

## ISSUE NUMBER 2 - ESTABLISH FORMAL PROCEDURES FOR CONSIDERING WEATHER-RELATED VESSEL SAFETY

P.L. 99-659, enacted in November 1986, requires, among several things, that FMPs and amendments submitted to the Secretary of Commerce by the Councils after January 1, 1987 consider, and may provide for, temporary adjustments, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safety of the vessels. Consultation with the U.S. Coast Guard and persons utilizing the fishery is required.

### Background

#### Introduction

P.L. 99-659 requires the RFMCs to consider, and if needed, provide for temporary adjustments (after consultation with the U.S. Coast Guard and persons utilizing the fishery) regarding access to a fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions adversely affecting the safety of the vessels. The RFMCs have always been free to consider the vessel/crew safety implications of alternative and recommended management measures. The available legislative history for P.L. 99-659 indicates that this additional required FMP element reflects specific recognition of safety problems which have arisen in certain fisheries where the RFMCs established fishery access rules or regulations on a strict, time-limited, or another similar basis. Regulations in certain fisheries (e.g., east coast surf clam or west coast halibut) have led to highly competitive fisheries which encourage fishermen to take risks they might ordinarily not take, such as fishing under adverse weather conditions, fishing in areas of extreme vessel congestion, or even overloading of vessels.

#### Purpose of this Discussion

The purpose of this section is to meet the requirement of P.L. 99-659 that any FMP or new amendment contain a "required provision" which considers, and may provide for, temporary adjustments regarding vessel access to the fishery for vessels prevented from harvesting because of weather or ocean conditions affecting vessel safety. This section will summarize vessel safety issues relevant to the existing management measures of the FMP, as well as to the measures of Amendment 3.

#### Interim NMFS Guidance for Fulfilling the New Section 303 (a)(6) Requirement

NMFS guidance to the RFMCs is fairly general regarding the newly required safety-consideration provision in FMPs/amendments. NMFS indicates that it is important for the RFMCs to use all available expertise when considering safety issues. Individual RFMCs are to develop their own mechanism for this requirement. In all cases, however, NMFS indicates that the assigned U.S. Coast Guard representative will provide technical assistance in evaluating the Council's recommended alternative management measures for their effects on safety, particularly with regard to adverse weather and oceanic conditions. This evaluation is to include the identification of (1) safety concerns caused by a particular management approach, (2) suggested alternatives to minimize safety problems, and (3) mechanisms that allow for flexible modification of

management limitations in response to safety and weather concerns. The interim guidance directs that U.S. Coast Guard comments on safety will be included as a separate and independent document in the FMP package forwarded to the Secretary of Commerce for approval. If the Council disagrees with a U.S. Coast Guard evaluation of safety issues, it may choose to address the issues, modify the FMP/amendment, request the U.S. Coast Guard to reconsider the points, or submit the FMP/amendment without further comments. In the case of inseason management under framework FMPs, the U.S. Coast Guard will be available for consultation as needed.

## FMP Measures--Relation to Vessel Safety

### Review of Existing Information

A recent study has identified a few vessel safety issues associated with the west coast groundfish fishery. In 1985, the NCFVSI, under a Saltonstall-Kennedy grant, examined the effects of fishery management regulations and techniques on the safety of commercial fishing operations. The study's purpose was to develop recommendations for alternative management techniques which might help address vessel and crew safety concerns while maintaining the overall management objectives for a specific fishery. The NCFVSI awarded a subcontract to NRC in Seattle, Washington to conduct the research on the west coast.

After 60 formal interviews and more than 100 informal discussions with Alaska, Washington, Oregon, and California fishermen, vessel owners, captains, and federal and state fishery managers, NRC reported that industry members typically did not raise strong objections to west coast groundfish management regulations on the basis of vessel/crew safety. Some points of concern, however, were raised over trip limit regulations under the FMP, particularly for the more stormy winter season.

The referenced trip limit regulations apply specifically to widow rockfish and the "Sebastes complex" of rockfish. Since 1984, the Council has used trip poundage limits, coupled with trip frequency limits, for these species (species group) to reduce fleet landing rates and spread the fishery out over the year. At industry request, the Council provided the fishermen options for certain trip limits so they could choose, at any time during the year, between weekly or biweekly limits. Those who favored these options over a single weekly limit indicated that the flexible choice provided better opportunity to catch their trip limit and avoid risky weather or ocean conditions. The Council eliminated the flexible trip limits for widow rockfish landings in 1985 as a means of slowing overall landing rates, preventing a fishery closure, and resolving certain marketing problems associated with the biweekly limit. The Council considered the safety implications of this change, particularly when it decided not to adopt the widow rockfish biweekly option for the beginning of the 1986 and 1987 fishing seasons (a time of year when the weather is poor). The final Council decision was based on balancing the need for flexibility in landing restrictions with the overall management objective of extending the fishery throughout the year and with processor needs for a certain product flow. It was noted by the Council that the biweekly option favored larger vessels, many of which are available (and large enough) to fish in the early season bad weather; many of these vessels are involved in joint ventures later in the year. The trip limit flexibility for

the Sebastes complex was expanded to a choice of three options (i.e., one trip per week, one per two weeks, and two per one week). Since excessive landing rates and marketing problems were not a serious issue, the fishing community, including the harvesters and processors, has supported this arrangement and acknowledged the safety benefit of being able to minimize fishing risks when conditions are marginally or clearly not safe.

