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2006 JUN 28 PM 3: 25

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BY _____

1]Richard B. Kendall (State Bar No. 90072)
Alan J. Heinrich (State Bar No. 212782)
2 Gregory A. Fayer (State Bar No. 232303)
Nicholas Morgan (State Bar No. 241475)
3 IRELL & MANELLA LLP
1800 Avenue of the Stars, Suite 900
4 Los Angeles, California 90067-4276
Telephone: (310) 277-1010
5 Facsimile: (310) 203-7199

6 Attorneys for Plaintiff
Natural Resources Defense Council, Inc.

7 Joel R. Reynolds (State Bar No. 85276)
8 Andrew E. Wetzler (State Bar No. 202299)
Cara A. Horowitz (State Bar No. 220701)
9 NATURAL RESOURCES DEFENSE COUNCIL, INC.
1314 Second Street
10 Santa Monica, CA 90401
Telephone: (310) 434-2300
11 Facsimile: (310) 434-2399

12 Attorneys for Plaintiffs,
Natural Resources Defense Council, Inc.;
13 International Fund for Animal Welfare;
Cetacean Society International;
14 Ocean Futures Society; and Jean-Michel Cousteau

15 UNITED STATES DISTRICT COURT
16 CENTRAL DISTRICT OF CALIFORNIA
17 WESTERN DIVISION

18 NATURAL RESOURCES DEFENSE)
19 COUNCIL, INC.; INTERNATIONAL)
FUND FOR ANIMAL WELFARE;)
20 CETACEAN SOCIETY)
INTERNATIONAL; OCEAN)
21 FUTURES SOCIETY; JEAN-MICHEL)
COUSTEAU,)

22 Plaintiffs,

23 vs.

24 DONALD C. WINTER, Secretary of)
the Navy; UNITED STATES)
25 DEPARTMENT OF THE NAVY;)
CARLOS M. GUTIERREZ, Secretary)
26 of the Department of Commerce;)
NATIONAL MARINE FISHERIES)
27 SERVICE; WILLIAM HOGARTH,)
Assistant Administrator for Fisheries of)
28 the National Oceanographic and

Case No. TBD

COMPLAINT FOR DECLARATORY
AND INJUNCTIVE RELIEF

[ENVIRONMENTAL]

[Filed Concurrently With Notice of
Related Case]

CV06-4131

DDP (JCx)

1 Atmospheric Administration; VICE
2 ADMIRAL CONRAD C.
3 LAUTENBACHER, JR., Administrator
4 of the National Oceanographic and
5 Atmospheric Administration,
6 Defendants.

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NATURE OF THE ACTION

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2 1. This action challenges the United States National Marine Fisheries
3 Service's ("NMFS") decision yesterday to authorize – and the United States
4 Department of the Navy's ("Navy") decision to conduct beginning this week – a
5 month-long training exercise using high-intensity sonar systems in waters around
6 Hawaii without complying with federal environmental law. During the course of
7 the exercise, called Rim of the Pacific ("RIMPAC") 2006, the Navy will repeatedly
8 broadcast high intensity sound waves, known to kill and injure whales and other
9 marine life, into some of the richest marine habitat in the United States and the
10 world, including the Northwestern Hawaiian Islands Marine National Monument,
11 created just two weeks ago by Presidential Executive Order.¹

12 2. The "mid-frequency" sonar systems at issue in this action generate
13 extraordinarily loud underwater sound—sound of such intensity that it is capable of
14 flooding thousands of square miles of ocean with dangerous levels of noise
15 pollution. There is no dispute that the Navy's use of mid-frequency sonar can kill,
16 injure, and disturb many species, including marine mammals. According to the
17 Navy's own consultants, the evidence of mid-frequency sonar causation of whale
18 strandings is "completely convincing," and the Scientific Committee of the
19 International Whaling Commission—the preeminent international body of scientists
20 studying whale populations—agrees, reporting in 2004 regarding the connection
21 between exposure to mid-frequency sonar and whale mortality that the "evidence is
22 very convincing and appears overwhelming." Nor are whales and other marine
23 mammals the only type of sea life affected by active sonar. Scientific evidence also
24
25

26 ¹ The National Marine Fisheries Service, Assistant Administrator for
27 Fisheries, Administrator of the National Oceanographic and Atmospheric
28 Administration, Secretary of Commerce, United States Navy, and Secretary of the
Navy are referred collectively herein as "Defendants."

1 strongly suggests that intense undersea noise can have significant adverse effects on
2 fish populations, sea turtles, and other marine life.

3 3. Indeed, the potentially lethal impacts of the Navy’s use of mid-frequency
4 sonar were observed and documented even in the Navy’s most recent RIMPAC
5 exercise in Hawaiian waters, conducted in 2004. During that exercise, over one-
6 hundred and fifty melon-headed whales, which are deep-water whales rarely seen
7 near shore and never before seen to aggregate in this manner in Hawaii, crowded
8 into the shallow waters of Hanalei Bay and milled there for over 28 hours. Though
9 a tragic mass mortality was averted when the whales were ultimately assisted into
10 deeper waters by members of a local stranding network, one whale was left behind
11 and found dead the next day. Following a two-year investigation of the incident,
12 NMFS concluded that the Navy’s use of sonar in RIMPAC 2004 was the
13 “plausible, if not likely” cause of the stranding.

14 4. Despite the clear potential for serious injury and death to marine
15 mammals from RIMPAC 2006, NMFS has unlawfully issued an Incidental
16 Harassment Authorization (“IHA”) for the Navy’s use of sonar in this exercise on
17 the purported basis that the IHA may be issued under a provision of the Marine
18 Mammal Protection Act (“MMPA”), 16 U.S.C. §§ 1361-1421, that authorizes very
19 limited “incidental taking by harassment” of marine mammals. 16 U.S.C. §
20 1371(a)(5)(D). By its explicit terms, the incidental-harassment provision does not
21 encompass or enable government agencies to authorize or conduct activities—such
22 as RIMPAC 2006—with the potential to cause serious injury or mortality and for
23 which a more thorough permitting process is required. 16 U.S.C. § 1371(a)(5)(D).
24 Moreover, an incidental-harassment authorization can only be issued for activities
25 that are “negligible” in impact and that are monitored and mitigated to ensure “the
26 least practicable impact” on species and their habitat. *Id.* The Navy’s proposal to
27 conduct a month of intensive mid-frequency sonar exercises in Hawaii’s
28 biologically rich waters, home to marine mammal species known to be particularly

1 susceptible to injury and death due to naval sonar, cannot be reconciled with the
2 plain language of the MMPA’s incidental harassment authorization provision.
3 Indeed, according even to the Navy’s own analysis of RIMPAC 2006, which will
4 permit sonar use throughout about 210,000 square nautical miles, this exercise will
5 cause more than 30,000 “takes” of protected marine mammals by exposing them to
6 levels of noise that constitute harassment under federal law, including significant
7 numbers of endangered species such as sperm whales and other species whose
8 numbers are already depleted.

9 5. The U.S. Marine Mammal Commission, appointed by Congress to
10 provide expert advice on the protection of marine mammals and on the
11 implementation of the MMPA, agrees that RIMPAC 2006 cannot be authorized
12 with an IHA. In a letter to NMFS concerning that agency’s proposed authorization
13 for RIMPAC 2006, the Marine Mammal Commission cites “the potential for
14 serious injury or mortality” of beaked whales and other deep-diving species from
15 mid-frequency sonar, “questions the assumption that all incidental taking during the
16 proposed activities will be by harassment only,” and urges that in light of the
17 potential for mortality, NMFS “reconsider its decision to authorize the proposed
18 activity by means of an incidental harassment authorization.” By proceeding with
19 the incidental harassment authorization, NMFS and the Navy are flouting the
20 advice of the government’s own experts.

21 6. In addition, and despite the clear potential for significant impact posed
22 by RIMPAC 2006 to Hawaii’s unique marine environment, both NMFS and the
23 Navy have violated the National Environmental Policy Act (“NEPA”), 40 U.S.C.
24 §§ 4321-4370, by approving the RIMPAC 2006 exercise based only on an
25 Environmental Assessment (“EA”) and Finding of No Significant Impact
26 (“FONSI”), rather than a full Environmental Impact Statement (“EIS”). An EIS is
27 required for any major federal action that may significantly affect the environment,
28 and the Navy’s plan to bombard some of the country’s richest marine areas,

1 including habitat for endangered and protected species, with over 530 hours of
2 harmful, high-intensity noise, cannot be approved without the careful
3 environmental review required in an EIS. This conclusion is underscored by the
4 proximity of the exercise to the Hawaiian Islands Humpback Whale National
5 Marine Sanctuary and to the newly-named Northwestern Hawaiian Islands Marine
6 National Monument, both of which have been designated in recognition and for the
7 protection of these important marine areas. Moreover, even the EA on which the
8 agencies based their approvals fails adequately to describe the serious and wide-
9 ranging impacts of mid-frequency sonar on the marine environment and to human
10 divers, to consider and analyze all reasonable alternatives, and to identify and
11 implement all feasible mitigation measures.

