



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE
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August 21, 2013

MEMORANDUM FOR: Mark Helvey
Assistant Regional Administrator, Sustainable Fisheries Division
File Pertaining to Temporary Rule for Emergency Action

FROM: *for* William W. Stelle, Jr. *Kevin*
Acting Regional Administrator, Southwest Region

SUBJECT: Consideration of Potential Impacts from the Temporary Rule for
Emergency Action to Modify the 2013-2014 California Thresher
Shark/Swordfish Drift Gillnet (DGN) Swordfish Fishery under the
Fishery Management Plan for U.S. West Coast Fisheries for
Highly Migratory Species and the Issuance of a Permit and
Negligible Impact Determination under Section 101(a)(5)(E) of the
Marine Mammal Protection Act to the California Thresher
Shark/Swordfish Drift Gillnet and Washington/Oregon/California
Sablefish Pot Fisheries
Administrative File: 150413SWR2013SF00016

Background

On or around August 22th, 2013, the Sustainable Fisheries Division (SFD) of NOAA Fisheries (NMFS) Southwest Region intends to publish a temporary rule for emergency action to modify the 2013-2014 California Thresher Shark/Swordfish Drift Gillnet (DGN) swordfish fishery under the Fishery Management Plan (FMP) for U.S. West Coast Fisheries for Highly Migratory Species (HMS). The purpose of the action is to reduce the risk associated with sperm whale bycatch in the DGN fishery. The emergency rule is being promulgated under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

In 2010, two sperm whales were observed caught in the DGN fishery; one was seriously injured, and one was dead. These takes were likely to have exceeded the levels anticipated in the incidental take statement (ITS) of the NMFS-issued 2004 biological opinion based upon actual observer coverage in the fishery. SFD reinitiated consultation on the DGN fishery and on May 2, 2013, NMFS issued a new ESA biological opinion on the DGN fishery, assessing the impacts of the fishery on sperm, humpback, and fin whales; as well as leatherback (*Dermochelys coriacea*), North Pacific Ocean distinct population segment of loggerhead (*Caretta caretta*), green (*Chelonia mydas*), and olive ridley (*Lepidochelys olivacea*) sea turtles. Shortly thereafter,



NMFS also proposed issuance of a permit under MMPA section 101(a)(5)(E) for a period of three years to authorize the incidental, but not intentional, taking of marine mammals listed as endangered under the ESA by the DGN fishery, including the 3 whale species mentioned above. In July, 2013, NMFS determined that the 2010 take of two sperm whales by the DGN fishery exceeded the current potential biological removal (PBR) level of 1.5 sperm whales per year. PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. As such, the impact of the DGN fishery, as currently configured, to the CA/OR/WA stock of sperm whales could not be considered negligible as required for an MMPA 101(a)(5)(E) permit.

On July 31 and August 7, 2013, NMFS convened the Pacific Offshore Cetacean Take Reduction Team (POCTRT) to discuss potential modifications of the DGN fishery to reduce the risk associated with potential sperm whale bycatch in the DGN fishery. The Team ultimately made recommendations for modifications to the DGN fishery in 2013-2014 that are being implemented by SFD for the upcoming fishing season (described below) via an emergency rule-making. The measures being implemented are designed to be a short-term solution for the upcoming season only, with plans for the POCTRT to meet again and discuss longer-term solutions for reducing the risk of sperm whale mortality and serious injury. Based on the implementation of the temporary rule for emergency action and the anticipation of future measures being implemented to minimize sperm whale bycatch after the 2013-2014 fishing season, NMFS expects to be able to make a negligible impact determination for sperm whales pursuant to MMPA section 101(a)(5)(E) for the DGN fishery. The negligible impact determination analyzes the effects of two Federal fisheries, the DGN and the sablefish pot fishery on three stocks of whales; CA/OR/WA sperm, CA/OR/WA humpback and CA/OR/WA fin whales.

Section 7(a)(2) of the ESA requires that federal agencies that propose an action which may affect listed species consult with NMFS to ensure that the action is not likely to jeopardize the continued existence¹ of any threatened or endangered species under NMFS's jurisdiction, or destroy or adversely modify any habitat designated by NMFS as critical for their survival. As mentioned above, NMFS issued a biological opinion (Opinion) on the DGN fishery on May 2, 2013. This Opinion concluded that the DGN fishery, as operated without implementation of any of the modifications included in the temporary rule described below, was not likely to jeopardize any ESA-listed species, including sperm whales. Implementation of the temporary rule represents a change in DGN fishery operations that was not previously considered in the Opinion.

¹ Jeopardize the continued existence or means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." (50 CFR § 402.02).

In addition, NMFS intends to issue a permit in accordance with MMPA section 101(a)(5)(E) to the California Thresher Shark/Swordfish Drift Gillnet and Washington/Oregon/California Sablefish Pot Fisheries. In order to issue such a permit, NMFS must first make certain determinations pursuant to the MMPA and find that the proposed permit is not likely to jeopardize the continued existence of marine mammals listed under the Endangered Species Act (ESA). For these two fisheries, NMFS has made a determination that incidental taking will have a negligible impact on the endangered fin whale (*Balaenoptera physalus*), CA/OR/WA stock; humpback whale (*Megaptera novaeangliae*), CA/OR/WA stock; and sperm whale (*Physeter macrocephalus*), CA/OR/WA stock.

The purpose of this memo is to investigate the potential impact of the DGN fishery operating under the temporary rule on ESA-listed species and to determine whether re-initiation of formal consultation under the ESA and issuance of a revised biological opinion and ITS is required. This memo also constitutes our ESA consultation on the issuance of the 101(a)(5)(E) permit to the Federally managed DGN and WA/OR/CA sablefish trap fisheries authorizing the take of ESA-listed species of whales, including endangered fin, humpback, and sperm whales in those fisheries, per NMFS's responsibility for a proposed action that may affect ESA-listed species (50 CFR 402 *et seq.*).