Generally, the interview summaries in the NCFVSI report suggested that major unresolved safety issues do not remain in the groundfish fishery and the Council has responsibly considered safety issues. There appears to be user recognition and acceptance of the need for trip limits. However, some opponents point out that inflexible limits may encourage fishermen to take risks in poor weather simply to avoid losing one or several trip's catch. Some fishermen interviewed advocated starting the groundfish fishery season later than January 1 because then the season beginning would coincide with better weather. No one argued or presented evidence that the present season, based upon a calendar year, has caused fishermen to take unreasonable risks. Other factors, including market prices, timing of joint venture fishing, and processor requirements have been considered by the Council in setting a season opening date.

The NCFVSI report makes several general observations regarding fishing vessel safety in relation to management approaches. Many "open fisheries," such as the groundfish fishery, where regulations do not limit the number of participating vessels nor establish vessel size categories with individual quotas or allocations, have become overcapitalized--the number of vessels fishing is in excess of the fleet size required to catch the annual quota. These circumstances have resulted in shortened seasons and competitive fisheries where the larger number of fishing units "compete" for proportionately smaller shares of the catch quota. A business environment is stimulated which rewards hard work and innovative fishing methods which improve harvesting efficiency and reduce costs. These competitive benefits may arguably outweigh safety considerations by vessel operators and marginal or poor weather conditions may take second place to the rush to catch limited harvest quotas. Several safety related issues are associated with these fishery conditions. Vessels of widely differing size, seaworthiness, and economic requirements all compete against each other. Management regulations establishing seasons and opening dates do not necessarily resolve the problem of inequitable operational capacities of these vessels. Weather conditions prevailing at a season opening may be safe for larger or more seaworthy vessels, while presenting hazardous or life-threatening conditions to smaller or less seaworthy vessels. This "big boat-small boat" conflict is not easily resolved and any trip limits established usually represent a compromise between big boat and small boat interests.

NCFVSI also points out that most management systems established by the RFMCs are characterized by catch quotas, season and area restrictions, and inseason closures and/or trip limits which restrict either or both the tonnage of fish landed or the landing frequency. Intensified by increasing numbers of vessels, and often by a cyclical catch quota, these types of management measures tend to foster "derby fisheries." Directly or indirectly, most owner or skipper concerns for vessel or crew safety center around derby fisheries and associated inflexible regulations. NCFVSI concludes that the relationship between fisheries management and vessel safety is more complex than initially

appears. Attempts to legislate safety (i.e., recent MFCMA amendment) must strike a reasonable balance between addressing safety concerns and preserving the Council's ability to pursue legitimate conservation and allocation objectives.

It should be noted that the federal groundfish fishery off Washington, Oregon, and California is not regulated by specific seasons (although a fishery is closed when the quota is reached) and only six of the more than 80 species covered by the FMP are managed by quota. Of these, only three species are highly desirable to the shore-based fleet. Pacific ocean perch may be landed only at incidental levels which does not encourage a rush to take the quota. Sablefish currently is allocated between gear types which minimizes at-sea competition between the user groups. Finally, widow rockfish is managed by trip frequency limits which slow landings but give fishermen a choice of when in a given week they would like to fish.

The Council generally agrees with the NCFVSI assessment of safety issues in the groundfish fishery, and also with its recognition that certain types of necessary fishing regulations do not allow for much flexibility in addressing vessel safety concerns without adversely affecting management or conservation objectives. To the extent that quotas are large enough and seasons long enough, fishermen can choose to stay ashore in inclement weather and await better fishing conditions to harvest their allowable catch. It is difficult, if not impossible, to anticipate major adverse weather or ocean conditions during the preseason, measure-setting process. Average weather patterns and existing or predicted unusual ocean conditions, such as an "El Nino," are considered by the Council in establishing preseason management measures. Unusual ocean conditions also affect preseason resource assessment predictions of stock abundance which are a basis for management decisions.