12 7. In authorizing RIMPAC 2006, NMFS and the Navy have committed
13 these and other specific violations of the MMPA, NEPA, and the APA, as set forth
14 more fully herein below. To remedy these violations of law, Plaintiffs Natural
15 Resources Defense Council (“NRDC”), International Fund for Animal Welfare
16 (“IFAW”), Cetacean Society International (“CSI”), Ocean Futures Society (“Ocean
17 Futures”), and Jean-Michel Cousteau (collectively “Plaintiffs”) seek (1) a
18 declaration that the United States, and each of its named subdivisions and officials,
19 are violating federal law in the respects set forth herein; (2) an order vacating,
20 setting aside, and rescinding NMFS’s June 27, 2006 “incidental harassment
21 authorization” and Finding of No Significant Impact (“FONSI”) and the Navy’s
22 June 1, 2006 FONSI approving RIMPAC 2006; and (3) an injunction prohibiting
23 the United States and its subdivisions, officials, agents, and contractors from using
24 mid-frequency sonar during or in association with its RIMPAC 2006 exercise
25 unless and until that use is in full compliance with federal law, including the
26 MMPA, NEPA, and APA.

27 8. Defendants’ unlawful approval of the use of high-intensity mid-
28 frequency sonar during RIMPAC 2006 threatens significant ecological harm.

1 Unless this Court compels Defendants to comply with federal law and vacates the
2 approvals that are the focus of this action, marine species and their habitat risk
3 suffering irreparable damage that may not be fully understood for years to come.

4 **JURISDICTION AND VENUE**

5 9. This Court has subject matter jurisdiction over the claims set forth in this
6 Complaint pursuant to 28 U.S.C. § 1331 (Federal Question Jurisdiction), 5 U.S.C.
7 § 702 (Administrative Procedure Act), and 28 U.S.C. § 1361 (Mandamus). The
8 relief sought is authorized by 28 U.S.C. § 2201 (Declaratory Relief) and 28 U.S.C.
9 § 2202 (Injunctive Relief).

10 10. Venue is proper in the Central District of California under 28 U.S.C.
11 § 1391(e) as this civil action is brought against an agency of the United States and
12 officers and employees of the United States acting in their official capacities and
13 under the color of legal authority, as at least one Plaintiff resides in the Central
14 District of California, and as no real property is involved in this action.

15 11. An actual and substantial controversy exists between Plaintiffs and
16 Defendants. Upon information and belief, Defendants claim that they have
17 complied with all applicable laws and regulations in their approval of RIMPAC
18 2006.

19 12. Plaintiffs have no adequate remedy at law. Defendants' continuing
20 failure to comply with federal law will result in irreparable harm to the
21 environment; to multiple species of animals, including marine mammals protected
22 by federal laws, species listed as endangered or threatened under the Endangered
23 Species Act ("ESA"), and fish stocks; to Plaintiffs and Plaintiffs' members and
24 constituents; and to the public. No monetary damages or other legal remedy can
25 adequately compensate Plaintiffs, their members and constituents, or the public, for
26 this harm.

27 13. Plaintiffs and their members and constituents are adversely affected or
28 aggrieved by federal agency action and are entitled to judicial review of such action

1 within the meaning of the Administrative Procedure Act (“APA”). Plaintiffs’
2 interests and the interests of their members and constituents are directly and
3 significantly harmed by Defendants’ continuing violations of law. The relief
4 requested will fully redress those injuries.

5 **THE PARTIES**

6 The Plaintiffs

7 14. Plaintiff Natural Resources Defense Council, Inc. (“NRDC”) is a
8 national environmental advocacy group organized as a New York not-for-profit
9 membership corporation. The NRDC is registered to do business in California and
10 maintains offices in San Francisco and Los Angeles. The NRDC supports the
11 enforcement of NEPA and MMPA. The NRDC has over 650,000 members
12 nationwide, over 100,000 of whom reside in the State of California.

13 15. Plaintiff International Fund for Animal Welfare (“IFAW”) is a non-
14 profit, non-governmental organization that works to improve the welfare of wild
15 and domestic animals throughout the world by reducing commercial exploitation of
16 animals, protecting wildlife habitats, and assisting animals in distress. It seeks to
17 motivate the public to prevent cruelty to animals and to promote animal welfare and
18 conservation policies that advance the well-being of both animals and people.
19 IFAW has two million members worldwide and fourteen offices around the
20 world, with its headquarters located on Cape Cod, Massachusetts. Over the past two
21 decades, IFAW has made significant contributions to marine conservation and
22 science and has campaigned for measures to protect cetaceans and other marine life
23 from threats such as ocean noise pollution.

24 16. Plaintiff Cetacean Society International (“CSI”) is a not-for-profit
25 corporation organized under the laws of the state of Connecticut. Headquartered in
26 the United States, it is currently represented in 24 countries and maintains an
27 international membership that includes professionals from the scientific and
28 conservation communities. CSI is dedicated to the benefit of whales, dolphins,

1 porpoises, and the marine environment generally through conservation, education,
2 and research.

3 17. Plaintiff Ocean Futures Society (“Ocean Futures”) is a not-for-profit
4 corporation organized under the laws of the State of California. On behalf of itself
5 and its members, the mission of Ocean Futures is to explore our global ocean,
6 inspiring and educating people throughout the world to act responsibly for its
7 protection, documenting the critical connection between humanity and nature, and
8 celebrating the ocean’s vital importance to the survival of all life on our planet.

9 18. Plaintiff Jean-Michel Cousteau is an explorer, environmentalist,
10 educator, and film-maker. He is also President of the Ocean Futures Society, a not-
11 for-profit marine conservation and education organization. He has produced over
12 70 films, and continues to produce environmentally oriented programs and
13 television specials, public service announcements, multi-media programs for
14 schools, web-based marine content, books, articles for magazines and newspaper
15 columns, and public lectures. His filmed documentary describing the wonders and
16 fragility of marine life in Hawaiian waters was, according to White House officials,
17 one of the catalysts leading to the recent creation of the Northwestern Hawaiian
18 Islands Marine National Monument.

19 19. Plaintiffs’ members and constituents regularly use, enjoy, and benefit
20 from a healthy marine ecosystem and the presence of diverse marine life, including
21 the marine mammals and other marine species that have been, or are likely to be,
22 killed, injured, harassed or disturbed by the Navy’s uses of mid-frequency active
23 sonar alleged herein. Plaintiffs’ members and constituents derive recreational,
24 aesthetic, economic and scientific benefits from marine life by engaging in
25 activities including boat touring, deep-sea fishing, scientific study, whale-watching,
26 bird-watching, and underwater diving in the waters affected by the Navy’s use of
27 mid-frequency sonar alleged herein. Defendants’ failure to comply with federal
28 law and the resulting harm to the marine environment, including the disturbance,

1 injury, and death of marine life that is likely to result from that failure, harms the
2 interests of Plaintiffs' members and constituents.

3 The Defendants

4 20. Defendant Secretary of the Navy Donald C. Winter is the highest-
5 ranking official within the United States Department of the Navy. The Secretary is
6 responsible for the mid-frequency active sonar operations at issue in this Complaint
7 and for ensuring compliance with applicable federal laws, including NEPA and
8 MMPA. The Secretary is sued in his official capacity.

9 21. Defendant United States Department of the Navy is one of the armed
10 services of the United States Government. As reflected in its June 1, 2006 Finding
11 of No Significant Impact, the Navy is proposing to conduct the RIMPAC 2006
12 exercise that is the focus of this action. As a federal agency, the United States
13 Department of the Navy is responsible for ensuring its compliance with NEPA and
14 MMPA.

15 22. Defendant Secretary of Commerce Carlos M. Gutierrez is the head of
16 the United States Department of Commerce and is responsible for ensuring
17 compliance with the MMPA and NEPA. Secretary Gutierrez is sued in his official
18 capacity.

19 23. Defendant NMFS is an agency of the United States and is a subdivision
20 of the National Oceanic and Atmospheric Administration ("NOAA") within the
21 Department of Commerce. NMFS is responsible for enforcement of the MMPA,
22 and is the agency that issued the Incidental Harassment Authorization challenged
23 here. As a federal agency, NMFS is also responsible for ensuring compliance with
24 NEPA.

25 24. Defendant Assistant Administrator for Fisheries William Hogarth is the
26 highest-ranking official within NMFS, and is responsible for reviewing applications
27 for the "incidental" take of marine mammals under the MMPA. Assistant
28 Administrator Hogarth is sued in his official capacity.

1 such a conservative bias into the [Marine Mammal Protection Act].” Report of the
2 House Committee on Merchant Marines and Fisheries, reprinted in 1972 U.S. Code
3 Cong. & Admin. News 4148.

4 29. In order to protect against further depletion and extinction, MMPA
5 established a “moratorium on the taking . . . of marine mammals.” 16 U.S.C.
6 § 1371. The term “take” means “to harass, hunt, capture, or kill, or attempt to
7 harass, hunt, capture or kill any marine mammal.” 16 U.S.C. § 1362(13).
8 “Harassment” is further defined, for the activities at issue in this suit, as “any act
9 that injures or has the significant potential to injure a marine mammal or marine
10 mammal stock in the wild,” or “any act that disturbs or is likely to disturb a marine
11 mammal or marine mammal stock in the wild by causing disruption of natural
12 behavioral patterns, including, but not limited to, migration, surfacing, nursing,
13 breeding, feeding, or sheltering, to a point where such behavioral patterns are
14 abandoned or significantly altered.” 16 U.S.C. § 1362(18).

