

AN OILSPILL RISK ANALYSIS FOR THE
MID-ATLANTIC (PROPOSED SALE 76)
OUTER CONTINENTAL SHELF LEASE AREA

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U. S. GEOLOGICAL SURVEY
OPEN-FILE REPORT 82-27

April 1982

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Abstract

An oilspill risk analysis was conducted for the mid-Atlantic (proposed sale 76) Outer Continental Shelf (OCS) lease area. The analysis considered: the probability of spill occurrences based on historical trends; likely movement of oil slicks based on a climatological model; and locations of environmental resources which could be vulnerable to spilled oil. The times between spill occurrence and contact with resources were estimated to aid analysts in estimating slick characteristics.

Critical assumptions made for this particular analysis were (1) that oil exists in the lease area, and (2) that 0.879 billion barrels of oil will be found and produced from tracts sold in sale 76. On the basis of this resource estimate, it was calculated that 3 to 4 oilspills of 1,000 barrels or greater will occur over the 30-year production life of the proposed sale 76 lease tracts. The results also depend upon the routes and methods chosen to transport oil from OCS platforms to shore.

Given the above assumptions, the estimated probability that one or more oilspills of 1,000 barrels or larger will occur and contact land after being at sea less than 30 days is 0.36; for spills 10,000 barrels or larger, the probability is 0.22. These probabilities also reflect the following assumptions: oilspills remain intact for up to 30 days, do not weather, and are not cleaned up. It is noteworthy that over 90 percent of the risk from proposed sale 76 is due to transportation rather than production of oil. In addition, the risks from proposed sale 76 are about 1/10 to 1/15 those of existing tanker transportation of crude oil imports and refined products in the mid-Atlantic area.

Introduction

The Federal Government has proposed to offer Outer Continental Shelf (OCS) lands off the mid-Atlantic coast for oil and gas leasing. The conditional mean estimate of oil resources for the proposed tracts in the sale 76 area is 0.879 billion barrels of crude oil. There is a 99.6-percent probability that commercial hydrocarbons are present in the sale area, and this report examines what could happen if oil is found. Contingent upon actual discovery of oil, production is expected to span a period of 30 years.

Oilspills are a major concern associated with offshore oil production. An important fact that stands out when one attempts to evaluate the significance of accidental oilspills is that the problem is fundamentally probabilistic. Uncertainty exists about the amount of oil that will be produced from the leases and the number and size of spills that might occur during the life of production, as well as the wind and current conditions that would exist at the time of a spill occurrence and give movement and direction to the oil slick. Although some of the uncertainty reflects incomplete and imperfect data, considerable uncertainty is simply inherent in the problem of describing future events over which complete control cannot be exercised. Since it can not be predicted with certainty that a probabilistic event such as an oilspill will occur, only the likelihood of occurrence can be quantified. The range of possible effects that may accompany a decision on oil and gas production must be considered. In attempting to maintain perspective on the problem, each potential effect must be associated with a quantitative estimate of its probability of occurrence.

This report summarizes results of an oilspill risk analysis conducted for the proposed mid-Atlantic OCS Lease Sale 76. The study had the objective of determining relative risks associated with oil and gas production in different regions of the proposed lease area. The study was undertaken for consideration in the draft environmental impact statement (EIS), which is prepared for the area by the Bureau of Land Management (BLM), and to aid in the final selection of tracts to be offered for sale. A description of the oilspill trajectory analysis model used in this analysis can be found in previous papers (Lanfear and others, 1979; Smith and others, 1982; Lanfear and Samuels, 1981). The analysis was conducted in three parts corresponding to different aspects of the overall problem. The first part dealt with the probability of oilspill occurrence and the second with the trajectories of oilspills from potential launch points to various targets. Results of the first two parts of the analysis were then combined to give estimates of the overall oilspill risk associated with oil and gas production in the lease area.

Decisionmaking Under Risk and Uncertainty

Oilspill impacts result primarily from two events that are probabilistic in nature: oilspill occurrence caused by accidents, and oilspill movement directed by random winds and currents. Although a probabilistic event (such as an oilspill) cannot be predicted with certainty, the likelihood of occurrence can be quantified. The likelihood that oilspills will result from an OCS leasing decision can be estimated, but whether they will actually occur can only be known after the area is explored and the oil, if any, is produced. This situation is in contrast to a deterministic situation where a particular action can be depended upon to produce a specific result.

In making decisions under risk and uncertainty, investigators must understand that a choice can have a range of possible outcomes. Generally, a desire to maximize the likelihood of the most favorable outcomes must be tempered by the need to minimize the probability of highly unfavorable outcomes. The U.S. Geological Survey (USGS) Oilspill Trajectory Analysis (OSTA) Model was designed to reflect the range of possible outcomes of leasing decisions by estimating the probability of occurrence for each discrete outcome; specifically, it estimates the likelihood that a particular target will be contacted by 0, 1, 2, ... N oilspills during the production life of an OCS lease area.

If an oilspill occurs at a given launch point, the probability that it will contact a particular target is termed a conditional probability. Such conditional probabilities can be very useful in identifying those launch points at which an oilspill, if it occurs, will pose the highest risks to various targets. Tables of conditional probabilities can help the analyst to select alternatives that will reduce overall risk. However, conditional probabilities do not include the probability of oilspill occurrence. It is assumed that a tract that contains little or no oil is a small risk because, no matter how high the conditional probability of contacting a target may be, the small amount of oil makes it unlikely that an oilspill will occur. Also, conditional probabilities for spills originating at the production platforms do not necessarily reflect the risks of spills during transportation. For these reasons, analysts are cautioned against basing judgments solely upon conditional probabilities.

Summary of the Proposed Action and the Major Alternatives

The proposed action is to lease a large number of tracts on the Outer Continental Shelf off the mid-Atlantic coast. The study area for this analysis includes all of these tracts and extends from latitude 34° 42' N to 42° 30' N, and from longitude 65° 30' W to 76° 36' W. The study area also includes existing lease tracts from OCS sales 40, 42, 49, 52, 59, and RS-2. RS-2 is a sale reoffering tracts not previously sold in the mid-Atlantic and other OCS lease areas. The mid-Atlantic tracts to be reoffered are located within the sale 59 lease area.

For purposes of this analysis, lease tracts are combined into tract groups; the proposed sale 76 tracts are divided into 16 groups along the shelf break and 29 groups within the entire call area. The study area and the call area are shown in figure 1. The subdivisions of the proposed tract groups (S1-S16) along the shelf break are shown in figure 2. The subdivisions of the remainder of the proposed tract groups (M1-M29) within the study area are shown in figure 3. The existing tract groups from OCS Lease Sales 52 (P1-P12), 59 (P17-P22), and 40 and 49 (P23-P34) are shown in figure 4. The existing tract groups from OCS Lease Sale 42 (P13-P16) are shown in figure 5.

If oil is discovered and the area is developed for production, there are a number of ways in which oil can be transported. Proposed and existing transportation routes are shown in figure 6. The following hypothetical transportation scheme is proposed for the tracts in the sale 76 area for the purpose of impact assessment:

S1-S4, M2, M3, M6: tanker transportation via T27 to Raritan Bay.

S7-S10, M7, M12, M13, M17: tanker transportation to Delaware Bay via T13 and T17.

S5-S6: pipeline transportation to Atlantic City via T4.

Tracts not included in this transportation scheme were considered by BLM to have, at the present time, little potential for the presence of oil resources. For the existing leases, oil from the tracts in sales 42 and 52 would be transported by tankers to Raritan Bay (T30, T29, T23) and in some cases to Delaware Bay (T20, T19, T18). Oil from the tracts of in sales 40 and 49 will be transported by tankers to Raritan Bay. Oil from the tracts in sale 59 will be transported by tankers to Delaware Bay. For the cumulative case, where existing leases are considered together with the proposed leases, oil from sales 40, 49, 59 would be piped via gathering lines (T1, T2, T3) to a central location. From there an oil trunkline (T4) would continue to a landfall near Atlantic City, N. J. The transportation scheme for the remaining tracts would be the same as previously described. Other routes shown in figure 6 are those used for the tankering of imported crude oil and refined products to the various Eastern States.

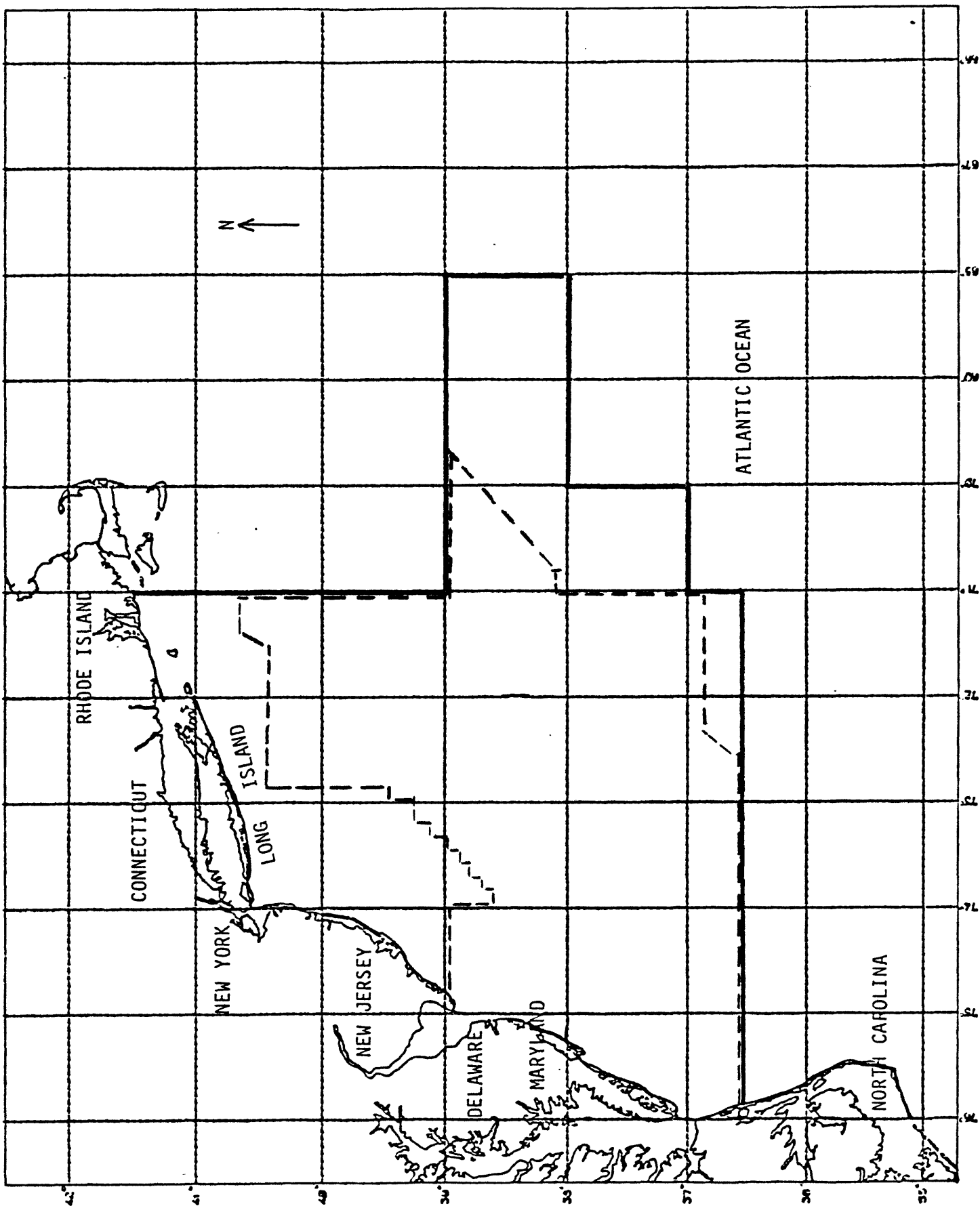


Figure 1.--Map showing the mid-Atlantic OCS Lease Sale 76 study area, the call area (solid line) and proposed sale area (broken line).

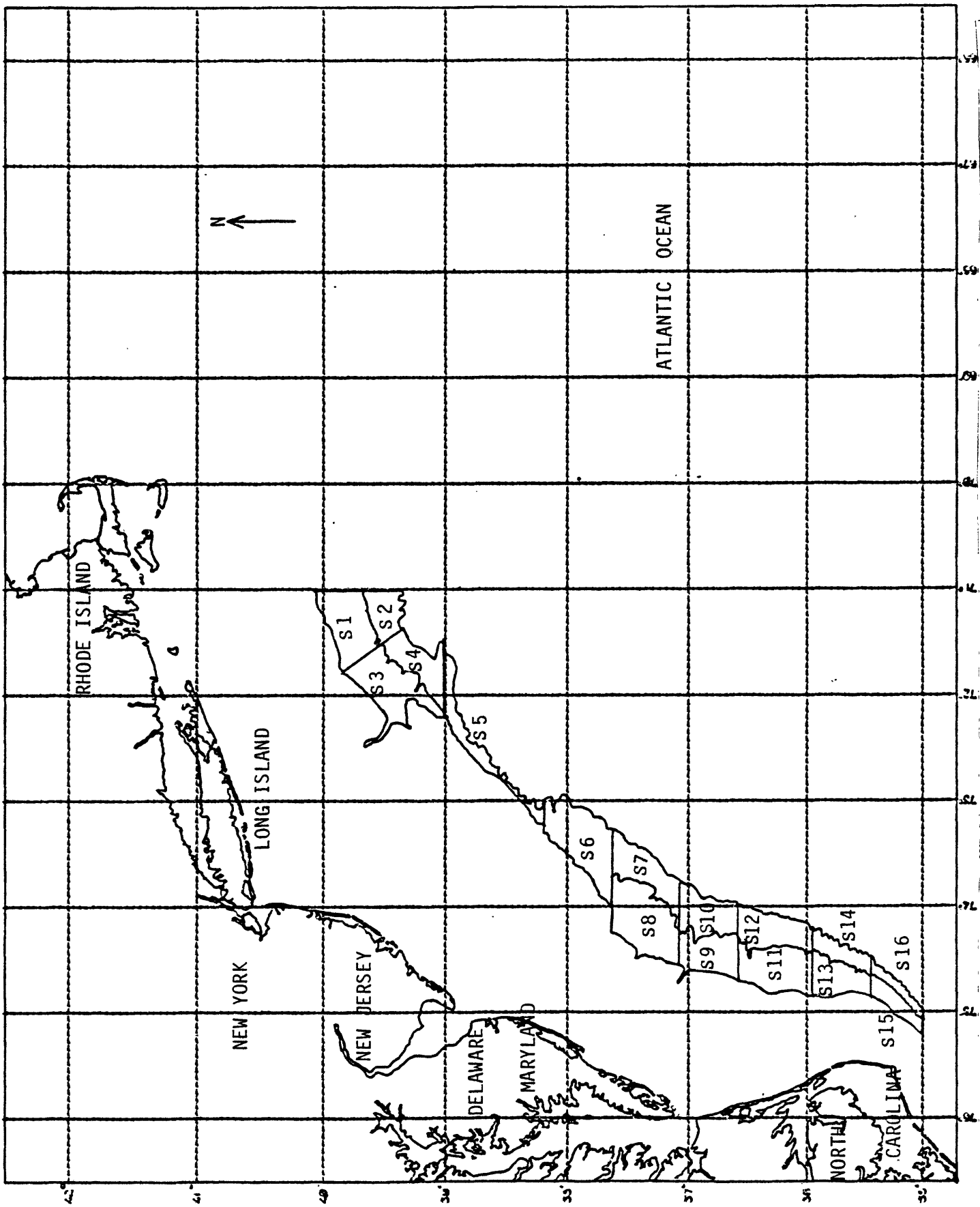


Figure 2.--Map showing the proposed lease tract groups along the shelf break (S1-S16) for mid-Atlantic OCS. (S11 - S16 previously included in proposed Lease Sale 76, have been deleted from the study area by BLM.)

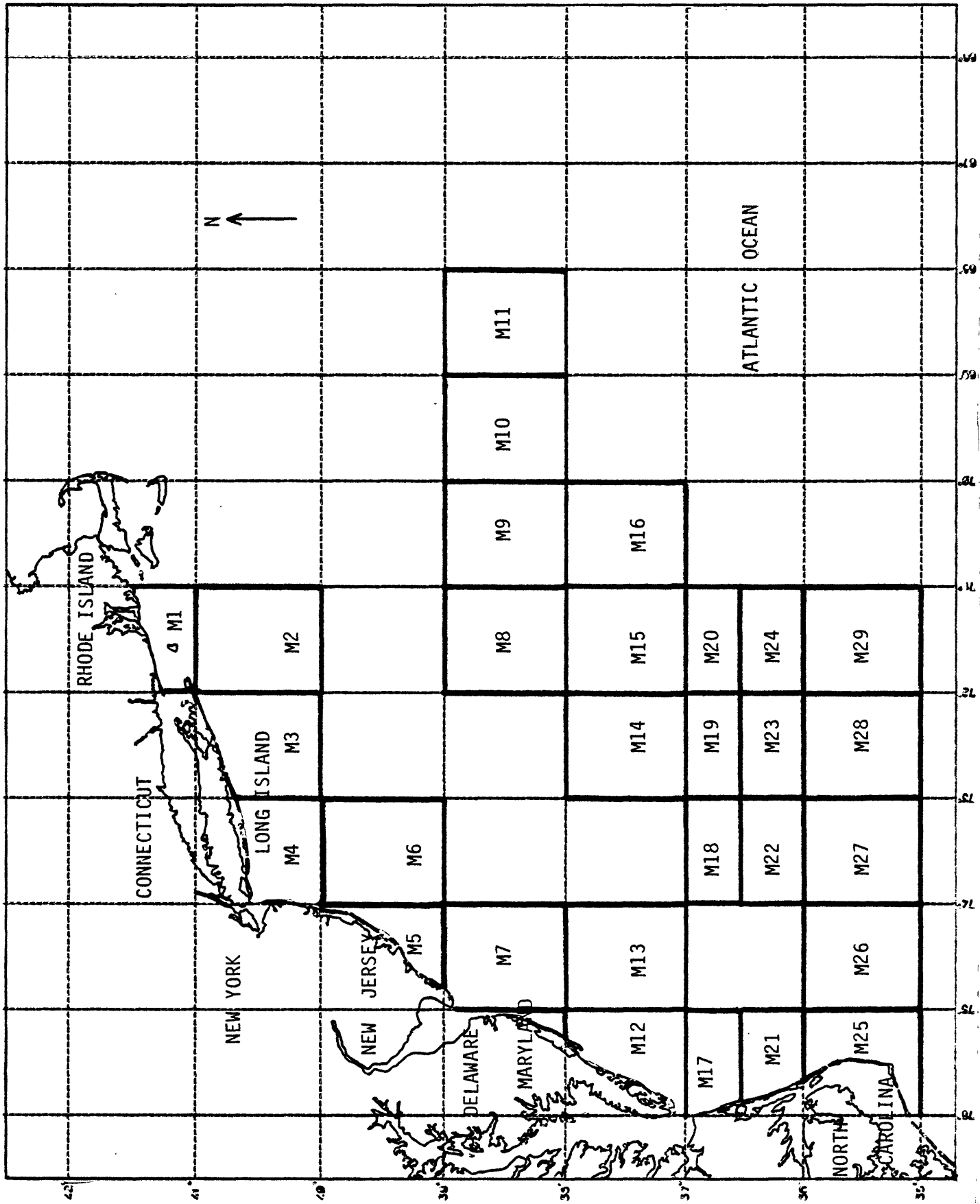


Figure 3.--Map showing the proposed lease tract groups in the study area (M1 - M29) for mid-Atlantic OCS Lease Sale 76. (M21 - M29, previously included in the call area for proposed Lease Sale 76, have been deleted by BLM.)

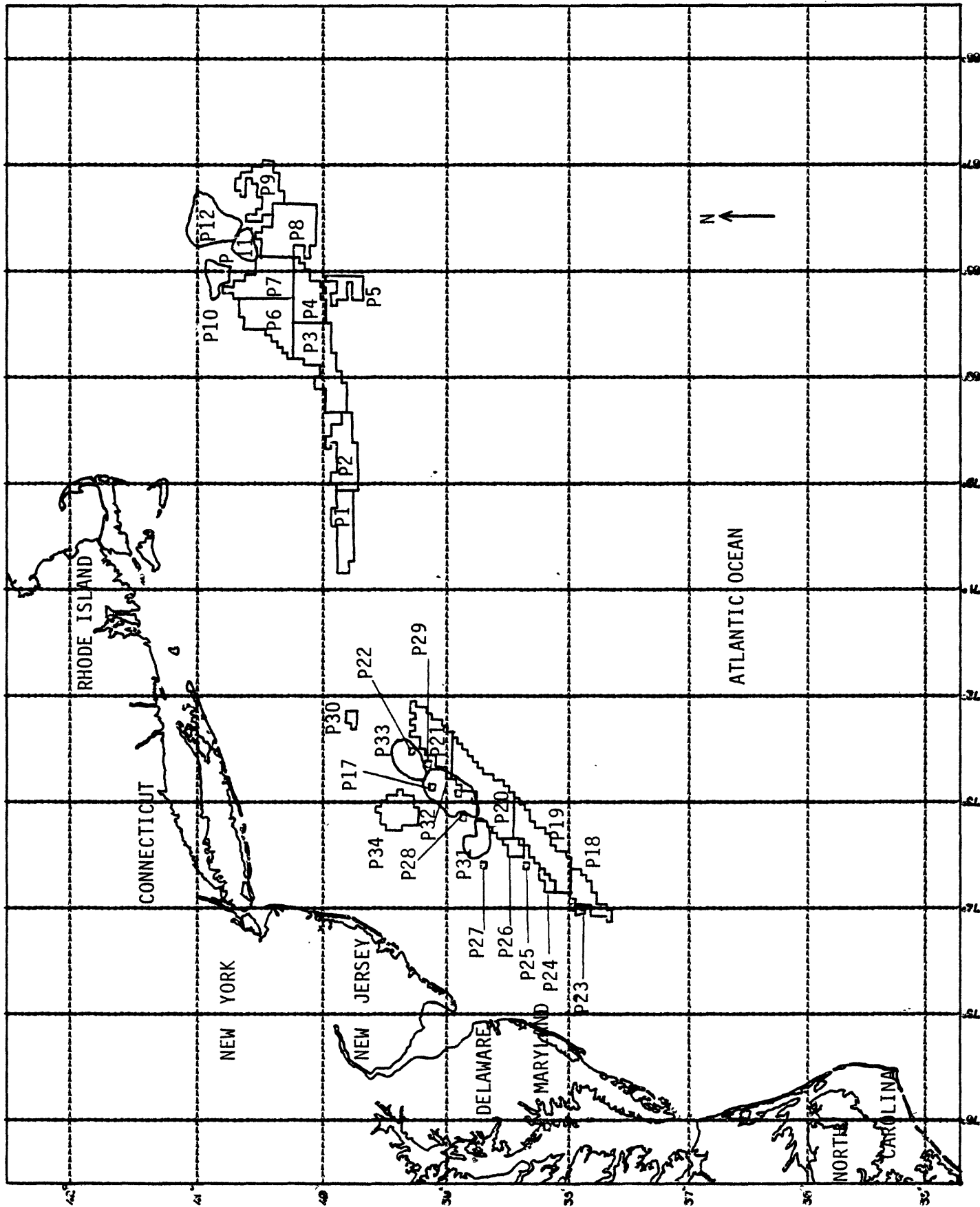


Figure 4.--Map showing the existing lease tract groups in the study area for OCS sale 52: P1-P12; OCS sale 59: P17-P22; and OCS sales 40 and 49: P23-P34.

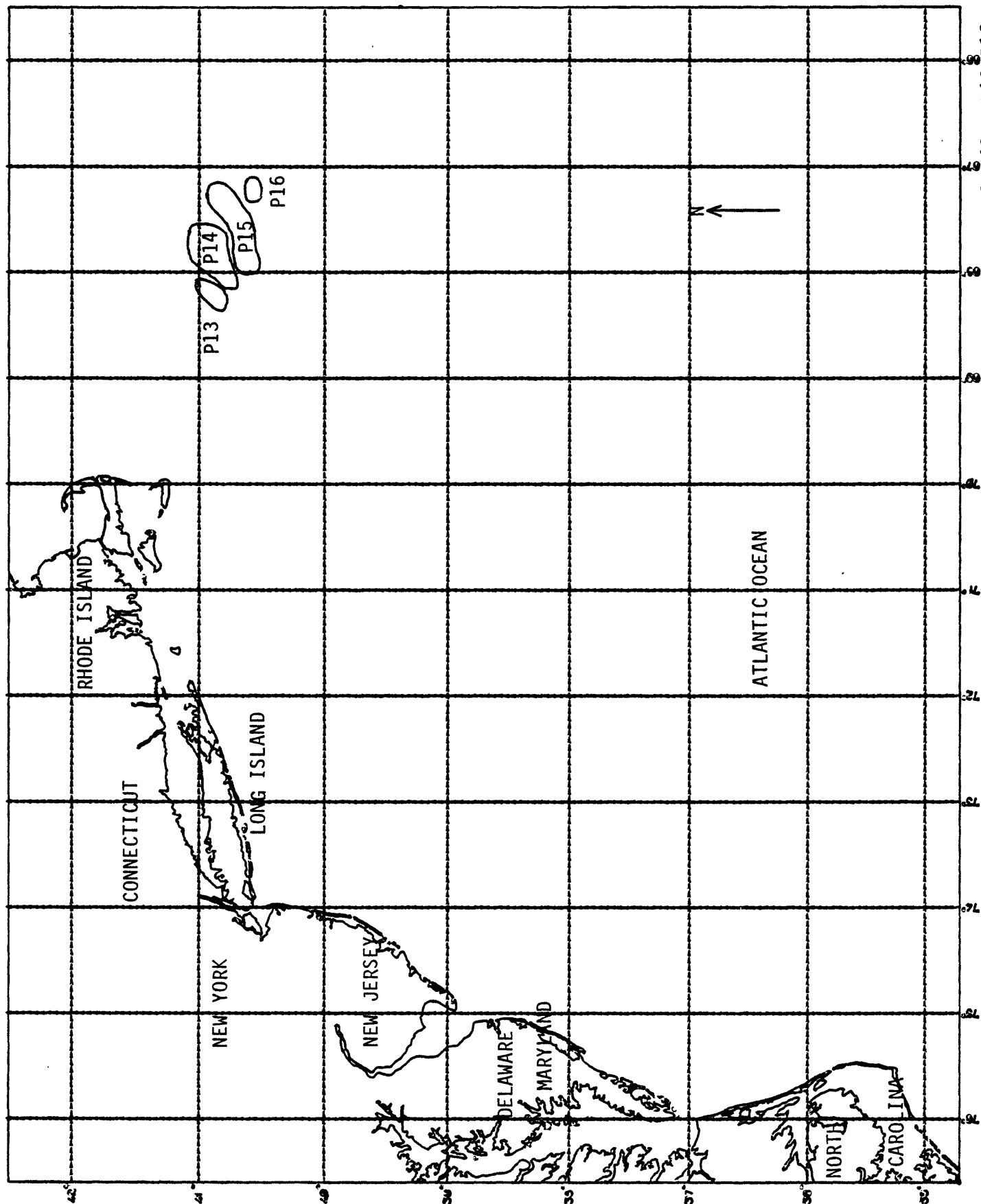


Figure 5.--Map showing the existing lease tract groups in the study area for OCS Lease Sale 42: P13-P16.

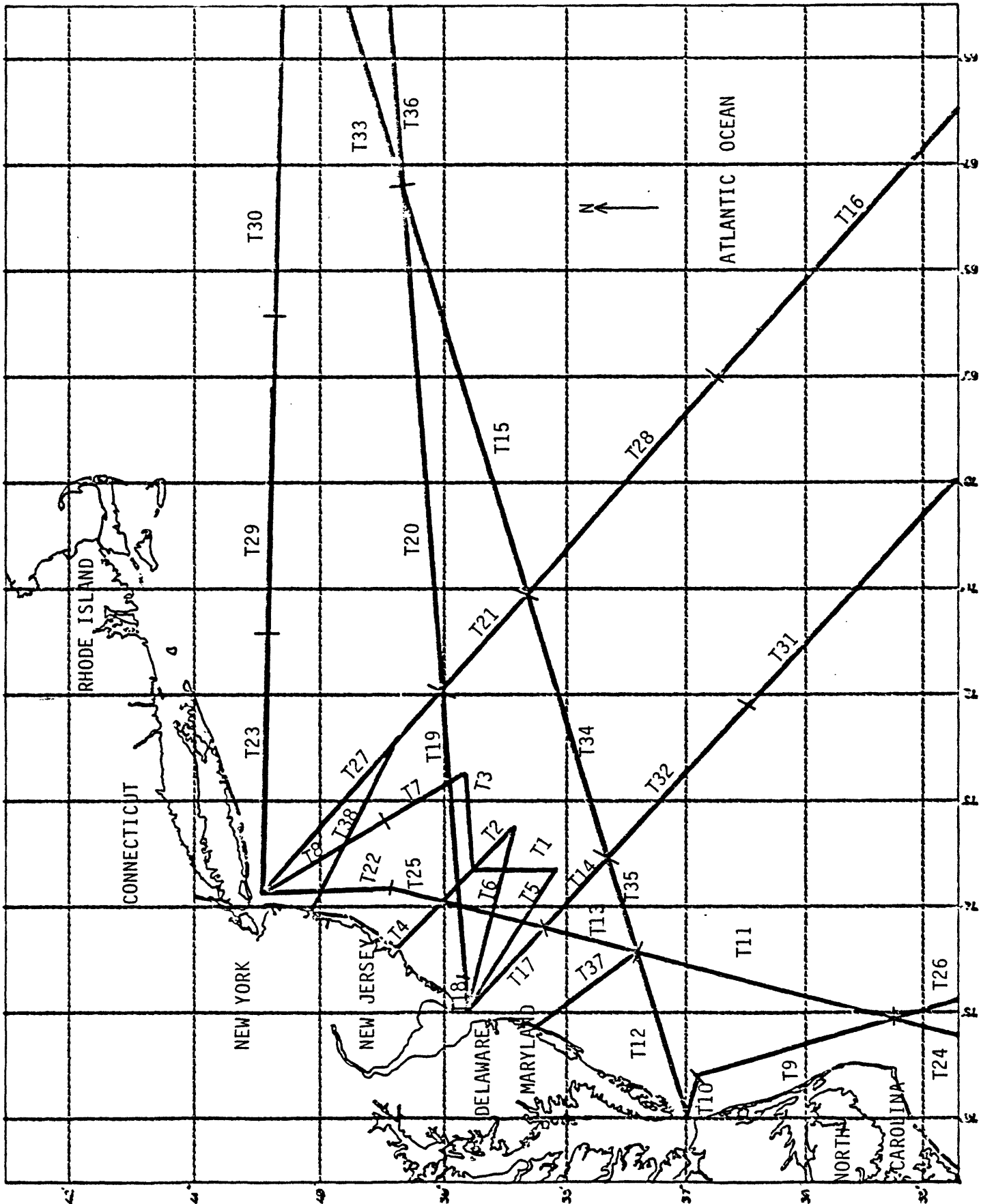


Figure 6.-- Map showing the transportation route segments (T1 to T38) show: Raritan Bay, Delaware Bay, Atlantic City.

In addition to the proposed action, two possible deletion alternatives were considered by BLM for the sake of impact analysis. The first alternative involved deletion of deep water tracts, that is, all tracts in more than 2,000 meters of water (S2, S4, S5, S6, S7, S10). The second alternative consisted of including only those tracts considered to be most geologically favorable for the recovery of oil resources. These include tract groups S1-S10.

Environmental Resources

The locations of 28 categories of environmental resources (or targets, as they are designated in this paper) were digitized in the same coordinate system, or base map, as that used in trajectory simulations. Targets were selected by BLM analysts. Maps showing the digitized targets are shown in appendix A, figures A-1 to A-21. The monthly sensitivities of these targets were also recorded so that, for example, a target such as migrating birds could be contacted by simulated oilspills only when the birds would be in the area. All targets are considered to be vulnerable year round unless otherwise indicated. The targets are listed below:

- Coastal waterbird colonies (vulnerable March through November)
- Sea duck wintering areas (vulnerable October through April)
- Osprey nesting areas (vulnerable March through July)
- Bald eagle nesting areas (vulnerable January through June)
- Grey Seal rookeries
- Peregrine falcon nesting areas (vulnerable March through July)
- Peregrine falcon migratory stopover areas (vulnerable February through March and September through November)
- State marine sanctuaries
- Loggerhead turtle nesting areas (vulnerable June through August)
- Hard clam grounds
- Soft clam grounds
- Bay scallop beds
- Oyster grounds
- Blue crab grounds
- Inshore lobster grounds
- Coastal marshes
- National parks, seashores, and recreation areas
- State parks and seashores
- National wildlife refuges
- State wildlife and natural areas
- Nongovernment wildlife and natural areas
- Gulf Stream boundary segment 1
- Gulf Stream boundary segment 2
- Gulf Stream boundary segment 3
- Gulf Stream boundary segment 4
- Gulf Stream boundary segment 5
- Gulf Stream boundary segment 6
- 106 mile dumpsite

Gulf Stream boundary segments were treated as targets in order to determine which directions would predominate in spills moving out of the study area.

Because the trajectory model simulates an oilspill as a point, most targets have been given an areal extent slightly greater than they actually occupy. For example, some shoreline targets extend a short distance offshore; this allows the model to simulate a spill that approaches land, makes partial contact, withdraws, and continues on its way.

To provide a more detailed analysis for land or land-based targets, the model includes a feature that allows subdividing the coastline into land segments. Figure 7 shows the coastline divided into 29 segments of approximately equal length (set 1). Figure 8 shows the coastline divided into 32 segments selected by BLM (set 2).

Estimated Quantity of Oil Resources

Considerable uncertainty exists in estimating the volume of oil that will be discovered and produced as a result of an OCS lease sale. A question exists as to whether oilspill risk calculations should be based upon a single estimate of volume, or should consider volume as a random variable and include some probability distribution for volume in computing oilspill occurrence probabilities. The choice may depend upon how the results are to be incorporated into the benefit/risk analysis.

Benefits and risks (as well as many environmental impacts), are functions of the volume of oil, and are not independent of each other. Greater risks are associated with greater volumes of oil and greater economic benefits. If benefits are evaluated by assuming production of a specific amount of oil, then the corresponding risks should be stated in a conditional form such as, "the risks are ..., given that the volume is ...". If benefits are evaluated for a number of discrete volumes, then risks should likewise be calculated for the same volumes. Any statements about the likelihood of the presence of a particular volume of oil apply equally well to the likelihood of the corresponding benefits and risks.

The estimated oil resources used for oilspill risk calculations in this report correspond to those used by BLM in preparing the draft EIS for the lease sale. These estimates are based on those

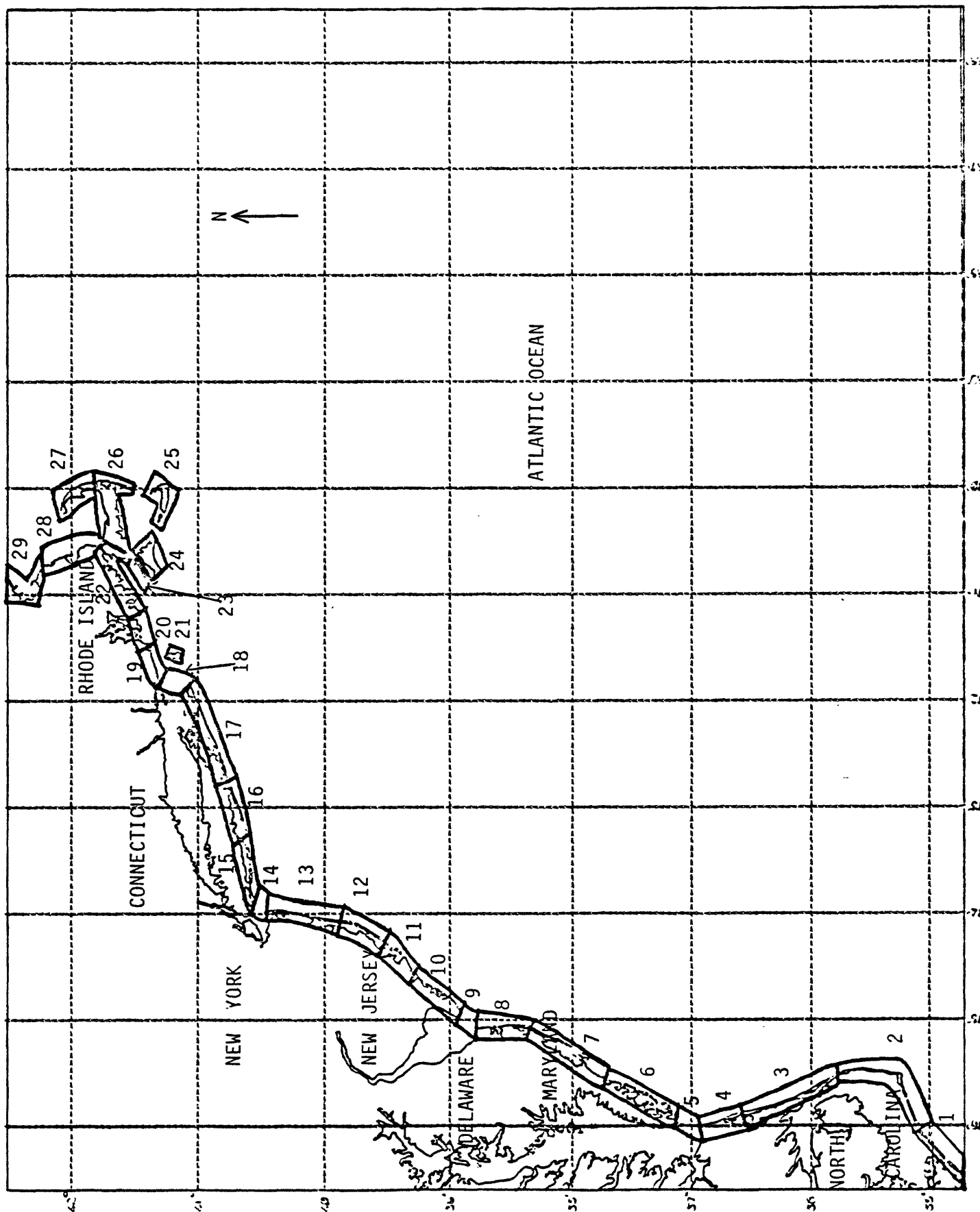


Figure 7.--Map showing the division of the mid-Atlantic shoreline into 29 segments of approximately equal length (set 1).

