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

Finding of No Significant Impact for the National Marine Fisheries Service's Issuance of a Marine Mammal Protection Act Incidental Harassment Authorization for the U.S. Army Corps of Engineer's Blasting Operations in Miami, Florida

National Marine Fisheries Service

BACKGROUND

The National Marine Fisheries Service (NMFS) received an application from the U.S. Army Corps of Engineers (ACOE) for an authorization to take small numbers of marine mammals, by Level B harassment, incidental to confined blasting operations in the Port of Miami, Florida. Pursuant to the Marine Mammal Protection Act (MMPA), authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth.

NMFS has prepared an *Environmental Assessment for Issuance of Incidental Harassment Authorizations for the U.S. Army Corps of Engineers Confined Blasting Operations during the Port of Miami Construction Project in Miami, Florida* (EA), specifically addressing ACOE's activity and NMFS's issuance of an associated IHA. In the EA, NMFS assesses the potential direct, indirect, and cumulative impacts to the human environment associated with the proposed issuance of an IHA with a primary focus on the potential effects of underwater sounds of from confined blasting on marine mammal species while conducting the Miami Harbor deepening operations. The EA includes an evaluation of two alternatives: (1) the proposed confined blasting operations and issuance of an associated IHA, and (2) a no action alternative (i.e., do not issue an IHA).

NMFS has determined that the EA contains an adequate description of NMFS's proposed action and reasonable alternatives, the affected environment, the effects of the action, and appropriate monitoring and mitigation measures. While the primary focus of the NMFS EA is on impacts resulting from NMFS's issuance of the IHA, NMFS has also reviewed and considered the documents supporting the application that disclose the impacts to other elements of the human environment resulting from the inter-related action; i.e., the ACOE implementing the blasting activities in the Port of Miami. NMFS relied on those analyses to determine the proper scope of its EA as well as the potential significance of any impact to the human environment.

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SIGNIFICANCE REVIEW

National Oceanic and Atmospheric Administration Administrative Order (NAO) 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 (EFH) as defined under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) and identified in fishery management plans?

Response: NMFS does not anticipate that either issuance of the IHAs or ACOE's proposed activity would cause substantial damage to the ocean and coastal habitats. The effects from confined blasting operations and dredging would not result in substantial damage to ocean and coastal habitats that might constitute marine mammal habitats. Commercial shipping, commercial and recreational fishing, helicopters and sea planes, and vessel traffic in the study area generate noise throughout the year. The addition of the noise produced by confined blasting is comparatively minor in terms of total additional acoustic energy and relatively brief, in terms of duration of the proposed effort.

The ACOE requested consultation on EFH, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267, 16 U.S.C 1801 *et seq.*) and its implementing regulations 50 CFR 600.920(a). NMFS reviewed ACOE's letter dated August 13, 2001, regarding the notice of intent to prepare a Draft EIS for the Miami Harbor Navigation Improvements in Biscayne Bay, Miami-Dade County, Florida. Considering the potential impact from the proposed project on EFH, Habitat Areas of Particular Concern (HAPC), and other NMFS-trust resources, NMFS recommend that the following be included in the ACOE's Draft Environmental Impact Statement (DEIS): (1) an EFH assessment should be completed that identifies and describes EFH and other fishery resources in the vicinity of the project, describes the impacts to EFH associated with each action alternative, identifies the ACOE views regarding the effects of the action on EFH, and discusses the proposed mitigation to fully offset any losses of the functions and values of wetlands, aquatic resources, and EFH; and (2) the mitigation plan should include a complete analysis of the proposed locations for wetland and estuarine/marine benthic habitat restoration and/or creation for this project. In-kind mitigation for all habitat types to be impacted and long-term monitoring to document success should be provided. A contingency mitigation should be developed to provide out-of-kind mitigation if in-kind is not successful. The ACOE prepared and submitted an EFH assessment with the Draft EIS that described existing EFH and potential impacts to EFH with project implementation. The comprehensive Fishery Management Plan prepared by the South Atlantic Fishery Management Council established mangrove, seagrass, nearshore, and offshore reefs as EFH for coral, coral reefs, live-bottom habitat, snapper-grouper complex, red drum, penaeid shrimp, and coastal migratory pelagic. Furthermore, the plan

established EFH Habitat Areas of Particular Concern within these areas for the spiny lobster (*Panulirus argus*), snapper-grouper complex, and penaeid shrimp. Areas meeting the criteria of the management plan were identified within the study area and noted during the study.