15 30. All takings of marine mammals (except for certain specific activities
16 such as subsistence hunting or commercial fishing) are prohibited by MMPA unless
17 first authorized by the Secretary of Commerce. There are two types of general
18 exemptions available through the MMPA for activities that incidentally “take”
19 marine mammals: “small take permits” and “incidental harassment authorizations.”
20 16 U.S.C. § 1371(a)(5)(A)-(D); 50 C.F.R. 216.105-107. MMPA and its
21 accompanying regulations set forth standards and procedures, including public
22 notice, that must be satisfied before either a small take permit or an incidental
23 harassment authorization may issue. *Id.* Until 1994, the only exemptions available
24 under the Act were permits, which require the wildlife agencies to promulgate
25 regulations specifying permissible methods of taking. In 1994, however, the
26 MMPA was amended to provide a streamlined mechanism by which proponents
27 can obtain authorization for projects whose takings are by harassment only and do
28 not risk serious injury or mortality. 16 U.S.C. § 1371(a)(5)(D); 50 C.F.R. 216.107.

1 31. Section 101 of the MMPA prohibits the Secretary of Commerce,
2 through his agencies, including NOAA and NMFS, from granting an incidental
3 harassment authorization unless: (i) the activities being authorized will do no more
4 than “harass” marine mammals; (ii) the takings it authorizes have no more than a
5 “negligible impact” on species and stocks; (iii) it provides for the monitoring and
6 reporting of such takings; and (iv) it prescribes methods and means of effecting the
7 “least practicable impact” on species and stock and their habitat. 16 U.S.C.
8 § 1371(a)(5)(D). Each of these requirements is mandatory and cannot be evaded by
9 claims of insufficient information.

10 32. In another protective measure designed to ensure the scientific
11 soundness of decisions under the MMPA, Congress established the United States
12 Marine Mammal Commission and charged it to make recommendations on specific
13 matters before the Secretary of Commerce. The MMPA requires that any deviation
14 from such recommendations must be explained in detail, a level of deference
15 unprecedented for an advisory panel at the time that the MMPA was adopted.
16 16 U.S.C. § 1402(d).

17 National Environmental Policy Act (NEPA)

18 33. NEPA is “our basic national charter for protection of the environment.”
19 40 C.F.R. § 1500.1(a). It was enacted in 1970 to put in place procedures to insure
20 that, before irreversibly committing resources to a project or program, federal
21 agencies “encourage productive and enjoyable harmony between man and his
22 environment,” “promote efforts which will prevent or eliminate damage to the
23 environment,” and “enrich understanding of the ecological systems and natural
24 resources important to the Nation.” 42 U.S.C. § 4321.

25 34. Section 102(2)(C) of NEPA requires federal agencies to prepare,
26 consider, and approve an environmental impact statement (“EIS”) for any “major
27 Federal action significantly affecting the quality of the human environment.”
28 42 U.S.C. § 4332(2)(C). Significant effects need not be certain to occur to trigger

1 the EIS requirement—rather, “an EIS must be prepared if ‘substantial questions are
2 raised as to whether a project . . . may cause significant degradation of some human
3 environmental factor.’” *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1149
4 (9th Cir. 1998) (quoting *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th
5 Cir. 1992)).

6 35. The fundamental purpose of an EIS is to force the decision-maker to
7 ensure that the policies and goals defined in NEPA are infused into the actions of
8 the federal government. 40 C.F.R. § 1502.1. An EIS analyzes the potential
9 environmental impacts, alternatives and mitigation opportunities for major federal
10 actions.

11 36. “In determining whether to prepare an environmental impact statement
12 the Federal agency shall . . . prepare an environmental assessment.” 40 C.F.R.
13 § 1501.4(b). An environmental assessment (“EA”) is “a concise public document”
14 that serves, *inter alia*, to “provide sufficient evidence and analysis for determining
15 whether to prepare an environmental impact statement or a finding of no significant
16 impact.” *Id.* As with any document prepared under NEPA, an environmental
17 assessment is intended to “ensure that environmental information is available to
18 public officials and citizens before decisions are made and before actions are
19 taken.” 40 C.F.R. 1500.1(b). If the environmental assessment concludes that a
20 proposed action will not have a significant effect on the environment, the federal
21 agency prepares a “finding of no significant impact.” 40 C.F.R. § 1508.13.

22 **FACTUAL BACKGROUND**

23 Overview of Mid-Frequency Sonar Systems

24 37. The Navy employs mid-frequency, high-intensity active sonar as an
25 element of its anti-submarine warfare program. Active sonar involves the
26 generation of sound—in this case, sound of extraordinary intensity—for the
27 purpose of detecting objects in the marine environment. Mid-frequency active
28 sonar systems are conventionally defined as those that emit sound at frequencies

1 between 1 and 10 kilohertz (kHz), which is a measure of the frequency of the
2 oscillation of the sound wave (or its “pitch”).

3 38. Navy vessels are widely equipped with mid-frequency sonar systems.
4 Mid-frequency active systems are also air-deployed via helicopter and fixed-wing
5 aircraft and are placed on floating platforms known as sonobuoys.

6 39. On information and belief, the Navy’s current battery of mid-frequency
7 systems includes the following:

8 The AN/SQS-53 A/B, C and D, a hull-mounted system. The “C”
9 version of this system, commonly known as “53-Charlie,” is
10 deployed aboard several classes of Navy frigates and destroyers
11 as part of the AN/SQQ-89 sonar suite.

12 The AN/SQS-56, another hull-mounted system that operates at
13 somewhat higher frequencies than AN/SQS-53.

14 The AN/SSQ-62 B, C, D, & E Directional Command Activated
15 Sonobuoy System (known as DICASS).

16 The Airborne Low Frequency System (known as ALFS).

17 Notwithstanding the reference to “low frequency” in its name,
18 ALFS operates in the mid-frequency range between 3 and 5 kHz.

19 40. Some of these systems employ technology capable of generating
20 sounds in excess of 235 decibels (dB re 1 μ Pa (RMS)).² For example, during a
21 March 2000 mass stranding of whales in the Bahamas, which a joint NMFS and
22

23 ² The decibel scale is like the Richter scale for earthquakes: it expresses force
24 in logarithmic terms, rising in increasing orders of magnitude from a baseline value.
25 Each ten-decibel rise along the scale corresponds to a ten-fold increase in power;
26 thus, a sound measuring 130 dB is considered ten times more intense than a 120 dB
27 sound, a sound of 140 dB is 100 times more intense, and a sound of 150 dB is 1,000
28 times more intense. Unless otherwise noted, all decibel levels (dB) cited in this
Complaint represent the root mean square (RMS) of the acoustic pressure of the
sound source, calculated in reference to one microPascal (re 1 μ Pa), at one meter’s
distance.

1 Navy report concludes was most likely caused by its use of the AN/SQS-53C sonar
2 system, sound levels generated by the sonar were reported to exceed 235 decibels,
3 and even tens of kilometers away from the source sound levels remained at 160
4 decibels. Exactly how loud some of these systems operate is not publicly known.

5 The Navy's Proposed RIMPAC 2006 Activities

6 41. RIMPAC 2006 is proposed to occur across about 210,000 square
7 nautical miles in and around the main Hawaiian Islands. It is scheduled to last
8 more than a month, from June 26 to about July 28, with the mid-frequency sonar
9 training portion of the exercise slated to begin on or about July 5. Individually and
10 collectively, many of the activities planned as part of this event pose a significant
11 risk to Hawaii's unique marine environment. Live ordnance, explosives, and high-
12 intensity, mid-frequency sonar will all be used.

13 42. The intensity of the Navy's proposed use of mid-frequency sonar
14 during this exercise is staggering. In all, the Navy is proposing to conduct 44 anti-
15 submarine warfare exercises around the islands, each exercise involving one to five
16 sonar vessels plus one or more helicopters and fixed-wing aircraft—for a total of
17 532 exercise hours condensed into a four-week period. Mid-frequency sonar would
18 be permitted throughout the 210,000 square nautical mile operating area and
19 concentrated into about 46,000 square nautical miles. Even NMFS' own analysis
20 of RIMPAC 2006, which significantly underestimates the impacts, concludes that
21 its use of sonar during the event will result in as many as 33,000 "takes" of marine
22 mammals, including significant numbers of endangered species such as sperm
23 whales, and other species whose numbers are already depleted.

24 43. In addition to mid-frequency sonar use, other elements of the proposed
25 event will also harass and perhaps injure and kill marine mammals and other marine
26 life. The Navy is proposing Air-to-Surface Missile Exercises (ASMEX), Surface-
27 to-Air Missile Exercises (SAMEX), Surface-to-Surface Missile Exercises
28 (SSMEX), Mine Countermeasures (MCM) Exercises, Strike Warfare Exercises

1 (STWEX), Gunnery Exercises (GUNNEX), a Sinking Exercise (SINKEX), and
2 others. These activities have potential for acoustic and non-acoustic impacts, and
3 some are similar or identical to military activity that has required authorization and
4 substantial mitigation in the past. Yet these aspects of RIMPAC 2006 are not
5 addressed in NMFS’s authorization for RIMPAC 2006 under the MMPA.

