number of other sea turtle species likely to occur in the PMSR (i.e., green, hawksbill, and olive riddle sea turtles). The intent was to indicate that only leatherback and loggerhead sea turtles would occur in the PMSR; however, it is not possible to rule out an extralimital occurrence of one of the other three species, thus, the use of the term "substantial" to distinguish between the species. The text in the Final EIS/OEIS has been revised to clarify the likelihood of occurrence of sea turtle species in the PMSR. While there are many examples of sea turtles being entangled in fishing gear or urban refuse, there have been no known instances of a sea turtle becoming entangled in a decelerator/parachute or any other MEM. The Navy's analysis represents a worst-case scenario in which the possibility of an entanglement cannot be dismissed. However, having no evidence that such an event has ever occurred, its future occurrence is considered unlikely. As noted in the response to comment EPA9-05, the Navy strives to recover target parachutes whenever possible. The Navy is unable to predict when unforeseen circumstances, such as weather or safety concerns, would preclude the recovery of parachutes; however, generally, the typical parachute recovery rate is greater than

	Comment	Navy Response
	of loggerhead sea turtles would occur during the El Niño Southern Oscillation when warmer surface waters from the central Pacific enter the study area. Therefore, it appears there is entanglement risk to a substantial numbers of sea turtles, a risk that may increase in the future due to predicted increases in ocean water temperatures[3] which is not discussed in the DEIS. Entanglement events are difficult to detect from land or from a boat as they may occur at considerable distances from shore and typically take place underwater, thus "the likelihood of witnessing an entanglement event is low" (p. 3.8-36). The DEIS well documents the many cumulative impacts from past, present, and other reasonably foreseeable future actions resulting in significant impacts on all sea turtle species, but concludes that the proposed action's contribution, while further compounding effects, would not be significant since standard operating procedures would reduce the "likelihood of overlap in time and space with other stressors" (p. 4-45). We are concerned that this argument seems to ignore that, as indicated, parachutes can travel with currents and remain in the water column for some time, thereby reducing the potential mitigating factor of avoiding overlap in time and space with other cumulative stressors. **Recommendations**: In the FEIS, identify or estimate the number or percentage of parachutes that are recovered with aerial targets. Discuss the ability to recover parachutes along with targets and the limiting factors that affect this recovery. If locating the parachutes is a factor, discuss whether fitting them with an emergency position indicating radio beacon is possible to facilitate recovery. Discuss other potential mitigation to reduce	95 percent of all recovered targets. The suggestion to add an "emergency position indicating radio beacon" is not feasible because parachutes do not float and, at the frequency for radio, energy does not penetrate the water. There are no records of a sea turtle being entangled in Navy MEM, including a parachute, although conceptually it is possible. The cost and operational impacts of altering Navy equipment to reduce the potential for entanglement, when entanglement is not known to have occurred, would not be effective or justified. The impact analysis indicates there would be no significant impacts on sea turtles as a result of Navy's Proposed Action involving the use of parachutes.

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	entanglement, such as enhancing their visibility in the water column. Revisit the conclusion in the DEIS that the project's contribution to the significant impacts being experienced by sea turtles is mitigated by a reduced likelihood of overlap in time and space with other stressors since parachutes travel in time and space. [3] https://www.climate.gov/news-features/understanding-climate/climate-change-ocean-heat-content	
State Agency		
California Coastal Commission (CCC), Kate Huckelbridge		
CCC-01	Thank you for the opportunity to comment on the above-referenced DEIS/OEIS. We appreciated the stated commitment contained in the DEIS/OEIS for the Navy's submittal to the Coastal Commission of a consistency determination for the Navy's activities on the Sea Range for the next seven year period, as required under Section 307 of the federal Coastal Zone Management Act (16 USC Section 1456, with implementing regulations at 15 CFR Part 930). To assist us in our review of that to-be-submitted consistency determination, we would appreciate elaboration and clarification concerning several topics covered in the document, including alternatives, monitoring efforts, greenhouse gas/climate change issues, and tribal coordination.	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record.
CCC-02	1. <u>Alternatives.</u> The DEIS/OEIS describes three alternatives: the No Project Alternative, the Preferred Alternative	The differences in the number of estimated takes provided in Appendix C does not change the overall conclusion regarding the significance of the impacts, population-level effects, or effects on the species (Section 3.7.5.7, Consideration of Results from Monitoring of

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	(Alternative 1"), and "Alternative 2". Briefly, the document distinguishes the two action alternatives as follows. Alternative 2 reflects the highest level of historical testing and scheduled training tempo. Alternative 2 meets the purpose and need of the Proposed Action and differs from Alternative 1 in that Alternative 1 reflects the projected maximum tempo as identified through operational interviews. Alternative 2 reflects the historical peak as reflected in data collected over the last decade. The DEIS/OEIS states that both action alternatives would meet the Navy's operational needs. Alternative 2 would appear to be the environmentally preferable alternative from a coastal resource perspective, as, among other things, it would involve fewer adverse effects on marine mammals, fish, and sea turtles, as well as a smaller "greenhouse gas emissions" footprint. These differences can be found in the DEIS/OEIS in Sections 3.4 (Marine Mammals), 3.1 (Air Quality), and 4.0 (Cumulative Impacts). For example, APPENDIX C compares "Predicted Marine Mammal Effects Resulting from Navy Activities Involving Use of Explosives at or Near the Ocean's Surface - shown most dramatically in Table C-2: Predicted Marine Mammals Effects per Seven-Year Period from Explosives. From this table it is difficult to agree with the Navy's assertions that the difference between the two alternatives is negligible, and we find it hard to rectify any such conclusion with the statement that, under the Marine Mammal Protection Act (MMPA), NMFS will need to determine that the project will result in the least practicable adverse impact on marine mammal species or stocks and their habitat, and have a negligible impact on	Navy Activities At-Sea). As the analysis shows, marine mammal population-level effects are unlikely as a result of the estimated takes for the Preferred Alternative, based on the history of monitoring results, marine mammal research, and previous analyses by Navy and NMFS over approximately the prior 15 years. For example, see the recent NMFS analyses for the adjacent SOCAL Range Complex under the MMPA (85 FR 41780; July 10, 2020) and under the ESA (National Marine Fisheries Service, 2018b). While the estimated take of marine mammals is lower under Alternative 2, there are no population-level effects expected and the likelihood of both the survival and recovery of any ESA-listed species would not be appreciably reduced. There are no contradictions in this regard. The information provided through operational interviews is deemed sensitive and not available to the public. However, Chapter 2 (Description of the Proposed Action and Alternatives) provides an overview of the information gleaned from the interviews, as represented in the action alternatives, to meet the purpose of and need for the Proposed Action. The significant increase in gun ammunition use proposed under Alternative 1 reflects future NAVSEA Littoral Combat Ship and Aegis Program's weapons test requirements. The largest proposed increase is in non-explosive, small-caliber projectiles that do not result in an incidental "take" of marine mammals. The close-in-weapons system uses large bursts (clusters) of 20 mm projectiles against a close surface target, where Sailors can observe the target at all times to ensure marine mammals are not within the target area. These clusters of projectiles are represented in the total number of projectiles for Alternatives 1 and 2, and do not necessarily imply an actual increase in the number of activities. The majority of proposed gun ammunitions are non-explosive, with some exceptions for large-

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	marine mammal species and stocks. We look forward to further conversation on this subject with the Navy and NMFS as to whether and how any such contradictions can be resolved. It is similarly difficult to understand how realistic the Navy's "Alternative 1" activity levels are, since the document indicates they are based on "operational interviews" which are not, as far as we can identify, discussed or summarized in the document. The document does indicate that the Navy would be reporting activity levels on an ongoing basis; the document states:	caliber projectiles (e.g., 5"). This does not necessarily mean that these levels of gunnery ammunitions would occur every year but rather at levels that could occur in any given year depending on test mission requirements during that period. Increases in missile use on the PMSR also reflect future NAVSEA Program testing and Fleet training requirements, which may also vary from year-to-year based on mission requirements. Additionally, some missile events involving no expended munitions or other expended material (captive-carry) are grouped with events in Table 2-2 of the EIS/OEIS involving a missile launch ending in the detonation of that missile; however, it is difficult to enumerate the captive-carry types of events on an annual basis because it would likely vary from year-to-year based on mission requirements. The acoustic modeled results conservatively assumes the majority of ordnance expenditures are explosive.
CCC-03	**5.2.2.3.1 Testing and Training Activity Reports** In an annual activity report to appropriate regulatory agencies, the Navy will describe the level of testing and training conducted during the reporting period. For example, the Navy will report the location and total counts and types of explosives used that potentially result in the incidental take of marine mammals, and an assessment if activities conducted in the Study Area exceeded levels of Navy activities analyzed in the MMPA authorization and ESA Biological Opinions. To the extent this reporting does not contain classified military information, we would appreciate a commitment to being provided such reports.	The annual and comprehensive reports for launch events from SNI, going back to 2001, are available on the Navy's Marine Species Monitoring webpage: https://navymarinespeciesmonitoring.us/reporting/pacific/ All future unclassified marine species monitoring research reports will be posted to the Navy's Marine Species Monitoring webpage. The reports will also be provided directly to the California Coastal Commission ("Commission") per their request. The Commission also requested the Navy provide marine species incident reports in the event an incident should occur; the Navy concurred with this request. Furthermore, the Navy has committed to providing the Commission with annual reports noting if any training and testing activities involving the use of explosives or gunnery exercises were carried out within Biologically Important Areas for marine mammals and sharing copies of any ship strike incident reports submitted to the NMFS. In