Temporary Rule for Emergency Action

The elements of the temporary rule for emergency action to address sperm whale bycatch risk in the DGN fishery are as follows:

1. Requires immediate termination of the DGN fishery if one sperm whale is determined by NMFS to have been killed or seriously injured in large-mesh DGN gear. If termination of the fishery is required, NMFS will notify DGN fishing operations by VMS communication to the fleet, as well as through a Federal Register notice, postal mail, and posting on the NMFS regional website.
2. Establishes a requirement that DGN vessels operate a vessel monitoring system (VMS) during the period of the emergency rule.
3. Establishes a closure zone in the West Coast Exclusive Economic Zone (EEZ) for DGN vessels unless the fishing vessel is carrying a federal observer in that zone to document interactions with sperm whales and other bycatch during the 2013-2014 fishing season. DGN vessel owners/operators will be required to notify the NMFS-designated observer provider at least 48 hours prior to departing on all fishing trips. The 100% observer coverage zone generally can be described as all areas deeper than 1,100 fathom (2,012 m) depth contour, with some exceptions for certain areas. The 100% observer coverage zone is specified by a line running through specific coordinates that are depicted below in Figure 1:

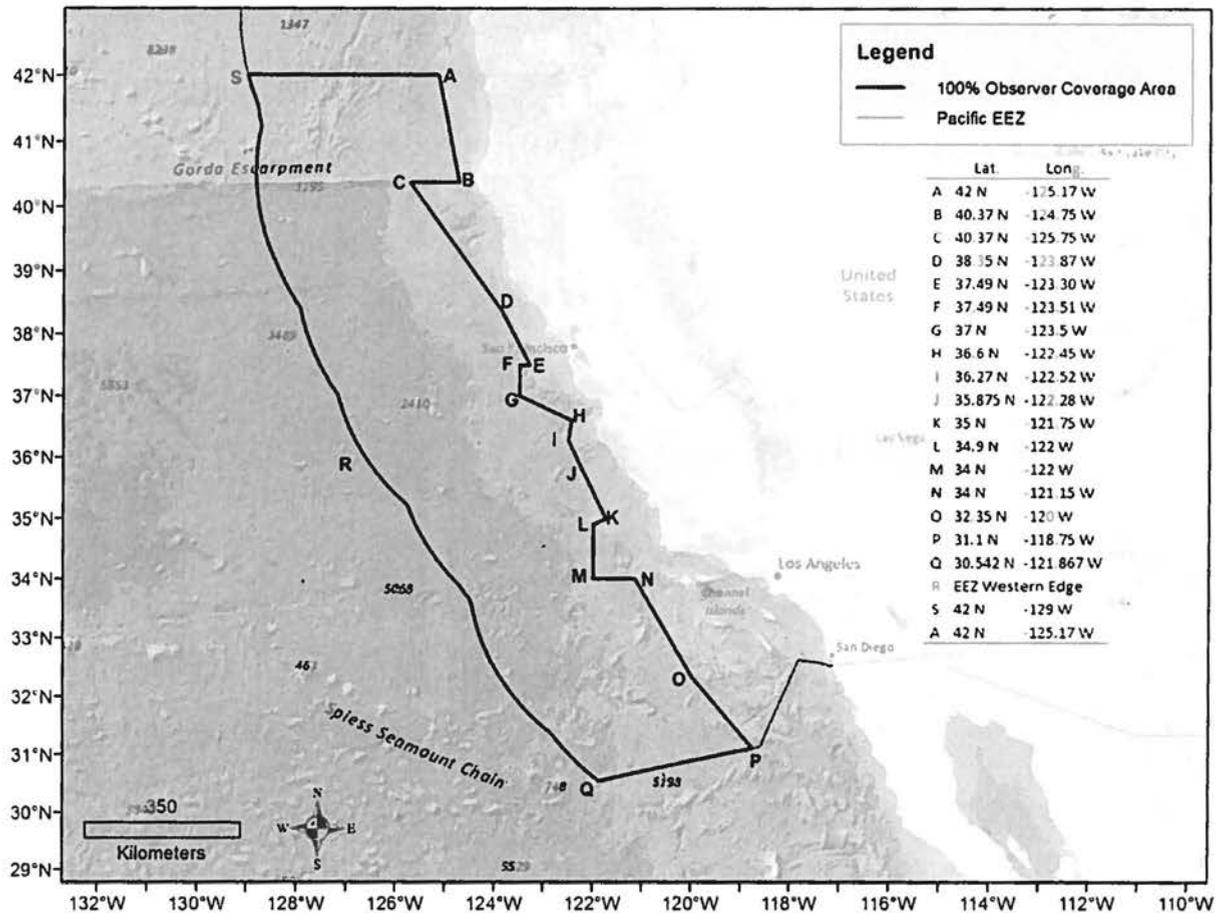


Figure 1. Map of 100% observer coverage zone for the DGN fishery in 2013-14 fishing season.

All other existing state and Federal restrictions on the DGN fishery still apply, including the Pacific leatherback conservation area closure.

The temporary rule for emergency action is designed to achieve the goal of minimizing the impact of the DGN fishery on sperm whales by limiting the number of sperm whale serious injuries and mortalities that can occur while increasing the ability of NMFS to detect that the limit on sperm whales serious injuries and mortalities has not been exceeded by increasing the observer coverage in the zone described in Figure 1. Based on research surveys and sperm whale sightings data provided by the Southwest Fisheries Science Center to the Southwest Region and the POCTRT, this zone is an area where sperm whales may be more likely to occur and interact with DGN gear than the areas closer to shore. Habitat models (Becker *et al.* 2012) also suggest that sperm whales are more common in waters deeper than about 2,000 meters (1,100 fathoms). Shipboard surveys by the Southwest Fisheries Science Center in the California Current indicate that 90 percent of sperm whale sightings occurred in waters deeper than 1,100 fathoms (Carretta 2013). This is consistent with observed takes of sperm whales in the DGN; eight of the observed ten takes occurred in waters deeper than 1,100 fathoms (two sperm whales

were taken in one location at 900 fathoms immediately adjacent to the 1,100 fathom curve; see Figure 2 below). Implementation of VMS is an effective tool for monitoring the distribution of fishing effort and compliance with the temporary rule. The VMS requirement works in concert with the rest of the temporary rule to minimize uncertainty associated with the level of impact to ESA-listed species from the DGN fishery in the upcoming fishing season, especially with sperm whales.