The other recent study of safety implications of FMPs was conducted in 1985 by the CRS and involved a national survey to identify perceptions of safety problems resulting from FMP provisions. Some 80 marine advisory specialists and agents under the National Sea Grant College Program were questioned. Only one comment was received regarding safety and the west coast groundfish fishery--it indicated that the use of weekly catch quotas has caused trawlers to fish in very bad weather in order to get their "weekly quota." The commenter argued that a monthly quota would be more logical and much safer because the trawlers could wait out bad weather periods (lasting up to two weeks) and pick a calm period to harvest the monthly quota. The CRS study makes the general point that competition in any form may cause harvesters to ignore safety precautions, or to take risks, if they believe it is necessary to maintain or increase profits. Since almost all regulatory systems encourage competition among harvesters, such systems contribute to the potential for unsafe fishing operations. The CRS study indicates that four regulatory situations, imposed by the RFMCs, were identified by survey respondents as those contributing to unsafe fishing operations: (1) severely restricted fishing time (seasons), (2) intense harvesting effort concentrated in limited areas, (3) season closures in certain areas while adjacent areas remain open, and (4) catch quotas assigned to short time periods. In general, these conditions no longer apply to the west coast groundfish fishery since the fishery is distributed over wide areas and usually over the entire season. CRS indicates that respondents identified the fourth condition as applying to the groundfish fishery.

CRS concludes that harvester competition can be substantially reduced or eliminated by only a few regulatory regimes, such as those employing a form of limited access based upon guaranteed harvest shares or individual harvester quotas. Such management systems are more likely to allow fishermen to fish when and where they choose within the conservation limits imposed to protect the resource; a fisherman would be more inclined to remain ashore during risky weather since his share of the resource is still available for harvest. The Council is presently considering the suitability of some form of limited entry system for the fishery.

It should be acknowledged that fishing is, by its nature, an inherently dangerous business. Safety equipment and procedures seem hardly adequate to deal with emergency situations under the best of circumstances. Statistics indicate that fishing is one of the most dangerous occupations in the U.S. The U.S. Coast Guard provided information at 1986 Congressional hearings concerning fishing vessel insurance problems which show that loss rates of large fishing vessels (over 100 gross tons) are five to seven times as great as for U.S. ocean going cargo ships and the death rate for fishermen is seven times the national average for all industrial groups. Between 1981 and 1984, an average of 84 fishermen's lives were lost each year.

Safety during fishing operations, as in any activity, is a compromise between a number of competing interests. The decision as to an acceptable level of safety frequently changes, being reconsidered constantly by the vessel owner or master and revised as circumstances require. In addition to weather and ocean conditions, these circumstances are likely to include factors such as vessel condition and size, product quality and marketing considerations, and financial conditions. Business decisions based principally on profit and loss may possibly override the risk of hazardous weather or seas.

Finally, it is noted that the industry is virtually free from any government inspection and safety regulation. The U.S. Coast Guard has developed voluntary vessel standards and a safety awareness and educational program. The work has been conducted in a cooperative atmosphere with fishing industry groups around the country. While the U.S. Coast Guard's goal has been to reduce the number of major vessel casualties, the increased emphasis on safety has had a positive impact on prevention of minor accidents and injuries as well. One of the difficulties with a completely voluntary program, however, is that while there is a general improvement in safety, specific vessels may continue to operate without even the most fundamental safeguards. Efforts at reducing the frequency and severity of fishing vessel accidents are desirable not only for humanitarian purposes, but also make good economic sense. Accidents resulting in loss of life or property have obvious costs. Accidents resulting in unplanned returns to port for emergency medical treatment of injured crew also cost money in terms of foregone fishing time and added fuel consumption. The poor safety record of the commercial fishing industry has, in some part, contributed to the high cost of vessel insurance and unavailability or loss of coverage.

#### Previous Council Considerations of Vessel Safety

The Council believes that it has adequately considered vessel safety issues in its previous formulation of alternative FMP and amendment management measures and in the selection of preferred measures. Certain past management changes

were taken by the Council with vessel and crew safety as important considerations. Management adjustment flexibility has been incorporated into the system where the Council thought it appropriate and consistent with the FMP objectives. For example, alternative trip limits were added for certain species; this has had safety-related benefits in giving fishermen greater choice in how or when they take a trip's catch limit. The Council has used its GAP (consisting of representatives of diverse industry sectors), and particularly its Groundfish Select Group (composed of industry, state, NMFS, and Council representatives) to identify, and propose solutions to, significant management issues. Furthermore, the Council has established an Enforcement Consultants group (state and federal enforcement agents and U.S. Coast Guard representatives) which considers compliance and safety issues. Specific examples of consideration of safety issues follow.