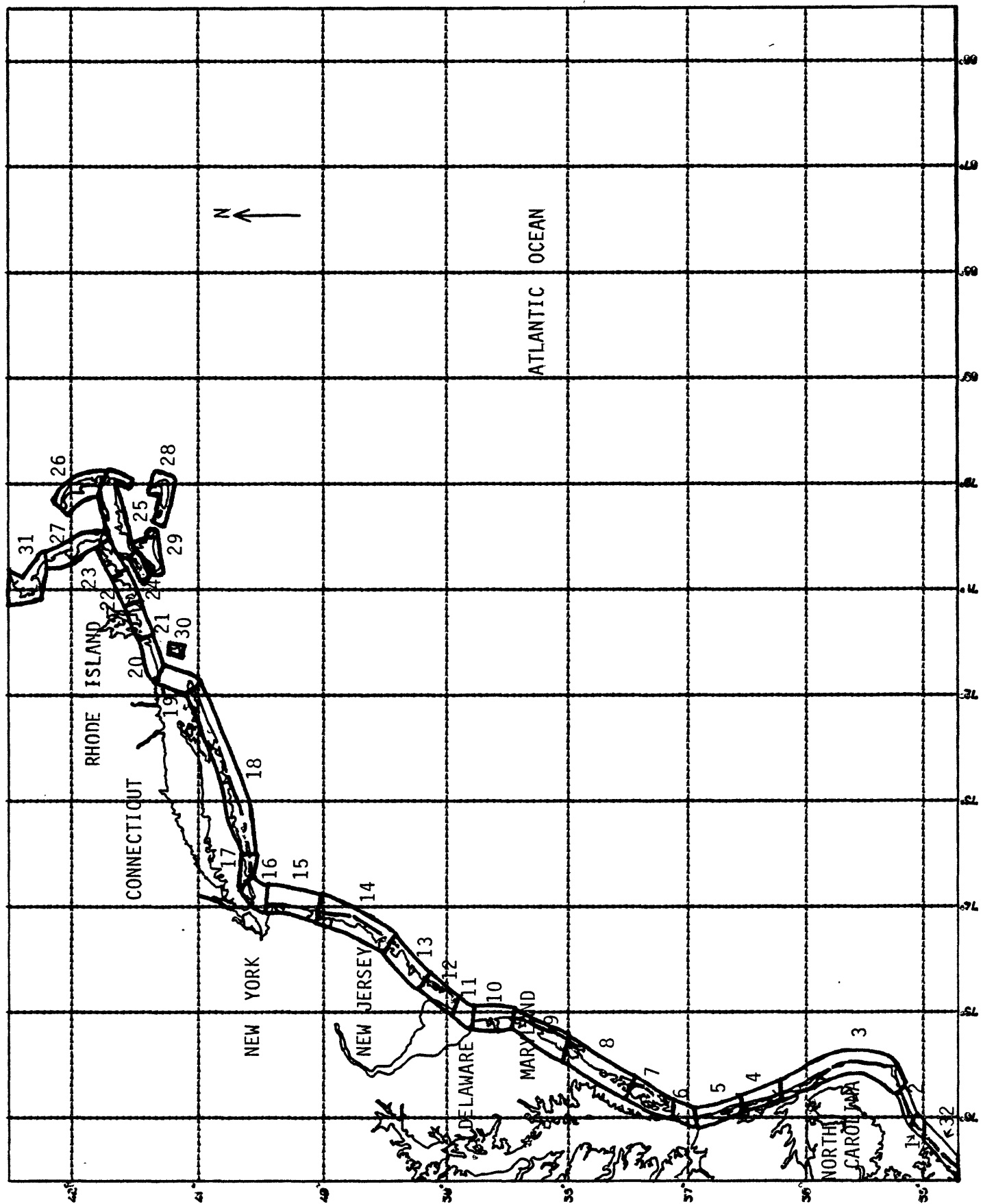


Figure 8.--Map showing the division of the mid-Atlantic shoreline into 32 segments selected by BLM (set 2).

derived by the Resource Appraisal Group, Geologic Division, USGS for the Bureau of Land Management. A 99.6-percent chance exists that oil is present in commercial quantities in the sale area (Krahl, 1982). To examine the relative risks of the various tract groups, it was further assumed, for this analysis, that any oil found is uniformly distributed among all the tracts in the sale. If oil is present in the OCS Lease Sale 76 area, an estimated conditional mean value of 0.879 billion barrels may occur (Gresham, 1982).

The assumed volumes of oil for the leased lands, OCS Lease Sales 40, 49, 59, and RS-2, and for OCS Lease Sales 42 and 52 were 0.250 billion barrels (Gresham, 1982) and 1.73 billion barrels (U.S. Geological Survey, 1980b), respectively.

We cannot overemphasize that these estimates are based on the assumption that oil is present; if it is not present, a 0.004-percent probability for sale 76 and a 50-percent probability for leased lands (Krahl, 1982), then, obviously, no oil spill risks exist. The remainder of this analysis is designed to answer the question, "What are the risks if oil is found?"

In addition to the crude oil estimated to be produced over the 30-year expected life of the sale 76 leases, BLM estimates that 17.4 billion barrels of crude oil and 38.8 billion barrels of crude oil and refined products will be imported into the region by tankers from outside sources.

Probability of Oilspills Occurring

The probability of oilspill occurrence (given that oil is present) is based on the fundamental assumption that realistic estimates of future spill frequencies can be based on past OCS experience. This analysis is based on the assumption that spills occur independently of each other as a Poisson process and that the spill rate is dependent upon the volume of oil produced or transported. This last assumption -- that spill rate is a function of the volume of oil handled -- might be modified on the basis of size, extent, frequency, or duration of the handling. In the case of tanker transport, for example, the number of port calls and the number of tanker-years have been contemplated (Stewart, 1976, and Stewart and Kennedy, 1978). This analysis is based on volume of oil handled, since all other estimates must ultimately be derived from this quantity.

This analysis includes all types of spills resulting from OCS leasing. It considers not only well blowouts, but also other accidents on platforms, transportation of the oil to shore, and, in some cases, further transportation from an intermediate terminus to refineries. Including all of these risks allows the risks of the proposed OCS leasing to be compared to those of other alternatives, such as importing oil. Previous USGS data on OCS accidents (Danenberger, 1976; 1980) are included in the data base, but comprise only a part of the data.

In some past model runs, only spills larger than 1,000 barrels (bbl) were considered. This report examines, when the data permit, spills in two size ranges: 10,000 barrels or greater, and 1,000 barrels or greater (which includes the first category). To place these sizes in a rough perspective, spills in the largest category are usually associated with catastrophies such as large blowouts or shipwrecks. Accidents in the second category typically include these and other serious events, such as structural failures and tanker collisions. The choice of size range to be used depends upon the analysis being performed. If, for example, a particular impact could occur only from a massive oil slick, then only large spills would be examined.

Accident rates for platforms on the U.S. OCS were derived from USGS accident files (USGS, 1979a and b, unpublished reports), and from USGS production records (USGS, 1980a, unpublished report). For spills of 1,000 barrels or larger, the period from 1964 to 1979 was used. Between 1964 and 1980, four spills of 10,000 barrels or larger occurred, and 10 spills (including the four) of 1,000 barrels or larger occurred. Eight of these spills, however, occurred prior to 1974, indicating a possible change of the spill rate with time. Nakassis (1982) analyzed these data and concluded that the hypothesis of a constant spill rate (per barrel produced) for U.S. OCS platforms should be rejected; using a trend analysis, the 1981 spill rate was 0.79 per billion barrels. There were too few spills of 10,000 barrels or larger to perform a proper trend analysis, so the rate for this category was assumed to be 40 percent of the 1,000 barrel rate.

USGS accident files are also a major source of data for pipeline accidents. The period from 1964 to 1979 was used for spills of 1,000 barrels or larger. During this period, U.S. OCS oil production was 4,386 million barrels. USGS files (1979a and b, unpublished reports) include two spills of over 10,000 barrels and seven spills (including the two) of over 1,000 barrels. Devanney and Stewart (1976) report six additional pipeline spills, but all except one (1,020 barrels) occurred in coastal channels. Adding this one spill to the USGS data gives a total of eight spills of

1,000 barrels or larger. Since nearly all U.S. OCS production has been transported to shore by pipelines, the same production statistics used for platforms can be applied to the pipeline accident data.

Accident data and oil transportation data for tankers are not maintained by the USGS, so tanker accident rates must be derived from published literature. The worldwide tanker accident rate for spills of 1,000 barrels or larger, used in recent OSTA models, is from Stewart (1976): 178 spills in 45,941 million barrels of oil transported. No detailed listing of these spills exists in the published literature. However, Devanney and Stewart (1974) examined tanker spills on major trade routes and reported 99 spills greater than 42,000 gallons (1,000 barrels), 87 spills greater than 100,000 gallons, and 32 spills greater than 1,000,000 gallons. Interpolation of this data gives about 53 spills greater than 10,000 barrels, or about 54 percent of the 1,000-barrel spill rate. This estimate can be partially confirmed by listings of spills in Oilspill Intelligence Report (1979 and 1980) where, out of 22 spills of crude oil from bulk carriers reported for 1978 and 1979 and known or estimated to be larger than 1,000 barrels, 15, or 68 percent, were larger than 10,000 barrels. Therefore, a ratio of 60 percent of the 1,000-barrel rate appears reasonable, giving an estimated spill rate for 10,000 barrel and larger spills of 107 per 45,941 million barrels.

In summary, the spill rates used in this report are:

	Spills per billion barrels	
	>1,000 bbl	>10,000 bbl
Platforms	0.79	0.32
Pipelines	1.82	0.46
Tankers	3.87	2.32

Spill frequency estimates were calculated for production and transportation of oil from sale 52, from sales 42, 40, 49, and 59, and for transportation of oil imported from other areas by tanker. The assumption was made that only one-half of the spills from tanker transportation of imported oil occur within the study area and that the other half of the spills occur outside the study area. Table 1 shows the expected number of spills and the most likely number of spills that will occur during the entire expected production life of the lease area. Figure 9 shows the probabilities of 0, 1, 2, ..., N spills occurring for proposed sale 76.

Table 1. -- Oilspill probability estimates for spills greater than 1,000 and 10,000 barrels resulting over the expected production life of OCS Lease Sale 76, from existing Federal leases, and from existing oil transportation in the study area.

	Expected number of spills from platforms >1,000 <10,000	Expected number of spills from transportation >1,000 <10,000	Total Number of Spills >1,000 <10,000	Probability of one or more spills (platforms) >1,000 <10,000	Probability of one or more spills (transportation) >1,000 <10,000
Proposed action (.879)*	0.69	0.28	3.76	2.02	0.95
Existing leases from sales 40, 49, and 59 (.250)*	0.20	0.08	1.17	0.66	0.62
Existing leases from sales 42 and 52 (1.73)*	1.37	0.55	8.07	4.56	0.99+
Tanker transportation of crude oil imports (17.8)*	0.0	0.0	33.7	20.2	0.99+
Tanker transportation of crude oil imports and refined products (38.8)*	0.0	0.0	75.1	45.0	0.99+

*Assumed amount of oil in billion barrels

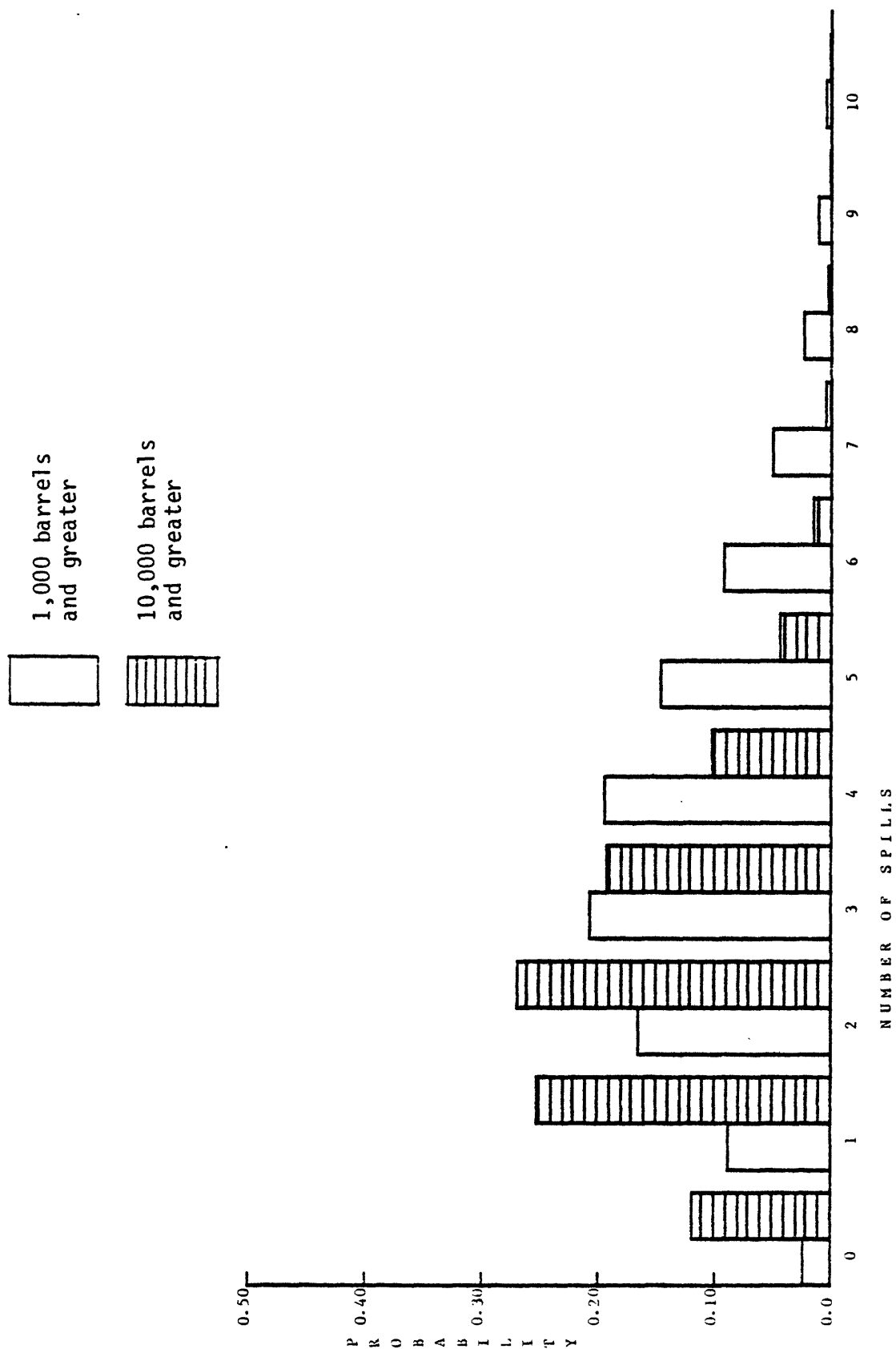


Figure 9.--Estimated frequency distribution for oil spills greater than 1,000 and 10,000 barrels occurring during the expected production life of OCS Sale 76 leases.

Oilspill Trajectory Simulations

The trajectory simulation portion of the model consists of a large number of hypothetical oilspill trajectories that collectively represent both the general trend and the variability of winds and currents, and which can be described in statistical terms. Representations of the monthly surface water velocity fields were provided by Dynalysis, Inc., Princeton, N.J. using their characteristic tracing model (Kantha and others, 1981). Their model provided data from the southern boundary of the study area as far north as latitude 41.5° N, and as far east as longitude 69.5° W. Current fields were derived for the rest of the study area by BLM personnel from J. Bishop (Federal Emergency Management Agency, written communication, 1980) and from Williams and Godshall (1977) in conjunction with U.S. Department of Transportation Weekly Sea Current Charts for September 1975 to December 1977. Short-term patterns in wind variability were characterized by probability matrices for successive 6-hour velocity transitions. High-quality wind data were available only for a 6-hour sampling interval, rather than for the 3-hour intervals normally used in USGS oilspill models. A first-order Markov process with 41 wind velocity states (eight compass directions by five wind speed classes, and a calm condition) was assumed. Wind transition matrices were calculated from the U.S. Weather Service records from environmental buoy number 44002 (located at latitude 40.1° N, longitude 73.0° W); Nantucket Shoals weather tower (station number 14658); Barnegat Light Ship (station number 0506); Westhampton Beach, N.Y. (station number 14719); and Floyd Bennett, N.Y. (station number 14786). The study area was divided into zones so that a simulated oilspill would, depending upon its location, be directed according to the matrix of the appropriate wind station.

Five hundred hypothetical oilspill trajectories were simulated in Monte-Carlo fashion for each of the four seasons from 45 potential oilspill locations in the study area (S1-S16, M1-M29, figures 2 and 3); from 34 locations in the existing lease areas (P1-P34, figures 4 and 5); and from 38 locations along the transportation network (T1-T38, figure 6). Each potential spill source was represented as either a single point, a straight line with the potential spills uniformly distributed along the line (for example, a transportation route), or as an area (for example, the potential spills uniformly distributed within the area). Surface transport of the oil slick for each spill was simulated as a series of straight-line displacements of a point under the joint influence of winds and currents for a 6-hour period. The wind transition probability matrix was randomly sampled each period for a new wind speed and direction, and the current velocity was updated as the spill changed location or the simulated month changed. The wind

drift factor was taken to be 0.035 with a variable drift angle ranging from 0 to 25° clockwise. The drift angle was computed as a function of wind speed according to the formula in Samuels and others (1981). As the simulated oilspill was moved, any contacts with targets were recorded. Spill movement continued until the spill hit land, moved off the map, or aged more than 30 days.

The trajectories simulated by the model represent only hypothetical pathways of oil slicks and do not involve any direct consideration of cleanup, dispersion, or weathering processes which could determine the quantity or quality of oil that might eventually come in contact with targets. An implicit analysis of weathering and decay can be considered by noting the age of simulated oilspills when they contact targets. For this analysis, three time periods were selected: 3 days, to represent diminished toxicity of the spill; 10 days, to allow for deployment of cleanup equipment; and 30 days, to represent the difficulty of tracking or locating spills after this time.

When calculating probabilities from Monte Carlo trials it is desirable to estimate the error associated with this technique. The calculation of the standard deviation $\underline{s}$, for a particular probability $\underline{p}$ is calculated as follows:

$$s = \text{SQRT}(p(1-p)/N)$$

where $\underline{N}$ = number of trials. The shape of this distribution approximates the normal curve, thus, table 2 shows, for the 90-percent confidence level of this distribution, values of $\underline{s}$ as a function of $\underline{p}$ and $\underline{N}$. For $\underline{N} = 2,000$, $\underline{s}$ is always less than 0.012; for practical purposes, the Monte Carlo error is insignificant. Any error which does exist lies in the accuracy of the current and wind data.

Each entry in tables 3, 4, and 5 represents the probability (expressed as percent chance) that, if a spill starts from a certain launch point, it will contact a particular target within 3, 10, or 30 days, respectively. Tables 6 to 11 present similar probabilities for land segments. These conditional probabilities allow for the possibility that the targets may not be vulnerable to oilspills for the entire year; a target that is vulnerable for only 1 month, for example, could have a conditional probability no higher than about 1/12.

Table 2.--Monte Carlo error as a function of the number of trials and the estimated probability.

PROBABILITY	NUMBER OF TRIALS				
	50	100	200	500	1000
0.05	0.05	0.04	0.03	0.02	0.01
0.10	0.07	0.05	0.04	0.02	0.01
0.15	0.08	0.06	0.04	0.03	0.01
0.20	0.09	0.07	0.05	0.03	0.01
0.25	0.10	0.07	0.05	0.03	0.02
0.30	0.11	0.08	0.05	0.03	0.02
0.35	0.11	0.08	0.06	0.04	0.02
0.40	0.11	0.08	0.06	0.04	0.02
0.45	0.12	0.08	0.06	0.04	0.02
0.50	0.12	0.08	0.06	0.04	0.02

Level of significance = 90 percent.

Table 3. --- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																M2	M3	M4	M5	M6	M7	M8	M9	
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16									M1
Land	n	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	50	1	9	22	28	3	11	n	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	21	n	2	11	24	2	5	n	n
Sea Duck Wint. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	53	3	12	17	8	2	13	n	n
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	n	1	1	4	n	3	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	1	n	n	n
Peregr. falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	13	1	n	n	8	1	3	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	30	1	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	16	n	9	10	11	n	6	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	7	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	2	1	7	2	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	2	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	38	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	19	n	9	10	9	1	3	n	n
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	6	n	2	3	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	35	1	3	10	5	2	3	n	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	32	1	5	1	17	2	1	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	13	n	n	n	5	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	3	29	16	73	95	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	n	n	7	17	34	13	33	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
106 Mile Dumpsite	6	1	24	15	62	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
Land	n	n	22	n	n	n	n	20	n	n	n	22	n	n	n	32	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	16	n	n	n	n	8	n	n	n	12	n	n	n	6	n	n	n	n	n	n	n	n	n
Sea Duck Wint. Areas	n	n	28	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Osprey Nesting Areas	n	n	9	n	n	n	n	4	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	1	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	11	n	n	n	n	5	n	n	n	1	n	n	n	3	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	2	n	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	9	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	3	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	7	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	2	n	n	n	n	n	n	n	n	1	n	n	n	29	n	n	n	n	n	n	n	n	n
State Parks, Seashr.	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	13	n	n	n	n	14	n	n	n	3	n	n	n	4	n	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	1	n	n	n	1	n	n	n	2	n	n	n	16	28	n	n	n	n	n	n	n	n
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	1	1	n	n	33	18	n	1	34	15	n	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	n	3	14	3	n	3	40	34	n	15	34	2	n	n	4	1	n	n	n	n	n	n
Gulf Stream Seg. 4	3	n	n	n	n	10	38	n	n	1	13	n	n	1	1	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 5	11	28	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	1	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
106 Mile Dumpsite	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30
Land	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Duck Wint. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	1	n	n	n
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
006 Mile Dumpsite	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	40	2	n	n	n	n	n	n	1	3

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	Hypothetical Spill Location																
	P31	P32	P33	P34	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30
Land	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Sea Duck Wint. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild. Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
106 Mile Dumpsite	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 3 days.

Target	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38
Land	1	5	1	1	n	4	n	n	n	n	n	n	n	n	n	9	7
Coastal Waterbirds	1	5	n	n	n	1	n	n	n	n	n	n	n	n	n	8	3
Sea Duck Wint. Areas	n	11	n	n	n	4	n	5	n	n	n	n	n	n	n	14	5
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	2
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	1
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	3	n	n	n	1	n	n	n	n	n	n	n	n	n	5	1
Natl. Parks, Seashr.	n	1	1	n	n	1	n	n	n	n	n	n	n	n	n	11	n
State Parks, Seashr.	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
Natl. Wildlife Refs.	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	1
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild. Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	69	n	48	n	n	n	n	n	n	n	n	n	n	1	n
Gulf Stream Seg. 2	n	n	2	n	4	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	2	17	n	n	n	n	n	n
Gulf Stream Seg. 4	n	n	n	n	n	n	17	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 5	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	4	n	n	8	n	n
106 Mile Dumpsite	n	n	n	n	n	11	n	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location															
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16
Land	n	n	n	n	n	n	n	1	2	n	1	n	1	n	1	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n
Sea Duck Wint. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	1	n	n	n	1	n	1	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	4	5	1	6	1	35	17	84
Gulf Stream Seg. 2	n	n	n	n	n	n	1	7	16	4	32	20	56	58	44	55
Gulf Stream Seg. 3	n	n	n	n	n	3	10	7	13	15	26	29	34	38	23	31
Gulf Stream Seg. 4	n	n	n	1	1	2	4	1	1	3	3	6	3	7	2	5
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
106 Mile Dumpsite	26	17	38	31	68	2	n	n	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
Land	n	n	34	3	n	n	n	33	n	n	n	35	n	n	n	37	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	21	1	n	n	14	n	n	n	n	17	n	n	n	7	n	n	n	n	n	n	n	n	n
Sea Duck Wint. Areas	n	n	31	1	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n
Osprey Nesting Areas	n	n	13	n	n	n	6	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	2	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	13	1	n	n	7	n	n	n	n	4	n	n	n	4	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	3	n	n	n	2	n	n	n	n	1	n	n	n	1	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	11	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	5	n	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	9	n	n	n	3	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	2	1	n	n	1	n	n	n	n	3	n	n	n	31	n	n	n	n	n	n	n	n	n
State Parks, Seashr.	n	n	1	n	n	n	2	n	n	n	n	5	n	n	n	5	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	18	1	n	n	19	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	22	1	n	n	7	n	n	n	n	13	n	n	n	33	30	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	4	7	n	n	7	n	n	n	n	13	n	n	n	20	53	17	n	n	n	n	n	n	n
Gulf Stream Seg. 2	n	n	3	9	n	n	7	3	1	n	n	13	35	18	n	37	35	17	2	n	n	n	n	n	n
Gulf Stream Seg. 3	n	n	n	5	9	16	3	2	24	54	34	4	47	43	3	7	6	8	2	n	n	n	n	n	n
Gulf Stream Seg. 4	3	n	n	n	15	32	46	n	11	34	29	n	20	24	7	n	n	n	n	n	n	n	1	n	n
Gulf Stream Seg. 5	20	32	n	n	3	11	18	n	n	5	8	n	1	4	1	n	n	n	n	n	n	10	8	16	
Gulf Stream Seg. 6	16	35	n	n	n	1	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	10	8	16
106 Mile Dumpsite	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	17	8	n	n	n

Note: ** = Greater than 99.5 percent; n = Less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																								
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30
Land	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	n	1	3	2	1	1	2	2	n	1
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	1	n	n
Sea Duck Wint. Areas	3	1	n	n	1	1	3	1	1	n	n	n	n	n	n	n	1	n	1	1	n	1	1	n	3
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	1	1	n	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	1	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	n	n	n	3	5	2	1	1	2	10	3	3	4	6	4	2	2
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	n	n	n	1	7	1	1	n	9	4	3	2	2	2	1	1	
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	n	n	1	3	2	1	n	3	3	3	3	2	n	1	n	
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	1	n	n	n	n	
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Gulf Stream Seg. 6	3	3	6	3	n	2	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
106 Mile Dumpsite	n	n	n	n	n	n	n	n	n	n	n	2	n	1	8	43	5	n	n	n	n	1	1	2	8

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	Hypothetical Spill Location																		
	P31	P32	P33	P34	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Land	2	1	1	2	1	2	1	15	13	11	2	24	22	53	3	21	3	2	n
Coastal Waterbirds	n	n	n	1	n	n	n	11	3	3	1	11	9	13	1	7	1	1	n
Sea Duck Wint. Areas	n	1	1	1	1	n	n	2	14	11	1	13	n	20	n	13	1	1	n
Osprey Nesting Areas	n	n	n	n	n	n	n	1	2	1	n	2	1	10	n	5	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	1	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	4	n	n	n	2	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	n	n	n	n	n	5	4	2	n	3	4	8	n	5	1	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n	1	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	4	4	3	n	4	n	n	n	n	n	6	13
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	1	1	n	n	n	3	n	2	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	36	n	11	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	n	n	n	n	4	2	2	n	6	1	9	n	2	n	n	n
Natl. Parks, Seashr.	1	n	n	1	n	1	n	1	2	2	1	2	5	n	2	1	1	1	n
State Parks, Seashr.	n	n	n	n	n	n	n	1	5	4	n	6	n	5	n	1	n	n	n
Natl. Wildlife Refs.	n	n	n	1	n	1	n	11	2	1	n	3	6	23	1	16	1	1	n
State Wildlife Nat.	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	5	n	n	n
Gulf Stream Seg. 1	6	3	2	3	5	5	3	2	4	3	3	1	23	2	28	8	10	5	n
Gulf Stream Seg. 2	2	1	1	1	3	2	1	1	2	2	1	n	16	1	34	8	9	5	n
Gulf Stream Seg. 3	1	1	n	n	2	1	1	1	1	1	n	n	4	n	17	2	3	4	n
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	n
Gulf Stream Seg. 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	n
106 Mile Dumpsite	1	1	5	2	n	n	1	n	n	n	2	n	n	n	n	n	n	n	21

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 10 days.

Target	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38
Land	4	13	2	5	1	9	n	1	n	n	n	n	n	1	n	14	11
Coastal Waterbirds	3	9	n	3	n	4	n	n	n	n	n	n	n	n	n	10	5
Sea Duck Wint. Areas	2	16	n	3	n	7	n	18	n	n	n	n	n	n	n	15	7
Osprey Nesting Areas	1	n	n	1	n	1	n	n	n	n	n	n	n	n	n	5	3
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Nest.	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
Pereg. Falc. Migr.	1	n	n	1	n	1	n	n	n	n	n	n	n	n	n	7	2
State Marine Sanct.	n	1	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	1	7	n	2	n	2	n	n	n	n	n	n	n	n	n	3	1
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	1	n	n	n	n	1	n	n	n	n	n	n	n	n	n	2	3
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	1	6	n	1	n	3	n	n	n	n	n	n	n	n	n	6	1
Natl. Parks, Seashr.	n	3	2	1	1	1	n	n	n	n	n	n	n	n	n	12	n
State Parks, Seashr.	1	7	n	1	n	3	n	n	n	n	n	n	n	n	n	n	3
Natl. Wildlife Refs.	2	n	n	2	n	1	n	n	n	n	n	n	n	n	n	6	2
State Wildlife Nat.	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild. Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Gulf Stream Seg. 1	1	1	79	3	54	1	n	2	n	n	n	n	n	3	n	5	2
Gulf Stream Seg. 2	n	n	29	1	29	n	n	n	n	n	n	n	n	4	n	4	n
Gulf Stream Seg. 3	n	n	12	n	14	n	n	n	3	25	n	n	1	5	n	1	n
Gulf Stream Seg. 4	n	n	1	n	1	n	21	n	n	3	16	n	4	1	n	n	n
Gulf Stream Seg. 5	n	n	n	n	n	n	11	n	n	1	2	n	2	n	n	n	n
Gulf Stream Seg. 6	n	n	n	n	n	n	4	1	4	n	n	12	2	3	13	1	1
106 Mile Dumpsite	1	1	n	1	n	14	n	2	n	4	2	n	2	n	n	n	2

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location															
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16
Land	2	1	2	1	n	1	n	2	2	n	1	n	2	n	1	n
Coastal Waterbirds	1	n	1	1	n	n	n	1	1	n	n	n	n	n	n	n
Sea Duck Wint. Areas	4	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
State Marine Sanct.	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	n	n	n	n	n	1	1	n	n	n	1	n	1	n
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wildl. Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	4	2	4	2	2	1	1	6	7	1	6	1	36	17	85	96
Gulf Stream Seg. 2	5	3	5	2	3	3	3	12	20	6	33	21	57	58	48	56
Gulf Stream Seg. 3	6	4	8	3	6	11	17	25	34	26	40	39	46	48	36	39
Gulf Stream Seg. 4	9	6	11	7	12	22	26	26	27	27	31	29	30	32	23	27
Gulf Stream Seg. 5	8	9	9	10	10	11	12	10	11	13	13	12	12	13	10	12
Gulf Stream Seg. 6	4	6	3	6	5	5	8	5	9	9	11	11	13	15	10	13
106 Mile Dumpsite	36	31	44	44	72	8	2	1	n	n	n	n	n	n	n	n

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																			
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29
Land	n	n	42	6	n	n	n	39	n	n	n	39	n	n	n	37	1	n	n	1
Coastal Waterbirds	n	n	25	3	n	n	n	17	n	n	n	19	n	n	n	7	n	n	n	1
Sea Duck Wint. Areas	n	n	31	2	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	1
Osprey Nesting Areas	n	n	14	1	n	n	n	6	n	n	n	1	n	n	n	1	n	n	n	3
B. Eagle Nest. Areas	n	n	2	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Migr.	n	n	15	1	n	n	n	8	n	n	n	5	n	n	n	4	n	n	n	n
State Marine Sanct.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	3	n	n	n	n	2	n	n	n	1	n	n	n	1	n	n	1	n
Hard Clam Grounds	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Oyster Grounds	n	n	11	1	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n
Blue Crab Grounds	n	n	5	n	n	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	11	1	n	n	n	4	n	n	n	1	n	n	n	n	n	n	n	n
Natl. Parks, Seashr.	n	n	3	2	n	n	n	2	n	n	n	3	n	n	n	31	1	n	n	n
State Parks, Seashr.	n	n	1	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n
Natl. Wildlife Refs.	n	n	20	2	n	n	n	21	n	n	n	6	n	n	n	5	n	n	n	n
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	23	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Gulf Stream Seg. 1	n	n	13	12	n	n	n	15	n	n	n	20	n	n	n	35	30	n	n	3
Gulf Stream Seg. 2	n	n	17	20	n	n	n	22	3	1	n	27	36	18	n	26	53	17	n	4
Gulf Stream Seg. 3	n	n	15	29	10	16	3	21	28	54	34	24	49	43	3	22	41	18	2	4
Gulf Stream Seg. 4	3	n	9	23	27	35	47	13	30	39	29	15	34	27	8	14	26	13	3	1
Gulf Stream Seg. 5	21	32	2	8	16	19	19	5	12	15	11	5	14	10	2	5	10	4	1	6
Gulf Stream Seg. 6	29	38	1	5	14	22	21	2	13	18	14	3	16	14	4	5	12	7	2	7
106 Mile Dumpsite	n	n	n	n	3	1	n	n	1	n	n	n	n	n	n	n	n	n	n	32

Note: * = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																													
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30					
Land	n	n	n	n	n	n	n	1	n	n	n	4	2	2	2	2	4	4	4	3	3	6	4	2	6					
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	2	2	2	2	1	2	2	1	2					
Sea Duck Wint. Areas	6	3	1	1	3	3	2	5	4	3	1	3	n	n	1	1	9	1	2	1	1	5	5	2	20					
Osprey Nesting Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	1					
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	1					
Peregr. Falc. Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Peregr. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	1	1	1	1	1	1	1	1	n	1					
State Marine Sanct.	1	1	n	n	1	n	n	1	n	n	n	n	n	n	n	2	n	n	n	n	n	1	1	n	6					
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	2					
Hard Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	1	1	n	n					
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Bay Scallop Beds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1					
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Coastal Marshes	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Natl. Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	1	1	n	1	1	1	1	1	1	1	2	1	1	1					
State Parks, Seashr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n					
Natl. Wildlife Refs.	n	n	n	n	n	n	n	n	n	n	n	1	1	n	1	1	1	1	1	1	1	2	1	1	1					
State Wildlife Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
Gulf Stream Seg. 1	n	n	n	n	n	n	n	n	n	n	n	9	10	5	5	4	7	15	9	8	9	14	11	6	7					
Gulf Stream Seg. 2	n	n	n	n	n	n	n	n	n	n	n	10	14	8	7	6	7	21	14	12	12	15	12	8	7					
Gulf Stream Seg. 3	n	n	n	n	n	n	n	n	n	n	n	14	24	16	12	10	10	28	23	23	21	16	15	14	8					
Gulf Stream Seg. 4	n	n	n	n	n	n	n	n	n	n	n	15	25	21	18	15	13	22	24	24	22	11	13	19	9					
Gulf Stream Seg. 5	1	n	n	n	n	n	n	n	n	n	n	6	10	10	8	10	6	8	10	10	3	4	7	4	2					
Gulf Stream Seg. 6	14	12	12	8	8	9	6	8	7	8	7	2	5	5	3	4	2	4	3	4	3	2	2	3	2					
106 Mile Dumpsite	1	1	n	n	n	n	n	1	n	n	n	6	1	5	14	48	11	1	1	2	2	4	5	8	14					

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	Hypothetical Spill Location																		
	P31	P32	P33	P34	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Land	5	3	4	7	4	4	4	20	18	15	6	32	26	61	3	28	6	4	n
Coastal Waterbirds	2	1	1	3	2	1	2	14	6	4	2	15	11	16	1	10	2	2	n
Sea Duck Wint. Areas	4	3	9	12	3	3	4	7	17	15	8	19	n	21	n	13	2	1	n
Osprey Nesting Areas	1	n	1	1	1	1	n	2	4	2	1	3	1	11	n	6	n	1	n
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	1	n	n	n
Grey Seal Rookeries	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Pereg. Falc. Nest.	n	n	1	n	n	n	n	5	n	n	n	3	n	n	n	n	n	n	n
Pereg. Falc. Migr.	1	1	1	1	1	1	1	6	5	3	1	4	5	9	1	6	1	1	n
State Marine Sanct.	1	1	2	3	n	n	1	1	n	n	2	n	n	n	n	n	n	n	n
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n	2	n	n	n
Hard Clam Grounds	n	n	1	1	n	n	1	6	5	3	1	7	n	n	n	n	n	n	n
Soft Clam Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	n	n	n	1	n	n	n	1	n	n	n	n	6	n	n	n	n	n	n
Oyster Grounds	n	n	n	n	n	n	n	n	1	1	n	n	n	3	n	3	n	n	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	37	n	12	n	n	n
Insh. Lobster Grnds.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Marshes	n	n	n	1	n	n	n	5	3	3	n	8	1	9	n	3	n	n	n
Natl. Parks, Seashr.	1	1	1	1	1	1	1	1	4	3	1	4	5	1	2	2	2	1	n
State Parks, Seashr.	n	n	n	1	n	n	n	1	6	4	n	8	n	5	n	1	1	n	n
Natl. Wildlife Refs.	1	1	1	2	1	1	1	12	3	2	2	6	8	25	1	18	2	1	n
State Wildlife Nat.	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild., Nat.	n	n	n	n	n	n	n	n	1	n	n	n	n	7	n	6	1	1	n
Gulf Stream Seg. 1	13	8	8	9	11	12	10	8	10	10	8	5	30	9	30	16	17	10	n
Gulf Stream Seg. 2	13	11	9	8	12	13	10	7	12	11	8	3	30	11	39	23	23	13	n
Gulf Stream Seg. 3	17	16	12	9	19	18	14	8	15	14	11	3	28	10	35	24	28	21	n
Gulf Stream Seg. 4	16	16	12	6	18	17	14	5	11	11	12	2	18	5	26	14	21	21	1
Gulf Stream Seg. 5	6	6	5	3	6	7	5	1	4	4	4	1	7	1	9	4	8	9	10
Gulf Stream Seg. 6	2	3	2	2	3	3	2	1	2	2	2	1	5	n	11	3	4	4	29
106 Mile Dumpsite	3	6	10	7	3	3	6	2	2	3	6	3	n	n	n	n	1	2	1

Note: ** = Greater than 99.5 percent; n = Less than 0.5 percent.