2013 Biological Opinion

The 2013 Opinion considered the following levels of take as anticipated in the ITS, and concluded no jeopardy for all these species.

Table 1. Amount and extent of take on individuals expected in the DGN fishery (Table 12 *in* NMFS 2013a).

	Annual take	5-year take total	Expected mortalities ² during 5-year period
Fin whale	up to 1	up to 2	up to 1
Humpback whale	up to 2	up to 4	up to 2
Sperm whale	up to 2	up to 8	up to 6
Leatherback turtle	up to 3	up to 10	up to 7
Loggerhead turtle	up to 3	up to 7	up to 4
Olive ridley turtle	up to 1	up to 2	up to 1
Green turtle	up to 1	up to 2	up to 1

The interaction and mortality rates were estimated based on the record of takes reported by fisheries observers in the DGN fishery from historical fishing effort that was considered to be consistent with the manner of current and future operation of the fishery, including the measures that have previously been implemented to avoid protected species interactions. As described in the Opinion, monitoring the anticipated interaction rates must be viewed in the context of less than 100 percent observer coverage of the DGN fishery. Table 2 below describes the anticipated number of observed takes, based on the expectation that the DGN would receive observer coverage levels around 20%. These numbers are anticipated observations of an interaction of these species with the DGN fishery; they are not specific to the outcome of the interaction in terms of the injury or mortality of the animals.

Table 2. Amount of take of individuals expected to be documented by fisheries observer over a 5-year period in the DGN fishery given the anticipated observer coverage (Table 13 *in* NMFS 2013a).

	Observed take during 5-year period

² Includes animals that may be determined to have experienced either serious injury or mortality as a result of interaction with the fishing gear.

Fin whale	1
Humpback whale	1
Sperm whale	up to 2
Leatherback turtle	up to 2
Loggerhead turtle	up to 2
Olive ridley turtle	1
Green turtle	1

These numbers reflect the expected amount of observed take based on the proportional assumption that 1 out of every 5 takes in the DGN would be expected to occur during observed fishing effort with approximately 20 percent observer coverage. Given the relatively low numbers of observed takes stipulated here and sporadic frequency of observed interactions, NMFS assumed that the expected observed take within a 5-year period for any and/or all of these species could occur within any one given season. This includes 2 observed takes in a season for sperm whales, leatherback and loggerhead sea turtles.

In the 2013-2014 fishing season under the temporary rule, observer coverage is expected to be greater than 20%. For a number of years, the observer coverage level target for DGN has been 20%. Fishing in the offshore area will be covered at 100% as mandated by the temporary rule. SFD also expects increased observer coverage levels in the inshore area as well, as a result of increased funds dedicated towards fulfilling the observer requirement in the offshore area, and their general commitment to increased observer coverage of the fishery as a whole to improve the estimates of protected species bycatch. While NMFS will consider the actual observer coverage levels achieved if/when interpretation of bycatch reports becomes necessary, the standard expectations for observed take within a year (and over 5 years) described above remain the benchmark for monitoring the total take of these ESA-listed species for the next (or any) fishing season.

Anticipated Effect of Temporary Rule on Fishing Effort and Effect to ESA-listed species

For the purposes of this analysis, NMFS is considering whether the implementation of the temporary rule will change any of the effects of the DGN fishery on ESA-listed species that were anticipated in the 2013 Opinion. Should this rule lead to increased incidence of bycatch or other impacts to ESA-listed species that were not analyzed and considered in that Opinion, then NMFS may be required to reinitiate consultation as required under 50 CFR § 402.16.

The temporary rule for emergency action has been designed and is being implemented to minimize impacts to sperm whales from the DGN fishery. Notably, a cap of one observed sperm whale serious injury or mortality occurring in the DGN fishery is being implemented. In comparison, the 2013 Opinion assumed that as many as 2 whales could be observed taken within a year (and within a 5-year period as well). While the 2013 Opinion did not specify the outcome

of those takes, the Opinion did assume for the purposes of the jeopardy analysis that both takes could lead to serious injury and mortality and that those 2 sperm whales could be removed from the population in any given year as a result of the DGN fishery. NMFS analyzed that effect under the jeopardy standard and concluded that the potential impact was not likely to jeopardize the continued existence of sperm whales as listed under the ESA. The temporary rule would limit the observed serious injury and mortality to 1 sperm whale, in the context of increased observer coverage and decreased uncertainty, especially in the 100% observer coverage zone where sperm whale bycatch risk may be greater. As a result, NMFS concludes that the anticipated take of sperm whales will be less than what was previously considered in the 2013 Opinion, and no further consultation on effects to sperm whales under the ESA is required at this time.

While the temporary rule is focused on addressing risks to sperm whales, NMFS must also consider how this rule may affect other ESA-listed species, including those identified in the 2013 Opinion as likely to be affected by the DGN fishery. The anticipated take levels for these species (fin and humpback whales; leatherback, loggerhead, green, and olive ridley sea turtles) are described in Table 1 and 2 above.

Fundamentally, the question of how the temporary rule may affect these other ESA-listed species, and/or whether that effect is different than what has already been considered in the 2013 Opinion, hinges on the question of how fishing effort and fishing behavior may be affected or influenced by implementation of this rule. In order to evaluate this, PRD staff engaged in deliberations with SFD staff to understand how fishing may be affected in 2013-2014 DGN fishing season with the emergency rule in place. Potential factors associated with the temporary rule that could influence fishing behavior and effort include (but are not limited to): willingness to take observers to fish in the 100% observer coverage zone, desire to avoid higher risk area for sperm whales to minimize chance of a fishery closure, availability of NMFS to provide observer coverage in the 100% observer coverage zone, reaction from vessels that cannot take observers (unobservable vessels) to effectively being excluded from offshore fishing grounds, willingness of vessels to submit to VMS requirements, and the general desire for vessels to participate in the DGN in 2013-2014 given the regulatory framework and uncertainty in the length of the fishing season.

The rule is not expected to have a substantial effect on the distribution of effort. In recent years (from 2001-2011), the data from observed sets indicate that 89% of observed effort has occurred in the area that is inshore of the 100% observer coverage zone (Figure 2; SFD 2013).