1. **Establishment of Trip Limits** - This subject was discussed earlier concerning the results of the NCFVSI study. The principal purpose of trip limits established by the Council for the Sebastes complex, widow rockfish, Pacific ocean perch, and sablefish has been to extend fishing throughout the season--to prevent exceeding the OY or harvest guidelines before year-end and avoid fishery closures. This race for the quota encouraged some smaller boats to begin fishing in the winter under weather conditions marginal for them. Where industry was concerned about lost fishing days or opportunities to catch each trip limit, the Council has attempted to provide reasonable flexibility by imposing trip frequency limits in conjunction with trip poundage limits; simply, a fisherman may be limited to one trip per week, but he may choose which days he fishes. Further flexibility is provided by the option to land once every two weeks in the Sebastes fishery which enables vessels to avoid extremely bad weather conditions. (The biweekly trip limit option for widow rockfish was eliminated in 1985 because it contributed to higher than desired landing rates, tended to favor the larger vessels, and posed certain marketing problems for processors.)
2. **Fixed Gear Versus Mobile Gear Conflicts--Gear Marking Requirements** - The original FMP required that trap and longline fishermen mark each mile of groundline with a pole and flag and either a light or radar reflector. These requirements were imposed to prevent longline entanglements with other gear (such as with mobile gear including bottom and shrimp trawls) by marking the longline location. In response to user testimony regarding the safety, among other reasons, of the one-mile markers, the Council reconsidered its gear marking requirements. Fixed-gear fishermen indicated that marking each mile of groundline could be dangerous, especially when fishing in deep water. As the longline gear is retrieved from one end, the mile-marker and marker line drift free and may present a hazard to the propeller of the fishing vessel. A mile-line marker could easily be 3,000 to 8,000 feet long. Smaller vessels also may have too little deck space to hold additional cable without it being in the way of crew hauling in gear. Based in part on safety considerations, the Council chose to revise its regulations and require markers on both ends of a groundline but not each intermediate mile.

3. **Starting Date for the Fishing Year** - The FMP currently manages all groundfish on a calendar year basis, with new OYs and associated quotas and harvest guidelines effective in January each year. Over recent years, certain fishery segments, particularly the fixed gear sablefish fishermen, have advocated changing the opening and closing dates for the groundfish fishery to April 1 through March 31. Expressed reasons for this proposal included the avoidance of closures at economically disadvantageous times, greater protection for spawning fish, and increased likelihood of closures in the January through March period (when weather is bad) because this would become the "end" of the year. The Council chose not to change the fishing year in its first amendment to the FMP partly because the authority already existed to close the sablefish fishery in January through March for resource conservation reasons. In fact, by applying allocations to fixed and trawl gear in 1987 to slow the achievement of OY (and reduce the catch of incidental sablefish after the OY is reached), the fixed gear fleet did not feel the need to compete against the trawl fleet early in the year. As a result, fixed gear fishermen who earlier were concerned about operating in January through March did not fish during these months because they knew their share could not be taken by trawlers.

Safety Related Statistics on Fishing Vessel Casualties and Personal Injuries/Lives Lost in the West Coast Groundfish Fishery; Related Weather Information

1. **General** - Weather and ocean conditions are important safety factors in west coast fishing operations. Operations are primarily from coastal ports which have potentially hazardous bar crossings, and fishing grounds are in ocean waters primarily 3 to 50 miles offshore. Catches are brought aboard, iced in the holds and routinely delivered to shorebased processors within three days of capture. Wind and sea state conditions can be dangerous and bar conditions extremely hazardous, but icing conditions almost never exist, even during winter. Numerous marine advisories are issued by the National Weather Service each year. Information on the number of days per month in which small craft advisories, rough bar advisories, and gale warnings were posted off Washington for the April through October period (1977-1981 and 1985) is presented in Table 1.

The U.S. Coast Guard maintains a vessel casualty file compiled from reports of casualties and accidents submitted to the U.S. Coast Guard by vessel owners and operators. These reports are required to be submitted to the U.S. Coast Guard by 46 Code of Federal Regulations, Part 4. A U.S. Coast Guard review of U.S. commercial fishing fleet casualties from 1970-1983, concentrating on cases involving total loss of the vessel and deaths due to vessel loss or damage, provides the following observations.

- ° The causes or categories of casualties were described as collision, fires and explosion, grounding, flounder-flooding-capsizing, weather damage, material failure, and other.

Table 1. Number of days per season in which small craft advisories, rough bar advisories, and gale warnings were posted on the Washington coast, 1977-1981 and 1985.

|                        | April | May  | June | July | August | September | October |
|------------------------|-------|------|------|------|--------|-----------|---------|
| 1977                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 14    | 12   | 4    | 0    | 7      | 12        | 6       |
| Rough Bar Advisories   | 0     | 0    | 0    | 0    | 0      | 0         | 0       |
| Gale Warnings          | 0     | 2    | 0    | 0    | 0      | 0         | 9       |
| 1978                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 14    | 12   | 1    | 0    | 5      | 18        | 10      |
| Rough Bar Advisories   | 0     | 0    | 0    | 3    | 3      | 0         | 0       |
| Gale Warnings          | 1     | 1    | 0    | 0    | 0      | 2         | 4       |
| 1979                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 8     | 7    | 3    | 6    | 2      | 8         | 15      |
| Rough Bar Advisories   | 0     | 0    | 0    | 0    | 0      | 0         | 0       |
| Gale Warnings          | 1     | 1    | 0    | 0    | 0      | 2         | 4       |
| 1980                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 17    | 11   | 7    | 5    | 7      | 8         | 17      |
| Rough Bar Advisories   | 0     | 0    | 3    | 5    | 1      | 0         | 0       |
| Gale Warnings          | 4     | 0    | 0    | 0    | 0      | 2         | 0       |
| 1981                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 15    | 6    | 13   | 3    | 4      | 15        | 9       |
| Rough Bar Advisories   | 0     | 0    | 4    | 3    | 0      | 0         | 0       |
| Gale Warnings          | 1     | 0    | 0    | 0    | 0      | 2         | 5       |
| 1985                   |       |      |      |      |        |           |         |
| Small Craft Advisories | 19    | 15   | 20   | 4    | 8      | 14        | 15      |
| Rough Bar Advisories   | 5     | 0    | 0    | 3    | 11     | 0         | 0       |
| Gale Warnings          | 2     | 0    | 0    | 0    | 0      | 2         | 9       |
| Average                |       |      |      |      |        |           |         |
| Small Craft Advisories | 14.5  | 10.5 | 8    | 3    | 5.5    | 12.5      | 12      |
| Rough Bar Advisories   | 0.8   | 0    | 1.2  | 2.3  | 2.5    | 0         | 0       |
| Gale Warnings          | 1.5   | 0.7  | 0    | 0    | 0      | 1.7       | 5.2     |