Table 5. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain target within 30 days.

Target	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
Land	11	22	2	12	1	15	n	4	n	n	n	n	n	1	n	18	16
Coastal Waterbirds	6	13	n	5	n	7	n	2	n	n	n	n	n	1	n	12	7
Sea Duck Wint. Areas	13	28	n	8	n	14	n	25	2	1	1	1	n	n	1	17	14
Osprey Nesting Areas	2	1	n	2	n	1	n	1	n	n	n	n	n	n	n	6	4
B. Eagle Nest. Areas	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Grey Seal Rookeries	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peregr. Falc. Nest.	2	1	n	1	n	1	n	n	n	n	n	n	n	n	n	n	2
Peregr. Falc. Migr.	3	2	n	3	n	2	n	n	n	n	n	n	n	n	n	8	3
State Marine Sanct.	3	4	n	1	n	1	n	5	n	n	n	n	n	n	n	n	1
Logg. Turtle Nest.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
Hard Clam Grounds	3	11	n	3	n	4	n	1	n	n	n	n	n	n	n	4	3
Soft Clam Grounds	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bay Scallop Beds	3	1	n	n	n	2	n	1	n	n	n	n	n	n	n	n	4
Oyster Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Blue Crab Grounds	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Insh. Lobster Grnds.	n	1	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Coastal Marshes	2	9	n	2	n	4	n	n	n	n	n	n	n	n	n	6	3
Natl. Parks, Seashr.	1	4	2	2	1	3	n	n	n	n	n	n	n	1	n	13	1
State Parks, Seashr.	2	9	n	2	n	4	n	n	n	n	n	n	n	n	n	n	4
Natl. Wildlife Refs.	5	4	n	3	n	3	n	1	n	n	n	n	n	n	n	7	4
State Wildlife Nat.	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
Nongov. Wild. Nat.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Gulf Stream Seg. 1	5	4	80	10	54	4	n	3	n	1	1	n	n	5	n	11	5
Gulf Stream Seg. 2	4	2	33	10	31	3	n	2	n	1	1	n	n	9	n	15	4
Gulf Stream Seg. 3	5	2	27	11	24	5	n	2	n	4	27	n	3	19	n	18	5
Gulf Stream Seg. 4	3	1	18	7	18	7	21	2	n	5	26	n	13	19	n	11	4
Gulf Stream Seg. 5	2	1	7	2	6	4	12	3	n	3	12	n	12	8	n	3	2
Gulf Stream Seg. 6	2	3	9	1	8	2	13	9	8	3	14	13	12	8	15	4	3
106 Mile Dumpsite	6	5	n	3	n	18	n	7	n	7	5	n	6	2	n	1	5

Note: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 6. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 3 days.

Land Segment	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	M1	M2	M3	M4	M5	M6	M7	M8	M9
2	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 6. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 3 days.

Land Segment	Hypothetical Spill Location																									
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5	
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	28	n	n	n	n	n	n	n	n	n	n
3	n	n	n	n	n	n	n	4	n	n	21	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n
4	n	n	1	n	n	n	n	14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	4	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 6. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 3 days.

Land Segment	Hypothetical Spill Location														
	P31-P32	P33	P34	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12
2	n	n	n	n	n	n	n	n	n	n	n	n	2	n	1
3	n	n	n	n	n	n	n	n	n	n	n	n	5	1	n
4	n	n	n	n	n	n	n	n	n	n	n	n	1	18	4
5	n	n	n	n	n	n	n	n	n	n	n	n	n	16	7
6	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 6. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 3 days.

Land Segment	Hypothetical Spill Location																
	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38
2	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
13	n	1	n	n	n	2	n	n	n	n	n	n	n	n	n	n	6
14	n	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
15	n	3	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rous with all values less than 0.5 percent are not shown.

Table 7. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 10 days.

Land Segment	Hypothetical Spill Location																M1	M2	M3	M4	M5	M6	M7	M8	M9
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16									
2	n	n	n	n	n	n	n	n	1	n	n	n	1	n	1	n	n	n	n	n	n	n	1	n	n
3	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	5	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	2	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	1	n	5	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	1	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	10	3	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	15	2	1	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	7	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	1	n	n	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	n	n	n	n
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	1	n	n	n	n
																				2	1	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 10 days.

Land Segment	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n
2	n	n	n	1	n	n	n	1	n	n	n	2	n	n	n	30	n	n	n	n	n	n	n	n	n
3	n	n	2	1	n	n	n	12	n	n	n	31	n	n	n	5	n	n	n	n	n	n	n	n	n
4	n	n	5	n	n	n	n	18	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	6	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	14	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 10 days.

Land Segment	Hypothetical Spill Location																								
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	1	1	n	n
3	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	1	n	n	n	1	1	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 10 days.

Land Segment	Hypothetical Spill Location														
	P31	P32	P33	P34	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11
2	1	n	1	n	n	n	n	n	1	1	1	1	1	2	1
3	n	n	n	n	n	1	n	n	n	n	n	n	14	8	3
4	n	n	n	n	n	n	n	n	n	n	n	n	3	26	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	18	8
6	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 7. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 10 days.

Land Segment	Hypothetical Spill Location																
	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38
2	n	n	2	1	1	n	n	n	n	n	n	n	n	n	n	1	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n
8	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
11	1	n	n	1	n	n	.	n	n	n	n	n	n	n	n	n	n
12	2	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	3
13	n	4	n	n	n	4	n	n	n	n	n	n	n	n	n	n	7
14	n	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
15	n	6	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n
16	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 8. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 30 days.

Land Segment	Hypothetical Spill Location																									
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	M1	M2	M3	M4	M5	M6	M7	M8	M9	
2	n	n	n	n	n	n	n	1	1	n	n	n	1	n	1	n	n	1	1	1	n	1	1	1	n	n
3	1	n	1	n	n	n	n	1	1	n	n	n	n	n	1	n	n	n	n	n	1	1	1	1	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	7	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	6	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	2	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	13	1	5	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	12	2	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	5	11	4	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	17	3	2	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	6	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	1	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	n	n	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	1	1	n	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	1	n	n	n	n	n	n	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	15	4	1	n	n	n	n	n	n	n
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	5	1	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 30 days.

Land Segment	Hypothetical Spill Location																									
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5	
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n
2	n	n	1	1	n	n	n	2	n	n	n	3	n	n	n	31	1	n	n	n	n	n	n	n	n	n
3	n	n	5	2	n	n	n	16	n	n	n	34	n	n	n	5	n	n	n	n	n	n	n	n	n	n
4	n	n	7	1	n	n	n	19	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	6	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	15	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	7	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 30 days.

Land Segment	Hypothetical Spill Location																													
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30					
2	n	n	n	n	n	n	n	n	n	n	n	1	1	n	1	1	1	1	1	1	1	1	1	1	1					
3	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	2	1	1	1	1	2	1	1	1					
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n					
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n					
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1					
25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	2					

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 30 days.

[illegible]

Notes: ** = Greater than 99.5 percent; * = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 8. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 1) within 30 days.

Land Segment	Hypothetical Spill Location																	
	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	
2	1	1	2	1	1	1	n	n	n	n	n	n	n	1	n	1	1	
3	1	n	n	1	n	1	n	n	n	n	n	n	n	n	n	2	n	
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	
7	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	12	n	
8	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	
10	1	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	1	
11	2	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	1	
12	3	1	n	n	n	2	n	n	n	n	n	n	n	n	n	n	4	
13	1	5	n	n	n	5	n	n	n	n	n	n	n	n	n	n	8	
14	n	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
15	n	7	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	
16	n	2	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
17	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
21	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
24	n	1	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	
25	1	2	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 9. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 3 days.

Land Segment	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	M1	M2	M3	M4	M5	M6	M7	M8	M9
3	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 9. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 3 days.

Land Segment	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	13	n	n	n	n	25	n	n	n	n	n	n	n	n	n
4	n	n	n	n	n	n	n	2	n	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	1	n	n	n	n	16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	3	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 9. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 3 days.

Land Segment	Hypothetical Spill Location															
	P31	P32	P33	P34	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 9. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 3 days.

Land Segment	Hypothetical Spill Location																	
	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	
3	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	n	
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	
15	n	2	n	n	n	2	n	n	n	n	n	n	n	n	n	n	4	
16	n	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
17	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
18	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 10. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 10 days.

Land Segment	Hypothetical Spill Location																								
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	M1	M2	M3	M4	M5	M6	M7	M8	M9
3	n	n	n	n	n	n	n	1	1	n	1	n	1	n	1	n	n	n	n	n	n	n	1	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	4	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	2	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	4	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	14	1	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	15	5	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	12	11	n	n	n	n	n
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	1	n	n	n	n	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	n	n	n	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n
24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n
28	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	1	n	n	n	n	n	n	n
29	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	1	n	n	n	n	n	n	n
30	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 10. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 10 days.

Land Segment	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n
3	n	n	1	1	n	n	n	3	n	n	n	21	n	n	n	29	n	n	n	n	n	n	n	n	n
4	n	n	n	1	n	n	n	7	n	n	n	12	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	5	n	n	n	n	20	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	4	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	12	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 10. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 10 days.

Land Segment	Hypothetical Spill Location																													
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30					
3	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	2	1	n	1	1	1	n	n					
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n					

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 10. (Continued) --- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 10 days.

Land Segment	P31	P32	P33	P34	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21
3	1	n	1	1	1	1	n	n	1	1	1	n	14	2	3	2	2	1	n	n	n	n	1	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	5	5	n	2	n	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	3	26	n	8	n	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	17	n	7	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	3	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 10. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 10 days.

Land Segment	Hypothetical Spill Location																
	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
3	n	n	2	1	1	n	n	n	n	n	n	n	n	1	n	1	n
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n
9	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	10	n
10	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
13	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n
14	2	1	n	n	n	2	n	n	n	n	n	n	n	n	n	n	6
15	n	3	n	n	n	4	n	n	n	n	n	n	n	n	n	n	4
16	n	2	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
17	n	2	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
18	n	4	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 11. -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 30 days.

Land Segment	Hypothetical Spill Location																									
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	M1	M2	M3	M4	M5	M6	M7	M8	M9	
3	1		1					2			1		2		1			1	1			1	2	2		
5																							1			
8																							2			
9																								7		
10																								4		
11																								3		
12																						6	1	5		
13																					15	2	1			
14																					17	6				
15																					13	1				
16																					3					
17																					3					
18																					13					
19																		1	14							
20																	12									
21																	10									
22																	5									
24																	7	1								
25																	1									
28																	5	5	1							
29																	11	4	1							
30																	11	1	1							

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 11. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 50 days.

Land Segment	Hypothetical Spill Location																								
	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	P1	P2	P3	P4	P5
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n
3	n	n	3	2	n	n	n	7	n	n	n	24	n	n	n	30	1	n	n	n	n	n	n	n	n
4	n	n	3	1	n	n	n	9	n	n	n	13	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	8	1	n	n	n	22	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	5	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	11	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	12	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
9	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 11. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 30 days.

Land Segment	Hypothetical Spill Location																													
	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30					
3	n	n	n	n	n	n	n	n	n	n	2	2	1	1	1	1	3	2	1	1	3	2	1	2						
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	1	1	n	n						
9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n						
28	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	2						
29	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1						

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Table 11. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 20 days.

Land Segment	Hypothetical Spill Location																								
	P31	P32	P33	P34	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21
3	2	2	2	2	2	2	2	2	2	2	2	1	16	4	3	4	3	2	n	n	2	1	2	n	n
4	n	n	n	n	n	n	1	n	n	1	n	n	6	7	n	3	1	1	n	n	n	n	1	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	4	29	n	10	1	1	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	17	n	7	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	3	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	1	1	n	n	n
9	n	n	n	n	n	n	n	1	4	2	n	n	n	n	n	n	n	n	n	n	5	4	1	n	n
10	n	n	n	n	n	n	n	1	6	5	n	n	n	n	n	n	n	n	n	n	9	15	1	n	n
11	n	n	n	n	n	n	n	1	3	3	n	n	n	n	n	n	n	n	n	n	4	16	n	n	n
12	n	n	n	n	n	n	n	3	1	1	n	n	n	n	n	n	n	n	n	n	1	7	1	n	n
13	n	n	n	1	n	n	n	10	n	1	n	1	n	n	n	n	n	n	n	n	n	2	1	n	n
14	n	n	n	n	n	n	n	2	n	n	1	10	n	n	n	n	n	n	n	n	n	n	n	n	n
15	n	n	n	n	n	n	n	n	n	n	n	12	n	n	n	n	n	n	n	n	n	n	n	n	n
16	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n
28	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
 Rows with all values less than 0.5 percent are not shown.

Table 11. (Continued) -- Probabilities (expressed as percent chance) that an oilspill starting at a particular location will contact a certain land segment (set 2) within 30 days.

Land Segment	Hypothetical Spill Location																			
	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38			
3	1	1	2	2	1	1	n	1	n	n	n	n	n	1	n	2	1			
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n			
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n			
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n			
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n			
9	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	10	n			
10	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n			
12	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
13	1	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	1			
14	4	2	n	1	n	4	n	n	n	n	n	n	n	n	n	n	8			
15	1	4	n	n	n	4	n	n	n	n	n	n	n	n	n	n	4			
16	n	2	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n			
17	n	3	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n			
18	n	6	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n			
28	1	2	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n			
29	n	1	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n			
30	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.
Rows with all values less than 0.5 percent are not shown.

Combined Analysis of Oilspill Occurrence and Oilspill Trajectory Simulations

Data in figure 9 indicate the probabilities of different numbers of oilspills occurring. Tables 3 to 11 indicate the probabilities that targets or land segments will be contacted, given that an oilspill occurs. Combining these two sets of probabilities yields estimates of the chances that oilspills will occur and contact targets or land segments.

A critical difference exists between the conditional probabilities calculated in the previous section and the overall probabilities calculated in this section. Conditional probabilities depend only on the winds and currents in the study area -- elements over which the decisionmaker has no control. Overall probabilities, on the other hand, will depend not only on the physical conditions, but also on the course of action chosen by the decisionmaker, that is, choosing to sell or not to sell the lease tracts.

Tables 12 to 14 compare the probabilities (expressed as percent chance) of one or more oilspills (greater than 1,000 barrels) and the expected number of oilspills occurring and contacting targets and land segments within periods of 3, 10, and 30 days, over the expected production life of the lease area, for proposed sale 76, existing leases from OCS Lease Sales 40, 49 and 59, and existing leases from OCS Lease Sales 42 and 52. Tables 15 to 17 compare similar probabilities to targets and land segments for the proposed lease tracts, tanker transportation of crude oil imports, and tanker transportation of crude oil and refined products. Tables 18 to 20 show a cumulative analysis of the oilspill risks to targets and land segments: the risk from the proposed leases is compared to proposed and existing leases from lease sales 40, 49, and 59. A comparison of the risks from the two alternatives posed by BLM with the proposed action is shown in tables 21 to 23. The risks from the proposed action were further analyzed to determine the amount of risk due to production of oil as compared to transportation of oil; these results are shown in tables 24 to 26.

Two oilspill sizes were considered in this analysis, those greater than 1,000 barrels and those greater than 10,000 barrels. Tables 12 to 26 show probabilities for spills of 1,000 barrels and greater. Similar analyses were performed for spills 10,000 barrels and greater. These are shown in Appendix B, tables B1 - B12.

Table 12. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 1,000 barrels and greater.

Target	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases		existing (42 and 52)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	13	0.1	4	0.0	12	0.1	26	0.3	9	0.1	29	0.3
Coastal Waterbirds	4	0.0	1	0.0	12	0.1	11	0.1	3	0.0	20	0.2
Sea Duck Wint. Areas	15	0.2	7	0.1	37	0.5	21	0.2	8	0.1	63	1.0
Osprey Nesting Areas	1	0.0	n	0.0	1	0.0	4	0.0	1	0.0	1	0.0
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Peregr. Falc. Nest.	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Peregr. Falc. Migr.	2	0.0	1	0.0	n	0.0	6	0.1	2	0.0	1	0.0
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1
Logg. Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Hard Clam Grounds	3	0.0	1	0.0	7	0.1	7	0.1	3	0.0	17	0.2
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	2	0.0	1	0.0	7	0.1	6	0.1	2	0.0	14	0.1
Natl. Parks, Seashr.	2	0.0	n	0.0	3	0.0	5	0.1	1	0.0	8	0.1
State Parks, Seashr.	4	0.0	1	0.0	9	0.1	9	0.1	3	0.0	16	0.2
Natl. Wildlife Refs.	2	0.0	n	0.0	n	0.0	6	0.1	1	0.0	2	0.0
State Wildlife Nat.	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Nongov. Wildl. Nat.	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Gulf Stream Seg. 1	1	0.0	n	0.0	n	0.0	11	0.1	3	0.0	9	0.1
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	10	0.1	2	0.0	1	0.0
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	7	0.1	1	0.0	n	0.0
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	14	0.1
106 Mile Dumpsite	20	0.2	9	0.1	2	0.0	28	0.3	10	0.1	11	0.1

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 13. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----		
	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	proposed leases	existing (40, 49 and 59)	existing (42 and 52)
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean
2	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	1 0.0	4 0.0	1 0.0	3 0.0
3	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	4 0.0	1 0.0	2 0.0
4	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0
6	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0
7	1 0.0	n 0.0	n 0.0	3 0.0	1 0.0	n 0.0	3 0.0	1 0.0	n 0.0
8	4 0.0	2 0.0	n 0.0	7 0.1	3 0.0	n 0.0	8 0.1	4 0.0	1 0.0
9	2 0.0	1 0.0	n 0.0	2 0.0	2 0.0	n 0.0	2 0.0	2 0.0	n 0.0
10	1 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	2 0.0	1 0.0	n 0.0
11	1 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	2 0.0	n 0.0	1 0.0
12	n 0.0	n 0.0	n 0.0	2 0.0	n 0.0	1 0.0	3 0.0	1 0.0	2 0.0
13	3 0.0	1 0.0	4 0.0	5 0.1	1 0.0	9 0.1	6 0.1	1 0.0	12 0.1
14	1 0.0	2 0.0	2 0.0	1 0.0	n 0.0	2 0.0	1 0.0	n 0.0	2 0.0
15	1 0.0	n 0.0	7 0.1	3 0.0	n 0.0	14 0.2	3 0.0	n 0.0	16 0.2
16	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	3 0.0	1 0.0	n 0.0	5 0.0
17	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	4 0.0
21	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	3 0.0
24	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	4 0.0
25	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	9 0.1
26	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 14. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----		
	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	proposed leases	existing (40, 49 and 59)	existing (42 and 52)
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean
3	n 0.0	n 0.0	n 0.0	2 0.0	1 0.0	1 0.0	6 0.1	2 0.0	4 0.0
4	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	1 0.0
5	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0
7	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0
8	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0
9	1 0.0	n 0.0	n 0.0	3 0.0	1 0.0	n 0.0	4 0.0	2 0.0	n 0.0
10	4 0.0	2 0.0	n 0.0	5 0.1	3 0.0	n 0.0	6 0.1	3 0.0	1 0.0
11	2 0.0	1 0.0	n 0.0	2 0.0	2 0.0	n 0.0	3 0.0	2 0.0	n 0.0
12	1 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	1 0.0	1 0.0	n 0.0
13	1 0.0	n 0.0	n 0.0	2 0.0	n 0.0	n 0.0	2 0.0	1 0.0	n 0.0
14	n 0.0	n 0.0	n 0.0	3 0.0	1 0.0	2 0.0	5 0.1	1 0.0	6 0.1
15	3 0.0	1 0.0	4 0.0	5 0.0	1 0.0	8 0.1	5 0.1	1 0.0	10 0.1
16	1 0.0	n 0.0	3 0.0	1 0.0	n 0.0	4 0.0	1 0.0	n 0.0	4 0.0
17	n 0.0	n 0.0	4 0.0	1 0.0	n 0.0	6 0.1	1 0.0	n 0.0	7 0.1
18	n 0.0	n 0.0	2 0.0	2 0.0	n 0.0	9 0.1	3 0.0	n 0.0	14 0.2
19	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0
24	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0
25	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0
28	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	9 0.1
29	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	3 0.0
30	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	3 0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 15. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring; and contacting targets over the expected production life of the proposed sale 76 lease area vs. tanker transportation of crude oil imports vs. tanker transportation of crude oil imports and refined products. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		crude and refined		proposed leases		crude and refined		proposed leases		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	13	0.1	44	0.6	81	1.7	26	0.3	72	1.3	98	3.9
Coastal Waterbirds	4	0.0	13	0.1	39	0.5	11	0.1	33	0.4	75	1.4
Sea Duck Wint. Areas	15	0.2	50	0.7	80	1.6	21	0.2	62	1.0	93	2.7
Osprey Nesting Areas	1	0.0	4	0.0	12	0.1	4	0.0	15	0.2	34	0.4
B. Eagle Nest. Areas	n	0.0	1	0.0	5	0.0	1	0.0	3	0.0	9	0.1
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	9	0.1
Peregr. Falc. Nest.	1	0.0	n	0.0	1	0.0	1	0.0	2	0.0	9	0.1
Peregr. Falc. Migr.	2	0.0	10	0.1	27	0.3	6	0.1	25	0.3	55	0.8
State Marine Sanct.	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	7	0.1
Logg. Turtle Nest.	n	0.0	1	0.0	3	0.0	n	0.0	2	0.0	8	0.1
Hard Clam Grounds	3	0.0	10	0.1	22	0.2	7	0.1	24	0.3	49	0.7
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
Bay Scallop Beds	n	0.0	n	0.0	2	0.0	2	0.0	3	0.0	11	0.1
Oyster Grounds	n	0.0	2	0.0	3	0.0	1	0.0	4	0.0	9	0.1
Blue Crab Grounds	n	0.0	4	0.0	22	0.3	n	0.0	5	0.0	25	0.3
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	2	0.0	8	0.1	23	0.3	6	0.1	17	0.2	43	0.6
Natl. Parks, Seashr.	2	0.0	10	0.1	31	0.4	5	0.1	26	0.3	63	1.0
State Parks, Seashr.	4	0.0	16	0.2	32	0.4	9	0.1	28	0.3	53	0.8
Natl. Wildlife Refs.	2	0.0	6	0.1	30	0.4	6	0.1	21	0.2	62	1.0
State Wildlife Nat.	1	0.0	n	0.0	2	0.0	1	0.0	1	0.0	5	0.0
Nongov. Wild. Nat.	n	0.0	1	0.0	3	0.0	1	0.0	3	0.0	10	0.1
Gulf Stream Seg. 1	1	0.0	72	1.3	**	5.3	11	0.1	91	2.4	**	9.5
Gulf Stream Seg. 2	n	0.0	16	0.2	48	0.7	10	0.1	89	2.2	**	8.3
Gulf Stream Seg. 3	n	0.0	34	0.4	19	0.2	7	0.1	81	1.6	98	4.2
Gulf Stream Seg. 4	n	0.0	15	0.2	13	0.1	1	0.0	53	0.8	49	0.7
Gulf Stream Seg. 5	n	0.0	3	0.0	5	0.0	n	0.0	29	0.3	32	0.4
Gulf Stream Seg. 6	n	0.0	20	0.2	20	0.2	n	0.0	69	1.2	79	1.5
106 Mile Dumpsite	20	0.2	61	0.9	68	1.1	28	0.3	72	1.3	80	1.6

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 16. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. tanker transportation of crude oil imports vs. tanker transportation of crude oil imports and refined products. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases		crude and refined		proposed leases		crude and refined		proposed leases		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
2	n	0.0	6	0.1	24	0.3	51	0.7	4	0.0	24	0.3
3	n	0.0	4	0.0	22	0.2	53	0.8	4	0.0	23	0.3
4	n	0.0	2	0.0	16	0.2	28	0.3	1	0.0	8	0.1
5	n	0.0	2	0.0	11	0.1	13	0.1	n	0.0	3	0.0
6	n	0.0	n	0.0	1	0.0	5	0.1	1	0.0	4	0.0
7	1	0.0	2	0.0	4	0.0	19	0.2	3	0.0	15	0.2
8	4	0.0	19	0.2	30	0.4	47	0.6	8	0.1	34	0.4
9	2	0.0	11	0.1	16	0.2	20	0.2	2	0.0	14	0.1
10	1	0.0	3	0.0	6	0.1	16	0.2	2	0.0	12	0.1
11	1	0.0	1	0.0	4	0.0	12	0.1	2	0.0	7	0.1
12	n	0.0	n	0.0	1	0.0	12	0.1	3	0.0	7	0.1
13	3	0.0	2	0.0	5	0.1	15	0.2	6	0.1	7	0.1
14	1	0.0	1	0.0	2	0.0	3	0.0	1	0.0	1	0.0
15	1	0.0	1	0.0	8	0.1	16	0.2	3	0.0	3	0.0
16	n	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
25	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	3	0.0
26	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 18. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 1,000 barrels and greater.

Target	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	13	0.1	4	0.0	15	0.2	26	0.3	9	0.1	28	0.3
Coastal Waterbirds	4	0.0	1	0.0	6	0.1	11	0.1	3	0.0	13	0.1
Sea Duck Wint. Areas	15	0.2	7	0.1	15	0.2	21	0.2	8	0.1	22	0.2
Osprey Nesting Areas	1	0.0	n	0.0	1	0.0	4	0.0	1	0.0	4	0.0
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Peregr. Falc. Nest.	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0
Peregr. Falc. Migr.	2	0.0	1	0.0	3	0.0	6	0.1	2	0.0	7	0.1
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Laysan Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Hard Clam Grounds	3	0.0	1	0.0	3	0.0	7	0.1	3	0.0	8	0.1
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	2	0.0
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	2	0.0	1	0.0	3	0.0	6	0.1	2	0.0	7	0.1
Natl. Parks, Seashr.	2	0.0	n	0.0	2	0.0	5	0.1	1	0.0	5	0.1
State Parks, Seashr.	4	0.0	1	0.0	4	0.0	9	0.1	3	0.0	9	0.1
Natl. Wildlife Refs.	2	0.0	n	0.0	4	0.0	6	0.1	1	0.0	8	0.1
State Wildlife Nat.	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
Nongov. Wild., Nat.	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Gulf Stream Seg. 1	1	0.0	n	0.0	1	0.0	11	0.1	3	0.0	13	0.1
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	10	0.1	2	0.0	11	0.1
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	7	0.1	1	0.0	7	0.1
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	2	0.0
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
100 Mile Bumpsite	20	0.2	9	0.1	22	0.3	28	0.3	10	0.1	30	0.4

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 19. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----			
	proposed leases	existing (40, 49 and 59)	proposed and existing	proposed leases	existing (40, 49 and 59)	proposed and existing	proposed leases	existing (40, 49 and 59)	proposed and existing	
	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	Prob Mean	
2	n	0.0	n	0.0	1	0.0	4	0.0	4	0.0
3	n	0.0	n	0.0	1	0.0	4	0.0	4	0.0
4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
6	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
7	1	0.0	n	0.0	3	0.0	3	0.0	1	0.0
8	4	0.0	2	0.0	7	0.1	8	0.1	4	0.0
9	2	0.0	1	0.0	2	0.0	2	0.0	2	0.0
10	1	0.0	n	0.0	1	0.0	2	0.0	1	0.0
11	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0
12	n	0.0	n	0.0	2	0.0	3	0.0	1	0.0
13	3	0.0	1	0.0	5	0.1	6	0.1	1	0.0
14	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0
15	1	0.0	n	0.0	3	0.0	3	0.0	n	0.0
16	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
17	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
25	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 20. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59, vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
3	n	0.0	n	0.0	2	0.0	1	0.0	6	0.1	2	0.0
4	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0
5	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
7	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
8	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
9	1	0.0	n	0.0	3	0.0	1	0.0	4	0.0	2	0.0
10	4	0.0	4	0.0	5	0.1	3	0.0	6	0.1	3	0.0
11	2	0.0	2	0.0	2	0.0	2	0.0	3	0.0	2	0.0
12	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0
13	1	0.0	n	0.0	2	0.0	n	0.0	2	0.0	1	0.0
14	n	0.0	n	0.0	3	0.0	1	0.0	5	0.1	1	0.0
15	3	0.0	1	0.0	5	0.0	1	0.0	5	0.1	1	0.0
16	1	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
17	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
18	n	0.0	n	0.0	2	0.0	n	0.0	3	0.0	n	0.0
28	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 21. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	proposed leases			geol. fav. alt.			proposed leases			deep water del.			proposed leases			deep water del.		
	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean
Land	13	0.1	8	0.1	11	0.1	26	0.3	15	0.2	22	0.2	36	0.4	22	0.2	31	0.4
Coastal Waterbirds	4	0.0	2	0.0	4	0.0	11	0.1	5	0.1	9	0.1	17	0.2	9	0.1	15	0.2
Sea Duck Wint. Areas	15	0.2	10	0.1	12	0.1	21	0.2	13	0.1	17	0.2	31	0.4	19	0.2	26	0.3
Osprey Nesting Areas	1	0.0	1	0.0	1	0.0	4	0.0	2	0.0	3	0.0	5	0.1	3	0.0	4	0.0
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Peregr. Falc. Nest.	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0
Peregr. Falc. Migr.	2	0.0	1	0.0	2	0.0	6	0.1	3	0.0	5	0.0	9	0.1	5	0.1	7	0.1
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0
Logg. Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Hard Clam Grounds	3	0.0	2	0.0	2	0.0	7	0.1	4	0.0	6	0.1	10	0.1	6	0.1	8	0.1
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0	3	0.0	2	0.0	3	0.0
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	1	0.0	1	0.0
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	2	0.0	1	0.0	2	0.0	6	0.1	3	0.0	5	0.0	8	0.1	5	0.0	7	0.1
Natl. Parks, Seashr.	2	0.0	1	0.0	2	0.0	5	0.1	3	0.0	4	0.0	8	0.1	5	0.1	7	0.1
State Parks, Seashr.	4	0.0	2	0.0	3	0.0	9	0.1	5	0.1	7	0.1	11	0.1	6	0.1	9	0.1
Natl. Wildlife Refs.	2	0.0	1	0.0	2	0.0	6	0.1	3	0.0	5	0.0	10	0.1	5	0.0	8	0.1
State Wildlife Nat.	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
Nongov. Wildl. Nat.	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0
Gulf Stream Seg. 1	1	0.0	1	0.0	1	0.0	11	0.1	7	0.1	10	0.1	24	0.3	14	0.2	22	0.2
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	10	0.1	6	0.1	9	0.1	29	0.3	17	0.2	26	0.3
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	7	0.1	3	0.0	6	0.1	39	0.5	23	0.3	36	0.4
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	38	0.5	21	0.2	35	0.4
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	19	0.2	10	0.1	18	0.2
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	11	0.1	5	0.1	10	0.1
106 Mile Dumpsite	20	0.2	10	0.1	19	0.2	28	0.3	14	0.2	27	0.3	36	0.4	19	0.2	34	0.4

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 22. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----						----- Within 10 days -----						----- Within 30 days -----					
	proposed leases			deep water del.			proposed leases			deep water del.			proposed leases			deep water del.		
	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean
2	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	4	0.0	2	0.0	3	0.0
3	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	4	0.0	2	0.0	3	0.0
4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
7	1	0.0	n	0.0	n	0.0	3	0.0	2	0.0	2	0.0	3	0.0	2	0.0	3	0.0
8	4	0.0	3	0.0	3	0.0	7	0.1	4	0.0	6	0.1	8	0.1	5	0.0	6	0.1
9	2	0.0	1	0.0	1	0.0	2	0.0	1	0.0	2	0.0	2	0.0	1	0.0	2	0.0
10	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0
11	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0
12	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	3	0.0	2	0.0	3	0.0
13	3	0.0	1	0.0	2	0.0	5	0.1	3	0.0	5	0.0	6	0.1	4	0.0	6	0.1
14	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
15	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	2	0.0	3	0.0	2	0.0	3	0.0
16	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 23. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale '76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----						----- Within 10 days -----						----- Within 30 days -----					
	proposed leases			deep water del.			proposed leases			deep water del.			proposed leases			deep water del.		
	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean
3	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0	6	0.1	3	0.0	5	0.1
4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
5	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0
7	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
8	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0
9	1	0.0	1	0.0	1	0.0	3	0.0	2	0.0	2	0.0	4	0.0	2	0.0	3	0.0
10	4	0.0	2	0.0	3	0.0	5	0.1	3	0.0	5	0.0	6	0.1	4	0.0	5	0.1
11	2	0.0	1	0.0	2	0.0	2	0.0	1	0.0	2	0.0	3	0.0	2	0.0	2	0.0
12	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0
13	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0	2	0.0	n	0.0	2	0.0
14	n	0.0	n	0.0	n	0.0	3	0.0	1	0.0	2	0.0	5	0.1	3	0.0	4	0.0
15	3	0.0	2	0.0	3	0.0	5	0.0	3	0.0	4	0.0	5	0.1	3	0.0	5	0.0
16	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0
17	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0
18	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	3	0.0	2	0.0	2	0.0
28	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 24. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. proposed sale 76 (platforms only) vs. proposed sale 76 (transportation only). Probabilities are for spills 1,000 barrels and greater.

Target	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----		
	proposed leases	proposed plat. only	proposed transp. only	proposed leases	proposed plat. only	proposed transp. only	proposed leases	proposed plat. only	proposed transp. only
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob
Land	13	0.1	1	0.0	12	0.1	26	0.3	1
Coastal Waterbirds	4	0.0	n	0.0	4	0.0	11	0.1	1
Sea Duck Wint. Areas	15	0.2	1	0.0	15	0.2	21	0.2	1
Osprey Nesting Areas	1	0.0	n	0.0	1	0.0	4	0.0	n
O. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	1	0.0	n
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n
Peregr. Falc. Nest.	1	0.0	n	0.0	1	0.0	1	0.0	n
Peregr. Falc. Migr.	2	0.0	n	0.0	2	0.0	6	0.1	n
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n
Logg. Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n
Hard Clam Grounds	3	0.0	n	0.0	2	0.0	7	0.1	n
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	2	0.0	n
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n
Coastal Marshes	2	0.0	n	0.0	2	0.0	6	0.1	n
Natl. Parks, Seashr.	2	0.0	n	0.0	2	0.0	5	0.1	n
State Parks, Seashr.	4	0.0	n	0.0	4	0.0	9	0.1	n
Natl. Wildlife Refs.	2	0.0	n	0.0	2	0.0	6	0.1	n
State Wildlife Nat.	1	0.0	n	0.0	1	0.0	1	0.0	n
Nongov. Wild. Nat.	n	0.0	n	0.0	n	0.0	1	0.0	n
Gulf Stream Seg. 1	1	0.0	n	0.0	1	0.0	11	0.1	n
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	10	0.1	n
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	7	0.1	n
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n
106 Mile Dumpsite	20	0.2	7	0.1	15	0.2	28	0.3	11

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table 25. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. proposed sale 76 (platforms only) vs. proposed sale 76 (transportation only). Probabilities are for spills 1,000 barrels and greater.