6 44. RIMPAC 2006 will be the latest in a series of RIMPAC exercises. At
7 least every two years since 1971, the Navy has conducted a RIMPAC training
8 exercise in waters off the Hawaiian Islands. The Navy’s biannual conduct of mid-
9 frequency sonar training in the same biogeographic areas, repeatedly exposing the
10 same marine mammal populations, fish stocks, and ecosystems to high intensity
11 sound and potentially subjecting the same individuals to multiple exposures, creates
12 the serious potential for cumulative impacts on these populations, individuals and
13 habitats.

14 Environmental Impact of Mid-Frequency Active Sonar on Marine Mammals

15 45. There is no serious scientific dispute that the mid-frequency active
16 sonar systems proposed to be used extensively during RIMPAC 2006 can kill,
17 injure, and disturb marine mammals. The Scientific Committee of the International
18 Whaling Commission—the preeminent international body of scientists studying
19 whale populations—analyzed the most current evidence on the question of the
20 impact of military sonar on beaked whale populations and reported, in 2004, that
21 “[t]he weight of accumulated evidence now associates mid-frequency, military
22 sonar with atypical beaked whale mass strandings. This evidence is very
23 convincing and appears overwhelming.”

24 46. A group of scientists hired by the Navy to examine the impacts of
25 active sonar on cetaceans recently came to the same conclusion, writing in 2004 in
26 their report to the Navy as follows: “[We were] tasked by the [Office of Naval
27 Research (“ONR”)] to investigate the reported incidents of marine mammal
28 beachings in apparent response to mid-frequency (2-6 kHz) active sonar. . . . We

1 would like to state at the outset that the evidence of sonar causation is, in our
2 opinion, completely convincing and that therefore there is a serious issue of how
3 best to avoid/minimize future beaching events. . . . Given the variety of different
4 beaching events, it is hard to argue that there is some very special confluence of
5 acoustic events that uniquely trigger beaked whale beachings; instead the trauma,
6 whatever its cause, seems to be a robust consequence of mid-frequency
7 ensonification.”

8 47. Naval exercises employing mid-frequency sonar have definitively
9 caused or been associated with multiple stranding events of whales and other
10 marine mammals around the world. These stranding incidents include, but are not
11 limited to, the following:

12 a. *Greece 1996*—A mass stranding of Cuvier’s beaked whales
13 occurred along the west coast of Greece in 1996 and was correlated, in
14 an analysis appearing in the scientific journal *Nature*, with the
15 movements of an active sonar system operated by NATO. A
16 subsequent NATO investigation found the strandings to be closely
17 timed with the movements of a vessel employing intense mid- and low-
18 frequency active sonar and ruled out all other physical environmental
19 factors as a cause.

20 b. *Bahamas 2000*—During a U.S. Navy exercise, seventeen
21 marine mammals of four different species stranded along the shores of
22 the channels through which several Navy ships traveled. Among the
23 stranded animals were Blainville’s beaked whales (*Mesoplodon*
24 *densirostris*), Cuvier’s beaked whales (*Ziphius cavirostris*), a Gervais’
25 beaked whale (*Mesoplodon europaeus*), and minke whales
26 (*Balaenoptera acutorostrata*). *Post mortem* examinations overseen by
27 NMFS, or “necropsies,” were performed on some of the whales, and
28 each of these found evidence of tissue damage consistent with an

1 intense acoustic or pressure event. All of the animals examined had
2 hemorrhaging in and around the ears, and other tissues related to sound
3 conduction or production, such as the larynx and auditory fats, had
4 minor to severe damage. A joint task force headed by NMFS and the
5 Navy subsequently concluded that the whale deaths were due to
6 “acoustic or impulse trauma” that was “most likely” caused by the
7 Navy’s mid-frequency active sonar.

8 c. *Canary Islands 2002*—During a Spanish naval exercise in
9 which U.S. ships participated, at least fourteen whales of three species
10 were found stranded on the nearby islands of Lanzarote and
11 Fuerteventura. Eleven dead whales were recovered and examined for a
12 cause of death, and findings published in the scientific journal *Nature*
13 concluded that the whales showed organ damage and other internal
14 injuries consistent with the condition known in human divers as “the
15 bends.” The authors of the study suggest that the injuries were caused
16 either by a direct physiological effect of the mid-frequency sonar, or by
17 a startle response to the sonar that caused the whales to ascend too
18 quickly.

19 d. *Haro Strait 2003*— During a Navy “swept channel” exercise
20 in United States waters near Seattle employing mid-frequency sonar,
21 observers on land and in boats saw dozens of porpoises stampeding
22 from the area; a pod of orcas (killer whales) broke off their feeding
23 behavior and milled in the shallows before fleeing; and, in the days
24 following this exercise, fourteen harbor porpoises were found beached
25 along nearby shores. A NMFS report analyzing this incident concluded
26 that acoustic trauma could not be ruled out as a cause of death,
27 although freezer artifacts and other problems incidental to the
28 preservation of tissue samples made the cause of death in most

1 specimens difficult to determine and precluded a definitive link to
2 sonar. The report also concluded that harbor porpoises throughout the
3 area were exposed to levels of sound much greater than those known to
4 strongly disrupt their behavior, and that the number of porpoise
5 strandings observed in this period was statistically significantly higher
6 than in other years.

7 e. *Gulf of Alaska 2004*—Coincident with Northern Edge, a joint
8 training exercise conducted by the Navy in the Gulf of Alaska in June
9 2004, at least six beaked whales stranded on nearby shores. No
10 analysis of the injuries to these whales has yet been released.

11 f. *Canary Islands 2004*—About one hundred nautical miles
12 north of the Canary Islands in July 2004, the Navy conducted a joint
13 training exercise known as “Majestic Eagle 2004.” U.S ships involved
14 reportedly included two aircraft carriers, three submarines, two Aegis
15 cruisers, and an Aegis destroyer. Just after the exercise concluded, at
16 least four whales were found stranded or dead in nearby waters. Tissue
17 analysis of the dead whales indicates acoustic trauma similar to that
18 found in other sonar-related strandings—namely, organ damage and
19 other internal injuries consistent with the condition known in human
20 divers as “the bends.”

21 g. *RIMPAC 2004*—During the Navy’s last conduct of a
22 RIMPAC exercise, in July 2004, some 150-200 whales from a species
23 that is rarely seen near shore and had never naturally mass-stranded on
24 Hawaii came into Hanalei Bay, on the island of Kaua’I. The whales
25 crowded into the shallow bay waters and milled there for over 28 hours.
26 Though the whales were ultimately assisted into deeper waters by
27 members of a local stranding network, one whale was left behind and
28 found dead the next day. NMFS undertook an investigation of the

1 incident and concluded that the Navy’s nearby use of sonar in RIMPAC
2 2004 was the “plausible, if not likely” cause of the stranding.

3 h. *Canary Islands 2004*—Four days after an international
4 naval exercise named “Majestic Eagle 2004,” the bodies of four
5 Cuvier’s beaked whales began drifting ashore in the Canary Islands,
6 about 75 nautical miles south of the exercise. The three whales that
7 were analyzed showed fat embolism in the lungs, similar to what has
8 been seen in other cases. Mid-frequency sonar is known to have been
9 used during the exercise.

10 i. *North Carolina 2005*—During and just after a U.S.
11 training exercise off North Carolina in which the *USS Kearsarge*
12 Expeditionary Strike Group was engaged in anti-submarine training
13 involving the use of mid-frequency active sonar, at least thirty-seven
14 whales of three different species stranded and died along North
15 Carolina’s Outer Banks, including numerous pilot whales (six of which
16 were pregnant), one newborn minke whale and two dwarf sperm
17 whales. NMFS investigated the incident and found that the event was
18 highly unusual, being the only mass stranding of offshore species ever
19 to have been reported in the region, and that it shared ‘a number of
20 features’ with other sonar-related mass stranding events (involving
21 offshore species which stranded alive and were atypically distributed
22 along the shore). NMFS concluded that sonar was a possible cause of
23 the strandings and also ruled out the most common other potential
24 causes, including viral, bacterial, and protozoal infection, direct blunt
25 trauma, and fishery interactions.

26 j. *Almeria, Spain 2006*—Four Cuvier’s beaked whales
27 stranded on the Almerian coast of southern Spain, with the same suite
28 of pathologies seen in the whales that stranded in the Canary Islands in

1 2002 and 2004. Investigators are confirming the use of mid-frequency
2 sonar in the area.

3 48. The available scientific data also suggest a long-standing correlation
4 between naval exercises and the mass stranding of beaked whales, going back
5 decades. Following the Bahamas 2000 stranding incident described above, a
6 historical record of beaked whale strandings since the year 1914 was compiled by
7 researchers at the Smithsonian Institution. The record demonstrates a strong
8 statistical correlation between naval activities in general (which would include the
9 use of active sonar) and mass mortalities of beaked whales. The International
10 Whaling Commission's Standing Working Group on Environmental Concerns, in
11 reporting these data, observed that every mass stranding on record that has involved
12 multiple species of beaked whales occurred with naval activities in the vicinity.