Source: For 1977-1981 data: "Proposed FMP for Managing the 1982 Salmon Fisheries Off the Coasts of California, Oregon, and Washington," Council. May 1982.

For 1985 data: Unpublished National Weather Service messages.

Note: Small craft advisories are issued when sustained winds are from 21 to 34 knots; gale warnings are issued when sustained winds are over 34 knots; and rough bar advisories are issued when waves are breaking or are over 10 feet high.



- The casualty rate for fishing vessels declined from 11.0 lost per 1,000 in 1970 to 6.0 lost per 1,000 in 1980. This improvement did not continue from 1981-1983.
  - The material used for vessel construction and the vessel's age affect the loss rates. Fiberglass hulled vessels showed a lower loss rate; as age increases so does the loss rate until some age point is reached at which point the loss rate begins to decline.
  - Vessels less than 65 feet in length demonstrated significantly lower loss rates than those in the 65 to 100 feet and greater than 100 feet categories.
  - Among various causes noted in reviewing casualties, human failure stood out. Such failures include (1) poor watchkeeping practices; (2) navigational errors and rules of the road violations; and (3) lack of understanding of the various forces acting on the vessel, especially as concerns the vessel stability. The human factor plays a role even where the direct casualty cause was equipment failure or bad weather. Required or prudent maintenance may not have been done, or vessel cleanliness was not maintained and led to fire. Poor judgment may have been exercised as to when and where to go fishing.
  - Floodings, flounderings, and capsizings present a much greater threat to crew lives and vessel safety than other causes. Of particular concern is the apparent little appreciation by many vessel operators for the number of at-sea hazards, which can seriously reduce vessel stability. The elimination of casualties in these categories depends on the vessel owners and operators: crews must be trained properly, vessels must be equipped and maintained properly, and fishing trips and operations must be conducted safely. Careful risk management is crucial for business success, not to mention survival.
2. **West Coast Groundfish Fishery** - Exact and comprehensive data on the number and extent of at-sea vessel accidents in the west coast groundfish fishery is unknown. U.S. Coast Guard data indicate that out of some 20 U.S. fishing areas, and for the 1972-1979 period, the Pacific Northwest (Washington and Oregon) was third, southern California fourth, and northern California fifth in the number of documented commercial fishing vessels lost at sea (similar order of magnitudes existed for lives lost). U.S. Coast Guard data does not usually specify in which fishery a vessel was participating, but some casualty reports do note the type of fishing or gear used.

The Council has obtained information from U.S. Coast Guard Headquarters on documented commercial vessel casualties (vessels lost and damaged) and crew deaths for territorial and internal waters of, and the EEZ off, California, Oregon, and Washington (for the period 1981-1986) the cause was attributed to adverse weather conditions or where weather was considered a primary or secondary contributing factor. Data were also obtained on all fishing vessel casualties irrespective of the cause. The U.S. Coast Guard data specify vessel

name, event date and location, value of total loss or damages, crew deaths, and sea and weather conditions each reported casualty during the six-year period. An initial review of the data shows the following.

- ° Between 1981 and 1986 inclusive, there were reported 51 documented commercial fishing vessels lost at sea, 38 vessels sustaining measurable damage which affected seaworthiness, and 38 lives lost where adverse weather was considered the cause or primary or secondary contributing factor. Refer to Table 2.
- ° On the average, for the entire coast, the number of fishing vessel casualties per month (combined number of vessels totally lost or damaged with seaworthiness affected), attributed by the U.S. Coast Guard to **all causes**, appeared significantly higher during a period from May through August. The number of vessels lost per month did not evidence a clear peak, but was generally lower from January through April and higher from May through December. Refer to Figure 1.
- ° On the average, for the entire coast, monthly fishing vessel casualties (combined number of vessels lost or damaged) attributed by the U.S. Coast Guard to weather as the cause or primary contributing factor, appeared to vary reasonably closely about a mean value from January through October, but rose sharply in November and December. The number of vessels damaged per month was lowest in January and February and rose some (with fluctuations) over the season with a sharp peak in November. The number of vessels lost per month appeared to fluctuate reasonably closely about a mean value from February through October, but peaked sharply in November; December was a high incidence month as was January (although to a lesser degree). Refer to Figure 2.

