UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Finding of No Significant Impact on Issuance of an Incidental Harassment Authorization to the U.S. Marine Corps Air Station Cherry Point, North Carolina

Supported by: U.S. Marine Corps Environmental Assessment
Marine Corps Air Station Cherry Point Range Operations
Marine Corps Air Station Cherry Point, North Carolina

In accordance with the National Environmental Policy Act (NEPA) and its implementing regulations and NOAA's Administrative Order 216-6 Environmental Review Procedures for Implementing the National Environmental Policy Act, this document comprises the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service's (NMFS) Finding of No Significant Impact (FONSI) for issuance of a Incidental Harassment Authorization (IHA), pursuant to section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1361 *et seq.*), to the U.S. Marine Corps (USMC) for the taking of marine mammals incidental to the conduct of specified activities in the Marine Corps Air Station (MCAS) Cherry Point Range Complex, North Carolina.

After independent review of the USMC EA, NMFS determined the EA sufficient for purposes of properly identifying, evaluating, and disclosing the impacts on the human environment from issuing the IHA and; therefore, adopted the EA. The USMC EA and NMFS adoption memorandum are incorporated here by reference.

Background

In January, 2009, the USMC released an EA entitled "*Marine Corps Air Station Cherry Point Range Operations Marine Corps Air Station Cherry Point, North Carolina.*" The USMC's EA contains a thorough analysis of the environmental consequences of their proposed action (with specific sections for explosive ordnance, underwater detonations, vessel and tactical vehicle movements, weapons firing, non-explosive practice munitions use, and aircraft overflights on both land and water ranges) on the human environment, including a specific section on marine mammals. The USMC has completed an analysis to determine if the action would result in incidental harassment of individual marine mammals (mortality or Level A or B harassment, as defined by the MMPA) or if the action would have a significant impact on marine mammal populations. The EA analyses support NMFS' MMPA assessment of whether the proposed USMC's activities might incidentally take marine mammals and if the proposed activity might have more than a negligible impact on marine mammal species or stocks. NMFS therefore considered

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information in the EA as well as the USMC's application when determining whether or not to issue the IHA.

On October 29, 2009 NMFS received a complete application from the USMC requesting an IHA for the take of bottlenose dolphins (*Tursiops truncatus*) incidental to USMC training activities within the MCAS Cherry Point Range Complex, specifically for water range based activities occurring within Pamlico Sound, North Carolina, for the period of one year. These training activities may incidentally take marine mammals present within the MCAS Cherry Point Range Complex by exposing them to noise and detonations at levels that NMFS associates with the take of marine mammals. NMFS did not prepare a separate EA for issuance of the IHA and was not a cooperating agency on the USMC's EA. Therefore, NMFS made the EA available for public review and comment for 30 days during the MMPA comment period (75 FR 32389; June 8, 2010). NMFS received comments from the Marine Mammal Commission, which are solicited, but none from the public.

NMFS' Proposed Action

NMFS proposes to issue an IHA to the USMC for the take of marine mammals, by Level B harassment only, incidental to air-to-surface and surface-to-surface training operations at MCAS Cherry Point. The UMSC's model for estimating acoustic exposures of marine mammals indicated that the proposed MCAS Cherry Point Range Complex activities, which are classified as military readiness activities, may incidentally take marine mammals present around two bombing targets in Pamlico Sound by potentially exposing them to noise from live and inert bombing exercises at levels that NMFS associates with the take of marine mammals. Therefore, in the EA, the USMC considers that the training activities may result in mortality, Level A or Level B harassment of marine mammals; however the former types (mortality and Level A harassment) have very low probability considering mitigation and monitoring measures described in the EA.

Upon receipt of the MMPA IHA application, which included the models and take calculations contained within the EA, NMFS worked with the USMC to develop a more stringent monitoring and mitigation plan which alleviates the potential for mortality and Level A harassment. Accordingly, the USMC requests an authorization to take bottlenose dolphins by Level B harassment only. Due to the proposed mitigation and monitoring measures developed during the MMPA process, NMFS does not expect the proposed action would result in any marine mammal mortality, serious injury, or injury (Level A harassment).

NMFS' issuance of a MMPA IHA to the USMC governing the incidental take of marine mammals is a Federal action for which NMFS is responsible for analyzing the effects on the human environment pursuant to NMFS' NEPA procedures.