13 49. A historical record of beaked whale strandings has also been compiled
14 for the Pacific coast of Japan and reported to the Scientific Committee of the
15 International Whaling Commission. The authors found a concentration of mass
16 beaked whale strandings along the Japanese coast near Yokosuka, one of the
17 primary bases for U.S. naval activity in the western Pacific. Eleven mass
18 strandings of beaked whales were reported in the bays around this U.S. naval base
19 from the late 1950s to 2004. By comparison, only two other possible mass
20 strandings of beaked whales are known to have occurred over the rest of the entire
21 Pacific coast of Japan. The authors of this analysis conclude that a relationship
22 between these mass strandings and the Navy's use of acoustics is "strongly
23 suggest[ed]" by this record.

24 50. Reviewing these and other incidents, the chairs of a 2003 scientific
25 workshop of the European Cetacean Society on the topic of active sonar and
26 cetaceans wrote, in their concluding remarks, that "[t]he results of post-mortem
27 examinations of mass stranded cetaceans, immediately following naval activities
28 using mid-frequency long-range tactical sonar, provide compelling evidence that

1 acoustic trauma from those activities, or at least injuries stimulated by behavioural
2 responses to them, has in some way led to their deaths. Deep-diving medium-sized
3 odontocetes particularly of the family *Ziphiidae* appear to be the most susceptible,
4 with Cuvier's beaked whale *Ziphius cavirostris* making up more than three-quarters
5 of the total number of animals recorded stranding in four major incidents (May
6 1996 – September 2002).”

7 51. Reports of whales that strand due to Navy sonar are likely to
8 underestimate the scale of the problem. Many whales may be affected far from
9 shore yet remain undiscovered, as most dead whales sink. NMFS recognized this
10 point in a recent stock assessment of a particular species of beaked whales, writing
11 that “unknown levels of injuries and mortalities of Cuvier's beaked whales may
12 occur as a result of anthropogenic noise, such as military sonars (U.S. Dept. of
13 Commerce and Secretary of the Navy 2001) or other commercial and scientific
14 activities involving the use of air guns. Such injuries or mortalities would rarely be
15 documented, due to the remote nature of many of these activities and the low
16 probability that an injured or dead beaked whale would strand.”

17 52. This fear is echoed by members of the Scientific Committee of the
18 International Whaling Commission, who in 2004 expressed concern that
19 “assessments of stranding events do not account for animals that are severely
20 affected or died but did not strand.”

21 53. For example, the whales that stranded and died along the shore in the
22 Bahamas 2000 stranding event may represent only a fraction of those that died
23 because of that training exercise. According to biologists at the Bahamas Marine
24 Mammal Survey, the Cuvier's beaked whales that had been consistently photo-
25 identified over many years as resident in that area have all but disappeared since the
26 Navy training exercise, leading researchers who have studied the population for
27 years to conclude that nearly all of the animals either died of physical injury caused
28

1 by the Navy sonar transmissions, or were driven to permanently abandon their
2 habitat.

3 54. Nor are impacts of Navy mid-frequency sonar on marine mammals
4 limited to stranding and death. Marine mammals depend on sound to navigate, find
5 food, locate mates, avoid predators, and communicate with each other. Flooding
6 their habitat with man-made, high-intensity noise can interfere with these and other
7 activities. Intense noise, such as that generated by mid-frequency active sonar, has
8 been demonstrated or is believed to induce a range of adverse effects in marine
9 mammals. These adverse effects include, but are not limited to, the following:

- 10 a. mortality resulting from damage to organ tissue, hemorrhaging
11 of air cavities or other structures of the body, or beaching of
12 animals
- 13 b. temporary or permanent loss of hearing;
- 14 c. abandonment of habitat;
- 15 d. disruption of mating, feeding, nursing, and migrating;
- 16 e. induction of aggressive (or agonistic) behavior, which can result
17 in injury;
- 18 f. induction of stress, which compromises breeding and may leave
19 animals vulnerable to disease, parasitism, and other
20 environmental harms;
- 21 g. masking of biologically meaningful sounds, such as the call of
22 predators; and
- 23 h. declines in the productivity of prey species, such as fish, whose
24 eggs have been shown to lose viability on exposure to intense
25 sound.

26 55. The Navy concedes that man-made sounds introduced into the ocean
27 can have a range of disturbing effects on marine mammals. In an EIS prepared in
28

1 advance of the deployment of “SURTASS Low Frequency Active (LFA)” sonar, a
2 low-frequency active sonar system, the Navy wrote:

3 There is growing evidence that man-made sounds can sometimes
4 disturb marine mammals. . . . Many marine mammals rely on sound for
5 communication, navigation, or detection of predators and prey.
6 Disruption of any of these biologically important functions could
7 interfere with normal activities and behavior, and thereby might impact
8 the reproductive success of individuals and eventually the size of a
9 population.

10 Environmental Impact of Mid-Frequency Active Sonar on Fish and Other Species

11 56. In addition to its demonstrated effects on marine mammals, a
12 substantial body of evidence suggests that intense underwater noise, such as active
13 sonar, may be harmful or deadly to other marine wildlife, including fish, giant
14 squid, and sea turtles.

15 57. High-intensity sound has been shown to reduce the viability of fish
16 eggs and to cause developmental damage in young fish. It has also been shown to
17 injure the ears and lateral lines necessary for hearing in adult fish. Intense sound
18 may also have harmful resonance impacts on fish with swim bladders, particularly
19 larger pelagic fish such as tuna.

20 58. A series of studies in Australia showed that pink snapper sustained
21 extensive damage to the hair cells located at the sensory epithelia of the inner ear
22 after they were exposed to impulsive high-intensity noise. The damage, described
23 as “blebbing” and “blistering” on the surface of the epithelia, “suggest that hair
24 cells had been ‘ripped’ from the epithelia (immediate mechanical damage) or,
25 alternatively, had ‘exploded’ after exposure (physiological damage).” This study is
26 particularly significant because the inner ear of species examined (pink snapper) “is
27 typical of the majority of commercially important species (e.g., salmon, tuna, cod,
28 haddock).” Because fish rely on hearing to locate prey and avoid predators,

1 environmental changes that affect their hearing both impair their ability to find food
2 and increase their vulnerability to predation.

3 59. Nor is physical injury the only effect that ocean noise may have on fish.
4 Many fish species are acutely sensitive to sound, and many have been shown to use
5 sound for feeding, mating, avoiding predators, and maintaining the integrity of their
6 schools. At least one study suggests that ocean noise from outboard motor engines
7 is capable of temporarily impairing the ability of fish to hear a full range of
8 sounds—a form of temporary deafness. And other studies have shown that
9 underwater noise can temporarily deafen goldfish, tilapia, and sunfish. Again,
10 hearing loss can both impair fish species’ ability to find food and increase their
11 vulnerability to predation. As a number of fish specialists have noted, “[f]ishes
12 with impaired hearing would have reduced fitness, potentially leaving them
13 vulnerable to predators, possibly unable to locate prey, sense their acoustic
14 environment, or, in the case of vocal fishes, unable to communicate acoustically.”

15 60. Like marine mammals, some fish also demonstrate behavioral
16 responses to intense sound. A Norwegian study, for example, documented dramatic
17 declines in the catch rates for both cod and haddock (between 45 and 70%) in the
18 vicinity of a seismic airgun array, a technology that produces intense underwater
19 noise. Fishermen were affected across an area of nearly 2,000 square miles. Catch
20 rates did not recover within five days after operations ended. A similar experiment
21 showed a 52% decline in a rockfish fishery exposed to a single airgun array. Not
22 only can such disruption of normal behavior potentially have widespread effects on
23 the health of individual populations, but the decline in catch rates demonstrated by
24 these studies has direct economic ramifications.

25 61. Moreover, intense sound may be detrimental to important prey species
26 for many fish stocks, and thus further impair the biological components of fish
27 habitat. A recent report by the National Academy of Sciences observed that
28 “[i]ncreases in noise (above ambient levels) have been implicated in reduced

1 growth and reproduction in a variety of marine organisms.” For example, extended
2 exposure to man-made sound has been shown to significantly reduce growth and
3 reproduction rates in the brown shrimp (*Crangon crangon*). It has also been shown
4 to prevent settling in the larvae of some species of crustaceans thus preventing
5 development to adulthood. Because the larvae of many species are viable only for a
6 few hours to a few weeks, a poorly-timed exposure to intense sound could
7 significantly impair local populations of these important prey species.

8 62. Sea turtles and giant squid are among the other species that may also be
9 affected by intense mid-frequency active sonar. In the last five years there have
10 been two documented strandings of multiple giant squid—a mysterious species that
11 is rarely seen or recorded alive—on the Spanish coast. In both cases, the squid
12 strandings coincided with nearby seismic airgun operations. According to scientists
13 who studied the events, five giant squid washed up dead on Spanish beaches shortly
14 after two seismic survey vessels conducted operations in the area. Two years later,
15 four additional strandings were recorded under similar circumstances. The dead
16 squid all were found with lesions on their skin, damaged internal organs, and badly
17 damaged ears, all of which, according to the scientists, “suggest lethal or sublethal
18 effects of the shock acoustic waves.” Scientists speculate that the squid, whose
19 metabolisms are adapted for life in the deep ocean, may have died of suffocation
20 from surfacing after being disoriented by the intense noise.

