Minutes of the Atlantic Scientific Review Group's 5-6 November 1997 Meeting in Charleston, South Carolina

The members of the Atlantic Scientific Review Group (ASRG) along with other scientists and representatives of government and non-government agencies and organizations met on 5 and 6 November 1997 at the National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center's Charleston Laboratory located in Charleston, South Carolina. A copy of the agenda and a list of participants are attached to these minutes (Attachments 1 and 2).

Wednesday Nov, 5 1997:

Larry Hansen, of the Charleston Laboratory welcomed the ASRG and other participants, and reviewed arrangements for the meeting. Jim Gilbert., current chair of the ASRG, opened the meeting by acknowledging the former ASRG chair, Andy Read, and thanked him for his work on behalf of the Group. Gilbert then reviewed and accepted changes to the meeting agenda.

Item 1.0 Review of bottlenose dolphin current stock definitions and current information on stock structure: At its previous meeting in New Orleans, the ASRG agreed to devote one day at its next meeting to a review of the current status of bottlenose dolphin populations along the U.S mid-Atlantic and the U.S. Gulf of Mexico, the basis for current "stock" designations, and evidence for suggested revisions to those stock designations. Read agreed to chair this discussion. He noted that current "stock" designations for bottlenose dolphins have questionable biological basis and need to be revisited and revised according to research findings for the NMFS to successfully manage and conserve bottlenose dolphin populations. Paul Wade noted that there needs to be more reliable information on the biological basis for designating "stocks" or other management units, and that this is currently a major area of research within the NMFS.

Item 1.1. Gulf of Mexico Stocks: Current stock designations were reviewed by Hansen. In the Gulf of Mexico there are presently recognized 33 provisional bay, sound, and estuary stocks, three coastal-to-shelf edge stocks, and three offshore stocks. Because of a lack of biological information concerning the distinctness of the bottlenose dolphin populations that reside in the bays, sounds, and estuaries of the Gulf of Mexico, each was designated as a separate management unit. Although this is believed to be the most risk averse approach to managing these populations, the small estimated size of these populations often results in PBR estimates of < 1.0 animal, and this becomes problematic for management. Similarly, the provisional stock designations for the coastal-to-shelf and offshore bottlenose dolphins have limited biological basis; rather, they are based on survey blocks representing the western, central, and eastern Gulf of Mexico survey areas, and from the coast seaward the edge of the continental shelf, and then to the termination of the U.S. Exclusive Economic Zone (EEZ).

The limited biological evidence available to support these designations includes on-going site specific research in the bays, sounds, and estuaries off Western Florida, in Mississippi Sound in the Northern Gulf of Mexico, and along the Texas coast. Limited genetic and morphological information suggests there are offshore and inshore (i.e., coastal and shelf) populations of bottlenose dolphins, but there is not a clear distinction between the ranges and degree of overlap between these populations. Recent genetic research by Barbara Curry suggests that both inshore and offshore animals mix over the shelf waters off the West coast of Florida along with some Atlantic spotted dolphins (*Stenella frontalis*), while both limited genetic and sighting data appear to cluster along the continental shelf edge in the Northern Gulf.

Randy Wells reviewed the findings of long term research conducted on west Florida bay, sound and estuary bottlenose dolphin populations, noting that while there exist distinct matrilineal groups with distinct home ranges, dolphin ranges are somewhat plastic and do evolve over time. Wells also noted that there appears to be some exchange between coastal populations and those that reside within inland waters. In addition, he reported on recent long distance movements from two rehabilitated bottlenose dolphins that were released into the wild and tracked via satellite transmitters. The extent of these movements suggest that it is possible for individuals from one area to breed with those in more distant areas; however, one of these individuals was from the off-shore stock and the other was an intermediate individual.

The ASRG noted that need to be objective criteria need to be developed to successfully mange and conserve bottlenose dolphin stocks in the Gulf of Mexico, that such criteria should be based on reliable biological information, and that the formulation of management units take into account this information as well as a adopt a risk averse strategy to account for the degree of uncertainty inherent in any specific stock designation.

