Pacific Offshore Cetacean Take Reduction Team Meeting
February 4-6, 2014: Long Beach, California

*****Key Outcomes Memorandum*****

I. OVERVIEW

The National Marine Fisheries Service (NMFS) convened an in-person meeting of the Pacific Offshore Cetacean Take Reduction Team (TRT) February 4-6, 2014, at the NMFS' Long Beach, California, office to achieve the following objectives:

- Provide updates on recent Pacific Offshore Cetacean Take Reduction Plan (TRP)-related activities, including sperm whale abundance, stock status and bycatch, research initiatives, Observer Program efforts, enforcement and fisheries activities
- Take stock of implementation of the Emergency Rule
- Develop options for and seek consensus on permanent amendments to the TRP to reduce sperm whale (and other strategic stocks, if warranted) mortality and serious injuries
- Outline post-meeting next steps

This summary report, prepared by CONCUR Inc., provides an overview of the meeting's key outcomes. It is presented in the following sections: (1) Overview; (2) Participants; (3) Meeting Materials; (4) Presentations and Meeting Discussion Topics; (5) Consensus Recommendations; (6) Public Comment; and, (7) Next Steps.

II. PARTICIPANTS

Fourteen of the Team's 15 members participated in the meeting: Hannah Bernard, John Calambokidis, Chuck Cook, Tina Fahy, Kathy Fosmark, Jim Harvey, Doyle Hanan, Dennis Heinemann, Michelle Horeczko, Chuck Janisse, Taryn Kiekow Heimer, Donald Krebs, Kristy Long and Arthur Lorton. Only Team member Dave Hanson was unable to attend. Also participating in the dialogue was Chris Yates, Assistant Regional Administrator for Protected Resources, West Coast Region; Penny Ruvelas, Long Beach Branch Chief, Protected Resources Division; and Nicole LeBoeuf, Chief, Marine Mammal and Sea Turtle Conservation Division, Protected Resources, Headquarters.

Other Staff from NMFS West Coast Regional Office (Protected Resources and Sustainable Fisheries divisions, including the Observer Program branch) and the NMFS Southwest Fisheries Science Center (SWFSC) supported the deliberations, as did NOAA Office of General Counsel, NOAA Office of Law Enforcement and the U.S. Coast Guard. Scott McCreary with CONCUR and Bennett Brooks with the Consensus Building Institute facilitated the meeting. Several members of the public attended the meeting.

III. MEETING MATERIALS

A meeting agenda and a number of background meeting materials were provided in advance to support the group's deliberations. Copies of available meeting materials can be found on-line at: http://www.nmfs.noaa.gov/pr/interactions/trt/poctrp.htm.

Documents can also be obtained by contacting T. Fahy at 562-980-4023 or via email at christina.fahy@noaa.gov.

IV. PRESENTATIONS AND MEETING DISCUSSION TOPICS

Below is a brief 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 during Team discussions, and any consensus recommendations.

A. Welcome and Introduction

C. Yates opened the meeting by welcoming participants and thanking them for the significant time and energy committed to engaging on TRP-related issues since summer 2013, when the Team met twice via teleconference to provide the Agency draft recommendations for an Emergency Rule. He further underscored the importance of focusing deliberations around the meeting's primary objective: developing recommendations for permanent management measures to meet the TRP's short-term goal of reducing sperm whale mortality and serious injuries (M&SI) below PBR (or the potential biological removal level).

S. McCreary walked Team members through the agenda, and B. Brooks briefly reviewed meeting protocols intended to foster a collaborative dialogue. B. Brooks asked whether any Team members or public were intending to record the deliberations. No interest was expressed, and there were no Team comments on either the agenda or ground rules.

B. Background Briefings and Updates

To inform Team discussions, the deliberations included a series of updates and information related to the Take Reduction Plan. Below is a brief synopsis of the various updates; more detailed materials (presentations and handouts) are available on the Team website (see link provided earlier). Team member comments related to the various briefings and updates are captured in the Team discussion summary below.

- **Agency Activities – General Updates.** The first series of briefings focused on general agency activities, with T. Fahy and Monica DeAngelis (also with PRD) providing updates on a range of related activities. These included the following: (1) reminding Team members of TRT goals, meeting history and associated triggers; (2) providing an update on the merger of the Northwest and Southwest regional offices into one combined West Coast region, as well as a brief overview of the U.S. West Coast Swordfish Workshop

held in May 2011; (3) reviewing pertinent ESA changes (delisting of the Eastern Distinct Population Segment, or DPS, of Steller sea lions; designation of leatherback sea turtle critical habitat off the U.S. West Coast; and creation and listing as endangered of a North Pacific DPS for loggerhead turtles); and, (4) reviewing the biological opinion for the California drift gillnet fishery (2013 terms and conditions), as well as summarizing the requirements for attaining an MMPA section 101(a)(5)(E) permit and outlining the reasons the Agency was unable to initially issue a negligible impact determination (NID) for the California drift gillnet fishery in July 2013. T. Fahy's presentation also included a brief update on the most recent List of Fisheries (the California drift gillnet fishery is currently listed as a Category I fishery due to sperm whale M&SI in 2010), NMFS's revised serious injury determination policy and procedures, and fleet outreach and education.

