

MARINE MAMMAL/VESSEL STRIKE (MMVS) WORKING GROUP
NOAA Gloucester, MA
9:00am to 5:30pm
June 14, 2004
Meeting 7

MEETING SUMMARY

ACTION: (Michael Prew, Bill Eldridge, Rick Nolan) Consensus rationale for Whale Watching Guidelines.

ACTION: (Rick Nolan) Update A.I.S. rationale with newly learned information.

ACTION: (Mason Weinrich) Rationale for SBNMS dedicated enforcement vessel.

ACTION: (Mason Weinrich) Provide Working Group with updated Action Plan.

Working Group Attendees

NAME	WG SEAT and AFFILIATION
Mason Weinrich	WG Chair, Whale Center of New England
David Wiley	WG Team Lead, SBNMS
Amy Knowlton	NEAq Right Whale Research, Science
Andy Glynn	General Category Tuna Association, Tuna Fishing
Bill Eldridge	Peabody Lane Shipping, Shipping
Brian D. Hopper	NMFS
Hauke Kite-Powell	WHOI, Science
Michael Prew	Captain John Boats, Charter Boats
Mike Thompson	Perot Systems, GIS Analyst
Moria Brown	NEAq Right Whale Research, Science
Regina Asmutis	IWC, Conservation
Richard Meyer	Boston Shipping Association, Shipping
Rick Nolan	Boston Harbor Cruises, Shipping
Sharon Young	Humane Society of the US
Tim Cole	NMFS NEFSC, NMFS
Tim Feehan	Perot Systems Government Services

WELCOME, INTRODUCTIONS, AND ADOPTION OF AGENDA

Mason Weinrich (Chair) opened the meeting at 9:30 am to review action items from the May 25th meeting at Stellwagen Bank National Marine Headquarters in Scituate, MA. An agenda for this meeting was not required; the meeting was dedicated to writing and editing the Action Plan. This meeting was the final Marine Mammal Vessel Strike Working Group Meeting.

OLD BUSINESS AND ACTION ITEMS

Presented by Mason Weinrich, WCNE

There was a brief review of Action Items from the last meeting on May 25th, 2004 at Stellwagen Bank National Marine Sanctuary in Scituate, MA. The Last meeting concluded with Strategy VS-

5 of the Action Plan. This was the last time that the group will be meeting to discuss items in the Action Plan and the time was devoted to discussing items in the Action Plan that the entire group could comment on.

NEW BUSINESS

Comments and Edits about the Action Plan

Several revisions were made to the Action Plan since the May 25th meeting. The changes made were mostly edits for factual clarification. The wording remained the same but was corrected for format and grammar. The remainder of the meeting was dedicated to finish reviewing the draft Action Plan. Concern was raised about the Action Plans lack of consensus and multiple options with rationales presented. At the beginning of the meeting, the Action Plan would have been submitted to the SAC with all options and rationales.

Taggart, C.T. and A. Vanderlaan. 2003. Regional time/space conflicts in vessel traffic and fishing effort with right whales in the Bay of Fundi.

Presented by Moira Brown, NEAq

A figure by Chris Taggart was presented as a starting discussion about the reduction of speed as an option for reducing vessel strike. Chris Taggart was later contacted and placed on conference call to help answer questions the group had about the data.