With regard to revision of existing stock designations, the ASRG agreed that there are probably multiple bay, sound, and estuary stocks and, that the 33 provisional stocks could likely be consolidated to some degree based on existing information concerning major habitat types and available biological and behavioral data. The ASRG also agreed: that there are probably at least three coastal stocks that occupy the waters from the shore seaward to the 18m isobath, and that it would be reasonable to assume that there is some degree of exchange between these coastal populations and the bay, sound, and estuary animals; the western, central and eastern coastal stock designations are reasonable for animals found between the 18m isobath and the continental shelf edge; and it is reasonable to assume that a single offshore stock may inhabit the waters from the shelf edge to the limit of the U.S. EEZ. The ASRG noted the uncertainty surrounding the biological distinctness, degree of geographical overlap, and seasonal distributions of any bottlenose dolphin populations, and **recommended** that the NMFS continue with programs to gather information to test these provisional stock designations for the Gulf of Mexico.

For example, reasonable hypotheses to be tested might include the lumping of bay, sound, and estuary populations from the U.S.-Mexico border to Mississippi Sound, Sarasota and Tampa Bay,

Charlotte Harbor and Pine Island Sound, Mobile Bay and Mississippi Sound, etc. Similarly, genetic, morphological, and other biological information could be used to test alternative stock structure models for the coastal and shelf bottlenose dolphin populations (e.g., lumping the three provisional coastal and the single shelf stocks, splitting the coastal stock into eastern and western stocks, etc.).

Item 1.2. Mid-Atlantic bottlenose dolphin stocks:

Aleta Hohn described the current status of mid-Atlantic bottlenose dolphins and current hypotheses concerning stock structure which are the focus of an ongoing research program by the NMFS in this region. Hohn commented that the origin of the current "coastal migratory stock" was the untested assumption that the 1987-1988 die-off that killed at least 700 individuals was localized in a single bottlenose dolphin population that moved seasonally along the coast. In retrospect, it is likely that the progression of dolphin mortality along the mid-Atlantic coast could just as well represent the progression of the epidemic through the mid-Atlantic population(s) and little to do with any migrating structure. Be that as it may, two stocks were identified following the die-off, the coastal migratory and the offshore stocks. The coastal migratory was listed as depleted although there is inconclusive evidence that the offshore and bay, sound and estuary populations may also have been similarly affected by the die-off.

Currently, it is believed that there are distinct offshore populations as evidenced by genetic and morphological differences from inshore bottlenose dolphins (e.g., the two varieties are genetically distinct and offshore animals are generally larger than inshore animals). Surveys conducted in 1994 and 1995 north of Cape Hatteras revealed two distinct bands of bottlenose dolphins: one inshore along the coast and a second along the edge of the continental shelf. South of Cape Hatteras, the distribution of bottlenose dolphin sightings was much less concentrated in specific areas. Bottlenose dolphins are also found in several inland bays, sounds and estuaries. The stock structure, degree of distributional overlap, and degree of mixing between offshore and inshore animals (i.e., coastal and bay-sound and estuary) is not clear and research in underway to establish the boundary between inshore and offshore populations, and to test alternatives to the single "coastal migratory stock" model for inshore dolphins.

Presumed coastal bottlenose dolphins are found in the winter months from approximately Cape Canaveral, Florida to approximately Beaufort, North Carolina. In the summer months this range extends north to include the coastal waters from Virginia to New Jersey, although it is not clear whether this seasonal extension is the result of a separate migratory stock, or a portion of a single stock that shifts northward seasonally while simultaneously occupying the majority of its winter range. A 1996 workshop resulted in a number of plausible structures for mid-Atlantic bottlenose dolphins that include: one large coastal stock (current model); a single migratory component within a coastal population; several smaller local populations that shift their distributions seasonally and "look like" a coastal migratory stock. All of these alternatives presume the existence of distinct offshore, coastal and bay-sound-estuary populations.

Bottlenose dolphin genetics: Wells and Patricia Rosel reported and discussed the genetic analyses conducted by Deborah Duffield on tissue samples collected from bottlenose dolphins within bays, sounds, and estuaries. These results indicated that animals sampled in the Beaufort area were unique, but animals from the eastern coast of Florida shared some similarities with the Beaufort animals. Similarly, animals from the western Gulf of Mexico and Western Florida and the Western Texas coast also shared common characteristics.