### Options

The Council reviewed two options for fulfilling the safety-related requirements of P.L. 99-659 and interim NMFS guidance. Both alternatives consider temporary regulatory adjustments for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting vessel safety. P.L. 99-659 requires that any such adjustments be based upon consultation with the U.S. Coast Guard and persons utilizing the fishery.

#### Option 1 - Status Quo (No Regulatory Changes Needed)

Present FMP regulations require public comment and consultation with the Council before pre-season or in-season management actions are implemented (except for closures which must occur when quotas are reached). The U.S. Coast Guard is represented on the Council and, therefore, as required by P.L. 99-659, comments on proposed management measures as it sees fit. In addition, the U.S. Coast Guard participates in the Council's Enforcement Consultants group and so has another opportunity to raise or comment on safety concerns. U.S. Coast Guard comments are part of the NMFS' publicly available administrative record and written comments on an FMP or amendment are formally

Table 2. Reported vessel casualties; 1981-1986; documented commercial fishing vessels; vessels lost or damaged with seaworthiness affected and crew deaths; internal and territorial waters of, and EEZ off, California, Oregon, and Washington; weather primary cause or first or second contributing factor.

|                                       | Vessels<br>Lost | Vessels<br>Damaged | Crew<br>Deaths |
|---------------------------------------|-----------------|--------------------|----------------|
| Weather-Primary Cause                 | 24              | 11                 | 12             |
| Weather-First<br>Contributing Factor  | 21              | 18                 | 19             |
| Weather-Second<br>Contributing Factor | 6               | 9                  | 7              |
| Totals                                | 51              | 38                 | 38             |