Land Segment	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----		
	proposed leases		proposed transp. only	proposed leases		proposed transp. only	proposed leases		proposed transp. only
	Prob	Mean		Prob	Mean		Prob	Mean	
2	n	0.0	n	0.0	n	0.0	1	0.0	1
3	n	0.0	n	0.0	n	0.0	1	0.0	1
4	n	0.0	n	0.0	n	0.0	1	0.0	1
6	n	0.0	n	0.0	n	0.0	1	0.0	1
7	1	0.0	n	0.0	1	0.0	3	0.0	3
8	4	0.0	n	0.0	7	0.1	8	0.1	7
9	2	0.0	n	0.0	2	0.0	2	0.0	2
10	1	0.0	n	0.0	1	0.0	2	0.0	2
11	1	0.0	n	0.0	1	0.0	2	0.0	2
12	n	0.0	n	0.0	n	0.0	3	0.0	3
13	3	0.0	n	0.0	5	0.1	6	0.1	6
14	1	0.0	n	0.0	1	0.0	1	0.0	1
15	1	0.0	n	0.0	3	0.0	3	0.0	3
16	n	0.0	n	0.0	n	0.0	1	0.0	1
17	n	0.0	n	0.0	n	0.0	1	0.0	1
25	n	0.0	n	0.0	n	0.0	1	0.0	1

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 26. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. proposed sale 76 (platforms only) vs. proposed sale 76 (transportation only). Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		proposed plat. only		proposed leases		proposed plat. only		proposed leases		proposed plat. only	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
3	n	0.0	n	0.0	2	0.0	n	0.0	6	0.1	1	0.0
4	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
5	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
7	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
8	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
9	1	0.0	n	0.0	3	0.0	n	0.0	4	0.0	n	0.0
10	4	0.0	4	0.0	5	0.1	n	0.0	6	0.1	n	0.0
11	2	0.0	2	0.0	2	0.0	n	0.0	3	0.0	n	0.0
12	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
13	1	0.0	n	0.0	2	0.0	n	0.0	2	0.0	n	0.0
14	n	0.0	n	0.0	3	0.0	n	0.0	5	0.1	n	0.0
15	3	0.0	n	0.0	5	0.0	n	0.0	5	0.1	n	0.0
16	1	0.0	1	0.0	1	0.0	n	0.0	1	0.0	n	0.0
17	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
18	n	0.0	n	0.0	2	0.0	n	0.0	3	0.0	n	0.0
28	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

The overall probabilities are also shown graphically for selected targets and land segments in Appendices C and D. Figures C-1 through C-29 present histograms which show probabilities of 1, 2, ... N spills occurring and contacting specific targets within periods of 3, 10, and 30 days. Figures D-1 through D-12 indicate, through circles superimposed on maps of the coastline, the probabilities of one or more spills occurring and contacting land segments (set 1) within 3, 10, and 30 days, for proposed sale 76 leases only; existing leases from sales 40, 49, and 59; tanker transportation of crude oil imports; and tanker transportation of crude oil imports and refined products.

Discussion of Results

The oilspill risks associated with OCS sale 76 generally reflect the proximity of the lease tract groups and transportation routes to the coastline and the various targets. Sale of the proposed leases will result in a 0.36 probability of one or more oilspills greater than 1,000 barrels occurring and contacting land within 30 days, over the production life of the proposed leases. The same probability of contact within 3 days is 0.13, indicating the smaller chance of contact by oil that has not weathered substantially.

The individual land segments in sets 1 and 2 all have less than a 10-percent chance of being contacted by one or more spills (of 1,000 barrels and greater) within 30 days. In particular, segments north and east of Long Island all have a less than 1-percent chance of being contacted by an oilspill.

Tables 24-26 reveal that most of the risk to targets and land segments is due to transportation of oil, not production at the platforms. For example, table 24 shows that the probability of one or more spills occurring and contacting land within 30 days is 0.34 (transportation of oil) as opposed to 0.02 (production of oil).

Targets most likely to be contacted by oilspills of 1,000 barrels or larger within 30 days include: coastal waterbird colonies (17-percent chance); sea duck wintering areas (31-percent chance); hard clam grounds (10-percent chance); State Parks and Seashores (11-percent chance); and 106 mile dumpsite (36-percent chance). To see the "full" risks to these targets, these values should be multiplied by the 99.6-percent chance that oil will

be found. Gulf Stream boundary segments were treated as targets in order to determine which directions would predominate in spills moving out of the study area. Segment numbers 1 to 6 had 30-day contact probabilities ranging from 11 to 39 percent for spills launched from the proposed sale 76 tracts.

Targets that suffer little risk from proposed and existing tracts include Bald eagle nesting areas, Loggerhead turtle nesting areas, Blue crab grounds, and Peregrine falcon nesting areas.

It is useful to compare the probabilities of spills occurring and contacting targets over the expected production life of the proposed sale 76 lease area with the risks from existing tanker transportation of imported oil. In this way the relative effect of adding the proposed tracts to the study area may be examined. As seen in table 15, the effect of existing tankering substantially increases the risk to almost all of the targets.

The deep water deletion and the geologically most favorable alternatives reduce the risks to targets and land segments only slightly over those of the proposed action. Table 21 shows that the probability of one or more spills (1,000 barrels and greater) occurring and contacting land within 3 days is 0.13 for the proposed action, 0.08 for the deep water deletion, and 0.11 for the geologically most most favorable alternative.

Conclusions

This analysis indicates that if oil exists in commercial quantities in the OCS sale 76 area (a 99.6-percent chance), the probability that one or more oil spills of 1,000 barrels or larger will occur and contact land within 3 days is 13 percent; for contact within 30 days, the probability increases to 36 percent. For spills of 10,000 barrels or larger, these probabilities are reduced to 7 and 22 percent, respectively. Over 90 percent of the risks to land occur in transporting oil to shore rather than producing it on platforms.

If existing transportation of oil is considered, the probability of one or more spills occurring and contacting land increases substantially, becoming 0.85 for crude oil imports and greater than 0.99 for crude oil imports and refined products.

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Appendix A

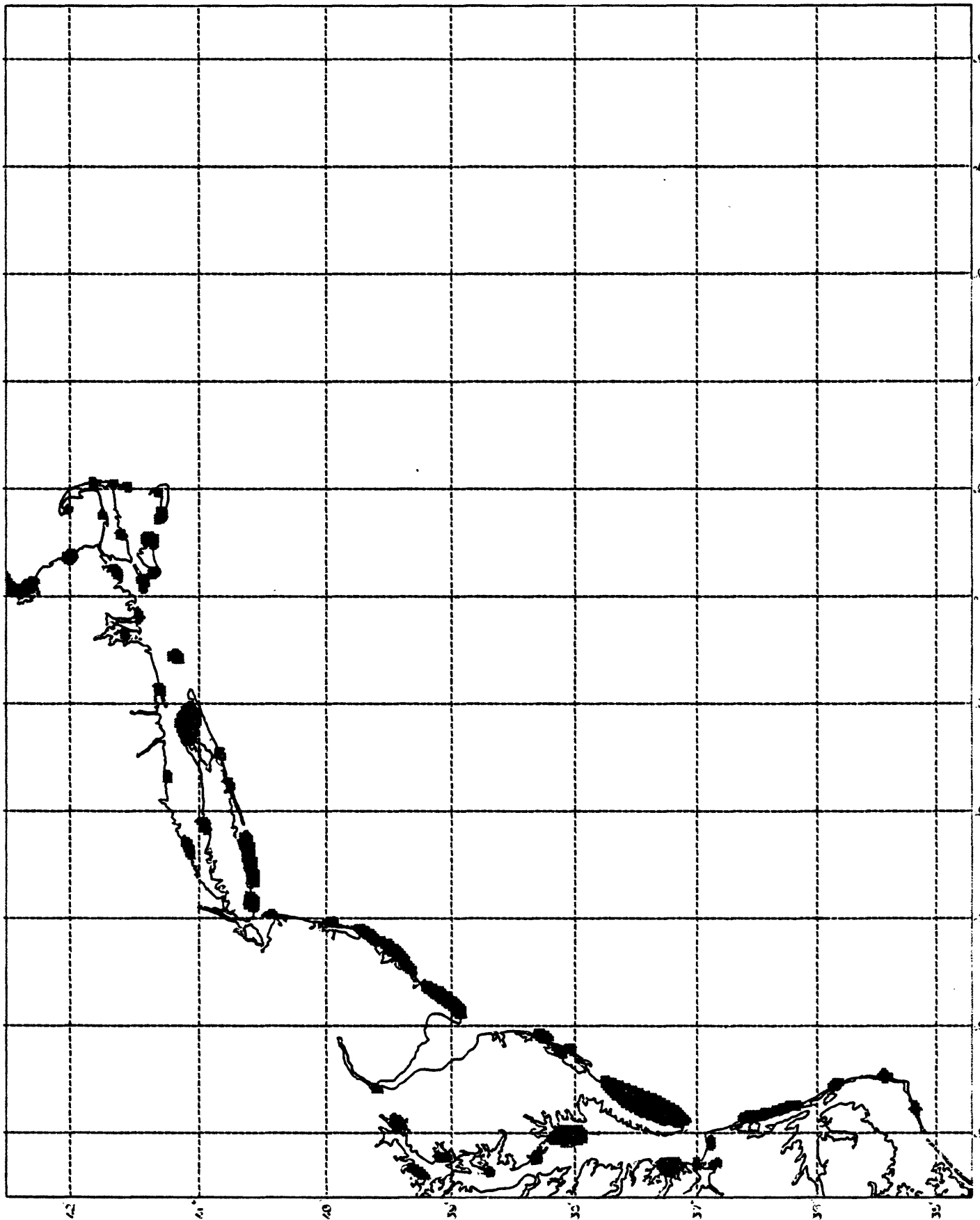


Figure A-1.--Map showing the locations of coastal waterbird colonies, mid-Atlantic OCS Lease Sale 76:
cross hatching indicates areal extent.

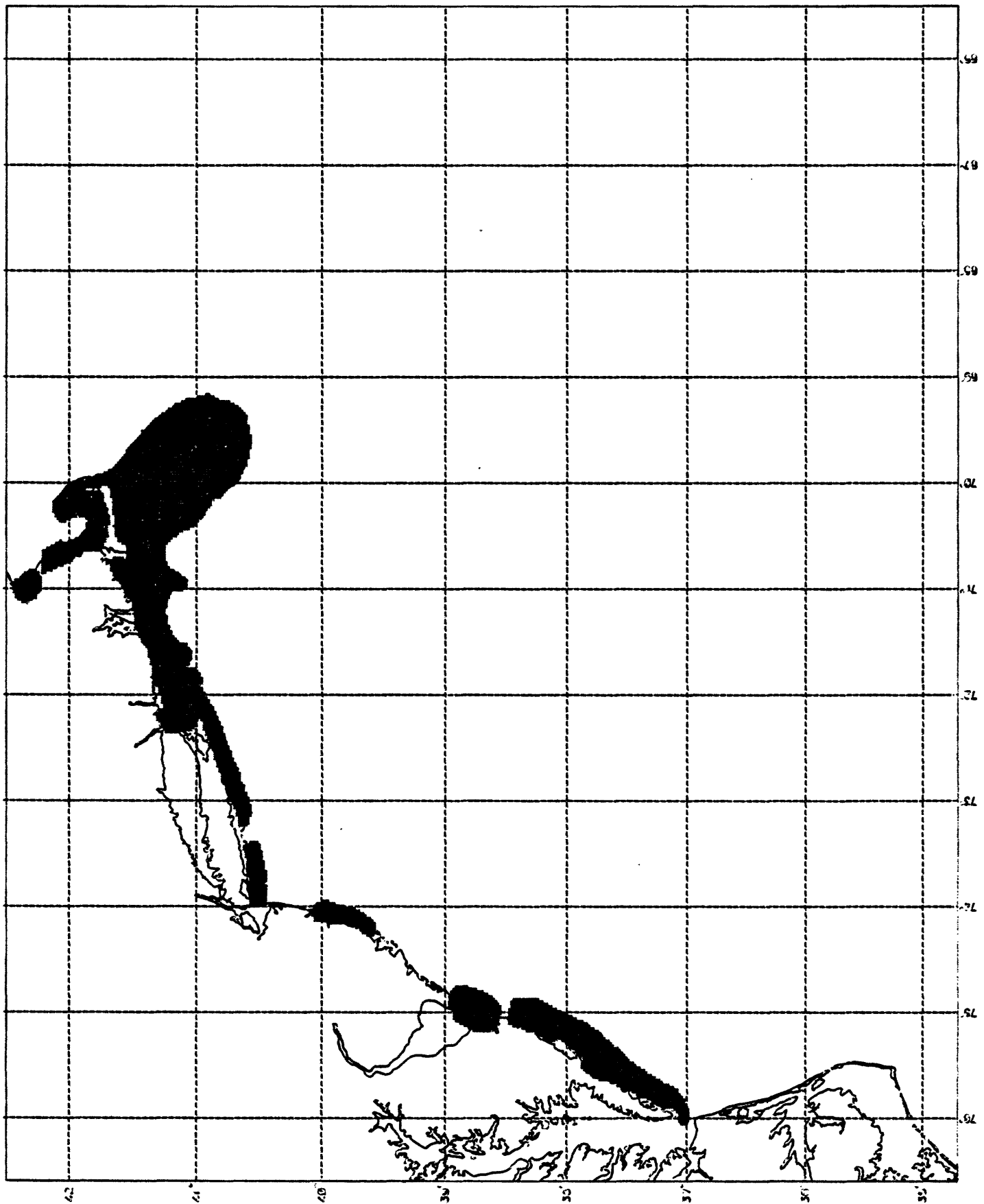


Figure A-2.--Map showing the locations of sea duck wintering areas, mid-Atlantic OCS Lease Sale 76:
cross hatching indicates areal extent.

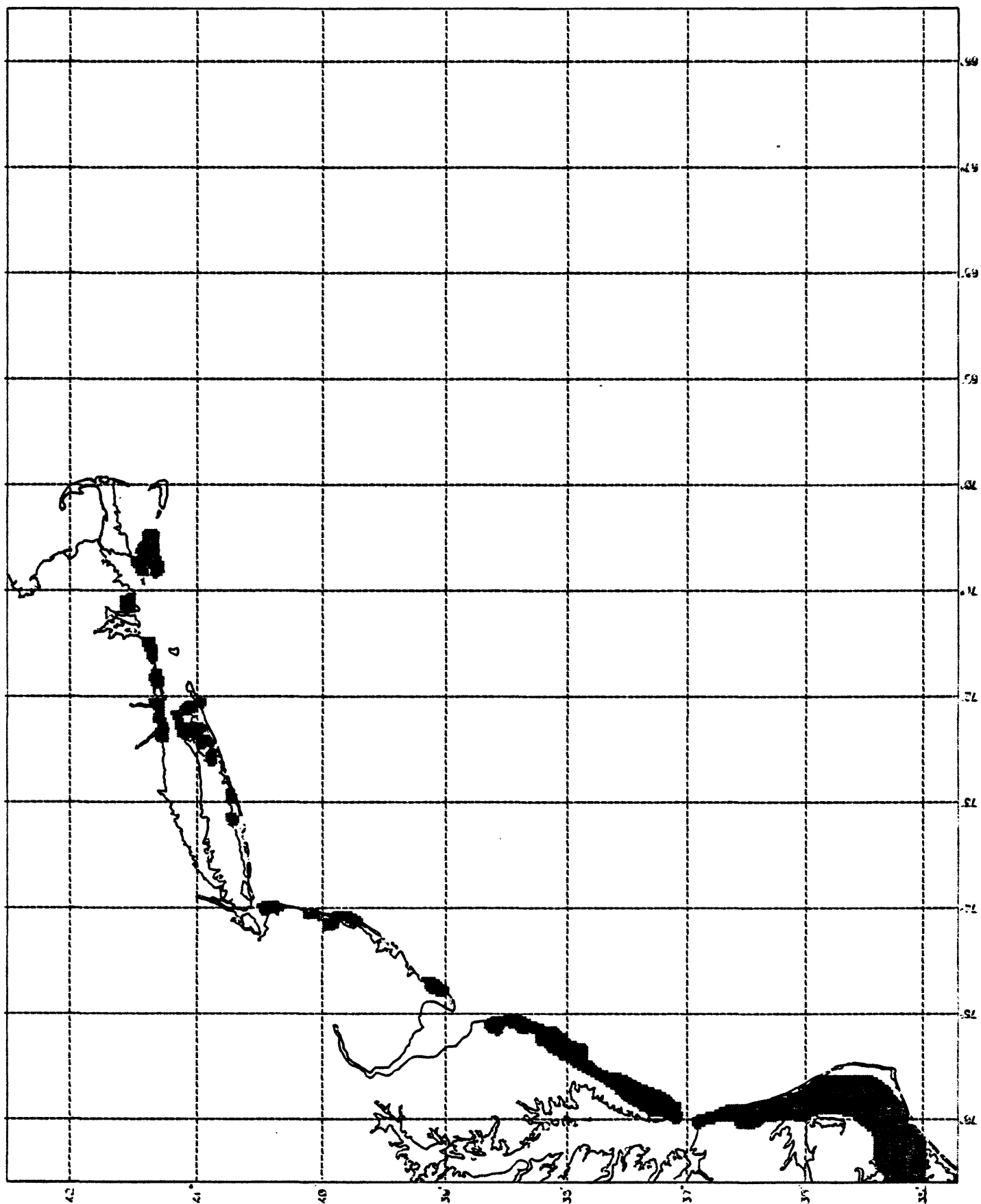


Figure A-3.--Map showing the locations of Osprey nesting areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

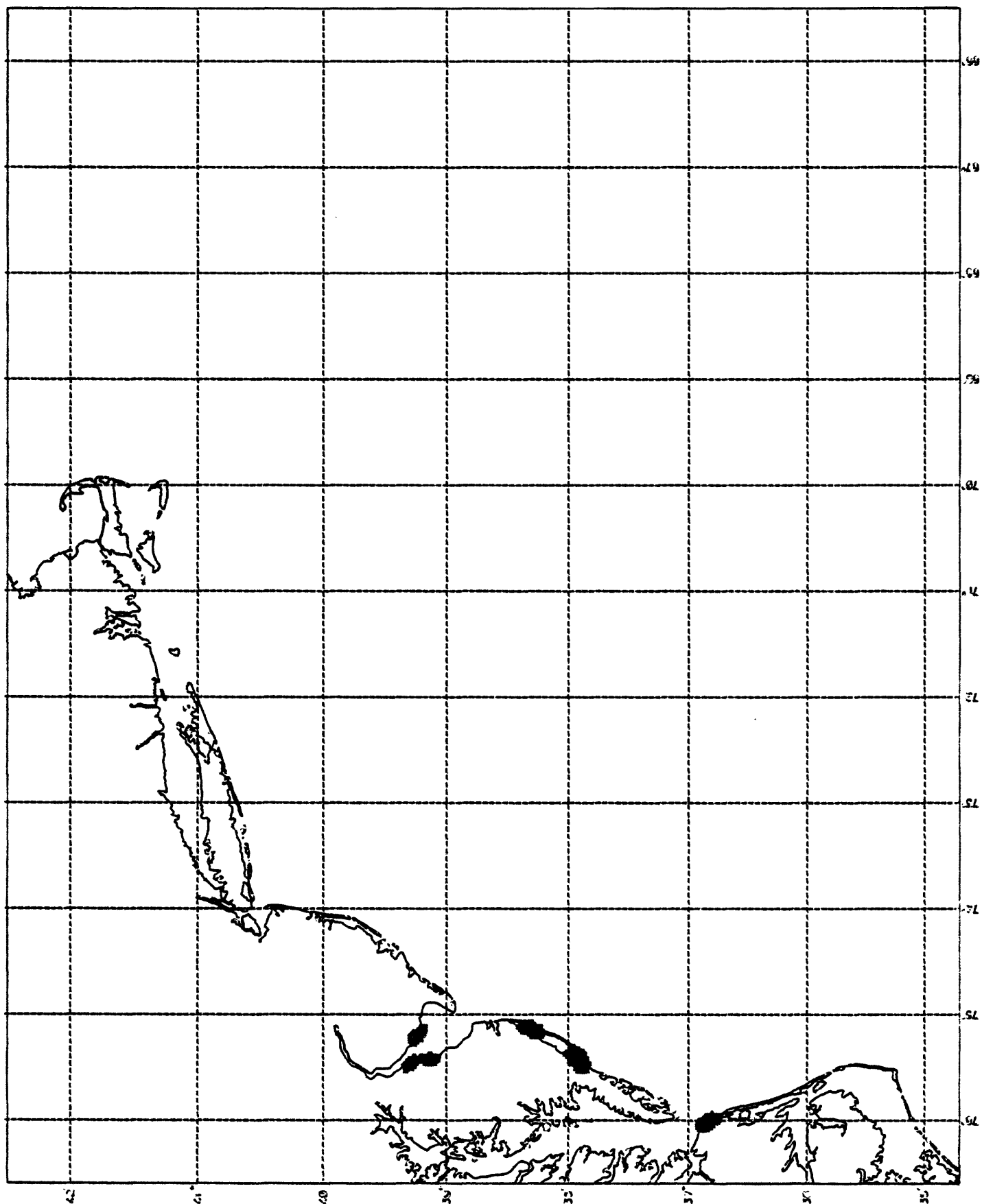


Figure A-4.--Map showing the locations of Bald eagle nesting areas, mid-Atlantic OCS Lease Sale 76:
cross hatching indicates areal extent.

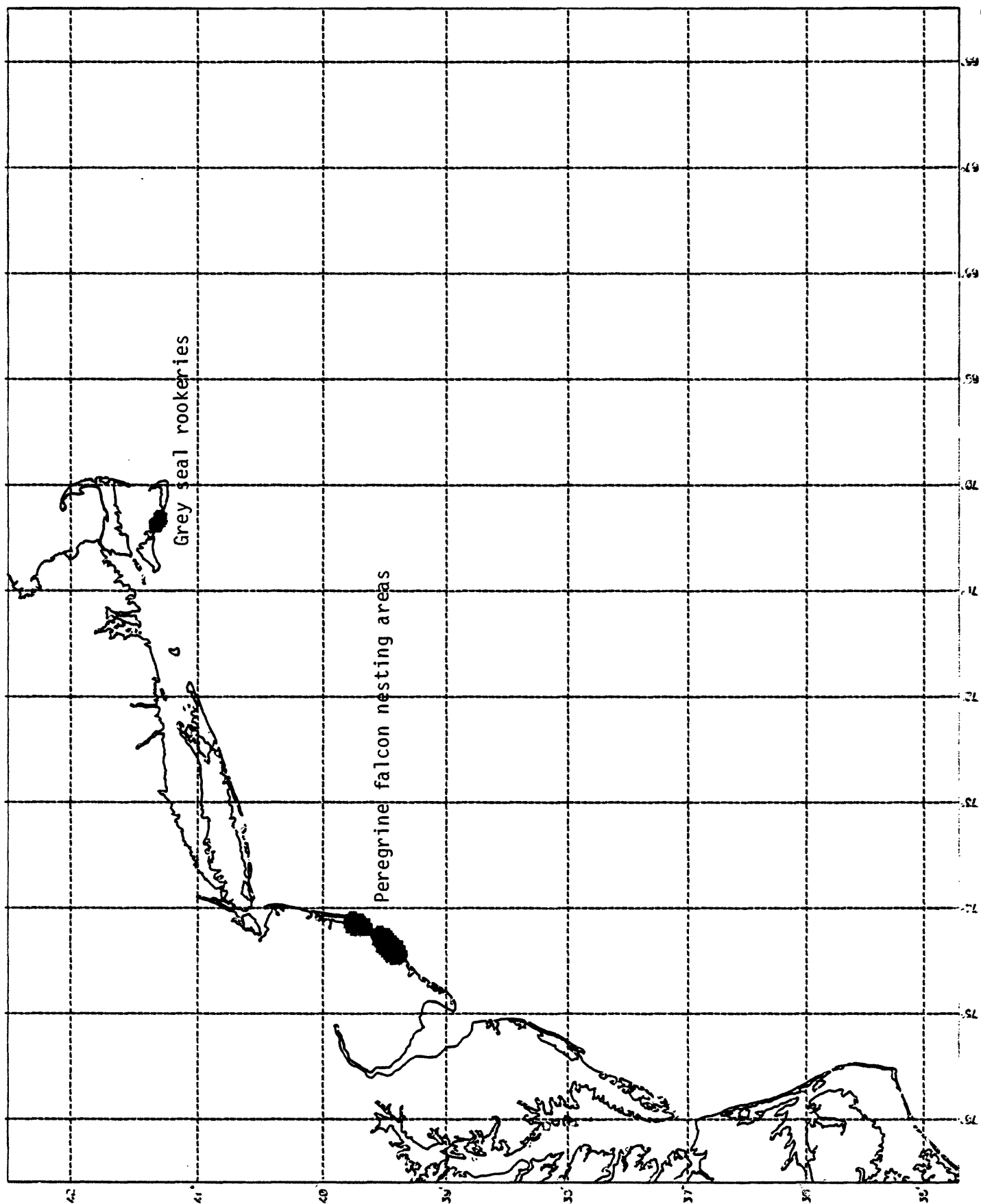


Figure A-5.--Map showing the locations of Grey seal rookeries and Peregrine falcon nesting areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

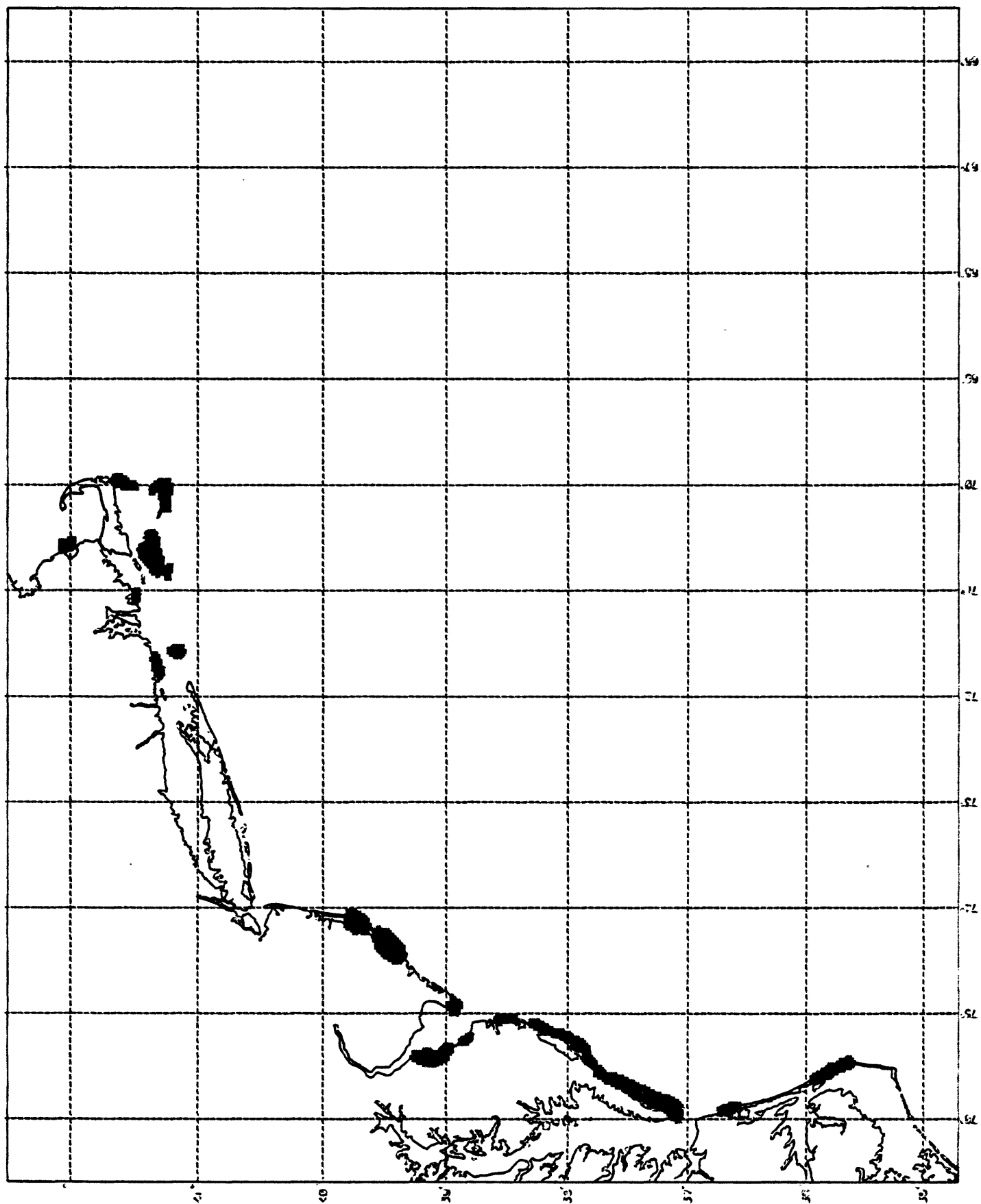


Figure A-6.--Map showing the locations of Peregrine falcon migratory stopover areas, mid-Atlantic OCS
 Lease Sale 76: cross hatching indicates areal extent.

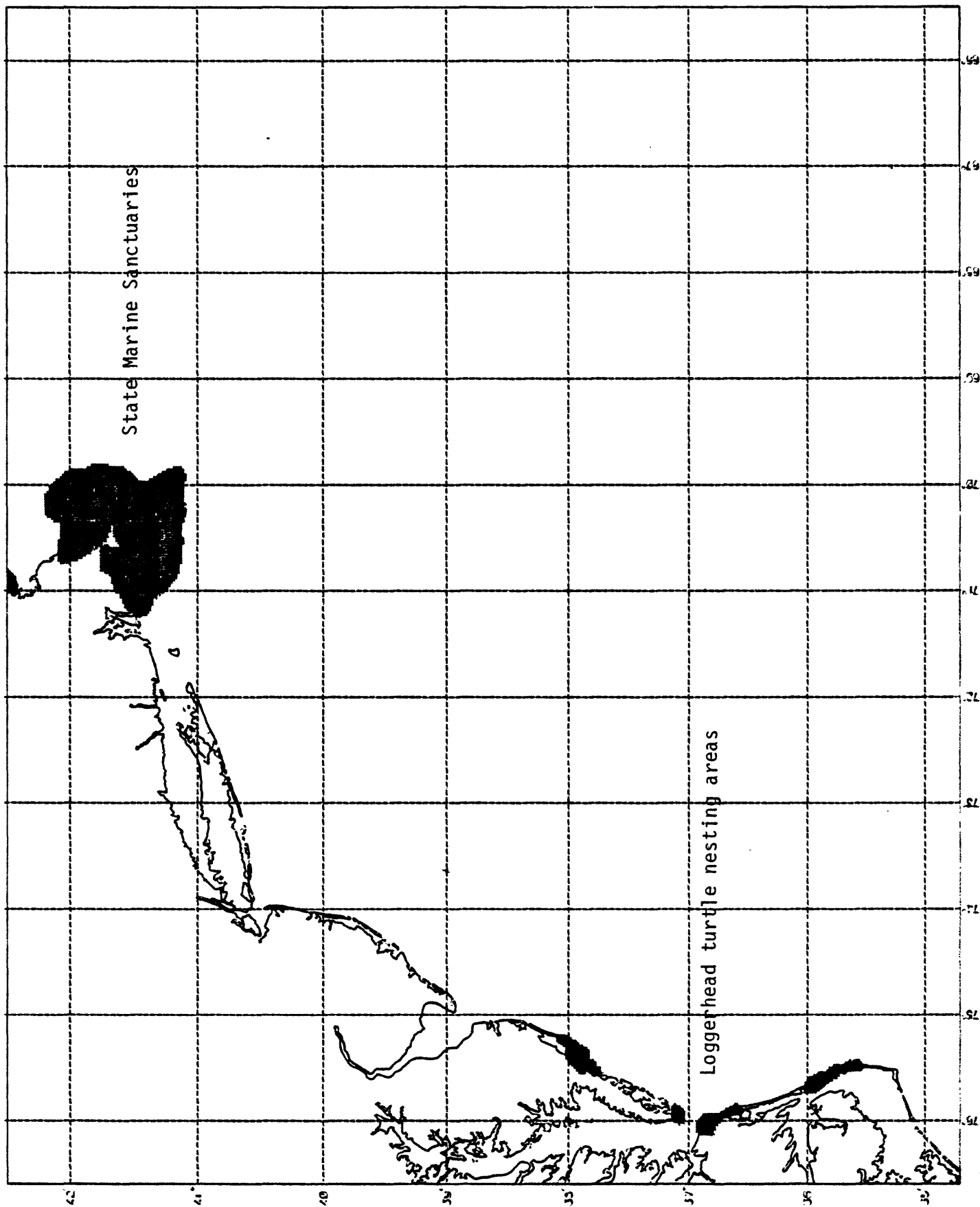


Figure A-7.--Map showing the locations of State Marine Sanctuaries and Loggerhead turtle nesting areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

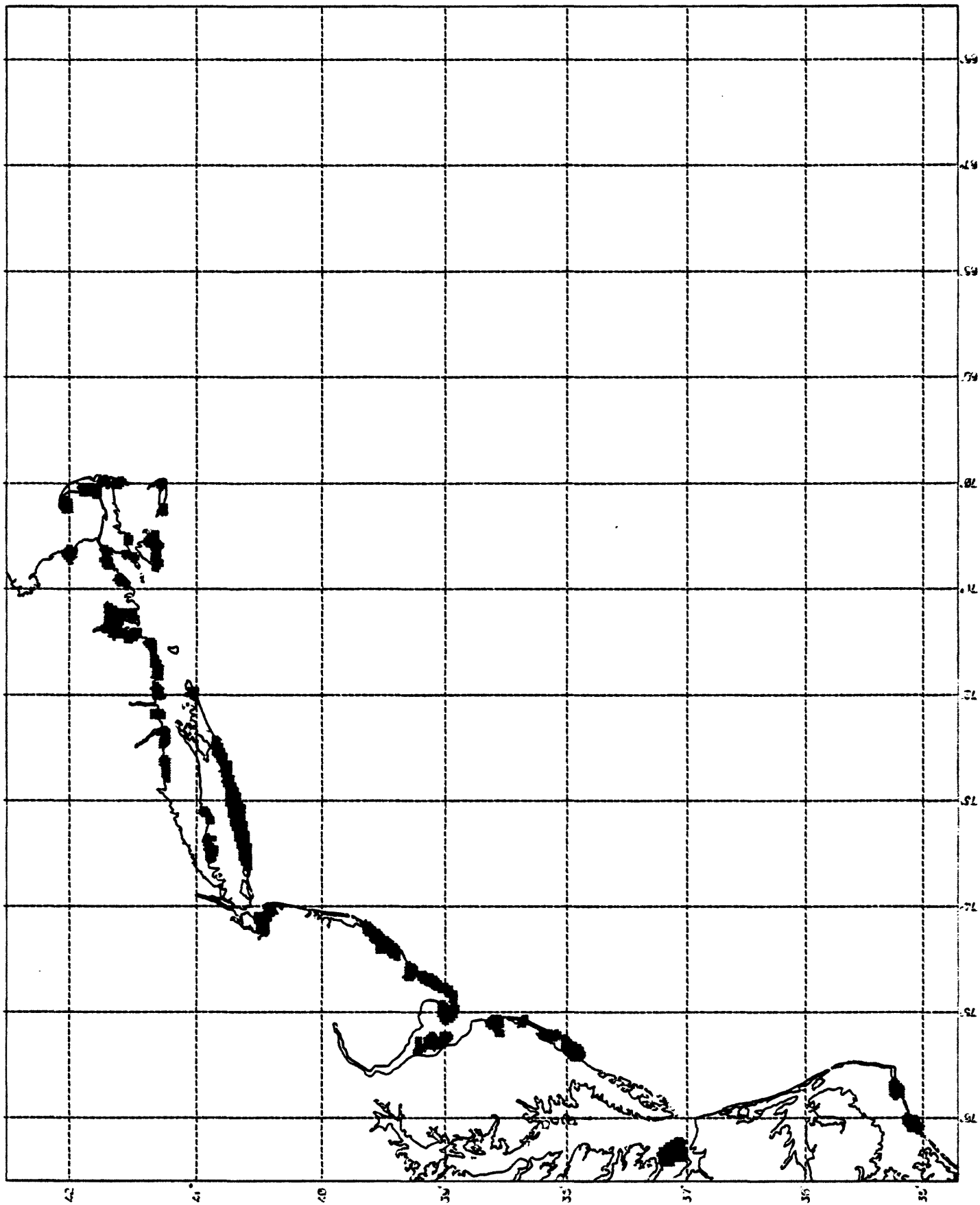


Figure A-8.--Map showing the locations of hard clam grounds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