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		addition, at the completion of the Navy's Lookout Effectiveness Study, the Navy will submit a report to the Commission describing how it will use the results of the study to improve its monitoring methods and protocols. The Navy also made a commitment to the Rincon Band of Luiseño Indians to update the SNI Integrated Cultural Resources Management Plan to include event reports for activities conducted on SNI. In addition, the Navy made a commitment to the Rincon Band of Luiseño Indians to update the Integrated Cultural Resources Management Plan to include to include event reports for activities conducted on SNI.
CCC-04	2. Monitoring. With respect to other monitoring on the Sea Range, it is unclear the extent to which overall Navy Marine Species monitoring efforts address issues raised on the Sea Range. The DEIS/OEIS points to the Navy's Marine Species Monitoring webpage "for most Navy testing and training activities." However, monitoring efforts listed on that webpage https://www.navymarinespeciesmonitoring.us/ appear to be limited to pinniped launches at San Nicolas Island. The document also references monitoring and incident reporting that may be performed in accordance with the Marine Mammal Protection Act; the document states: As discussed in Section 5.2.2.2 (Monitoring, Research, and Reporting Initiatives), the Navy will develop its reporting requirements in conjunction with NMFS to be consistent with mission requirements and balance the usefulness of the information to be collected with the practicality of collecting it. The Navy's testing and training activity reports and incident reports are designed to verify mitigation implementation; comply with current permits, authorizations, and consultation requirements; and improve future environmental analyses. In the unlikely	Section 3.7.5.7 (Consideration of Results from Monitoring of Navy Activities At-Sea) describes the Navy's research and monitoring efforts. The monitoring and research as presented on the Navy's webpage include efforts that occurred on the PMSR, but also research occurring elsewhere that remains directly relevant to the analysis in the PMSR Final EIS/OEIS. All relevant research efforts have been cited in the Final EIS/OEIS. There are multiple studies that overlap with but are not specific to the PMSR on the Navy webpage; see for example references cited on passive acoustic monitoring (Baumann-Pickering et al., 2013; Baumann-Pickering et al., 2015; Baumann-Pickering et al., 2018; Debich et al., 2015a; Debich et al., 2015b; Hildebrand et al., 2012; Rice et al., 2018a; Rice et al., 2017; Rice et al., 2018b; Širović et al., 2016; Širović et al., 2017; Širović et al., 2015; Wiggins et al., 2018) and multiple satellite tagging studies by Mate et al. dated 2015 to 2020. Note that in response to this comment, and to better organize the Navy's monitoring webpage, under the Pacific Region a new San Nicolas Island folder has been added. The combined annual reports submitted to NMFS on the Navy's monitoring website are the unclassified reports that would otherwise be available for Commission staff to review. As discussed in the response to CCC-03 above, reports submitted to

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	event that a marine mammal vessel strike occurs, the Navy provides NMFS with relevant information pertaining to the incident, including but not limited to the vessel speed. We would appreciate clarification as to whether the Navy will be submitting to NMFS any monitoring reports that are not listed on the Navy's Marine Species Monitoring webpage, and respectfully request that the Navy commit to submitting such reports to the Commission staff in a timely manner when they are available (absent any confidential information that might need to be redacted for national security reasons).	NMFS as a permit requirement are now posted on the Navy's Marine Species Monitoring website under the San Nicolas Island folder. Future unclassified reports will continue to be posted on the website. In addition, the reports can also be provided directly to the Commission staff in a timely manner.
CCC-05	3. Greenhouse Gas Emissions. The Air Quality section of the DEIS/OEIS estimates significantly fewer greenhouse emissions under Alternative 2 compared to Alternative 1. The document states: "These emissions are quantified primarily using methods elaborated upon in the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2017 for the proposed Navy testing and training in the Study Area, and estimates are presented in Chapter 4 (Cumulative Impacts)." We were unclear whether the reference to "Chapter 4" was a reference to the subject DEIS/OEIS or to the cited "Inventory." Please clarify (and if the latter, please provide a link to that chapter of the inventory). Again, from a climate change/sea level rise/greenhouse gas emissions (and thus, costal resource) perspective, Alternative 2 would be preferable.	With regards to your question, the reference to Chapter 4 is an error and has been revised in the Final EIS/OEIS. Chapter 3.1 presents the greenhouse gas emissions from the Proposed Action and alternatives. The sentence as written is not pointing to the "Inventory," rather, it is indicating the source of the methodology for quantification of greenhouse gases from the Proposed Action.
CCC-06	4. Cultural Resources/Tribal Coordination. As we have discussed informally with the Navy during our initial review of the document, please provide clarification that the Navy has informed and coordinated with all the native	The Navy has notified seven federally recognized Tribes of the Proposed Action, including the La Jolla Band of Luiseño Indians, Pala Band of Mission Indians, Pauma Band of Luiseño Indians, Rincon Band of Luiseño Indians, Santa Ynez Band of Chumash Mission Indians, and

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	American tribes listed by the California Native American Heritage Commission as interested in activities in San Luis Obispo through Los Angeles Counties, from the lists we provided to the Navy by email on May 15, 2020 (email exchange between Mark Delaplaine of our agency and Joseph Montoya of the Navy).	Soboba Band of Luiseño Mission Indians. The Navy also notified 20 non-federally recognized Tribes of the Proposed Action as identified in a Sacred Lands search provided by Native American Heritage Commission, and as recommended in an email to the Navy (Joe Montoya) from Mark Delaplaine. At this time, five federally recognized Tribes have entered into consultation with the Navy.
Non-Governmental Organizations		
Natural Resources Defense Council (NRDC), Regan Nelson		
NRDC-01	On behalf of our more than 3 million members and online activists, the Natural Resources Defense Council ("NRDC") submits these comments on the Navy's Draft Environmental Impact Statement/Overseas Environmental Impact Statement ("DEIS") for the Point Mugu Sea Range (PMSR) Study Area. 85 Fed. Reg. 23011 (April 24, 2020).	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record.
NRDC-02	The Navy proposes a substantial increase in the number and tempo of testing and training activities in the PMSR Study Area above current levels of activities. This includes a 2300% increase in gunnery exercises (of all calibers), a 150% increase in surface-to-surface missiles, a 50% increase in air-to-surface missiles, a 35% increase in air-to-surface bombs, and a 10% increase in navy vessel operations (DEIS at 2-11, 2-14). The additional activity is projected to lead to a 600% increase in behavioral responses from marine mammals, a 377% increase in temporary hearing loss, and a 335% increase in permanent hearing loss in marine mammal populations in the study area (DEIS at Appendix C). Despite the substantial intensification in activities and concomitant escalation in	Based on this comment, the data presented in Table 2-2 and Table 3.0-7 of the Draft EIS/OEIS could be mis-interpreted as has been done with the derived percentages provided in the comment. As a result, the Navy has revised the tables in the Final EIS/OEIS to reduce confusion and to provide for more meaningful comparisons. As examples, gunnery events involving the firing of small-caliber inert rounds are no longer grouped with large caliber explosive rounds. The significant increase in gun ammunition use proposed under Alternative 1 reflects future NAVSEA Littoral Combat Ship and Aegis Program's weapons test requirements. The largest proposed increase is in non-explosive small-caliber projectiles that do not result in an incidental "take" of marine mammals. The close-in-weapons system use large bursts (clusters) of 20 mm projectiles against a close surface target, where Sailors can observe the target at all times to ensure marine mammals are not within the target area. In fact, most gunnery

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	marine mammal harm, the Navy has failed to consider any additional levels of protection and mitigation measures to minimize harm to the environment. Indeed, the Navy's dismissal of habitat protection measures runs contrary to multiple court opinions underscoring the importance of these measures to reduce marine mammal take to the least practicable level, as required by the Marine Mammal Protection Act. *See, e.g., Conservation Council for Hawai'i v. NMFS*, 97 F. Supp. 3d 1210, 1237-38 (D. Haw. 2015) and *NRDC v. Pritzker*, 828 F.3d 1125, 1138 (9th Cir. 2016).	events involve guns with high rates of firing "clusters" of munitions (e.g., > 80–200 rounds per minute to 500–650 rounds per minute), hence the high number of projectiles used during these activities. The numbers in the tables do not reflect the actual number of events, which can vary and typically last 1–3 hours. These clusters of projectiles are represented in the total number of projectiles for Alternatives 1 and 2, and do not necessarily imply an actual increase in the number of activities. The majority of proposed gun ammunitions are non-explosive, with some exceptions for large-caliber projectiles (e.g., 5"). As discussed in Section 2.1 (Point Mugu Sea Range Overview), projecting future testing activities varies depending on Fleet and scientific and technological developments that are not easy to predict. Even with these challenges, the Navy makes every effort to forecast all future testing and training requirements for the foreseeable future based on emerging national security interests with sufficient annual capacity to conduct the research, development, and testing of new systems and technologies, with upgrades, repairs, and maintenance of existing systems. Given these challenges, this does not necessarily mean that these levels of gunnery ammunitions would occur every year but rather at levels that could occur in any given year depending on test mission requirements during that period. Increases in missile use on the PMSR also reflect future NAVSEA Program testing and Fleet training requirements, which may also vary from year to year based on mission requirements. Additionally, some missile events involving no expended munitions or other expended material (captive-carry) are grouped with events in Table 2-2 of the EIS/OEIS involving a missile launch ending in the detonation of that missile; however, it is difficult to enumerate the captive-carry types of events on an annual basis because it would likely vary from year to year based on mission requirements. The acoustic modeled results conservatively assume the majority of ordnance expenditures are explosive. explosive.