Item 1.3. Models of appropriate stock units in management & conservation: Barbara Taylor discussed appropriate models for genetic "stock" units, and noted the importance of establishing the "level of a population" that is to be conserved. The larger the "stock" unit less detailed the genetic information required, and conversely the smaller the unit (e.g., the individual) greater resolution will be required. The ability to discriminate these units will be controlled by the degree of homogeneity of the genetic make up of any specific population or group, and what is feasible to undertake with regards to sampling programs from the field.

Taylor stated that genetic approaches are our only means of estimating gene flow absolutely, compared to other techniques that look at associations, seasonal movements, dispersal, etc. The mid-Atlantic and Gulf of Mexico situations, while complex, offer an excellent opportunity to test the strengths of the genetic approach and compare with other traditional methodologies. The SRG generally **agreed** that the optimal approach would be to utilize multiple methodologies to address the issues of bottlenose dolphin stock identification.

Taylor noted that an approach to assessing the risk to a population should include an analysis of removals versus recruits into a population. A comparison could be made of the rate of recovery of bottlenose dolphin populations with known removals (e.g., history of live captures, die-offs, etc) in terms of recruitment from adjoining areas. Research should be directed at assessing rates of gene flow versus bottleneck effects in recovering populations, as well as assessing the influence of environmental factors on recovery rates. That is, how long does it take for removals to be replaced, are recovery rates different in different areas, and if so, what biological and environmental factors could be contributing to specific recovery rates (e.g., rate of exchange and/or mixing with other populations) By focusing research on areas with known problems (i.e., removals) could identify specific contributors to rates of recovery that might act unilaterally or in concert.

Item 1.4. Current research on stock structure: Steven Swartz, Aleta Hohn and Keith Mullin discussed the SEC's proposed FY 1998 bottlenose dolphin research program.

NMFS-funded research in the Gulf of Mexico: Swartz stated that bottlenose dolphin research in the Gulf of Mexico was to focus on low-level monitoring of site specific populations. Support for three core programs was requested from F/PR and these were: Sarasota Bay on the West Coast of Florida; Mississippi Sound in the North-central Gulf of Mexico; and Matagorda bay, Texas in the Western Gulf. The SEC believed that it was important to focus on the stock identity

questions before additional resources were spent on estimation of abundance in this region.

NMFS-funded research in the Atlantic: Hohn reviewed the SEC's proposed FY 1998 bottlenose dolphin research for the mid-Atlantic which includes: a continuation of the stock identification program initiated in FY1997 which involves biopsy analysis, photographic identification, and limited radio and satellite tagging. In addition, the SEC and the NEC will jointly support a near-shore and offshore observer program to collect information on the incidental takes of bottlenose dolphins in all commercial fisheries in the mid-Atlantic region. Samples from animals taken in these fisheries will also contribute to stock identification research as well as the estimation of mortality rates for these populations. Once preliminary information is obtained that will allow revision of stock structure or "management units", the status of mid-Atlantic bottlenose dolphins will be revisited in the context of their listing status.

Swartz added that the SEC's intent was to develop and implement beginning with FY1998 a long-range program for marine mammal research in the southeast, and particularly a long-range program for bottlenose dolphins. Given the reality of limitation of resources, the SEC's basic approach will be to rotate staff and funding resources between the Atlantic and Gulf of Mexico rather than to attempt to do everything all at once. In this context, long-range planning is tied to NMFS F/PR's process for allocation of protected species funds which is also developing a long-range program to optimize the allocation of available funding on an annual basis..

Item 1.5 Recommendations to NMFS: The SRG **recommended** that NMFS reassess stock structure hypotheses for bottlenose dolphins along the Atlantic and Gulf of Mexico coasts based on existing information as discussed at this meeting, and that the next version of the Stock Assessment Reports (SARs) should reflect these revised stock structure hypotheses. Further, the SRG **recommended** that as new information is obtained for bottlenose dolphins in the mid-Atlantic, the status of those populations should be re-assessed in terms of their presumed recovery from the 1987 die-off and current levels of take in commercial fisheries. Finally, the SRG **recommended** that research on bottlenose dolphin stock structure in the Gulf of Mexico should parallel that in the mid-Atlantic, as possible given funding and staff limitations.