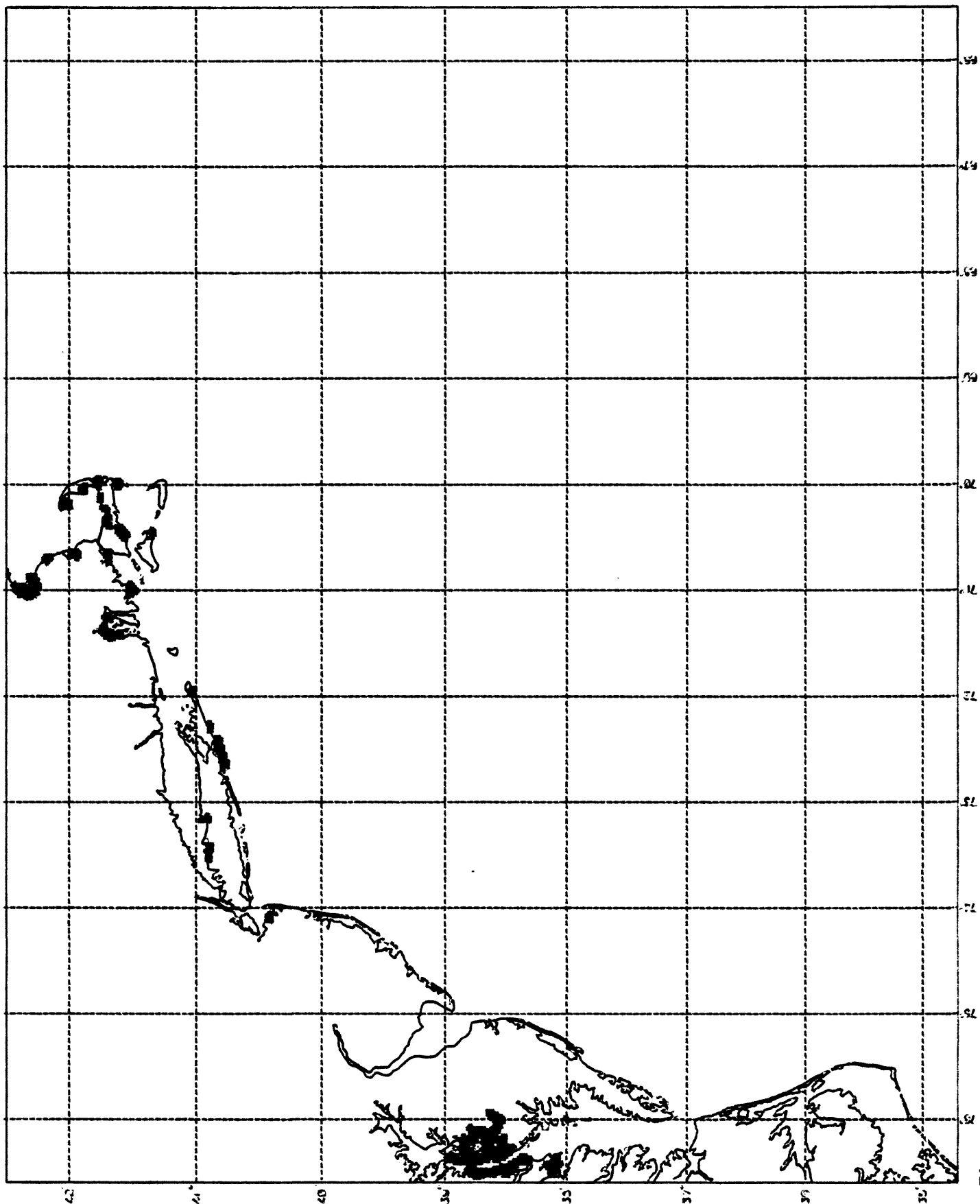


Figure A-9.--Map showing the locations of soft clam grounds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

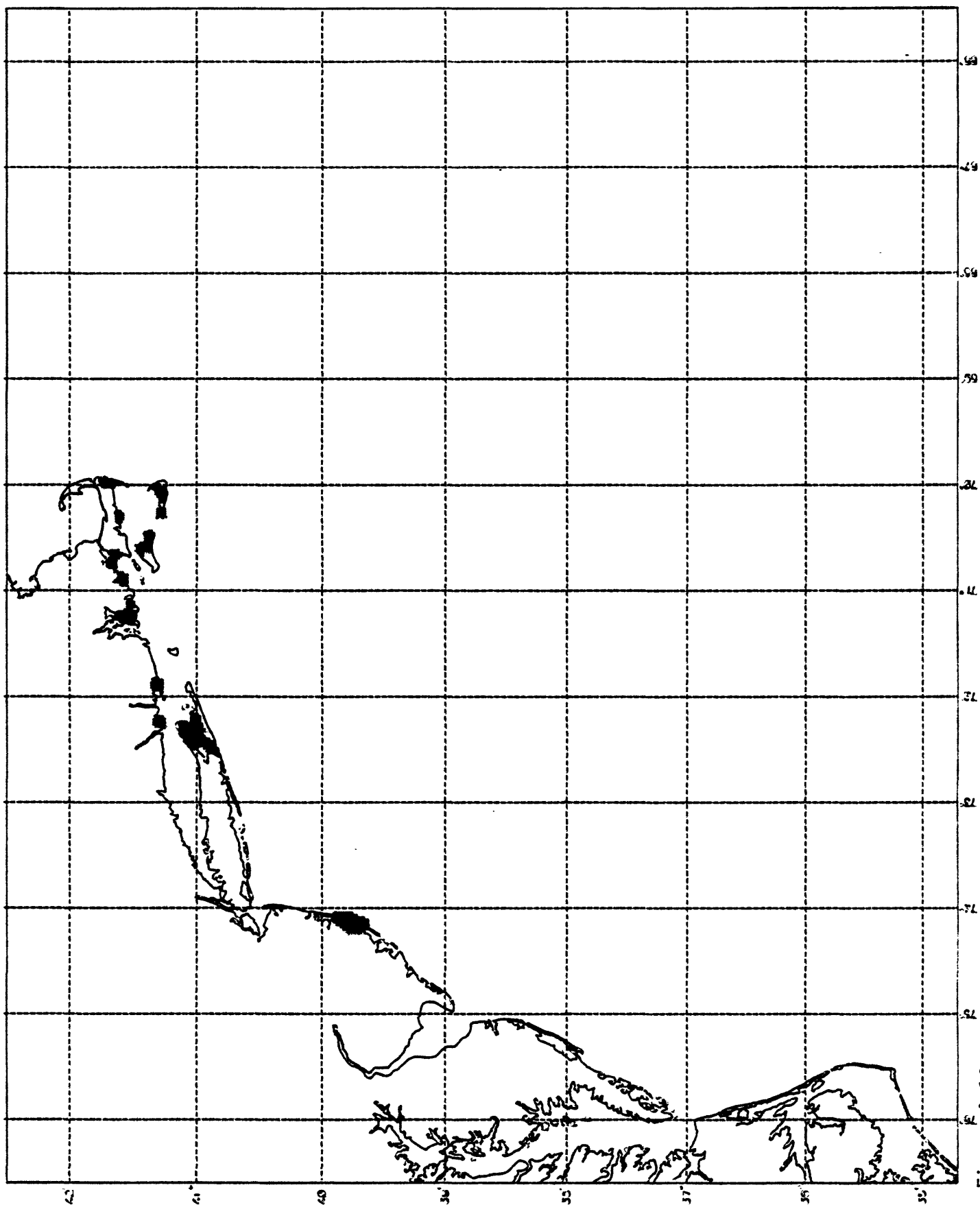


Figure A-10.--Map showing the locations of bay scallop beds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

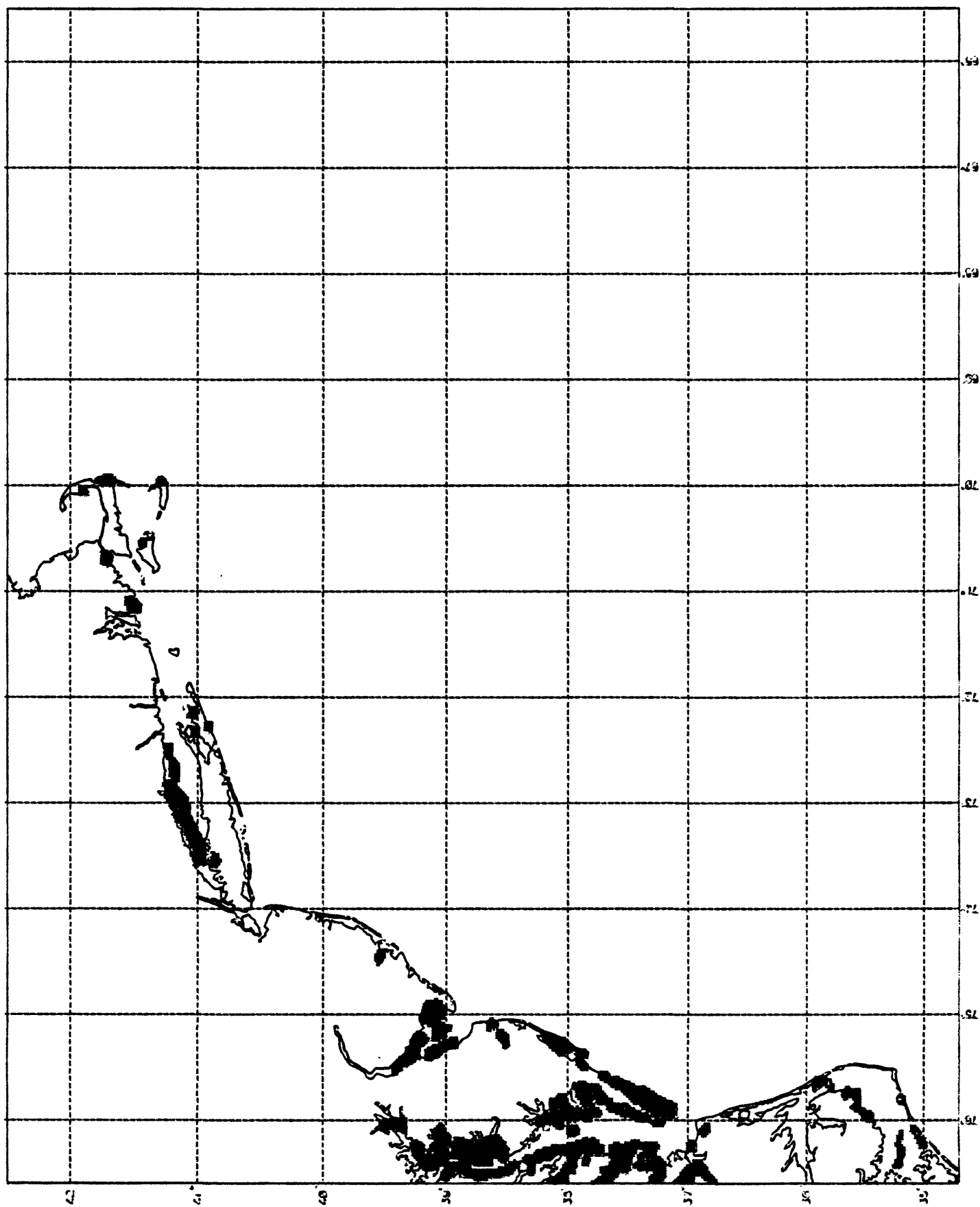


Figure A-11.--Map showing the locations of oyster grounds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

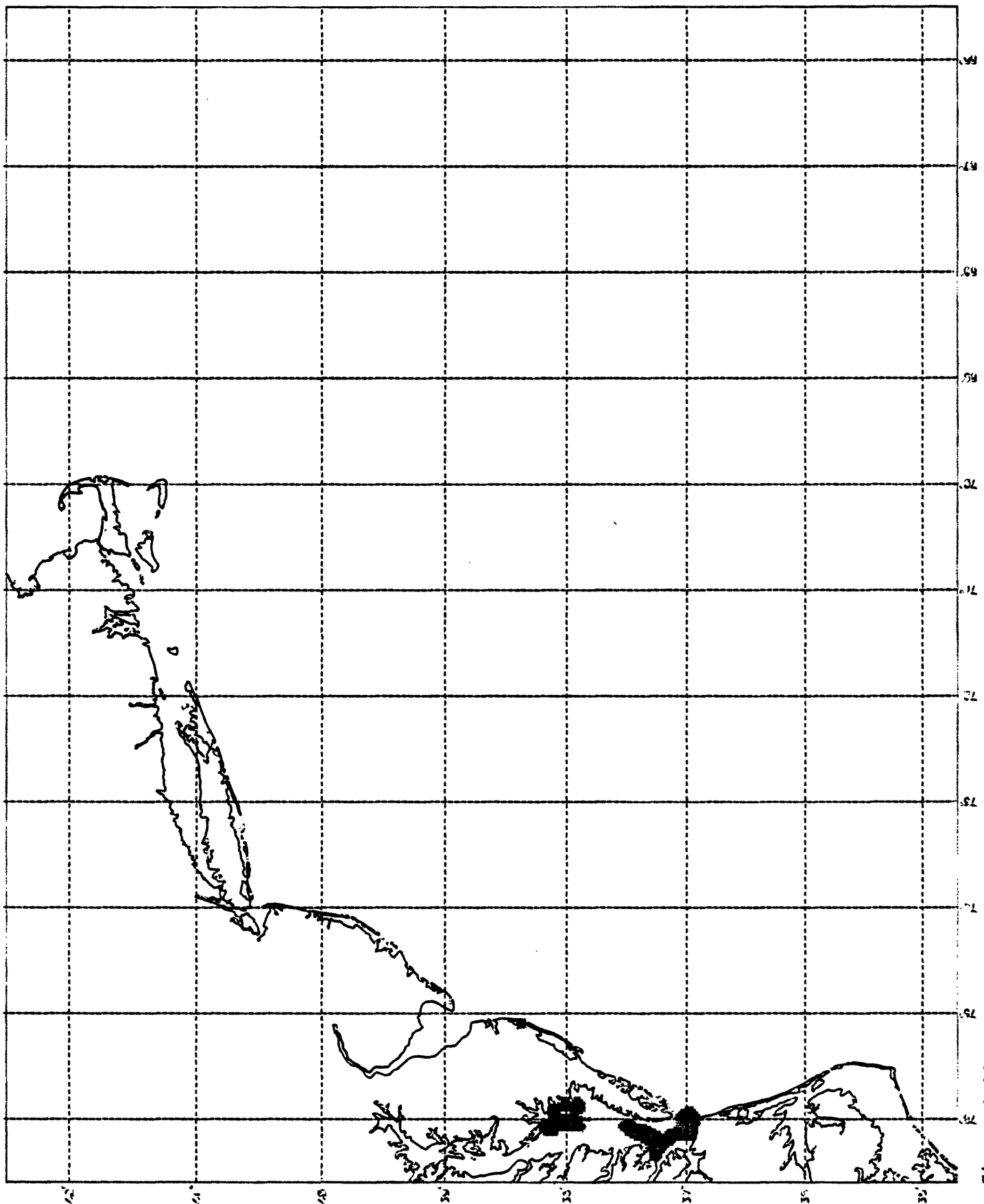


Figure A-12.--Map showing the locations of blue crab grounds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

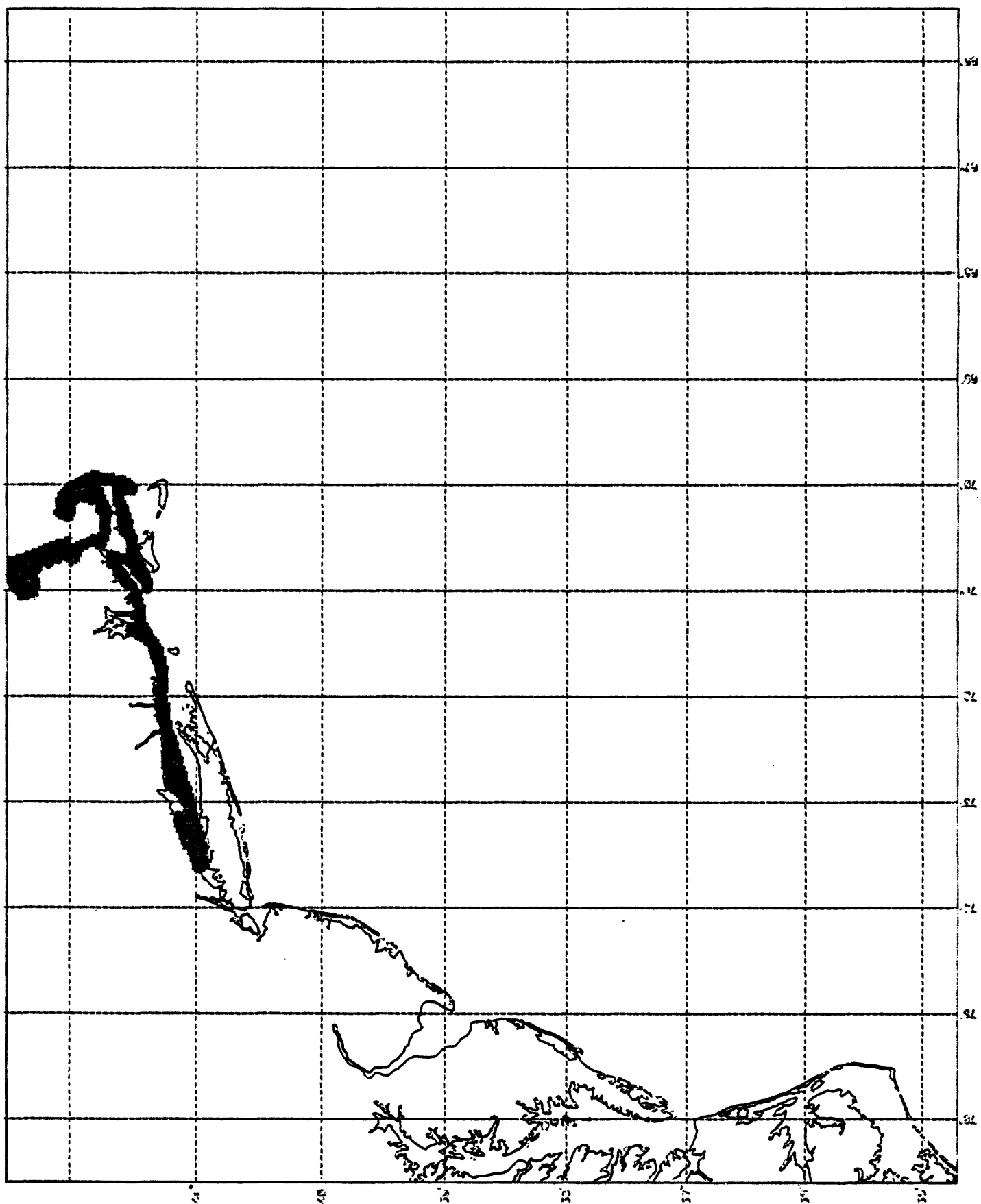


Figure A-13.--Map showing the locations of inshore lobster grounds, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

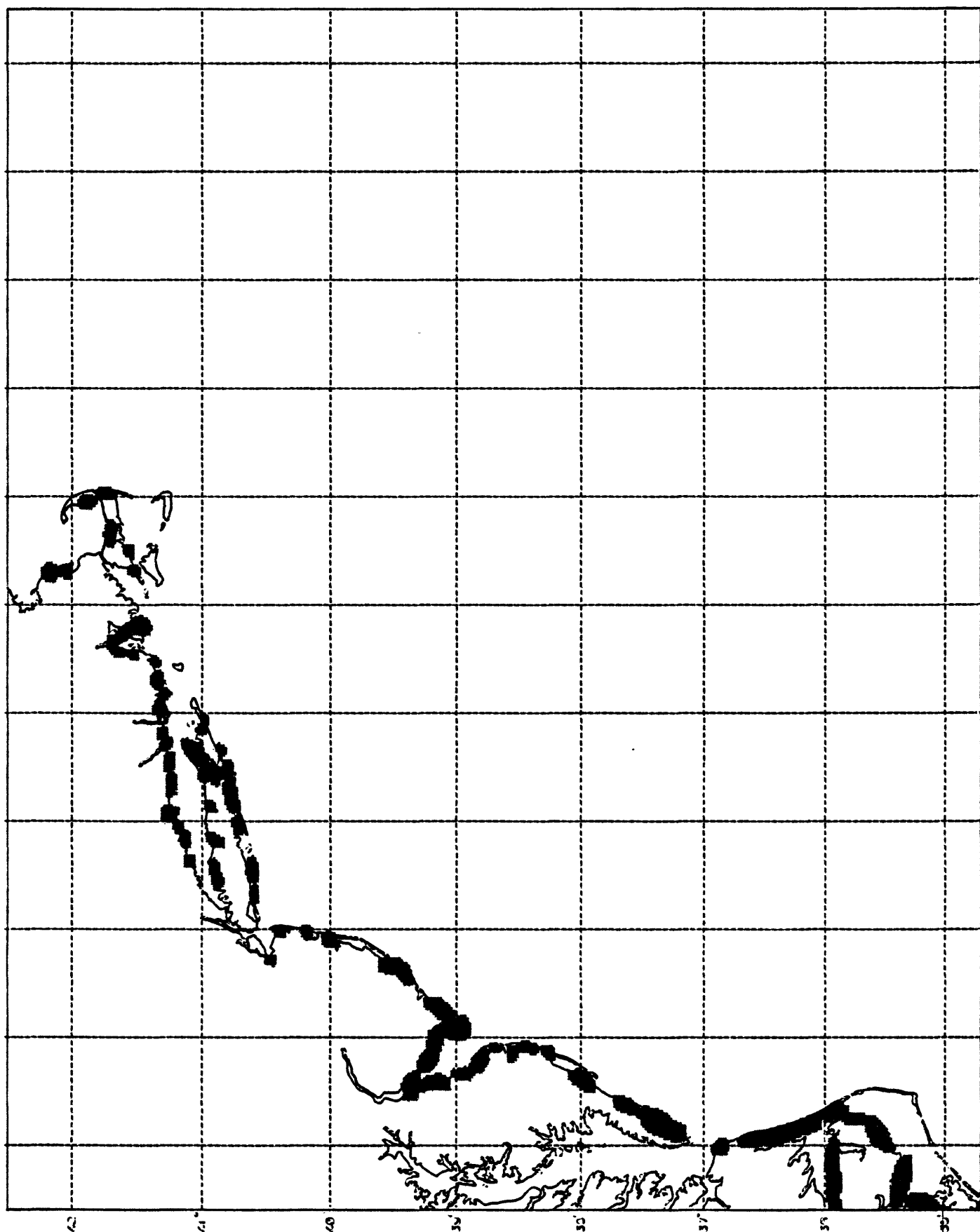


Figure A-14.--Map showing the locations of coastal marshes, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

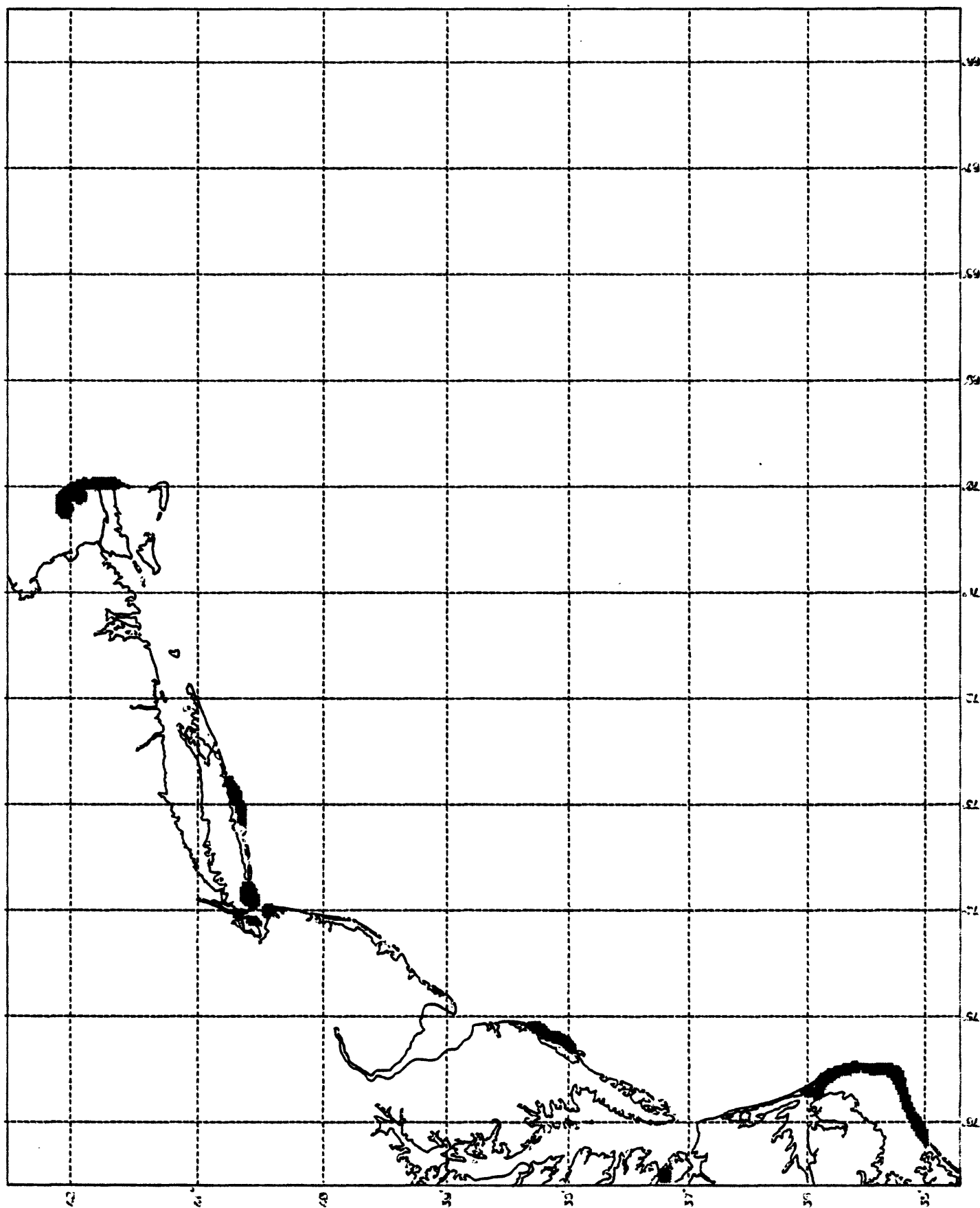


Figure A-15.--Map showing the locations of National parks, seashores, and recreation areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

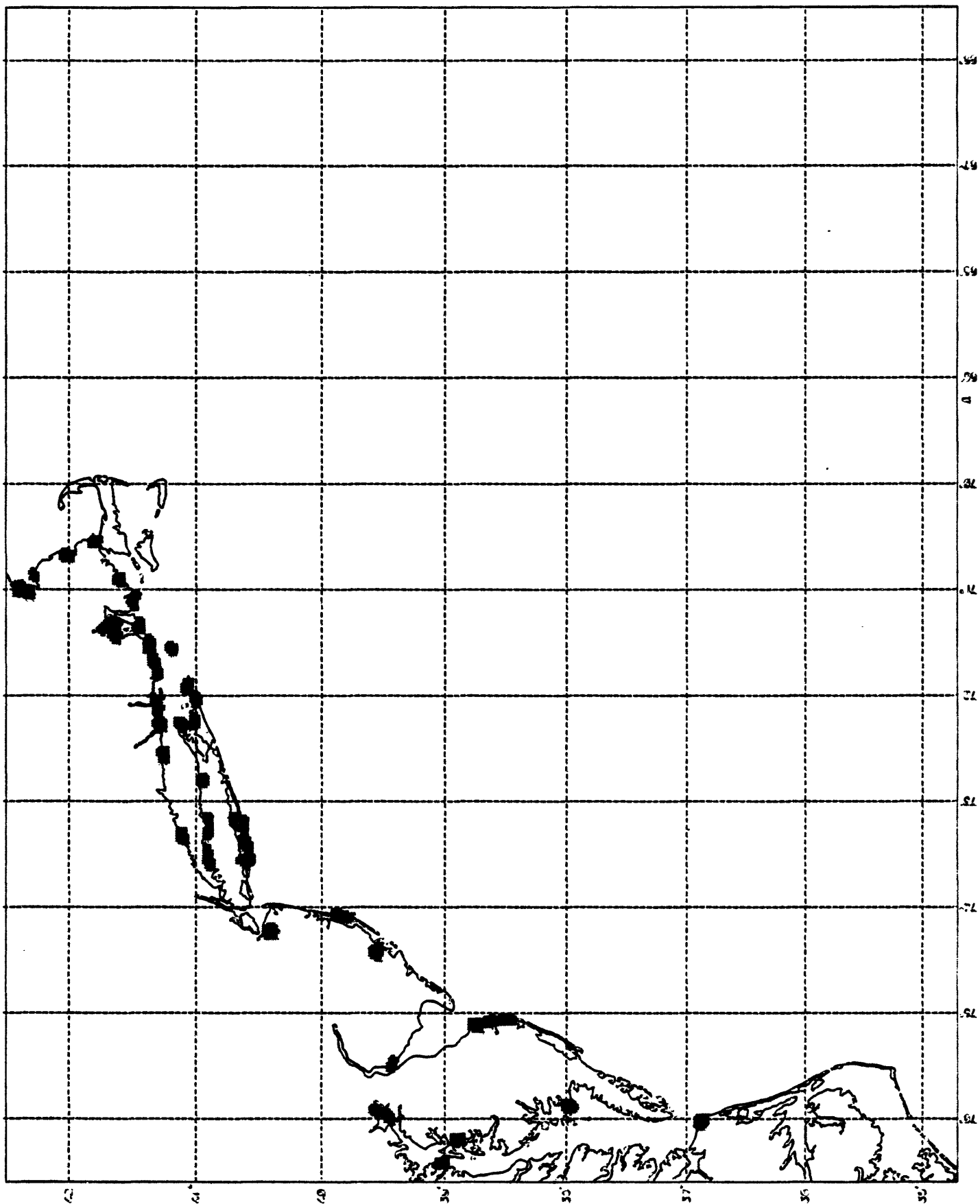


Figure A-16.--Map showing the locations of State parks and seashores, mid-Atlantic OCS Lease Sale 76:
cross hatching indicates areal extent.

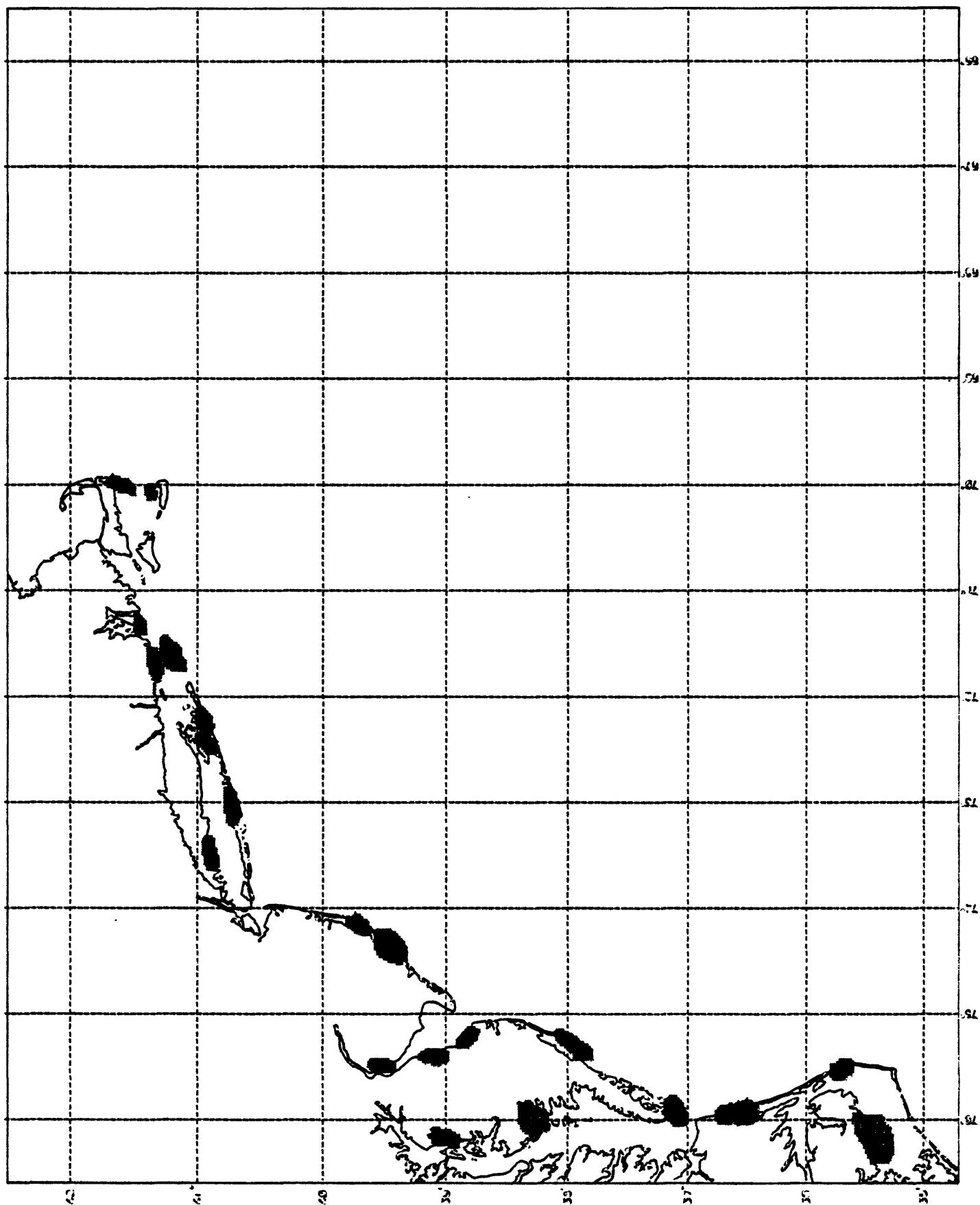


Figure A-17.--Map showing the locations of National wildlife refuges, mid-Atlantic OCS Lease Sale 76:
cross hatching indicates areal extent.