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40

C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans?

Response: EFH-Habitat and Areas of Particular Concern for a number of invertebrate and fish species managed under Fishery Management Plans occurs within the project area. The USMC has determined in its EA that military training operations within MCAS Cherry Point may negatively impact marine habitat and EFH, in particular from the use of small boats throughout all seaside training areas and ordnance delivery to targets located near to or surrounded by water. Specifically at BT-9 and/or BT-11 (where harassment to marine mammals may occur under the IHA), the USMC has determined that estuarine and marine emergent wetlands, high salinity bays, estuaries, and seagrass habitat; average salinity bays and estuarine; and macroalgae habitat may be indirectly and temporarily impacted from vessel traffic. From ordnance delivery, estuarine and marine submerged aquatic vegetation; subtidal and intertidal nonvegetated flats; oyster reefs and shell banks; and tidal habitats may result in direct but short-term impacts. However, as described in the EA, these impacts are not expected to be significant or cause substantial damage to these habitats.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The MCAS Cherry Point *Integrated Natural Resources Management Plan* (MCAS Cherry Point, September 2001) contains detailed management and conservation measures for MCAS Cherry Point natural resources assets, including soils, water, and terrestrial biology (including vegetation, fish, wildlife, and threatened and endangered species). Keeping these resources monitored and protected will help sustain ecosystem function within MCAS Cherry Point. As described in the USMC's EA, the specified activities analyzed during the IHA process would not result in the destruction of environmental resources such that the range of potential uses of the environment would be limited or impact the biodiversity of the region. As such, the proposed action is not expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: The UMSC activities are not expected to have a substantial adverse impact on public health and safety. The USMC carries out a number of safeguards to

ensure that public health and safety are not compromised from its military training activities, including implementing a Hazardous Materials Management System and active communication systems. Air Station Order 5090.7 on *Oils and Hazardous Substances Spill Prevention and Contingency* requires "[To] be conscious of the potential for spills and take precautionary measures during the handling, transfer or storage of oils and hazardous substances to reduce the threat of a spill of oil and hazardous substances into the environment" (MCAS Cherry Point, February 2006). Current communication procedures outlined in MCAS Cherry Point's Air Station Order P3570.2R, *Target Facilities and Operation Areas* which tasks the Range Officer in Charge with the responsibility to ensure that required communications are established with the Range Control Duty Officer and maintained at all times. These procedures ensure that all on-range and offrange participants maintain situational awareness needed to protect the safety of military personnel and civilians. Some of these procedures, such as PEDRO sweeps and cold passes, double to serve as monitoring for marine mammals and are required in the IHA.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: NMFS proposed action is issuance of an IHA allowing the take, by Level B harassment of marine mammals, incidental to specified USMC training activities, in particular ordnance delivery at BT-9 and BT-11. The only marine mammal authorized to be taken is the bottlenose dolphin, a species not listed as endangered or threatened under the ESA. Although the USMC's EA addresses impacts to manatees, an ESA-listed species, this species is under U.S. Fish and Wildlife jurisdiction. As such, NMFS does not have managing authority over manatees and they are not included as a species authorized to be taken in the IHA.

Training activities of concern for dolphins include those that involve increased vessel traffic, live-fire, and explosive and non-explosive ordnance delivery in areas where dolphins occur. The USMC's EA conducted risk assessments for marine mammal harassment from explosive and non-explosive ordnance delivery. The risk assessment concluded that, during one year of training with explosive ordnance at BT-9 with no precautionary measures in place, 0.057 bottlenose dolphins could die from extensive lung hemorrhage (Level A harassment-onset mortality), 0.160 dolphins could suffer from slight but recoverable lung injury (Level A harassment), and 4.783 dolphins could encounter behavioral disruption due to TTS (Level B harassment) from high explosive ordnance delivery. In addition, the analysis for the potential for direct strikes of munitions (inert and live) on marine mammals under the USMC's proposed action confirms that the risk of a direct strike is improbable. The risk assessments did not consider the proposed mitigation and monitoring measures.