Thursday NOV. 6, 1997:

Item 2. Review the role of SRGs: SRG members met in private to discuss their role and the overall roles of the SRGs. The SRG agreed to review proposals for MMPA and ESA funding before they are sent to F/PR to contribute to improving the likelihood for support. Swartz indicated that the best time for the SRG's participation in the annual MMPA-ESA funding cycle would be at the SRG's May meeting, as advice offered at that time could be incorporated into the final proposals in June and July for an early August submission to F/PR.

The SRG also agreed that a perceived and/or real conflict of interest exists when NMFS' staff

alone participate in the allocation discussions of MMPA and ESA fund allocations. They agreed that a representative of the U.S. Marine Mammal Commission should be invited by F/PR to participate in the MMPA-ESA funding allocation meeting held each year by F/PR in August. In the longer term, additional outside reviewers should participate in the allocation process for these funds.

Swartz responded that the major cause for not funding proposals is that there was simply not sufficient support to go around. To better the SEC's chance for obtaining support, the SEC will utilize an internal pre-ranking process for the FY 1999, similar to the process adopted by the Alaska Center's National Marine Mammal Laboratory. He also noted that the discussions at the May SRG meeting were very helpful, and favored the SRG setting aside some time at its next May meeting to review and comment on proposed FY 1999 research.

The SRG **agreed** that they should send a letter to the Northeast and Southeast Science Center Directors and Regional Administrators requesting that background on the FY 1999 MMPA and ESA research be prepared for SRG review at its May 1998 meeting, and stating that the objective of this pre-review would be to improve the competitiveness of east coast proposals. In addition, the SRG would recommend that a Marine Mammal Commission representative be invited to review proposals for FY 1999 funding. The SRG also agreed that a similar letter should be sent to Mr. Rolland Schmitten, the Assistant Administrator for NMFS.

Item 3. Status review of F/PR MMPA funding meeting held at headquarters in Sept. 1997: Paul Wade reviewed the September 1997 meeting of F/PR's MMPA-ESA funding panel. He noted, among other things, that the overall requests for FY 1998 funding amounted to approximately $14M and that only $4,5 M was available for allocation. In addition, Wade noted that F/PR was implementing a 3-yr planning process that would result in more stability for NMFS; marine mammal programs and reduce the number of projects that would need to be reviewed for funding each year. He also noted that the ranking criteria used by the review panel was designed to encourage accountability, sound methodology, and budgetary equality. The process, however, was not capable of responding to new mandates, and will always need to be flexible to accommodate unforeseen funding requirements. In that regard, Wade noted the resulting draft spending plan is circulated to the Science Centers and Regional Administrators for review, comment, and if necessary appeal to the decisions made by the panel.

Wade noted that many of the improvements to the process were developed at an intersessional meeting held in Seattle, and he offered to provide the report of that intersessional meeting to the SRG. The SRG also requested that F/PR provide them with the report of the September 1997 allocation meeting so they could better understand the decisions made. Wade agreed to provide the SRG with copies of these reports.

Item 4. Overview of NEFSC & SEFSC proposed FY98 studies: Gordon Waring reviewed the NEC's plans for FY 1998 marine mammal research. These included the following. The

NEC's necropsy survey was not conducted and that effort was shifted to a biopsy collecting survey. Robert Pitman from the SWC joined the survey and was very instrumental in assisting with biopsy collection and training NEC staff in collection methods. A survey to the Newfoundland Sea Mounts was conducted and, despite poor weather, resulted in a number of marine mammal sightings and a few biopsies. The result of this survey will expand the scope of the planned NEC-SEC joint FY1998 pelagic survey.

An Early Warning Survey (EWS) for the protection of right whales from commercial shipping was undertaken as a pilot program. It was patterned after the EWS operating in the Southeast during the right whale winter season there. The initial results of the NEC-EWS will be analyzed to determine whether such a program will be useful to continue in the Northeast in the future. Swartz and others noted that the SE-EWS was capable of detecting right whales only 20% of the time (on average), there is no way to assess how effective such a system is at protecting right whales, and the EWS required an exceedingly great amount of cooperative effort among a large number of participants which is judged by some to be very inefficient. For these and other reasons, the Southern Right Whale Implementation Team was discussing the development and implementation of a "protocol for right whale waters" that would serve as operational guides for ship activity at all times that right whales are present within an area.