NMFS, Office of Protected Resources, Permits and Conservation Division has determined that the issuance of an IHA for the taking of marine mammals incidental to the ACOE's confined blasting operations will not have an adverse impact on EFH, therefore an EFH consultation is not required.

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 proposed issuance of the IHA to authorize the take of marine mammals by Level B harassment incidental to ACOE's Miami Harbor Deepening Project would not have a substantial impact on biodiversity or ecosystem function within the affected area. The impacts of the ACOE's action on marine mammals are specifically related to the acoustic activities, and these are expected to be temporary in nature and not result in substantial impact to marine mammals or to their role in the ecosystem. The IHA anticipates, and would authorize, Level B harassment only, in the form of temporary auditory disturbance, of Atlantic bottlenose dolphins. No injury (Level A harassment), serious injury, or mortality is anticipated or authorized, and the Level B harassment is not expected to affect biodiversity or ecosystem function.

The potential for ACOE's activity to affect other ecosystem features and biodiversity components, including fish, invertebrates, and EFH are fully analyzed in the NMFS EA and the ACOE Jacksonville District's *Final General Reevaluation Report and Environmental Impact Statement on the Miami Harbor Navigation Study, Miami-Dade County, Florida* (FEIS), and other documents related to the IHA application. NMFS's analysis, including its review of the FEIS and Record of Decision for the confined blasting activities, indicates that any direct or indirect effects of the action including impacts resulting from ACOE's interrelated activity would not result in a substantial impact on biodiversity or ecosystem function. In particular, the potential for effects to these resources are considered here with regard to the potential effects on diversity or functions that may serve as essential components of marine mammal habitats. Most effects are considered to be short-term and unlikely to affect normal ecosystem function or predator/prey relationships; therefore, NMFS believes that there will not be a substantial impact on marine life biodiversity or on the normal function of the nearshore or offshore ecosystems of the Atlantic Ocean, and specifically Biscayne Bay.

Although there is a relative lack of knowledge about the potential physical (pathological and physiological) effects of energy from confined blasting on marine fish and invertebrates, the available data suggest that there may be physical impacts on egg, larval, juvenile, and adult stages that are in close proximity to the sound source. Whereas egg and larval stages are not able to escape such exposures, a very small number of juveniles and adults will most likely be impacted by it.

In the past, to reduce the potential for fish to be injured or killed by the confined blasting, the resource agencies have requested, and ACOE has allowed that confined blasting contractors utilize a small, unconfined explosive charge, usually a 1 lb (0.5 kg) booster, detonated about 30 seconds before the main confined blast, to drive fish away from the confined blast zone. It is assumed that noise or pressure generated by the small charge will drive fish from the immediate area, thereby reducing impacts from larger and potentially more-damaging confined blast. There are limited data available on the effectiveness of fish scare charges at actually reducing the magnitude of fish kills, and the effectiveness may be based on the fish's life history. While the true effectiveness of this minimization methodology may be questioned, some argue that based on the monetary value of some high value commercial or recreational species, the low cost associated with repelling charge use would be offset if only a few fish moved from the kill zone (Keevin *et al.*, 1997).