The USMC's EA concludes live-fire and ammunitions testing potentially could lead to behavioral disturbances, hearing loss (e.g., temporary threshold shift), injury, or mortality to dolphins from falling debris, ordnance landing in the water, or underwater noise. However, during the MMPA process, NMFS worked with the USMC to develop

more efficient methods of monitoring, including during nighttime operations, which would better detect dolphins during these live fire exercises. In concert with mitigation measures described in the EA (e.g., live fire is delayed if a dolphin is within 914 meters of BT-9), NMFS has determined that the already small potential for dolphin injury or mortality is fully alleviated. Although the same monitoring measures would be carried out at BT-11, no live firing occurs here; therefore, there is no chance for a dolphin to be potentially taken from high explosive training at BT-11. Through the MMPA process, including NMFS' review of the USMC's EA, NMFS has determined that Level B harassment, including TTS, avoidance, communication masking, and alteration of behavior at time of training activity exposure may occur at both BTs. However, these impacts are expected to be short term and limited to when training operations are occurring. Dolphin behavior is expected to resume to normal once training activities cease.

The EA also identifies that ingestion of and entanglement marine debris (e.g., parachutes, chaff) and ingestion of expended ordnances is unlikely but possible. Dolphins are highly mobile organisms, so collisions with vessels are not likely, although collisions are possible when watercraft operate at high speeds. Noise from vessel motors may disturb dolphins, but disturbed individuals would likely leave the area only temporarily. Through the MMPA process, NMFS has determined that non-noise related impacts such as entanglement, ingestion, and ship strike are negligible for the reasons discussed within the EA and NMFS' review of the best available scientific literature.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: NMFS' action of issuing an IHA solely authorizes harassment to marine mammals. No dolphins taken under the IHA are used for subsistence or substantial recreational purposes (e.g., dolphin watching tours) within the action area. As such, NMFS has determined issuance of the IHA would not result in significant social or economic impacts interrelated with natural or physical environmental effects.

As described in the EA, training operations at MCAS Cherry Point, including those analyzed for NMFS' proposed action of issuing the USMC an IHA, would result in periodic impacts to recreational use within Pamlico Sound and commercial and recreational fishing because of the intermittent closure of the proposed water restricted area. However, intermittent closures would not be scheduled when most recreational use and fishing activities occur, thus minimizing impacts to recreational and commercial fishing. Therefore, the USMC has not identified any significant social or economic impacts interrelated with natural or physical environmental effects from the proposed action.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects on the quality of the human environment from NMFS' issuing an IHA (the proposed action) are not likely to be highly controversial. On June 8, 2010, NMFS issued a notice in the *Federal Register* announcing its intent to issue an IHA to the USMC for the harassment of bottlenose dolphins incidental to surface-to-surface and air-to-surface training activities (75 FR 32389). NMFS received one set of comments from the Marine Mammal Commission (Commission) and no comments from the public.

The Commission's comments were, in general, related to monitoring, mitigation, and reporting information in the application vs. the Federal Register notice and on the USMC's take estimate modeling. The Commission also requested NMFS require the USMC to suspend operations should a dolphin be injured or killed during operations.

During the application process, the USMC and NMFS engaged in numerous conversations and information exchanges to refine the USMC's monitoring and mitigation plan; therefore, this information was not available in the application. In addition, NMFS determined the risk assessment models used to estimate take as sufficient for our needs of issuing an IHA. With respect to operation suspension, the USMC is aware that should they exceed the amount of take authorized in the IHA or harass a marine mammal in a manner not authorized in the IHA, the exception for take under the MMPA does not apply. No other public comments were received indicating the effects of the proposed action on the human environment is controversial.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: As described in response to question 1 above, the USMC has determined that although some impacts to wetlands and EFH may occur, they are expected to be short term and insignificant. All activities are to take place on a military range; therefore, the USMC does not expect their proposed action to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands. NMFS' action of issuing an IHA would adversely impact some marine mammals; however, it would not result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks. MCAS Cherry Point has been in operation since 1942; therefore, risks from training operations are not unknown. With respect to