The NEC was operating observer programs for the sink-gillnet fisheries, but may not conduct an observer program for the pelagic gillnet fishery unless this fishery is re-opened (it may be effectively be closed permanently in the future). At F/PR's request, the NEC and SEC are developing a cooperative observer program for the mid-Atlantic region that would document takes of harbor porpoise and bottlenose dolphins in the variety of fisheries that operate within this region.

A question was raised concerning the proposed activities of the "Atlantic Star" trawler that was to begin operations off the Northeast coast. At this time it is uncertain that this vessel will begin operations, but if it does, the NEC has a number of options for requiring observers including mandates under the MMPA, ESA, and Magnuson-Stevens Fisheries Conservation and Management Act (MSFCMA).

Southeast Fisheries Science Center: Swartz summarized the SEC's proposed FY 1998 research programs. The main objective of the SEC-NEC joint mid-Atlantic observer program is to provide information on incidental takes of harbor porpoise and bottlenose dolphins in the mid-Atlantic for the January 1999 meeting of the mid-Atlantic Take Reduction Team. The program under development will include an extension of the NEC's Sea Sampling program to observe fishing operations from approximately 3 nm seaward, an alternative platform (AKA small vessel observer) program to observe near shore (< 3 nm) fishing activities, aerial surveys to document the number and distribution of nearshore fishing operations, and a carcass recovery program to gather information on bottlenose dolphins that are found on the beaches and may have been involved with fishing activities.

Other mid-Atlantic bottlenose dolphin research will include the continuation of the stock identification program initiated in FY 1997 (Beaufort Lab), analysis and interpretation of genetic material from bottlenose dolphins and other species (Charlestons Lab), and a coastal biopsy survey designed to collect genetic information from bottlenose dolphins along the mid-Atlantic coast but outside of the bays, sounds and estuaries. The objective of this latter project is to determine migratory versus resident components of the bottlenose dolphin population. A joint NEC-SEC pelagic cetacean surveys is planned for July and August 1998, and will survey marine mammal populations from approximately 3 nm seaward to the eastern edge of the U.S. EEZ, from the southern tip of Florida to approximately Cape Hatteras in the south and northward to Newfoundland. These three projects combined in concert with the NEC's pelagic survey will provide a synoptic assessment of bottlenose dolphin and other marine mammal species within the U.S. western North Atlantic, and allow updating of the information on the status of all the marine mammal species found within this region.

Hansen reported on the development of a biopsy rifle - video system to simultaneously collect biopsy samples and collect photographic identification on the animal sampled, its associates, and to document real-time behavior. This integrated system is demonstrating great improvements over previous methods for biopsy and photo identification information and will serve as a model for the SEC's bottlenose dolphin stock identification and population assessment program in the future. He also noted ongoing research at the Charleston's laboratory to develop a "health assessment risk assessment" framework for bottlenose dolphins.

Wayne McFee reported on the SEC's stranding program and in particular noted the SEC's continued monitoring of an increasing number of bottlenose dolphin entanglements in crab pot gear in the Charleston area and elsewhere. He noted that approximately 20-30 thousand pots are estimated to be in use in the Charleston area and that represents a 60% commercial and 40% recreational fishing effort. Entanglement rates have been increasing approximately 10% per year and involved 9 of 32 strandings in 1997, which represents 26% of the current PBR of 25 dolphins for this population. One difficulty in assigning cause is that both recreational and commercial crab fisheries utilize the same gear. The SEC is working with the SERO to study this problem and with the responsible Councils to better understand the cause of these entanglements. It was noted by the SRG that entanglement in crab gear was also an issue for manatees. The SRG **recommended** that NMFS continue to monitor this situation and consider reclassification of crab fisheries in consideration of the apparent levels of marine mammal takes.

McFee also noted that, as in previous years, the right whale early warning system (EWS) aerial flights were scheduled to begin again in December and would fly throughout the winter season. In all, five right whale surveys will be flown this winter in support of right whale conservation: (1) the EWS surveys noted above supported by the U.S. Navy, Corps of Engineers, and the Coast Guard; (2-3) a northern and southern extensions of the EWS survey conducted by the states of Georgia and Florida, respectively, under contract to the NMFS, (4) the offshore surveys seaward of the EWS flown by the New England Aquarium under contract to the NMFS, and (5) the U.S. Navy's wide area survey flown by Continental Shelf Associates, Inc. under contract to the U.S.

