North Atlantic Right Whale Recovery Plan
Southeast U.S. Implementation Team Meeting, May 11, 2012
Jacksonville, FL

KEY OUTCOMES MEMORANDUM

I. Overview

The North Atlantic Right Whale Recovery Plan Southeast U.S. Implementation Team (SEIT) met on May 11 in Jacksonville, Florida. The SEIT meeting was preceded by a Southeast Right Whale Forum meeting on May 10 at the same meeting location. A Forum agenda was developed with input from the SEIT is included in this document. A draft SEIT agenda was distributed prior to the meeting and discussions focused on the following objectives:

- Forum review/recap
- Aerial survey information gaps
- Mariner Survey update
- Aerial survey objectives –revisit prioritized list that was conditionally accepted previously
- Forum presentations on passive acoustics
- MAUS Gap Analysis
- Tagging. Linked Objectives, information needs
- SEIT Assessment

This Key Outcomes memorandum summarizes the primary results of the SEIT meeting. In general, the synthesis integrates the main themes discussed at the meeting and are presented in five main sections: Overview, Participants, Meeting Materials, Key Outcomes, and Next Steps. The Key Outcomes section is further segmented into the following eight sections:

- Welcome and Introductions. This section provides a brief overview of meeting, purpose, and agenda overview.
- Forum Review
- Outstanding Information for Aerial Survey Review
- SER Aerial Survey Priorities
- Tagging
- SEFSC Passive Acoustic Monitoring
- SEIT Reflections
- Consensus Actions. This section summarizes consensus actions to be taken by the Team.
- Consensus Recommendations. This section summarizes consensus recommendations of the SEIT.
- Other. This section summarizes other topics discussed during the meeting.

II. Participants

The SEIT meeting was attended by 12 of the 13 Team members and included: Nancy Allen, Lance Garrison, Clay George, Mike Getchell, Bill Kavanaugh, Amy Knowlton, Bill McLellan,

Katie Moore, Becky Shortland (alternate for Cathy Sakas), Leslie Ward-Geiger, Sharon Young, and Tom Wright.

Zach Cress, Laura Engleby, Greg Schweitzer and Barb Zoodsma; representing SERO PRD; also attended as did Jim McGlaughlin, SERO's contracted shipping liaison. Members of the public were not invited to attend the meeting.

III. Meeting Materials

The following materials were distributed via email to the SEIT prior to the meeting and hard copies were provided at the meeting:

- Draft meeting agenda

Copies of the draft agenda can be obtained by emailing Barb.Zoodsma@noaa.gov.
The following materials were reviewed and considered during the meeting

- Spreadsheet of dead and entangled whales detected during aerial surveys
- Options for deploying SEFSC passive acoustic monitoring buoys

IV. Key Outcomes

Below is a summary of the main topics and issues discussed during the meeting. This summary is not intended to be a meeting transcript. Rather, it provides an overview of the main topics covered, the primary points and options raised in the discussions, and areas of full or emerging consensus.

A. Welcome and Introductions

The meeting kicked off with a brief review of the meeting purpose and round-robin self-introductions.

B. Forum Review

1. A number of members appreciated K. Jackson's consolidated presentation on aerial survey results and requested a copy of the presentation.
2. One member expressed an interest in the outcome of interagency discussions about the future of the MSR.
3. There was a lengthy discussion about passive acoustics, and at least one member thought a summary of passive acoustic information (especially the salient management points and information gaps) might be helpful. The group acknowledged that there were consistencies as well as inconsistencies between what the various groups were reporting. The Team noted it would be helpful to have a working group to, among other things, address/resolve discrepancies (see Consensus Actions), improve coordination, and focus on management priorities. One member suggested the previously developed draft PAM framework may be helpful to the working group. All passive acoustic research groups reported that mother/calf pairs vocalize very little and surface active groups are

vocalizing often (and are likely being recorded by the SEFSC PAM units). It was noted that the vocalizing behavior of single juveniles is lacking.