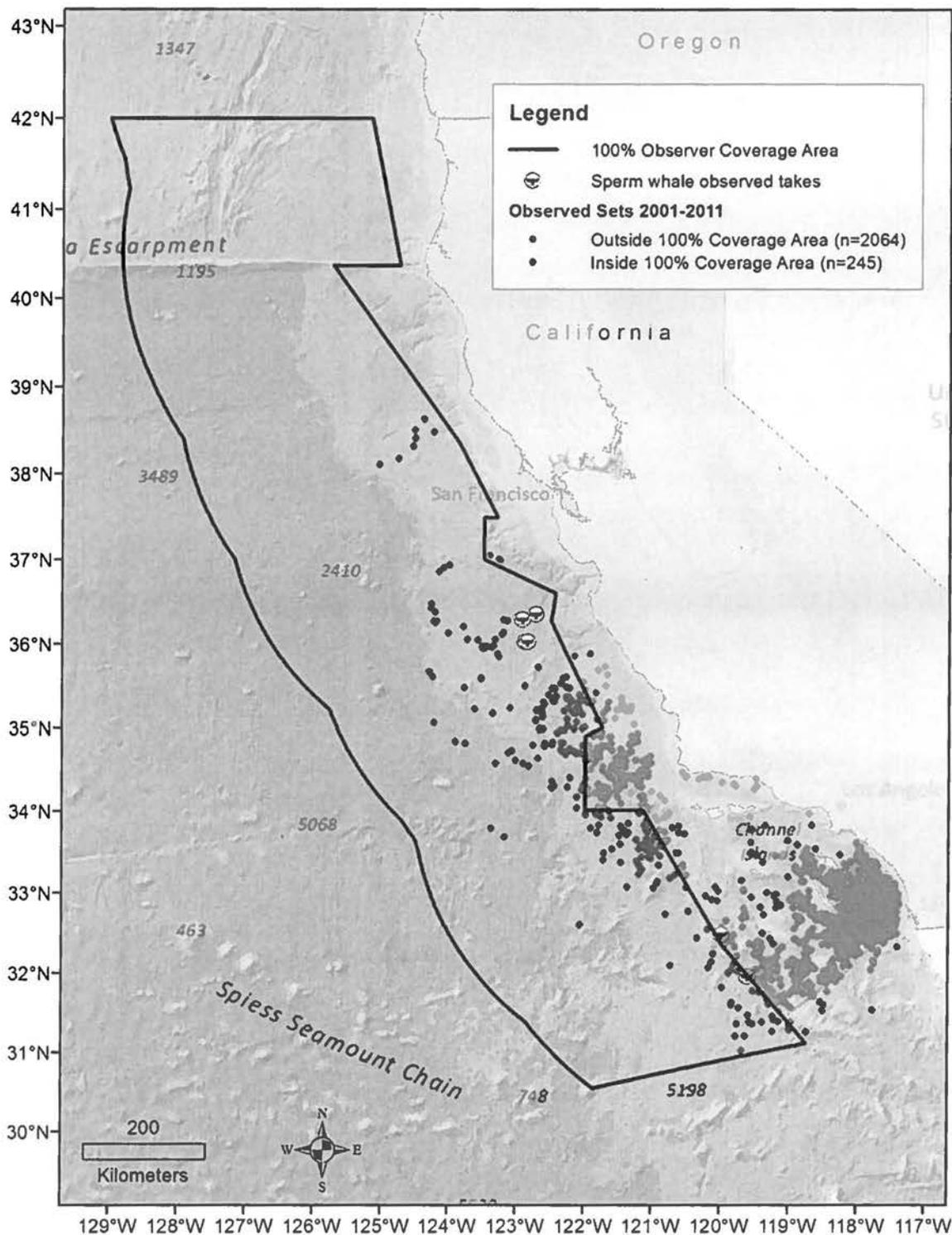


Figure 2. Illustration of relative observed fishing effort inshore/offshore in the 100% observer coverage zone from 2001-2011, and locations of observed takes of sperm whales from 1990-2012.

This would suggest that any potential aversion to the 100% observer coverage zone requirements, or aversion to fishing in the offshore area where the risk of sperm whale bycatch may be higher, is not going to have any substantial impact on the distribution of fishing effort relative to the inshore/offshore distribution. Simply put, the data suggest that almost all of the fishing effort is going to occur inshore regardless of whether the temporary rule is in place, or the fishery was allowed to continue as analyzed in the 2013 Opinion. NMFS acknowledges that this data comes only from the history of observed fishing effort, but previous efforts to investigate the difference between the distribution of observed and unobserved fishing effort have failed to identify any obvious discrepancies between the two (see NMFS 2013a). Looking at any given fishing season, the relationship between effort inside/outside the 100% observer coverage zone ranged from 83% to 95% from 2001-2011 (SFD 2013). It is important to remember that the anticipated bycatch rates considered by the 2013 Opinion were based on the observer data and records of bycatch events, and the assumption that the fishery as it has existed in its current form with all the bycatch reduction measures in place, and subsequent protected species interaction rates, are representative of what is expected to occur in the future. There have been a number of years where nearly all of the observed effort (and bycatch data) have come from the inshore area. Avoidance of the offshore area, even if some occurs, would not offer any scenario in terms of the relative distribution of fishing effort that would be substantially different than other previous fishing seasons which have already been considered by NMFS in terms of risks to ESA-listed species.

Most likely, the distribution of effort for any fishing seasons has been dictated by natural factors such as swordfish distribution and weather. The expectation is that similar factors will largely dictate the distribution of effort in 2013-2014 (SFD 2013). There were some indications from industry that initial ideas discussed by the POCTRT that would have included certain favored fishing areas such as the Santa Lucia Escarpment in the 100% observer coverage zone could have influenced the distribution of fishing effort. Potentially, a number of unobservable vessels would not have been allowed to fish in that area, which could have resulted in a relative shift of effort to other places, such as the Southern California Bight or closer to shore north of Point Conception. The relative proportion of the fleet and fishing effort that is unobservable has varied in recent years, with unobservable vessels contributing between 24-47% of total fishing effort from 2009-2012, with only 5 vessels (out of 15 total active vessels) accounting for 24% of those sea days in 2012. As it stands, these areas are available to unobserved fishing vessels and vessels that might have been averse to 100% coverage of all their effort in those areas.

