PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT

R 252158Z JUN 99
FM: CHINFO WASHINGTON DC//00//
INFO SECNAV WASHINGTON DC//00/PA/IE//
CNO WASHINGTON DC//N00/N01/N091/N00P/N1/N3/N4/N6/N7/N8//

Subject: PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT

UNCLAS //N05720//
MSGID/GENADMIN/CHINFO//
SUBJ/PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT STATEMENT//
POC/MCWHORTER/LCDR/CHINFO/WASHINGTON DC/TEL: (703)697-0250/E-MAIL:
MCWHORTER.CHARLES@HQ.NAVY.MIL//

RMKS/1. BACKGROUND: THE NAVY, IN COOPERATION WITH THE NATIONAL MARINE FISHERIES SERVICE (NMFS), IS RELEASING AN OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) ON PROPOSED DEPLOYMENT OF THE SURVEILLANCE TOWED ARRAY SENSOR SYSTEM LOW FREQUENCY ACTIVE SONAR (SURTASS LFA). THE FOLLOWING INFORMATION IS PROVIDED AS BACKGROUND FOR PUBLIC AFFAIRS PROFESSIONALS WHO MAY BE REQUIRED TO RESPOND TO QUERIES ON THIS ISSUE. SURTASS LFA PROVIDES IMPROVED LONG-RANGE DETECTION AND TRACKING OF INCREASINGLY QUIET, HARD-TO-FIND SUBMARINES, THEREBY INCREASING THE TIME OUR NAVAL FORCES WILL HAVE TO RESPOND TO A SUBMARINE WEAPON THREAT. THE SYSTEM'S ACTIVE COMPONENT (LFA) IS A SET OF LF ACOUSTIC TRANSMITTING SOURCE ELEMENTS, OR PROJECTORS, SUSPENDED BY CABLE BENEATH A SHIP. THESE PROJECTORS GENERATE INTERMITTENT "PINGS" AT FREQUENCIES BETWEEN 100 AND 500 HERTZ. THE SOUND GENERATED IS ROUGHLY A TWO-OCTAVE RANGE CENTERED OVER MIDDLE C. A PING CAN LAST FROM 6 TO 100 SECONDS, WITH THE TIME BETWEEN PINGS TYPICALLY FROM 6 TO 15 MINUTES. THE AVERAGE DUTY CYCLE (RATIO OF SOUND "ON" TIME TO TOTAL TIME) IS LESS THAN 20 PERCENT. THE LISTENING OR PASSIVE COMPONENT OF THE SYSTEM IS SURTASS, WHICH DETECTS RETURNING ECHOES FROM SUBMERGED OBJECTS THROUGH THE USE OF HYDROPHONES ON A RECEIVING ARRAY TOWED BEHIND THE SHIP. THE SURTASS LFA SHIP MAINTAINS A MINIMUM SPEED OF 3 KTS TO TOW THE HORIZONTAL LINE HYDROPHONE ARRAY. ECHOES FROM SOUND GENERATED BY LFA CAN ALSO BE DETECTED BY OTHER RECEIVERS AT VARIOUS LOCATIONS. CURRENTLY THE ONLY SURTASS LFA SONAR SYSTEM IS ONBOARD THE RESEARCH VESSEL (R/V)CORY CHOUEST, UNDER CONTROL OF THE COMMANDER IN CHIEF PACIFIC FLEET; HOWEVER, THE NAVY PLANS TO OPERATE TWO SYSTEMS WORLDWIDE OVER THE NEXT FIVE YEARS. THREE RECENT RESEARCH STUDIES WERE CONDUCTED UNDER THE NAVY-SPONSORED LOW FREQUENCY SOUND SCIENTIFIC RESEARCH PROGRAM (LFS SRP) WHICH ALLOWED INDEPENDENT SCIENTISTS TO USE THE CORY CHOUEST TO TEST THEIR HYPOTHESIS THAT MARINE MAMMALS RECEIVING LF SOUND LEVELS OF 140 DECIBELS (DB) WOULD MOVE OUT OF THE SOUND FIELD. PHASE I (OCTOBER 1997) INVOLVED BLUE AND FIN WHALES FEEDING OFF THE SOUTHERN COAST OF CALIFORNIA; PHASE II (JANUARY 1998) INVOLVED GRAY WHALES MIGRATING OFF CENTRAL CALIFORNIA; AND PHASE III (MARCH 1998) INVOLVED HUMPBACK WHALES BREEDING OFF THE WEST COAST OF THE BIG ISLAND OF HAWAII. EVEN WITH RECEIVED LEVELS UP TO 155 DB, ONLY MINOR AND TEMPORARY BEHAVIORAL RESPONSES WERE OBSERVED FROM THE PAGE WHALES AND NO WHALES DEPARTED THE AREA.

2. ENVIRONMENTAL GROUPS, ANIMAL RIGHTS GROUPS AND OTHER

INDIVIDUALS HAVE ATTEMPTED TO DISRUPT THE LOW FREQUENCY SONAR SCIENTIFIC RESEARCH PROJECT IN THE PAST. SOME CITIZENS HAVE CALLED AND EMAILED ELECTED OFFICIALS AT EVERY LEVEL OF FEDERAL AND STATE GOVERNMENT. OTHERS HAVE USED LESS CONVENTIONAL METHODS OF PROTEST, SUCH AS MISINFORMATION CAMPAIGNS ON THE INTERNET, AND HARASSING ACTIONS TO INTERRUPT RESEARCH. THE MEDIA AND PUBLIC HAVE ACQUIRED SOME MISCONCEPTIONS ABOUT POTENTIAL IMPACTS OF THE SYSTEM. THE NAVY PLANS TO ENGAGE THE PUBLIC AND THE MEDIA, TO ENSURE VALID, ACCURATE INFORMATION REGARDING OPERATION OF SURTASS LFA SONAR AND ITS POTENTIAL EFFECTS ON THE MARINE ENVIRONMENT IS PRESENTED. A TEAM OF SUBJECT MATTER EXPERTS WILL HOST OPEN HOUSE FORUMS ON THE LFA SYSTEM AT A NUMBER OF LOCATIONS IN THE CONTINENTAL US AND HAWAII IN THE COMING MONTHS. DETAILS WILL BE PROVIDED SEPCOR.

3. PUBLIC AFFAIRS POSTURE FOR RELEASE OF SURTASS LFA OEIS/EIS IS PASSIVE. SPOKEPERSONS SHOULD BE CANDID AND FORTHCOMING WHEN RESPONDING TO PUBLIC AND MEDIA QUERIES REGARDING SURTASS LFA WITHIN THE SCOPE OF THIS GUIDANCE. PRESS RELEASES, PHOTOS, THE OEIS/EIS EXECUTIVE SUMMARY AND ADDITIONAL INFORMATION REGARDING SURTASS LFA CAN BE FOUND ON THE FOLLOWING WEB SITES: <WWW.N4.HQ.NAVY.MIL/N45.HTML> <WWW.EISTEAM.HOME.MINDSPRING.COM> (SITE UNDER CONSTRUCTION) <WWW.TRWIUSS.COM/EIS/INDEX.HTM> (SITE UNDER CONSTRUCTION)

