

**REQUEST FOR 2012-2014 RENEWAL OF THE LETTER OF  
AUTHORIZATION UNDER SECTION 101(a) (5) (A) OF THE MARINE  
MAMMAL PROTECTION ACT FOR INCIDENTAL HARRASSMENT OF  
MARINE MAMMALS RESULTING FROM U.S. NAVY ATLANTIC  
FLEET ACTIVE SONAR TRAINING ACTIVITIES**

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Enclosure (1)



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## **ACRONYMS AND ABBREVIATIONS**

AEER	Advanced Extended Echo Ranging
ADC	Acoustic Device Countermeasure
AFAST	Atlantic Fleet Active Sonar Training
ASW	Anti-Submarine Warfare
CNO	Chief of Naval Operations
DoN	Department of the Navy
EER	Extended Echo Ranging
FEIS	Final Environmental Impact Statement
HARP	High Frequency Acoustic Recording Package
HQ	Head Quarters
ICMP	Integrated Comprehensive Monitoring Program
IEER	Improved Extended Echo Ranging

LOA	Letter of Authorization
MFAS	Mid-frequency Active Sonar
MMC	Marine Mammal Commission
MMO	Marine Mammal Observer
MMPA	Marine Mammal Protection Act
MTE	Major Training Exercise
NAE	Noise Acoustic Emitters
NAVFAC	Naval Facilities Engineering Command
NMFS	National Marine Fisheries Service
OPAREA	Operating Area
PAM	Passive Acoustic Monitoring
SAG	Science Advisory Group
ULT	Unit Level Training
USFF	United States Fleet Forces
USWTR	Undersea Warfare Training Range

**1. INTRODUCTION AND DESCRIPTION OF ACTIVITES**

Pursuant to the Marine Mammal Protection Act of 1972 (MMPA) and implementing regulations<sup>1</sup>, this document is the annual renewal Application to the National Marine Fisheries Service (NMFS) for a Letter of Authorization (LOA) for incidental harassment of marine mammals from U.S. Navy (Navy) Atlantic Fleet Active Sonar (AFAST) training and research activities.

This Letter of Authorization application requests a 2-year period from January 2012 to January 2014 to cover the taking of marine mammals, as described by the MMPA, incidental to training and research within AFAST study area. 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.

Table 1 shows the MMPA permit documentation applicable to AFAST and NMFS’s authorization. Information contained in these references provide a complete description of the background for the Navy’s request, overview of AFAST, 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 reporting. The descriptions contained in these references have not changed, except as where noted in this application renewal.

**Table 1. Timeline of key AFAST Marine Mammal Protection Act documents**

<b>Timeline Date</b>	<b>From</b>	<b>Event</b>	<b>Reference</b>
1 FEB 08	Navy	Letter Of Authorization Application (request for Incidental Harassment For AFAST activities) submitted to NMFS Office of Protected Resources	DoN 2008a
14 OCT 08	NMFS	Taking and Importing Marine Mammals U.S Navy’s Atlantic Fleet Active Sonar Training (AFAST); Proposed Rule published in Federal Register (73 Fed. Reg. 60754)	NMFS 2008
12 DEC 08	Navy	Atlantic Fleet Active Sonar Training Environmental Impact Statement\Overseas Environmental Impact Statement- Final December 2008	DoN 2008b
22 JAN 09-21 JAN 10	NMFS	Letter of Authorization take marine mammals incidental to U.S Navy’s Atlantic Fleet Active Sonar Training (AFAST) issued 22 Jan 09.	NMFS 2009a
27 JAN 09	NMFS	Taking and Importing Marine Mammals; U.S Navy’s Atlantic Fleet Active Sonar Training (AFAST); Final Rule published in Federal Register (74 Fed. Reg. 4843)	NMFS 2009b
2 NOV 09	Navy	Letter Of Authorization 2010 Renewal Application (request for Incidental Harassment For AFAST activities) submitted via registered mail to NMFS Office of Protected Resources	DoN 2009
22 JAN 10-21 JAN 11	NMFS	Letter of Authorization take marine mammals incidental to U.S Navy’s Atlantic Fleet Active Sonar Training (AFAST) issued 21 Jan 10.	NMFS 2010
31 AUG 10	Navy	Letter Of Authorization 2011 Renewal Application (request for Incidental Harassment For AFAST activities) submitted via registered mail to NMFS Office of Protected Resources	DoN 2010
22 JAN 11-21 JAN 12	NMFS	Letter of Authorization for take of marine mammals incidental to U.S Navy’s Atlantic Fleet Active Sonar Training (AFAST) issued 20 Jan 11.	NMFS 2011a

