SUMMARY
1999 RECOMMENDATIONS REPORT
PACIFIC OFFSHORE CETACEAN TAKE REDUCTION TEAM

PBR:

The team believes that the data regarding marine mammal take suggests that there has been success in reducing marine mammal mortality to below PBR except in the case of the Sperm Whale.

However, since it is unclear whether non-compliance was a factor, the technology was not fully successful, or whether this was a random event, the team is recommending some measures to address this issue. (See Recommendations #2 under *Pingers)*

Zero Mortality Rate Goal:

The team believes that, based on the data, the Take Reduction Program effort is headed in the direction of achieving the long term goal of reducing overall [mm ?] to the Zero Mortality Rate Goal. The Team again urges NMFS to finalize the definition.

Take Plan and Regulations:

36' Extender

The requirement to utilize a 36' extender should be continued in accordance with the final rule and technical amendment.

Pingers

Information was provided to the Team re the effectiveness of pingers in continuing to reduce the take of marine mammals. Based on this information, the Team recommends that the requirement to use pingers be continued.

However, in response to the data presented on compliance indicating that there is still not full compliance by the fleet (27% use fully pingered nets; 39% use 90% of the number of pingers required and 34 % use less than 90% of the pingers required for full net coverage) and comments from fishing industry representatives on the Team and from skippers at the Skipper Workshops indicating that there are safety concerns in attaching pingers to the net, especially the float line, the Team is recommending the following measures:

1) NMFS should conduct an experiment to test the effectiveness of deploying pingers on the float line only at intervals of 150' starting at the first corner. The fleet should be informed about the experiment at the skipper workshops emphasizing that the experiment is not suggesting that

pingers on lead lines are no longer important and that to ensure the quality of the data gathered in the experiment, fishermen on unobserved boats should continue to fully pinger their nets in accordance with the regulation.

2. NMFS should explore opportunities to conduct or participate in studies to test sperm whale reactions to sound in locations where population densities make an experiment possible e.g. Hawaii and Alaska. Information on sperm whale reactions to sound would be valuable in helping to ascertain whether the incidents of sperm whale take in pingered nets was the result of non-compliance, success of the technology or was a random event.

This issue should be placed on the next SRG agenda to elicit the assistance of SRG members.

3. NMFS in cooperation with organizations represented on the TRT should explore opportunities to conduct "research and development" on an alternative type pinger. Parameters for this "R & D" are as follows:

Objective: To design a pinger that could be left on the nets and therefore increase compliance and avoid the safety hazards associated with attaching the pingers to the net with each set.

Features of the pinger would include:

a) Able to withstand being wound on the drum on a regular basis
b) Shaped and attached to the net in a manner that would not cause it to be snagged on the net
c) Have battery life that would not require replacement for the entire fishing season
d) If a switch is used it needs to not be activated falsely being on the drum
e) The pingers need to be affordable for fisherman to be able to replace their existing pingers
f) An optional feature that would allow it to be programmable so that the frequency and intensity could be modified should new information become available on improvements.

Steps that are required in the development of such a pinger include:

a) Identify funding and a company to design the pinger
b) Design and build a proto-type
c) Conduct durability tests in the lab
d) Conduct field trials on boats

Ideas for funding and encouraging the development of a new pinger:

a) Funding from agencies to develop and test a prototype. This included several potential avenues within the government (NMFS, Sea Grant, etc.)
b) Funding from private sources including foundations (ie. Packard, National Fish and Wildlife Foundation) to fund the pinger development and potentially other related activities such as a marketing program promoting California swordfish
c) Industry developing and testing a new pinger with an eye towards marketing and selling the new pingers

d) Coordinate with other fisheries including internationally to see if there is a need and broader markets for a new more durable pinger that can be left attached to the net. This could then be used to encourage industry efforts and grant funding.

e) Encourage the involvement of University Fishery Technology Institutes in the research and development of a prototype

The group recognized that there also was a need to design and test a pinger that might have superior features in terms of sound generated and other features but that this needed to be explored separately since it would have a different set of tests it would require.

4. As an incentive for the fleet to continue to comply with the regulations and to carry an observer, a program similar to "dolphin safe tuna" would be initiated for the Pacific shark and swordfish fleets. TRT members should cooperate to explore how this could be initiated and implemented.

5. NMFS should consider appropriate enforcement mechanisms to ensure that fishermen are in compliance with the regulation regarding use of pingers (See **Enforcement of Compliance with the final Rule)**

Voluntary Program to Reduce the Number of Permits

Encourage the California Fish and Game Commission to continue its policy of not reissuing permits that have lapsed in California and encourage the continuation of the same level of permits issued by the Oregon Fish and Wildlife Division.

The Team is concerned about the apparent increase in the number of permits issued in California and re-emphasizes the importance of NMFS obtaining up to date information from California Fish and Game on the number of permit holders in order to better evaluate the efficacy of this strategy. In addition, NMFS should obtain a report from CDFG on the number of lapsed permits that have been reissued, if any.