- **POCTRP-Related Data Review and Updates.** Several presenters provided the Team with a detailed overview on both updated marine mammal mortality estimates, as well as sperm whale stock assessment and abundance, observer and fishery effort-related data. Key presentation highlights included the following:

    - ***Updated M&SI.*** Jim Carretta with the SWFSC noted that of all species covered under the TRP, only the sperm whale M&SI five-year annual average (2007-2011) is presently above PBR (3.2 M&SI v. PBR of 1.5). All other species are either well below PBR or below the insignificance threshold of 10% of PBR (commonly referred to as ZMRG or the Zero Mortality Rate Goal). J. Carretta further noted that no TRP species were taken in the fishery in 2012 or 2013.

    - ***Stock Assessment Report.*** J. Carretta noted that, based on the 2005 and 2008 surveys, the current stock assessment report (SAR) estimates the U.S. West Coast sperm whale population at 971, with a minimum population estimate of 751 animals. (J. Carretta noted that this figure is greatly impacted by the 2008 survey that estimated 300 sperm whales, down sharply from the 3,140 estimated in the 2005 survey.) J. Carretta also noted that studies of sperm whale stock structure suggest that, despite long-range movements, there are genetically distinct differences across regions. Accordingly, the Agency maintains separate stocks (and corresponding PBRs) for Hawaii, Alaska and the California/Oregon Washington stocks of sperm whale .

    - ***Alternate Means of Assessing Stock.*** Jeff Moore, also with the SWFSC, presented preliminary information on a trend-based model used to estimate sperm whale abundance from a 1991-2008 time series of line-transect surveys in the California Current. A Bayesian hierarchical trend model makes more efficient use of all information contained in a time series, improves precision and reduces the volatility of individual abundance estimates. While results are very preliminary, the model results showed higher minimum abundance estimates than are currently contained in the SAR for sperm whales, which could result in a higher PBR if incorporated into a future SAR for sperm whales.

- ***Observer Program Updates.*** Lyle Enriquez with the Southwest Observer Program gave Team members a brief, preliminary update on activity in the drift gillnet fishery during the 2013/14 season, highlighting the number of observed sets (191); estimated sets (559); percent coverage (34.2%, up substantially from the previous year); number of observable and unobservable vessels (19 and 6, respectively); and protected species encountered (3 California sea lion, 9 short-beaked common dolphin; 3 northern right whale dolphin; 1 gray whale and 2 short-finned pilot whale). (All data presented were preliminary and should not be cited.) He further noted that observer coverage was provided for every vessel (but one) that was seeking to fish in the observer-only zone (beyond 2,000 meters) delineated in the Emergency Rule. L. Enriquez said the program hopes to be able to provide similar coverage levels in the 2014-15 fishing season, though availability is dependent on funding.

  J. Carretta in his earlier briefing also provided background on Observer Program activities, summarizing observer coverage level, fleet effort and bycatch from 1990-2012. He also underscored the effectiveness of pingers in reducing cetacean bycatch, particularly beaked whales, where there have been no interactions observed in this fishery since pingers have been required.

- ***Fishery-Related Updates.*** Michelle Horeczko with the California Department of Fish and Wildlife (CDFW) provided an overview of the status of permits (both active and latent) in the California driftnet fishery. Overall, the number of active permits is down from 167 in 1996, when the "entangling net" code designation was retired, to 113 in 2001 when the Pacific Leatherback Conservation Area (PLCA) went into effect, to 73 in 2013. As well, the number of latent permits has been increasing since 2001. Since 2010, there have been 6 permit transfers.

- **Enforcement and Compliance.** Several presentations summarized recent activity and trends related to enforcement and compliance. Below is a review of the presentations and key points.

  - Michelle Zetwo with NOAA's Office of Law Enforcement noted that CDFW has reported no violations in the drift gillnet fishery since 2005, and OLE has had no active enforcement cases since 2007. She further noted that 16 vessels in the drift gillnet fishery are now equipped with VMS (vessel monitoring system) in response to the 2013 Emergency Rule requiring the gear on all California drift gillnet vessels; based on the VMS data, only 5 of those vessels fished in the observer-only zone beyond 2,000 meters.