4. The SEIT appreciated the informational presentation on the increased effort in the Atlantic Blue Crab Fishery off NE Florida. The Team contemplated how an increase in effort would occur and believed that it was unlikely that crabbers were sharing their catch information; rather, the seafood buyers were likely sharing information (perhaps to lower buying price). Consequently, a few team members thought it might be useful to have the SERO PRD's Fishery Liaison inform buyers that more gear is riskier to right whales.
5. It appears there has been some movement on the genetics front. Brad White, Trent University, has a new graduate student. The backlog of biopsy and dead whale samples have been identified as profiling priorities. A protocol would be helpful to identify priority samples and to track all samples. Trent University has implemented a web-enabled database to track disposition of right whale genetics samples and results.
6. Members asked for periodic updates on the USWTR program and other related Navy updates of importance to the Team.
7. The SEIT appreciated the update on ship speed rule violations; but some members noted that more information on violations would be helpful (e.g. when, where, and what type of vessels are being cited). A number of members were interested in where the proceeds from the fines were going and if the funds could be used to support right whale recovery. B. Zoodsma noted that there was strict guidance on what was and was not appropriate use of the funds.
8. One member requested a copy of the Early Warning System Memorandum of Agreement for insights into what requirements for aerial surveys may be present in the document.
9. Education and Outreach discussion moved to a future call/meeting.

C. Outstanding Information for Aerial Survey Review

The Team reviewed outstanding information requested for the aerial survey review.

<u>Dead and entangled whales detected by SE aerial surveys.</u> Since 2001, 33% of right whale carcasses (n=13) and at least 75% of entangled whales (n=16) were detected in the Southeast U.S. by aerial surveys (three of the entanglements were assigned a "Serious Injury" determination by NMFS). Many members were surprised that a higher proportion of carcasses were not detected by aerial surveys, however the general point taken was that aerial surveys significantly contribute to entanglement documentation and mortality. There was brief discussion about level of effort needed for this purpose.

<u>Mariner survey.</u> M. Getchel presented updated results from the survey for which > 100 respondents had participated. Most respondents indicated that cooperative behavior resulted after receiving information (most respondents "do something" with the information). Results suggest that the Mandatory Ship Reporting System, USCG Broadcast Notice to Mariners, and owners/companies are important channels for communicating right whale sightings.

The group discussed a similar survey for the Mid-Atlantic and NER. One member suggested that since education and outreach may be more limited in the mid-Atlantic (no MSR or EWS) that some informational survey be done to assess information needs. What information sources

are the mariners carrying in the mid-Atlantic? K. Moore will talk to the NER about a similar survey to assist her with addressing USCG MSR-related questions and if there's interest in a similar mariner survey.

D. SER Aerial Survey Priorities

The Team revisited the conditional prioritized list for SE aerial surveys that was developed at the October 18, 2011 SEIT meeting. All members present agreed that the following prioritized list should guide the redesign of aerial surveys.

1. Demography
2. Human-related (serious) injuries
3. Mitigating vessel collisions
4. Characterizing habitat –key into distribution shifts

The SEIT will use this information to produce a report or letter (with supporting information) to SERO with recommendations. L. Garrison offered to work on a possible redesign in collaboration with a few other partners (e.g. Joel Ortiz-Ortega, FWRI). Members noted that the redesign effort should be coordinated with NMFS NER to ensure a cohesive East Coast approach to right whale aerial surveys and that external aerial survey experts should be solicited (earlier recommendation was to get SRG feedback). B. Zoodsma, as NMFS Liaison, will facilitate coordination within NMFS regarding priority aerial objectives and relative contribution of aerial information between regions to help achieve common goals. Some members expressed a desire to review the proposed redesign at the October meeting. The goal is to have changes implemented for the 2013/2014 calving season.

E. Tagging

Some SEIT members question why tagging studies are not used to study right whale movement and habitat use patterns. Other species are tracked successfully and a great deal of information is learned. During the lengthy discussion it was noted that right whales had disconcerting physiological responses to implantable tags. However, others pointed out that out-dated implantation techniques were responsible for the undesired physiological responses and wondered if present day technology might overcome those challenges. The discussion diverged along two general themes that drove the discussion: responding to river incursions and general tracking studies.