<sup>1</sup> MMPA Section 101 (a)(5)(A) and 50 Code of Federal Regulations (CFR) Part 216, Subpart V

7 FEB 11- 21 JAN 12	NMFS	Amendment to the Letter of Authorization for take of marine mammals incidental to U.S Navy's Atlantic Fleet Active Sonar Training (AFAST) issued 7 Feb 11.	NMFS 2011b
8 FEB 2011	NMFS	Taking and Importing Marine Mammals; U.S Navy Training in the Hawaii Range Complex; US. Navy Training in the Southern California Range Complex; and U.S. Navy's Atlantic Fleet Active Sonar Training (AFAST); Final Rule Amendment. February 8, 2011. 76 Fed. Reg. 6699.	NMFS 2011c

There are no changes to Chapter 1 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b), with the exception of the 2-year period renewal requested in this application.

Subsequent Chapters without substantive changes from the U.S. Navy's previous Request for Letter of Authorization or other discussions are indicated.

## 2. DURATION AND LOCATION OF ACTIVE SONAR ACTIVITIES

There are no changes to Chapter 2 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy’s 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b).

The amount of sonar use being sought for the AFAST Study Area over the 2-year renewal authorization request from January 2012 to January 2014 is consistent with (although doubled) previous annual authorizations from NMFS.

**Table 2. U.S. Navy system use for 2012 to 2014.**

<b>System</b>	<b>Annual Authorization</b>	<b>2-year Authorization (2012-2014)</b>
(i) AN/SQS-53	3,214 hours	6,428 hours
(ii) AN/SQS-56	1,684 hours	3,368 hours
(iii) AN/SQS-56 or 53 (hull-mounted sonar in object detection mode)	216 hours	432 hours
(iv) AN/BQQ-10 or 5	9,976 pings	19,952 pings
(v) AN/AQS-22 or 13	2,952 dips	5,904 dips
(vi) SSQ-62	5,853 sonobuoys	11,706 sonobuoys
(vii) MK-48	32 torpedoes	64 torpedoes
(viii) MK-46 or 54	24 torpedoes	48 torpedoes
(ix) AN/SSQ-110A	1,725 sonobuoys	3,450 sonobuoys
(x) AN/SSQ-125	1550 sonobuoys	3100 sonobuoys
(xi) AN/SLQ-25	2,500 hours	5,000 hours
(xii) AN/BQS-15	450 hours	900 hours
(xiii) Acoustic Device Countermeasure (ADC) (MK-1 or 2 or 3 or 4)	225 ADCs	450 ADCs
(xiv) Noise Acoustic Emitters (NAE)	127 NAEs	254 NAEs

If the number of sonar hours, dips, torpedoes, and sonobuoys indicated in Table 2 are exceeded by more than 10 percent, subsequent LOAs issued under the AFAST final rule will ensure that the total activities over five years do not result in exceeding the amount of authorized marine mammal takes indicated in 50 CFR 216.242(c).



### 3. MARINE MAMMAL SPECIES AND NUMBERS

There are no changes to Chapter 3 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application and where otherwise noted below.