NMFS has considered the potential impact of excluding these areas from the 100% observer coverage zone to the risk of undetected sperm whale bycatch. The areas seaward of the 1,100 fathom curve that were excluded from the 100% observer coverage zone represent a small area in total where the relative difference in sperm whale density and risk of bycatch cannot be distinguished from the inshore area inside 1,100 fathoms by the Southwest Fisheries Science Center. Sperm whale encounter rates begin to decline in depths shallower than 3,000 m (~1,600

fathoms; Becker *et al.* 2012), so the 100% observer coverage zone is conservatively based at 1,100 fathoms to begin with.

SFD has indicated that they have access to funding that will allow them to increase the number of observer sea days and the number of observers available for deployment in order to provide coverage for vessels that choose to fish in the 100% coverage zone, as well as increased coverage in the inshore areas. They are confident that observer availability will not contribute to any change in fishing effort patterns. SFD has indicated that vessels will be assigned an observer per the normal methodology for observer deployment regardless of their intent to fish inside or outside the 100% observer coverage zone. Therefore, vessels that are observable will be required to fish with an observer when selected regardless of where they choose to fish. This should minimize the influence of any efforts to avoid observer coverage by staying away from the 100% observer coverage zone. As a result of all these factors, SFD has ultimately concluded that the effort distribution in the 2013-2014 DGN fishery will not be significantly affected by the implementation of this rule (SFD 2013).

Another consideration is whether the overall level of effort is likely to be affected by implementation of the temporary rule. The 2013 Opinion considered the possibility that up to 1,500 sets could occur in any year in the DGN fishery in the foreseeable future. This number of sets was based upon the number of current permits and maximum effort levels in recent years. The resulting estimates of anticipated bycatch in the Opinion were based on that level of effort. The actual effort levels have been below 500 sets since 2010 (NMFS 2013a). While it is possible that vessels with DGN permits whom have not been active in recent years could re-enter the fishery, NMFS expects that the effort in 2013-2014 will be similar to the last few years (SFD 2013), especially given the relative uncertainty of gearing up for a fishery that may be forced to close for the rest of the season if 1 sperm whale is seriously injured or killed at any time during the fishery. In addition, there is a chance that some vessels that have been active recently may choose not participate in the fishery this year due to the VMS requirement of the temporary rule. Although there are mechanisms in place to reimburse fishermen for costs associated with purchasing the required commitment, the costs associated with operation and maintenance of the equipment, as well as a general aversion to the requirement itself could limit the participation of some members of the fleet who do not want to pay for or operate VMS. As a result, it seems likely that the total fishing effort in 2013-2014 will be significantly less than the 1,500 considered in the 2013 Opinion, and is likely to be less than 500 as has been the case in recent years anyway.

In the event that effort were expected to shift in some manner, e.g. potentially moving from a more offshore or northern distribution to areas more inshore or southerly, then NMFS would have to consider how the relative risk of bycatch for ESA-listed species would be impacted. For example, based on habitat-based density prediction models (Becker *et al.* 2012), the expected density of humpback whales is higher along the inshore coastal waters of central and southern California. Also, satellite telemetry and visual surveys suggest that leatherback sea turtles may

spend more time foraging in coastal waters than transiting through offshore areas when migrating across the Pacific to the U.S. west coast (Benson *et al.* 2011). While it does appear possible that a small shift in effort away from the offshore 100% observer coverage zone from unobservable vessels is possible, it is more realistic to expect that some effort will occur still offshore if that is where swordfish can be caught, which is always the predominant factor in dictating the location of effort given the current state of the DGN fishery with or without the temporary rule. The current DGN fishery already operates nearly exclusively (~90%) inshore of the 100% observer coverage zone, and the risks of bycatch for ESA-listed species as represented by the estimates analyzed in the 2013 Opinion essentially already reflect the risk of bycatch that would be expected for the total effort of the DGN fishery in this area. Even if no effort occurs offshore, the 2013 Opinion describes and analyzes the rare rates of ESA-listed species bycatch that occurs inshore.

The results of this analysis of potential effects to ESA listed species from the amount and distribution of fishing effort in response to the temporary rule suggests that any effect will be minimal and within the context of what has been anticipated by the 2013 Opinion. In addition, it seems likely that fishing effort is going to be relatively low in 2013-2014, which should help to mitigate any potential changes in relative bycatch risk for any ESA-listed species that might be influenced by any relatively small variance in fishery distribution that may occur in 2013-2014 fishing year within the confines of impacts already considered in the 2013 Opinion. Given the results of this analysis, NMFS concludes that the temporary rule for emergency action is not likely to lead to any unintended consequences resulting in effects to any ESA-listed species in excess of what has already been anticipated, analyzed, and authorized under the ESA in the 2013 Opinion. Therefore, NMFS has determined that no additional consultation on the issuance of the temporary rule for emergency action in the DGN is necessary.

Issuance of Section 101(a)(5)(E) Permit

Current Biological Opinions on CA DGN and WA/OR/CA Sablefish Pot Fisheries

On May 2, 2013, NMFS issued a final biological opinion on the continued management of the DGN fishery under the Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species. Tables 1 and 2 above summarize the anticipated take that was analyzed in that Opinion, which concluded that those levels of take, which are considered to be maximum totals, were not likely to jeopardize the species. Given the spatial and temporal extent of the DGN fishery, all of these takes are expected to be associated with the CA/OR/WA stocks of each of these whale species. The Opinion also includes terms and conditions that require continued monitoring from fisheries observers, as well as additional investigation into appropriate observer coverage goals, use of electronic monitoring, and vessel monitoring systems for this fishery.

On December 7, 2012, NMFS issued a biological opinion on the continued implementation of the Pacific Coast Groundfish Fishery Management Plan (NMFS 2012). Included was an analysis

of the effect of anticipated takes of humpback whales in the WA/OR/CA sablefish trap fishery given the current management system and state of the fishery. No other ESA-listed marine mammals are known to interact with this fishery in a manner that leads to adverse impacts to the species. The 2012 biological opinion considered the follow scenario of total humpback whale serious injuries and/or mortality from the WA/OR/CA sablefish trap fishery in any given year and on average over a 5-year period (Table 3):

Table 3. Extent of humpback whale take by the sablefish trap fishery in the 2012 biological opinion on the Pacific Coast Groundfish Fishery Management Plan.