<u>River Incursions.</u> SEIT members representing shipping industry stakeholder groups had strong concerns that tagging should be an option for tracking a right whale that swims into a river. Other members questioned the need to tag-track a whale in the river and suggested visual tracking by an experienced boat escort. Nighttime locations are of particular concern. B. Zoodsma pointed out that the local Captain of the Port had indicated that he will not be "closing" the river, or creating safety zones; rather, the USCG will be notifying vessels about the 500 yard no-approach regulation. This created questions about what would transpire at night. K. Moore relayed guidance to her: USCG would not prevent other federal vessels from remaining onsite during an out-of-habitat event. Another team member recommended using infrared thermography to track a whale at night.

Regardless, industry representatives highly recommended a plan be in place before the next river incursion.

General Tracking Studies. L. Garrison pointed out that for any study, one needs to identify the study objectives, data needs, and attachment methodology

a. Study objectives could be based in a desire to learn more about habitat use, distribution, movements, etc.
b. Data needs may be strictly location data or include other things such as dive data. Location precision and method of data transmission are other considerations. Service Argos-derived location data can be imprecise, whereas GPS-derived location data tend to be more precise.
c. Attachment-related considerations involve how to attach the tracking device to the whale. This is what has concerned most people relative to radio-tracking right whales. A small dart (sub-dermal attachment) was used to track a Brydes whale for 20 days. This attachment methodology was originally developed to attach to cetacean dorsal fins. The entangled right whale response in Dec 2010 deployed a small implantable tag that did provide high quality location data for a few days after the animal was sedated and disentangled.

Several SEIT members were interested in learning more about different attachment methodologies. Consequently, the Team agreed a forum agenda item on various attachment methodologies would be helpful. Preferably, the presentation could be given by someone with expertise/experience in tracking large cetaceans.

F. SEFSC Passive Acoustic Monitoring (PAM)

L. Garrison received 2 years of funding for a post-doc to conduct retrospective PAM analysis from data he previously collected in the SEUS. He requested SEIT feedback on a few options for deploying eight passive acoustic buoys in the Mid-Atlantic in the coming year. The discussion centered around whether the buoys would be part of a ship collision mitigation effort or if they would better contribute to habitat use/movement information. The options were 1) Two 4-unit arrays in known whale high use areas for individual tracking and detection distances; 2) North/South linear array of individual buoys—coastal whale distribution detection; and 3) cross shelf strings perhaps in association w/ surveys. After discussing options, the SEIT recommended that the SEFSC should focus on identifying foundational information needs (such as including detection distance) prior to applying the technology to a specific management objective and therefore they recommended Option 1. B. McLellan indicated that he would be flying off the Chesapeake region this winter and those results may inform future potential PAM work.

G. MAUS Gap Analysis

Discussion on the geographic boundaries—including Chesapeake as part of SEIT. Members discussed the importance of the retrospective PAM analysis for shedding light on mid-Atlantic habitat use. There are notable observations of other large whales in this area (humpbacks). Members discussed the need to improve knowledge of right whale distribution in the area. Surveys will be conducted in the offshore waters from Hatteras to the mouth of the Chesapeake

this winter. There is an Early Warning System bin in the North Carolina to Virginia border. How can information in this bin be increased? Commercial fishermen could contribute sightings to this bin, military, Fishery Management Council? Essentially, how could sightings be contributed to this area of the network other than from aerial surveys? The Team also discussed forming a Mid-Atlantic working group to focus on information needs in this area and convey them to the SEIT.
One member reiterated the need for a NEIT and a suggestion was made to give a presentation on SEIT activities at the Consortium in an effort to further the discussion.