21 63. There is also evidence that the behavior and stress levels of sea
22 turtles—nearly all of which are highly endangered—may be affected by ocean
23 noise. Avoidance responses of sea turtles to intense sounds have consistently been
24 demonstrated by scientists. Australian researchers have shown that sea turtles will
25 display a general “alarm” response to seismic surveys as much as two kilometers
26 away. And behavior responses among turtles, such as rising to the surface and
27 altered swimming patterns, may be elicited with exposure to as little as 166 dB re 1
28 μ Pa mean squared pressure. Researchers have also shown alterations in the blood

1 chemistry of juvenile sea turtles exposed to intense sound, indicating increased
2 stress levels. Turtles' ability to hold their breath—a key to their survival as adult
3 sea turtles spend most of their lives submerged—may be compromised by increased
4 stress.

5 64. The growing evidence of ecosystem-wide impacts of intense man-made
6 sound illustrates the importance of careful planning and compliance with
7 environmental review, consultation, and permit requirements, all of which are
8 designed to help the Navy understand the impacts of its actions, and mitigate those
9 impacts, before flooding vast areas of marine habitat with intense, harmful mid-
10 frequency sonar.

11 Impacts of RIMPAC 2006 on Marine Mammals, Fish, and Endangered or
12 Threatened Species

13 65. RIMPAC 2006 will take place in some of the most biologically
14 significant marine areas in the world, including waters in or near the Hawaiian
15 Islands Humpback Whale National Marine Sanctuary and the recently-designated
16 Northwestern Hawaiian Islands Marine National Monument. Twenty-five cetacean
17 species, two pinniped species, and five sea turtle species inhabit the operating areas,
18 including seven endangered marine mammals species (humpback, North Pacific
19 right, sei, fin, blue, and sperm whales, and Hawaiian monk seals). All five of the
20 sea turtle species are also listed as endangered. Other marine mammal species in
21 the area include Cuvier's beaked whales, Blainville's beaked whales, Longman's
22 beaked whales, melon-headed whales, killer whales, bryde's whales, spinner
23 dolphins, and bottlenose dolphins. Fish in the area include bigeye tuna, bluefin
24 tuna, and pink snapper. Many of these species—including especially the beaked
25 whales—have been identified as vulnerable to serious injury associated with mid-
26 frequency active sonar.

27 66. Multiple marine species, including fish, marine mammals protected by
28 MMPA, and species protected by ESA, will be significantly harmed by the use of

1 mid-frequency sonar during RIMPAC 2006. RIMPAC 2006 has the significant
2 potential to injure and kill marine mammals and marine mammal stocks in the wild,
3 and is likely to disturb marine mammals and marine mammal stocks in the wild by
4 causing disruption of natural behavioral patterns, including, but not limited to,
5 migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such
6 behavioral patterns are abandoned or significantly altered.

7 Administrative Proceedings

8 67. The Navy published a notice of availability of its Draft Supplemental
9 Programmatic Environmental Assessment for RIMPAC 2006 in January 2006. *See*
10 71 Fed. Reg. 3276 (Jan. 20, 2006). The Navy’s Final Supplemental Programmatic
11 Environmental Assessment and Finding of No Significant Impact for the exercise
12 were published on June 1, 2006. *See* 71 Fed. Reg. 31170 (June 1, 2006).

13 68. NMFS published notice of its proposed Incidental Take Authorization
14 for RIMPAC 2006 in April 2006. *See* 71 Fed. Reg. 20986 (Apr. 24, 2006).

15 69. The Marine Mammal Commission submitted formal comments and
16 recommendations to NMFS critiquing its proposed Incidental Take Authorization
17 for RIMPAC 2006 on a wide range of issues. For example, the Commission
18 (1) criticizes NMFS for “inappropriately dismiss[ing] possible injury and
19 biologically significant behavioral effects” by discounting the consequences of
20 hearing loss in marine mammals; (2) expresses “concerns about the adequacy of the
21 proposed mitigation and monitoring program”; (3) notes that marine mammals may
22 react to the sounds produced by mid-frequency sonar at received levels lower than
23 those thought to cause direct physical harm, and that “[s]uch behavioral reactions
24 may, in some circumstances, lead to physiological harm, stranding, or even death”;
25 (4) therefore “questions why [NMFS] discounts completely the possibility that the
26 predicted behavioral disturbance could result in lethal injuries” and “the assumption
27 that all incidental taking during the proposed activities will be by harassment only”;
28 (5) recommends that given “the potential for serious injury or mortality” of marine

1 mammals from mid-frequency sonar, NMFS “reconsider its decision to authorize
2 the proposed activity by means of an incidental harassment authorization”; (6)
3 expresses “particular concern” for beaked whales, “one of the most difficult species
4 to detect and one of the most susceptible to potential impacts of mid-frequency
5 sonar”; and (7) notes that during the Navy’s proposed choke-point exercises, there
6 is an “increased likelihood of producing a sound field with the potential to cause
7 cetaceans to strand, be injured, or die.”

8 70. On June 27, 2006, NMFS published the final Incidental Harassment
9 Authorization for RIMPAC 2006, adopted in its entirety the Supplemental EA
10 prepared by the Navy for that exercise, and published a Finding of No Significant
11 Impact.

12 Plaintiffs Have Repeatedly Notified Defendants of these Violations, and Have
13 Urged Defendants to Remedy Them, To No Avail

14 71. In the aftermath of the March 2000 mass mortality of whales in the
15 Bahamas, Plaintiff NRDC wrote to the Navy expressing serious concerns about the
16 Navy’s use of high intensity sonar and requesting discussions with the Navy on
17 bringing its use of high intensity sonar into compliance with federal environmental
18 law. The Navy did not respond. (This letter, dated July 7, 2000, is included as
19 Exhibit 38 to the Declaration of Cara Horowitz filed concurrently with this
20 Complaint.)

21 72. In the aftermath of the July 2004 stranding in Kauai, Hawaii, in
22 conjunction with RIMPAC 2004, Plaintiffs NRDC, IFAW, and Ocean Futures
23 Society and its founder Jean-Michel Cousteau wrote to the Secretary of the Navy
24 again about the Navy’s use of mid-frequency sonar. The letter detailed the long
25 history of sonar-related strandings, summarized some of the evidence of
26 environmental harm caused by mid-frequency active sonar, and urged the Navy to
27 bring its use of mid-frequency active sonar into compliance with federal
28 environmental law. The letter also urged the Navy to adopt a series of common-

1 sense measures during peacetime training to protect marine life from harm caused
2 by mid-frequency active sonar. These Plaintiffs sent an additional letter to the
3 Navy supplementing their request with new information arising from the
4 International Whaling Commission Scientific Committee concerning the link
5 between mid-frequency active sonar and whale deaths. (These letters, dated July 14
6 and August 5, 2004, are included respectively as Exhibit 39 to the Declaration of
7 Cara Horowitz and Exhibit C the Declaration of Nicholas Morgan In Support Of
8 Plaintiffs' Application for a Temporary Restraining Order, both filed concurrently
9 with this Complaint.)

10 73. The Navy responded in September 2004 with a letter giving general
11 assurances of its commitment to address the impact of its sonar systems on marine
12 life, though without commenting on the protective measures that Plaintiffs NRDC,
13 IFAW, Ocean Futures Society, and Jean-Michel Cousteau had urged the Navy to
14 consider, and without indicating that it intended to alter its current practices with
15 respect to those systems. The same Plaintiffs replied with a series of questions to
16 the Navy seeking clarification of its position and further detail on whether it was, or
17 was not, undertaking certain protective measures and other steps to comply with
18 federal law. The Navy has not responded to that letter.

19 74. During the public comment period on the Navy's Draft Environmental
20 Assessment for RIMPAC 2006, Plaintiffs NRDC, IFAW, Cetacean Society
21 International, Ocean Futures Society, and Jean-Michel Cousteau submitted a
22 comment letter to the Commander of the U.S. Pacific Fleet. Among other things,
23 the letter stated that the Navy's draft document "fails to meet the environmental
24 review standards prescribed by the National Environmental Policy Act" and that it
25 "cannot serve as the basis for a Finding of No Significant Impact." The letter urged
26 the Navy to "thoroughly revise[]" its analysis and to prepare an Environmental
27 Impact Statement for RIMPAC 2006, as required by NEPA. A copy of the letter
28 was also sent to senior officials at NMFS with responsibility over NMFS's MMPA

1 permitting decision for RIMPAC 2006. (This letter, dated February 21, 2006, is
2 included as Exhibit A to the Declaration of Nicholas Morgan In Support Of
3 Plaintiffs' Application for a Temporary Restraining Order filed concurrently with
4 this Complaint.)