	Annual serious injury and mortality	5-year serious injury and mortality
Humpback whale	up to 3	Annual average of 1

The 2012 biological opinion assumes that all humpback whale takes will come from the CA/OR/WA stock. The terms and conditions of this biological opinion are aimed at improving the ability of NMFS observers to identify the origin of any fishing gear observed entangled with ESA-listed species.

Under the ESA, NMFS analyzes the anticipated effects of a proposed action and formulates a biological opinion on whether the proposed action will jeopardize any ESA-listed species under NMFS' jurisdiction or destroy or adversely modify any critical habitat designated by NMFS, at the population level as listed under the ESA. In the case of the three large whale species considered here, all three are listed globally as endangered. As such, the analyses and determination made in each of the biological opinions on the two fisheries represent the most complete and appropriate analysis of how the continued operation of these fisheries affect these species as a whole. Those biological opinions considered the take of ESA-listed species in other fisheries, in conjunction with other impacts that are affecting these species, in their ultimate conclusions (e.g., the DGN Opinion described the historical record of entanglements in various pot/trap fisheries including the WA/OR/CA sablefish trap fishery in the *Environmental Baseline*) and considered these impacts in the *Effects of the Analysis*).

Summary of ESA Consideration

In conclusion, NMFS has determined that the CA DGN fishery and WA/OR/CA sablefish trap fishery are both currently operating lawfully under the ESA, in accordance with the biological opinions that exempt the incidental take of ESA-listed marine mammals in those fisheries. Issuance of the 101(a)(5)(E) permit to these fisheries is not expected to produce any additional impact to any species that has not already been considered in those biological opinions. As such, no further ESA analysis is necessary in association with the proposed MMPA permit issuance action.

This concludes consultation on the issuance of the 101(a)(5)(E) permit and negligible impact determination under the MMPA to the DGN and WA/OR/CA sablefish trap fisheries. As provided in 50 CFR § 402.16, reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered; (3) the agency action is modified in a manner that causes an effect to listed species or critical habitat not considered; or (4) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR § 402.16). Specifically, NMFS will consider these factors in assessing whether the biological opinions that are in place for each fishery remain valid based on new information as it becomes available. NMFS maintains the discretion to reinitiate consultation on either the DGN or WA/OR/CA sablefish fishery based on any information related to estimates of impacts from these fisheries that provide cause for concern about the structure of fisheries management and/or impacts to ESA-listed species that may result from these fisheries. Should the underlying nature of impacts generated from commercial fishing activities, or other threats facing stocks of ESA-listed whales along the U.S. west coast change, NMFS may not be able to continue authorization of the 101(a)(5)(E) permit under the MMPA for these fisheries as currently operated in the future.

Incidental Take Statement

As described in the 2013 Opinion, a marine mammal species or population which is listed as threatened or endangered under the ESA is, by definition, also considered a strategic stock and depleted under the MMPA. Section 7(b)(4) of the ESA provides for an incidental take statement for threatened and endangered marine mammals only if authorized pursuant to section 101(a)(5) of the MMPA. Until the proposed action receives authorization for the incidental taking of marine mammals under section 101(a)(5)(E) of the MMPA, the incidental takes of marine mammals are not exempt from the ESA taking prohibitions pursuant to section 7(o) of the ESA.

The temporary rule for emergency action considered here, is intended to address concerns about risks to sperm whales resulting from bycatch in the DGN fishery and the inability of NMFS to make a negligible impact determination pursuant to MMPA section 101(a)(5)(E). Based on the implementation of the temporary rule for the DGN fishery in 2013-2014 fishing season and the anticipation of future measures being implemented to minimize sperm whale bycatch after the 2013-2014 fishing season, NMFS expects to be able to make this determination for sperm whales, which would allow for exemption of the take of sperm whales in the DGN fishery under the ESA and authorization under the MMPA.

The temporary rule for emergency action for the 2013-2014 DGN fishing season adds additional requirements to the fishery, including closure of the fishery if any sperm whales are observed seriously injured or killed in the upcoming 2013-2014 season, as well as mandated use of VMS and observer coverage in certain fishing areas and closure of the fishery if any sperm whales are

observed seriously injured or killed. The ITS of the 2013 Opinion included reasonable and prudent measures (RPMs) and terms and conditions (T&Cs) necessary for implementation by NMFS to comply with sections 7 and 9 of the ESA. Those RPMs and T&Cs remain in effect for the DGN fishery, even as the temporary rule requires additional measures for the DGN fishery in 2013-14.

The most important change in the management of the DGN fishery as it pertains to the ITS of the 2013 Opinion is the limitation of observed sperm whale takes in the DGN fishery to 1 observed serious injury or mortality in the 2013-14 fishery. The original ITS of the 2013 Opinion allows for the observed take of up to 2 sperm whales in a given year, or in total over a 5-year period, regardless of whether individual whales that are taken are determined to be seriously injured, killed, or released uninjured. Given revision of the proposed action to include implementation of the temporary rule, including the limit of 1 observed sperm whale serious injury and mortality, and the expectation that NMFS will be able to make a negligible impact determination for sperm whale bycatch in the DGN fishery under MMPA section 101(a)(5)(e) given the temporary rule, NMFS is revising the ITS for the 2013 Opinion to reflect that exempted takes pursuant to the ESA are limited to the amounts allowable pursuant to section 101(a)(5)(E) of the MMPA.