NMFS anticipates the ACOE's proposed action will result in no significant impacts to marine mammal habitat beyond rendering the areas immediately around the Port of Miami less desirable shortly after each blasting event and during dredging operations and potentially eliminating a relatively small amount of locally available prey. The impacts will be localized and short-term. The proposed confined blasting operations in the Port of Miami, Florida, is predicted to have negligible to low physical effects on relatively small numbers of individuals of various life stages of fish and invertebrates. Though these effects do not require authorization under an IHA, the effects on these features were considered by NMFS. NMFS finds that the IHA, when considered in the context of the overall confined blasting and dredging action and its likely effects on fish and invertebrates, is not anticipated to have a substantial effect on biodiversity.

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

Response: NMFS does not expect either issuance of the proposed IHA or the confined blasting operations to have a substantial adverse impact on public health or safety. The constant monitoring for marine mammals and other marine life during confined blasting operations effectively eliminates the possibility of any humans being inadvertently exposed to levels of sound or pressure that might have adverse effects. Although the nature of the confined blasting operations may carry some risk to the personnel involved (i.e., boat or mechanical accidents during confined blasting and dredging activities), the applicant and those individuals working with the applicant would be required to be adequately trained or supervised in performance of the underlying activity (i.e., the Miami Harbor Deepening Project) to minimize such risk to personnel. The project is not expected to have any adverse impacts on traffic and transportation, as only a maximum of two confined blasting events would occur per day that will be conducted for a maximum of 600 confined blast days/events (not 600 calendar days of blasting) over a relatively small geographic area. The ACOE plans to deepen and widen the Federal channels at the Port of Miami to allow for larger vessels to enter the harbor.

Also, there is little risk of exposure to hazardous materials or wastes, risk of contracting diseases, or risk of damage from a natural disaster.

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: The proposed IHA would authorize some Level B harassment (in the form of non-injurious, recoverable auditory trauma and associated behavioral disruption) of small numbers of marine mammals incidental to the proposed Miami Harbor Deepening Project. No injury (Level A harassment), serious injury, or mortality is anticipated or authorized. Effects may include non-injurious, recoverable auditory trauma (i.e., TTS) and associated behavioral disruption of cetaceans from within certain ensonified zones, generally within 1,992 ft (607.2 m), from the confined blasting array. The monitoring and mitigation measures required for the activity are designed to minimize the exposure of marine mammals to pressure and sound.

Taking these measures into account, effects on marine mammals from the preferred alternative are expected to be limited to non-injurious, TTS and associated behavioral disruption from the confined blasting operations, falling within the MMPA definition of "Level B harassment." Numbers of individuals of all marine mammal species incidentally taken to the specified activity are expected to be small (relative to species or stock abundance), and the incidental take is anticipated to have a negligible impact on the species or stock.

Under section 7 of the ESA, the ACOE requested formal consultation with the NMFS SERO, on the project to improve the Port of Miami on September 5, 2002, and reinitiated consultation on January 6, 2011. NMFS SERO determined that the action is likely to adversely affect one ESA-listed species and prepared a Biological Opinion (BiOp) issued on September 8, 2011, that analyzes the projects effects on staghorn coral (*Acropora cervicornis*). It is NMFS's biological opinion that the action, is likely to adversely affect staghorn coral, but is not likely to jeopardize its continued existence or destroy or adversely modify its designated critical habitat. Based upon NMFS SERO's updated analysis, NMFS no longer expects the project is likely to adversely affect Johnson's seagrass (*Halophila johnsonii*) or its designated habitat. NMFS SERO has determined that the ESA-listed marine mammals (blue [*Balaenoptera musculus*], fin [*Balaenoptera physalus*], sei [*Balaenoptera borealis*], humpback [*Megaptera novaeanglia*], North Atlantic right [*Eubalaena glacialis*], and sperm [*Physeter macrocephalus*] whales), smalltooth sawfish (*Pristis pectinata*), and leatherback sea turtles (*Dermochelys coriacea*) are not likely to be adversely affected by the action.