H. SEIT Reflections

B. Zoodsma noted that it's been almost two years since the SEIT was re-constituted and solicited feedback regarding the thoughts anyone may have on the SEIT, how things were going, etc. The following items were noted about the SEIT:

1. Diverse perspectives are represented resulting in productive discussions.
2. The strength is the team members.
3. The SEIT is similar to an advisory board. Advisory boards are a line out to constituents.
4. Industry feels their views are being heard and feel involved as the result of their SEIT membership.
5. Group size is good.
6. The Forum and SEIT meetings are a good combination and the open agenda item during the forum to convey SEIT/Forum feedback is helpful.
7. SEIT meetings have a good atmosphere and are conducive for candid conversations.
8. Would overall East Coast coordination be improved if HQ was involved particularly in regards to budget and national issues?
9. There has been little recreational vessel community involvement. The present representative has a long distance to travel to attend meetings. Maybe someone from the USCG Auxiliary could help represent recreational boaters?
10. SEIT agenda item during the Forum is an important opportunity to communicate/share SEIT activities as well as a feedback loop--encouraging Forum participants to share concerns, new ideas, or relevant observations. The Team should develop clear, concise bullets (Power Point presentation?) to effectively communicate team progress and to facilitate further discussion.

B. Zoodsma solicited input on what future topics the SEIT believed would be worthwhile investigating. Feedback included: Genetics, passive acoustic monitoring, Mid-Atlantic unknowns, calving rate decrease, monitoring and measuring cumulative impacts, and potential changing habitat (i.e. global warming).

I. **Consensus Recommendations**

1. The following prioritized list should guide the redesign of Southeast Region aerial surveys.

a. Demography to assess progress towards recovery
b. Monitoring trends in human-related (serious) injuries/deaths
c. Reduce/eliminate vessel collisions
d. Habitat characterization –key into distribution shifts

2. A passive acoustic monitoring working group should be established. The following should be identified when establishing the working group: charges to the group, group composition, and field/permit coordination.

J. Consensus Actions

B. Zoodsma will investigate where the proceeds from fines are going and if they can be used to support right whale recovery work.

A whale in river response plan should be developed and in place prior to next calving season. B. Zoodsma will work with appropriate SEIT members to accomplish this.

The following should be arranged for the next Forum agenda:
Examination of tagging attachment mechanisms
East coast mortality rates
Genetics profiling updates

K. SEIT Discussions

There were a few general comments about the ship speed rule. Some members want future consideration given to building in flexible starting/ending dates for the seasonal management areas (to accommodate unusual weather patterns similar to the recent warm winter) and underscored their interest in focused future discussions regarding this concept. Other members requested that future consideration be given to placing a seasonal management area off Cape Hatteras. At the tip of Cape Hatteras the continental shelf edge is only approximately 20 miles offshore, which funnels the colder northern water down to a narrow slip passing over the coastal shelf. As north Atlantic right whales tend to avoid the warm waters of the Gulf Stream this narrowing or the coastal shelf brings whales in close contact with vessels as they turn at Diamond Shoals.

A number of SEIT members were wondering if the report *An Assessment of the Final Rule to Implement Vessel Speed Restrictions to Reduce the Threat of Vessel Collisions with North Atlantic Right Whales* reflected the opinion of the agency. B. Zoodsma clarified that the report reflected the opinions and recommendations of the authors.

Prioritizing right whale conservation needs will continue to be emphasized/important in era of shrinking budgets.

Habitat characterization analysis needs to be updated. Surveys more systematic and EWS lines extended further offshore in later years.

UNC Wilmington and the Virginia Aquarium have received funding to conduct surveys over the mouth of Chesapeake Bay from October to March. The Mid-Atlantic is an area where a number of large whale mortalities are still occurring. It might be prudent to consider coordinating supplementing the UNC Wilmington surveys during the aerial survey redesign that the SEIT has been discussing.

V. NEXT STEPS

1. The SEIT will develop a short report on the mariner survey, including the survey and survey results and make available to NOAA Fisheries.
2. The SEIT will produce a report or letter with aerial survey (and/or other) recommendations and supporting information. The goal is to complete this by the end of June.
3. NMFS will consider the SEIT's recommendations
4. A potential re-design will be reviewed by the SEIT in the fall and feedback provided to SERO.