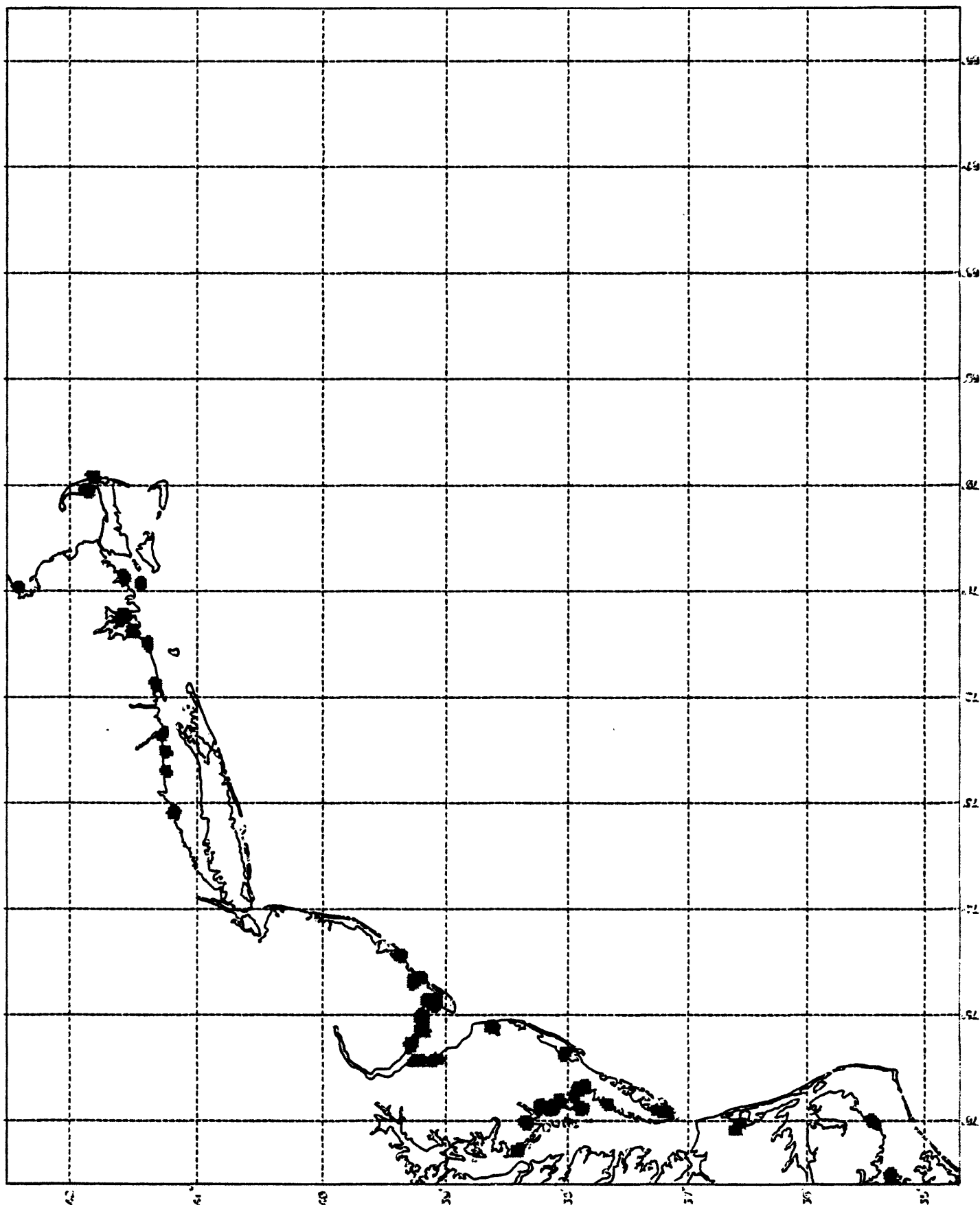


Figure A-18.--Map showing the locations of State wildlife and natural areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

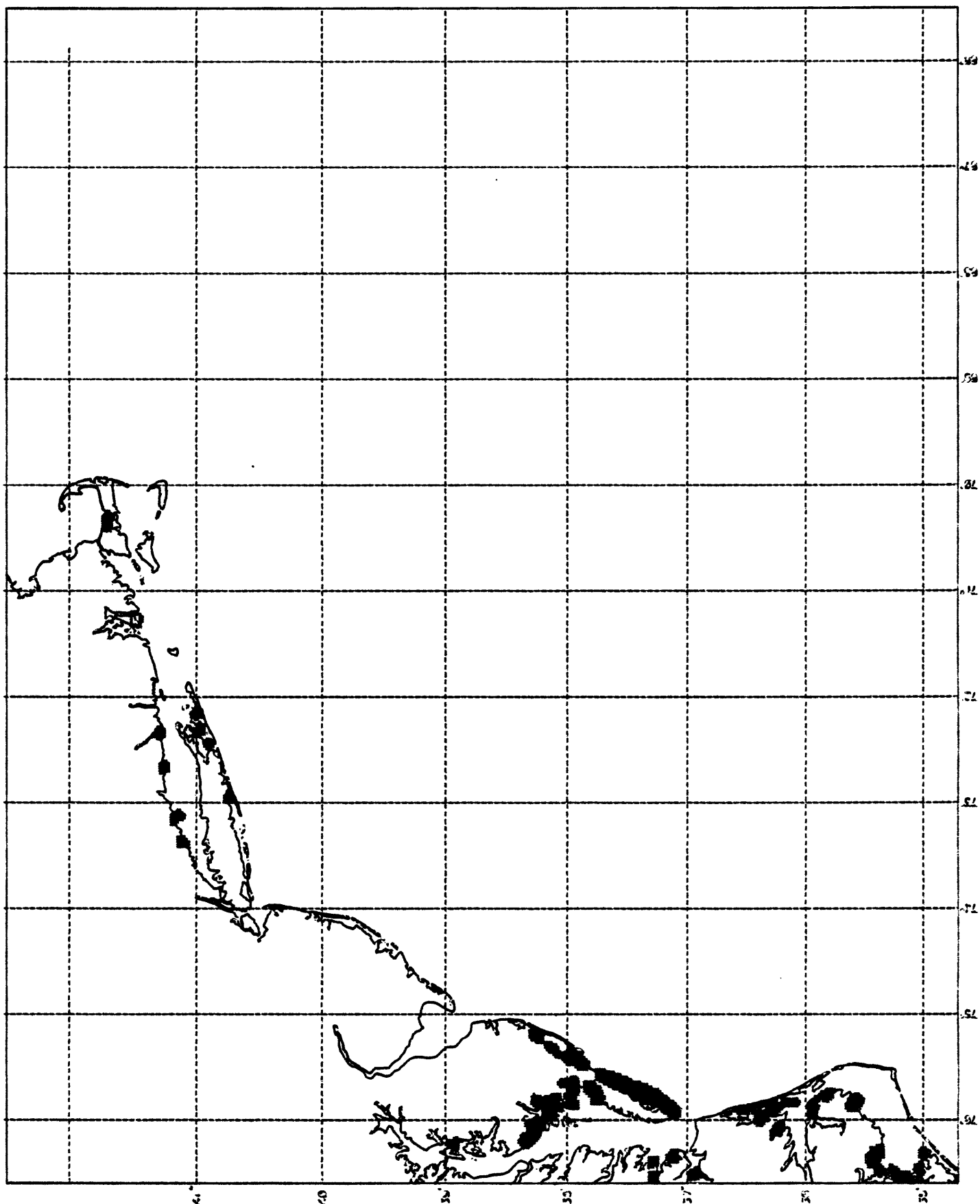


Figure A-19.--Map showing the locations of nongovernment wildlife and natural areas, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

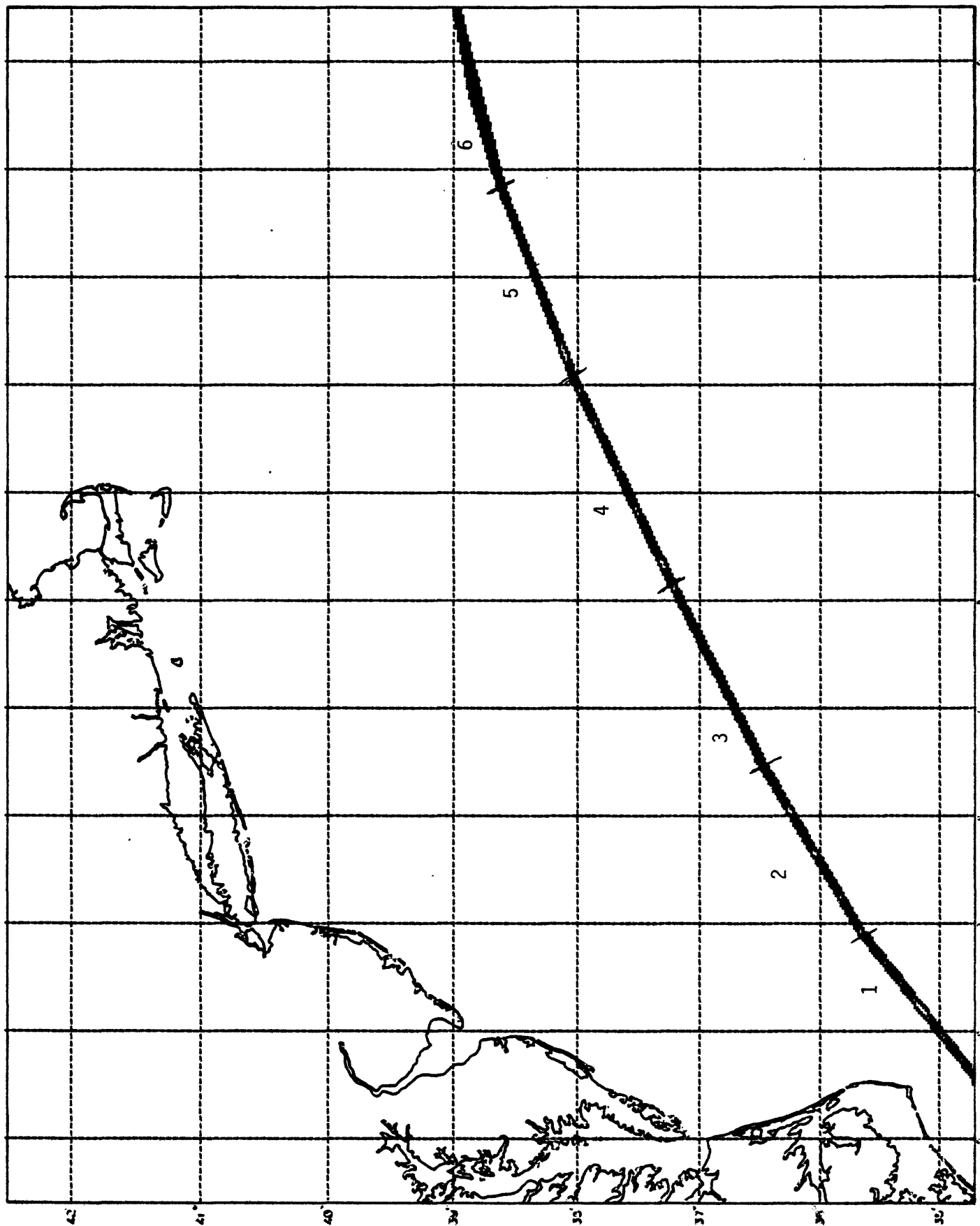


Figure A-20.--Map showing the locations of Gulf Stream boundary segments 1-6, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

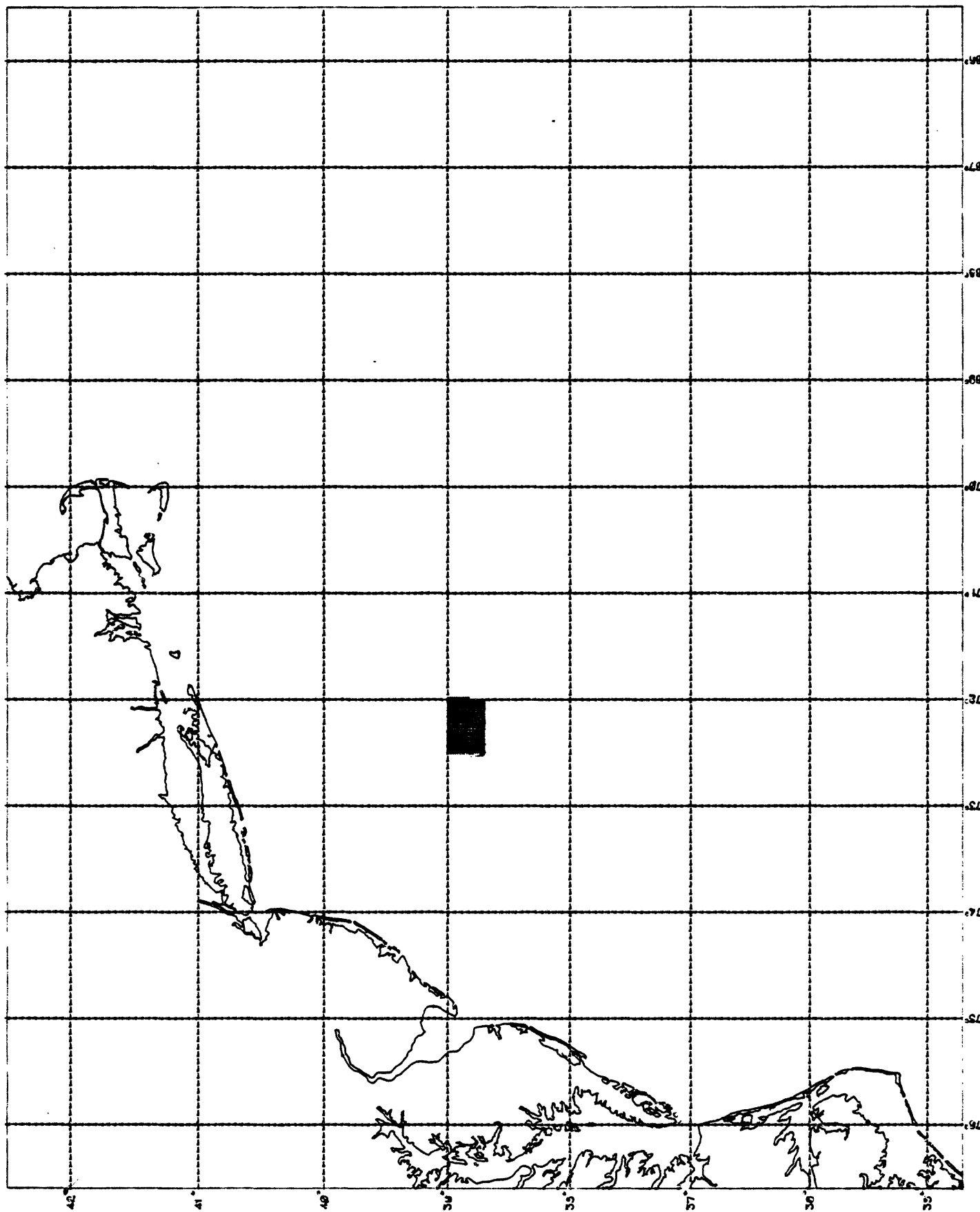


Figure A-21.--Map showing the locations of 106 mile dumpsite, mid-Atlantic OCS Lease Sale 76: cross hatching indicates areal extent.

Appendix B

Table d-1. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 10,000 barrels and greater.

Target	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	7	0.1	3	0.0	8	0.1	15	0.2	6	0.1	18	0.2
Coastal Waterbirds	2	0.0	1	0.0	7	0.1	6	0.1	2	0.0	12	0.1
Sea Duck Wint. Areas	9	0.1	4	0.0	24	0.3	13	0.1	5	0.1	45	0.6
Osprey Nesting Areas	1	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Peregr. Falc. Nest.	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Peregr. Falc. Migr.	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	4	0.0
Loggy. Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Hard Clam Grounds	1	0.0	1	0.0	4	0.0	4	0.0	2	0.0	10	0.1
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	1	0.0	1	0.0	4	0.0	3	0.0	1	0.0	9	0.1
Natl. Parks, Seashr.	1	0.0	n	0.0	2	0.0	3	0.0	1	0.0	5	0.1
State Parks, Seashr.	2	0.0	1	0.0	5	0.1	5	0.1	2	0.0	10	0.1
Natl. Wildlife Refs.	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0
State Wildlife Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Nongov. Wild. Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Gulf Stream Seg. 1	1	0.0	n	0.0	n	0.0	7	0.1	2	0.0	5	0.1
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	6	0.1	1	0.0	n	0.0
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	7	0.1
106 Mile Dumpsite	12	0.1	5	0.1	1	0.0	16	0.2	6	0.1	6	0.1

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table H-2. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 10,000 barrels and greater.

Land Segment	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	Prob Mean	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	Prob Mean	proposed leases	existing (40, 49 and 59)	existing (42 and 52)	Prob Mean
2	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	2 0.0	1 0.0	2 0.0	2 0.0
3	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	2 0.0	1 0.0	1 0.0	1 0.0
4	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0
7	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	n 0.0	n 0.0	n 0.0	2 0.0	1 0.0	n 0.0	n 0.0
8	3 0.0	1 0.0	n 0.0	n 0.0	4 0.0	2 0.0	n 0.0	n 0.0	4 0.0	2 0.0	n 0.0	n 0.0
9	1 0.0	1 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	n 0.0
10	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	n 0.0	n 0.0
11	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	1 0.0
12	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	2 0.0	n 0.0	1 0.0	1 0.0
13	2 0.0	n 0.0	2 0.0	n 0.0	3 0.0	1 0.0	6 0.1	n 0.0	4 0.0	1 0.0	7 0.1	7 0.1
14	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0
15	1 0.0	n 0.0	4 0.0	n 0.0	2 0.0	n 0.0	9 0.1	n 0.0	2 0.0	n 0.0	10 0.1	10 0.1
16	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	n 0.0	1 0.0	n 0.0	3 0.0	3 0.0
17	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	2 0.0
21	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	2 0.0
24	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	2 0.0
25	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	n 0.0	n 0.0	6 0.1	6 0.1
26	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0

Note: n = less than 0.5 percent; ++ = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table U-3. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. existing leases from sales 42 and 52. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
3	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	1	0.0
4	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
5	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
8	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
9	1	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0
10	2	0.0	1	0.0	n	0.0	2	0.0	4	0.0	n	0.0
11	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	2	0.0
12	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0
13	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
14	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0
15	2	0.0	n	0.0	n	0.0	n	0.0	3	0.0	1	0.0
16	1	0.0	n	0.0	2	0.0	1	0.0	3	0.0	1	0.0
17	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	n	0.0
18	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
28	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
29	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
30	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 9-4. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. tanker transportation of crude oil imports vs. tanker transportation of crude oil imports and refined products. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days					Within 10 days					Within 30 days							
	proposed leases		crude oil only		crude and refined	proposed leases		crude oil only		crude and refined	proposed leases		crude oil only		crude and refined			
	Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean				
Land	7	0.1	29	0.3	63	1.0	15	0.2	53	0.8	90	2.3	22	0.2	68	1.1	97	3.5
Coastal Waterbirds	2	0.0	8	0.1	26	0.3	6	0.1	22	0.2	57	0.8	9	0.1	35	0.4	75	1.4
Sea Duck Wint. Areas	9	0.1	34	0.4	62	1.0	13	0.1	44	0.6	80	1.6	19	0.2	60	0.9	94	2.8
Osprey Nesting Areas	1	0.0	1	0.0	7	0.1	2	0.0	9	0.1	22	0.2	3	0.0	14	0.2	34	0.4
B. Eagle Nest. Areas	n	0.0	1	0.0	3	0.0	n	0.0	2	0.0	5	0.1	n	0.0	2	0.0	6	0.1
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	3	0.0
Peregr. Falc. Nest.	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	6	0.1	1	0.0	3	0.0	12	0.1
Peregr. Falc. Migr.	1	0.0	6	0.1	17	0.2	3	0.0	16	0.2	38	0.5	5	0.1	23	0.3	52	0.7
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	4	0.0	1	0.0	6	0.1	26	0.3
Logn. Turtle Nest.	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	5	0.0	2	0.0	2	0.0	6	0.1
Hard Clam Grounds	1	0.0	6	0.1	14	0.1	4	0.0	15	0.2	33	0.4	6	0.1	21	0.2	48	0.7
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	4	0.0
Bay Scallop Beds	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	7	0.1	2	0.0	4	0.0	15	0.2
Oyster Grounds	n	0.0	1	0.0	2	0.0	1	0.0	3	0.0	6	0.1	1	0.0	5	0.0	11	0.1
Blue Crab Grounds	n	0.0	2	0.0	14	0.2	n	0.0	3	0.0	16	0.2	n	0.0	3	0.0	17	0.2
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0
Coastal Marshes	1	0.0	5	0.1	14	0.2	3	0.0	11	0.1	28	0.3	5	0.0	16	0.2	40	0.5
Natl. Parks, Seashr.	1	0.0	6	0.1	20	0.2	3	0.0	16	0.2	45	0.6	5	0.0	23	0.3	56	0.8
State Parks, Seashr.	2	0.0	10	0.1	21	0.2	5	0.1	18	0.2	37	0.5	6	0.1	21	0.2	46	0.6
Natl. Wildlife Refs.	1	0.0	4	0.0	19	0.2	3	0.0	13	0.1	44	0.6	5	0.1	23	0.3	62	1.0
State Wildlife Nat.	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0	n	0.0	2	0.0	7	0.1
Nongov. Wildlife Nat.	n	0.0	n	0.0	2	0.0	n	0.0	2	0.0	6	0.1	1	0.0	4	0.0	10	0.1
Gulf Stream Seg. 1	1	0.0	54	0.8	96	3.2	7	0.1	77	1.5	**	5.7	14	0.2	86	2.0	**	7.1
Gulf Stream Seg. 2	n	0.0	10	0.1	33	0.4	6	0.1	73	1.3	99	5.0	17	0.2	88	2.1	**	7.4
Gulf Stream Seg. 3	n	0.0	22	0.3	12	0.1	3	0.0	63	1.0	92	2.5	24	0.3	92	2.5	**	7.3
Gulf Stream seg. 4	n	0.0	9	0.1	8	0.1	1	0.0	36	0.5	34	0.4	22	0.3	89	2.2	**	5.6
Gulf Stream Seg. 5	n	0.0	2	0.0	3	0.0	n	0.0	19	0.2	21	0.2	11	0.1	68	1.2	92	2.5
Gulf Stream Seg. 6	n	0.0	12	0.1	13	0.1	n	0.0	50	0.7	61	0.9	6	0.1	84	1.8	97	3.5
106 Mile Dumpsite	12	0.1	43	0.6	50	0.7	16	0.2	54	0.8	62	1.0	21	0.2	72	1.3	84	1.9

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table B-5. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. tanker transportation of crude oil imports vs. tanker transportation of crude oil imports and refined products. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		crude and refined		proposed leases		crude and refined		proposed leases		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
2	n	0.0	4	0.0	10	0.1	35	0.4	2	0.0	15	0.2
3	n	0.0	2	0.0	8	0.1	36	0.5	2	0.0	15	0.2
4	n	0.0	1	0.0	3	0.0	18	0.2	1	0.0	5	0.1
5	n	0.0	1	0.0	1	0.0	8	0.1	n	0.0	2	0.0
6	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	3	0.0
7	n	0.0	12	0.1	7	0.1	12	0.1	2	0.0	9	0.1
8	3	0.0	19	0.2	20	0.2	32	0.4	4	0.0	22	0.3
9	1	0.0	10	0.1	8	0.1	12	0.1	1	0.0	8	0.1
10	n	0.0	4	0.0	5	0.0	10	0.1	1	0.0	7	0.1
11	n	0.0	2	0.0	2	0.0	7	0.1	1	0.0	4	0.0
12	n	0.0	n	0.0	1	0.0	7	0.1	2	0.0	4	0.0
13	2	0.0	3	0.0	3	0.0	9	0.1	4	0.0	4	0.0
14	n	0.0	1	0.0	n	0.0	2	0.0	n	0.0	n	0.0
15	1	0.0	5	0.0	2	0.0	10	0.1	2	0.0	2	0.0
16	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
25	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	2	0.0
26	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 3-6. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. tanker transportation of crude oil imports vs. tanker transportation of crude oil imports and refined products. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days				Within 10 days				Within 30 days			
	proposed leases		crude and refined		proposed leases		crude and refined		proposed leases		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
2	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
3	n	0.0	6	0.1	24	0.3	15	0.2	3	0.0	23	0.3
4	n	0.0	n	0.0	4	0.0	2	0.0	1	0.0	5	0.1
5	n	0.0	1	0.0	10	0.1	3	0.0	1	0.0	5	0.1
6	n	0.0	1	0.0	6	0.1	1	0.0	1	0.0	2	0.0
7	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	2	0.0
8	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	3	0.0
9	1	0.0	2	0.0	4	0.0	8	0.1	2	0.0	11	0.1
10	2	0.0	17	0.2	3	0.0	16	0.2	4	0.0	18	0.2
11	1	0.0	11	0.1	1	0.0	9	0.1	1	0.0	9	0.1
12	n	0.0	2	0.0	3	0.0	4	0.0	1	0.0	6	0.1
13	n	0.0	1	0.0	3	0.0	2	0.0	1	0.0	5	0.1
14	n	0.0	1	0.0	1	0.0	3	0.0	3	0.0	7	0.1
15	2	0.0	3	0.0	3	0.0	3	0.0	3	0.0	3	0.0
16	1	0.0	2	0.0	2	0.0	1	0.0	1	0.0	1	0.0
17	n	0.0	2	0.0	1	0.0	1	0.0	1	0.0	1	0.0
18	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	2	0.0
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
28	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0
29	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
30	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0

Note: n = less than 0.5 percent; ++ = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 11-7. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days				Within 10 days				Within 30 days				-----					
	proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)		proposed leases		existing (40, 49 and 59)			
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean		
Land	7	0.1	3	0.0	8	0.1	15	0.2	6	0.1	16	0.2	22	0.2	8	0.1	23	0.3
Coastal waterbirds	2	0.0	1	0.0	3	0.0	6	0.1	2	0.0	6	0.1	9	0.1	3	0.0	10	0.1
Sea Duck Wint. Areas	9	0.1	4	0.0	9	0.1	13	0.1	5	0.1	13	0.1	19	0.2	7	0.1	20	0.2
Osprey Nesting Areas	1	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	3	0.0	1	0.0	3	0.0
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Perey. falc. Nest.	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
Perey. falc. Migr.	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	3	0.0	5	0.1	2	0.0	5	0.1
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Logg. Turtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Hard Clam Grounds	1	0.0	1	0.0	2	0.0	4	0.0	2	0.0	4	0.0	6	0.1	2	0.0	6	0.1
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Bay Scallop Beds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Insh. Lobster Grnds.	1	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Coastal Marshes	n	0.0	1	0.0	1	0.0	3	0.0	1	0.0	4	0.0	5	0.0	2	0.0	5	0.0
Natl. Parks. Seashr.	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	3	0.0	5	0.0	2	0.0	5	0.1
State Parks. Seashr.	2	0.0	1	0.0	2	0.0	5	0.1	2	0.0	5	0.1	6	0.1	2	0.0	6	0.1
Natl. Wildlife Refs.	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	3	0.0	5	0.1	2	0.0	6	0.1
State Wildlife Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Nongov. Wild. Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
Gulf Stream Seg. 1	1	0.0	n	0.0	1	0.0	7	0.1	2	0.0	7	0.1	14	0.2	5	0.1	16	0.2
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	6	0.1	1	0.0	6	0.1	17	0.2	6	0.1	19	0.2
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	4	0.0	24	0.3	7	0.1	26	0.3
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	22	0.3	7	0.1	24	0.3
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	11	0.1	3	0.0	12	0.1
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1	1	0.0	6	0.1
106 Mile Dumpsite	12	0.1	5	0.1	12	0.1	16	0.2	6	0.1	17	0.2	21	0.2	7	0.1	22	0.3

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table B-8. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 10,000 barrels and greater.

Land Segment	----- Within 3 days -----			----- Within 10 days -----			----- Within 30 days -----		
	proposed leases	existing (40, 49 and 59)	proposed and existing	proposed leases	existing (40, 49 and 59)	proposed and existing	proposed leases	existing (40, 49 and 59)	proposed and existing
	Prob	Mean	Prob Mean	Prob	Mean	Prob Mean	Prob	Mean	Prob Mean
2	n	0.0	n	0.0	n	0.0	1	0.0	1
3	n	0.0	n	0.0	n	0.0	1	0.0	1
4	n	0.0	n	0.0	n	0.0	n	0.0	n
6	n	0.0	n	0.0	n	0.0	n	0.0	n
7	n	0.0	n	0.0	n	0.0	2	0.0	2
8	3	0.0	1	0.0	3	0.0	4	0.0	4
9	1	0.0	1	0.0	1	0.0	1	0.0	1
10	n	0.0	n	0.0	n	0.0	1	0.0	1
11	n	0.0	n	0.0	n	0.0	1	0.0	1
12	n	0.0	n	0.0	n	0.0	1	0.0	1
13	2	0.0	n	0.0	2	0.0	3	0.0	3
15	1	0.0	n	0.0	1	0.0	2	0.0	2
16	n	0.0	n	0.0	n	0.0	n	0.0	n

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table B-9. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. existing leases from sales 40, 49, and 59 vs. proposed sale 76 and existing leases from sales 40, 49, and 59. Probabilities are for spills 10,000 barrels and greater.

Land Segment	----- Within 3 days -----				----- Within 10 days -----				----- Within 30 days -----			
	proposed leases	existing (40, 49 and 59)	proposed existing	Prob Mean	proposed leases	existing (40, 49 and 59)	proposed existing	Prob Mean	proposed leases	existing (40, 49 and 59)	proposed existing	Prob Mean
3	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0	3 0.0	1 0.0	4 0.0	n 0.0
4	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0
5	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0
3	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0
9	1 0.0	n 0.0	1 0.0	n 0.0	2 0.0	1 0.0	2 0.0	n 0.0	2 0.0	1 0.0	2 0.0	n 0.0
10	2 0.0	1 0.0	2 0.0	2 0.0	3 0.0	2 0.0	3 0.0	3 0.0	4 0.0	2 0.0	4 0.0	n 0.0
11	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	2 0.0	n 0.0
12	n 0.0	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	1 0.0	n 0.0
13	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0
14	n 0.0	n 0.0	n 0.0	n 0.0	2 0.0	n 0.0	2 0.0	2 0.0	3 0.0	1 0.0	3 0.0	n 0.0
15	2 0.0	n 0.0	2 0.0	n 0.0	3 0.0	1 0.0	3 0.0	3 0.0	3 0.0	1 0.0	3 0.0	n 0.0
16	1 0.0	n 0.0	1 0.0	n 0.0	1 0.0	n 0.0	1 0.0	1 0.0	1 0.0	n 0.0	1 0.0	n 0.0
17	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	1 0.0	1 0.0	n 0.0	1 0.0	n 0.0
18	n 0.0	n 0.0	n 0.0	n 0.0	1 0.0	n 0.0	1 0.0	1 0.0	2 0.0	n 0.0	2 0.0	n 0.0

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 3-10. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting targets over the expected production life of the proposed sale 76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 10,000 barrels and greater.

Target	----- Within 3 days -----					----- Within 10 days -----					----- Within 30 days -----				
	proposed leases		deep water del.		geol. fav. alt.	proposed leases		deep water del.		geol. fav. alt.	proposed leases		deep water del.		geol. fav. alt.
	Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean	
Land	7	0.1	4	0.0	6	0.1	15	0.2	9	0.1	13	0.1	22	0.2	19
Coastal Waterbirds	2	0.0	1	0.0	2	0.0	6	0.1	3	0.0	5	0.1	9	0.1	8
Sea Duck Wint. Areas	9	0.1	6	0.1	8	0.1	13	0.1	8	0.1	11	0.1	19	0.2	16
Osprey Nesting Areas	1	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0	3	0.0	2
B. Eagle Nest. Areas	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Grey Seal Rookeries	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Peregr. Falc. Nest.	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	n	0.0	1
Peregr. Falc. Migr.	1	0.0	1	0.0	1	0.0	3	0.0	2	0.0	3	0.0	5	0.1	4
State Marine Sanct.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1
Logg. Furtle Nest.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Hard Clam Grounds	1	0.0	1	0.0	1	0.0	4	0.0	2	0.0	3	0.0	6	0.1	5
Soft Clam Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n
May Scallop Beds	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	2
Oyster Grounds	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	1
Blue Crab Grounds	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Insh. Lobster Grnds.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Coastal Marshes	1	0.0	1	0.0	1	0.0	3	0.0	2	0.0	3	0.0	5	0.0	4
Natl. Parks, Seashr.	2	0.0	1	0.0	2	0.0	5	0.1	3	0.0	4	0.0	6	0.1	5
State Parks, Seashr.	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	2	0.0	5	0.1	4
Natl. Wildlife Refs.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	4
State Wildlife Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Nongov. Wildl. Nat.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
Gulf Stream Seg. 1	1	0.0	n	0.0	1	0.0	7	0.1	n	0.0	6	0.1	14	0.2	12
Gulf Stream Seg. 2	n	0.0	n	0.0	n	0.0	6	0.1	3	0.0	5	0.0	17	0.2	15
Gulf Stream Seg. 3	n	0.0	n	0.0	n	0.0	3	0.0	2	0.0	3	0.0	24	0.3	21
Gulf Stream Seg. 4	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	12	0.1	20
Gulf Stream Seg. 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	5	0.1	10
Gulf Stream Seg. 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	5
106 Mile Bumpsite	12	0.1	6	0.1	11	0.1	16	0.2	8	0.1	15	0.2	21	0.2	20

Note: n = less than 0.5 percent; ** = greater than 99.5 percent.

Table B-11. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the proposed sale 76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 10,000 barrels and greater.

Land Segment	----- Within 3 days -----					----- Within 10 days -----					----- Within 30 days -----				
	proposed leases		deep water del.		geol. fav. alt.	proposed leases		deep water del.		geol. fav. alt.	proposed leases		deep water del.		geol. fav. alt.
	Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean		Prob	Mean	Prob	Mean	
2	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	2
3	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	2
4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n
7	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	1	0.0	2
3	3	0.0	2	0.0	n	0.0	4	0.0	2	0.0	3	0.0	3	0.0	4
7	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1
10	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	n	0.0	1
11	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1
12	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	2
13	2	0.0	1	0.0	1	0.0	3	0.0	2	0.0	4	0.0	2	0.0	4
15	1	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0	1	0.0	2
16	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n

Note: n = less than 0.5 percent; ** = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Table 3-12. -- Probabilities (expressed as percent chance) of one or more spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the proposed sale 76 lease area vs. deep water deletion alternative vs. geologically most favorable alternative. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed leases			geol. fav. alt.			proposed leases			geol. fav. alt.			proposed leases			geol. fav. alt.		
	Prob	Mean	del.	Prob	Mean	alt.	Prob	Mean	del.	Prob	Mean	alt.	Prob	Mean	del.	Prob	Mean	alt.
3	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	3	0.0	2	0.0	3	0.0
4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
8	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0
9	1	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	2	0.0	1	0.0	2	0.0
10	2	0.0	1	0.0	2	0.0	3	0.0	2	0.0	3	0.0	4	0.0	2	0.0	3	0.0
11	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0
12	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
13	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0
14	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	3	0.0	2	0.0	3	0.0
15	2	0.0	1	0.0	2	0.0	3	0.0	2	0.0	3	0.0	3	0.0	2	0.0	3	0.0
16	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
17	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0
18	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	1	0.0	1	0.0

Note: n = less than 0.5 percent; ++ = greater than 99.5 percent. Segments with less than 0.5 percent probability of one or more contacts within 30 days are not shown.

Appendix C

LAND

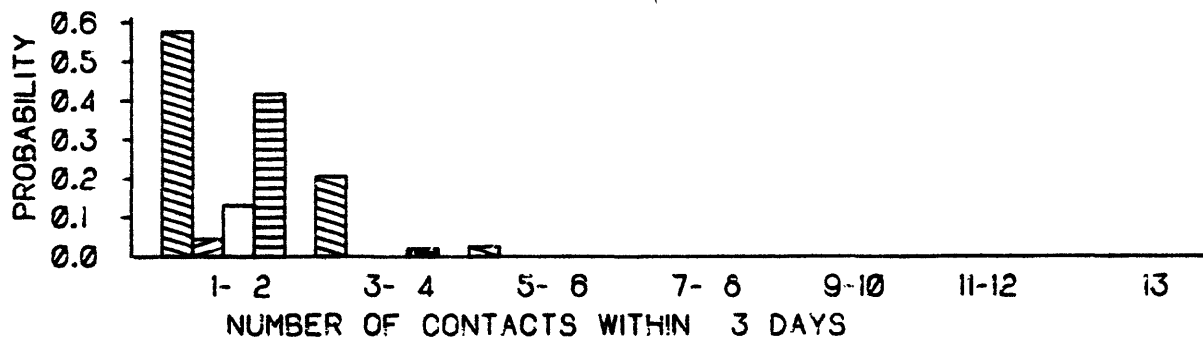
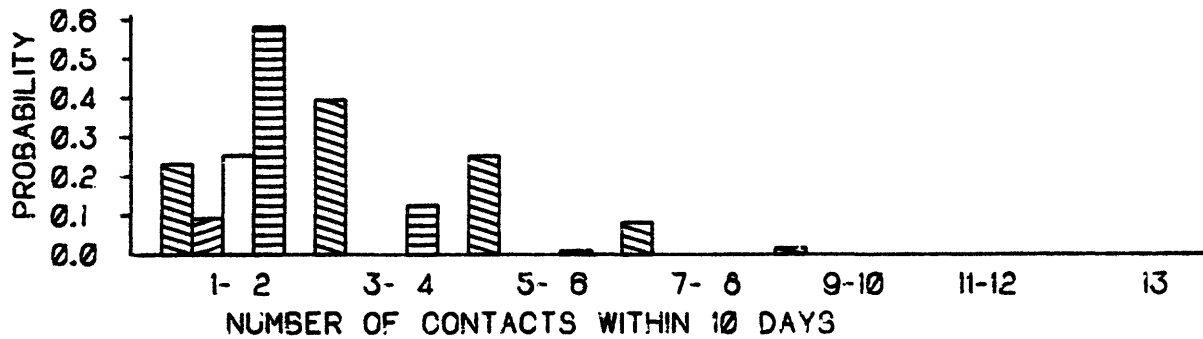
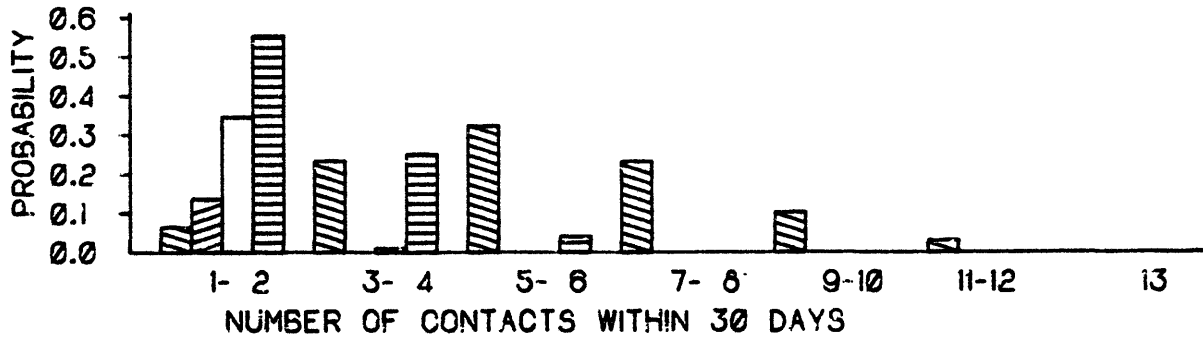
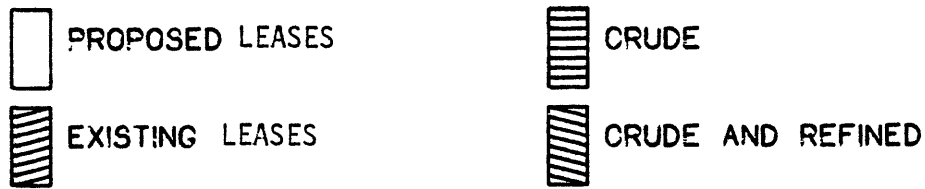


Figure C-1.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting land.