Previous NMFS BiOps have determined that hopper dredges may affect hawksbill (*Eretmochelys imbricata*), Kemp's ridley (*Lepidochelys kempii*), green (*Chelonia mydas*), and loggerhead (*Caretta caretta*) sea turtles through entrainment by the draghead. Any incidental take of loggerhead, green, Kemp's ridley, or hawksbill sea turtles due to hopper dredging has been previously authorized in NMFS's 1997 South Atlantic Regional BiOp on hopper dredging along the South Atlantic coast. The ACOE is

currently in re-initiation of consultation with NMFS on the South Atlantic Regional BiOp. When a new BiOp is issued by NMFS, the Terms and Conditions of that South Atlantic BiOp will be incorporated into the project.

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

Response: No significant social or economic effects are expected to result from issuance of the IHA for the proposed Miami Harbor Deepening Project. The Port of Miami is one of the nation's most important ports. The Port of Miami offers the greatest frequency of cargo service, with the largest number of shipping lines, calling at the most destinations, in the world. The Port of Miami has more than 35 shipping lines calling on over 100 countries and over 254 ports. It is Florida's largest container port and it is the tenth biggest container port in the U.S. In addition to its strength as a cargo port, the Port of Miami is also the largest multi-day cruise passenger homeport in the world. The Port of Miami's link to important trading and cruise routes, as well as the strength and characteristics of its large and growing hinterland, have positioned the Port of Miami as a top performer, and will continue to drive the Port of Miami's growth as long as the infrastructure to support marine transportation is in place. The total economic impact of Port of Miami operations on the nation is estimated at more than $8 billion per year. More than 45,000 jobs are directly or indirectly attributable to Port of Miami operations. Jobs created by Port of Miami and trade activity tend to be good jobs: they pay significantly more than other job growth sectors in the local economy, have better long-term opportunities for employees and offer better training programs (particularly for minorities). The Port of Miami also utilizes the local, regional, and inter-regional transportation network components consisting of roads, railway lines, and channels to facilitate the efficient movement of goods and passengers (ACOE, 2004). The primary impacts to the natural and physical environment are expected to be generally acoustic and temporary in nature, and not interrelated with significant social or economic impacts. Marine mammals are not hunted legally in Florida's waters.

No significant social and economic impacts are expected as a result of issuing the IHA.

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

Response: Although there is some lack of agreement within the scientific and stakeholder communities about the potential effects of noise on marine mammals, there is not a substantial dispute about the size, nature, or effect of NMFS's proposed action and the Miami Harbor Deepening Project. The existence of some disagreement about the effects of noise was demonstrated by a National Research Council (NRC, 2005) report and by the lack of consensus among participants in the Marine Mammal Commission's Advisory Committee on Acoustic Impacts on Marine Mammals (MMC, 2006). Over the past several years, comments and concerns regarding effects of noise from industry, environmental organizations, and Native Alaskan groups have focused mainly on: (1) questions and concerns related to NMFS's compliance with the NEPA and the MMPA; and (2) criticism of the mitigation and monitoring measures proposed by NMFS. After

reviewing the comments submitted on the 2011 ACOE confined blasting operations and NMFS's proposed IHA, and having analyzed the effects of these actions, NMFS has determined its actions are in full compliance with the MMPA and ESA. As noted elsewhere in this Finding of No Significant Impact and in NMFS's final IHA determination, NMFS is requiring, as proposed by the ACOE, a detailed mitigation and monitoring program designed to gather additional data and reduce impacts on affected marine mammal stocks to the lowest level practicable.

For several years, NMFS has been issuing IHAs for similar blasting operations to government agencies, and other construction organizations, which has allowed NMFS to develop relatively standard mitigation and monitoring requirements for these types of actions. NMFS published a notice of receipt and proposed IHA in the *Federal Register* on November 18, 2011 (76 FR 71517), which allowed the public to submit comments for up to 30 days from the date of publication of the notice. The Marine Mammal Commission (Commission) as well as Sierra Club of Miami, Biscayne Bay Waterkeeper, and Kent Harrison Robins (as a combined group) provided comments on the proposed action.