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		Please note that there are no non-auditory injuries estimated from the effects modeling and that the estimated impacts on marine mammals do not constitute "harm" to marine mammal populations. Please see Chapter 5 (Standard Operating Procedures and Mitigations), which details how the Navy considered and analyzed the need for mitigation measures designed to reduce or avoid impacts on marine mammals and the marine environment. Since 2002, the Navy has instituted numerous protective measures and standard operating procedures Navy-wide in addition to those considered specifically in the context of Navy activities proposed for the PMSR (see Chapter 5, Standard Operating Procedures and Mitigations). The Navy avoids sensitive habitats when and where practical to do so. For example, the CINMS and the CINP boundaries are areas the Navy does not schedule testing and training. Any Navy activity that would occur in these boundaries would typically be vessels and targets transiting through the area to the PMSR. No explosives or gunnery events, or other potentially impactful activities would occur within the boundaries of the CINMS or CINP. To that effect, the CINMS and CINP act as "de facto" geographic mitigation areas. However, the Channel Island National Marine Sanctuary regulations allow for some types of Navy activities to occur within the boundaries. The Navy and NMFS used the consultation process to assess whether any additional mitigation should be considered. Navy did consider multiple additional levels of protection and mitigation measures. For example, as detailed in Section 5.3.6.2 (Geographic Mitigation), Navy considered geographic mitigation measures in addition to those already in place for the CINMS, the SNI pinniped haul outs during launches, and the nearshore of Point Mugu. As the section referred to details, this included review of all BIAs overlapping the PMSR to determine if seasonal or geographic

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		mitigation would effectively avoid or reduce potential impacts. The Navy has conducted testing and training at PMSR for decades. As noted in Section 3.0 (Introduction) and Section 3.7.4.1.6.2 (Commercial Industries/Noise), anthropogenic noise in the PMSR is generated from a variety of sources, including commercial shipping, oil and gas production activities, commercial and recreational fishing (including fish finding sonar, fathometers, and acoustic deterrent and harassment devices), recreational boating and whale watching activities, and research (including sound from air guns, sonar, and telemetry). Commercial vessel noise is the main source of underwater anthropogenic noise in the area. As detailed in Section 3.0.5.5.1 (Vessel Noise), data indicate an average in excess of approximately 7,000 commercial vessel transits from the ports of Los Angeles/Long Beach. In addition to port calls at Los Angeles/Long Beach there are a substantial number of additional commercial and recreational vessels transiting offshore of Point Mugu that may have stopped at or be bound for other major U.S. ports such as Seattle/Tacoma or San Francisco. Also as noted in Section 3.7.4.1.6.2 (Commercial Industries/Other Fishery Interactions), acoustic monitoring has documented the routine use of non-military explosives at-sea (for example, detection of over 24,000 explosions identified as seal bombs off Long Beach in the seven months from May to November 2013). NMFS has previously concluded there is no evidence that Navy activities increase the risk of nearby non-Navy vessels striking marine mammals (see NMFS 2018; the HSTT proposed rule) and there have been no known Navy vessel strikes to whales within the PMSR.
NRDC-03	Our overriding concern is with the impact of the Navy's proposed activities on certain highly vulnerable marine mammal populations, including the endangered blue whale, fin whale, and humpback whale populations, all of whom occur in, and have high-value habitats within, the	The marine mammal populations mentioned in the comment have increased concurrently with decades of Navy testing and training activities in the PMSR. There are no substantively different or new activities being proposed and there is no evidence to suggest that increasing the level of activities will influence or change the trajectory of large whale populations. Indications from the best available science

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	study area. The Navy fails to consider alternatives that would protect these populations and high- value habitats from increased Navy activities that contribute to acoustic harm and ship-strike risk. The California gray whale, another iconic and vulnerable population found in the study area, is experiencing a major die-off, perhaps due to a contraction of its prey base, and is stranding in alarming numbers along the west coast. Disrupting the behavior of a whale struggling with inanition can have severe consequences beyond what the Navy has considered.	with regards to the species specifically mentioned in the comment are as follows: **Blue whales** – See Section 3.7.4.2.1.3 (Population Trends) for citations indicating a significant upward trend in abundance for the U.S. West Coast blue whale population in the Pacific and that the population in the PMSR Study Area may have recovered and are at a stable level following the cessation of commercial whaling in 1971. For the adjacent Southern California (SOCAL) Range Complex, NMFS concluded that they did not anticipate that similar Navy activities would result in changes in the number, distribution, or reproductive potential of blue whales in the Pacific Ocean or range-wide (National Marine Fisheries Service, 2018b). **Fin whales** – See Section 3.7.4.2.3.3 (Population Trends) for fin whales providing citations to numerous scientific findings indicative of an increasing population including the most recent NMFS survey of the California Current Ecosystem having encountered the highest-yet abundances of fin whales to date. For the adjacent SOCAL Range Complex, NMFS concluded they did not anticipate fitness consequences to individual fin whales resulting from the effects of Navy activities and no changes in the number, distribution, or reproductive potential of fin whales in the Pacific Ocean or range-wide from those effects (National Marine Fisheries Service, 2018b). **Humpback whales** – See Section 3.7.4.2.5.3 (Population Trends) for humpback whales along the U.S. West Coast where the overall trend is consistent with a growth rate of 6–7%, and the most recent NMFS survey found the highest-yet abundance estimates of humpback whales to date. In a recent LOA discussing this trend and the CA/OR/WA stock of humpback whales NMFS noted population had, "… experienced a steady increase from the 1990s through approximately 2008, and more recent estimates through 2014 indicate a leveling off of the population size" (84 FR 48420; 13 September 2019). NMFS has determined the conservation rating of

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		the proposed humpback whale critical habitat that would overlap the PMSR as being low in the south and around SNI, high in the Channel Islands Area (excluding SNI), and very high in the Central California Coast Area (84 FR 54354). **Gray whales** – Eastern North Pacific gray whales were delisted in 1994, having fully recovered and have been suggested to have reached carrying capacity. Since publication of the Draft EIS/OEIS, a new research paper by Lemos et al. (2020) discussed the recent Unusual Mortality Event strandings ("die off") in context with the species having reached carrying capacity. There are no known or otherwise identified gray whale feeding areas in the vicinity of the PMSR; the nearest gray whale feeding BIA is located well to the north off Point St. George in Northern California (Calambokidis et al., 2015). The Navy has considered the potential disruption of gray whale migration as presented in Section 3.7.5.2.1.6 (Behavioral Reactions to Impulse Noise); behavioral reactions from mysticetes, if they occur at all, are likely to be short term and of little to no consequence (see Pirotta et al. (2018) and Ellison et al. (2011)). Based on the best available science and the prior findings from NMFS, Navy activities should have no significant impact, if any, on gray whale migration behavior with no anticipated effect on reproduction or survival from Level B harassment (see 85 FR 41780; 83 FR 66846; 80 FR 73556; and National Marine Fisheries Service (2018b)). In short, the proposed activities at PMSR would have no anticipated effect on the survival of migrating gray whales.
NRDC-04	These concerns highlight why it is so important that the Navy's DEIS fully complies with the law. As Congress intended when it passed NEPA, an environmental impact statement must help decision makers make fully informed decisions on the proposed activities; after	A biological and operational assessment of mitigation areas that the Navy considered for the Study Area is provided in Section 5.3.6.2 (Geographic Mitigation). The Navy will finalize development of its mitigation areas, if warranted, during the consultation and permitting processes which are summarized in the Record of Decision. The Final EIS/OEIS provides the "hard look" as required by NEPA. It