4. USE THE FOLLOWING STATEMENT IN RESPONSE TO QUERY: (QUOTE) THE NAVY HAS PREPARED AN OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) TO STUDY POTENTIAL ENVIRONMENTAL EFFECTS OF USING A LOW FREQUENCY ACTIVE SONAR SYSTEM. THE SYSTEM, KNOWN AS SURVEILLANCE TOWED ARRAY SENSOR SYSTEM LOW FREQUENCY ACTIVE (SURTASS LFA), SENDS INTERMITTENT LOW FREQUENCY "PINGS" USING TRANSMITTERS SUSPENDED ON A CABLE BENEATH A SHIP AND DETECTS ECHOES VIA A TOWED RECEIVING ARRAY. (PARA)AT THE NAVY'S INVITATION, TEAMS OF WORLD-CLASS MARINE BIOLOGICAL AND ACOUSTIC RESEARCH SCIENTISTS CONDUCTED INDEPENDENT STUDIES USING THE SYSTEM. SCIENTIFIC EVIDENCE SHOWS THAT SURTASS LFA CAN BE SAFELY OPERATED WITH NEGLIGIBLE IMPACTS ON MARINE LIFE. THEIR FINDINGS ARE BEING PUBLISHED IN PEER REVIEWED PROFESSIONAL JOURNALS. (PARA) SUBMARINES ARE BECOMING INCREASINGLY QUIETER. SINCE THE END OF THE COLD WAR, SUBMARINE DETECTION RANGE HAS BEEN GREATLY REDUCED. IN SOME CASES U.S. FORCES MAY HAVE ONLY MINUTES TO RESPOND TO A POTENTIAL SUBMARINE THREAT. MAINTAINING U.S. ANTI-SUBMARINE WARFARE SUPERIORITY REQUIRES DEVELOPMENT OF EFFECTIVE LONG-RANGE SONAR TECHNOLOGY. (PARA) TO MEET THIS NEED, THE NAVY STUDIED BOTH ACOUSTIC AND NON-ACOUSTIC TECHNOLOGIES. LOW FREQUENCY ACTIVE SONAR WAS THE ONLY SYSTEM SHOWN CAPABLE OF PROVIDING DEPENDABLE LONG-RANGE DETECTION OF QUIETER HARD-TO-FIND SUBMARINES. (PARA)THE OEIS/EIS WAS PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL REGULATIONS. THE DEPARTMENT OF THE NAVY IS THE LEAD AGENCY, THE NATIONAL MARINE FISHERIES SERVICE (NMFS) IS A COOPERATING AGENCY. (UNQUOTE)

5. USE THE FOLLOWING QUESTIONS AND ANSWERS IN RESPONSE TO QUERY:

Q1. WHAT IS SURTASS-LFA AND WHAT ARE ITS USES?
A1. SURTASS LFA IS AN ACTIVE SONAR SYSTEM. ITS PURPOSE IS TO DETECT AND TRACK SUBMARINES AT LONG RANGES TO DETERMINE THEIR PRESENCE, ESTIMATE MOVEMENT PATTERNS, PREDICT THEIR DESTINATIONS AND PLANS, AND MAINTAIN AN AWARENESS OF THE GENERAL SITUATION IN THE OCEAN ENVIRONMENT. SURTASS-LFA TRANSMITS A LOW FREQUENCY ACOUSTIC SIGNAL INTO THE OCEAN

ENVIRONMENT. IT OFFERS TWO UNIQUE ADVANTAGES OVER EXISTING IN-WATER SUBMARINE DETECTION SYSTEMS. FIRST, IT DOES NOT RELY ON THE SUBJECT VESSEL TO EMIT NOISE, UNLIKE A PASSIVE SONAR SYSTEM THAT IS LIMITED BY THE QUIETNESS OF THE SUBJECT VESSEL. SECONDLY, LOWER FREQUENCY HAS A LONGER DETECTION RANGE THAN HIGHER FREQUENCY SONAR. THEREFORE, LFA INCREASES OUR ABILITY TO LOCATE SUBMARINES THAT ARE INCREASINGLY QUIET AT A LONGER DISTANCE. THIS CAPABILITY IS EXTREMELY IMPORTANT TO PROTECTING U.S. NAVY SHIPS AND SAILORS IN THE EVENT OF CONFLICT WITH ANY NATION THAT HAS A SUBMARINE CAPABILITY. TODAY, MORE THAN 40 NATIONS AROUND THE WORLD OPERATE SUBMARINES; SOME OF THESE NATIONS HAVE THE POTENTIAL TO POSE A THREAT IN THE FUTURE.

Q2. DESCRIBE THE LFA SYSTEM AND EQUIPMENT USED IN THE RESEARCH PROJECT.
A2. THE LFA SYSTEM AND OPERATING FEATURES ARE AS FOLLOWS: A SHIP- DEPLOYED VERTICAL LINE ARRAY (VLA) OF UP TO 18 TRANSDUCERS. THE VLA DEPTH IS VARIABLE (ARRAY CENTER RANGES FROM APPROXIMATELY 200 TO 600 FT). RV CORY CHOUEST IS A 265-FOOT LONG 60-FOOT WIDE RESEARCH VESSEL AND THE NAVY'S TEST PLATFORM FOR SURTASS LFA. DURING THE SCIENTIFIC RESEARCH PROGRAM(SRP) TO STUDY THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS, THIS SHIP AND A SUPPORT SHIP, USNS VICTORIOUS, MONITORED THE PROJECT ALONG WITH 120 PERSONNEL AND TWO OTHER SMALL BOATS THAT USED HYDROPHONES AND OTHER MONITORING DEVICES. ACOUSTIC DATA WAS COLLECTED FROM HORIZONTAL LINE ARRAYS (HLA) ON BOTH CORY CHOUEST AND AN OBSERVATION VESSEL. THIS DATA WAS USED AS A BASIS FOR DRAFTING THE OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT PAGE 03 RUENAAA1331 UNCLAS STATEMENT.

Q3. DID THE NAVY SEEK ADVICE FROM NON-NAVY RESEARCH AND ENVIRONMENTAL GROUPS IN PLANNING MARINE MAMMAL RESEARCH?
A3. YES. IN EARLY 1997 THE NAVY CONDUCTED A SERIES OF INVITATIONAL MEETINGS ON THE GENERAL SUBJECT AND THE IMPACT OF UNDERWATER SOUND ON MARINE LIFE. ATTENDANCE AT THESE MEETINGS INCLUDED PARTICIPANTS FROM A VARIETY OF NATIONALLY RECOGNIZED EDUCATIONAL AND RESEARCH INSTITUTIONS, OTHER FEDERAL AGENCIES INVOLVED IN THE REGULATORY PROCESS, AS WELL AS SEVERAL BROADLY BASED PUBLIC ENVIRONMENTAL GROUPS. THE NAVY'S PLAN FOR SOUND PLAYBACK RESEARCH TESTING WAS PRESENTED AT THESE MEETINGS. THE PLAYBACK, THE LEVELS AND KINDS OF SOUND TO BE USED, AND THE TECHNIQUES FOR BEHAVIORAL OBSERVATIONS WERE DISCUSSED. MANY COMMENTS AND RECOMMENDATIONS ON EVERY ASPECT OF THESE TESTS WERE RECEIVED FROM THE ATTENDEES. A GENERAL COMMENT WAS THAT THIS TYPE OF RESEARCH WAS NEEDED FOR THE NAVY TO MOVE FORWARD WITH LOW FREQUENCY SOUND PROJECTION AND THAT THE RESULTS OF THIS RESEARCH WOULD BE HELPFUL TO THE GREATER QUESTIONS ON THE EFFECT OF LOW FREQUENCY SOUND FROM OTHER SOURCES. THE NAVY INCORPORATED MANY OF THE RECOMMENDATIONS THAT CAME FROM THESE MEETINGS AND SOUGHT THE ADVICE OF RECOGNIZED EXPERTS IN THE FIELD OF MARINE MAMMALS AND UNDERWATER ACOUSTICS. PRINCIPAL INVESTIGATORS FOR THIS RESEARCH INCLUDED DR. PETER TYACK OF WOODS HOLE OCEANOGRAPHIC INSTITUTE AND DR. CHRIS CLARK OF CORNELL UNIVERSITY'S BIOACOUSTIC LABORATORY, BOTH OF WHOM ARE INTERNATIONALLY PROMINENT MARINE MAMMAL EXPERTS.