References

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IX. INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, unless there is an applicable exception. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. NMFS further defines “harm” as an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including breeding, spawning, rearing, migrating, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to and not the purpose of the proposed action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are nondiscretionary, and must be undertaken by NMFS for the exemption in section 7(o)(2) to apply. NMFS has a continuing duty to regulate the activity covered by this incidental take statement. If NMFS fails to assume and implement the terms and conditions the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, NMFS must monitor the progress of the action and its impact on the species as specified in the incidental take statement. (50 CFR § 402.14(i)(3))

Section 7(b)(4) of the ESA requires that when a proposed Federal agency action is found to be consistent with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of listed species, NMFS will issue a statement that specifies the impact of any incidental taking of endangered or threatened species. The ESA also states that reasonable and prudent measures, and terms and conditions to implement the measures, be provided that are necessary to minimize such impacts. Only incidental take in compliance with terms and conditions identified in the incidental take statement is exempt from ESA taking prohibitions pursuant to section 7(o) of the ESA.

A marine mammal species or population which is listed as threatened or endangered under the ESA is, by definition, also considered a strategic stock and depleted under the MMPA. Section 7(b)(4) of the ESA provides for an incidental take statement for threatened and endangered marine mammals only if authorized pursuant to section 101(a)(5)(E) of the MMPA. Until the proposed action receives authorization for the incidental taking of marine mammals under section 101(a)(5)(E) of the MMPA, the incidental takes of marine mammals described below are not exempt from the ESA taking prohibitions pursuant to section 7(o) of the ESA. In addition, only the level or amounts of takes authorized pursuant to section 101(a)(5)(E) of the MMPA are exempt from the ESA taking prohibitions pursuant to section 7(o) of the ESA. For the 2013-14 DGN fishing season, only one serious injury or mortality, as determined by NMFS, to sperm

whales in the course of DGN fishing operations is exempted from the take prohibitions of the ESA.

1. Amount or Extent of Take

NMFS anticipates the following incidental take and mortality of ESA-listed marine mammals and sea turtles may occur as a result of continued operation of the DGN fishery within the current regulatory framework governing the effort in the fishery up to 1,500 sets annually off the U.S. west coast (from Tables 8 and 11, and effects analysis). Annual and five year take numbers include all forms of incidental take as defined pursuant to the ESA. Expected serious injuries and mortalities (termed mortalities in the table) are a sub-set of the total take numbers in Table 12.

Table 12. Amount and extent of take on individuals expected in the DGN fishery.

	Annual take	5-year take total	Expected mortalities ¹ during 5-year period
Fin whale	up to 1	up to 2	up to 1
Humpback whale	up to 2	up to 4	up to 2
Sperm whale	up to 2	up to 8	up to 6
Leatherback turtle	up to 3	up to 10	up to 7
Loggerhead turtle	up to 3	up to 7	up to 4
Olive ridley turtle	up to 1	up to 2	up to 1
Green turtle	up to 1	up to 2	up to 1

The interaction and mortality rates were estimated based on observed and reported takes in the DGN fishery from historical data that is considered to be consistent with the manner of current and future operation of this fishery, including the measures that have previously been implemented to avoid protected species interactions. As described previously in this Opinion, these interaction rates must be viewed in the context of less than 100 percent observer coverage of the DGN fishery. As a result, NMFS must interpret the record of observed interactions in relationship to the expected total incidental take anticipated in this Opinion. This Opinion acknowledges that there are underlying issues that could affect the reliability of estimating the anticipated bycatch in the entire fishery from observer data. However, NMFS has yet to identify any definitive gap in observer coverage that may be influencing or biasing bycatch estimates, and assumes that the observed record of interactions will be approximately proportional to the total impact of the prosecuted DGN fishery consistent with the proposed action. The proposed action indicates that NMFS will target an observer coverage level of 20 percent, with the

¹ Includes animals that may be determined to have experienced either serious injury or mortality as a result of interaction with the fishing gear. In addition, these levels are limited to those amounts authorized pursuant to section 101(a)(5) of the MMPA.

exception of the 2013-2014 fishing season where observer coverage rates will exceed 20 percent in accordance with the emergency rule. While it is unlikely that observer coverage will equal exactly 20 percent each year, NMFS expects this number to represent the general average over time, that is, in some years overall observer coverage levels may be slightly below or above 20 percent. As a result, NMFS expects the observer record to comply with the following anticipated incidental take (Table 13), which is proportionally consistent with the total incidental take and observer coverage levels described above.

Table 13. Amount of take of individuals expected to be documented by fisheries observer over a 5-year period in the DGN fishery given the anticipated observer coverage.

	Observed take during 5-year period
Fin whale	1
Humpback whale	1
Sperm whale	up to 2
Leatherback turtle	up to 2
Loggerhead turtle	up to 2
Olive ridley turtle	1
Green turtle	1

These numbers reflect the expected observed take (not limited to serious injuries or mortalities) based on the proportional assumption that 1 out of every 5 takes in the DGN would be expected to occur during observed fishing effort with approximately 20 percent observer coverage. Given the relatively low numbers of observed takes stipulated here and sporadic frequency of observed interactions, NMFS assumes that the expected observed take within a 5-year period for any and/or all of these species could occur within any one given season. This includes 2 observed takes in a season for sperm whales, leatherback and loggerhead sea turtles.

As discussed, these anticipated observed take levels are based on the proposed action of targeting 20 percent observer coverage. In order to monitor the effect of the DGN fishery, NMFS will rely on the realized observer coverage rates in relation to observed interactions with protected species. If actual observer coverage rates are significantly higher or lower than 20 percent, this could influence how NMFS interprets the effect of the DGN fishery on ESA-listed species against the anticipated effects considered in this Opinion. NMFS will continually assess the reports of observer coverage and observed interactions with ESA-listed species required by the terms and conditions of this Opinion and make those determinations as appropriate. Based on the proposed action and anticipated observer coverage of 20 percent (approximately 33 percent during the 2013-2014 fishing season), if more than one fin or humpback whale or more than one olive ridley or green turtle is observed taken in the DGN fishery in a 5-year period, NMFS is

likely to determine that the ITS for these species has been exceeded. Similarly, if more than two sperm whales or more than two leatherback or loggerhead sea turtles are observed taken in any 5-year period, NMFS is likely to determine that the ITS for these species has been exceeded. Finally, because more permanent measures to reduce the risk of bycatch of sperm whales are anticipated after the 2013-2014 fishing season concludes in January 2014 and the temporary emergency rule expires, NMFS expects that the bycatch of sperm whales by the CA thresher shark/swordfish DGN fishery (>14 inch mesh) will not increase. If more permanent sperm whale bycatch reduction measures are not put in place for the following fishing seasons, the take exemptions for serious injury or mortality for sperm whales of the MMPA section 101 (a)(5) permit and this ITS for marine mammals may lapse.