COASTAL WATERBIRDS

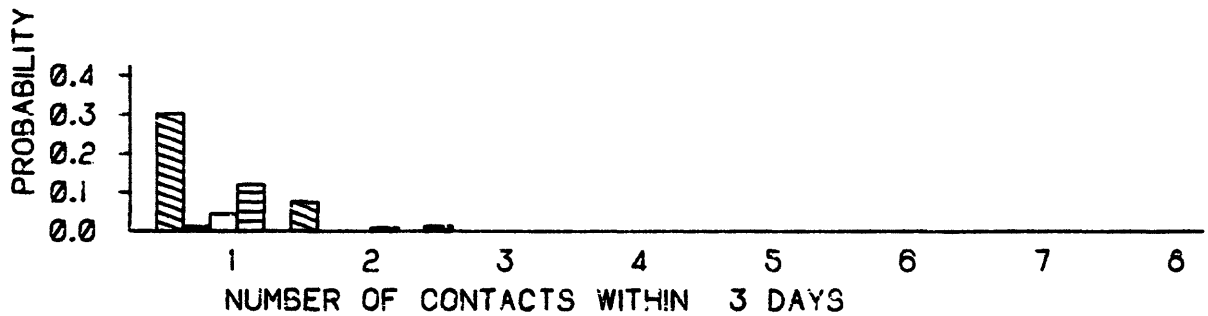
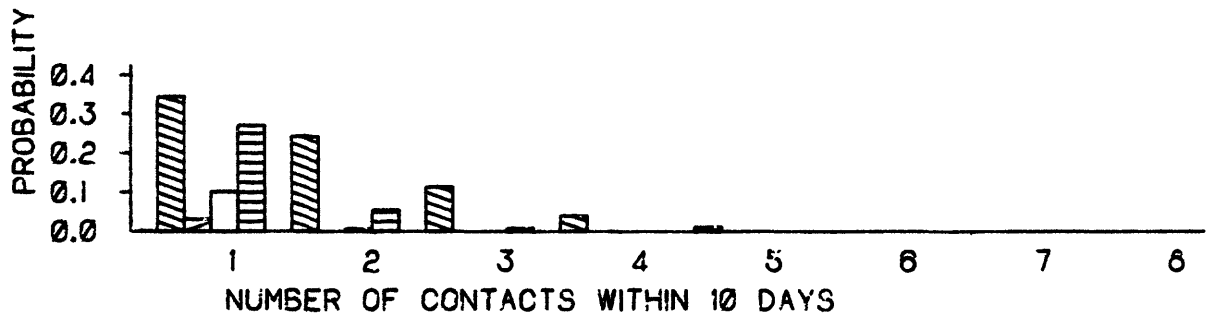
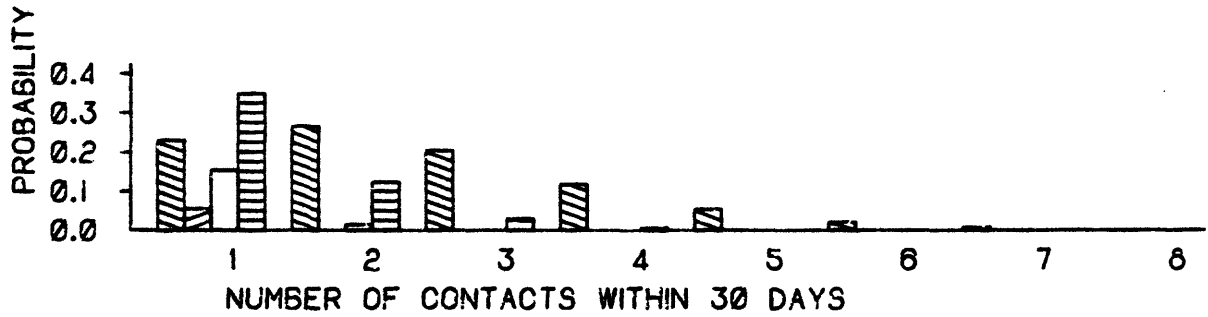
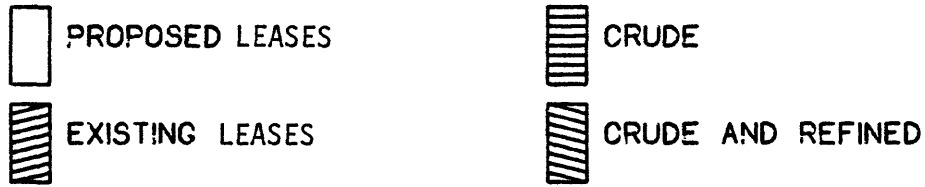


Figure C-2.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal waterbird colonies.

SEA DUCK WINT. AREAS

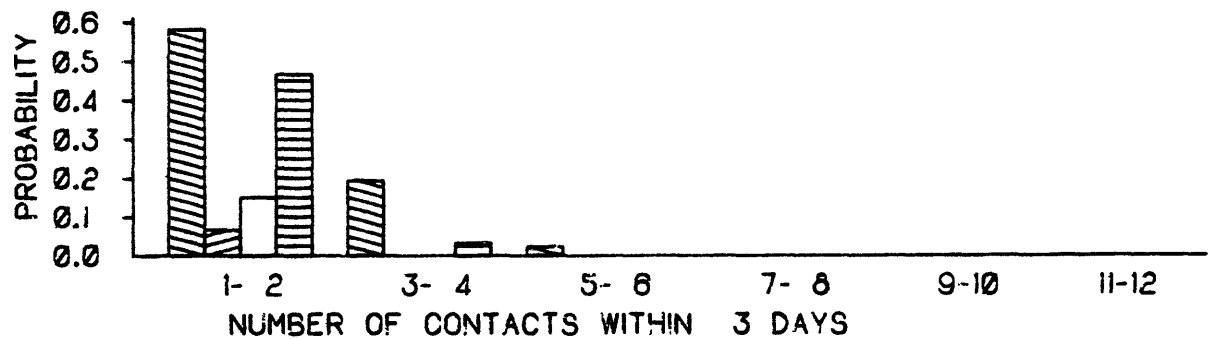
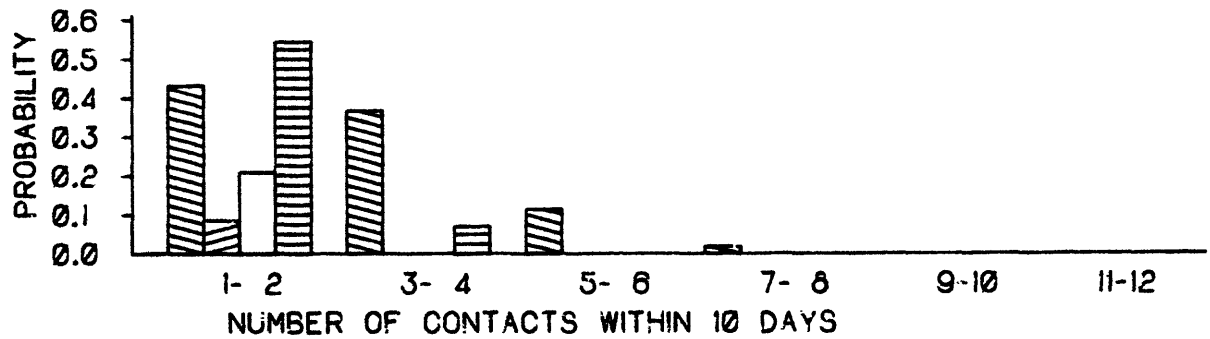
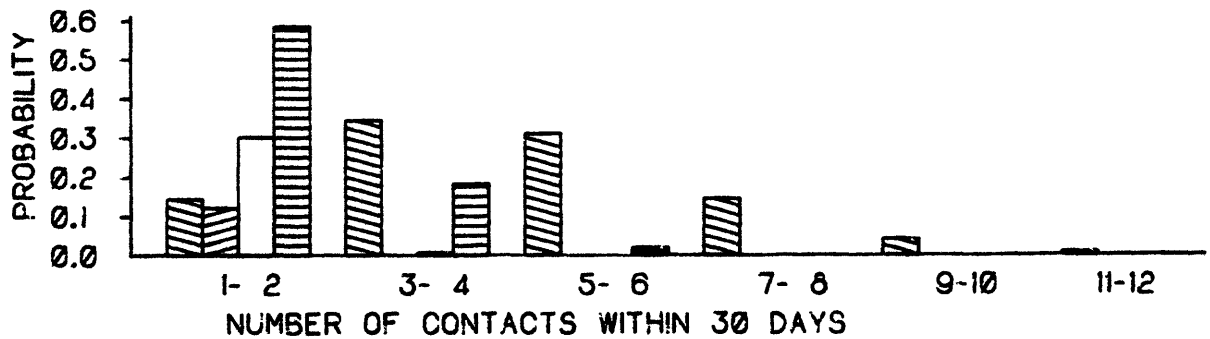
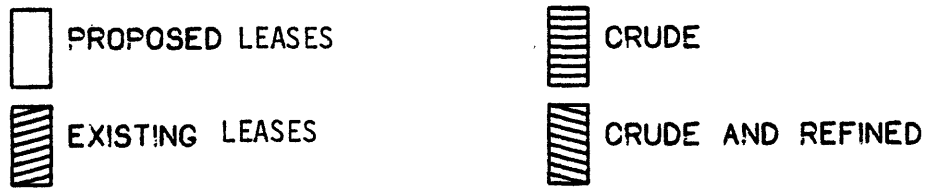


Figure C-3.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting sea duck wintering areas.

OSPREY NESTING AREAS

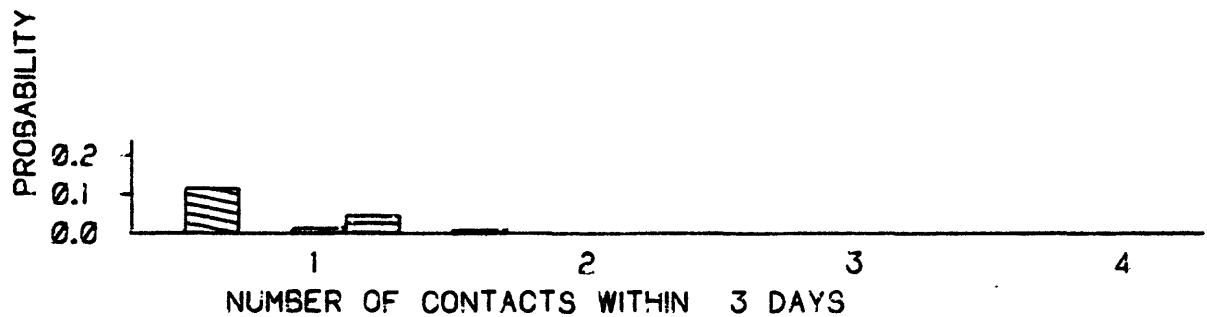
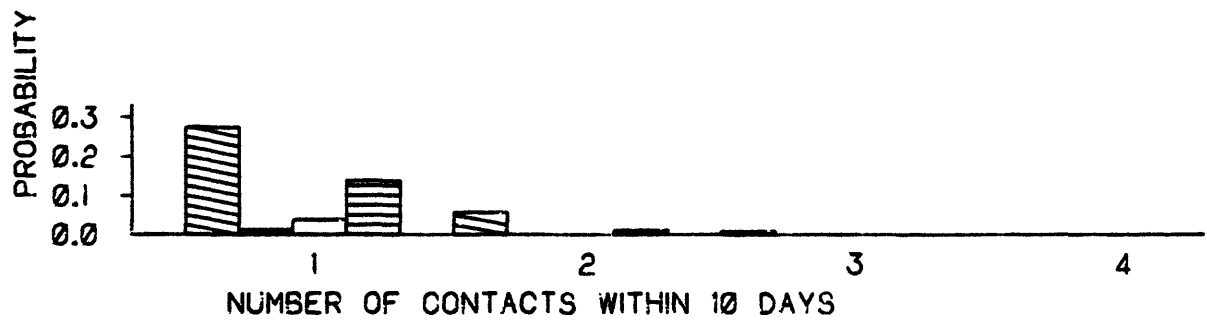
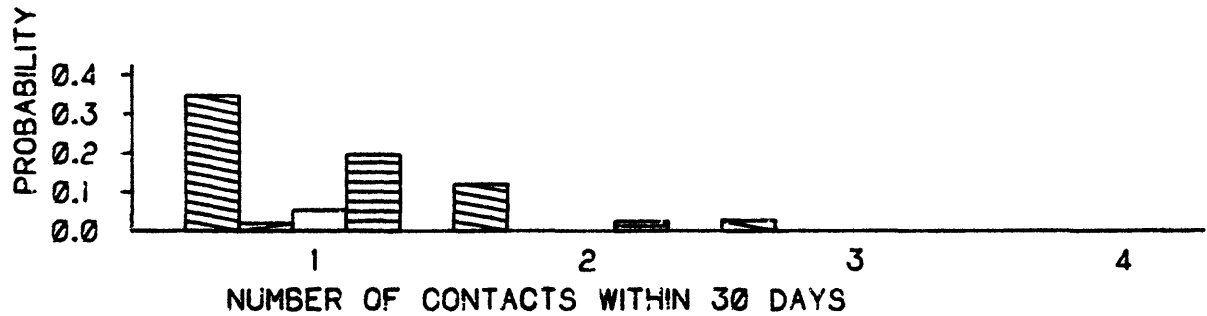
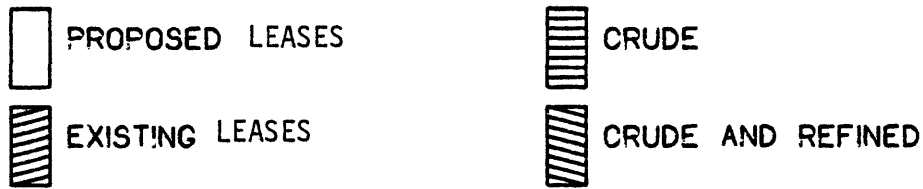


Figure C-4.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting osprey nesting areas.

B. EAGLE NEST. AREAS

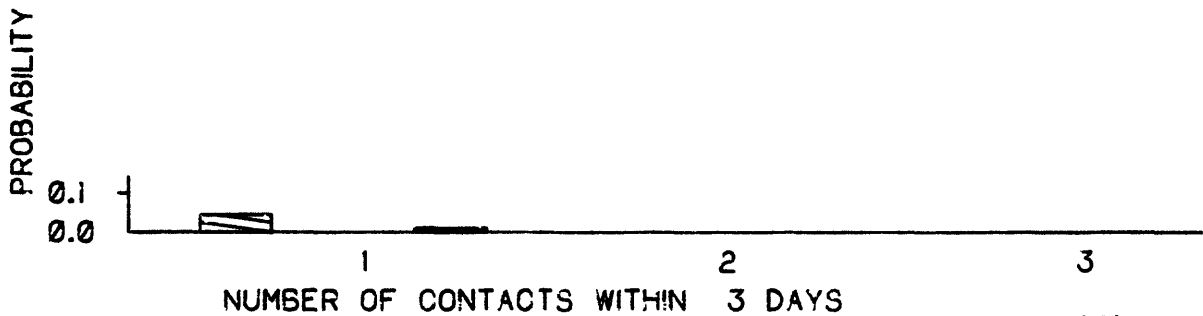
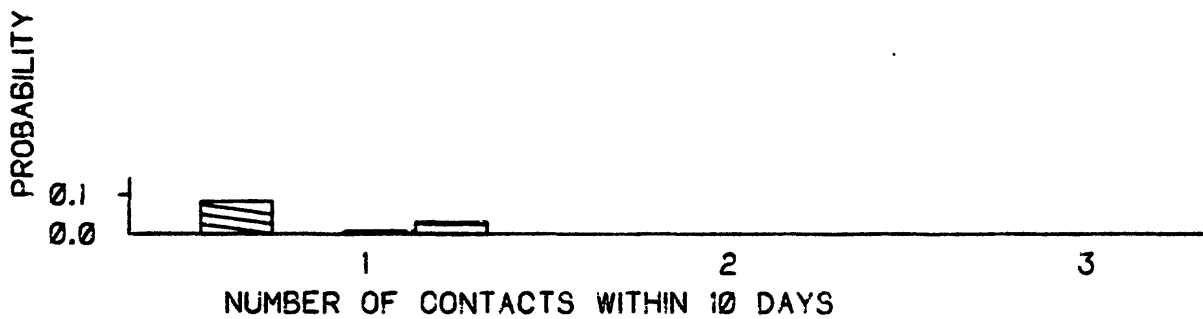
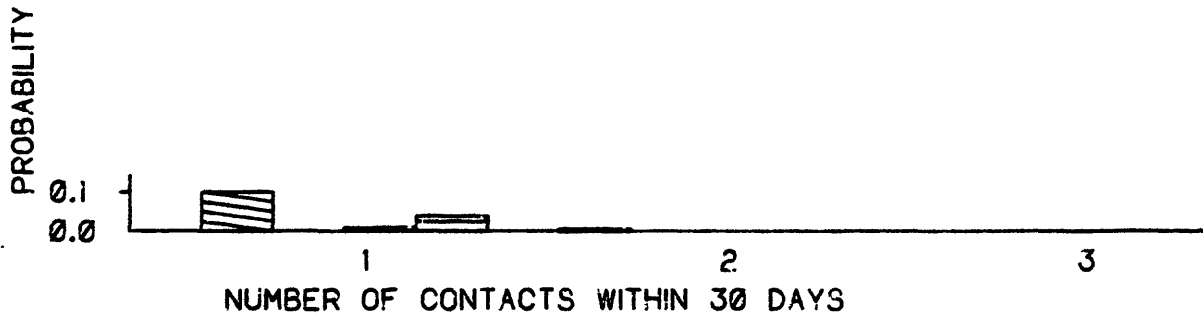
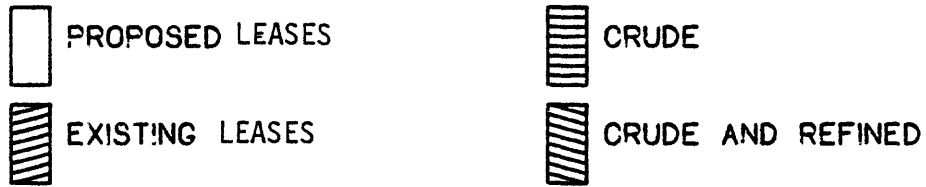


Figure C-5.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Bald eagle nesting areas.

GREY SEAL ROOKERIES

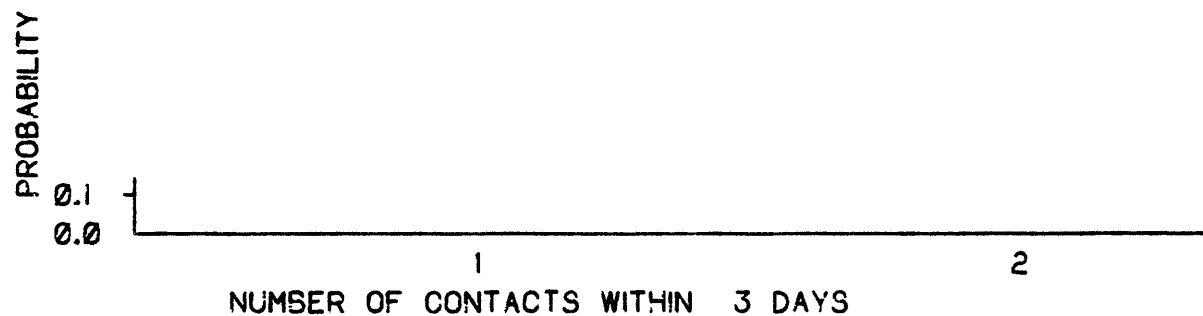
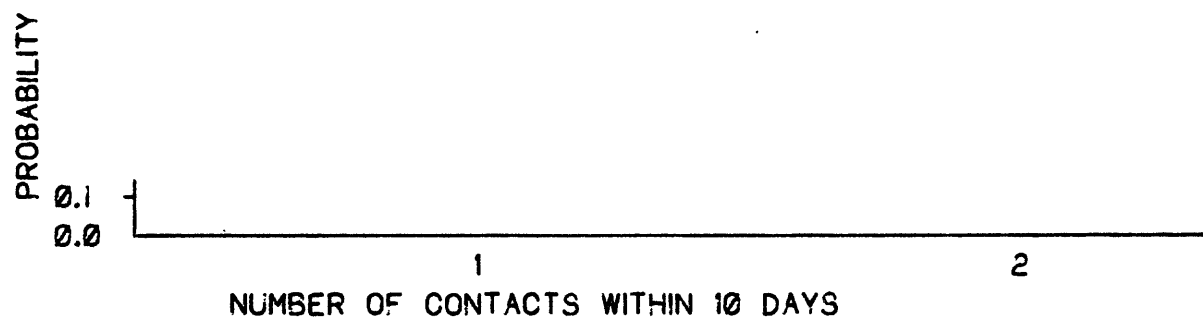
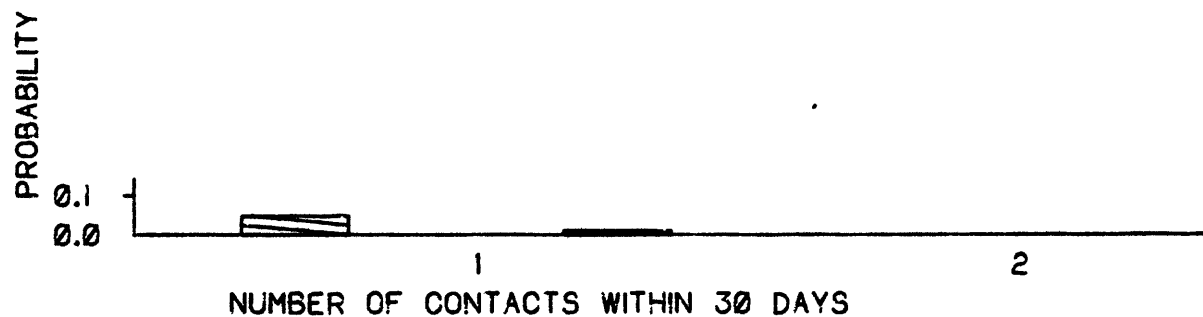
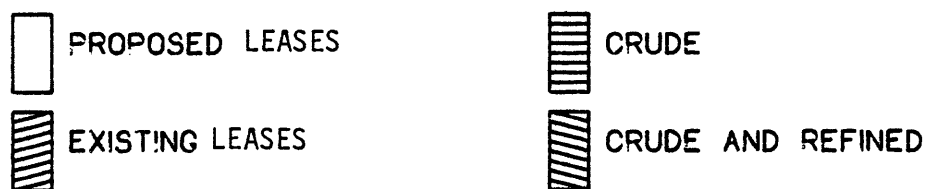


Figure C-6.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Grey seal rookeries.

PEREG. FALC. NEST.

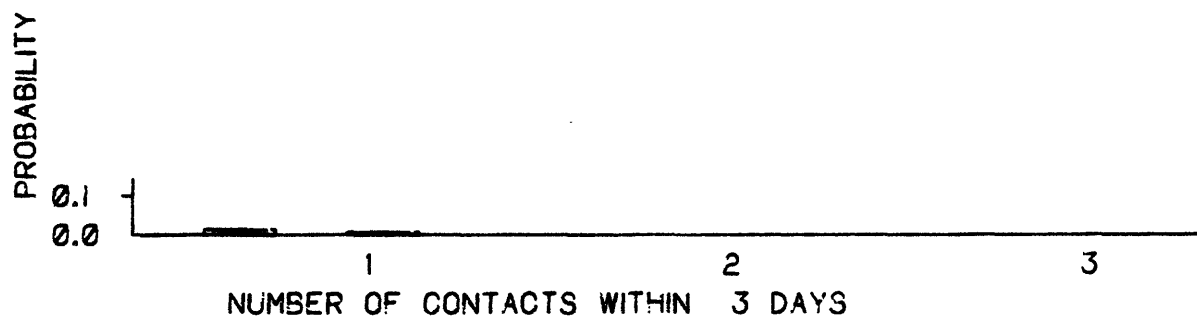
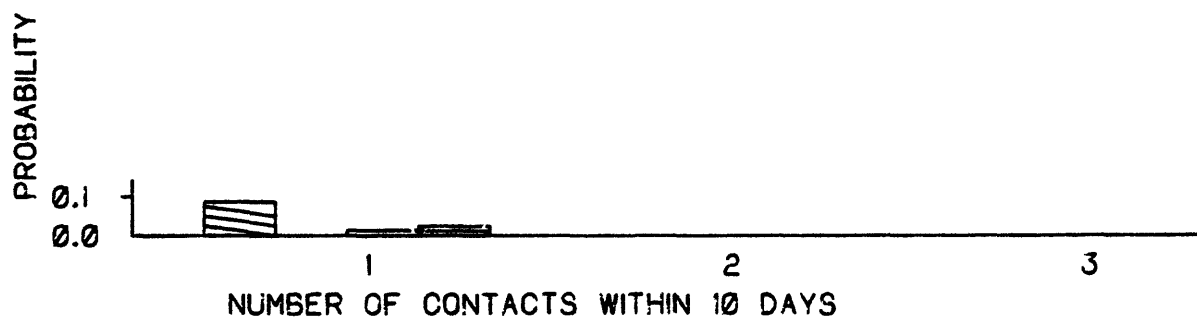
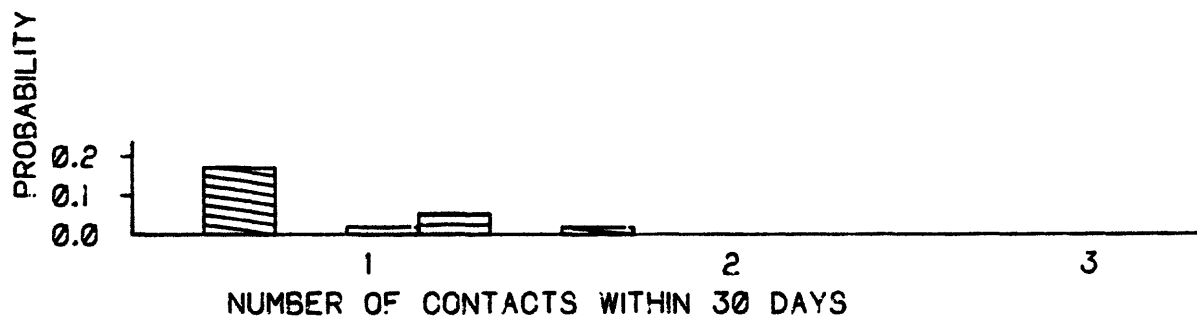
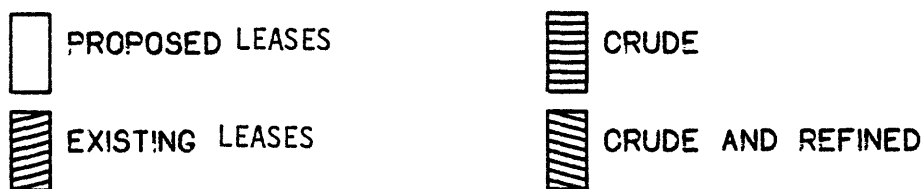


Figure C-7.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Peregrine falcon nesting areas.

PEREG. FALC. MIGR.

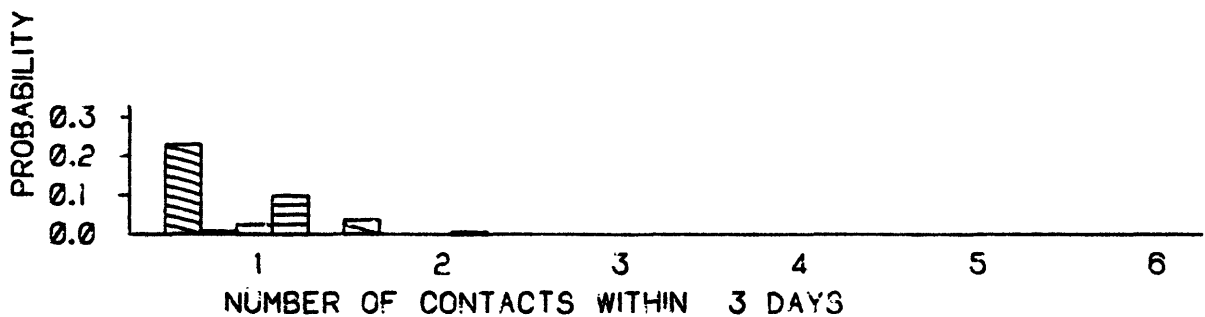
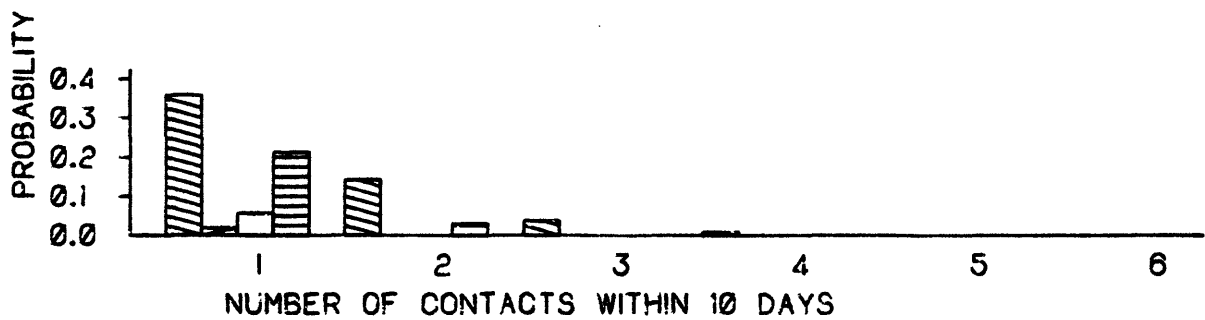
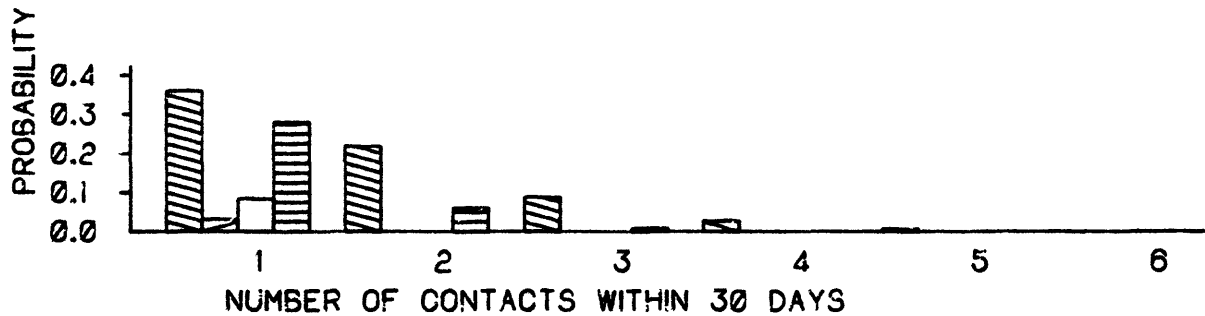
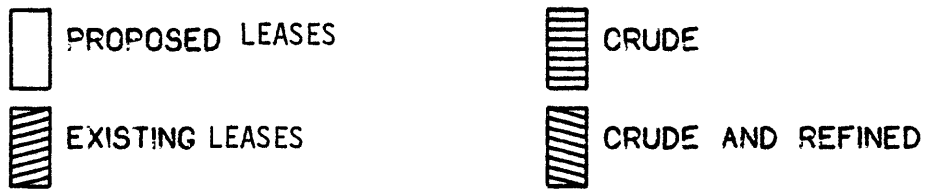


Figure C-8.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Peregrine falcon migratory stopover areas.

STATE MARINE SANCT.

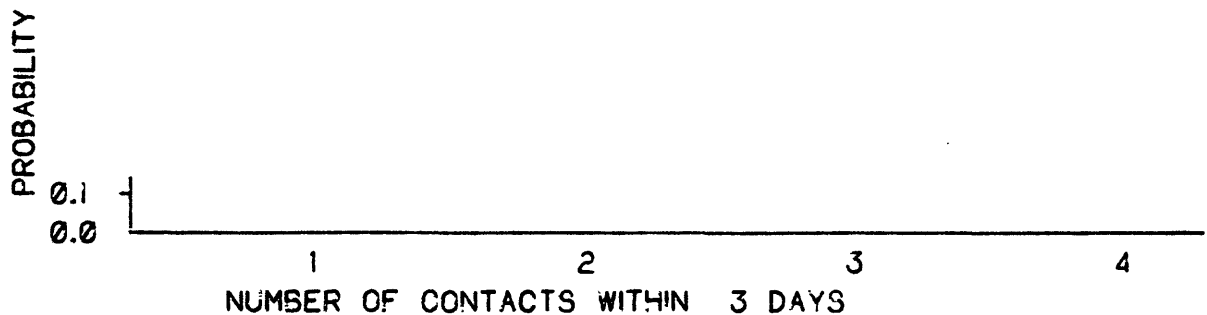
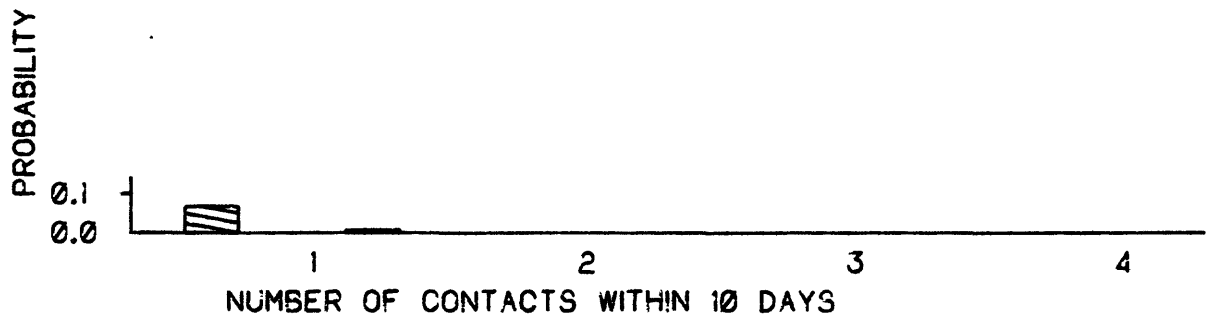
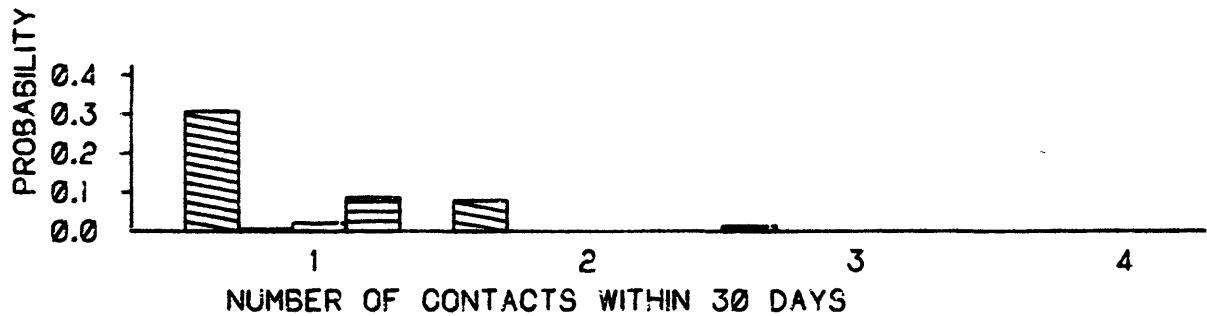
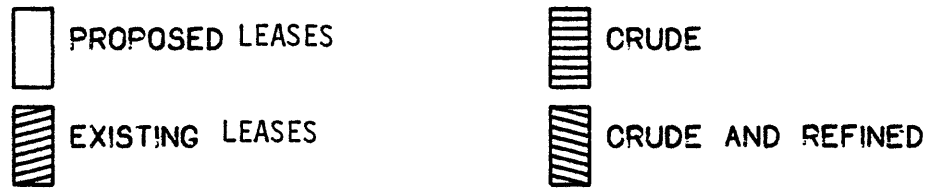


Figure C-9.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting State Marine Sanctuaries.

LOGG. TURTLE NEST.

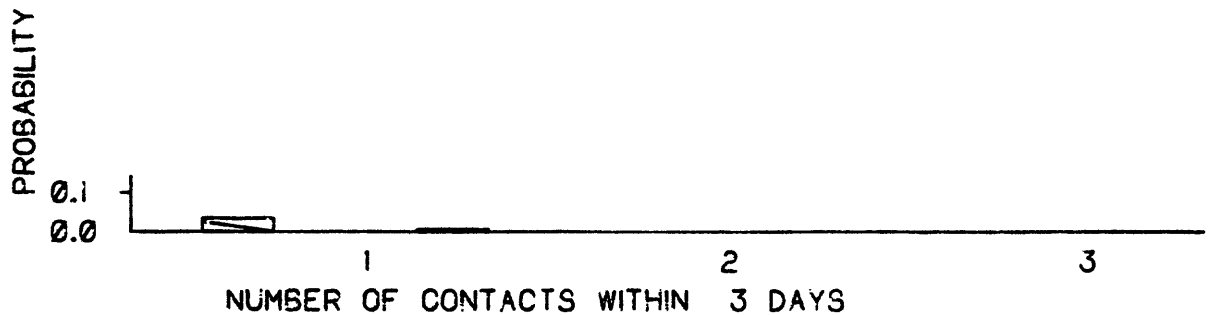
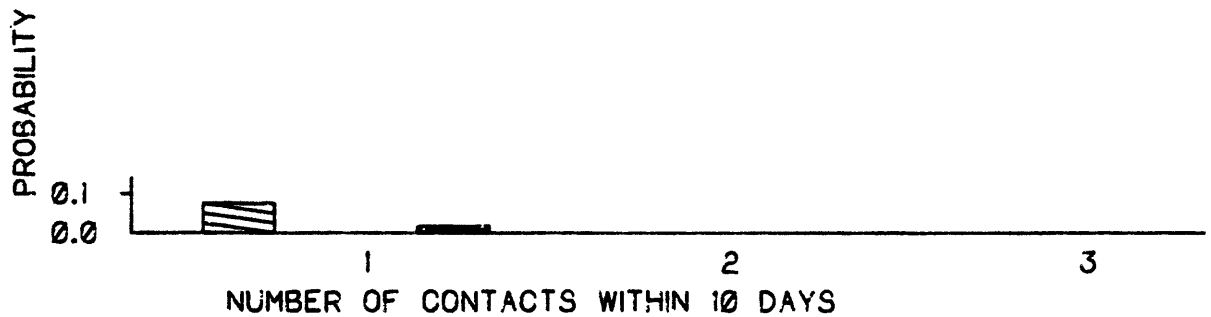
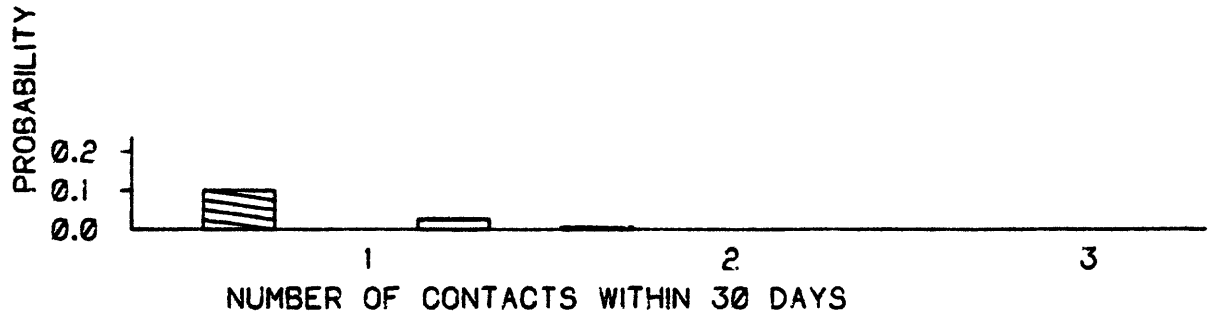
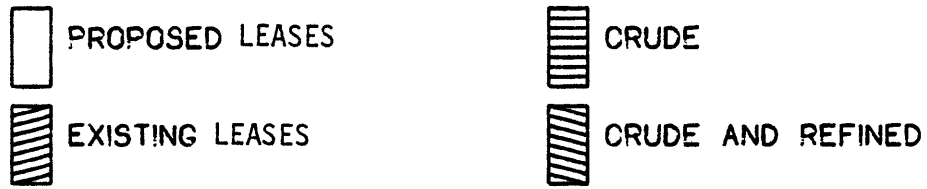


Figure C-10.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Loggerhead turtle nesting areas.