marine mammals, NMFS has issued MMPA authorizations for numerous military related ordnance delivery and detonation activities including ship shock trials (e.g., 66 FR 22450), precision strike weapons testing (e.g., 71 FR 67810), and air-to-surface gunnery missions (e.g., 75 FR 5045). NMFS has fully evaluated the impacts of the proposed action and has determined that, due to mitigation and monitoring efforts, marine mammals will be subject to Level B harassment (e.g., TTS, avoidance, behavioral and vocalization pattern changes). No injury (Level A harassment) or mortality is anticipated or authorized.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: The proposed action is not related to other actions with individually insignificant but cumulatively significant impacts. The USMC's EA evaluated a suite of other military activities occurring within and offshore North Carolina and how those activities, when combined with the specified activities, affected the human environment, such as land use, socioeconomics, public health and safety, and cultural and natural resources. In conclusion, the USMC concluded that, in conjunction with other past, present, or reasonably foreseeable projects, the proposed military training operations would not be expected to result in major cumulative impacts to the human environment, including biological resources such as marine mammals.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: NMFS' issuance of an IHA As described in response to question 7, all activities would occur within military land and air space. No archaeological sites, including underwater ones, have been identified within the areas potentially impacted by the proposed action alternatives, MCAS Cherry Point would consult with the North Carolina State Historic Preservation Officer in accordance with 36 CFR 800 to avoid, minimize, or mitigate any adverse effects resulting from either proposed action alternative should an archaeological site, such as a shipwreck, be discovered. MCAS Cherry Point has prepared an *Integrated Cultural Resource Management Plan* (currently undergoing update and revision), which contains detailed procedures for mitigation measures to protect eligible sites.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: NMFS proposed action (issuance of an IHA allowing the take, by Level B harassment of marine mammals incidental to specified USMC training activities) is not reasonably expected to result in the introduction or spread of a non-indigenous species. The primary concern regarding the introduction or spread of a non-indigenous species is from vessel ballast water and hull attachment. All military craft used in training exercises are deployed within the North Carolina training ranges.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: This action will not set a precedent for future actions with significant effects or represent a decision in principle about a future consideration. To ensure compliance with statutory and regulatory standards, NMFS' actions under section 101(a)(5)(D) of the MMPA must be considered individually and be based on the best available science, which is continuously evolving. Moreover, each action for which an incidental take authorization is sought must be considered in light of the specific circumstances surrounding the action, and mitigation and monitoring may vary depending on those circumstances. For these reasons, NMFS does not believe that issuance of an IHA to the USMC to conduct military training operations at MCAS Cherry Point is precedent setting.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: NMFS does not expect this action to violate any Federal law or requirements imposed for the protection of the environment. Through the MMPA process, NMFS may only issue an authorization for harassment from an activity that is otherwise lawful. In addition, NMFS and the USMC has responsibility under Section 7 of the ESA. NMFS concluded section 7 consultation with the USMC on its proposed action on September 27, 2002 for sea turtles. No ESA-listed marine mammals under NMFS jurisdiction are known to occur within the action area; therefore, there is no requirement for NMFS to consult under Section 7 of the ESA on the issuance of an IHA under section 101(a)(5)(D) of the MMPA. The proposed action itself would result in issuance of an IHA in compliance with all standards required in the MMPA.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: The proposed action will not target any species, but will affect bottlenose dolphins (a non-target species) by allowing the USMC to harass individuals of this population. Adverse impacts that may occur due to the specified activities include TTS, avoidance of the area during training, alteration of behavior at time of exposure, communication masking, and changes to vocalization characteristics. All impacts are expected to be short term and have a negligible impact on the bottlenose dolphin population in Pamlico Sound. The USMC would implement a series of mitigation and monitoring measures to avoid Level A harassment, serious injury, and mortality. These include declaring an area is fouled (i.e., range is temporarily closed to live fire exercises) if a marine mammals is sighted with 914 meters of BT-9 or anywhere within Raritan Bay at BT-11 and implementing three methods of monitoring (i.e., PEDRO, cold pass, range camera use) to ensure marine mammals are detected. As discussed in response to question 9 above, the USMC has identified that their proposed action is related to other actions with individually insignificant, but cumulatively significant impacts. NMFS has

not issued incidental take authorizations to other military or civilian entities for actions affecting bottlenose dolphins within Pamlico Sound. Therefore, NMFS does not anticipate that the proposed action (issuance of an IHA) will result in cumulative adverse effects that could have a substantial effect on marine mammals.

DETERMINATION

In view of the information presented in this document and the analysis contained in the Environmental Assessment (EA) prepared by the USMC for Cherry Point Range Operations and adopted the EA, pursuant to NEPA, it is hereby determined that the issuance of an IHA, pursuant to the MMPA, will not significantly impact the quality of the human environment as described above and in the EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environment Impact Statement for this action is not necessary.

for James H. Lecky
Director, Office of Protected Resources

Aug 31, 2010
Date