  - Ryan Schmidt with the U.S. Coast Guard reported on its boarding activity over the past few years (within an area bounded by the U.S./Mexico border, the EEZ and the San Diego/Orange County line), noting that there were eight boardings of six drift gillnet vessels in 2013; none had federal fishing violations. R. Schmidt offered to later gather and provide to T. Fahy similar data for the district north of the San Diego/Orange County line. He also offered to review data to determine

whether there are any compliance distinctions between observable and unobservable vessels.

- Finally, J. Carretta noted that Observer Program data shows widespread compliance with pinger, set length and extender length regulations. Pinger failure was noted in 3.7% of observed sets where functionality (defined as one or more non-function pingers) was recorded. As well, T. Fahy noted that while pinger detection devices have been purchased, the underwater pinger detection device is not currently in use by enforcement and the in-air pinger detection device needs further manufacturer adjustments to detect the majority of pingers (i.e. Fumunda) used by the fleet.

- **Taking Stock of Emergency Rule – Impetus/Implementation**. T. Fahy briefly reviewed the impetus and process for putting forward an emergency rule in September 2013. She and Craig Heberer with Sustainable Fisheries Division explained that the rule was promulgated under the authority of the Magnuson-Stevens Act (MSA), as it offered the opportunity for fast-track implementation. But they further noted that a permanent rule would likely be implemented differently going forward (i.e., via the Marine Mammal Protection Act).

- **Sperm Whale Risk Assessment.** J. Carretta provided a recap and update regarding sperm whale risk assessment (bycatch, habitat and depth preferences). His main presentation points centered on the following:

  - Sperm whale bycatch has been observed six times (10 animals) in 8,365 sets since 1990; all bycatch occurred in waters deeper than 1,600 meters (900 fathoms)

  - Sperm whale bycatch is observed too infrequently to determine if acoustic pingers are effective deterrents.

  - 95% of research vessel sightings of sperm whales in the California Current were in water deeper than 1,000 meters; 90% occurred in water deeper than 2,000 meters.

- **Other Presentations.** The Team meeting included several other presentations during the course of the three-day meeting. These included the following:

  - ***West Coast drift gillnet and harpoon fishery cost and earnings survey.*** Steve Stohs presented the results of a SWFSC survey to assess the economic viability of using the West Coast drift gillnet and/or harpoon fishery to target swordfish. The survey, completed by 29 of the 81 permittees surveyed, yielded the following key findings:

    - Drift gillnet and albacore fisheries both generated positive variable profits. The drift gillnet fishery was typically profitable after about four trips, after subtracting fixed costs.

- The harpoon fishery generated both negative variable profits and net operating losses. Only five respondents identified harpoon as a primary income source. Other reasons for participation in the harpoon fishery included enjoyment, boosting drift gillnet trip yields, and fulfilling specific market orders.

- Spotter planes have the potential to increase yield in the harpoon fishery, but the economic viability of using spotter planes (high fuel costs, etc.) is questionable.

▪ ***Dynamic ocean management.*** Sara Maxwell of the Center for Ocean Solutions and Rebecca Lewison with San Diego State University presented on Day Three an overview of EcoCatch, a dynamic management framework now in early stage development to minimize interactions between the drift gillnet fleet and protected species by providing data related to the probability of animal foraging activity. The approach – used successfully elsewhere (scallop fishery/yellowtail bycatch in the Northeast, for example) but not yet ready for use on the West Coast – is intended to replace static management measures with real-time data that can help fisheries like the drift gillnet fleet shift fishing location to minimize likely interactions with protected species and support both ecological and environmental sustainability.

Several other topics/presentations originally included on the agenda were not covered as the Team needed additional time to develop and confirm its consensus recommendations.

C. Key Themes and Discussion Topics

The Team spent the bulk of the meeting discussing and considering various options for implementing permanent measures to bring sperm whale mortality and serious injury back below PBR. Below is a synthesis of the key themes and discussions topics that informed and shaped the Team's eventual adoption of consensus recommendations.

- ***Assessing Emergency Rule implementation.*** While several Team members noted the smooth implementation of the 2013 Emergency Rule and the lack of any observed sperm whale interactions, some Team members noted challenges associated with its overall structure. Specific concerns cited by some included: (1) VMS feels punitive to members of the fleet, is costly to the fleet and is not considered practical for a driftnet vessel, particularly given the narrow shelf off California and submarine canyons; and, (2) the consequence of a single sperm whale mortality/serious injury (a full fishery closure) is seen as too broad and unwarranted, particularly given the uncertainties in population estimates and the overall risk profile of fishery. Several fishery members of the Team also noted that the VMS is problematic for the driftnet fishery as unanticipated events (engine malfunction, etc.) can result in a vessel without an observer inadvertently drifting into the observer-only zone and thereby risking a violation and associated fine.