Navy.

Keith Mullin summarized 1997 marine mammal research in the Gulf of Mexico which included: Mississippi Sound surveys for bottlenose dolphins in August and September; a Minerals Management Service (MMS) supported cetacean survey (GOMEX) in the oceanic Gulf of Mexico and on the continental shelf; and bottlenose dolphin surveys in Mobile and the eastern coastal Gulf off Sarasota and Tampa Bays for comparison with similar surveys in the western Gulf of Mexico. Mullin also reported on a pilot study to evaluate the use of a shrimp boat (the Caretta) to collect biopsy samples from bottlenose dolphins - dolphins frequently will bow ride shrimp boats and this behavior provides an opportunity to obtain biopsy samples from the bow of the vessel. The initial trials of this approach were very successful and the SEC hopes to use the shrimp boat on the Atlantic coast in summer 1998.

Item 5. Choosing the appropriate span of years to analyze mortality data, particularly non-observer data: Paul Wade commented on a concern raised by the NEC over the use of non-observer mortality data without any measure of effort when estimating mortality (e.g., logbooks, strandings, gear entanglements, etc.). Wade referred the SRG to the discussion of this issue in the Report of the GAMMS Workshop, where it was suggested that these data should be considered when formulating mortality estimates if the data are not older than five years. In addition, Wade noted that the PLANSERV program considers the effects of overestimating mortality over 5-year periods when assessing the appropriate frequency of survey and mortality estimates.

Item 6. Review estimates of mortality in US pelagic longline fishery (1994-1995) presented in manuscript authored by Scott and Brown: This report summarized incidental mortality information in the Atlantic long-line fisheries from 5% observer coverage and log-book records. The authors estimated that there were 261 and 286 incidental takes of marine mammals in the 1994 and 1995 fishing seasons. These estimates are based on 44 observations of interactions, and in all but one instance the marine mammals were released alive. The fate of these released animals is not known and subsequent mortality cannot presently be estimated. The NMFS is currently convening a series of workshops to better define and develop guidelines for what constitutes "serious injury" and how this relates to estimation of mortality associated with fisheries interactions. The report further notes that observer coverage in the long line fisheries has decreased 66% between 1996 and the 1997 fishing seasons. The SRG **requested** that a copy of the Serious Injury Workshop be sent to them for review.

Item 7. Review 1997 Stock Assessment Reports (SARs) for strategic and non-strategic stocks: Gordon Waring introduced a summary of the status of the Stock Assessment Reports (SARs), the current revisions to the SARs, and the issue of their revision and review by the SRG. The MMPA requires that SARs be reviewed annually by the SRG, but it does not state that they must be revised each year. For example, the Alaska SRG has decided to review each year only the SARs for strategic stocks and 1/3 of the non-strategic stocks only if new information is available that would affect the status finding and PBR for that particular stock. The SRG **agreed** that it would annually review SARs for all strategic stocks and one-third of the non-strategic

stocks. Those strategic stocks include Rissos dolphin, common dolphin, long finned pilot whale, minke whale, and mid-Atlantic bottlenose dolphin. It was noted that the research proposed for FY98 would likely provide new information on stock structure that would influence the SRGs review of that SAR, and therefore review of that SAR should be held at such a time that the new information is available. Non-Strategic stock SARs to be reviewed include white-sided dolphin, offshore bottlenose dolphin, harp seal, harbor seal, gray seal, and hooded seal.

With regard to stock classification, Waring noted that the guidelines resulting from the serious injury workshop could affect mortality estimates, and that this could result in some changes in the strategic status of some stocks (See serious injury workshop discussion below). As noted above by Wade, the SARs should include an estimate of total mortality that includes background, fisheries related serious injury and mortality, fishing information, and any other relevant causes of mortality (See Report of the GAMMS Workshop).