Data Source: Marine Safety Evaluation Branch, U.S. Coast Guard Headquarters

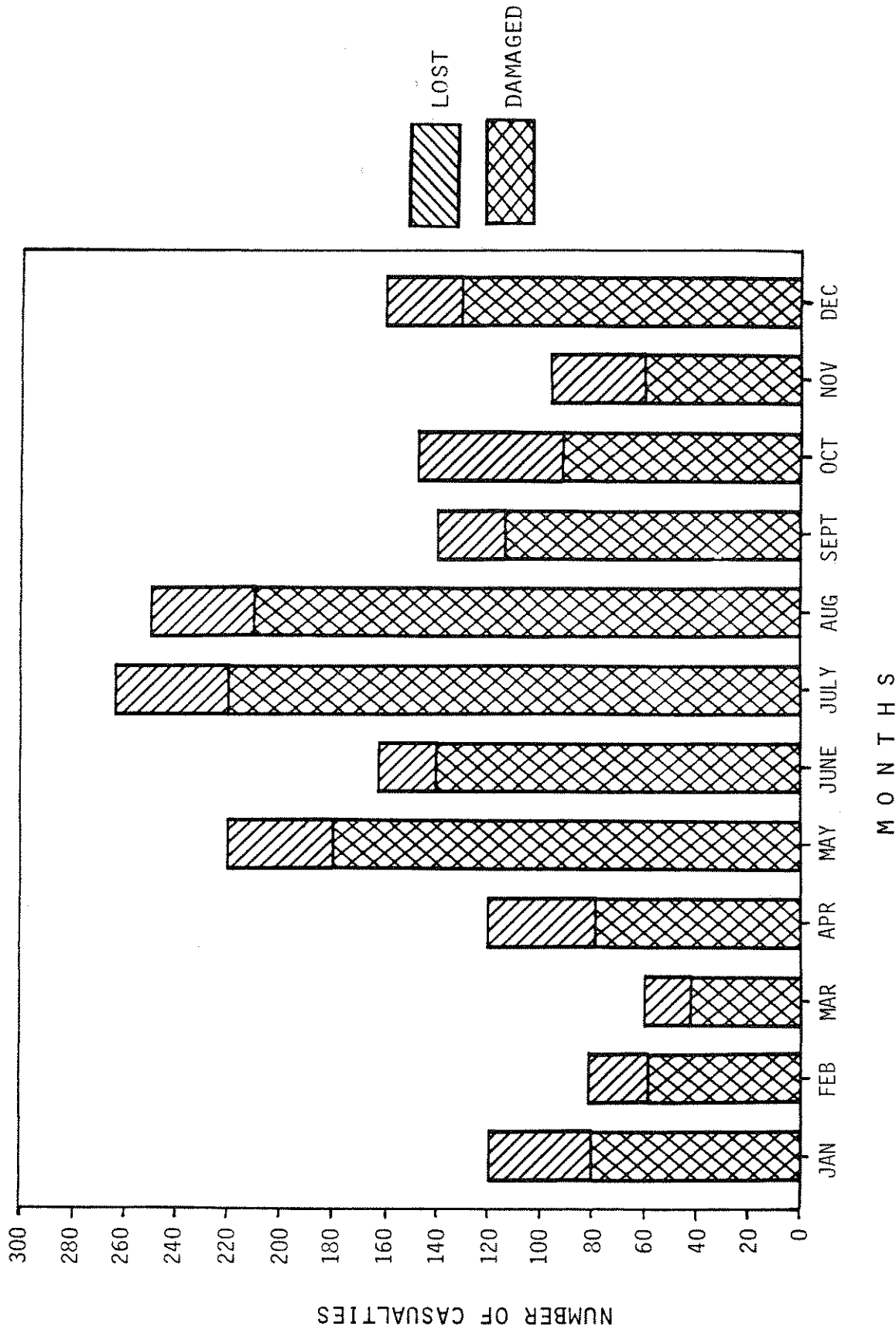


Figure 1. Total number of vessel casualties--vessels lost or damaged, all causes; California, Oregon, and Washington, 1981-1986, by months. Data Source: U.S. Coast Guard Headquarters.

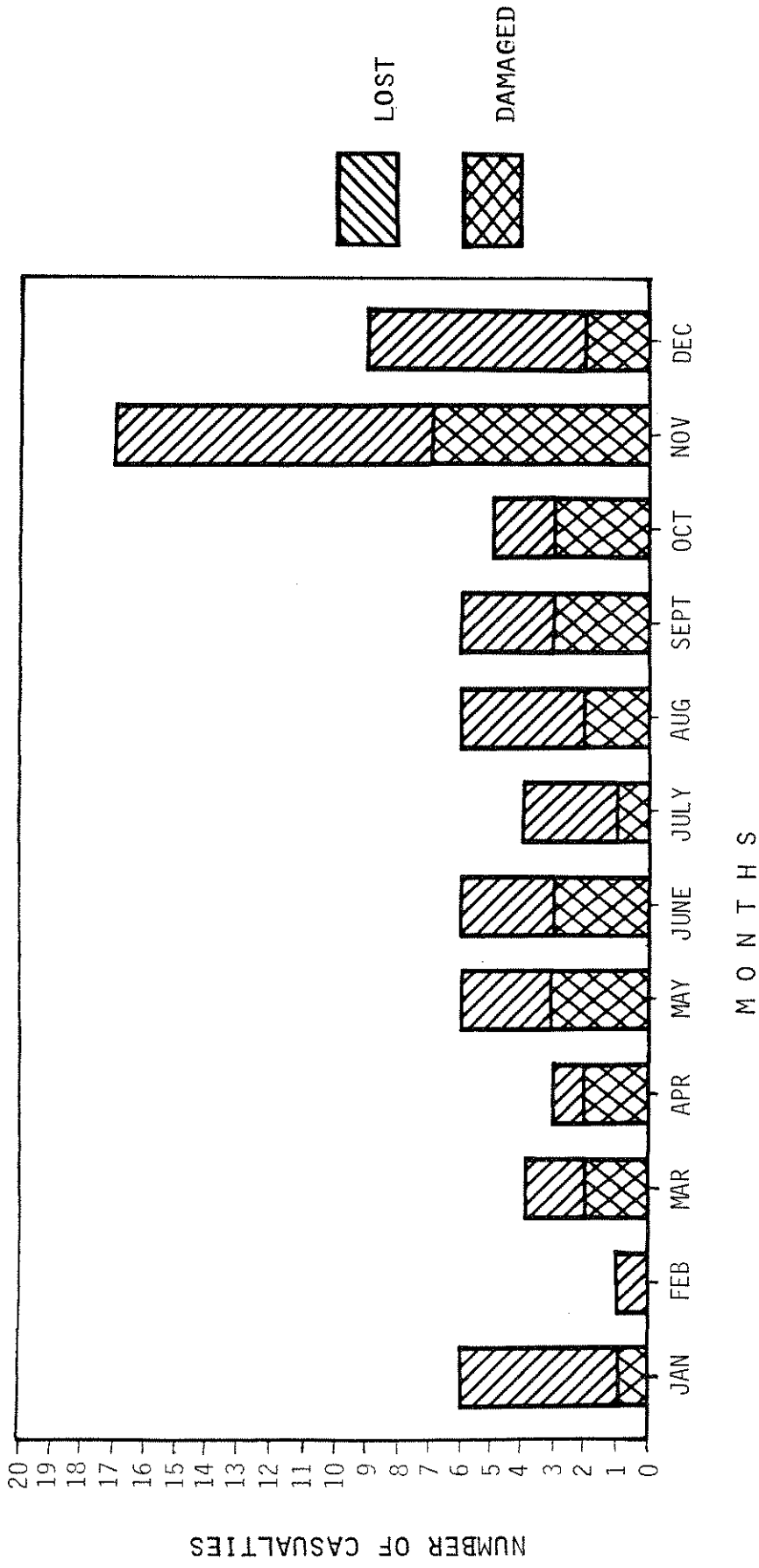


Figure 2. Total number of vessel casualties due to weather--vessels lost or damaged; California, Oregon, and Washington, 1981-1986, by months.  
 Data Source: U.S. Coast Guard Headquarters.

considered and submitted for Secretarial review. In addition, NEPA requires consideration of relevant safety issues in preparation of an EA of an FMP or amendment. Therefore, relevant safety issues already are considered in the current decision-making process and the U.S. Coast Guard is consulted on these issues as required by current FMP and NEPA regulations.