- ***Nexus with Negligible Impact Determination (NID).*** Several Team members sought to develop an approach for permanent amendments that would support a Negligible Impact Determination (NID) under the MMPA. Agency staff reminded the Team that the NID and associated MMPA section 101(a)(5)(E) permit is an Agency action and guided the Team instead to focus on recommending management measures that will help bring M/SI of sperm whales to below PBR in the near-term (consistent with their charge as a TRT).

- ***Important structural considerations challenging for fishery and TRT process.*** Team members spent significant time discussing what they see as structural concerns that are subjecting the fishery (and, by extension, the Team) to overly burdensome management measures. Core problems cited include the following:

    - **Fishery threat to sperm whales seen as overstated.** Several team members voiced strong concerns that several factors – inconsistent survey results, overly conservative assumptions (e.g., ESA listing for sperm whales, recovery factor, $N_{MIN,}$, treatment of latent permits) – paint the picture of a fishery with an unrealistically high-risk profile. While those team members recognized that the current PBR needs to drive short-term management measures, they voiced support for taking steps to improve the accuracy and precision of longer-term population estimates. Among some of the specific suggestions put forward: use the alternate means for assessing stock population size (trend-based analysis) put forward by J. Moore; conducting a status review of sperm whales; better account for the impact of sperm whale movements in survey results; and, average sperm whale mortality estimates beyond five years due to infrequent interactions.

    - **State/federal fishery management coordination.** The Team spent some time discussing the merits of revising and rationalizing state/federal coordination. A number of Team members voiced the view that there are opportunities to better rationalize state/federal coordination within the fishery. Several commentators noted that historically much of the drift gillnet fishery has been managed by the California Department of Fish and Game (now the California Department of Fish and Wildlife). Further, the observation was made that the combination of two regulatory agencies (CDFW and NMFS) in the mix introduces complexity and uncertainty for the fleet and for interested stakeholders. Specific suggestions put forward by Team members to streamline oversight of the fishery included: petition the Pacific Fisheries Management Council (Council) to initiate an HMS FMP plan amendment to incorporate California state permits into a federal limited entry fishery, and work with the Council to review and amend, as needed, existing California drift gillnet fishery regulations. Other team members sought clarification as to how these fishery management suggestions contribute to bycatch reduction. Two key reasons were cited: (1) absorbing the California limited entry permits under the federal HMS FMP offers the

opportunity to eliminate inactive permits (and the consequent potential for increased effort in the fishery); and (2) integrating existing State regulations into expanded and reconfigured regulations would likely result in a flexible, yet firm regulatory framework conducive to effective bycatch reduction strategies. C. Heberer noted the Council is due to consider possible revisions to the fishing regime for the DGN at its March meeting.

- **Latent permits.** Several speakers voiced concern with the fairly large number of latent permits within the drift gillnet fishery. A primary concern, some said, is that forecasted bycatch might somehow be extrapolated across inactive vessels, thereby giving an inaccurate and inflated picture of likely impacts to protected species. There are also concerns by some that a strong fishing year in 2013 could incentivize captains of some presently inactive vessels to re-enter the fishery and thereby potentially strain the availability of observer coverage for the fishery and lead to increased effort and corresponding risk. Others, while mindful of the concerns with latent permits, urged caution. For one, some TRT members suggested the risk of vessels re-entering the fishery is exaggerated, as many of the boats with latent permits actually lack proper gear to pursue DGN fishing. Other Team members cautioned strongly against being overzealous in rationalizing and downsizing the fleet, saying it is important to retain fishing opportunity for future generations.

- ***Range of short-term fixes considered.*** Though the Team's deliberations underscored the need to address the long-term concerns outlined above, Team members also acknowledged the imperative of putting in place short-term measures (i.e., for the next two years) to keep sperm whale M/SI below the current PBR of 1.5. The Team considered a wide range of measures, from closures and gear fixes to best practices. Below is a brief summary of the primary ideas considered.

  - **Parameters of observer-only zone.** Team members discussed the merits of maintaining the 2,000-meter zone in which only vessels willing and able to carry observers would be allowed to fish. Several options were considered in the discussion, including: collapsing the zone to the 1,500-meter depth contour, as that depth was seen to more closely track a higher interaction risk; or, pushing out to the 2,500-meter depth contour (to give the fleet more area to fish without observers) but incorporating into the observer-only zone those deeper canyons located shoreward of the 2,500-meter contour. Based on the discussion, the 1,500- meter depth contour was considered more difficult to enforce (given its serpentine configuration). As well, the canyons located shoreward of the 2,500-meter contour were considered to be lower risk as they are already closed to fishing until late November/early December as part of the PLCA closure. In the end, the Team opted to maintain 100% observer coverage for any vessels fishing the zone as defined in the Emergency Rule.