Generally, the Commission comments recommended that NMFS issue the IHA, provided it requires the ACOE to: (1) conduct empirical sound propagation measurements during two detonation events per day using various delay weights and numbers of delays to verify that the danger and exclusion zones are sufficient to protect marine mammals from sound exposure levels, including the 182 and 177 dB re 1 μPa^2-s thresholds, the zones then should be adjusted accordingly; and (2) suspend all activities if the authorized number of takes is reached.

Generally, the combined comments from the Sierra Club of Miami, Biscayne Bay Waterkeeper, and Kent Harrison Robins stated that: (1) the Biscayne Bay estuary has a distinct population of bottlenose dolphins at risk; (2) northern Biscayne Bay which is geographically distinct from the south Biscayne Bay is no longer polluted contrary to the allegations in the IHA application and *Federal Register* notice for the proposed IHA; (3) the proposed level of take analysis is faulty; (4) blasting and resulting behavioral modification may sever the distinct Biscayne Bay bottlenose dolphin stock between the northern and southern parts of Biscayne Bay; (5) the history of blasting at the Port of Miami indicates substantial impact on dolphins; (6) the take estimates in the IHA application are faulty; (7) blasting is adjacent to the Bill Sadowski Critical Wildlife Area; (8) the ACOE cannot obtain an IHA on the basis of its IHA application; (9) the ACOE's project in the Port of Miami is expected to take 24 months and therefore requires development of regulations and issuance of Letters of Authorization; (10) mitigation efforts are insufficient and detrimental to the bottlenose dolphins; and (11) NMFS should require improvement for zone and monitoring program.

These comments were considered by NMFS in developing the IHA and specific responses will be provided in the *Federal Register* notice announcing the issuance of the IHA. In summary, NMFS determined that the information it relied on for making the necessary findings in the notices of proposed and final IHA is the best available

information and does not support the comments challenging the take estimates, adequacy of mitigation and monitoring, or the findings regarding impacts on marine mammals. No comments raised substantial questions as to whether issuance of the IHA or implementation of the confined blasting activities would cause significant degradation to any component of the human environment, including marine mammals. Nor is there any substantial dispute concerning the project's size, nature, or effect. Therefore, NMFS has concluded that issuance of the IHA is not likely to be highly 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, EFH, or ecologically critical areas?

Response: ACOE's proposed Miami Harbor Deepening Project will take place in the Port of Miami where no historic and cultural resources, park land, prime farmlands, wetlands, or wild and scenic rivers are present; however the proposed action area is in the vicinity of manatee protection areas, Bill Sadowski Critical Wildlife Area, Biscayne Bay Aquatic Preserve, and Biscayne National Park. NMFS does not expect the ACOE's confined blasting operations to have any substantial impacts to unique areas, nor does NMFS expect the incidental take authorization to have a significant effect on marine mammals that may be important resources in such areas. Similarly, NMFS does not expect its issuance of the IHA or the proposed confined blasting operations to have any substantial impacts to EFH as described in the response to question 1 above.

To the extent that marine mammals are important features of unique marine areas, the potential temporary auditory and behavioral disturbance of marine mammals might result in short-term effects on cetaceans within ensonified zones. No long-term displacement of marine mammals, endangered species, or their prey is expected as a result of the action or the issuance of an Incidental Take Authorization for marine mammals.

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

Response: The effects of the action on the human environment are not likely to be highly uncertain or involve unique or unknown risks. The exact mechanisms of how different sounds may affect certain marine organisms are not fully understood, but there is no substantial dispute about the size, nature, or effect of this particular action. While NMFS's judgments on impact thresholds are based on somewhat limited data, enough is known for NMFS and the regulated entity (here ACOE) to develop precautionary monitoring and mitigation measures to minimize the potential for significant impacts on biological resources. The multiple mitigation and monitoring requirements are designed to ensure the least practicable impact on the affected species or stocks of marine mammals and also to gather additional data to inform future decision-making. NMFS has been authorizing take for similar types of activities using explosive detonations for years, and monitoring reports received pursuant to the requirements of the authorizations have indicated that there were no unanticipated adverse impacts (i.e., nothing exceeding Level B harassment) that occurred as a result of the previously conducted confined blasting

activities. NMFS believes the monitoring and mitigation measures for the proposed action will be feasible and effective at minimizing adverse impacts to marine mammals.