Skipper Education Workshops

The Team strongly recommends that NMFS continue to conduct mandatory Skipper Education Workshops during this fishing season and continue this policy annually. It is suggested that workshops continue to be conducted in September October in a number of locations in California.

Workshop topics should include:

- importance of compliance with the pinger and extender requirements for reducing bycatch.

- NMFS intention to increase enforcement of the regulations through ongoing contacts with the Coast Guard

- pinger deployment techniques (including approaches for improving safety)

- skipper feedback to evaluate possible additional strategies for further exploration

- information from statistical analyses that pingers and 36' extenders do not impact fish catch.

- information on the proposed experiment regarding the use of pingers on the float line only with emphasis that this does not imply that pingers on the lead line are no longer required or are no longer effective

- NMFS policy regarding enforcement of the regulations.

Contingency Measures

The Team does not recommend any contingency measures at this time, but will revisit this issue should there be a take of sperm whales.

Continuing Issues

Observer Program

The Team reaffirmed the importance of the Observer Program in the implementation of the Plan strategies and the need to maintain the neutrality of observers as data collectors. [See **Enforcement of and Compliance with the Final Rule)**

NMFS should continue to re-evaluate unobservable boats in the fleet and continue to pursue full compliance with the requirement to carry observers to the extent feasible. The Observer Program should continue efforts to cross match data regarding the number and names of Cal Fish and Game permittees to ensure all boats are included in the Observer Program. The Team encourages continued collaboration between NMFS and Cal Fish and Game to improve this database. This would enable NMFS to ensure compliance with regulations to carry observers.

Mesh Size

An analysis of program data has suggested that there is less entanglement in nets with a smaller mesh size; however, the Team is not able to make a recommendation on mesh size at this time. NMFS should complete the analysis of the correlation between mesh size and mammal entanglements for review by the Team at subsequent meetings.

New Strategies

The Team does not formally recommend implementation of any new strategies but has suggested several initiatives regarding pinger deployment, pinger technology development and approaches for improving compliance (See *Pingers* above).

In addition, the Team suggests that several options be further explored or additional data gathered to guide future deliberations:

- Use of light sticks as a deterrent

- Explore the feasibility of providing "real time" broadcasts of information to fishers regarding the location marine mammals through firms that are commonly subscribed to by members of the fleet (e.g. Ocean Imaging).

- NMFS should further explore data correlations regarding the following parameters:

  -- number of pingers and entanglement (also control for net length)
  -- lanyard length
  -- pinger placement
  --mesh size
  –mesh pinnipeds
  –water temperature
  – sighting of mammals and take (especially in prior day)
  – factors during sets involving sperm whale take
  – relationship between swordfish take and marine mammal take
  – clusters of entanglements in space and time and any correlating variables in the marine environment (including what catch is in the set)
  – target species (shark or swordfish
  – landings per boat versus marine mammal take (is there something unique about the boat versus the trip)
  – generators and engines on and off (look at distance from shore since this is a safety factor)

Enforcement of and Compliance with the Final Rule

In its 1988 Report, the Team recommended that NMFS continue to utilize information on the observer form to enable the Agency to determine if there is full compliance with Plan requirements, but that this data not be used directly as an enforcement mechanism. However, based upon the information presented at this year's annual meeting, the Team recognizes that compliance is a problem.

The Team concurs that there is a need for better enforcement of the pinger regulations in order to improve compliance. The Team also concurs that there is a need for the observer data to be as

representative of the fleet as possible in order to compute accurate mortality estimates. Accordingly, the Team is recommending the following approach regarding enforcement of the Final Rule:

1. The most important element of enforcement to achieve both of these ends is that there be at sea enforcement that is independent of the observer program.

2. Observer data should be used judiciously for enforcement

3. An aggressive program should be continued to keep all boats participating in the observer program and monitor success of this program.

4. Monitor the rate of compliance from boardings of boats without observers to see if it is different from the observed sets.

As per last year's recommendations, NMFS should also

- continue efforts to involve the Coast Guard in enforcing the regulations
- emphasize the importance of compliance in a memo to the fleet regarding the efficacy of the strategies based upon the data analysis
- emphasize the importance of compliance at Skipper Workshops as well as the consequences of non-compliance

(See Recommendation #4 for *Pingers* regarding compliance marketing strategy)

TRT Membership

The Team recommends that the seat vacated by O.T. Garner be filled with a fishing industry representatives from either the near shore swordfish fleet or a fisherman that targets shark. NMFS should continue to utilize the process used for initial Team formation to fill any vacancies that might occur.

The Team recommends that an observer from the NMFS Observer Program be invited to the meeting to serve as an advisor, rather than a voting member.

Schedule for Team Meetings

The Team tentatively identified May 9-11, 2000 for the Year 2000 Pacific Cetacean Team meeting. The Team suggested that 2½ days be set aside for Team deliberations, rather than only 2 days. This would provide the Team with more time to propose and consider its recommendations to NMFS.