- **Fishery-wide versus more targeted closures.** The Team spent considerable time discussing the specifics of a consequence should a trigger associated with sperm whale mortalities and serious injuries be exceeded. Some Team members pressed for a limited area closure; for example, closing only the 100% observer-required zone. Such a closure, these members said, would address the area with greatest entanglement risk. As well, this approach would offer the corollary benefit of allowing for expanded observer coverage in the shallower areas to be at a higher level as NMFS could shift personnel once fishing in the deeper waters was off-limits. Others argued for a full fishery-wide closure (as was included in the Emergency Rule), contending that the Team's primary task is to prevent mortality and serious injury takes from exceeding PBR (even if the risk is perceived to be low). In the end, the Team opted for a hybrid approach: closing to drift gillnet fishing the 100% observer-required zone once a cap (but not PBR) is met or exceeded, and closing the entire drift gillnet fishery (as well as reconvening the Team to develop new recommended management measures) once PBR is exceeded.

- **Setting the trigger.** Team members debated the merits of setting the trigger for a closure at or below PBR. Several Team members pressed for setting PBR at one animal less than PBR, as that would be a precautionary approach and still enable the fleet to continue fishing in lower risk areas. Others suggested the trigger should be set <u>at</u> PBR, since that is consistent with the MMPA goal and would not unnecessarily and punitively curtail prime fishing areas. The Team eventually opted to set the trigger at the largest whole number (animal) that is below PBR. The Team also called for an expedited injury determination process (as is done with false killer whales in the HI-based deep-set longline fishery).

- **Establishing a buffer zone.** Several members of the fishery encouraged the Team to establish a buffer zone to provide relief for vessels without observers that, due to extenuating circumstances (i.e., engine malfunction, unexpected weather, gear entanglements), find themselves drifting into the observer-only zone after setting their nets. This was seen as a particularly important given that, in some areas, vessels must fish in a very narrow area of water (given other regulatory constraints and the steepness of the shelf). This approach merited significant discussion among Team members, but OLE staff said such a buffer zone would be difficult to enforce and unlikely to be considered practical. Rather, they encouraged the fleet to take advantage of existing protocols that enable vessels to proactively contact enforcement officials if they are experiencing difficulties that will likely place them in violation of existing fishery regulations. There was also an eventual recommendation from the Team that discussions with enforcement on this issue be incorporated into future Skipper Workshops, as well as new technologies (e.g., reel sensors) be considered to better indicate when a drift gillnet vessel is actively fishing.

- **Potential benefit of disseminating best practices.** Team members considered a wide range of measures (periodic captain trainings, gear to facilitate at-sea disentanglements, development of placards demonstrating best practices, intra-fleet communications) to improve the likelihood of avoiding interactions and reducing the probability of mortalities and serious injuries. A key provision, eventually adopted by the Team, was for NMFS to convene a mandatory Skipper Workshop as soon as practicable to review best practices. Such measures were broadly supported by the Team.

- **Other short-term options.** Team discussions generated several other short-term options, including:

  - Consider putting in place a more dynamic management regime, where vessels could be directed away from areas deemed to be high risk given sightings or other factors that would suggest a higher probability of entanglement risk. This idea, while considered attractive, is not seen to be viable at this time.

  - Limit required "pings" from VMS to one ping per hour while at sea (as was required under the Emergency Rule) to avoid unnecessary costs to the fleet. This approach was deemed unnecessary, as increases in ping frequency are not being considered for the drift gillnet fleet.

  - Consider gear modifications, including switching to a lighter twine stitching between panels, to decrease the likelihood of an entanglement. After some discussion, this approach was not considered to be beneficial for the short-term.

- ***Develop rule with flexibility to accommodate changing PBR and observer coverage levels.*** Team members expressed broad interest in crafting permanent modifications to the TRP that can accommodate anticipated changes in PBR in the coming years, as well as the uncertainty in observer coverage levels. To that end (and similar to an approach recommended by the False Killer Whale TRT), the Team considered (and eventually adopted) the merits of hard-wiring a cap to take account of fluctuating PBR and observer coverage levels, rather than a specific number currently being considered (i.e., 1.5 mortality and serious injuries). Such an approach would minimize the necessity of reconvening the Team and promulgating new rules each time PBR and observer rates change in future years.

- ***Observer coverage levels.*** Team members spent significant time considering the impact of various observer coverage levels on plan implementation and the ability to reduce uncertainty that a sperm whale M&SI has exceeded PBR. One idea discussed that gained broad support is to set two different observer coverage targets: a higher level in the area of greatest risk (i.e., 2,000 meters and deeper) (goal of 100% or a level of observer coverage that is less than 100% but is sufficient to ensure that PBR will not be exceeded in the event the cap is reached); and a lower

target (e.g., 20%) for those areas shoreward of the 2,000-meter line. More broadly, the Team voiced concerns with uncertainty regarding funding for future observer coverage and the potential impact on TRP viability. To that end, the Team eventually recommended an option for a waiver from observer coverage (for observable vessels only) in the deeper waters (if that did not put the fleet at risk of exceeding PBR) as it would give the Observer Program flexibility to better ensure observer coverage will be available season-long for those observable vessels wishing to fish in deeper waters.