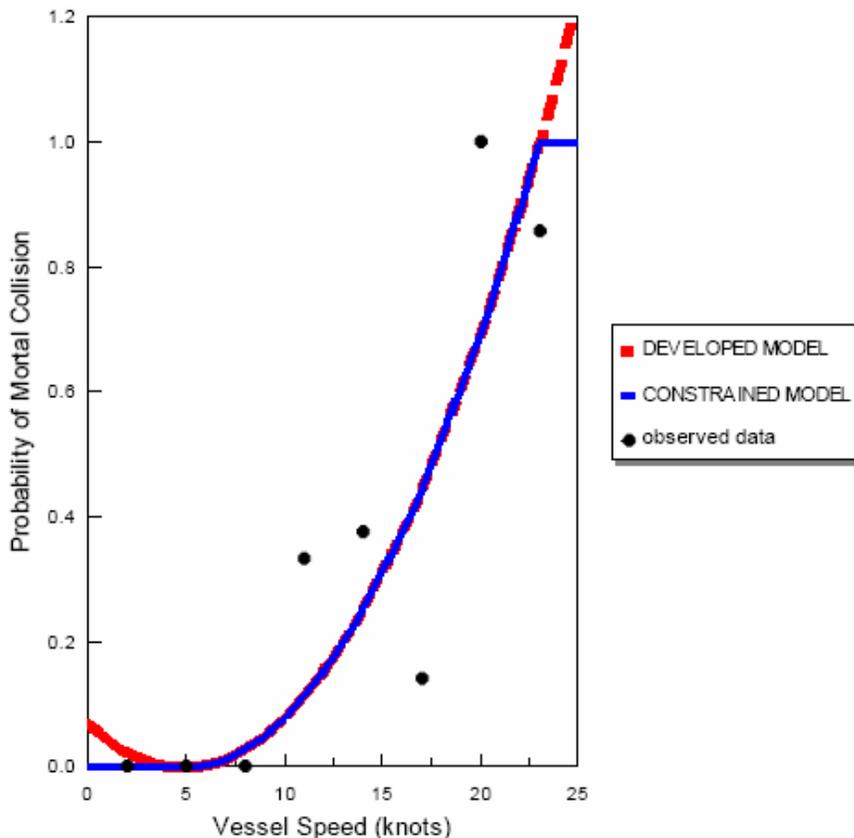


Fig. 12. Estimation of probability of whale mortality from a collision between a whale and a vessel as a function of vessel speed and applied to "rule" vessels across the 400 grid-cell domain in the Bay of Fundy. Observed data are drawn from Laist et al. 2001 (Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet and M. Podesta. 2001. Collisions between ships and whales. *Mar. Mam. Sci.* 17(1):35-75) and was estimated using a power function based on the square of the ship speed and the fact that the force of collision impact is proportional to the square of the velocity ($r^2=0.8$; $df=6$). The model is constrained (by the observational data) such that the probability of whale mortality is 0.0 at speeds ≤ 4.8 knots and 1.0 at speeds ≥ 23 knots.

Notes:

The graph would suggest that the only safe vessel speed would be 5 knots. The working group agreed that traveling at 5 knots was not an option. Larger vessels cannot travel at low speeds safely due to limited maneuvering ability. A question was asked as to whether reduction of fatalities is more important than reduction in strikes. The question was asked due to the belief of some members was that if fatalities isn't the issue then speed through the bank may not matter. It was suggested, as well as in previous meetings, that speeding through the Sanctuary would have less risk of strike due to less time spent within the Sanctuary. An earlier presentation stated that speed does not change the probability of strike. A vessel and a whale can only be at one place and time at any location within the Sanctuary, regardless of speed.

Concerns were raised as to whether documents written for the Action Plan may not allow all members of the group to discuss the issues with speed. A suggestion was made to try and discuss speed during this meeting and try to reach a consensus. Reaching a consensus would be much more powerful to the SAC than options. The wealth of knowledge within the Marine Mammal Vessel Strike Working Group will far exceed that of the SAC. The SAC will spend much less time than the 7 meetings this Working Group has spent on trying to make recommendations.

A question was posed to the group asking if members of the working group were looking to recommend blanket speed restrictions for the Sanctuary. The Chair suggested that there were several members who had different opinions and options that would be suggested to the SAC. Some of these options include, no speed restrictions, a 13-15 knot speed restriction, or a 25-20 knot speed restriction for the prevention of faster boats in the future.

A suggestion was made by an industry member to have a 2 mile buffer set around whales and a reduction of speed to 24 knots within the buffer, or an alteration of track. The Working Group discussed the details of the suggestion. It was noted that aggregations of whales and whale densities would also have to be looked at more carefully. Some issues included the difficulty of real time reporting, awareness, limited visibility and the origin of the 2 mile buffer.

Questions pertaining to speeds of particular vessels and the expected future speeds of vessels were asked. The industry believes that future vessel speeds will not increase as much as the recreational boats have over the past ten years. Cruise ships can travel up in the 24 knot range. Commercial vessels tend to be increasing their carrying capacity rather than increasing speeds. It is too expensive to travel at increased speeds due to the cost of fuel.

