

APPENDIX N

Right Whale Early Warning System Description

Right Whale Early Warning System
June 20, 1996

ATTACHMENT A

A. INTRODUCTION

The northern right whale, *Eubalaena glacialis*, is listed as endangered under the ESA and there are estimated to be approximately 300 remaining in the western North Atlantic Ocean. Reproductively active females produce one calf every three years on average, thus the population is biologically incapable of rapid increase. Every mortality is therefore detrimental to the species' survival in the western North Atlantic. Human-induced mortality of right whales along the Atlantic coast of the U.S. has been attributed to two main causes. Fishing gear entanglement, which occurs frequently in the summer feeding grounds in New England and Canadian waters, is believed to result in some right whale mortality. Collision with ships appears to occur less frequently, but is still an identifiable cause of mortality in right whales, especially in southern U.S. coastal waters during the winter. The work to be performed under this requisition will reduce the possibility of collision between right whales and ships in winter calving grounds off Georgia and northern Florida.

B. BACKGROUND

The only known calving grounds of the northern right whale occurs in nearshore coastal waters of Georgia and northern Florida. This area has been designated as critical habitat under the ESA.

There are four major shipping ports in this area with approaches transecting the calving grounds. Two of these shallow-water ports require periodic dredging to remain open. Dredging takes place during the winter to avoid mortality to endangered sea turtles; however, this is when right whale females with calves are present in the area. Dredged material is removed from the channel using hopper barges and the increased traffic increases the possibility of collision with right whales.

Right whales are slow moving, especially when accompanied by a calf, and only a small portion of the whale is visible at the surface of the water. Both of these factors, combined with the amount of ship traffic in the area, make the right whale especially vulnerable to collision with ships on the calving grounds.

A number of actions have been taken to reduce ship collisions with right whales. The harbor pilots associations have conducted training to increase awareness of the presence of right whales and to avoid collisions. Dredge operators have conducted aerial surveys to detect right whales in the vicinity of dredging activities and lookouts have been posted on the hopper barges to search ahead

for whales when their presence was detected by the aerial surveys. This program has been successful in avoiding dredging-related right whale mortalities. The work to be performed under this requisition will continue the aerial survey effort spatially and temporally to further reduce the possibility of right whale-ship collisions during the period of right whale residency.

C. OBJECTIVES

The primary objective of this work is to reduce right whale mortalities on the winter calving grounds by reducing the possibility of collision between right whales and commercial and other large vessels. A secondary objective is to identify other methods which may increase the effectiveness and efficiency in satisfying the primary objective. This project will also serve as a source of information on the distribution and abundance of marine mammals and sea turtles in the study area.

D. STATEMENT OF WORK

Daily aerial surveys shall be conducted in the area extending from 18 km north of Brunswick, Georgia, to 18 km south of Jacksonville, Florida under VFR flight conditions from December 1, 1996, through March 31, 1997. This area shall be surveyed out to approximately 30 km from shore. Survey track lines shall be separated by 5.3 km and flown latitudinally. Track lines shall be flown at 229 m altitude and an airspeed of approximately 160 km/hr.

Modifications to enhance the effectiveness of the aerial survey effort may be recommended by the SE Right Whale Recovery Plan Implementation Team Research Subcommittee through the NMFS COTR to the NMFS CO as new data become available. These may include increased survey effort in select locations within or near the study area. These modifications can be implemented only with a contract modification by the NMFS CO, provided the implementation does not incur increased costs to either the contractor or to the government. Said modifications, if implemented, shall not relieve the contractor from any previous obligations under this contract.

The survey aircraft shall be equipped with electronic positioning equipment and appropriate safety gear for surveying over water. The aircrew shall consist of a pilot, data recorder, and two observers, one positioned on each side of the aircraft. Observers shall be trained and experienced in the identification of marine mammals.

Time, location, number, and species of all marine mammals and sea turtles encountered shall be recorded and all ships in the area noted. Each right whale encountered shall be circled and photographed for individual identification and, in addition to the above noted data, sex and age (if known), behavior (including travelling speed and direction), and interaction with vessels shall be noted.

Right whale sightings shall be reported to the appropriate agencies in the area in near-real time either upon landing or by radio from the aircraft. The U.S. Navy shall be notified in near-real time using FASCFAC. Other agencies to be notified shall include the U.S. Coast Guard and Army

Corps of Engineers, hopper dredge operators, local harbor masters and harbor pilots. The contractor shall schedule a pre-season conference with the above organizations to ensure communication with FASCFAC, flight requests, and sighting reports. A contact name and phone number shall be provided to each of the above agencies. The methods by which notification is accomplished shall be detailed in the proposal responding to this request for work.

Photographs of right whales shall be analyzed for identification of individuals. Analyses shall include determination of the number of right whales inhabiting the area during the study period; their age, sex, and reproductive status; temporal and spatial residence patterns and movements.

Deliverables and Reporting Requirements:

All applicable permits are required because of the potential risk of harassment to the right whales during aerial surveys. A weekly report of survey activities shall be provided to the NMFS Charleston Laboratory, the Southeast Regional Headquarters Office - St. Petersburg, and US Army Corps of Engineers by the following Wednesday via FAX or overnight mail. This report shall cover survey activities conducted from the previous Sunday through Saturday and shall include the following information: date and time of each aerial survey conducted; time and location of each right whale sighting, noting presence of calves; time of notification of agencies; and agencies notified.

A summary report of the aerial surveys shall be provided to the NMFS Charleston Laboratory by May 1, 1997. This report shall include, in tabular form on electronic format (dBase or ASCII), the following: date, time, location, and species of all marine mammals and sea turtles encountered; sighting distance of right whales determined perpendicular from track line or at a 10° interval from the track line; transect number for each sighting; and length of each transect flown each day.

A draft final report of the results of analyses of right whale photographic data as specified above shall be provided to the NMFS Charleston Laboratory in standard scientific journal format within 90 days of the completion of aerial surveys. This report shall include: number of individuals identified, location and date of individual when photographed (each sighting), cross-referenced with sightings in aerial survey report, age and sex of individuals (if known), behavior, etc. Any improvements in methodology identified in the course of the work should be included in the final report. The NMFS Charleston Laboratory shall be provided with two originals and four copies of the final report within 30 days of return of the reviewed draft report to the contractor. Additionally, one original and two copies of the final report shall be provided each to the Southeast Fisheries Science Center - Miami, the Southeast Regional Headquarters Office - St. Petersburg, the Navy-COMNAVBASE Jacksonville, U.S. Coast Guard, and Army Corps of Engineers.