- ***Concern with unobservable vessels.*** A number of Team members expressed concern with the impact of unobservable vessels, wondering in particular whether such vessels have a higher likelihood of interactions with sperm whales and/or have different compliance rates than the observed portion of the fleet. To address their concerns, Team members discussed a range of options, including: asking the law enforcement offices to increase boardings of unobservable vessels to confirm compliance; and, exploring the use of electronic monitoring devices (e.g., video cameras) and alternative platforms as a substitute for on-board observers. The Observer Program noted that video cameras, while helpful in accessing vessels unable to accommodate an observer, do not necessarily offer cost savings and have other implementation challenges.

Additionally, participants strongly endorsed the need to notify and reconvene the Team in the event of a closure, a change in PBR or ESA status, or a shift in management structure to ensure the Team's recommendations are still relevant and neither unduly burdening the fishery nor putting the sperm whale population at-risk. They further endorsed the continued requirement that vessels use VMS as this is to be required fleet-wide in 2015 as an integral part of Highly Migratory Species regulations. Finally, the Team discussed the merits of exploring and researching gear modifications to reduce mortality and serious injuries.

V. CONSENSUS RECOMMENDATIONS

Based on the Team's deliberations, all Team members in attendance reached unanimous consensus on a series of recommendations that covered both a permanent amendment to address near-term takes, as well as longer-term recommendations to address underlying concerns regarding abundance estimates, state/federal coordination and ongoing research needs. The recommendations, both regulatory and non-regulatory measures, are to be considered by NMFS as it develops a proposed rule in time for the 2014/15 California drift gillnet fishery season. Below is the language adopted unanimously by the Team.

Consensus Recommendations of the
Pacific Offshore Cetacean Take Reduction Team
(As confirmed by the Team at its February 4-6, 2014, meeting)

Implement a year-round closure for CA thresher shark/swordfish drift gillnet ≥ 14 inches (DGN) vessels in an area (the Zone) unless the fishing vessel is carrying a federal observer. The Zone, as defined in the Emergency Rule, covers all areas of the U.S. EEZ seaward of California that are deeper than the 2,012 meters (1,100 fathoms) depth contour; however, the boundary line that defines the Zone closes some areas that are deeper or shallower than the 2,012 meter (1,100 fathoms) depth contour. The Zone's boundary line runs both north and south of Pt. Conception from the Oregon/California border to the Mexico/California border, generally along the 2,012 meter (1,100 fathoms) depth contour, with the exception of an area seaward of the Santa Lucia escarpment, and any canyons or basins shoreward of the main north-south 2,012 meter depth contour.

Implement a fixed, maximum annual limit of sperm whale mortality/serious injury (the cap) that is the largest whole number of mortality/serious injury that is less than PBR. If the cap is met or exceeded, but PBR is not exceeded, then DGN fishing in the Zone is prohibited for the remainder of the calendar year in which the mortality/serious injury occurs. Should mortality/serious injury occur at any time that exceeds PBR, all DGN fishing would be prohibited, and the POCTRT would be reconvened as soon as practicable to develop and recommend strategies for reducing serious injury and mortality to levels below PBR. The fishery would remain closed until NMFS promulgates implementing regulations to reduce mortality/serious injury of sperm whales in the fishery.

Target 100% observer coverage for observable vessels fishing in the Zone. Vessels deemed unobservable are prohibited from fishing in the Zone. The Team recommends that NMFS allow for the option of issuing a “no observer required waiver” to an otherwise observable vessel that wishes to fish in the Zone as long as the level of observer coverage in the Zone is sufficient to ensure that PBR will not be exceeded in the event the cap is reached and the observer coverage is less than 100%. All DGN fishermen are required to notify the NMFS observer program, at least 48 hours in advance of every fishing trip and specify if they intend to fish inside or shoreward of the Zone. Observer coverage at a minimum level of 20% is recommended shoreward of the Zone.

Require the use of VMS for all CA DGN vessels in order to facilitate monitoring and enforcement. Before fishing, DGN fishermen must activate the VMS unit on their vessel and declare to NMFS VMS their intent to fish using DGN gear. This is intended to be consistent with the 2013/2014 season requirements as described in the Emergency Rule.