Q4. WHY DID THE NAVY TEAM UP WITH CIVILIAN RESEARCHERS?
A4. CORNELL UNIVERSITY WAS GRANTED A PERMIT FROM THE NATIONAL MARINE FISHERIES SERVICE (NMFS) TO INVESTIGATE THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS. AT THE SAME TIME THE NAVY WAS IN THE PROCESS OF DEVELOPING A COMPREHENSIVE OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) COVERING PROPOSED WORLDWIDE OPERATIONAL DEPLOYMENT

OF SURTASS-LFA IN APPROXIMATELY 2000. COMBINING ASSETS AND RESOURCES WAS BENEFICIAL TO BOTH THE NAVY AND THE CIVILIAN SCIENTIFIC RESEARCH COMMUNITY IN OBTAINING VERY IMPORTANT DATA ON THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS. TEAMING WITH CIVILIAN RESEARCHERS PROVIDED ADDITIONAL BALANCE AND EXPERTISE TO THE STUDY.

Q5. HOW WAS THE STUDY CONDUCTED?
A5. THE STUDY WAS DIVIDED INTO THREE PHASES AT LOCATIONS OFF THE SOUTHERN CALIFORNIA BIGHT, THE CENTRAL CALIFORNIA COAST AND HAWAII FROM SEPT 1997-MARCH 1998. THE FIRST PHASE FOCUSED ON STUDYING THE BEHAVIORAL RESPONSE OF BLUE AND FIN WHALES; THE SECOND PHASE FOCUSED ON GRAY WHALES MIGRATING ALONG THE CENTRAL CALIFORNIA COAST. THE THIRD PHASE FOCUSED ON STUDYING HUMPBACK AND SPERM WHALE RESPONSES. THE RESEARCH EXPOSED THE WHALES TO CAREFULLY CONTROLLED SOUND LEVELS TO OBSERVE WHETHER OR NOT THE ANIMAL WOULD EXHIBIT ANY BEHAVIOR RESPONSE TO THE SOUND SOURCE. CLOSE OBSERVATION DURING ALL THREE PHASES REVEALED NO SIGNIFICANT BEHAVIORAL CHANGES BY THE MARINE MAMMALS. A SIGNIFICANT CHANGE WOULD INCLUDE STRONG AVOIDANCE BEHAVIOR THAT COULD DISRUPT FEEDING, BREEDING OR MIGRATION HABITS. BASED ON RESEARCH, INDEPENDENT SCIENTISTS HAVE DETERMINED THAT SURTASS LFA SONAR HAS LITTLE IMPACT ON WHALES. THE NAVY HAS PREPARED AN OVERSEAS AND A DOMESTIC ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) TO EVALUATE DATA ON ENVIRONMENTAL EFFECTS OF DEPLOYING THE SURTASS LFA SONAR AND TO RECOMMEND A COURSE OF ACTION.

Q6. WHAT DOES THE OEIS/EIS RECOMMEND?
A6. EXECUTIVE ORDER 12114 (ENVIRONMENTAL EFFECTS ABROAD FOR FEDERAL ACTIONS) AND THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969 REQUIRE THE NAVY TO EVALUATE A REASONABLE RANGE OF ALTERNATIVES. THOSE EVALUATED BY THE NAVY OEIS/EIS INCLUDE: ?-NO ACTION ALTERNATIVE: DO NOT DEPLOY SURTASS LFA - ALTERNATIVE 1: (RECOMMENDED BY OEIS/EIS) IMPOSE GEOGRAPHIC RESTRICTIONS AND MONITORING TO PREVENT INJURY TO POTENTIALLY AFFECTED SPECIES. (SEE Q7 BELOW) -ALTERNATIVE 2: UNLIMITED USE OF SURTASS LFA SONAR WORLDWIDE, WITH NO GEOGRAPHIC OR RESTRICTIONS OTHER THAN PHYSICAL RESTRICTIONS OF THE SYSTEM AND NO MONITORING.

Q7. WHAT TYPE OF RESTRICTIONS AND MONITORING WOULD BE IMPOSED UNDER ALTERNATIVE NUMBER 1?
A7. ALTERNATIVE 1 WOULD IMPOSE MITIGATION MEASURES TO AVOID INJURY TO MARINE MAMMALS AND SEA TURTLES NEAR THE SURTASS LFA SONAR SOURCE AND TO DIVERS IN THE COASTAL ENVIRONMENT. RESTRICTIONS INCLUDE: -SURTASS LFA SOUND FIELD WILL NOT EXCEED 180 DB WITHIN 12 NM OF ANY COASTLINE. -SURTASS LFA SOUND FIELD WILL NOT EXCEED 145 DB IN THE VICINITY OF KNOWN RECREATIONAL/COMMERCIAL DIVE SITES. -SURTASS LFA OPERATORS WILL ESTIMATE SOUND POWER LEVELS WHILE MONITORING SOUND TRANSMISSION FACTORS PRIOR TO AND DURING OPERATIONS TO ENSURE LEVELS REMAIN WITHIN LEVELS ESTABLISHED ABOVE. PAGE 02 RUENAAA1332 UNCLAS ADDITIONALLY, MONITORING WILL BE REQUIRED DURING SURTASS LFA OPERATIONS: -VISUAL MONITORING FROM THE SURTASS LFA VESSEL BY PERSONNEL TRAINED TO DETECT AND IDENTIFY MARINE MAMMALS AND SEA TURTLES. -PASSIVE ACOUSTIC MONITORING BY THE SURTASS ARRAY TO LISTEN FOR VOCALIZING MARINE MAMMALS AS AN INDICATOR OF THEIR PRESENCE. -ACTIVE ACOUSTIC MONITORING BY A NAVY-DEVELOPED COMMERCIAL HIGH FREQUENCY SONAR TO DETECT AND TRACK MARINE MAMMALS AND SEA TURTLES THAT MAY PASS CLOSE ENOUGH TO ENTER THE 180 DB SOUND FIELD. ALTERNATIVE 1 PROVIDES AN ACCEPTABLE BALANCE BETWEEN THE NAVY'S NEED TO DETECT SUBMARINES AT GREATER DISTANCES AND THE NEED TO MINIMIZE

ENVIRONMENTAL EFFECTS.