The suggestion of a buffer area and a speed restriction led the group to a decision to try to come to a compromise rather than submitting an Action Plan with non-consensus on this issue. Questions as to whether or not the Whale Watching Guidelines should be considered for all vessels was suggested. The industry was not willing to accept a speed restriction of 13 knots but would consider some sort of speed restriction.

The Working Group worked with the Taggart data and other information to reach a compromise on speed restrictions and the details of the guidelines. The industry would entertain a 24 knot speed restriction within a set distance of a known whale. The Tuna representation would not have

a very difficult time recommending this because it would not affect a large portion of the Tuna fisheries. A reduction of speed to 18 knots would not be acceptable to the Tuna boats because it would effect a much larger population.

Limited visibility, including nighttime transiting was recognized as a higher risk of strike. A suggestion was made to increase the buffer size during these times. The group agreed that the buffer should be increased during nighttime and limited visibility operation.

A suggestion was made that not all vessels should have the same guidelines. Vessel size and weight may need to be a factor in the guidelines. The group agreed that the guidelines should not be the same for larger vessels as it is for Tuna boats and smaller vessels.

Members concluded that guidelines would be a better way to move forward with these restrictions rather than regulations. An argument was made that regulations do not necessarily help to prevent strike but only give the government a way to prosecute the vessel after the whale has been struck. Guidelines may be more accepted by the mariners versus regulations. The problems with guidelines include the lack of ability to enforce the guidelines. Regulations would allow enforcement which may prevent strikes.

The Taggart graph illustrates that reducing speed to 18 knots would help to bring the strike probability to 50%. It may be difficult convince the SAC that a reduction of speed to anything higher than 18 knots, the example of 23 knots would reduce strike still to a 100% kill rate. The Working Group would rather reach a consensus on speed that would reduce strike.

It was argued that routing around the area would be the best way to reduce ship strike. Therefore, the reduction in speed would have to be low enough to make re-routing an attractive option. It was also suggested that the guidelines should have a caveat of having a compliance research study done to re-evaluate the effectiveness of the guidelines.

A discussion would need to be made in order to determine what whales would get designated with a buffer. A single Minke Whale transiting the bank would not be designated due to its rapid transit. However, larger aggregations of Minke Whales moving through a particular area should be designated to help reduce strike, especially if they have been sighted over longer periods of time in the same location.

The Industry suggested that they would be willing to compromise with a 21 knot speed restriction around whale locations. This compromise led to the Working Group agreeing to restructure the Action Plan and re-write Action Plan to reflect a consensus on the proposed guidelines.

The Working Group accepted the motion to re-write the Action Plan to come to a consensus. Several questions needed to be addressed before complete acceptance and drafting of the Action Plan began. The Working Group agreed to contact Chris Taggart to get input about the graph.

Chris concluded that the information is the best available strike data. He argued that although there is a high degree of uncertainty in using the graph as a decision making tool that the data is very compelling and that it could be used as a basis for decision making.

The Working Group discussed the two currently proposed speed restrictions to Chris Taggart. A decision to choose 18 knots or 21 knots would fall within the uncertainty bin according to available data. Issues with the data included lack of data and not taking into consideration the mass of the vessel. The Working Group agreed that this data is the best available data at this time.

The Working Group decided to break for lunch and give Working Group members the opportunity to discuss amongst themselves. The issues at hand included; What Speed Restriction would be a good compromise, What the buffer distance would be, What Vessels would be affected, What conditions would there be?

Shipping Lane Analysis

Presented by David Wiley, SBNMS & Mike Thompson, Perot Systems

A presentation was given illustrating the shipping lanes and the interactions of shipping use within Stellwagen Bank National Marine Sanctuary. The analysis illustrated the locational interaction between whales and the existing voluntary shipping lane. The existing shipping lane currently intersects historically high densities of whales. A slight shift of the shipping lane was presented and analysis was done and compared to the existing shipping lane. The shifted lane would decrease the interaction with historical whale sightings by nearly 70%. Also the introduction of a northern shipping lane to help avoidance with high density whale areas was also presented. (See Appendix A for presentation summary).

The Working Group agreed that a shift in the shipping lanes may help to reduce the probability of strike. The Working Group also agreed that a recommendation to the IMO to have the voluntary shipping lanes moved would be acceptable.

