

**REQUEST FOR LETTER OF AUTHORIZATION RENEWAL UNDER  
SECTION 101(a) (5) (A) OF THE MARINE MAMMAL PROTECTION ACT  
INCIDENTAL TO TRAINING OPERATIONS CONDUCTED WITHIN  
THE VIRGINIA CAPES RANGE COMPLEX**

**Submitted To:  
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**(U) 1. DESCRIPTION OF ACTIVITIES**

(U) Pursuant to the Marine Mammal Protection Act of 1972 (MMPA), this document is the annual renewal application to the National Marine Fisheries Service (NMFS) for a Letter of Authorization (LOA)<sup>1</sup> for incidental harassment of marine mammals from U.S. Navy (Navy) training and research activities within the Virginia Capes (VACAPES) Range Complex.

(U) This LOA renewal is being sought to cover the annual period from June 2011 to June 2012 to cover the taking of marine mammals, as described by the MMPA, incidental to training and research within the VACAPES Range Complex. The LOA will not address activities designated for armed conflict or direct combat support operations, nor during periods of heightened national threat conditions, as determined by the President and Secretary of Defense or their duly designated alternatives or successors, as assisted by the Chairman of the Joint Chiefs of Staff.

(U) The table below shows the MMPA permit documentation applicable to the VACAPES Range Complex and NMFS’s authorization (**Table 1**). Information contained in these references provide a complete description of the background for the Navy’s request, overview of the VACAPES Range Complex, description of the specified activities, description of marine mammals in the area, discussion of potential effects or lack of effects of specified activities on marine mammals, mitigation, marine mammal monitoring, and associated reporting. The descriptions contained in these references have not changed, except as where noted in this application renewal.

**(U) Table 1. Timeline of key VACAPES Range Complex MMPA documents**

<b>Timeline Date</b>	<b>From</b>	<b>Event</b>	<b>Reference</b>
17 MAR 08	Navy	Letter Of Authorization Application (request for Incidental Harassment For VACAPES activities) received by NMFS Office of Protected Resources (subsequently revised on 10 April 2008)	DoN 2008a
10 APR 08	Navy	Revised Letter Of Authorization Application (request for Incidental Harassment For VACAPES activities) submitted via Federal Express to NMFS Office of Protected Resources	DoN 2008b
14 APR 08	NMFS	Notice of Receipt of Navy application published in the Federal Register (73 Fed. Reg. 20032): Taking of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Navy Training Operations Conducted within the Virginia Capes and Jacksonville Range Complexes	NMFS 2008a
24 JUL 08	Navy	First Addendum to Letter of Authorization Application submitted via email to NMFS Office of Protected Resources	DoN 2008c
7 NOV 08	Navy	Second Addendum to Letter of Authorization Application submitted via email to NMFS Office of Protected Resources	DoN 2008d
12 DEC 08	NMFS	Proposed Rule published in Federal Register (73 Fed. Reg. 75631): Taking and Importing Marine Mammals; U.S. Navy Training in the Virginia Capes Range Complex	NMFS 2008b
20 MAR 09	Navy	Final Virginia Capes Range Complex Environmental Impact Statement\Overseas Environmental Impact Statement published	DoN 2009
5 JUN 09 – 4 JUN 10	NMFS	Annual Letter of Authorization for taking marine mammals incidental to U.S Navy’s training on the VACAPES Range Complex issued 5 June 2009	NMFS 2009a

<sup>1</sup> under Section 101 (a)(5)(A) of the MMPA

15 JUN 09	NMFS	Final Rule published in Federal Register (74 Fed. Reg. 28328): Taking and Importing Marine Mammals; U.S. Navy Training in the Virginia Capes Range Complex	NMFS 2009b
5 FEB 10	Navy	Letter Of Authorization Application (request for Incidental Harassment For VACAPES activities) received by NMFS Office of Protected Resources	DoN 2010
5 JUN 10 – 4 JUN 11	NMFS	Annual Letter of Authorization for taking marine mammals incidental to U.S Navy’s training on the VACAPES Range Complex issued 3 June 2010	NMFS 2010

The following changes to the original authorization are requested for each year through the remainder of the 5-year MMPA authorization. All other training activities in the original authorization and not discussed below remain the same as described at 50 C.F.R. §218.1.