Q8. WON'T THE SOUND GENERATED BY LOW FREQUENCY SONAR CAUSE HARM TO WHALES AND OTHER MARINE MAMMALS?
A8. PROTECTIVE MEASURES HAVE BEEN ESTABLISHED TO ENSURE ANIMALS WILL NOT BE EXPOSED TO SOUND LEVELS BELIEVED TO BE HARMFUL(OVER 180DB FOR NON-SERIOUS INJURY). IF A MARINE MAMMAL APPROACHES TO WITHIN THE 180 DB SOUND FIELD, THE SYSTEM WILL BE SHUT DOWN. SURTASS LFA CAN BE OPERATED EFFECTIVELY AT SOUND LEVELS BELOW THOSE ESTIMATED TO CAUSE PHYSICAL DAMAGE TO MARINE MAMMALS. OF MORE CONCERN IS THE POSSIBILITY OF CAUSING SIGNIFICANT AVOIDANCE BEHAVIOR THAT COULD DISRUPT A SPECIES' FEEDING, BREEDING OR MIGRATION PATTERNS. THE SOUND RESEARCH PROJECT SHOWED THAT, WITH MITIGATION PROCEDURES IN PLACE, SURTASS LFA CAN BE OPERATED WITHOUT CREATING SIGNIFICANT AVOIDANCE BEHAVIOR IN MARINE MAMMALS. SIGNIFICANT AVOIDANCE BEHAVIOR WOULD BE ANY TYPE OF BEHAVIOR LIKELY TO DISRUPT AN ANIMAL'S MIGRATION, FEEDING OR BREEDING HABITS FOR A SUSTAINED PERIOD OF TIME.

Q9. DOES SURTASS LFA POSE A RISK TO HUMAN DIVERS?
A9. A CONSORTIUM OF UNIVERSITY AND MILITARY LABORATORIES UNDER GUIDANCE OF THE NAVAL SUBMARINE MEDICAL RESEARCH LABORATORY CONDUCTED A DIVER RISK ANALYSIS FROM JUNE 1997 TO NOVEMBER 1998. THE RESEARCH SHOWED THE PRIMARY LOW FREQUENCY EFFECT ON DIVERS WAS A PSYCHOLOGICAL AND PHYSICAL SENSATION OF LOUDNESS AND VIBRATION THAT CAUSED AVERSION TO THE SIGNAL AT HIGH DECIBEL LEVELS. BASED ON THE TESTING, A SOUND LEVEL OF 145DB WAS ESTABLISHED AS A SAFE LIMIT. PAGE 04 RUENAAA1332 UNCLAS

Q10. DOES THE SYSTEM POSE A RISK TO FISH?
A10. THE ANALYSIS CONCLUDED THAT POTENTIAL EFFECTS ON BOTH SHARKS AND BONY FISH SPECIES WOULD NOT BE SIGNIFICANT UNDER EITHER ALTERNATIVE 1 OR 2 DUE TO A NUMBER OF FACTORS: -LOW NUMBER OF SURTASS LFA SYSTEMS TO BE DEPLOYED (2 SYSTEMS CURRENTLY PROGRAMMED WORLDWIDE). -GEOGRAPHIC RESTRICTIONS IMPOSED ON SYSTEM. -CONSTANT MOVEMENT OF SHIP -SHORT PERIOD OF TIME SYSTEM IS ON -LOW PROBABILITY OF SUBSTANTIAL FISH STOCKS BEING WITHIN 180DB SOUND FIELD DURING A TRANSMISSION LONG ENOUGH TO CAUSE ADVERSE EFFECTS. -SMALL PERCENTAGE OF ENTIRE FISH STOCK AFFECTED. THESE SAME FACTORS APPLY TO SEA TURTLES. ADDITIONALLY, ALTERNATIVE 1 CALLS FOR VISUAL AND ACTIVE ACOUSTIC MONITORING FOR SEA TURTLES DURING SURTASS LFA OPERATIONS.

Q11. WHY ARE ENVIRONMENTAL GROUPS SO OPPOSED TO THIS PROJECT?
A11. MUCH OF THE OPPOSITION HAS BEEN BASED ON LACK OF SCIENTIFIC DATA REGARDING THE EFFECTS OF LOW FREQUENCY SOUND PROPAGATION IN THE MARINE ENVIRONMENT. THAT'S WHY THE NAVY WAS INTERESTED IN THE RESULTS OF THE LOW FREQUENCY SCIENTIFIC RESEARCH PROGRAM (SRP). IT'S IMPORTANT TO NOTE THE INDEPENDENT SCIENTISTS WHO CONDUCTED THE STUDY BEGAN WITH A HYPOTHESIS THAT LF SOUND ABOVE 140DB WOULD DRIVE MARINE MAMMALS AWAY FROM LARGE AREAS OF THE OCEAN AND CAUSE SIGNIFICANT BEHAVIORAL DISRUPTIONS. INSTEAD, THE HYPOTHESIS WAS PROVEN INCORRECT. EVEN AT LEVELS WELL ABOVE 140DB, WHALES DID NOT SHOW STRONG, PROLONGED AVOIDANCE BEHAVIOR IN ANY OF THE TESTS. THE RESULTS OF THE SRP VALIDATED THE VIABILITY OF SURTASS LFA AND ALSO PROVIDED A WEALTH OF NEW SCIENTIFIC DATA. THE NAVY IS COMMITTED TO ITS ROLE AS A GOOD STEWARD OF THE ENVIRONMENT AND INTENDS TO CONTINUE RESEARCH ON THE EFFECTS OF LF SOUND IN THE MARINE ENVIRONMENT. SOME ENVIRONMENTAL GROUPS HAVE MADE EXAGGERATED CLAIMS CONCERNING POTENTIAL EFFECTS OF SURTASS

LFA. THE DATA PRESENTED IN THE OEIS/EIS DOES NOT SUPPORT THESE CLAIMS.

Q12. WHERE WILL SURTASS LFA SONAR BE OPERATED?
A12. THE NAVY PROPOSES TO OPERATE TWO SYSTEMS WORLDWIDE IN OCEAN LOCATIONS BETWEEN LATITUDES OF 72 DEGREES NORTH AND 60 DEGREES SOUTH.

Q13. WHAT IF ADDITIONAL RESEARCH REVEALS SURTASS LFA IS DAMAGING THE ENVIRONMENT?
A13. IT WOULD BE INAPPROPRIATE TO SPECULATE ABOUT FUTURE OPERATIONAL DECISIONS. THE FACT THAT THE NAVY INTENDS TO CONTINUE RESEARCH AND MONITORING OF LFA OPERATIONS IS INDICATIVE OF NAVY CONCERN FOR THE MARINE ENVIRONMENT.

Q14. HOW WILL THE NAVY DEAL WITH PROTESTERS WHO OBJECT TO SURTASS LFA DEPLOYMENT?
A14. THE PROTESTERS HAVE A RIGHT TO EXPRESS THEIR CONCERNS IN A LEGAL MANNER. NAVY CONCERN FOR POTENTIAL EFFECTS OF LOW FREQUENCY SOUND IN THE OCEAN ENVIRONMENT LED TO THE RESEARCH PRESENTED IN THE OEIS/EIS. THAT CONCERN ALSO MAKES ALTERNATIVE 1, SURTASS LFA OPERATION WITH RESTRICTIONS AND MONITORING, THE NAVY'S PREFERRED ALTERNATIVE. THE NAVY ENCOURAGES CONCERNED CITIZENS TO STUDY THE INFORMATION PRESENTED IN THE OEIS/EIS.