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	reviewing the draft analysis, decision makers must understand the breadth of harm to impacted species, must be able to choose a course of action from a range of alternatives that provide options for meeting the Navy's goals while still reducing harm to species, and must have at their disposal a range of mitigation measures that will significantly lessen environmental impacts. 40 C.F.R. § 1502.1. For the reasons discussed in detail below, we believe that the DEIS fails to meet these fundamental requirements. **THE NATIONAL ENVIRONMENTAL POLICY ACT** Enacted by Congress in 1969, NEPA establishes a national policy to "encourage productive and enjoyable harmony between man and his environment" and promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." 42 U.S.C. § 4321. In order to achieve its broad goals, NEPA mandates that "to the fullest extent possible" the "policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with [NEPA]." 42 U.S.C. § 4332. As the Supreme Court explained: NEPA's instruction that all federal agencies comply "to the fullest extent possible" is neither accidental nor hyperbolic. Rather the phrase is a deliberate command that the duty NEPA imposes upon the agencies to consider environmental factors not be shunted aside in the bureaucratic shuffle.	provides the decision-maker with three alternatives to consider, as detailed in Chapter 2 (Description of Proposed Action and Alternatives). Potential effects from Navy activities were analyzed in Chapter 3 (Affected Environment and Environmental Consequences) of the Final EIS/OEIS. Also, as described in Chapter 5 (Standard Operating Procedures and Mitigation), the Navy considered various procedural and geographic protective and mitigation measures. The Navy implements, to the maximum extent practicable, procedural, geographic, and temporal mitigation measures during its activities to reduce or avoid potential impacts. This scientific-based analysis presented in the Final EIS/OEIS indicates that with implementation of the Navy's protective measures, there would not be a significant impact expected from the continuation of Navy testing and training activities at the PMSR that have occurred on the PMSR for decades. The Navy considered an array of mitigation measures. Based on scientific data and in collaboration with NMFS, effective protective measures have been developed. Proposed mitigation areas and seasonal or temporal restrictions would limit Navy testing and training to narrow, fragmented timeframes and locations that are not practicable with effective, realistic training and testing. Likewise, these restrictions would have a significant impact on the testing of current systems and the development of new systems, thereby denying program managers the flexibility to rapidly field or develop necessary systems due to the required use of multiple areas within limited timeframes. Therefore, implementing additional mitigation areas would be impracticable and would prevent the Navy from meeting its Title 10 requirements to successfully accomplish military readiness objectives.] The Navy's alternatives were developed in order to satisfy the Navy's purpose and need related to fulfilling its Title 10 requirements. The feasibility of an alternative does not lie in the fact that it can be done or tolerated in the short term. The Navy only selected alternatives

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	Flint Ridge Development Co. v. Scenic Rivers Ass'n, 426 U.S. 776, 787 (1976). Central to NEPA is its requirement that, before any federal action that "may significantly degrade some human environmental factor" can be undertaken, agencies must prepare an environmental impact statement. *Steamboaters v. F.E.R.C.*, 759 F.2d 1382, 1392 (9th Cir. 1985) (emphasis in original). The fundamental purpose of an EIS is to force the **decision-maker** to take a "hard look" at a particular action—at the agency's need for it, at the environmental consequences it will have, and at more environmentally benign alternatives that may substitute for it—before the decision to proceed is made. *See* 40 C.F.R. §§ 1500.1(b), 1502.1; *Baltimore Gas & Electric v. NRDC*, 462 3). The law is clear that the EIS must be a pre-decisional, objective, rigorous, and neutral document, not a work of advocacy to justify an outcome that has been foreordained. **A. Alternatives that "avoid or minimize adverse impacts"** Under NEPA, agencies are required to develop alternatives that "inform decision-makers and the public" of how the agencies could "avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. The DEIS contains three alternatives: a No Action alternative, which assumes the Navy would not conduct any of the proposed testing and training activities in the PMSR Study Area, and two action alternatives. Alternative 1 (the Preferred Alternative) includes the highest potential	that will adequately meet its testing and training requirements over the next 7-year term. The Navy has included a robust suite of mitigation measures, which will be implemented in both action alternatives (i.e., whichever alternative is selected). These mitigation measures, as well as standard operating procedures that the Navy routinely employs, are discussed in detail and specifically inform the decision maker and the public how the Navy can avoid or minimize adverse impacts. Details regarding the development of reasonable alternatives are provided in Chapter 2 (Description of Proposed Action and Alternatives) of the EIS/OEIS.

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	annual level of activities in the study area, and Alternative 2 includes increased levels of activity over current activities, though at a decreased tempo as compared to the Preferred Alternative. The Hawai'i district court held that, by limiting the range of action alternatives considered in detail to only (1) more training and testing and (2) yet more training and testing, the Navy failed to present "any choices or alternatives that might be pursued with less environmental harm." *Lands Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2005); *see Conservation Council*, 97 F. Supp. 3d at 1237-38. The court specifically faulted the Navy for refusing to consider alternatives that would reduce harm to marine mammals by prohibiting or restricting activities in specific areas identified as biologically important. To satisfy NEPA, the Navy must thoroughly analyze a range of alternatives involving varying levels of restrictions in sensitive marine habitat, "to permit informed public comment on" not only the agencies' preferred course of action, but also "any choices or alternatives that might be pursued with less environmental harm." *Lands Council*, 395 F.3d at 1027. We urge the Navy to develop a full range of reasonable alternatives, including by considering proposed time-area management measures and areas of vessel speed restrictions to protect vulnerable marine mammal species.	

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NRDC-05	**B. Time-area and vessel speed restrictions** According to the Navy's analysis, proposed activities under Alternative 1 (the Navy's Preferred Alternative) would lead to substantial increases in testing and training activities, and attendant increases in impacts to blue, fin, gray and humpback whales. For each of these populations, the Navy's Acoustic Modeling shows a more than 500% increase in behavioral reactions such as breaking off feeding dives and surfacing, diving or swimming away, or changing vocalization due to the acoustic effects of explosions, as well as a 250% - 300% increase in temporary hearing loss (TTS) for these species (DEIS at Appendix C). In real terms, Navy proposed activities will lead to dozens of whales from each population suffering from temporary hearing loss.[1] Furthermore, in the case of fin whales, the preferred alternative is expected to cause at least seven instances of permanent hearing loss (PTS). Other marine mammals are also expected to suffer permanent hearing loss from the use of explosives. Most alarmingly, the Dall's porpoise population occurring in the study area is expected to sustain 341 instances of permanent hearing loss over the seven-year period, and six additional species could also experience dozens of instances of permanent hearing loss.[2] Time and place restrictions designed to protect important habitat are one of the most effective available means to reduce the potential impacts of naval activities on marine wildlife, including from underwater explosives.[3]	Please note that in Section 3.7.5.2.1.3 (Loss of Hearing Sensitivity), the acoustic effects (specifically TTS and PTS) represent a reduction in hearing sensitivity (including blue, fin, gray and humpback whales as well as Dall's porpoise) in a particular frequency band, not the absence of hearing. The acronym TTS is not equivalent to or correctly considered "*temporary hearing loss*", and PTS is not equivalent to "*permanent hearing loss*" given both are threshold shifts. TTS represents temporary increase in the previous dB level threshold of hearing for a finite portion of an animal's hearing range. A TTS would most likely recover completely within a period of minutes to hours. Additionally, TTS and PTS thresholds are used conservatively in the Navy's model in that they do not account for recovery of the ear in between noise exposures (e.g., individual detonations) and assume animals are ideal receivers (i.e., always facing the sound source). Also note that the characterization that whales would be, "… s*uffering from temporary hearing loss*", is not consistent with the stated intent to discuss these effects "*In real terms …*" given that it is likely that, like humans, animals having TTS or PTS are unaware they have any loss of hearing sensitivity. It is normal for adult mammals (humans and cetaceans) to have some level of PTS as a result of the aging process. Note that none of the estimated potential effects presented in Appendix C take into account potential reduction or avoidance of impacts as a result of standard operating procedures or implemented mitigation measures as presented in Chapter 5 (Standard Operating Procedures and Mitigation). As detailed in Section 3.7.5 (Environmental Consequences), none of the estimated effects from the Proposed Action under Alternative 1 would result in population level consequences or jeopardize the continued existence of any species. Restricting Navy access to large portions of the PMSR used intermittently by the Navy for decades would have significantly detrimental impact on the ability of the Navy to complete its mission.