Solange Brault reported the findings of a harbor porpoise "pinger" experiment conducted by Trippel et al. in the Bay of Fundy this past year that indicated a significant reduction in harbor porpoise entanglement in gillnets equipped with active "pinger" devices. A reduction in herring catches, a harbor porpoise prey item, was also noted and may be in part responsible for the decline in harbor porpoise entanglements. Similar experiments conducted in New Zealand have yielded mixed results, so research on the effectiveness of such pingers to reduce porpoise entanglement will continue.

Bill Brooks reported that the U.S. Fish and Wildlife Service will revise the manatee SAR and have it for review at the May SRG meeting. The Service is placing major emphasis on their public awareness program and has increased enforcement of vessel speed limits in manatee areas. Manatee mortality in September to October 1997 is 171 animals, which is 39 less than this same time last year. The Service distributed last April a draft Conservation Plan for manatees. Reviewers include Federal, State, and local wildlife conservation and management organizations. When completed, the plan will list the priority management and research issues for manatees. Brooks noted that a critical issues facing manatees is the closing of old power plants that these animals have come to depend upon for sources of warm water. The loss of these plants in effect represents loss of critical habitat for these animals.

Finally, Waring distributed draft final copies of the 1997 Gulf of Mexico and Atlantic Stock Assessment Report for the SRG's review.

Item 8. Take Reduction Teams: Kathy Wang reviewed the current activities of each of the Take Reduction Teams. The Pacific team reached consensus on their reorganization to a smaller number of members and to concentrate on its single West Coast fishery. The pinger experiment required has resulted in a 75% reduction in bycatch. In addition, skipper workshops are now mandatory for all fishery participants.

The mid-Atlantic and Gulf of Maine harbor porpoise teams may combined to focus on this single

species, and reached consensus on a take reduction plan. The combined team will meet at least once each year to follow-up on the progress of the plan implementation. They decided to retain their facilitator, Resolve Inc.

Ms. Abby Arnold of Resolve Inc. will conduct a review of the take Reduction Team process for the NMFS, and provide a report on suggestions for improvements in the overall process.

Comments for improvements to the process include:

- NMFS should routinely appraise the team members of the status of the take reduction process and where the process is going, as well as reaffirm that the team members' time was time well spent.

- Agency representatives on the teams must be senior enough to speak for the agency, and these representatives must be consistent and not change from meeting to meeting.

- Pre-meeting briefing conference calls would improve agency coordination.

- the SRG should review the implementation of take reduction plans as they are completed.

- Team members should be thanked for their participation and updated on the results of their deliberations.

Wang concluded that there are no plans to create any new Take Reduction Teams, save the January 1999 meeting of the mid-Atlantic Take Reduction Team to consider the incidental takes and status of mid-Atlantic bottlenose dolphins.

The SRG **recommended** that the NMFS should send letters to all team members thanking them for their participation and appraising them of the progress that each team made toward the conservation of each respective species.

Item 9. Overview of the Nov 3 & 4 mini workshops on Serious Injury and the TRT Process: Kim Thounhurst reported on the mini-workshop held in Charleston just before the SRG meeting. The April serious injury workshop discussed injury to large cetaceans, small cetaceans, and pinnipeds, the effects of entanglement on survival, primary and secondary injuries, physical and psychological (stress) implications. The November workshop discussed the development of proposed guidelines for serious injury and mortality. Based on these discussions, these will be developed by December and circulated for review and comment. Once comments are received a follow-up workshop is planned.

One of the major issues confronting the workshop was the need to resolve whether multiple serious injuries result in multiple mortalities - that is, the last take is usually the one that is lethal to the animal, but some animals may be caught more than once, and recorded as a "mortality"

each time.

The SRG **requested** copies of these draft guidelines for their review and comment when they become available in December.

Item 10. Development of field guide for species that are difficult to identify at sea: Jim Gilbert reviewed plans to develop a field guide for marine mammal species that are difficult to identify at sea. The Guide would be patterned after the successful Alaska Guide produced by Sea Grant. Joe DeAlteris circulated a list requesting individuals with specific expertise with marine mammal species to agree to review portions of the draft guide.

The SRG concluded its meeting at approximately 1700 on Thursday November 8, 1997. It agreed that its next meeting would be scheduled for May. Randy Wells offered to host the meeting in Sarasota, Florida. There being no additional business, Gilbert adjourned the meeting.