A Speed Zone Analysis was also conducted using a Geographic Information System modeling tool which can calculate costs of speed restrictions within the Sanctuary. The model was run using a speed restriction within the Sanctuary and a vessel track that traveled from Gloucester to Provincetown. The model illustrated that a speed restriction within the Sanctuary would not greatly increase the amount of time to transit the Sanctuary in most cases. A model was also run in which a vessel could alter course and travel outside of the Sanctuary and would have no impact on time since the vessel traveling outside the Sanctuary can transit with unrestricted speeds. (See Appendix B for model summary).

A suggestion was made by group members to adopt guidelines that would be similar to as follows:

> 100 gross tons

Daytime	2 mile	18 knots
Nighttime and Poor Visibility	4 mile	18 knots

< 100 gross tons

Daytime	2 mile	21 knots
Nighttime and Poor Visibility	4 mile	21 knots

The Working group discussed variations of the guidelines including what vessel sizes would be included, changes in the speed restriction and changes in the buffer size. The Working Group decided to break to discuss alterations to the guidelines that would be acceptable. The Working Group came to an agreement on the guidelines with the understanding that this would be a compromise. Although all members did not agree with the selection of the speed the Working Group decided to accept these numbers rather than reach a non-consensus on the issue. It was also agreed that the guideline recommendation would have to include that decisions were made using best available information and that the guidelines should be reviewed over time. Please refer to the Action Plan for the finalized guidelines, caveats and wording.

The Working Group reviewed the remainder of the Action Plan including sections on the Whale Watching recommendations, Enforcement and Outreach and Education. Due to limited time the Working Group had to choose which topics to discuss. Anything that was not concluded at the end of this meeting is to be discussed via email or conference calls.

The Working Group would also like to reach a consensus on the Whale Watching Guidelines. If a consensus is not reached on Whale Watching Guidelines then several options would go forward to the SAC. Several Working Group members were frustrated that much of the meeting was spent on coming to a consensus on Speed Restrictions it would be beneficial to reach a consensus on Whale Watching Guidelines. The Working Group agreed to review the Whale Watching Guidelines.

A motion was made to keep the existing Whale Watching Guidelines and have increased monitoring and compliance studies. The Working Group had previously agreed that if the Guidelines were adhered to that they would help to reduce strike. The acceptance of the Guidelines would require that the recommendation of a Special Use Permit would have to be removed from the Action Plan. The Working Group agreed to strike the Special Use Permit from the Action Plan. New information became available which stated that Recreational Boats could not be given Special Use Permits for Whale Watching due to legal issues including insurance and liability. Several Working Group Members who had originally opposed keeping the existing Whale Watching Guidelines were not present at the meeting and therefore could not be spoken for. However, the Working Group agreed that if the recommendation to keep the Guidelines were written appropriately that a consensus may be written.

The Whale Watching community was tasked to write a rationale for keeping the current Whale Watching Guidelines with the hopes that it would be accepted by the entire Working Group after a review by absent Working Group members. Once the rationale is written it will be sent out to Working Group Members for review and possible consensus.

A recommendation was made to the Working Group to have a Whale Watching Association that could be used to help self monitor the compliance with the Whale Watching Guidelines. It was suggested that having a website that could show the companies that were not complying with the guidelines in a way that could help increase compliance. Several Working Group members believed that this would be a good approach to help reduce strike. Members of the shipping community belong to shipping associations that do similar monitoring.

The Enforcement section of the Action Plan was reviewed and several comments were made. A member of the Working Group suggested that Stellwagen Bank National Marine Sanctuary should have its own enforcement. Historically it has been difficult to have partnerships with other agencies for enforcement due to their high demand and their new involvement with Homeland Security. The Working Group agreed that Stellwagen Bank National Marine Sanctuary should have dedicated enforcement and have dedicated vessels for enforcement.

A suggestion was made to allow Whale Watching boats to be granted a temporary permit that would allow them to come within the 500 yard restriction zone to monitor Right Whales. The details of this permit were discussed, topics included; Classes needed in order to apply for the permit, how the permit would be obtained, equipment needed for the access, and also the understanding that this permit would not be used as a way to market Right Whale whale watching. The Working Group agreed to the certification of Whale Watching boats to monitor Right Whales. Please refer to the Action Plan for more information.