5 75. During the public comment period on NMFS's proposal to issue an
6 Incidental Harassment Authorization under the MMPA for RIMPAC 2006,
7 Plaintiffs NRDC, IFAW, Cetacean Society International, Ocean Futures Society,
8 and Jean-Michel Cousteau submitted a comment letter to Steve Leathery and
9 Michael Payne, Chiefs of the Permits, Conservation and Education Division of
10 NMFS. Among other things, the letter stated that the proposed authorization would
11 be unlawful if issued, and that RIMPAC 2006 could not be authorized by anything
12 less than a small take permit, given the "proven risk of whale mortalities that a
13 mere authorization cannot cover." The letter also emphasized the "impossibility in
14 this case of making a 'finding of no significant impact'" and the resulting necessity
15 for an Environmental Impact Statement under NEPA. The comments submitted
16 both to NMFS and the Navy also provided a detailed list of mitigation measures.
17 (This letter, dated May 24, 2006, is included as Exhibit B to the Declaration of
18 Nicholas Morgan In Support Of Plaintiffs' Application for a Temporary Restraining
19 Order filed concurrently with this Complaint.)

20 76. On May 30, 2006, Plaintiff NRDC sent a letter to the Navy, through
21 counsel, notifying it of NRDC's intention to seek preliminary relief in federal court
22 if final authorizations for the RIMPAC 2006 exercise did not comply with law.
23 The letter urged the Navy to meet with Plaintiffs as soon as possible to discuss
24 potential ways of mitigating the impacts of the Navy's use of sonar during
25 RIMPAC 2006, and ways of bringing the exercise into compliance with the law.
26 Plaintiff NRDC pointed out that due to the Navy's own delays environmental
27 permits for the exercise would be issued – if at all – just days before the exercise is
28 scheduled to commence, and Plaintiff NRDC therefore urged the Navy to agree to

1 postpone RIMPAC 2006 until 30 days after the issuance of an Incidental
2 Harassment Authorization for the exercise in order to avoid the necessity for
3 moving for a temporary restraining order or a motion for preliminary injunction on
4 a very shortened time schedule. (This letter is included as Exhibit D to the
5 Declaration of Nicholas Morgan In Support Of Plaintiffs' Application for a
6 Temporary Restraining Order filed concurrently with this Complaint.)

7 77. Also on May 30, 2006, Plaintiff NRDC sent a similar letter to Steve
8 Leathery and Michael Payne, Chiefs of the Permits, Conservation and Education
9 Division of NMFS, notifying them of NRDC's intention to seek preliminary relief
10 in federal court if final authorizations for the RIMPAC 2006 exercise did not
11 comply with law, urging them to bring their proposed authorization into
12 compliance, and inviting them to contact NRDC . (This letter is included as Exhibit
13 E to the Declaration of Nicholas Morgan In Support Of Plaintiffs' Application for a
14 Temporary Restraining Order filed concurrently with this Complaint.)

15 78. The Navy responded to NRDC's letter of May 30 by stating that it was
16 unwilling to postpone RIMPAC 2006 by 30 days and by asking NRDC to identify,
17 in writing, what additional mitigation measures it believes the Navy must adopt for
18 RIMPAC 2006. NRDC responded two days later with a list of such measures and
19 an invitation to discuss "a mutually agreeable plan for the adoption of additional
20 mitigation measures in order to avoid the necessity for" litigation. The Navy has
21 not responded to this letter in writing and has declined to discuss NRDC's proposed
22 measures. (These letters, dated June 7 and June 9, 2006, are attached hereto as
23 Exhibits F and G to the Declaration of Nicholas Morgan In Support Of Plaintiffs'
24 Application for a Temporary Restraining Order filed concurrently with this
25 Complaint.)

26 79. On June 22, 2006, Plaintiff NRDC sent a letter to the Navy, through
27 counsel, inquiring about the Navy's failure to respond to NRDC's earlier letter
28 regarding mitigation measures proposed for RIMPAC 2006; once again stating its

1 intention to seek preliminary relief, if necessary, against that exercise; and once
2 again inviting the Navy to contact NRDC to see if an agreement could be reached
3 that would avert the necessity for such relief. The Navy has not responded. (This
4 letter is included as Exhibit H to the Declaration of Nicholas Morgan In Support Of
5 Plaintiffs' Application for a Temporary Restraining Order filed concurrently with
6 this Complaint.)

7
8 Common Sense Measures Can Mitigate the Harm Caused By Mid-Frequency Sonar

9 80. The harms outlined throughout this Complaint are preventable by
10 reasonable, common-sense mitigation measures that could be adopted by the Navy
11 during RIMPAC 2006 without unduly impacting its training capabilities.
12 Moreover, compliance with NEPA and the MMPA would help to implement such
13 measures, because the environmental review and permitting processes required by
14 law and pressed here are designed precisely to assure that federal actors, such as
15 NMFS and the Navy, have the information they need to make effective mitigation
16 decisions to prevent needless harm to the environment. Thus, the violations of law
17 alleged herein are not merely procedural.

18 81. For example, and without limitation, mitigation and monitoring
19 measures like the following, if implemented, would significantly reduce the harm
20 caused by the Navy's use of mid-frequency active sonar during RIMPAC 2006:

- 21 a. Exclude the use of mid-frequency active sonar within 20 nautical
22 miles of the boundaries of all federal- and state-designated
23 protected areas—including but not limited to the newly created
24 Northwestern Hawaiian Islands Marine National Monument
- 25 b. Explicitly eliminate sonar use during ship transits between
26 exercise areas.

- 1 c. Expand the coastal exclusion zone and exclude the use of sonar
2 in other areas of high biodiversity and marine mammal
3 concentrations.
4 d. Require continuous operation at lower sonar source levels during
5 periods of low visibility.
6 e. Expand the safety zone and require shut-down of sonar if whales
7 are spotted within this expanded safety zone.
8 f. Eliminate chokepoint exercises and other exercises where
9 complex topographical features heighten the risk of marine
10 mammal strandings.
11 g. Use at least two dedicated shipboard observers for all mid-
12 frequency active sonar exercises.

13 82. The measures listed above are examples of ways in which the Navy
14 could minimize harm to marine mammals and other animals during RIMPAC 2006
15 while still training its forces in the use of mid-frequency active sonar.

16 **FIRST CLAIM FOR RELIEF**
17 **(Unlawful Issuance of Regulations In Violation of the Marine Mammal**
18 **Protection Act and Administrative Procedure Act—Declaratory and**
19 **Injunctive)**

19 83. Plaintiffs reallege and incorporate herein by reference the allegations
20 contained in Paragraphs 1 through 82 of the Complaint.

21 84. Before NMFS is authorized by statute to issue an incidental harassment
22 authorization for RIMPAC 2006 pursuant to Section 101(a)(5), it must:

23 (1) determine and ensure that the Navy's activity will result in no more than the
24 incidental taking by harassment of marine mammals; (2) determine and ensure that
25 the Navy's activity will have no more than a negligible impact on the species or
26 population stocks at issue; (3) set forth sufficient methods to ensure the least
27 practicable impact on each species or stock and its habitat, paying particular
28 attention to areas of special significance; and (4) set forth sufficient requirements

1 for the monitoring and reporting of impacts on marine mammals. *See* 16 U.S.C.
2 § 1371(a)(5)(D); 50 C.F.R. § 216.107.

3 85. NMFS failed to comply with these mandatory requirements and to
4 make the requisite findings in a manner supported by the record, and therefore the
5 Incidental Harassment Authorization issued on June 27, 2006 is not legally
6 adequate under the MMPA.

7 86. NMFS, in authorizing takings of marine mammals during RIMPAC
8 2006, failed to address RIMPAC activities other than sonar use, such as ordnance
9 exercises, that will also result in the taking of an unknown number of marine
10 mammals. For this independent reason, the Incidental Harassment Authorization
11 issued on June 27, 2006 is not legally adequate under the MMPA.

12 87. NMFS's issuance of an invalid Incidental Harassment Authorization
13 and the Navy's reliance on that authorization will result in the unlawful taking of a
14 large and unknown number of marine mammals. Because the authorization is
15 invalid, the Navy's taking of marine mammals is prohibited by the MMPA. *See*
16 16 U.S.C. § 1372(a).

17 88. NMFS's actions are also contrary to the Marine Mammal
18 Commission's advice and recommendations regarding "such steps as [the
19 Commission] deems necessary or desirable for the protection and conservation of
20 marine mammals." 16 U.S.C. § 1402(a)(4). The Secretary has failed to properly
21 explain his substantial deviation from these recommendations, as required under the
22 MMPA. 16 U.S.C. § 1402(d).

23 89. NMFS's issuance of an Incidental Harassment Authorization
24 authorizing the take of marine mammals incidental to RIMPAC 2006 and the
25 Navy's imminent take of marine mammals pursuant to that authorization constitute
26 final agency action that adversely affects and aggrieves Plaintiffs.

27 90. Thus, under the Administrative Procedure Act, NMFS's and the Navy's
28 violation of the MMPA as alleged herein is "arbitrary and capricious," an "abuse of

1 discretion," "not in accordance with law," and "without observance of procedure
2 required by law." 5 U.S.C. § 706(2)(A), (D).