#### *NMFS Stock Assessment Report update*

Since NMFS' AFAST 2011 Letter of Authorization was issued (NMFS 2011a), NMFS' Northeast Fisheries Science Center published its 2010 Atlantic Stock Assessment Report:

<http://www.nmfs.noaa.gov/pr/sars/region.htm>

Typically Atlantic Stock Assessment Reports estimate marine mammal abundance for the entire U.S. Atlantic and Gulf of Mexico, and may not reflect regional abundance within smaller geographic areas. Therefore, the U.S. Navy stands by, and includes by reference into this 2012 renewal application, the original marine mammal exposure estimates presented in the 2011 Letter of Authorization renewal application and subsequently authorized in NMFS' 2011 Letter of Authorization (NMFS 2011a).

#### *NMFS Designation of Marine Mammal Critical Habitat or New Endangered Species Act Species Listings within the AFAST Study Area*

In 2011, there was no designation of any new marine mammal critical habitat within the AFAST Study Area, no listing of new candidate<sup>2</sup> marine mammal species, and no listing of new proposed<sup>3</sup> marine mammal species.

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<sup>2</sup> Candidate species (69 FR 19975 and 71 FR 61022) are petitioned species that are actively being considered for listing as endangered or threatened under the Endangered Species Act, as well as those species for which NMFS has initiated an Endangered Species Act status review that it has announced in the Federal Register.

<sup>3</sup> Proposed species are those candidate species that were found to warrant listing as either threatened or endangered and were officially proposed as such in a Federal Register notice after the completion of a status review and consideration of other protective conservation measures.

#### **4. AFFECTED SPECIES STATUS AND DISTRIBUTION**

There are no changes to Chapter 4 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

## 5. HARASSMENT AUTHORIZATION REQUESTED

There are no changes to Chapter 5 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy’s 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b).

The amount of harassment authorization requested by the U.S. Navy is similar to previous NMFS annual authorization from 2009 to 2011 (NMFS 2011) and is shown below both annually (January 2012 to January 2013) and for the 2-year requested authorization (January 2012 to January 2014) (Table 3).

**(a) Level B Harassment:** The numbers in Table 3 include the allowable 10 percent increase above the originally estimated takes.

**Table 3. Annual and 2-year Level B harassment authorization sought for 2012-2014.**

Species	Annual Requested Take	2-year Requested Take (2012-2014)
<b>(i) Mysticetes:</b>		
(A) North Atlantic right whale ( <i>Eubalaena glacialis</i> )	733	1,466
(B) Humpback whale ( <i>Megaptera novaeangliae</i> )	4,622	9,244
(C) Minke whale ( <i>Balaenoptera acutorostrata</i> )	457	914
(D) Sei whale ( <i>Balaenoptera borealis</i> )	1,163	2,326
(E) Fin whale ( <i>Balaenoptera physalus</i> )	970	1940
(F) Bryde's whale ( <i>Balaenoptera edeni</i> )	40	80
(G) Blue whale ( <i>Balaenoptera musculus</i> )	881	1,762
<b>(ii) Odontocetes:</b>		
(A) Sperm whales ( <i>Physeter macrocephalus</i> )	10,734	21,468
(B) Pygmy or dwarf sperm whales ( <i>Kogia breviceps</i> or <i>Kogia sima</i> )	4,822	9,644
(C) Beaked Whales (Cuvier's, True's, Gervais', Sowerby's, Blainville's, Northern bottlenose whale) ( <i>Ziphius cavirostris</i> , <i>Mesoplodon mirus</i> , <i>M. europaeus</i> , <i>M. bidens</i> , <i>M. densirostris</i> , <i>Hyperoodon ampullatus</i> )	5,398	10,796
(D) Rough-toothed dolphin ( <i>Steno bredanensis</i> )	2,979	5,958
(E) Bottlenose dolphin ( <i>Tursiops truncatus</i> )	667,482	1,334,964
(F) Pan-tropical spotted dolphin ( <i>Stenella attenuata</i> )	153,237	306,474
(G) Atlantic Spotted dolphin ( <i>Stenella frontalis</i> )	413,917	827,824
(H) Spinner dolphin ( <i>Stenella longirostris</i> )	23,271	46,542
(I) Clymene dolphin ( <i>Stenella clymene</i> )	51,082	102,164
(J) Striped dolphin ( <i>Stenella coeruleoalba</i> )	192,196	384,392
(K) Common dolphin ( <i>Delphinus spp.</i> )	106,106	212,212
(L) Fraser's dolphin ( <i>Lagenodelphis hosei</i> )	381	762
(M) Risso's dolphin ( <i>Grampus griseus</i> )	103,483	206,966
(N) Atlantic white-sided dolphin ( <i>Lagenorhynchus acutus</i> )	22,716	45,432
(O) White-beaked dolphin ( <i>Lagenorhynchus albirostris</i> )	3,795	7,590
(P) Melon-headed whale ( <i>Peponocephala electra</i> )	1,819	3,638
(Q) Pygmy killer whale ( <i>Feresa attenuata</i> )	308	616
(R) False killer whale ( <i>Pseudorca crassidens</i> )	592	1,194
(S) Killer whale ( <i>Orcinus orca</i> )	553	1,106
(T) Pilot whales ( <i>Globicephala macrorhynchus</i> or <i>G. melas</i> )	140,132	280,264
(U) Harbor porpoise ( <i>Phocoena phocoena</i> )	168,829	337,658
<b>(iii) Pinnipeds:</b>		
(A) Gray seal ( <i>Halichoerus grypus</i> )	8,645	17,290