2. Effect of the Take

In the accompanying biological opinion, NMFS determined that this level of anticipated take is not likely to result in jeopardy to fin, humpback, or sperm whales; or leatherback, loggerhead, olive ridley, and green sea turtles.

3. Reasonable and Prudent Measures

NMFS believes the following reasonable and prudent measures, as implemented by the terms and conditions, are necessary and appropriate to minimize impacts to ESA-listed species considered in this opinion. The measures described below are non-discretionary, and must be undertaken by NMFS for the exemption in section 7(o)(2) to apply. If NMFS fails to adhere to the terms and conditions of the incidental take statement, the protective coverage of section 7(o)(2) may lapse. Thus, the following reasonable and prudent measures must be implemented to allow continued operation of the DGN fishery along the U.S. west coast.²

1. NMFS shall monitor the DGN fishery to ensure compliance with the regulatory and conservation measures included in the proposed action, including collection and evaluation of data on the capture, injury, and mortality of sea turtles, marine mammals, and other protected species, as well as life history information for species that may interact with the DGN fishery.
2. NMFS shall provide training to DGN fishery vessel operators and observers on sea turtle and marine mammal status and biology and on methods that may reduce injury or mortality during fishing operations.

4. Terms and Conditions

² The reasonable and prudent measures and associated terms and conditions in this Opinion are applicable only to the DGN fishery. The other HMS fisheries remain subject to the reasonable and prudent measures and associated terms and conditions of the 2004 Biological Opinion on the HMS FMP and the 2011 Biological Opinion on the deep-set longline fishery that remain in effect for all the other fisheries covered under the HMS FMP.

In order to be exempt from the prohibitions of Section 9 of the ESA, NMFS must comply or ensure compliance with the following terms and conditions, which implement the reasonable and prudent measures, described above, and apply to the proposed action. These terms and conditions are non-discretionary.

1. The following terms and conditions implement reasonable and prudent measure No. 1.

1A. NMFS shall continue to maintain an observer program to collect and disseminate data on the incidental take of marine mammals, sea turtles, and other protected species. Quarterly and annual reports summarizing protected species bycatch data collected for the DGN fishery shall be prepared and disseminated to the Southwest Region Protected Resources Division. Annual reports from each fishing season should be submitted to PRD by April 1st each year. Information on any ESA-listed species bycatch shall be reported as soon as possible after verification of report to the PRD and the Office of Law Enforcement, including species, condition, date of interaction, and location. A copy of the observer report shall be provided to both offices, following review by SFD staff.

1B. NMFS shall continue to collect life history information on marine mammals and sea turtles, including species identification, measurements, condition, skin biopsy samples, and the presence or absence of tags. If feasible, NMFS observers shall directly measure or visually estimate tail length on all sea turtles captured by DGN gear.

1C. NMFS collected data and other available information shall be submitted to PRD upon receipt of any reports of ESA-listed species interactions to determine whether observed or estimated takes of ESA-listed sea turtles and/or marine mammals has exceeded the level of anticipated take over the course of one fishing season, and/or over the course of the most recent last 5-year period, as described in Table 12 and 13 in the *Incidental Take Statement*. SFD will also review the annual report of protected species bycatch and confer with PRD on the current status of protected species and any management concerns prior to beginning of the fishing season May 1.

1D. NMFS shall evaluate the need and/or feasibility of modifying the existing observer coverage targets or implementing additional measures in the DGN fishery to produce more reliable estimates of protected species interactions that are scientifically defensible. This assessment should focus on the precision and uncertainty of existing observer coverage targets relative to current protected species interaction rates, and the relative benefits and short comings of other observer coverage levels. This assessment shall be completed by May 1, 2014. SFD will confer with PRD on the results of this assessment and shall initiate implementation of any necessary and feasible measures identified by this assessment by August 14, 2014.

1E. NMFS shall establish a vessel monitoring system (VMS) program in the DGN fishery by August 14, 2015. The VMS program should provide NMFS and OLE the ability to monitor compliance with time/area closures such as the PLCA, provide OLE the opportunity to deploy enforcement personnel to inspect vessels for compliance with take reductions measures such as proper use of pingers, provide NMFS an opportunity to deploy observers to monitor catch in alternative platform, and provide NMFS the ability to more closely examine and compare the distribution of observed and unobserved fishing effort. This data will be used to inform the assumption that observed and unobserved vessels have similar exposure to protected species, and similar bycatch rates.

1F. NMFS will evaluate the usefulness and feasibility of implementing additional measures or actions, such as electronic monitoring of fishing effort or instituting alternative observer platforms, to ensure the DGN fishery is accurately monitored and compliant with the existing regulatory requirements implemented to minimize the incidental take of ESA-listed species identified in the proposed action. This assessment should focus on improved coverage of fishing effort that might otherwise be unobserved or unobservable under the current fishery observer program. This assessment shall be completed by December 31, 2014, in coordination with the PFMC, if necessary, and any additional NMFS guidance on implementation of electronic monitoring programs that may be issued by the NMFS Office of Policy prior to completion of this assessment. SFD will confer with PRD on the results of this assessment and shall initiate implementation of any useful and feasible measures identified by this assessment in consultation with the PFMC and any additional national NMFS guidance, as necessary, by May 1, 2015.

2. The following terms and conditions implement reasonable and prudent measure No. 2.

2A. NMFS shall continue to provide DGN skipper education workshops, required for skippers of DGN vessels upon notification from NMFS as described in 50 CFR 229.31(d), with a module on sea turtle handling, resuscitation, and release requirements, as outlined in 50 CFR § 223.206(d)(1), as well as appropriate handling and release procedures for marine mammals.

2B. NMFS shall also include in skipper education workshops a module of information on sea turtle biology and methods to avoid and minimize sea turtle impacts.

2C. NMFS shall continue to produce a pamphlet describing sea turtle species, biology, and recommended techniques for releasing and resuscitating incidentally captured sea turtles that will be distributed during skipper training workshops.