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	Furthermore, if the EIS is meant to satisfy NMFS' purpose and need under the Marine Mammal Protection Act ("MMPA"), its mitigation measures must achieve the "least practicable adverse impact" on these species. 16 U.S.C. § 1371(a)(5)(A). Protecting marine mammal habitat is "of paramount importance" under the MMPA (*Pritzker*, 828 F.3d at 1138), and the Act has established a "stringent standard" for mitigation. *Pritzker*, 828 F.3d at 1133; *Conservation Council*, 97 F.Supp.3d at 1231. In order to fulfill NEPA's requirement to take a hard look at alternatives and mitigation, as well as the MMPA's requirement to achieve the least practicable adverse impact on marine mammals, the Navy must consider the use of time-area management to mitigate the harm expected to vulnerable marine mammal populations, including *at a minimum* management measures that reduce harm to the endangered blue, humpback and fin whale populations, as well as the iconic gray whale population that is currently undergoing an Unusual Mortality Event (UME). Consideration should be given, but not be limited to, the important habitat areas identified in our recommendations below.	Time and area restrictions are only effective if there are marine mammals present in an area when and where an activity would otherwise occur. For example, multiple satellite tag data sets (for blue whales see Section 3.7.4.2.1.2 (Habitat and Geographic Range), for fin whales see Section 3.7.4.2.3.2 (Habitat and Geographic Range), and for humpback whales see Section 3.7.4.2.5.2 (Habitat and Geographic Range) indicate variability in core area use between years and in some instances, little or no documented presence in a BIA despite tagged individuals using nearby areas or transiting past a BIA, suggesting there may be more marine mammals outside the BIAs mapped boundaries than inside it in a given instance. Consideration of geographic mitigations (time-area restrictions) is already part of the analyses presented in Chapter 5 (Standard Operating Procedures and Mitigation). In coordination with NMFS, the Navy has developed mitigation measures to avoid or reduce potential impacts. See specifically Section 5.3.6.2 (Geographic Mitigation) for a detailed discussion of time-area management considerations for blue whale, humpback whale, gray whale, the Morro Bay harbor porpoise small and resident population, and the leatherback sea turtle. Note that there is no known or identified specific area that defines important habitat for fin whales given the species has no identified critical habitat and scientists who previously attempted to define a BIA for fin whales were unable to reach a clear conclusion in that regard (Calambokidis et al., 2015).
NRDC-06	**C. Recommendations for specific time-area and vessel speed restrictions** 1. *Blue whales* Blue whales in the eastern North Pacific are listed as "endangered" under the ESA, and recent population	Regarding the blue whale's population, please see the discussion presented in Section 3.7.4.2.1.3 (Population Trends) for more recent science regarding the recovery of blue whales. Current science suggests the population in the PMSR Study Area may have recovered and have been at a stable level following the cessation of commercial whaling in 1971, despite the impacts of ship strikes, interactions with fishing gear, and increased levels of ambient sound in the Pacific

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	estimates in the California Current across mark-recapture data sets range between ~1600 to 2000 individuals.[4] Blue whales have not yet recovered from the intensive whaling that decimated populations during the 1800s and early 1900s, and now face a myriad of contemporary anthropogenic threats, such as ship strikes, coastal development, pollution military training activities, and noise from vessel traffic.[5] Due to their massive size and long- range migration patterns, blue whales have among the highest energetic demands of extant animal species.[6] Even short-term changes in behavior as a result of anthropogenic impacts can, when appraised cumulatively, lead to energetic consequences that may be significant under certain conditions.[7] In particular, disruption to foraging behavior or nursing of calves may result in an energetic net loss for the individual whale,[8] with possible ramifications on health and fitness, as well as calf survival.[9]	Ocean. Based on a comparison of sighting records from the 1950s to 2012 in the adjacent SOCAL Range Complex, there has been a clear relative increase in the number of blue whales. Please see Section 3.7.5.6 (Indirect Effects) for a discussion of impacts that may be cumulative. Citations regarding blue whale behavior are specific to Navy-funded experiments exposing blue whales to simulated sonar and pseudo-random noise; there is no sonar use in the Proposed Action. Additionally, Navy and NMFS have considered potential impacts from the disruption of blue whale foraging behavior as presented in Section 3.7.5.4.1 (Acoustic Stressors/Explosives/Mysticetes). For similar activities in the SOCAL Range Complex and a portion of the PMSR, NMFS concluded feeding behaviors may be temporarily disrupted (noting some individual blue whales that did not respond during exposure experiments, see 83 FR 66846), but that the small scale of impacts was not expected to affect reproductive success or survival of any individuals (National Marine Fisheries Service, 2018b).
NRDC-07	Blue whales are not evenly distributed along the West Coast; rather they are found in aggregations, with a greater tendency to aggregate off California.[10] The Southern California Bight is known to support the highest density of blue whales along the West Coast.[11] Within the Southern California Bight, six Biologically Important Areas (BIAs) have been identified for blue whales. These six BIAs represent 2% of the U.S. waters, but encompass 87% of the blue whale sightings in the West Coast region.[12] Three of these disproportionately important BIAs entirely or partially overlap with the PMSR Study Area. These are:	It is critical to understand that, as the scientists who created the BIAs cautioned, the BIAs were not meant to define exclusionary zones nor were they meant to be areas excluded from human activity (Ferguson et al., 2015). The BIAs do not have direct or immediate regulatory consequences and the BIAs located within the PMSR Study Area are not the only areas used for feeding or migrating within and external to the PMSR. The stated intention is for the BIAs to serve as a resource management tool and for their identified boundaries be considered dynamic and subject to change based on any new information, as well as, "existing density estimates, range-wide distribution data, information on population trends and life history parameters, known threats to the population, and other relevant information" (Ferguson et al., 2015). The West Coast BIAs were completed and published in

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	• The Point Conception/Arguello feeding area (1,743 km2): Approximately 87% of this BIA is within the PMSR Study Area. • The Santa Barbara Channel-San Miguel feeding area (1,981 km2): Approximately 61% of this BIA is within the PMSR Study Area. • San Nicolas feeding area (427 km2): Entirely contained within the PMSR Study Area. The BIA boundaries were established based both on direct observation of feeding or surfacing patterns of blue whales, and presence of concentrations and repeat sighting of animals in multiple years in an area and a time of year where feeding is known to occur.[13] Despite acknowledging the importance of these BIAs to blue whales, the Navy dismisses a "geographic mitigation approach" in favor of "avoiding or reducing potential impacts on marine mammals by implementing mitigation wherever and whenever marine mammals are detected within the vicinity of a Navy activity" (DEIS at 3.7-123). According to the Navy, such mitigation measures will primarily consist of posting look-out personnel to visually search for protected species within mitigation zones around the testing or training activities (DEIS at Section 5). This same approach was found by the Hawai'i district court to fall short in terms of meeting NEPA's requirement of a "hard look" at the environmental consequences of its proposed actions.	March 2015. The Navy, in coordination with NMFS, has considered new science emerging subsequent to the basis for the BIAs and will evaluate the effectiveness and practicability of a number of potential mitigation measures, including the avoidance of specific areas. The Navy and NMFS will use the Adaptive Management process to assess whether any additional mitigation should be considered in identified BIAs. Please see the information presented in Section 3.7.4.2.1.2 (Habitat and Geographic Range) for reference to more recent scientific publications than those presented in the comment. Also note the presentation of the blue whale BIA information and map depicting the blue whale BIAs in relation to the PMSR as presented in Figure 3.7-2 titled, "Blue Whale Biologically Important Feeding Areas Identified in the Vicinity of the PMSR Study Area (per Calambokidis et al. 2015)."

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	Conservation Council, 97 F.Supp.3d at 1236-38 ("NMFS may not satisfy its obligation by the use of lesser options such as lookouts and mitigation zones without considering the practicability of other [time-area restriction] measures, especially knowing that many potential disruptions to marine mammal behavior will be difficult to detect or avoid through lookouts.")	
NRDC-08	In the DEIS, the Navy affirms that "testing and training activities that use explosives could occur year-round within the Study Area." (DEIS at 3.7-122). The PMSR Study Area comprises approximately 36,000 mi2. The blue whale BIAs within the Study Area amount to approximately 1,215 mi^2 or 3% of the Study Area, and by the Navy's admission, use of explosives in two out of three of the BIA's is likely to be limited. (DEIS at 3.7-122). Based on these facts, it is entirely reasonable for the Navy to consider time-area restrictions for the blue whale BIAs. Indeed, the court found in *Conservation Council* that the Navy's FEIS for the HSTT Study Area, which did not contemplate time-area restrictions in a large ocean space, was "deficient" and "makes no sense given the size of the ocean area involved". *Conservation Council*, 97 F.Supp.3d at 1238. Special attention to protecting blue whales and their associated feeding areas is especially important in light of recent surveys which found blue whales in Southern California waters to be "too thin or otherwise in poor body condition" (DEIS at 3.7-24). The Navy's failure to	Please see the discussion of the BIAs in Section 5.3.6.2 (Geographic Mitigation) and note that activities using explosives generally would not take place in the Point Conception/Arguello to Point Sal Feeding Area or the Santa Barbara Channel and San Miguel Feeding Area, because both areas are close to the northern Channel Islands, the National Park/National Marine Sanctuary, oil production platforms, and major vessel routes leading to and from the ports of Los Angeles and Long Beach (Figure 3.7 2). There is partial overlap between the Santa Barbara Channel–San Miguel Feeding Area and the CINMS, and there is no Navy testing and training involving the use of explosives within the sanctuary boundaries, which is a geographic-based mitigation which serves as a de-facto geographic mitigation area.