(B) Harbor seal ( <i>Phoca vitulina</i> )	13,925	27,850
(C) Hooded seal ( <i>Cystophora cristata</i> )	17,290	34,580
(D) Harp seal ( <i>Pagophilus groenlandica</i> )	12,102	24,204

**b) Level A Harassment:** Level A Harassment and/or mortality of no more than 10 beaked whales (total), of any of the species listed in 50 CFR § 216.242(c) (1) (ii) (C) over the course of the 5-year regulations.

## **6. NUMBERS AND SPECIES TAKEN**

There are no changes to Chapter 6 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b), with the exception of the 2-year period renewal requested in this application. The amount of harassment requested can be found in Chapter 5 Table 3.

## **7. IMPACTS TO MARINE MAMMAL SPECIES OR STOCKS**

There are no changes to Chapter 7 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

## **8. IMPACT ON SUBSISTENCE USE**

There are no changes to Chapter 8 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

## **9. IMPACTS TO THE MARINE MAMMAL HABITAT AND THE LIKELIHOOD OF RESTORATION**

There are no changes to Chapter 9 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.



## **10. IMPACTS TO MARINE MAMMALS FROM LOSS OR MODIFICATION OF HABITAT**

There are no changes to Chapter 10 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

## **11. MEANS OF EFFECTING THE LEAST PRACTICABLE ADVERSE IMPACTS – MITIGATION MEASURES**

There are no changes to Chapter 11 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy’s 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

## **12. SUBSISTENCE EFFECTS AND PLAN OF COOPERATION**

There are no changes to Chapter 12 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application.

### 13. MONITORING AND REPORTING

There are no changes to Chapter 13 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) with the exception of the 2-year period renewal requested in this application and where otherwise noted below.

A 2010 Navy-sponsored monitoring meeting in Arlington, VA initiated a process to critically evaluate the current Navy monitoring plans and begin development of revisions/updates to both existing region-specific plans as well as the Integrated Comprehensive Monitoring Program (ICMP). Discussions at that meeting as well as the following Navy/NMFS annual adaptive management meeting (Oct 2010) established a way ahead for continued refinement of the Navy's monitoring program. This process included establishing a Scientific Advisory Group (SAG) of leading marine mammal scientists with the initial task of developing recommendations that would serve as the basis for a Strategic Plan for Navy monitoring. The Strategic Plan is intended to be a primary component of the ICMP and provide a "vision" for Navy monitoring across geographic regions - serving as guidance for determining how to most efficiently and effectively invest the marine species monitoring resources to address ICMP top-level goals and satisfy MMPA Letter of Authorization regulatory requirements. The objective of the Strategic Plan is to continue the evolution of Navy marine species monitoring towards a single integrated program, incorporating Scientific Advisory Group recommendations, and establishing a more transparent framework for soliciting, evaluation, and implementing monitoring work across the Fleet range complexes. The Strategic Plan is currently being developed in coordination with NMFS HQ and MMC input and will establish the process for soliciting, reviewing, and selecting the most appropriate monitoring projects to invest in across the Navy. It is anticipated that some current efforts will continue but the level of effort and investment may be allocated differently across Navy ranges.