The meeting concluded with discussions about topics discussed during past meetings such as the need for better information sharing and communication between all users of Stellwagen Bank National Marine Sanctuary. Working Group members were also concerned about the inability to focus on the risk that recreational boats have to Marine Mammal strikes. Unfortunately due to time constraints and the need to complete the Action Plan the discussions will have to take place at another time.

MEETING CONCLUSION

Mason Weinrich, WCNE

The Working Group was congratulated for all of their hard work and for the ability to reach a consensus on some very difficult issues. The Action Plan will be sent out to the Working Group once it has been edited to reflect the changes made during the meeting. This is the final Marine Mammal Vessel Strike Working Group Meeting. Any further communications will be either by conference call or by email.

Gerry E. Studds Stellwagen Bank National Marine Sanctuary
Management Plan Review

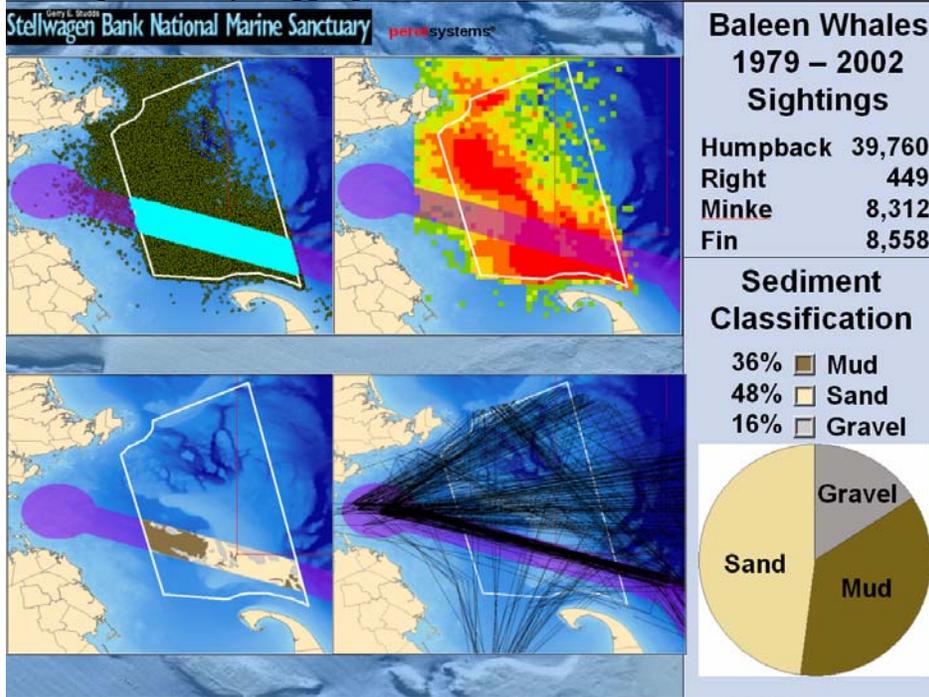
Vessel Strike Working Group Agenda

Date: June 14th, 2004
Location: NOAA Gloucester, MA

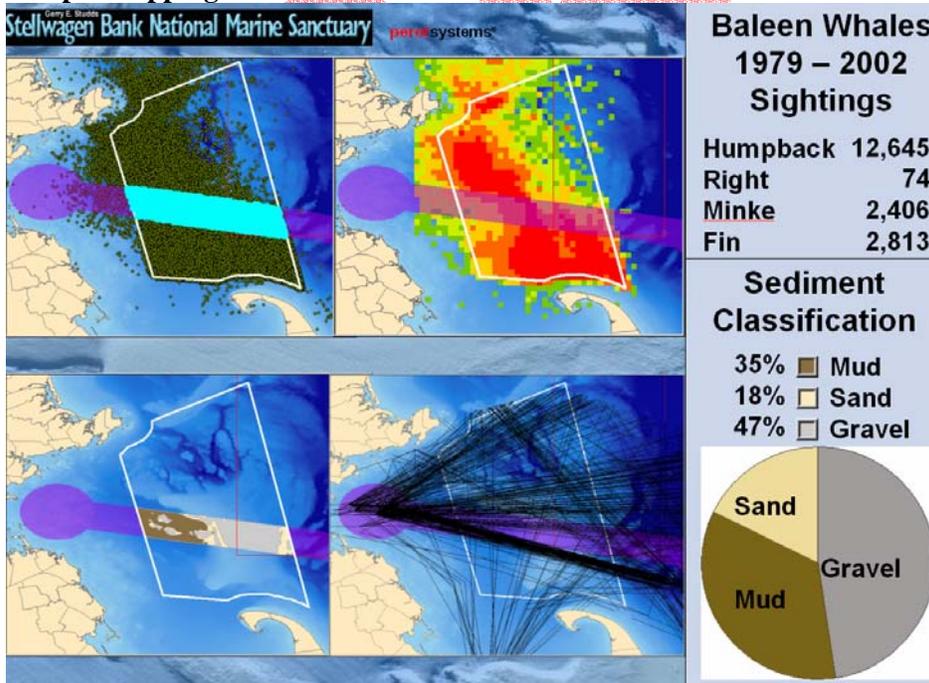
TIME	TOPICS AND OBJECTIVES
9:30-10:00	Old Business <ul style="list-style-type: none"> - Review Previous Meeting - Updates on Requested Information Discussion Leader: Mason Weinrich /Dave Wiley
10:00-10:30	Action Plan Presenter: Mason Weinrich, WCNE
10:30-12:00	Taggart, C.T. and A. Vanderlaan. 2003. Regional time/space conflicts in vessel traffic and fishing effort with right whales in the Bay of Fundi.
12:00-12:40	Draft Action Plan
12:40-1:40	LUNCH Shipping Lane Analysis Presenter: David Wiley, SBNMS & Mike Thompson, Perot Systems
1:40-4:15	Draft Action Plan
4:15-4:30	Concluded Meeting and Assigned Action Items Presenter: Mason Weinrich, WCNE