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	evaluate the potential reduction in harm to blue whales through time-area restrictions falls short of providing a "hard look" at reasonable alternatives. To meet the requirements of NEPA, the Navy must consider time-area restrictions for blue whale BIAs.	
NRDC-09	2. *Humpback whales* Humpback whales along the U.S. West Coast are comprised of two distinct population segments (DPS): the Mexico DPS is listed as "threatened" under the ESA, and the Central America DPS is listed as "endangered" under the ESA. Humpback whales occur year-round in Southern California waters, where they face threats from vessel strikes, entanglement in fishing gear, vessel-based harassment, underwater noise, and habitat impacts. Two BIAs, which represent important humpback whale feeding areas, have been identified as overlapping the PMSR Study Area: • The Morro Bay to Point Sal feeding area, and • The Santa Barbara Channel-San Miguel feeding area. These BIA's overlap significantly with the blue whale Point Conception/Arguello and Santa Barbara Channel-San Miguel feeding area BIAs. On October 9, 2019, NMFS issued a proposed rule to designate critical habitat for the humpback whale for, among others, the Mexico and Central America DPSs,	As detailed in the Final EIS/OEIS, blue whales and humpback whales return to the same large regional coastal foraging grounds every season, but in some years those foraging grounds are not the areas of highest density. The text cited in the comment is why time-area restrictions are not effective in some instances. In the year mentioned, there were very few, if any, blue whales in the Southern California Bight and the BIAs because their distribution had shifted north. Whales react to the dynamic nature of their prey both seasonally and year to year; therefore, a static boundary defining an area where whales are supposed to be on average is not practical. It is more effective and therefore better to observe an area before an event occurs as a means to detect marine mammals and use that real-time information to reduce or avoid impacts on marine mammals. The Navy disagrees there was a failure to evaluate or consider the potential effectiveness of geographic mitigation (see Section 5.3.6.2, Geographic Mitigation). Time-area restrictions make sense for some human activities that have a fixed location, such as traffic lanes used by commercial vessels entering the ports of Los Angeles and Long Beach or San Francisco. In those cases, speed restrictions on commercial vessels to reduce vessel strikes to whales can be effective (see Section 3.7.4.1.6.2, Commercial Industries/Vessel Strike). Time-area restrictions would not be an effective means to reduce potential impacts from testing and training activities within the PMSR for a relatively small area over a short time-frame, given the variability in the presence of marine mammals. While blue whales and humpback whales generally return to the same large-scale regional foraging

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	pursuant to section 4 of the ESA. 84 Fed. Reg. 54378. Publication of a Final Rule is expected later this year. The proposed rule includes three areas of critical habitat that overlap the PMSR Study area: Regions/Units 17, 18, and 19 (DEIS at 3.7-44). The proposed critical habitat fully encompasses the two humpback feeding area BIAs. Region/Unit 17 includes the Morro Bay to Point Sal feeding area BIA, and is characterized by NMFS as having a very high conservation value, and Region/Unit 18 includes the Santa Barbara Channel-San Miguel BIA, and is characterized by NMFS as having high conservation value. The BIAs, which are encompassed by units of critical habitat deemed to be of high and very high conservation value for humpback whales, have previously been identified as deserving of increased attention for threat reduction. Rockwood et al. (2017) estimated that ship strike mortality of humpback whales alone is equal to the potential biological removal (PBR) level for the California/Oregon/ Washington stock of humpback whales, and stated "Santa Barbara Channel to San Miguel BIAs are high threat areas for both blue and humpback whales and deserve high priority for protection and regulation."[14] Numerous studies have reported high levels of site fidelity to feeding areas and limited movements of humpback whales among feeding areas.[15] As with blue whales, the Navy considers no specific time-area restrictions in the humpback whale BIAs, despite reporting on the fidelity of humpback whales to these BIAs, and the best available	grounds annually, satellite tagging data shows these foraging grounds are large, with the locus of highest use shifting year to year within those regional areas (Mate et al., 1999; Mate et al., 2016; Mate et al., 2018a, 2018b). This is confirmed by surveys and studies comparing inter-annual variability in modeled abundance and distribution (Becker et al., 2016; Becker et al., 2018) and explained by studies documenting both shifts in the distribution of prey (Santora et al., 2020; Santora et al., 2017; Santora et al., 2011), and shifts in their foraging in response to ecosystem changes (Fleming et al., 2016). For such highly mobile species with a variable presence in any one given location, a dynamic approach to reduction or avoidance of potential impacts from intermittent Navy activities requires more than adherence to a static boundary line on a map (see discussion in Dwyer et al. (2020) and Hazen et al. (2018) for more on this topic). As presented in the rule for the proposed humpback whale critical habitat (84 FR 54354), Navy activities in the PMSR could potentially kill or injure a few krill or forage fish (e.g., sardine, anchovy). While that would be an effect to individual prey, it would not be at the level that it would affect the availability of prey (i.e., not likely to adversely affect the primary essential feature of that habitat prey species of sufficient quality, abundance, and accessibility) within humpback whale feeding areas that would support feeding and population growth (National Marine Fisheries Service (2019) and 84 FR 54354). The Navy has discussed this reference and many others related to the topic of threat from vessel strikes ("ship strikes") (see the "General Threats" Section 3.7.4.1.6.2, Commercial Industries/Vessel Strike; and Section 3.7.5.2.3, Vessels as a Strike Stressor). The reference cited in the comment (Rockwood et al. 2017) is specific to a study recommending combining commercial shipping lane modifications and relocations, and commercial vessel speed reductions which have no direct relationship to Navy activities or the Proposed Action. As also provided above, NMFS has previously concluded that there is no

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	science which indicates the need for increased protections in the BIAs for this endangered population. As with the blue whale BIAs, NRDC believes that to meet the requirements of NEPA, the Navy must consider time-area restrictions for humpback whale BIAs, at a minimum.	evidence that Navy activities increase the risk of nearby non-Navy vessels striking marine mammals (83 FR 66846), and there have been no known Navy vessel strikes to whales within the PMSR. The Navy is aware of this information as presented in Section 3.7.4.2.5 (Humpback Whale [*Megaptera novaeangliae*]) and Figure 3.7-4. With regard to the recommendation for time-area restrictions, please see the previous comment response above and note that Navy considered time-area restrictions in Section 5.3.6.2 (Geographic Mitigation). There is evidence of an increase in the humpback whale distinct population segments (DPS) inhabiting the PMSR Study Area as NMFS noted in a recent Biological Opinion (National Marine Fisheries Service, 2018b),in the current MMPA authorization covering Navy activities in the SOCAL Range Complex, and a portion of the PMSR (84 FR 48388; 13 September 2019). For the humpback whales in the Central America DPS and Mexico DPS and Navy activities occurring in the adjacent SOCAL Range Complex and a portion of the Point Mugu Sea Range, NMFS determined that, "… potential secondary stressors are not likely to adversely affect" those ESA-listed species (National Marine Fisheries Service, 2018). The secondary stressors section includes analysis of impacts on habitat and prey as secondary stressors. NMFS was considering a larger suite of Navy activities, activities occurring more frequently, and activities which would occur with greater intensity (such as major exercises) than in the Proposed Action. The analysis of potential impacts on humpback whale prey, with regards to sufficient quality, abundance, and accessibility within humpback whale feeding areas to support feeding and population growth, is consistent with previous NMFS findings, including the Letter of Authorization for the Hawaii-Southern California Training and Testing (HSTT) EIS/OEIS (85 FR 41780; July 10, 2020), and NMFS findings as presented in the 2018 Biological Opinion for the HSTT EIS/OEIS. Based on those previous determinations, the proposed rule, and the accompanying support

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		documents for the proposed humpback whale critical habitat (National Marine Fisheries Service, 2019a, 2019b), there would be no benefit to restricting and excluding Navy activities on the PMSR from the BIAs or the proposed critical habitat. Navy disagrees with the statement that NEPA requires at a minimum, consideration of time-area restrictions for humpback whale BIAs. The Navy has included a robust suite of mitigation measures as well as standard operating procedures that the Navy routinely employs to avoid or minimize adverse impacts as presented in Chapter 5 (Standard Operating Procedures and Mitigation). Note that the Navy did consider time-area restrictions and geographic mitigation measures as detailed in Section 5.3.6.2 (Geographic Mitigation).
NRDC-10	3. *Fin whales* Tracking data clearly indicate a region of year-round residency of fin whales in the Southern California Bight, with a general trend for increased use of areas between Point Arena and Point Conception during summer.[16] Well over a third of all fin whale location fixes received from tagged fin whales off the Southern California coast were received from within the Pt. Mugu Sea Range.[17] Fin whales are known to be highly sensitive to underwater noise, and indeed the Navy's own analysis suggests fin whales will experience behavioral reactions, temporary threshold shifts, and permanent threshold shifts in hearing as a result of the proposed activities. Scales et al. (2017) state that a resident subpopulation will require more targeted conservation strategies than a diffuse migratory population of fin whales.[18] No BIAs have been identified for fin whales to date, making geographic	**Fin whales** – The Navy is aware of the information and citation provided and is presented for fin whales in Section 3.7.4.2.3.2 (Habitat and Geographic Range). As cautioned by Scales et al. (2017), 86% of the tag deployments occurred within the Southern California Bight (encompassing the majority of the PMSR), it is expected that a high number of the location fixes received would be from that same region where the tags were first deployed. As noted in Section 3.7.4.2.3.3 (Population Trends), there are numerous scientific findings indicative of an increasing fin whale population including the most recent NMFS survey of the California Current Ecosystem having encountered the highest-yet abundances of fin whales to date. For the adjacent SOCAL Range Complex, NMFS concluded they did not anticipate fitness consequences to individual fin whales resulting from the effects of Navy activities and no changes in the number, distribution, or reproductive potential of fin whales in the Pacific Ocean or range-wide from those effects (National Marine Fisheries Service, 2018b). A detailed analysis regarding vessel speed and other aspects of vessels as a strike risk to whales is provided in Section 3.7.5.2.3 (Vessels as a Strike Stressor). Additional information is also provided in Sections