3 **SECOND CLAIM FOR RELIEF**
4 **(Failure to Prepare an Environmental Impact Statement as Required under the**
5 **National Environmental Policy Act and Administrative Procedure Act—**
6 **Declaratory and Injunctive)**

7 91. Plaintiffs reallege and incorporate herein by reference the allegations
8 contained in Paragraphs 1 through 82 of the Complaint.

9 92. Defendants are “agencies of the Federal Government” within the
10 meaning of NEPA, and are bound by regulations adopted by the Council on
11 Environmental Quality. 40 C.F.R. § 1500.3.

12 93. The actions of Defendants set forth above are “major federal actions
13 significantly affecting the quality of the human environment” within the meaning of
14 NEPA. Grounds for a finding of “significance” include, but are not limited to: the
15 intensity of the action; the ecological importance of the marine environment to be
16 affected by RIMPAC 2006; the controversial nature of the RIMPAC 2006 exercise;
17 the uncertainty of the effects of mid-frequency sonar on the food web and other
18 aspects of the marine ecosystem; the precedential nature of Defendants’ actions for
19 future RIMPAC exercises and for other major Navy training exercises; the
20 cumulative impacts of this exercise considered together with past and future
21 RIMPAC exercises in these waters, and with other human activities generating
22 noise in the marine environment; RIMPAC’s adverse effects on endangered and
23 threatened species or their critical habitat; and its violation of the MMPA and other
24 Federal, State, and local environmental laws. 40 C.F.R. § 1508.27

25 94. Defendants have violated NEPA and its regulations by failing to
26 prepare an EIS for their actions set forth above and by adopting a Finding of No
27 Significant Impact for RIMPAC 2006 and for NMFS’s issuance of an Incidental
28 Harassment Authorization authorizing the take of marine mammals incidental to
RIMPAC 2006.

1 95. Defendants failed to satisfy their obligation under NEPA to provide a
2 “full and fair discussion of significant environmental impacts,” 40 C.F.R. § 1502.1;
3 analyze all reasonable alternatives to the proposed action, 40 C.F.R. §§ 1502.1,
4 1502.14; and identify or require all feasible mitigation measures, 40 C.F.R. §
5 1502.14(f).

6 96. Defendants’ issuance of a Finding of No Significant Impact for
7 RIMPAC 2006 and for NMFS’s issuance of an Incidental Harassment
8 Authorization authorizing the take of marine mammals incidental to RIMPAC 2006
9 constitute final agency action that adversely affects and aggrieves Plaintiffs.

10 97. Thus, under the Administrative Procedure Act, Defendants’ issuance of
11 a Finding of No Significant Impact, and Defendants’ violation of NEPA and the
12 regulations promulgated thereunder in failing to prepare an EIS for RIMPAC 2006,
13 are "arbitrary and capricious," an "abuse of discretion," "not in accordance with
14 law," and "without observance of procedure required by law." 5 U.S.C. §
15 706(2)(A), (D).

16 **THIRD CLAIM FOR RELIEF**
17 **(Failure to Prepare an Adequate Environmental Assessment as Required under**
18 **the National Environmental Policy Act and Administrative Procedure Act --**
19 **Declaratory and Injunctive)**

20 98. Plaintiffs reallege and incorporate herein by reference the allegations
21 contained in Paragraphs 1 through 82 of the Complaint.

22 99. Defendants are “agencies of the Federal Government” within the
23 meaning of NEPA, and are bound by regulations adopted by the Council on
24 Environmental Quality. 40 C.F.R. § 1500.3.

25 100. Defendants have violated NEPA by preparing a Supplemental
26 Environmental Assessment that fails adequately to describe the substantial and
27 wide-ranging impacts of RIMPAC 2006, both individually and cumulatively, upon
28 all marine species and human divers potentially affected by the exercise; to
consider and analyze all reasonable alternatives; and to identify all feasible

1 mitigation measures. By ignoring or failing adequately to consider RIMPAC
2 2006's physical, behavioral, and ecological impacts on the marine environment,
3 Defendants' EA failed to satisfy their obligations under NEPA to "ensure that
4 environmental information is available to public officials and citizens before
5 decisions are made and before actions are taken." 40 C.F.R. 1500.1(b).

6 101. Defendants failed to consider adequately the cumulative effects of the
7 proposed action, including but not limited to the effects of multiple years of
8 RIMPAC exercises and the addition of RIMPAC 2006 to a marine environment
9 increasingly polluted by other anthropogenic noise.

10 102. Defendants have failed to consider adequately the program's
11 reasonably foreseeable environmental impacts, as, for example and in the words of
12 the U.S. Marine Mammal Commission, by "inappropriately dismiss[ing] possible
13 injury and biologically significant behavioral effects" due to hearing loss in marine
14 mammals, and by "discounting completely" the possibility that the exercise "could
15 result in lethal injuries."

16 103. Defendants have failed to consider a range of direct behavioral effects
17 that may occur when marine mammals are subjected to sound levels that disturb
18 communication, social organization, foraging, migration or other activities affecting
19 reproduction and survival. Defendants have also failed to consider indirect
20 environmental impacts of the proposed action, such as those the proposed action
21 may have on fish and other prey species of marine mammals.

22 104. Defendants have failed to identify relevant gaps in the data they used
23 to support their conclusions regarding reasonably foreseeable significant
24 environmental impacts, and failed to deal properly with the data gaps that they do
25 identify.

26 105. Contrary to the fundamental purpose of NEPA, Defendants have
27 approved RIMPAC 2006 in the absence of basic information essential to a
28 meaningful understanding of the potential consequences of their action – for

1 example, information regarding hearing and injury thresholds for individual
2 species, mechanisms for potential injury, frequency levels of concern for individual
3 species, and long-term impacts on individuals and populations – thereby failing to
4 insure the professional integrity, including scientific integrity, of their analysis.

5 106. NMFS unlawfully relied on scientific or other information not
6 subjected to public comment, thus failing to encourage, facilitate, or enable public
7 involvement in decisions that affect the quality of the human environment.

8 107. Defendants failed to consider and analyze all reasonable alternatives
9 and to study, develop, and describe appropriate alternatives to recommended
10 courses of action for a proposal that involves unresolved conflicts concerning
11 alternative uses of available resources.

12 108. Defendants failed to consider or require all feasible mitigation,
13 including, but not limited to, the limitation of operations during nighttime and other
14 periods of low visibility; the expansion of coastal exclusion zones and introduction
15 of offshore exclusion zones to avoid areas where marine mammals may be
16 concentrated; the use of more reliable means to detect the presence of marine
17 mammals within areas of activity; the restriction of sonar use during transits
18 between exercise areas; and the avoidance of impacts within the Hawaiian Islands
19 Humpback Whale National Marine Sanctuary and the Northwestern Hawaiian
20 Islands Marine National Monument.

21 109. Thus, under the Administrative Procedure Act, Defendants' violation
22 of NEPA and the regulations promulgated thereunder in failing to prepare an
23 adequate EA for RIMPAC 2006 is "arbitrary and capricious," an "abuse of
24 discretion," "not in accordance with law," and "without observance of procedure
25 required by law." 5 U.S.C. § 706(2)(A), (D).

26
27 **PRAYER FOR RELIEF**

28 Wherefore Plaintiffs respectfully request that this Court:

- 1 1. Declare that each Defendant is in violation of the National
2 Environmental Policy Act as described above;
- 3 2. Declare that each Defendant is in violation of the Marine
4 Mammal Protection Act as described above;
- 5 3. Vacate NMFS’s June 27, 2006 “Incidental Harassment
6 Authorization,” NMFS’s June 27, 2006 Finding of No Significant Impact
7 (“FONSI”), and the Navy’s June 1, 2006 FONSI approving RIMPAC 2006;
- 8 4. Enjoin the United States and its subdivisions, officials, agents,
9 and contractors from using mid-frequency active sonar during or in association with
10 its RIMPAC 2006 exercise unless and until that use is in full compliance with federal
11 law, including the MMPA, NEPA, and APA;
- 12 5. Direct the Navy to comply with NEPA and MMPA in its conduct
13 of RIMPAC 2006 and future RIMPAC exercises;
- 14 6. Grant Plaintiffs their costs of suit, including reasonable
15 attorneys’ fees; and

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7. Grant Plaintiffs such further relief as is necessary and appropriate, including such other equitable relief as it deems necessary to remedy any damage incurred from past unlawful action.

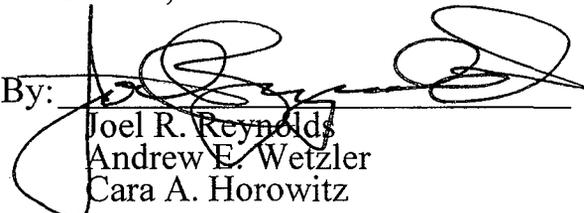
Dated: June 28, 2006

Respectfully submitted,
IRELL & MANELLA LLP

By: 

Richard B. Kendall
Alan J. Heinrich
Gregory A. Fayer
Nicholas Morgan

NATURAL RESOURCES DEFENSE
COUNCIL, INC.

By: 

Joel R. Reynolds
Andrew E. Wetzler
Cara A. Horowitz