Q15. WHAT TYPE OF SHIP WILL OPERATE SURTASS LFA?
A15. THE INTENDED PLATFORM IS A SWATH-A CATAMARAN OPERATED BY CIVILIAN CREW. CHARACTERISTICS: LENGTH: 281' 6" BEAM: 95'9" DRAFT: 26' DISPL: 5380 TONS

6. QUESTIONS BEYOND THE SCOPE OF THIS GUIDANCE SHOULD BE REFERRED TO CHINFO NEWS DESK AT (703) 697-5342.

PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT

R 252158Z JUN 99
FM: CHINFO WASHINGTON DC//00//
INFO SECNAV WASHINGTON DC//00/PA/IE//
CNO WASHINGTON DC//N00/N01/N091/N00P/N1/N3/N4/N6/N7/N8//

Subject: PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT

UNCLAS //N05720//
MSGID/GENADMIN/CHINFO//
SUBJ/PUBLIC AFFAIRS GUIDANCE - SURTASS LFA ENVIRONMENTAL IMPACT STATEMENT//
POC/MCWHORTER/LCDR/CHINFO/WASHINGTON DC/TEL: (703)697-0250/E-MAIL:
MCWHORTER.CHARLES@HQ.NAVY.MIL//

RMKS/1. BACKGROUND: THE NAVY, IN COOPERATION WITH THE NATIONAL MARINE FISHERIES SERVICE (NMFS), IS RELEASING AN OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) ON PROPOSED DEPLOYMENT OF THE SURVEILLANCE TOWED ARRAY SENSOR SYSTEM LOW FREQUENCY ACTIVE SONAR (SURTASS LFA). THE FOLLOWING INFORMATION IS PROVIDED AS BACKGROUND FOR PUBLIC AFFAIRS PROFESSIONALS WHO MAY BE REQUIRED TO RESPOND TO QUERIES ON THIS ISSUE. SURTASS LFA PROVIDES IMPROVED LONG-RANGE DETECTION AND TRACKING OF INCREASINGLY QUIET, HARD-TO-FIND SUBMARINES, THEREBY INCREASING THE TIME OUR NAVAL FORCES WILL HAVE TO RESPOND TO A SUBMARINE WEAPON THREAT. THE SYSTEM'S ACTIVE COMPONENT (LFA) IS A SET OF LF ACOUSTIC TRANSMITTING SOURCE ELEMENTS, OR PROJECTORS, SUSPENDED BY CABLE BENEATH A SHIP. THESE PROJECTORS GENERATE INTERMITTENT "PINGS" AT FREQUENCIES BETWEEN 100 AND 500 HERTZ. THE SOUND GENERATED IS ROUGHLY A TWO-OCTAVE RANGE CENTERED OVER MIDDLE C. A PING CAN LAST FROM 6 TO 100 SECONDS, WITH THE TIME BETWEEN PINGS TYPICALLY FROM 6 TO 15 MINUTES. THE AVERAGE DUTY CYCLE (RATIO OF SOUND "ON" TIME TO TOTAL TIME) IS LESS THAN 20 PERCENT. THE LISTENING OR PASSIVE COMPONENT OF THE SYSTEM IS SURTASS, WHICH DETECTS RETURNING ECHOES FROM SUBMERGED OBJECTS THROUGH THE USE OF HYDROPHONES ON A RECEIVING ARRAY TOWED BEHIND THE SHIP. THE SURTASS LFA SHIP MAINTAINS A MINIMUM SPEED OF 3 KTS TO TOW THE HORIZONTAL LINE HYDROPHONE ARRAY. ECHOES FROM SOUND GENERATED BY LFA CAN ALSO BE DETECTED BY OTHER RECEIVERS AT VARIOUS LOCATIONS. CURRENTLY THE ONLY SURTASS LFA SONAR SYSTEM IS ONBOARD THE RESEARCH VESSEL (R/V)CORY CHOUEST, UNDER CONTROL OF THE COMMANDER IN CHIEF PACIFIC FLEET; HOWEVER, THE NAVY PLANS TO OPERATE TWO SYSTEMS WORLDWIDE OVER THE NEXT FIVE YEARS. THREE RECENT RESEARCH STUDIES WERE CONDUCTED UNDER THE NAVY-SPONSORED LOW FREQUENCY SOUND SCIENTIFIC RESEARCH PROGRAM (LFS SRP) WHICH ALLOWED INDEPENDENT SCIENTISTS TO USE THE CORY CHOUEST TO TEST THEIR HYPOTHESIS THAT MARINE MAMMALS RECEIVING LF SOUND LEVELS OF 140 DECIBELS (DB) WOULD MOVE OUT OF THE SOUND FIELD. PHASE I (OCTOBER 1997) INVOLVED BLUE AND FIN WHALES FEEDING OFF THE SOUTHERN COAST OF CALIFORNIA; PHASE II (JANUARY 1998) INVOLVED GRAY WHALES MIGRATING OFF CENTRAL CALIFORNIA; AND PHASE III (MARCH 1998) INVOLVED HUMPBACK WHALES BREEDING OFF THE WEST COAST OF THE BIG ISLAND OF HAWAII. EVEN WITH RECEIVED LEVELS UP TO 155 DB, ONLY MINOR AND TEMPORARY BEHAVIORAL RESPONSES WERE OBSERVED FROM THE PAGE WHALES AND NO WHALES DEPARTED THE AREA.

2. ENVIRONMENTAL GROUPS, ANIMAL RIGHTS GROUPS AND OTHER

INDIVIDUALS HAVE ATTEMPTED TO DISRUPT THE LOW FREQUENCY SONAR SCIENTIFIC RESEARCH PROJECT IN THE PAST. SOME CITIZENS HAVE CALLED AND EMAILED ELECTED OFFICIALS AT EVERY LEVEL OF FEDERAL AND STATE GOVERNMENT. OTHERS HAVE USED LESS CONVENTIONAL METHODS OF PROTEST, SUCH AS MISINFORMATION CAMPAIGNS ON THE INTERNET, AND HARASSING ACTIONS TO INTERRUPT RESEARCH. THE MEDIA AND PUBLIC HAVE ACQUIRED SOME MISCONCEPTIONS ABOUT POTENTIAL IMPACTS OF THE SYSTEM. THE NAVY PLANS TO ENGAGE THE PUBLIC AND THE MEDIA, TO ENSURE VALID, ACCURATE INFORMATION REGARDING OPERATION OF SURTASS LFA SONAR AND ITS POTENTIAL EFFECTS ON THE MARINE ENVIRONMENT IS PRESENTED. A TEAM OF SUBJECT MATTER EXPERTS WILL HOST OPEN HOUSE FORUMS ON THE LFA SYSTEM AT A NUMBER OF LOCATIONS IN THE CONTINENTAL US AND HAWAII IN THE COMING MONTHS. DETAILS WILL BE PROVIDED SEPCOR.

3. PUBLIC AFFAIRS POSTURE FOR RELEASE OF SURTASS LFA OEIS/EIS IS PASSIVE. SPOKEPERSONS SHOULD BE CANDID AND FORTHCOMING WHEN RESPONDING TO PUBLIC AND MEDIA QUERIES REGARDING SURTASS LFA WITHIN THE SCOPE OF THIS GUIDANCE. PRESS RELEASES, PHOTOS, THE OEIS/EIS EXECUTIVE SUMMARY AND ADDITIONAL INFORMATION REGARDING SURTASS LFA CAN BE FOUND ON THE FOLLOWING WEB SITES: <WWW.N4.HQ.NAVY.MIL/N45.HTML> <WWW.EISTEAM.HOME.MINDSPRING.COM> (SITE UNDER CONSTRUCTION) <WWW.TRWIUSS.COM/EIS/INDEX.HTM> (SITE UNDER CONSTRUCTION)