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

Response: The ACOE's conduct of the Miami Harbor Deepening Project in the Port of Miami and NMFS's action of issuing an IHA (or possibly issuing up to two additional IHAs for a total of three) are interrelated. These actions are not expected to result in cumulatively significant impacts when considered in relation to other separate actions with individually insignificant effects.

The EA analyzes the impacts of the Miami Harbor Deepening Project in light of other past, present, and reasonably foreseeable future actions and activities within the action area. In the EA, the NMFS concluded that although the confined blasting pressures and sounds from the construction activities have less frequent events and higher pressure levels than the sounds generated from some other human activities in the area, sounds will be carried out for approximately 600 blast days/events over the entire project footprint, in contrast to those from other sources that have lower peak pressures but occur continuously over extended periods of time (e.g., vessel noise). Thus, the combination of ACOE's confined blasting operations with existing dredging, construction and demolition activities, shipping, commercial fishing, recreational fishing and boating, and military readiness activities is expected to result in no more than minor and short term impacts from the proposed Miami Harbor Deepening Project in the Port of Miami, Florida in terms of overall disturbance effects on marine mammals.

Human activities and reasonably foreseeable projects in the waters off of southeastern Florida include dredging, construction and demolition activities, commercial fishing, entanglement in fishing gear, recreational boating and fishing, research, military readiness activities, and vessel traffic and collisions. These activities, when conducted separately or in combination with other activities, can affect marine mammals in the action area. Any cumulative effects caused by the addition of the confined blasting operations impacts on marine mammals will be extremely limited and will not rise to the level of "significant," especially considering the short duration of each blasting event of the proposed activities and the location of the proposed action area along the southeastern Florida coast.

NMFS has issued Incidental Take Authorizations for other activities using explosive detonations (to the Jacksonville Transportation Authority, U.S. Air Force, U.S. Navy, and other organizations) that may have resulted in the harassment of marine mammals, but these activities are dispersed both geographically (throughout the world) and temporally, are short term in nature, and all include required monitoring and mitigation measures to minimize impacts. NMFS does not anticipate any incremental effect to the single species of marine mammals impacted by the proposed action to be significant.

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: The actions proposed by NMFS and ACOE are not likely to adversely affect significant scientific, cultural, or historical resources along the Port of Miami and southeast Florida coast. The ACOE proposed action is not likely, directly or indirectly, to adversely affect places or objects listed in or eligible for listing in the National Register of Historic Places, or other significant cultural or historical resources as none are known to exist at the site of the proposed action. To determine if any potentially historic or cultural resources exist within the specific project area, archival research and consultation with the State Historic Preservation Officer (SHPO) was conducted. In addition, remote sensing survey was completed by the ACOE. Neither the archival review nor the remote sensing survey identified any historical or cultural resources within the study area.

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

Response: Neither NMFS's issuance of the IHA nor ACOE's proposed blasting operations are expected to result in the introduction or spread of non-indigenous species, as any national preventive measures and best management practices would be implemented.

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

Response: The proposed action will not set a precedent for future actions with significant effects or represent a decision in principle. To ensure compliance with statutory and regulatory standards, NMFS's actions under section 101(a)(5)(D) of the MMPA must be considered individually and be based on the best available information, which is continuously evolving in the field of underwater sound. 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. As mentioned above, NMFS has issued many authorizations for construction activities using explosives. A Finding of No Significant Impact (FONSI) for this action, and for NMFS's issuance of an IHA, may inform the environmental review for future projects but would not establish a precedent or represent a decision in principle about a future consideration.