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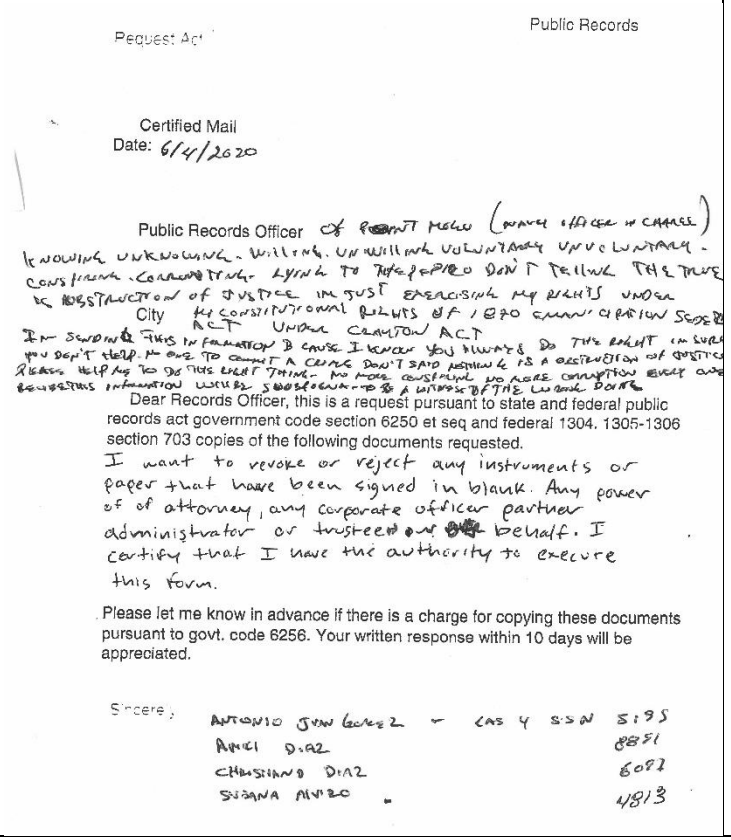
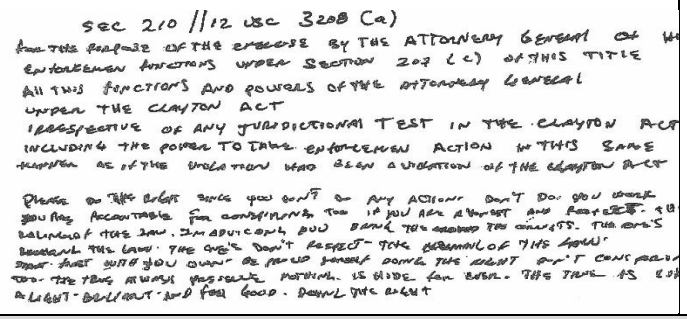
	mitigations more difficult. However, restrictions related to vessel speed constitute an important mitigation measure that has not been adequately analyzed in the DEIS, and could contribute to effective mitigation of harm to fin whales, both as a result of reduced noise and reduced ship-strike risk. The Navy fleet has reported two ship strikes, both of fin whales, in the last decade in waters adjacent to the PMSR Study Area (DEIS at 3.7-34). This population is at particular risk of ship- strike on the naval range given their shallower-water foraging in relatively deep water.[19] As such, we recommend that waters between the 200 m and 1000 m isobaths be assessed for time-area management so that, at minimum, ship-strike risk-reduction measures for fin whales can be implemented during the months of November through February, when the whales aggregate in the area.	5.1.1.2 (Vessel Safety) and 5.3.4.1 (Vessel Movement) of the EIS/OEIS. The most recent Navy vessel strike occurred in the SOCAL Range Complex in 2009, which occurred during activities that are not part of this Proposed Action. In 2016, the Navy commissioned a vessel density and speed report for the HSTT EIS/OEIS. (Mintz, 2016). Based on an analysis of Navy ship traffic in the HSTT Study Area between 2011 and 2015, the median speed of Navy vessels within Southern California is low, with median speeds between 5 and 12 knots (CNA, 2016). Slowest speeds occurred closer to the coast, including in the general area of Navy bases. In addition, according to Mintz (2016), Navy vessels make up only 4 percent of the overall vessel traffic in Southern California. The presence and transits of commercial and recreational vessels, numbering in the many thousands, far outweigh the presence of Navy vessels on the PMSR (see Section 3.7.5.2.3, Vessels as a Strike Stressor). In 24 years of reporting, there have been no known Navy vessel strikes to marine mammals in the PMSR. The Navy will continue to implement procedural mitigation for vessel movements based on guidance from NMFS for vessel strike avoidance. Additionally, the Navy issues whale-awareness notifications seasonally to alert ships to the possible presence of concentrations of large whales in portions of the Study Area. To maintain safety of navigation and avoid interactions with large whales during transit, vessels are instructed to remain vigilant to the presence of certain large whale species, when concentrated seasonally, may become vulnerable to vessel strikes. Lookouts use the information from the awareness notification messages to assist their visual observations of mitigation zones and aid in implementing procedural mitigation. The Navy implements a voluntary vessel speed restriction (unless it would impede the mission objective) when NOAA issues a Notice to Mariners to advise vessels to travel 10 knots or less from the

	Comment	Navy Response
		established International Maritime Organization shipping lanes in the Santa Barbara Channel to the entire offshore region from Point Arguello to beyond Dana Point in an area that NOAA has designated as an Whale Advisory Zone.
NRDC-11	4. *California gray whales* The California gray whale is presently experiencing a major die-off. On May 31, 2019, NMFS deemed the die-off an "Unusual Mortality Event" pursuant to the Marine Mammal Protection Act (16 U.S.C. § 1421c), triggering an investigation. As of June 5, 2020, the total number of strandings across the whales' range was 340 animals.[20] Many of the necropsied whales were considered emaciated, and in 2019 more than 50% of the animals observed in their calving lagoons, in Baja California, have shown signs of "skinniness,"[21] such as a post-cranial depression and protruding scapula. While the cause remains unknown, the skinniness and emaciation of the whales strongly suggests a decline in prey availability. A previous die-off in 1998-2000 of gray whales was associated with strong El Niño and La Niña events and a regime shift in the benthic prey base of the Bering Sea.[22] For the scientific community, the present-day concern is that warming seas—caused by climate change—are reducing primary productivity in the whales' northern foraging range and that vanishing sea ice is constricting populations of ice-associated amphipods.[23] If so, the die-off may be a "harbinger of things to come," in the words of one NOAA ecologist,[24] a diminished, more	The Navy is aware of the ongoing gray whale Unusual Mortality Event as discussed in Section 3.7.4.1.6.4 (Climate Change) and in Section 3.7.4.2.4.3 (Population Trends). Recent research included in the Final EIS/OEIS used drone photogrammetry to assess the condition of gray whales while foraging along the Oregon coast from June to October over the 3-year period between 2016 and 2018 (Lemos et al. 2020). The body condition of whales had been found to correlate with environmental changes and hypothesized prey availability in prior years, so that low upwelling years between 2016 and 2018 carried over to result in the unusual mortality event starting in 2019 (Lemos et al. 2020). This is consistent with the hypothesis involving a lack of sufficient prey availability in the known feeding areas in the North Pacific especially given that monitoring over the last 30 years has provided data indicating the Eastern North Pacific population and stock is within range of its optimum sustainable population (Carretta et al., 2017c); see also Lemos et al. (2020) regarding discussion of carrying capacity. There are no known gray whale feeding areas in the PMSR Study Area and NMFS has previously determined that Navy activities are not likely to impact gray whale migration behavior. Navy activities are unrelated to the hypothesized cause for the unusual mortality event and gray ship strikes off San Francisco or traveling to other foraging areas (Marine Mammal Center, 2019), as cited in the comment. The Navy and NMFS considered the need for mitigation measures associated with gray whale migrations for many of the same activities in the adjacent SOCAL Range Complex and found them unwarranted. Synergistic effects have been considered by the Navy and NMFS.