4. USE THE FOLLOWING STATEMENT IN RESPONSE TO QUERY: (QUOTE) THE NAVY HAS PREPARED AN OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) TO STUDY POTENTIAL ENVIRONMENTAL EFFECTS OF USING A LOW FREQUENCY ACTIVE SONAR SYSTEM. THE SYSTEM, KNOWN AS SURVEILLANCE TOWED ARRAY SENSOR SYSTEM LOW FREQUENCY ACTIVE (SURTASS LFA), SENDS INTERMITTENT LOW FREQUENCY "PINGS" USING TRANSMITTERS SUSPENDED ON A CABLE BENEATH A SHIP AND DETECTS ECHOES VIA A TOWED RECEIVING ARRAY. (PARA)AT THE NAVY'S INVITATION, TEAMS OF WORLD-CLASS MARINE BIOLOGICAL AND ACOUSTIC RESEARCH SCIENTISTS CONDUCTED INDEPENDENT STUDIES USING THE SYSTEM. SCIENTIFIC EVIDENCE SHOWS THAT SURTASS LFA CAN BE SAFELY OPERATED WITH NEGLIGIBLE IMPACTS ON MARINE LIFE. THEIR FINDINGS ARE BEING PUBLISHED IN PEER REVIEWED PROFESSIONAL JOURNALS. (PARA) SUBMARINES ARE BECOMING INCREASINGLY QUIETER. SINCE THE END OF THE COLD WAR, SUBMARINE DETECTION RANGE HAS BEEN GREATLY REDUCED. IN SOME CASES U.S. FORCES MAY HAVE ONLY MINUTES TO RESPOND TO A POTENTIAL SUBMARINE THREAT. MAINTAINING U.S. ANTI-SUBMARINE WARFARE SUPERIORITY REQUIRES DEVELOPMENT OF EFFECTIVE LONG-RANGE SONAR TECHNOLOGY. (PARA) TO MEET THIS NEED, THE NAVY STUDIED BOTH ACOUSTIC AND NON-ACOUSTIC TECHNOLOGIES. LOW FREQUENCY ACTIVE SONAR WAS THE ONLY SYSTEM SHOWN CAPABLE OF PROVIDING DEPENDABLE LONG-RANGE DETECTION OF QUIETER HARD-TO-FIND SUBMARINES. (PARA)THE OEIS/EIS WAS PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL REGULATIONS. THE DEPARTMENT OF THE NAVY IS THE LEAD AGENCY, THE NATIONAL MARINE FISHERIES SERVICE (NMFS) IS A COOPERATING AGENCY. (UNQUOTE)

5. USE THE FOLLOWING QUESTIONS AND ANSWERS IN RESPONSE TO QUERY:

Q1. WHAT IS SURTASS-LFA AND WHAT ARE ITS USES?
A1. SURTASS LFA IS AN ACTIVE SONAR SYSTEM. ITS PURPOSE IS TO DETECT AND TRACK SUBMARINES AT LONG RANGES TO DETERMINE THEIR PRESENCE, ESTIMATE MOVEMENT PATTERNS, PREDICT THEIR DESTINATIONS AND PLANS, AND MAINTAIN AN AWARENESS OF THE GENERAL SITUATION IN THE OCEAN ENVIRONMENT. SURTASS-LFA TRANSMITS A LOW FREQUENCY ACOUSTIC SIGNAL INTO THE OCEAN

ENVIRONMENT. IT OFFERS TWO UNIQUE ADVANTAGES OVER EXISTING IN-WATER SUBMARINE DETECTION SYSTEMS. FIRST, IT DOES NOT RELY ON THE SUBJECT VESSEL TO EMIT NOISE, UNLIKE A PASSIVE SONAR SYSTEM THAT IS LIMITED BY THE QUIETNESS OF THE SUBJECT VESSEL. SECONDLY, LOWER FREQUENCY HAS A LONGER DETECTION RANGE THAN HIGHER FREQUENCY SONAR. THEREFORE, LFA INCREASES OUR ABILITY TO LOCATE SUBMARINES THAT ARE INCREASINGLY QUIET AT A LONGER DISTANCE. THIS CAPABILITY IS EXTREMELY IMPORTANT TO PROTECTING U.S. NAVY SHIPS AND SAILORS IN THE EVENT OF CONFLICT WITH ANY NATION THAT HAS A SUBMARINE CAPABILITY. TODAY, MORE THAN 40 NATIONS AROUND THE WORLD OPERATE SUBMARINES; SOME OF THESE NATIONS HAVE THE POTENTIAL TO POSE A THREAT IN THE FUTURE.

Q2. DESCRIBE THE LFA SYSTEM AND EQUIPMENT USED IN THE RESEARCH PROJECT.
A2. THE LFA SYSTEM AND OPERATING FEATURES ARE AS FOLLOWS: A SHIP- DEPLOYED VERTICAL LINE ARRAY (VLA) OF UP TO 18 TRANSDUCERS. THE VLA DEPTH IS VARIABLE (ARRAY CENTER RANGES FROM APPROXIMATELY 200 TO 600 FT). RV CORY CHOUEST IS A 265-FOOT LONG 60-FOOT WIDE RESEARCH VESSEL AND THE NAVY'S TEST PLATFORM FOR SURTASS LFA. DURING THE SCIENTIFIC RESEARCH PROGRAM(SRP) TO STUDY THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS, THIS SHIP AND A SUPPORT SHIP, USNS VICTORIOUS,. MONITORED THE PROJECT ALONG WITH 120 PERSONNEL AND TWO OTHER SMALL BOATS THAT USED HYDROPHONES AND OTHER MONITORING DEVICES. ACOUSTIC DATA WAS COLLECTED FROM HORIZONTAL LINE ARRAYS (HLA) ON BOTH CORY CHOUEST AND AN OBSERVATION VESSEL. THIS DATA WAS USED AS A BASIS FOR DRAFTING THE OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT PAGE 03 RUENAAA1331 UNCLAS STATEMENT.

Q3. DID THE NAVY SEEK ADVICE FROM NON-NAVY RESEARCH AND ENVIRONMENTAL GROUPS IN PLANNING MARINE MAMMAL RESEARCH?
A3. YES. IN EARLY 1997 THE NAVY CONDUCTED A SERIES OF INVITATIONAL MEETINGS ON THE GENERAL SUBJECT AND THE IMPACT OF UNDERWATER SOUND ON MARINE LIFE. ATTENDANCE AT THESE MEETINGS INCLUDED PARTICIPANTS FROM A VARIETY OF NATIONALLY RECOGNIZED EDUCATIONAL AND RESEARCH INSTITUTIONS, OTHER FEDERAL AGENCIES INVOLVED IN THE REGULATORY PROCESS, AS WELL AS SEVERAL BROADLY BASED PUBLIC ENVIRONMENTAL GROUPS. THE NAVY'S PLAN FOR SOUND PLAYBACK RESEARCH TESTING WAS PRESENTED AT THESE MEETINGS. THE PLAYBACK, THE LEVELS AND KINDS OF SOUND TO BE USED, AND THE TECHNIQUES FOR BEHAVIORAL OBSERVATIONS WERE DISCUSSED. MANY COMMENTS AND RECOMMENDATIONS ON EVERY ASPECT OF THESE TESTS WERE RECEIVED FROM THE ATTENDEES. A GENERAL COMMENT WAS THAT THIS TYPE OF RESEARCH WAS NEEDED FOR THE NAVY TO MOVE FORWARD WITH LOW FREQUENCY SOUND PROJECTION AND THAT THE RESULTS OF THIS RESEARCH WOULD BE HELPFUL TO THE GREATER QUESTIONS ON THE EFFECT OF LOW FREQUENCY SOUND FROM OTHER SOURCES. THE NAVY INCORPORATED MANY OF THE RECOMMENDATIONS THAT CAME FROM THESE MEETINGS AND SOUGHT THE ADVICE OF RECOGNIZED EXPERTS IN THE FIELD OF MARINE MAMMALS AND UNDERWATER ACOUSTICS. PRINCIPAL INVESTIGATORS FOR THIS RESEARCH INCLUDED DR. PETER TYACK OF WOODS HOLE OCEANOGRAPHIC INSTITUTE AND DR. CHRIS CLARK OF CORNELL UNIVERSITY'S BIOACOUSTIC LABORATORY, BOTH OF WHOM ARE INTERNATIONALLY PROMINENT MARINE MAMMAL EXPERTS.