No procedure has been formalized requiring the regional director specifically to consider providing access to the fishery for vessels which could not go fishing because of weather or oceanic conditions. However, if vessels do not go fishing, quotas are not met, and the regional director may liberalize fishing restrictions so the harvest goal may be reached. It should be noted that trip limits are based on the assumption that each vessel will not take the available limit due to bad weather or vessel repair. If each vessel were guaranteed the limit, poundage amounts would have to be significantly lower than current levels. The industry has been involved in these choices, particularly when discussing the merits of individual vessel or monthly quotas, and the current trip limit strategy has resulted at the request of most industry representatives.

Finally, where significant vessel safety issues have risen (e.g., been expressed by fishery users), the Council has discussed whether such issues were amenable to a regulatory solution, and if so, has taken appropriate and reasonable action to address the identified problems. The conclusions of the NCFVSI study support this finding. Any significant or measurable safety impacts of proposed management measures were discussed by the Council in reaching its final decisions and public views were invited. The Council's consideration of any safety issues and relevant public comment has consistently been reflected in final amendment documents submitted to the Secretary of Commerce. Under the status quo option, this approach to considering safety issues would continue.

#### Option 2 - Required Consideration of Safety Conditions in Adjustments to Management Measures

Option 2 would formalize by regulation the current procedure of consulting with the U.S. Coast Guard on safety impacts of alternative management measures. In doing so, weather and oceanic conditions would be specified at 50 CFR 663.22 as one of the factors to be considered when making adjustments to management measures. Also, the U.S. Coast Guard would be explicitly mentioned as a consultant, and the authority of the regional director would be more clearly stated for adjusting management measures so that harvest goals may be reached.

Consideration of weather and oceanic conditions could be appropriate when the management action would affect the timing or length of a season, the areas open or closed to fishing or the amount or frequency of a trip limit. Weather and oceanic conditions are expected to have no bearing on other management adjustments such as size, bag, or gear limitations.

#### Impacts

Interim guidance from NMFS specifies that all FMPs and amendments submitted after January 1, 1987 must contain provisions for evaluating the safety implications of recommended management alternatives, particularly with regard

to adverse weather and temporary adjustments to fishery access due to unsafe weather or oceanic conditions. This should include the identification of safety concerns caused by a particular approach, suggested alternatives to minimize safety problems, and mechanisms that allow for flexible modification of specified management limitations. Failure to include these provisions is grounds for disapproval of the amendment. However, both the Council and NCFVSI (in its report) believe that major unresolved safety issues do not exist in the Washington, Oregon, and California groundfish fishery and vessel safety and access considerations have been fully and appropriately addressed under current management procedures (Option 1). The U.S. Coast Guard and industry representatives are involved at both the Council and advisory committee levels in the decision-making process. Regarding vessel access, the trip limits currently in effect already are based on the fact that some vessels will not be fishing due to bad weather (or breakdowns); accordingly trip limits are higher than they otherwise would be if vessels were guaranteed the limit of fish. Inclusion of this vessel safety discussion in the amendment is primarily to clarify current procedures and to ensure that the amendment is in conformance with the MFCMA.

Option 2 puts current practice into regulatory language. Since the domestic groundfish fishery is not managed by seasons (except when OY is reached) and management is either coastwide or by the large International North Pacific Fisheries Commission statistical areas, there is little that realistically would be changed by imposing these additional regulations. Trip limits or other management measures still will be adjusted so that the quota or harvest guideline may be reached, thus responding to low catch rates due to poor weather. No substantive change is expected in the behavior of the groundfish fishery under any of the alternatives, nor are any biological or physical impacts expected. The amount and kind of fishing mortality imposed on groundfish and non-groundfish species will likely remain unchanged.

#### Impacts on Fishermen

No change in access of fishermen to the resource is anticipated under either of the options because currently the fishing season generally lasts the entire year (with occasional exceptions such as the fixed gear sablefish fishery). If fishing opportunities must be restricted due to reduction in the resource or increase in the number of fishermen, the potential for reduced access due to weather could become more important. However, such restrictive measures undoubtedly would result in other more serious disruptive impacts on the fishery than those caused by bad weather.

It is highly questionable whether the action taken under either of the options would have an impact on the number of injuries or vessels lost at sea. Likewise the impact on groundfish fishermen's insurance rates is a matter of conjecture. There is no evidence the insurance industry reacts to losses in one particular fishing activity but rather sets rates based on risks in the fishing industry in general.

#### Recommendation

The Council recommends Option 1 because it is consistent with P.L. 99-659, requires the least cost, and is responsive to the safety issue.

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