**(U) A. Changes from Previous: MINEX (Mine Neutralization [20 lb NEW charges])**

(U) Within VACAPES, the Navy estimates an increase in the number of MINEX training events.

*(U) MINEX (20 lb NEW charges) Authorization Change Request*

(U) In June 2009, NMFS authorized 20 lb NEW charges for VACAPES based on the Navy’s preliminary estimate of 24 events at the time of original Request for Letter of Authorizations submission (NMFS 2009a, 2009b). To accommodate emergent MINEX training requirements, the Navy requests a revised authorization of (9) 5 lb NEW charges, (150) 10 lb NEW charges, and (160) 20 lb NEW charges per year as listed in **Table 2**. The amount of additional potential exposures from an increase in MINEX EOD training is discussed in Chapter 6.

(U) No change is requested for MINEX using the Airborne Mine Neutralization System (AMNS).

**(U) B. Changes from Previous: BOMBEX (Air-to-Surface [MK-83])**

(U) Within VACAPES, the Navy estimates an increase in the number of BOMBEX training events. However, instead of training with the MK-83 (1,000 lb) bombs, training will use the MK-82 (500 lb) bombs.

*(U) BOMBEX (Air-to-Surface) Authorization Change Request*

(U) In June 2009, NMFS authorized 20 MK-83 bombs per year for VACAPES based on the Navy’s preliminary estimate at the time of original Request for Letter of Authorizations submission (NMFS 2009a, 2009b). To accommodate an increased need for BOMBEX training based on changes to training requirements, the Navy requests that MK-82 bombs be added to the list of ordnance for BOMBEX. For 2011-2013 the Navy anticipates 40 MK-82 (500 lb) bombs and no MK-83 (1,000 lb) bombs will be used per year as listed in **Table 2**. Although the number of bombs requested is increasing, the type of bomb (MK-82) is smaller (500 lb) and has fewer explosives, and therefore the potential exposures are reduced. The amount of reduction in potential marine mammal exposures from BOMBEX training is discussed in Chapter 6.

**(U) Table 2. Comparison of changes for annual 5, 10, and 20 lb NEW charge and MK-82 bomb use for VACAPES 2009-2013.**

	<b>MINEX (5 lb NEW charges)</b>	<b>MINEX (10 lb NEW charges)</b>	<b>MINEX (20 lb NEW charges)</b>	<b>BOMBEX (MK-82 bombs)</b>	<b>BOMBEX (MK-83 bombs)</b>
<b>2009 Original Authorization</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>20</b>
<b>2010</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>20</b>
<b>2011</b>	<b>9</b>	<b>150</b>	<b>160</b>	<b>40</b>	<b>0</b>
<b>2012</b>	<b>9</b>	<b>150</b>	<b>160</b>	<b>40</b>	<b>0</b>
<b>2013</b>	<b>9</b>	<b>150</b>	<b>160</b>	<b>40</b>	<b>0</b>

**(U) 2. LOCATION AND DEFINITION OF EXPLOSION ACTIVITIES**

(U) There are no changes to Chapter 2 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010), except where noted below.

(U) Training using 5, 10, and 20 lb NEW charges during MINEX would occur at the same locations in VACAPES where previous 20 lb NEW charges would typically occur. These locations are the same MINEX training areas described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

(U) Training using MK-82 bombs during BOMBEX would occur at the same location in VACAPES where MK-83 bomb use would typically occur. This location is the same BOMBEX training area described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 3. MARINE MAMMAL SPECIES AND NUMBERS OCCURRING IN THE VIRGINIA CAPES STUDY AREA**

(U) There are no changes to Chapter 3 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).