Q4. WHY DID THE NAVY TEAM UP WITH CIVILIAN RESEARCHERS?
A4. CORNELL UNIVERSITY WAS GRANTED A PERMIT FROM THE NATIONAL MARINE FISHERIES SERVICE (NMFS) TO INVESTIGATE THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS. AT THE SAME TIME THE NAVY WAS IN THE PROCESS OF DEVELOPING A COMPREHENSIVE OVERSEAS ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) COVERING PROPOSED WORLDWIDE OPERATIONAL DEPLOYMENT

OF SURTASS-LFA IN APPROXIMATELY 2000. COMBINING ASSETS AND RESOURCES WAS BENEFICIAL TO BOTH THE NAVY AND THE CIVILIAN SCIENTIFIC RESEARCH COMMUNITY IN OBTAINING VERY IMPORTANT DATA ON THE EFFECTS OF LOW FREQUENCY SOUND ON MARINE MAMMALS. TEAMING WITH CIVILIAN RESEARCHERS PROVIDED ADDITIONAL BALANCE AND EXPERTISE TO THE STUDY.

Q5. HOW WAS THE STUDY CONDUCTED?
A5. THE STUDY WAS DIVIDED INTO THREE PHASES AT LOCATIONS OFF THE SOUTHERN CALIFORNIA BIGHT, THE CENTRAL CALIFORNIA COAST AND HAWAII FROM SEPT 1997-MARCH 1998. THE FIRST PHASE FOCUSED ON STUDYING THE BEHAVIORAL RESPONSE OF BLUE AND FIN WHALES; THE SECOND PHASE FOCUSED ON GRAY WHALES MIGRATING ALONG THE CENTRAL CALIFORNIA COAST. THE THIRD PHASE FOCUSED ON STUDYING HUMPBACK AND SPERM WHALE RESPONSES. THE RESEARCH EXPOSED THE WHALES TO CAREFULLY CONTROLLED SOUND LEVELS TO OBSERVE WHETHER OR NOT THE ANIMAL WOULD EXHIBIT ANY BEHAVIOR RESPONSE TO THE SOUND SOURCE. CLOSE OBSERVATION DURING ALL THREE PHASES REVEALED NO SIGNIFICANT BEHAVIORAL CHANGES BY THE MARINE MAMMALS. A SIGNIFICANT CHANGE WOULD INCLUDE STRONG AVOIDANCE BEHAVIOR THAT COULD DISRUPT FEEDING, BREEDING OR MIGRATION HABITS. BASED ON RESEARCH, INDEPENDENT SCIENTISTS HAVE DETERMINED THAT SURTASS LFA SONAR HAS LITTLE IMPACT ON WHALES. THE NAVY HAS PREPARED AN OVERSEAS AND A DOMESTIC ENVIRONMENTAL IMPACT STATEMENT (OEIS/EIS) TO EVALUATE DATA ON ENVIRONMENTAL EFFECTS OF DEPLOYING THE SURTASS LFA SONAR AND TO RECOMMEND A COURSE OF ACTION.

Q6. WHAT DOES THE OEIS/EIS RECOMMEND?
A6. EXECUTIVE ORDER 12114 (ENVIRONMENTAL EFFECTS ABROAD FOR FEDERAL ACTIONS) AND THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969 REQUIRE THE NAVY TO EVALUATE A REASONABLE RANGE OF ALTERNATIVES. THOSE EVALUATED BY THE NAVY OEIS/EIS INCLUDE: ?-NO ACTION ALTERNATIVE: DO NOT DEPLOY SURTASS LFA - ALTERNATIVE 1: (RECOMMENDED BY OEIS/EIS) IMPOSE GEOGRAPHIC RESTRICTIONS AND MONITORING TO PREVENT INJURY TO POTENTIALLY AFFECTED SPECIES. (SEE Q7 BELOW) -ALTERNATIVE 2: UNLIMITED USE OF SURTASS LFA SONAR WORLDWIDE, WITH NO GEOGRAPHIC OR RESTRICTIONS OTHER THAN PHYSICAL RESTRICTIONS OF THE SYSTEM AND NO MONITORING.

Q7. WHAT TYPE OF RESTRICTIONS AND MONITORING WOULD BE IMPOSED UNDER ALTERNATIVE NUMBER 1?
A7. ALTERNATIVE 1 WOULD IMPOSE MITIGATION MEASURES TO AVOID INJURY TO MARINE MAMMALS AND SEA TURTLES NEAR THE SURTASS LFA SONAR SOURCE AND TO DIVERS IN THE COASTAL ENVIRONMENT. RESTRICTIONS INCLUDE: -SURTASS LFA SOUND FIELD WILL NOT EXCEED 180 DB WITHIN 12 NM OF ANY COASTLINE. -SURTASS LFA SOUND FIELD WILL NOT EXCEED 145 DB IN THE VICINITY OF KNOWN RECREATIONAL/COMMERCIAL DIVE SITES. -SURTASS LFA OPERATORS WILL ESTIMATE SOUND POWER LEVELS WHILE MONITORING SOUND TRANSMISSION FACTORS PRIOR TO AND DURING OPERATIONS TO ENSURE LEVELS REMAIN WITHIN LEVELS ESTABLISHED ABOVE. PAGE 02 RUENAAA1332 UNCLAS ADDITIONALLY, MONITORING WILL BE REQUIRED DURING SURTASS LFA OPERATIONS: -VISUAL MONITORING FROM THE SURTASS LFA VESSEL BY PERSONNEL TRAINED TO DETECT AND IDENTIFY MARINE MAMMALS AND SEA TURTLES. -PASSIVE ACOUSTIC MONITORING BY THE SURTASS ARRAY TO LISTEN FOR VOCALIZING MARINE MAMMALS AS AN INDICATOR OF THEIR PRESENCE. -ACTIVE ACOUSTIC MONITORING BY A NAVY-DEVELOPED COMMERCIAL HIGH FREQUENCY SONAR TO DETECT AND TRACK MARINE MAMMALS AND SEA TURTLES THAT MAY PASS CLOSE ENOUGH TO ENTER THE 180 DB SOUND FIELD. ALTERNATIVE 1 PROVIDES AN ACCEPTABLE BALANCE BETWEEN THE NAVY'S NEED TO DETECT SUBMARINES AT GREATER DISTANCES AND THE NEED TO MINIMIZE

ENVIRONMENTAL EFFECTS.