POCTRT Consensus Recommendations Continued
(As confirmed by the Team at its February 4-6, 2014, meeting)

Due to the VMS requirement, the DGN fleet is concerned about the possibility of being in a situation where they have unintentionally violated federal law by an unanticipated drift into the Zone. Therefore, discussions with enforcement regarding this issue should be incorporated into the Skipper Workshop. Additionally, investigate the application of existing technology that senses the operation of a DGN gear reel, which could be incorporated into the VMS feed or otherwise to give enforcement an additional ability to detect whether or not fishing operations are occurring.

To decrease the probability of future takes of sperm whales, NMFS should convene a mandatory Skipper Workshop as soon as practicable so that best practices can be reviewed and shared amongst the DGN fishermen. This and future workshops would allow fishermen to share ideas and strategies to reduce the take of sperm whales. We recommend that skipper workshops include:

1. A discussion and presentation regarding general sperm whale biology and information depicting previous locations of sperm whale takes in the fishery. Given the concentration of sperm whale takes near the continental slope, fishermen may want to avoid setting nets near the slope to reduce that risk.

2. Develop best practices for handling and disentangling sperm whales to reduce the probability that an interaction would result in a serious injury of sperm whales. Incorporate these best practices into training (e.g., skipper workshops) and provide specific disentanglement tools to increase the probability of successful disentanglement and safe release. Distribute these best practices (e.g., placards and associated tools) at skipper workshops.

3. Encourage the fleet to report sightings of large whales to other members of the fleet in as real-time as possible, especially for locations where large congregations might increase the risk of entanglement in those areas. Further encourage the real-time sharing of whale sightings with NOAA.

Observers, to the extent possible or permitted, take photographs and collect skin samples from entangled sperm whales that may allow future identification of that disentangled individual. These data may provide additional information as to the whale's fate, which could affect NMFS' serious injury determination. The POCTRT also recommends that NMFS pursue the possibility of observers satellite-tagging entangled sperm whales before release to help determine the movements and disposition of the animal.

The Team recommends that if a sperm whale is taken and released alive in the DGN fishery, that the injury determination be expedited and the team notified similar to the False Killer Whale Take Reduction Team's recommendation. Additionally, the Team should be notified of any sperm whale mortalities.

POCTRT Consensus Recommendations Continued
(As confirmed by the Team at its February 4-6, 2014, meeting)

In addition to the immediate measures identified to address the current status of sperm whale estimated mortality in relation to PBR, the POCTRT believes there are a number of other longer term measures that could help address the broader goal of accurately assessing and reducing marine mammal mortality in the fishery.

The POCTRT recommends the following longer-term actions:

- Even if short-term increases in observer coverage related to sperm whales expire, observer coverage of at least 20% of the fishery should be maintained long term.
- NMFS should conduct a review of the status of sperm whales (whether or not an outside petition to down-list or delist is received) and that this should include the potential recognition of DPS units as appropriate.
- NMFS and the SRGs examine the efficacy of increasing the number of years used in the mortality estimates for a stock, beyond five years, in cases where mortality/serious injury events are very rare and a larger pool of years might improve the precision and accuracy of mortality/serious injury.
- Explore ways to improve abundance estimates and population structure for sperm whales which could include:
    - Continue surveys for abundance and incorporate new surveys as rapidly as possible.
    - Evaluate other approaches for estimating abundance including mark-recapture from photo or genetic identification should adequate sample size become available.
    - Use trend-based Nmin calculations in the SAR that make more complete use of the often-limited data available to assess populations, as has been already used in the fin whale SARs.
    - Examine this population using improved sample sizes for genetics, photo-ID and satellite tagging from CA-WA and surrounding areas as well as use of surveys outside the EEZ in combination with habitat models.
- Examine diving behavior and movements of large aggregations of sperm whales off CA-WA to determine if there are ways in terms of seasonality, daily diving behavior, and movements of sperm whale groups that could inform ways to reduce interaction with sperm whales.
- NMFS consult with CDFW and seek cooperation for the transfer of DGN limited entry permits and other state DGN fishery regulations to federal authority; furthermore, petition the PFMC to initiate an HMS FMP plan amendment incorporating the CA state permits into a federal limited entry fishery.
- Work with the PFMC's HMS Management Team (MT) and Advisory Subpanel (AS) in reviewing the existing suite of CA DGN fishery regulations, and making appropriate changes.