Originally, five study questions were developed between NMFS and the Navy as guidance for developing monitoring plans, and all existing range-specific monitoring plans attempted to address each of these study questions. However, the state of knowledge for the various range complexes is not equal, and many factors including level of existing information, amount of training activity, accessibility, and available logistics resources, all contribute to the ability to perform particular monitoring activities. In addition, the Navy monitoring program has historically been compartmentalized by range-complex and focused on effort-based metrics (survey days, track line covered, etc.).

Navy established the Scientific Advisory Group in 2011 with the initial task of evaluating current Navy monitoring approaches under the ICMP and existing LOA's to develop objective scientific recommendations that would form the basis for the Strategic Plan. While recommendations were fairly broad and not prescriptive from a range complex perspective, the SAG did provide specific programmatic recommendations that serve as guiding principles for the continued evolution of the Navy Marine Species Monitoring Program and provide a direction for the Strategic Plan development. Key recommendations that have direct bearing on the proposed 2012 AFAST monitoring include 1) dispensing with the previous broad "study questions" and instead working within a conceptual framework of knowledge, from basic information on the occurrence of species within each range complex, to more specific matters of exposure, response, and consequences; 2) striving to move away from a "box-checking" mentality and designing monitoring studies according to scientific objectives rather than cataloging effort expended; and 3) approaching the Navy monitoring program holistically and selecting projects that offer the best opportunity to advance understanding of the issues, as opposed to establishing range-specific requirements. In addition, the SAG suggested AFAST be a primary focus for addressing exposure/response as well as addressing potential stock or population level consequences, specifically at the planned USWTR site in the JAX OPAREA.

For 2012 - 2014 the Navy proposes to allow for increased flexibility under the AFAST LOA within the VACAPES, CHPT, and JAX OPAREAS in order to allow continued input and guidance from the Scientific Advisory Group and research community. Emphasis on before/during/after visual surveys will be decreased and more resources will be directed towards passive acoustic monitoring of ASW exercises and the associated data analysis. This proposal does not necessarily decrease the amount of investment, but rather focuses resources on methods and projects proposed by the scientific community through the Strategic Planning process (see draft Strategic Plan) that offer the best opportunity for advancing our knowledge and addressing ICMP top-level goals Navy-wide. Table 4 summarizes proposed monitoring efforts under the AFAST LOA for 2012-2014.

**Table 4. Navy’s proposed 2012-2014 annual monitoring commitments for AFAST.**

<b>Marine Mammal Observers (MMO)</b>	2 events in conjunction with SEASWITI or ULT exercises.
<b>MMO/ Lookout Comparison study</b>	40 hours data collection trials
<b>Aerial Surveys VACAPES/CHPT/JAX OPAREAS</b>	36 days
<b>Vessel Surveys VACAPES/CHPT/JAX OPAREAS</b>	24 days
<b>Marine Mammal tagging</b>	JAX in coordination with vessel surveys - Study design to be developed
<b>Passive Acoustics - baseline</b>	Continue recording and data analysis for 3 strategically located HARPs
<b>Passive Acoustics – exercise monitoring</b>	2 deployments of pop-up buoys in conjunction with SEASWITI, shallow COMPTUEX, or ULT exercises.

#### **14. RESEARCH**

There are no changes to Chapter 14 as described under NMFS January 2009 Final Rule (NMFS 2009b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b).

## **LIST OF PREPARERS**

There are no changes to this section as described under NMFS January 2010 Final Rule (NMFS 2010b), the 2011 amendment to the Final Rule (NMFS 2011c), Navy's 2011 Request for Letter of Authorization (DoN 2010), and NMFS subsequent 2011 Letter of Authorization and amendment to the 2011 Letter of Authorization (NMFS 2011a and 2011b) except where noted below.

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