Q8. WON'T THE SOUND GENERATED BY LOW FREQUENCY SONAR CAUSE HARM TO WHALES AND OTHER MARINE MAMMALS?
A8. PROTECTIVE MEASURES HAVE BEEN ESTABLISHED TO ENSURE ANIMALS WILL NOT BE EXPOSED TO SOUND LEVELS BELIEVED TO BE HARMFUL(OVER 180DB FOR NON-SERIOUS INJURY). IF A MARINE MAMMAL APPROACHES TO WITHIN THE 180 DB SOUND FIELD, THE SYSTEM WILL BE SHUT DOWN. SURTASS LFA CAN BE OPERATED EFFECTIVELY AT SOUND LEVELS BELOW THOSE ESTIMATED TO CAUSE PHYSICAL DAMAGE TO MARINE MAMMALS. OF MORE CONCERN IS THE POSSIBILITY OF CAUSING SIGNIFICANT AVOIDANCE BEHAVIOR THAT COULD DISRUPT A SPECIES' FEEDING, BREEDING OR MIGRATION PATTERNS. THE SOUND RESEARCH PROJECT SHOWED THAT, WITH MITIGATION PROCEDURES IN PLACE, SURTASS LFA CAN BE OPERATED WITHOUT CREATING SIGNIFICANT AVOIDANCE BEHAVIOR IN MARINE MAMMALS. SIGNIFICANT AVOIDANCE BEHAVIOR WOULD BE ANY TYPE OF BEHAVIOR LIKELY TO DISRUPT AN ANIMAL'S MIGRATION, FEEDING OR BREEDING HABITS FOR A SUSTAINED PERIOD OF TIME.

Q9. DOES SURTASS LFA POSE A RISK TO HUMAN DIVERS?
A9. A CONSORTIUM OF UNIVERSITY AND MILITARY LABORATORIES UNDER GUIDANCE OF THE NAVAL SUBMARINE MEDICAL RESEARCH LABORATORY CONDUCTED A DIVER RISK ANALYSIS FROM JUNE 1997 TO NOVEMBER 1998. THE RESEARCH SHOWED THE PRIMARY LOW FREQUENCY EFFECT ON DIVERS WAS A PSYCHOLOGICAL AND PHYSICAL SENSATION OF LOUDNESS AND VIBRATION THAT CAUSED AVERSION TO THE SIGNAL AT HIGH DECIBEL LEVELS. BASED ON THE TESTING, A SOUND LEVEL OF 145DB WAS ESTABLISHED AS A SAFE LIMIT. PAGE 04 RUENAAA1332 UNCLAS

Q10. DOES THE SYSTEM POSE A RISK TO FISH?
A10. THE ANALYSIS CONCLUDED THAT POTENTIAL EFFECTS ON BOTH SHARKS AND BONY FISH SPECIES WOULD NOT BE SIGNIFICANT UNDER EITHER ALTERNATIVE 1 OR 2 DUE TO A NUMBER OF FACTORS: -LOW NUMBER OF SURTASS LFA SYSTEMS TO BE DEPLOYED (2 SYSTEMS CURRENTLY PROGRAMMED WORLDWIDE). -GEOGRAPHIC RESTRICTIONS IMPOSED ON SYSTEM. -CONSTANT MOVEMENT OF SHIP -SHORT PERIOD OF TIME SYSTEM IS ON -LOW PROBABILITY OF SUBSTANTIAL FISH STOCKS BEING WITHIN 180DB SOUND FIELD DURING A TRANSMISSION LONG ENOUGH TO CAUSE ADVERSE EFFECTS. -SMALL PERCENTAGE OF ENTIRE FISH STOCK AFFECTED. THESE SAME FACTORS APPLY TO SEA TURTLES. ADDITIONALLY, ALTERNATIVE 1 CALLS FOR VISUAL AND ACTIVE ACOUSTIC MONITORING FOR SEA TURTLES DURING SURTASS LFA OPERATIONS.

Q11. WHY ARE ENVIRONMENTAL GROUPS SO OPPOSED TO THIS PROJECT?
A11. MUCH OF THE OPPOSITION HAS BEEN BASED ON LACK OF SCIENTIFIC DATA REGARDING THE EFFECTS OF LOW FREQUENCY SOUND PROPAGATION IN THE MARINE ENVIRONMENT. THAT'S WHY THE NAVY WAS INTERESTED IN THE RESULTS OF THE LOW FREQUENCY SCIENTIFIC RESEARCH PROGRAM (SRP). IT'S IMPORTANT TO NOTE THE INDEPENDENT SCIENTISTS WHO CONDUCTED THE STUDY BEGAN WITH A HYPOTHESIS THAT LF SOUND ABOVE 140DB WOULD DRIVE MARINE MAMMALS AWAY FROM LARGE AREAS OF THE OCEAN AND CAUSE SIGNIFICANT BEHAVIORAL DISRUPTIONS. INSTEAD, THE HYPOTHESIS WAS PROVEN INCORRECT. EVEN AT LEVELS WELL ABOVE 140DB, WHALES DID NOT SHOW STRONG, PROLONGED AVOIDANCE BEHAVIOR IN ANY OF THE TESTS. THE RESULTS OF THE SRP VALIDATED THE VIABILITY OF SURTASS LFA AND ALSO PROVIDED A WEALTH OF NEW SCIENTIFIC DATA. THE NAVY IS COMMITTED TO ITS ROLE AS A GOOD STEWARD OF THE ENVIRONMENT AND INTENDS TO CONTINUE RESEARCH ON THE EFFECTS OF LF SOUND IN THE MARINE ENVIRONMENT. SOME ENVIRONMENTAL GROUPS HAVE MADE EXAGGERATED CLAIMS CONCERNING POTENTIAL EFFECTS OF SURTASS

LFA. THE DATA PRESENTED IN THE OEIS/EIS DOES NOT SUPPORT THESE CLAIMS.

Q12. WHERE WILL SURTASS LFA SONAR BE OPERATED?
A12. THE NAVY PROPOSES TO OPERATE TWO SYSTEMS WORLDWIDE IN OCEAN LOCATIONS BETWEEN LATITUDES OF 72 DEGREES NORTH AND 60 DEGREES SOUTH.

Q13. WHAT IF ADDITIONAL RESEARCH REVEALS SURTASS LFA IS DAMAGING THE ENVIRONMENT?
A13. IT WOULD BE INAPPROPRIATE TO SPECULATE ABOUT FUTURE OPERATIONAL DECISIONS. THE FACT THAT THE NAVY INTENDS TO CONTINUE RESEARCH AND MONITORING OF LFA OPERATIONS IS INDICATIVE OF NAVY CONCERN FOR THE MARINE ENVIRONMENT.

Q14. HOW WILL THE NAVY DEAL WITH PROTESTERS WHO OBJECT TO SURTASS LFA DEPLOYMENT?
A14. THE PROTESTERS HAVE A RIGHT TO EXPRESS THEIR CONCERNS IN A LEGAL MANNER. NAVY CONCERN FOR POTENTIAL EFFECTS OF LOW FREQUENCY SOUND IN THE OCEAN ENVIRONMENT LED TO THE RESEARCH PRESENTED IN THE OEIS/EIS. THAT CONCERN ALSO MAKES ALTERNATIVE 1, SURTASS LFA OPERATION WITH RESTRICTIONS AND MONITORING, THE NAVY'S PREFERRED ALTERNATIVE. THE NAVY ENCOURAGES CONCERNED CITIZENS TO STUDY THE INFORMATION PRESENTED IN THE OEIS/EIS.

Q15. WHAT TYPE OF SHIP WILL OPERATE SURTASS LFA?
A15. THE INTENDED PLATFORM IS A SWATH-A CATAMARAN OPERATED BY CIVILIAN CREW. CHARACTERISTICS: LENGTH: 281' 6" BEAM: 95'9" DRAFT: 26' DISPL: 5380 TONS

6. QUESTIONS BEYOND THE SCOPE OF THIS GUIDANCE SHOULD BE REFERRED TO CHINFO NEWS DESK AT (703) 697-5342.