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 the proposed action to violate any Federal law or requirements imposed for the protection of the environment, as NMFS and the ACOE have fulfilled their section 7 responsibilities under the ESA (see response to question 4

above) and the MMPA (by submitting an application for an IHA) for this action. ACOE have complied with their responsibilities for EFH consultation under the MSFCMA.

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 ACOE's confined blasting operations and NMFS's issuance of an IHA are not expected to result in any significant adverse effects on species incidentally taken by harassment. NMFS has issued Incidental Take Authorizations for other construction activities using explosive detonations (to Jacksonville Transportation Authority, U.S. Air Force, U.S. Navy and other organizations) that may have resulted in the harassment of marine mammals, but they are dispersed both geographically (throughout the world) and temporally, are generally short-term in nature, and all use monitoring and mitigation measures to minimize impacts to marine mammals and other protected species. NMFS does not believe the effects of this action combined with effects from the other activities to result in cumulative adverse effects.

As described in the EA, anthropogenic activities such as dredging, construction and demolition activities, shipping, commercial fishing, recreational fishing and boating, entanglement in fishing gear, vessel noise traffic and collisions, and military readiness activities all have the potential to take marine mammals off of southeastern Florida to varying degrees either through behavioral disturbance (vessel noise, and low-, mid-, and high-frequency sonar) or more direct forms of injury or death (vessel collisions, oil spills, or entanglement in fishing gear). Impacts of the proposed confined blasting operations along the coast of southeastern Florida are, however, expected to be minor, short-term, and incremental when viewed in light of other human activities within the action area. Unlike some other activities (e.g., military readiness activities), confined blasting operations are not expected to result in injuries or deaths of marine mammals. Although sounds from the detonation of explosives from the confined blasting operations will have instantaneous and short term source levels than sounds from other human activities in the area, will be carried out for only approximately 600 blast days/events during the entire project footprint, in contrast to those from other sources that may have higher source levels or occur continuously over extended periods of time (e.g., vessel noise). ACOE's confined blasting operations are unlikely to cause any large-scale or prolonged effects. Thus, the combination of ACOE's confined blasting operations with the existing military readiness activities, vessel traffic, dredging, construction and demolition activities, commercial fishing, and recreational boating and fishing activities is expected to produce only a negligible increase in overall disturbance effects on marine mammals. The confined blasting operations will add little to activities in the proposed action area, take of only small numbers of each species by non-injurious auditory trauma and behavioral disturbance are authorized, and no injury, serious injury, or mortality is anticipated or authorized. Therefore, the proposed action is not expected to contribute to or result in a cumulatively significant impact to marine mammals or other marine resources.

Because of the relatively short time that the project area will be ensonified, NMFS anticipates that the proposed action will not result in cumulative adverse effects that

could have a substantial effect on any species, such as cetaceans in the area (see responses to questions 4 and 9 above). The project would also not be expected to have a substantial cumulative effect on any fish, or invertebrate species. Although some loss of fish and other marine life might occur as a result of being in close proximity to the confined explosives, this loss is not expected to be significant. Additionally, the use of small fish scare charges before larger confined detonation events will allow fish near confined blasting operations to avoid the immediate vicinity of the source due to hearing the sounds at greater distances, thereby avoiding injury or mortality. Due to the instantaneous and short-term nature of each confined blasting day/event that will be conducted in the action area (each confined blasting day/event lasting approximately only a few seconds and a minimum of four hours between confined blasting day/events) and implementation of required monitoring and mitigation measures, NMFS does not anticipate that the proposed action will result in cumulative adverse effects that could have a substantial effect on marine mammals or other marine species.

DETERMINATION

In view of the information presented in this document and the analysis contained in NMFS's supporting EA and other documents included in the IHA application, NMFS has determined that the issuance of an IHA for the take, by Level B harassment, of small numbers of marine mammals incidental to ACOE's Miami Harbor Deepening Project in the Port of Miami, Florida, will not significantly impact the quality of the human environment. All beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

Helen M. Golde
Acting Director
Office of Protected Resources
National Marine Fisheries Service

7/31/12
Date