	Comment	Navy Response
	tenuous future for the species rather than a one-or-two-year anomaly. It is well established that animals already exposed to one stressor may be less capable of responding successfully to another; and that stressors can combine to produce adverse synergistic effects.[25] Here, disruption in gray whale behavior can act adversely with the inanition caused by lack of food, increasing the risk of stranding and lowering the risk of survival in compromised animals. Further, starving gray whales may travel into unexpected areas in search of food—a likely contributing cause of some of the ship-strikes observed in recently stranded animals.[26] The Navy estimates that its activities will cause as many as 102 takes of gray whales, including 37 cases of temporary hearing loss caused by underwater explosives (DEIS at Appendix C). The Navy must carefully consider the biological context of behavioral disruption in that species and evaluate the potential for severe consequences in exposed whales. Additional analysis of mitigation measures, including time-area restrictions, are necessary to avoid unnecessary harm to this very vulnerable population.	Cumulative, synergistic, and antagonistic interactions between multiple stressors both natural and anthropogenic have recently begun to be investigated, and the exact mechanisms each stressor contributes to individual fitness is poorly understood (Murray et al., 2020; National Academies of Sciences Engineering and Medicine, 2017; National Marine Fisheries Service, 2018a). Based on current best available science, the effects of multiple synergistic stressors over time cannot be realistically or precisely modeled for marine mammals. Please see Section 3.7.4.2.4 (Gray Whale [*Eschrichtius robustus*])" for details in regard to gray whales. While the Navy strives to avoid or reduce impacts on marine species while accomplishing its mission, the Navy disagrees that gray whales are a "… very vulnerable population." Eastern North Pacific gray whales were delisted in 1994 after having fully recovered and have been suggested to have reached carrying capacity. Since publication of the Draft EIS/OEIS, a new research paper by Lemos et al. (2020) discussed the recent Unusual Mortality Event strandings in context with the species having reached carrying capacity.
NRDC-12	5. Dall's porpoises The DEIS estimates that the Navy's proposed activities will involve a substantial impact on Dall's porpoises. In overall terms, the DEIS reports that over the seven-year period under the Preferred Alternative, impacts include 1,824	The population of Dall's porpoise numbers over 25,000 animals. As the regulator, NMFS will determine the significance of impacts on population and conduct an independent assessment as part of any authorization pursuant to the MMPA. Estimated behavioral disturbances (responses and TTS) are temporary and unlikely to result

	Comment	Navy Response
	instances of behavioral responses, 2,845 instances of temporary hearing loss, and 341 instances of permanent hearing loss (DEIS at Appendix C). These effects represent a significant impact, both in terms of numbers and overall impact on the population. The behavioral responses will impact as much as 7% of the population, while as much as 11% of the population will experience temporary threshold shifts in hearing. The DEIS fails to disclose why its testing and training activities have a relatively disproportionate impact on this population. Without additional analysis as to why Dall's porpoises are subject to such harm, it is impossible for the public to contemplate possible mitigation measures to reduce the harm. The Navy must improve the transparency of its analysis related to Dall's porpoises, and consider whether additional time-area or vessel speed restrictions could mitigate the substantial harm expected to occur to that species.	in any meaningful consequences for the individuals effected. The Dall's porpoise has a large number of estimated effects because the species is part of a high-frequency hearing group having lower thresholds, a high weighting function, and longer ranges to effect for the same acoustic stressors in comparison to other cetaceans (see Section 3.7.4.1.5 (Hearing and Vocalization), Table 3.7-2 listing Dall's porpoise, and the cited relevant technical reports (U.S. Department of the Navy, 2017, 2020)). As noted in Section 3.7.4.3.5.2 (Habitat and Geographic Range), Dall's porpoises are present year-round and their distribution off the U.S. West Coast is highly variable between years so there are no applicable "time-area" restrictions. Dall's porpoises are not subject to vessel strike; therefore, the suggested vessel speed restrictions would not be effective at mitigating impacts since there are no vessel strikes occurring to Dall's porpoise.

	Comment	Navy Response
Individuals		
Antonio Juan Gomez (AJG)		
AJG-01	 Request Act Public Records Certified Mail Date: 6/4/2020 Public Records Officer OF POINT MUGU (NAVY OFFICER IN CHARGE) KNOWING UNKNOWING - WILLING, UNWILLING VOLUNTARILY UNVOLUNTARILY - CONSTRUCTIVE - CONSTRUCTIVE LYING TO THE PEOPLE DON'T TELL ME THE TRUTH IS OBSTRUCTION OF JUSTICE IM JUST EXERCISING MY RIGHTS UNDER City THE CONSTITUTIONAL RIGHTS OF 1870 EMANCIPATION SCOPE ACT UNDER CRAYTON ACT I'M SENDING THIS INFORMATION B CAUSE I KNOW YOU ALWAYS DO THE RIGHT IM SURE YOU DON'T HELP. NO ONE TO COMMIT A CRIME DON'T SAID NOTHING IT'S A OBSTRUCTION OF JUSTICE PLEASE HELP US TO DO THE RIGHT THING. NO MORE CONSPIRACY NO MORE CORRUPTION EVERY ONE REQUESTING INFORMATION UNDER SUBSECTION 3 IS A WITNESS OF THE LAWSUIT DON'T Dear Records Officer, this is a request pursuant to state and federal public records act government code section 6250 et seq and federal 1304. 1305-1306 section 703 copies of the following documents requested. I want to revoke or reject any instruments or paper that have been signed in blank. Any power of of attorney, any corporate officer partner administrator or trustee on my behalf. I certify that I have the authority to execute this form. Please let me know in advance if there is a charge for copying these documents pursuant to govt. code 6256. Your written response within 10 days will be appreciated. Sincere; ANTONIO JUAN GOMEZ - CAS Y SSN 5:95 8851 ANGEL D:92 6087 CHRISTIANO D:12 4813 SUSANA ANA 20	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record. The Proposed Action does not include the topic of your comment (Clayton Antitrust Act). Please see Chapter 2 (Description of Proposed Action and Alternatives) of the Final EIS/OEIS for a definition of the scope of the project.

	Comment	Navy Response
	 SEC 210 //12 USC 320B (a) FROM THE PURPOSE OF THE EXERCISE BY THE ATTORNEY GENERAL OF [illegible] ENFORCEMENT ACTIONS UNDER SECTION 207 (c) OF THIS TITLE ALL THE FUNCTIONS AND POWERS OF THE ATTORNEY GENERAL UNDER THE CLAYTON ACT IRRESPECTIVE OF ANY JURISDICTIONAL TEST IN THE CLAYTON ACT INCLUDING THE POWER TO TAKE ENFORCEMENT ACTION IN THIS SAME MANNER AS IF THE VIOLATION HAD BEEN A VIOLATION OF THE CLAYTON ACT PLEASE DO THE RIGHT THING YOU DON'T DO ANY ACTIONS DON'T DO. YOU WOULD YOU BE ACCOUNTABLE FOR CONSEQUENCES TOO IF YOU ARE AWARE AND [illegible] BALANCE OF THE LAW. I'M AN EDUCATOR, BUT BEING TOO ATTACHED TO CONCEPTS. THE ONE'S BREAKING THE LAW. THE ONE'S DON'T RESPECT TOTAL DISMANTLING OF THIS AGENCY. DON'T JUST SAY YOU DIDN'T BE PROUD YOURSELF DOING THE RIGHT DON'T CONSIDER YOU. THE TRUE REWARD POSSIBLE MOMENT IS INSIDE FOR EACH. THIS TIME AS [illegible] A LIGHT - BRIGHT - AND FEEL GOOD. DO THE RIGHT	
Leslie Wawrzeniak (LW)		
LW-01	A few days ago (5/27/20) we noticed an announcement in the L.A. Times that the U.S. Navy invites the public to participate in the Point Mugu Sea Range EIS/OEIS Public Involvement Process. We visited www.pmsr-eis.com and read the 8 page report. We live near Navy Base Ventura. It's hard to know how any of the Navy's planned actions will directly affect us or people who live on or near Silver Strand Beach, but we have one particular area of concern. There is a building on the Ventura County Navy Base that sits at the mouth of the Port of Hueneme next to Silver Strand Beach. It is the Naval Surface Warfare Engineering Facility, known as SWEF. In 1994 the Navy was planning to fly military aircraft at low altitude and high speed in the SWEF area to test radar equipment. Due to residents' concerns about the safety of the flights, the lack of a formal environmental safety report, questions about the safety of the radiation levels, and the risk of flying into pelicans that use that space as their flight path, in 1999 the plan was cancelled. We are hoping that the Navy has not decided to reinstate this plan or institute a plan similar to this.	Thank you for your participation in the National Environmental Policy Act process. Your comments are part of the official project record. The Naval Surface Warfare Engineering Center (SWEF) does operate various different radars and similar equipment, and will continue to do so; however, these operations currently do not involve flying military aircraft at low altitude(s) and at high speed(s) around the SWEF area. The Navy does not have any foreseeable future operations being planned to fly manned military aircraft at low altitude(s) and high speed(s) in the SWEF area to test radar equipment.

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