**Appendix A
Shipping Lane Analysis**

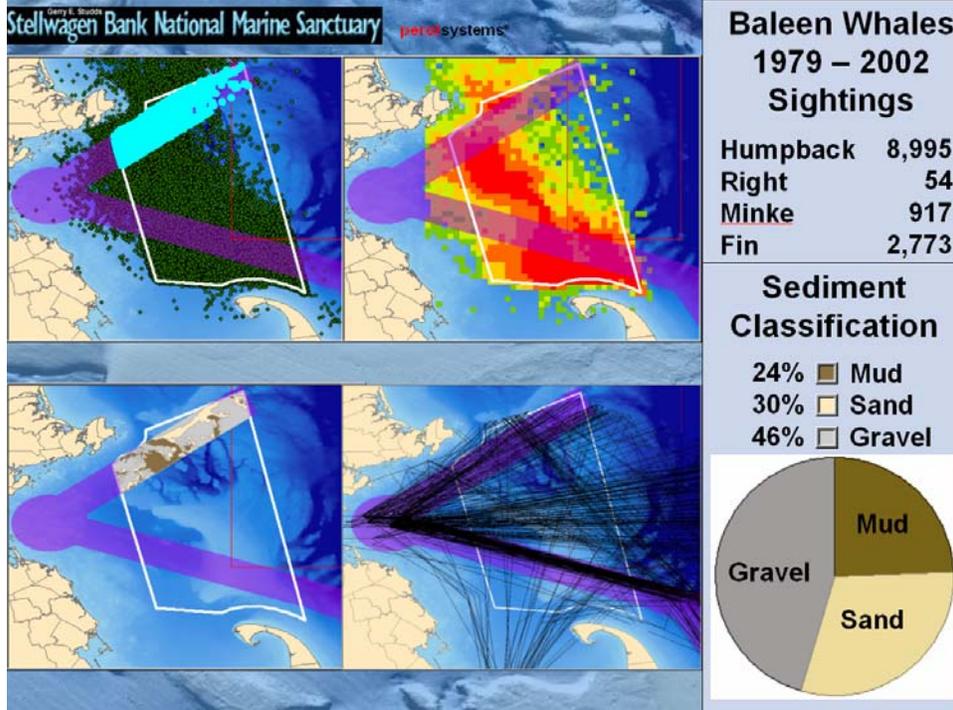
Existing Voluntary Shipping Lane



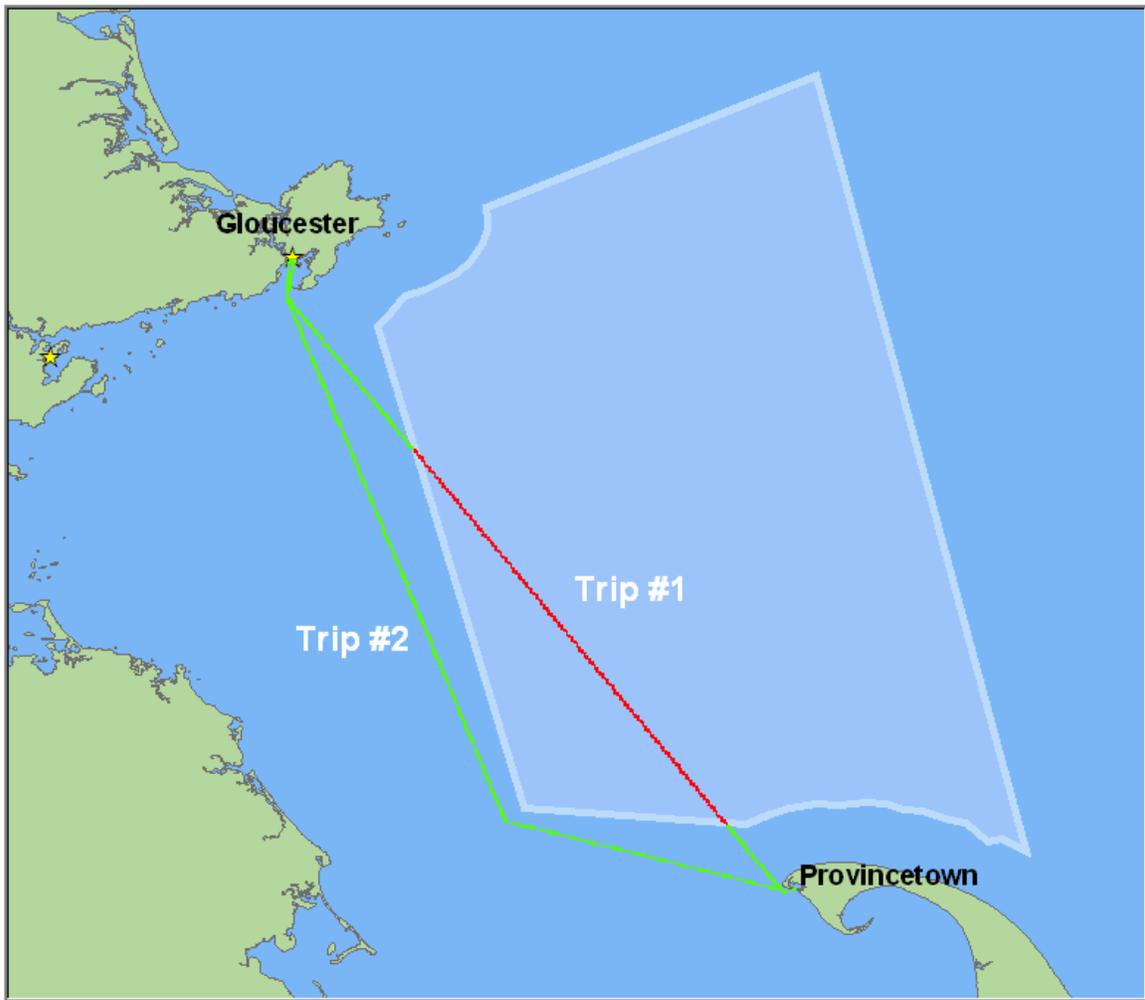
Sample Shipping Lane Shift



Sample Northern Shipping Lane



**Appendix B
Speed Zone Analysis**



Sample Trip #1 (Transit the Sanctuary)

Speed (Knots)		Travel Time (Hours)		
Initial	Restricted	Initial	Restricted	Change
30	20	1.78	2.22	0.44

Sample Trip #2 (Alter Course around the Sanctuary)

Speed (Knots)		Travel Time (Hours)		
Initial	Restricted	Initial	Restricted	Change
30		1.76	1.76	0