**(U) 4. AFFECTED SPECIES STATUS AND DISTRIBUTION**

(U) There are no changes to Chapter 4 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 5. TAKE AUTHORIZATION REQUESTED**

(U) There are no changes to Chapter 5 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy’s 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010). A summary of the requested takes is provided in **Table 3**.

**(U) Table 3. Number of each species authorized for taking in the original 2009 annual LOA and requested each year for the 2011-2013 annual LOAs.**

<b>Species</b>	<b>Level B Harassment</b>	<b>Level A Harassment</b>	<b>Mortality</b>
Fin whale	2	0	0
Humpback whale	2	0	0
Sperm whale	2	0	0
Atlantic Spotted dolphin	43	1	0
Bottlenose dolphin	29	0	0
Clymene dolphin	33	0	0
Common dolphin	2,193	20	0
Dwarf or pygmy sperm whales	3	0	0
Pantropical spotted dolphin	70	1	0
Pilot whales	10	0	0
Risso’s dolphin	16	0	0
Rough-toothed dolphin	1	0	0
Striped dolphin	68	3	0

## **(U) 6. NUMBERS AND SPECIES TAKEN**

(U) There are no changes to Chapter 6 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010), except as where noted below.

(U) For the MINEX 20 lb NEW charge change from (24) 20 lb NEW charges to (9) 5 lb NEW charges, (150) 10 lb NEW charges, and (160) 20 lb NEW charges authorized annually, additions to the VACAPES annual exposure summary (Table 4 in NMFS 15 June 2009 Final Rule<sup>2</sup>) include (**Table 4**):

- 7 Additional Level B exposures;
- 1 Additional Level A exposure;

(U) For the BOMBEX change from 20 MK-83 (1,000 lb) bombs to 40 MK-82 (500 lb) bombs authorized annually, reductions to the VACAPES annual exposure summary (Table 4 in NMFS 15 June 2009 Final Rule<sup>3</sup>) include (**Table 5**):

- A reduction of 313 Level B exposures;
- A reduction of 4 Level A exposures;

(U) A separate summary table (**Table 6**) depicts the exposures resulting from the requested changes for 2011-2013 and includes the MINEX and BOMBEX modifications. This table shows the net change in the number of annual exposures estimated for 2011-2013 as compared to the original authorization. While the annual exposures anticipated from the requested changes are less than the amount of take originally authorized, the amount of annual take requested in Chapter 5 remains the same as the original authorization.

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<sup>2</sup> See 74 Fed. Reg. 28328 page 28389 (NMFS 2009b)

<sup>3</sup> See 74 Fed. Reg. 28328 page 28389 (NMFS 2009b)

**(U) Table 4. LOA renewal application change in potential annual exposures from increased MINEX (5, 10, and 20 lb NEW charges) training applicable to those marine mammal species previously modeled to be impacted from MINEX.**

Species	VACAPES MINEX Training Only			
	Original Authorization 2009†		Estimated Annual Exposures For 2011-2013‡	
	Level B/Harassment	Level A/Harm	Level B/Harassment	Level A/Harm
Fin whale*	0	0	0	0
Humpback whale*	0	0	0	0
North Atlantic right whale*	0	0	0	0
Sperm whale*	0	0	0	0
Atlantic spotted dolphin	0	0	0	0
Beaked whale	0	0	0	0
Bottlenose dolphin	0	0	2	0
Clymene dolphin	0	0	2	0
Common dolphin	0	0	0	0
Dwarf or pygmy sperm whales	0	0	0	0
Pantropical spotted dolphin	1	0	4	1
Pilot whale	0	0	0	0
Risso's dolphin	0	0	0	0
Rough-toothed dolphin	0	0	0	0
Striped dolphin	0	0	0	0

\* Threatened and endangered species

† Based on (24) 20 lb NEW charges as described in original authorization.

‡ Projected number of total annual exposures based on (9) 5 lb NEW, (150) 10 lb NEW, and (160) 20 lb NEW charges.