POCTRT Consensus Recommendations Continued
(As confirmed by the Team at its February 4-6, 2014, meeting)

- Work with the HMS MT and AS to consider an HMS FMP plan amendment structure that includes a fishery monitoring program that targets 100% observer coverage, including the application of electronic monitoring technology, as an adjunct to human observers, and explores alternative and/or supportive sources of funding to support such a program.
- Evaluate ways in which others outside NOAA could contribute or help support the observer program should funding become a limiting factor.
- Continue to explore ways – and encourage implementation, as appropriate - to monitor the fishery using remote or electronic means (such as cameras or reel monitors), especially the vessels currently deemed unobservable.
- Explore and research options for making gear modifications (e.g., alternative pinger frequencies) to reduce serious injury and/or mortality.
- NMFS reconvene the Team within the next year to take advantage of the current progress and momentum, as well as to respond to new information or events, and to continue the development of long-term strategies for reducing marine mammal mortality. An in-person meeting would best be held from February through April to allow participation by the fishermen. Emergency meetings triggered by new developments or takes can be held remotely (conference calls and web connection) especially in the period June to January.
- NMFS should notify the POCTRT in the event of any change in PBR or ESA listing status for sperm whales so the team can evaluate the need for meeting and revising the Take Reduction Plan.

VI. PUBLIC COMMENT

Opportunity for public comment was provided at the end of each of the three days. Several members of the public opted to speak each day. Comments focused on the following topics:

- Acknowledging the effectiveness of the 2013 Emergency Rule, but asking that the Team keep in mind and address the overall high bycatch associated with the drift gillnet fleet.
- Encouraging the Team to include recommendations that call for NMFS to provide disentanglement gear to California drift gillnet vessels.
- Emphasizing the importance of adhering to the mandate of the Endangered Species Act
- Noting the financial and logistical burdens associated with VMS and observer coverage requirements.
- Requesting that materials and presentations shared with the Team be made publicly available following the meeting.
- Recommending the Team/Agency focus efforts on designing and deploying pingers more effective at deterring sperm whales.
- Calling for the U.S. Government to implement longstanding MMPA regulations intended to restrict imports from non-U.S. commercial fisheries using technologies that result in mortality and serious injuries in excess of U.S. standards.
- Expressing concern with a trigger tied to PBR when the Team has a long-term goal to reduce serious injury and mortality to 10% of PBR.
- Underscoring the importance of reducing mortality and serious injury to promote sperm whale recovery, even if that has economic implications for the fleet.
- Voicing concern that the team's recommendation related to state/federal coordination of the California drift gillnet fishery could result in the "federalization" of the fishery and thereby reverse or undermine longstanding and effective state fishery regulations.
- Providing the Team additional information on Future Oceans, an Australian company that produces pingers in use by the fleet.
- Commending the Team for its effective approach in engaging tough issues and developing "common sense" approaches.

VII. NEXT STEPS

Based on the discussions, the meeting generated the following next steps:

- ***Consensus Recommendation Write-Up.*** NMFS staff is to distribute to Team members a final clean version of the consensus recommendations developed by the Team. This document is to ensure all Team members have a final version. No further revisions are sought or expected.

- ***Key Outcomes Memorandum.*** CONCUR is to distribute for Team comment and review a Key Outcomes Memorandum summarizing primary discussion points, consensus actions and next steps. Team members are asked to undertake a timely "red-flag" review, highlighting errors or omissions.

- ***Meeting Materials.*** CONCUR is to work with NMFS to post all meeting materials and presentations on the Team website at:

  http://www.nmfs.noaa.gov/pr/interactions/trt/poctrp.htm.

- ***Other.*** The meeting generated several additional follow-on tasks, including the following:

  - T. Fahy is to seek feedback from Team members, perhaps as part of work group, as the Agency develops a draft best practices placard to be shared with industry.
  - C. Heberer is to provide an update to the Team following the Pacific Fisheries Management Council discussions on the drift gillnet fishery at its March meeting.
  - The U.S. Coast Guard is to provide to T. Fahy compliance and enforcement statistics that integrate data from the Los Angeles region with data from the San Diego region, as well as cross-reference its existing data to determine whether there are differences in compliance rates among observable and unobservable vessels.
  - T. Fahy is to follow up with the appropriate law enforcement agencies -regarding their possible use this next fishing year of a pinger detection device.
  - K. Long/T. Fahy are to distribute to the Team the Agency's policy on distinguishing serious from non-serious injuries.
  - Provide additional briefings to the Team, as appropriate, on subjects including dynamic area management, evolving stock assessment methods, etc.

- ***Future Team Meetings.*** The Team did not set any target dates for a next meeting. However, consistent with its consensus recommendations, the Team expressed interest in meeting in the event of any of several changing circumstances: (1) a shift in the calculated PBR; (2) in the event of a mortality or serious injury; and, (3) if there is a major shift in the governance structure of the fishery. Additionally, the Team recommended reconvening the Team within a year "to take advantage of the current progress and momentum."

Questions or comments regarding this meeting summary should be directed to S. McCreary, B. Brooks or T. Fahy. S. McCreary and B. Brooks can be reached at 510-649-8008 and 212-678-0078, respectively; T. Fahy at 562-980-4023.