**(U) Table 5. LOA renewal application change in potential annual exposures from changes to BOMBEX (MK-83 to MK-82 bombs) training applicable to those marine mammal species previously modeled to be impacted from BOMBEX.**

Species	VACAPES BOMBEX Training Only			
	Original Authorization 2009†		Estimated Annual Exposures For 2011-2013‡	
	Level B/Harassment	Level A/Harm	Level B/Harassment	Level A/Harm
Fin whale*	2	0	2	0
Humpback whale*	2	0	2	0
North Atlantic right whale*	0	0	0	0
Sperm whale*	0	0	0	0
Atlantic spotted dolphin	9	0	7	0
Beaked whale	0	0	0	0
Bottlenose dolphin	17	0	15	0
Clymene dolphin	31	0	26	0
Common dolphin	2,059	17	1,766	13
Dwarf or pygmy sperm whales	3	0	3	0
Pantropical spotted dolphin	64	1	55	0
Pilot whale	1	0	1	0
Risso's dolphin	11	0	9	0
Rough-toothed dolphin	1	0	1	0
Striped dolphin	1	0	1	0

\* Threatened and endangered species

† Based on 20 MK-83 (1,000 lb) bombs as described in original authorization.

‡ Projected number of total annual exposures based on 40 MK-82 (500 lb) bombs and no MK-83 (1,000 lb) bombs.

**(U) Table 6. Change in potential annual exposures to marine mammal species including change in MINEX and BOMBEX authorization for 2011-2013.**

Species	VACAPES Total Exposures					
	Original Authorization 2009†		Estimated Annual Exposures For 2011-2013‡		Change Between 2009 Original Authorization and Estimated Annual Exposures	
	Level B/ Harassment	Level A/ Harm	Level B/ Harassment	Level A/ Harm	Level B/ Harassment	Level A/ Harm
Fin whale*	2	0	2	0	0	0
Humpback whale*	2	0	2	0	0	0
North Atlantic right whale*	0	0	0	0	0	0
Sperm whale*	2	0	2	0	0	0
Atlantic spotted dolphin	43	1	41	1	-2	0
Beaked whale	0	0	0	0	0	0
Bottlenose dolphin	29	0	29	0	0	0
Clymene dolphin	33	0	30	0	-3	0
Common dolphin	2,193	20	1,900	16	-293	-7
Dwarf or pygmy sperm whales	3	0	3	0	0	0
Pantropical spotted dolphin	70	1	64	1	-6	0
Pilot whale	10	0	10	0	0	0
Risso's dolphin	16	0	14	0	-2	0
Rough-toothed dolphin	1	0	1	0	0	0
Striped dolphin	68	3	67	3	-1	0

\* Threatened and endangered species

† Based on 30 AMNS events, (24) 20lb NEW charges, 20 MK-83(1,000 lb) bombs, 60 Hellfire missiles, 20 Maverick missiles, and 22 FIREX with IMPASS events as described in original authorization.

‡ Projected number of total annual exposures based on 30 AMNS events, (9) 5 lb NEW charges, (150) 10 lbs NEW charges, (160) 20 lb NEW charges, 40 MK-82 (500 lb) bombs, 60 Hellfire missiles, 20 Maverick missiles, and 22 FIREX with IMPASS events.

**(U) 7. IMPACTS TO MARINE MAMMAL SPECIES OR STOCKS**

(U) There are no changes to Chapter 7 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 8. IMPACTS ON SUBSISTENCE USE**

(U) There are no changes to Chapter 8 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).



**(U) 9. IMPACTS TO MARINE MAMMAL HABITAT AND RESTORATION LIKELIHOOD**

(U) There are no changes to Chapter 9 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 10. IMPACTS TO MARINE MAMMALS FROM LOSS OR MODIFICATION OF HABITAT**

(U) There are no changes to Chapter 10 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 11. MITIGATION MEASURES**

(U) There are no changes to Chapter 11 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 12. MINIMIZATION OF ADVERSE EFFECTS ON SUBSISTENCE USE**

(U) There are no changes to Chapter 12 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 13. MONITORING AND REPORTING MEASURES**

(U) There are no changes to Chapter 13 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010) ), except as where noted below.

(U) For 2011 and subsequent years, the Navy requests the same monitoring measures included in the 2010 LOA. The 2010 LOA included additional language in section 7(b)(i)(A) of the LOA to allow missed survey requirements to roll into following years. Section 7(b)(i)(A) as modified in the 2010 LOA is provided below.

(A) The Holder of this Authorization shall visually survey a minimum of 2 explosive events per year, one of which shall be a multiple detonation event. One of the vessel or aerial surveys should involve professionally trained marine mammal observers (MMOs). If it is impossible to conduct the required surveys due to lack of training exercises, the missed annual survey requirement shall roll into the subsequent year to ensure that the appropriate number of surveys occurs over the 5-year period of effectiveness of 50 C.F.R. Part 218, Subpart A.

**(U) 14. RESEARCH EFFORTS**

(U) There are no changes to Chapter 14 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010).

**(U) 15. LIST OF PREPARERS**

(U) There are no changes to Chapter 15 as described under NMFS June 2009 Final Rule (NMFS 2009b), Navy's 2010 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2010 Letter of Authorization (NMFS 2010), except where noted below.

(U) This Letter of Authorization Renewal Application was prepared for the Department of the Navy by Naval Facilities Engineering Command (NAVFAC) Atlantic. A list of key preparation and review personnel is included:

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**(U) 16. LITERATURE CITED**

(U) DoN. 2008a. Request for Letter of Authorization Under Section 101(a) (5) (A) of the Marine Mammal Protection Act Incidental to Navy Training Operations Conducted Within the Virginia Capes Range Complex. March 17, 2008

(U) DoN. 2008b. Revised Request for Letter of Authorization Under Section 101(a) (5) (A) of the Marine Mammal Protection Act Incidental to Navy Training Operations Conducted Within the Virginia Capes Range Complex. April 10, 2008

(U) NMFS. 2008. Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Navy Training Operations Conducted within the Virginia Capes and Jacksonville Range Complexes; Notice of Receipt. April 18, 2008. 73 Fed. Reg. 20032

(U) DoN. 2008c. Addendum to the Request for Letter of Authorization Under Section 101(a) (5) (A) of the Marine Mammal Protection Act Incidental to Navy Training Operations Conducted Within the VACAPES Range Complex. July 24, 2008

(U) DoN. 2008d. Addendum to the Request for Letter of Authorization Under Section 101(a) (5) (A) of the Marine Mammal Protection Act Incidental to Navy Training Operations Conducted Within the VACAPES Range Complex. November 7, 2008

(U) NMFS. 2008b. Taking and Importing Marine Mammals; U.S. Navy Training in the Virginia Capes Range Complex; Proposed Rule. December 12, 2008. 73 Fed. Reg. 75631

(U) DoN. 2009. Virginia Capes Range Complex Final Environmental Impact Statement\Overseas Environmental Impact Statement-March 2009. Department of the Navy.

(U) NMFS. 2009a. Annual Letter of Authorization for taking of marine mammals incidental to U.S. Navy training activities conducted in the VACAPES Range Complex. June 5, 2009

(U) NMFS. 2009b. Taking and Importing Marine Mammals; U.S. Navy Training in the Virginia Capes Range Complex; Final Rule. June 15, 2009. 74 Fed. Reg. 28328

(U) DoN. 2010. Request for Letter of Authorization Renewal Under Section 101(a) (5) (A) of the Marine Mammal Protection Act Incidental to Navy Training Operations Conducted Within the VACAPES Range Complex. January 28, 2010

(U) NMFS. 2010. Annual Letter of Authorization for taking of marine mammals incidental to U.S. Navy training activities conducted in the VACAPES Range Complex. June 3, 2010