HARD CLAM GROUNDS

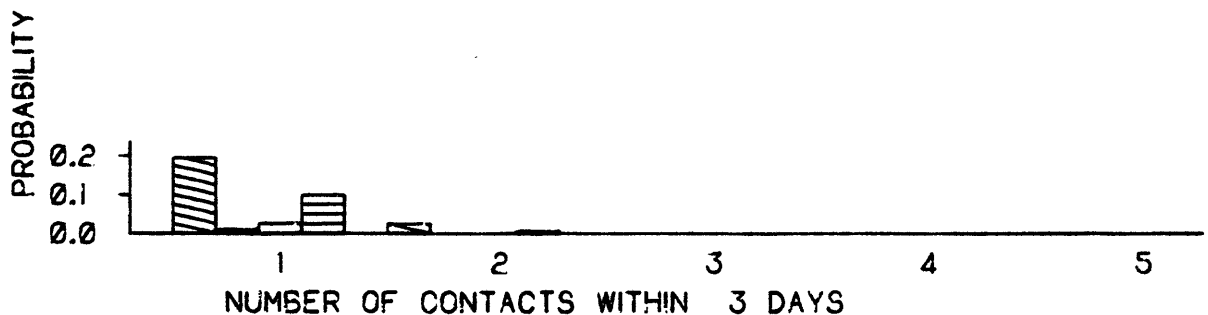
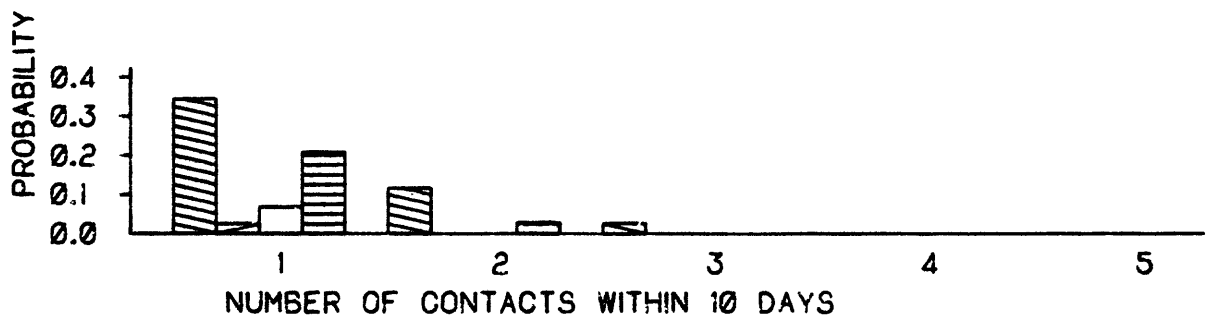
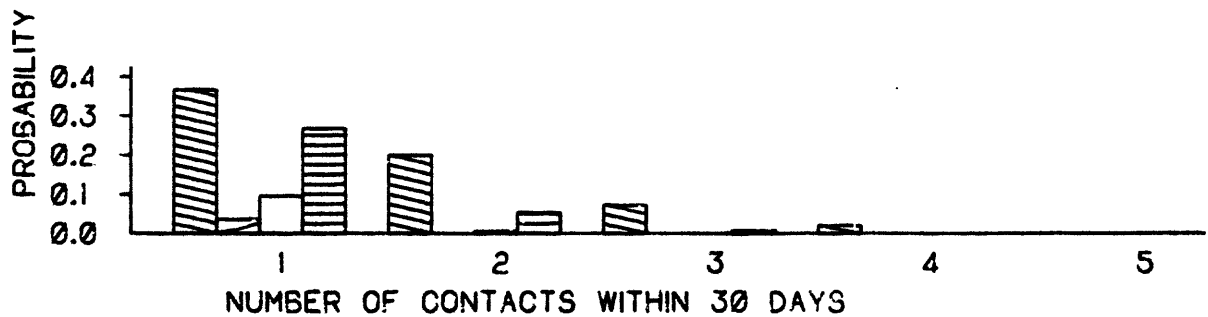
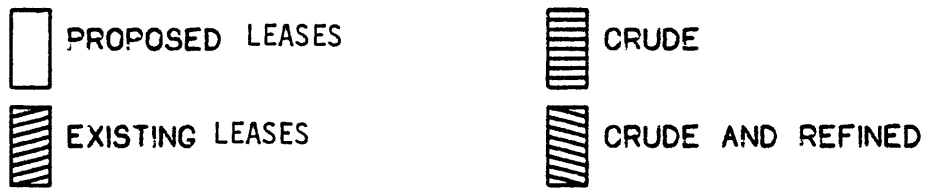


Figure C-11.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting hard clam grounds.

SOFT CLAM GROUNDS

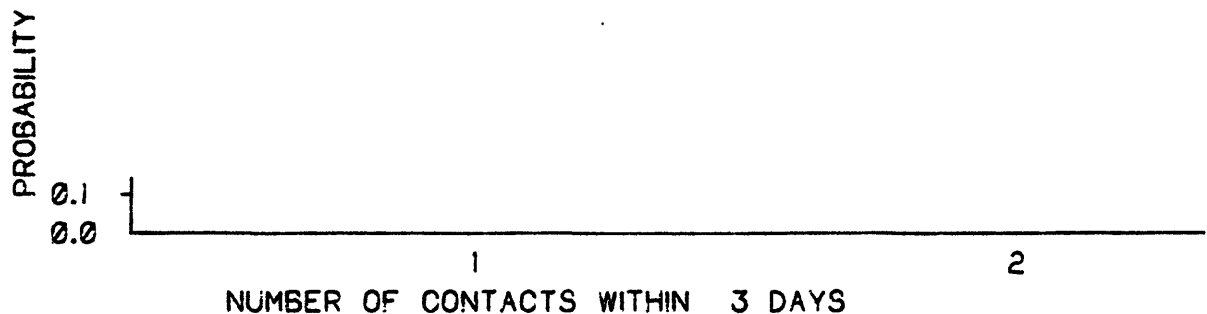
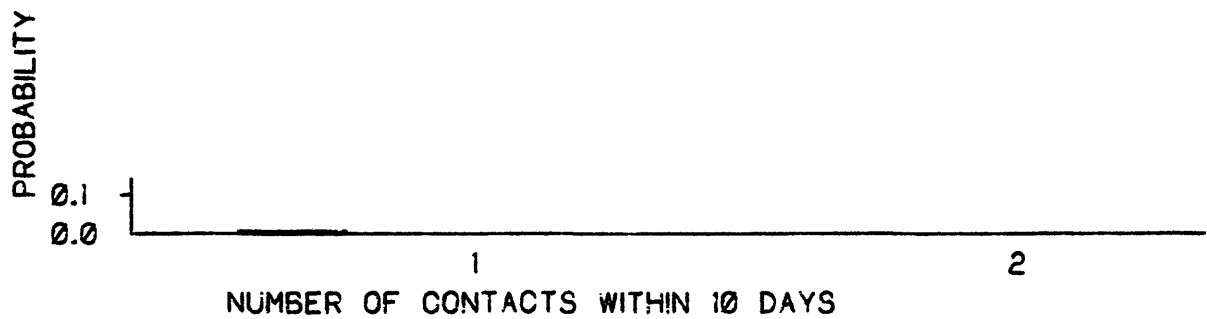
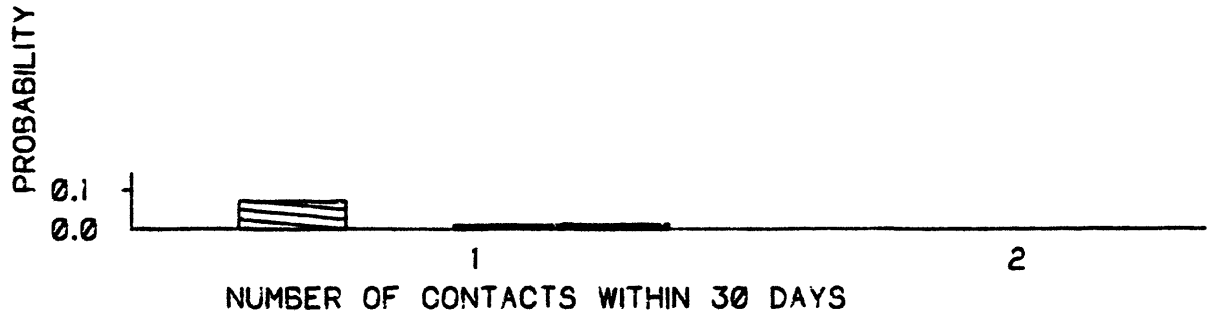
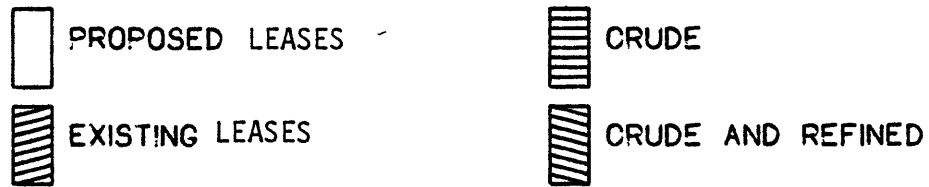


Figure C-12.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting soft clam grounds.

BAY SCALLOP BEDS

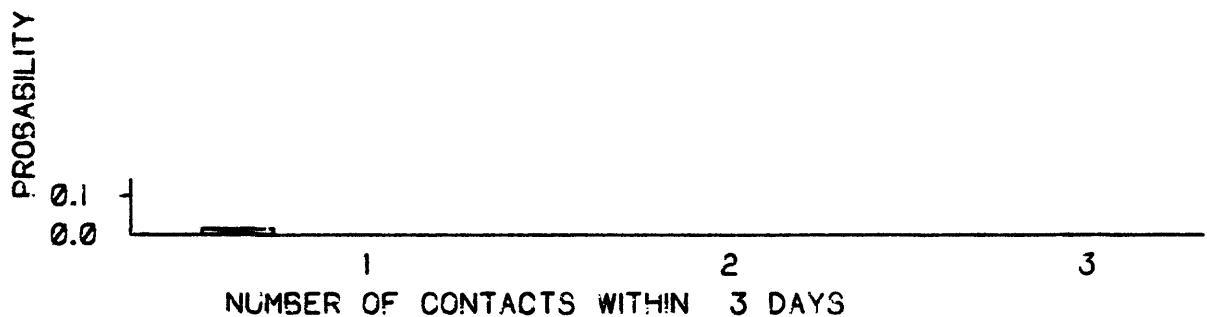
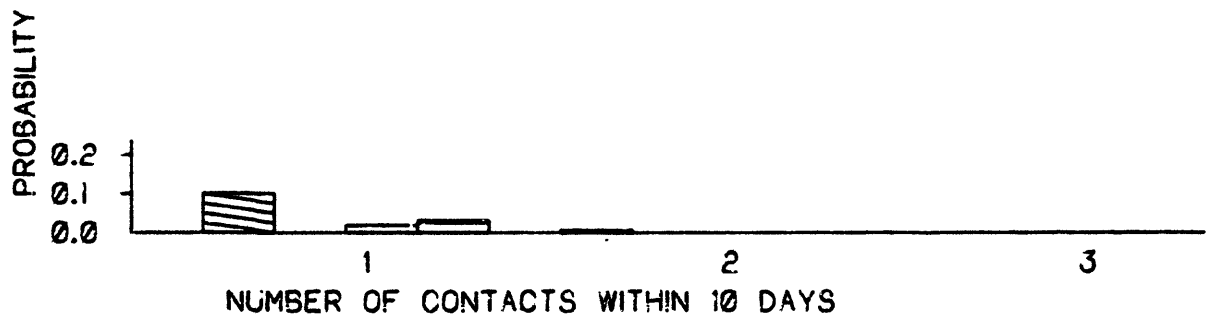
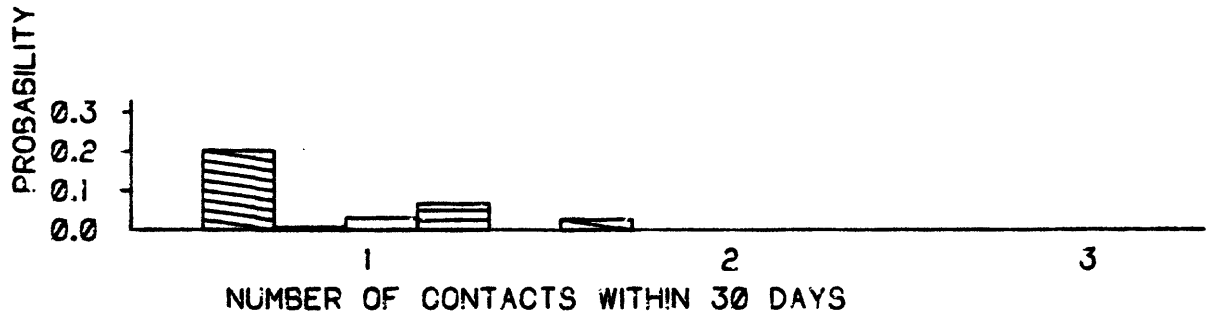
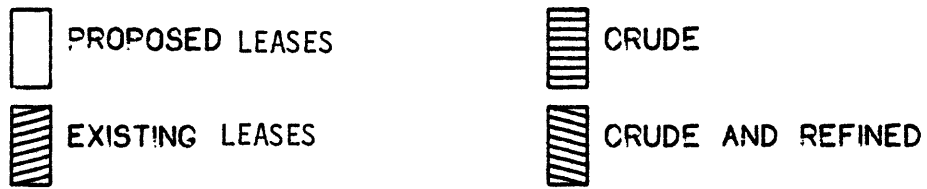


Figure C-13.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting bay scallop beds.

OYSTER GROUNDS

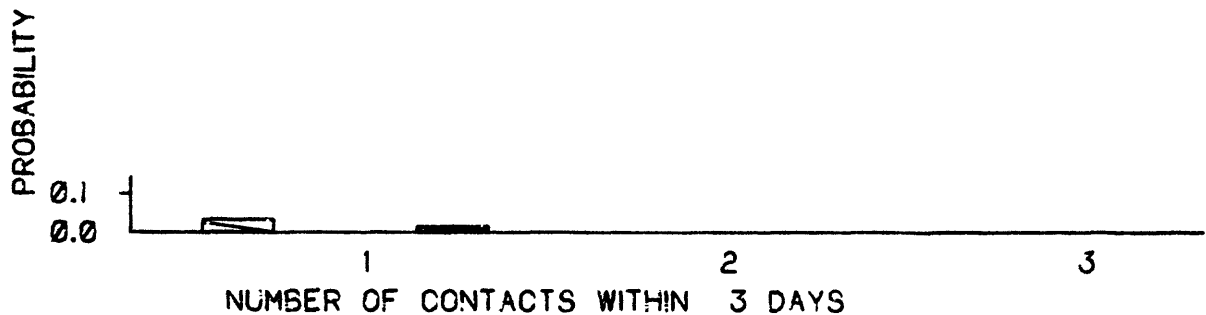
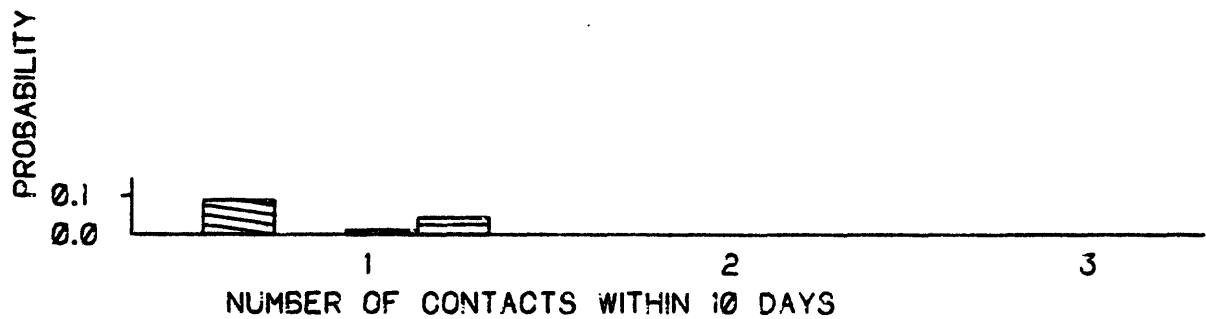
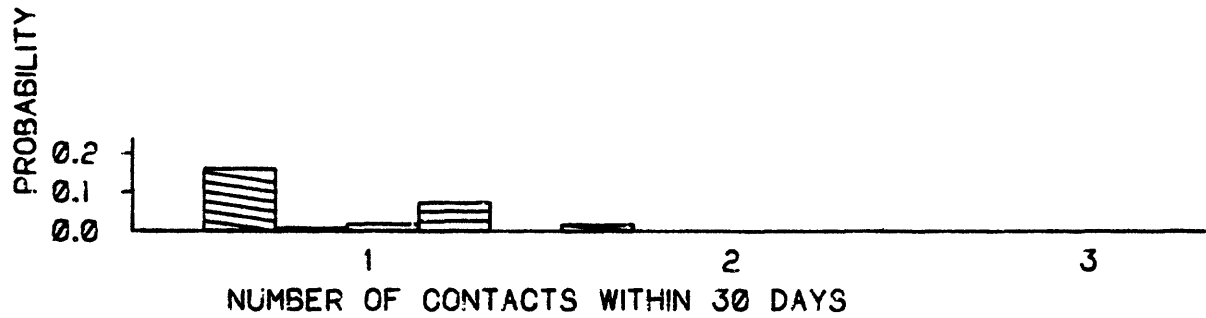
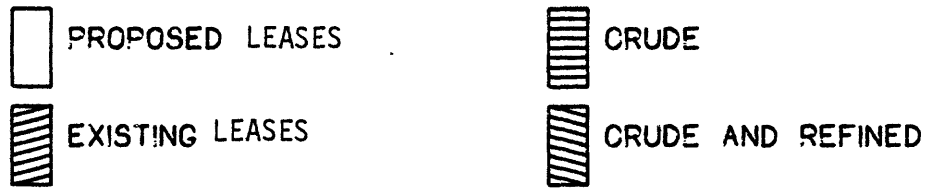


Figure C-14.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting oyster grounds.

BLUE CRAB GROUNDS

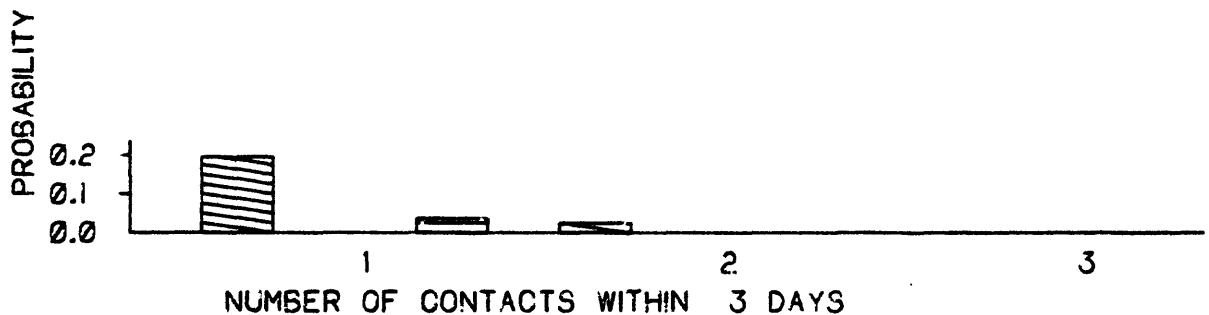
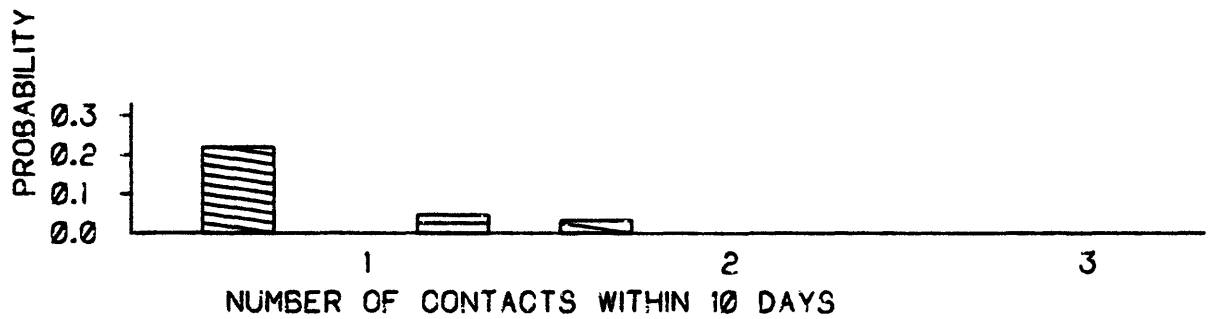
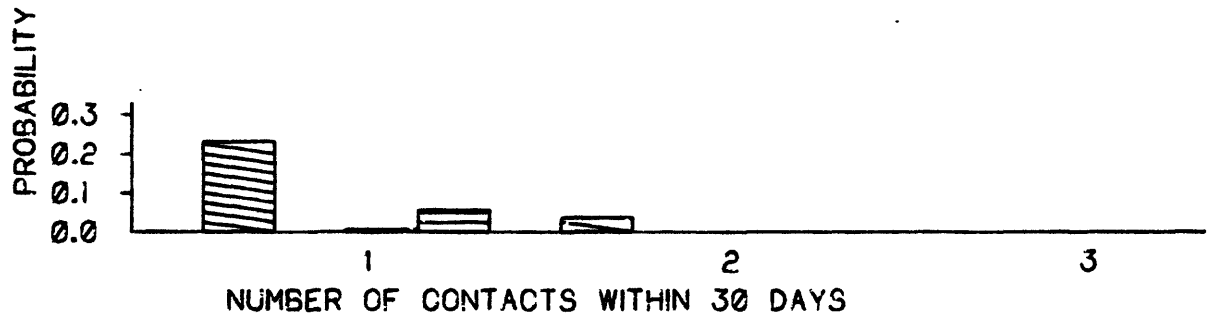
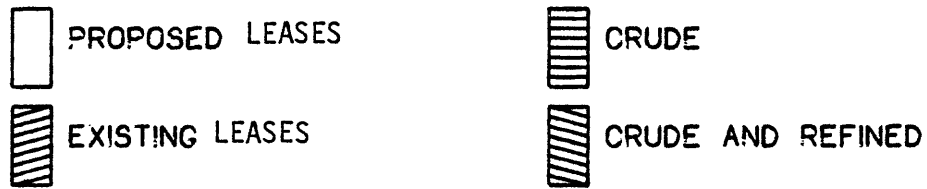


Figure C-15.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting blue crab grounds.

INSH. LOBSTER GRNDS.

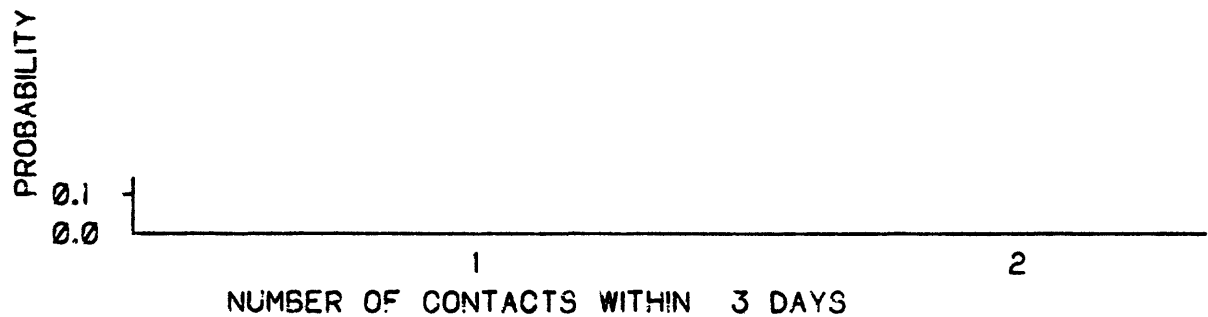
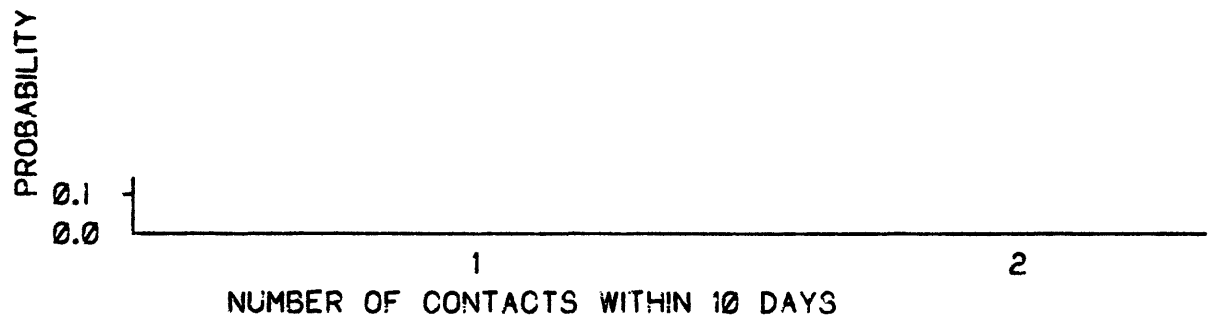
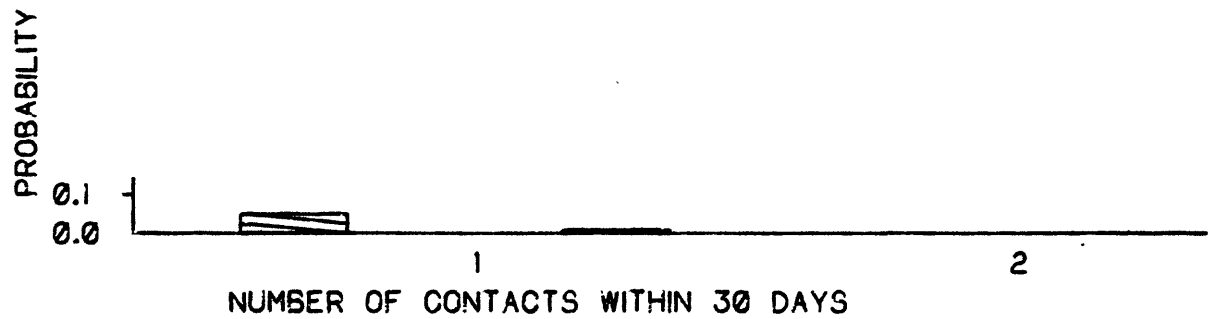
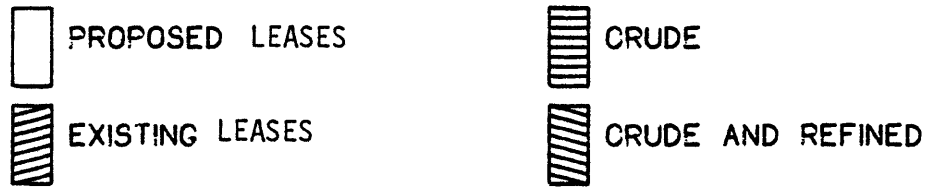


Figure C-16.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting inshore lobster grounds.

COASTAL MARSHES

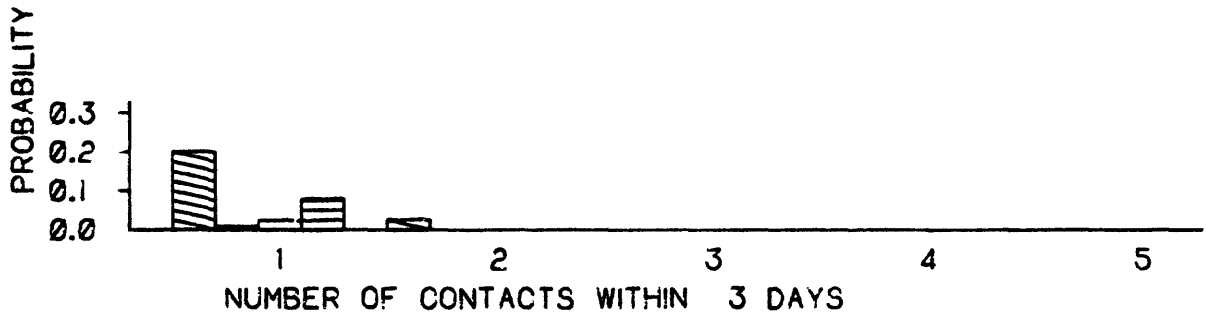
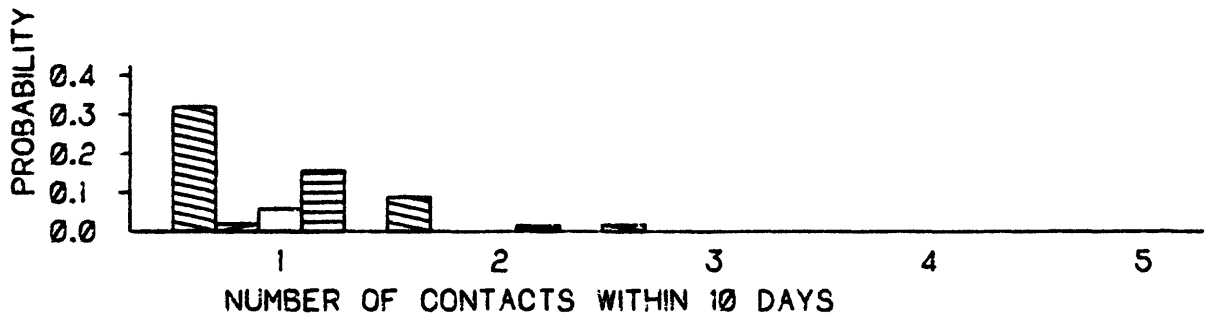
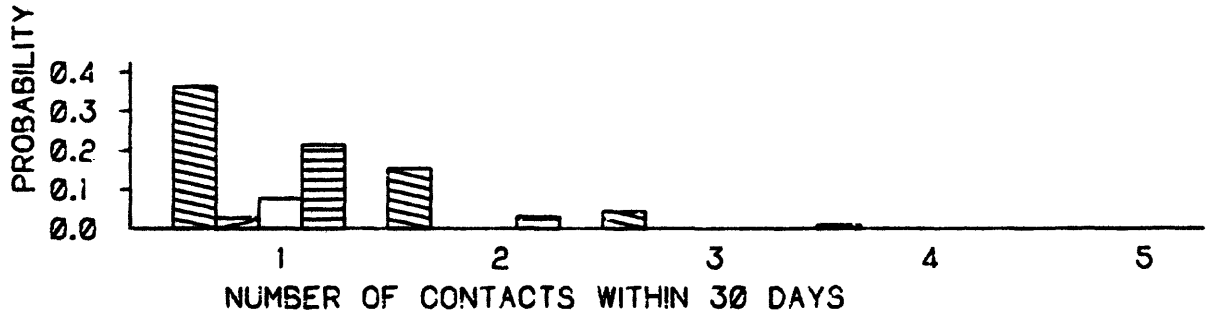
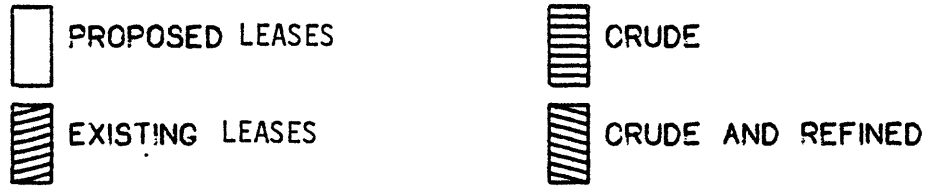


Figure C-17.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal marshes.

NATL. PARKS. SEASHR.

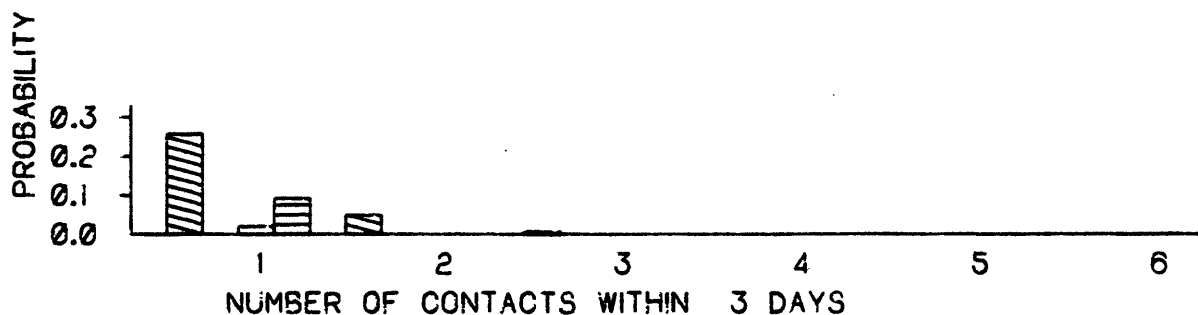
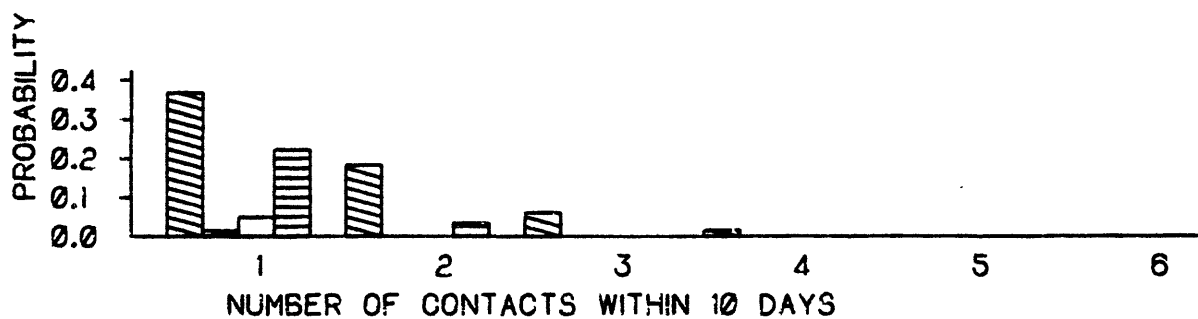
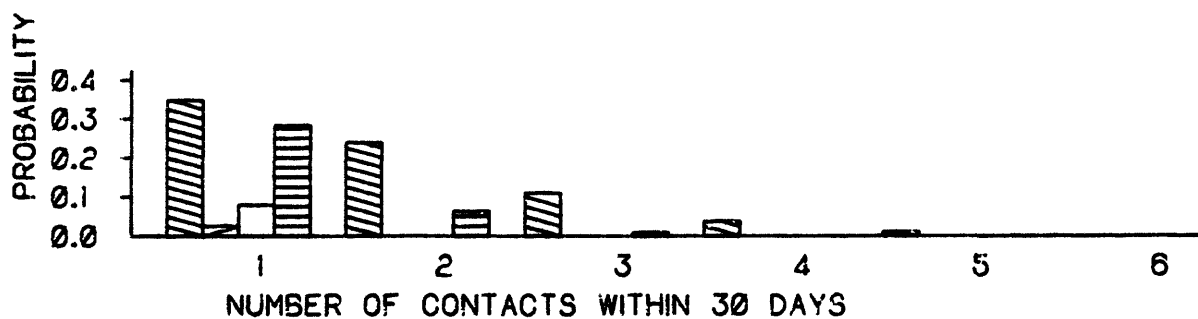
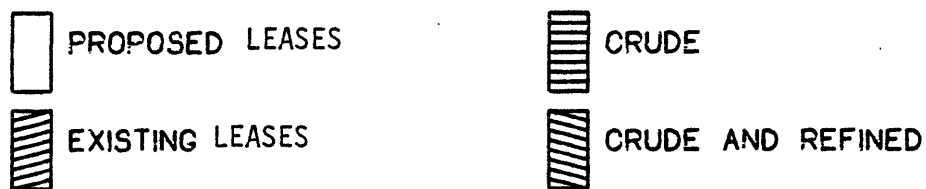


Figure C-18.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting National parks, seashores, and recreation areas.

STATE PARKS. SEASHR.

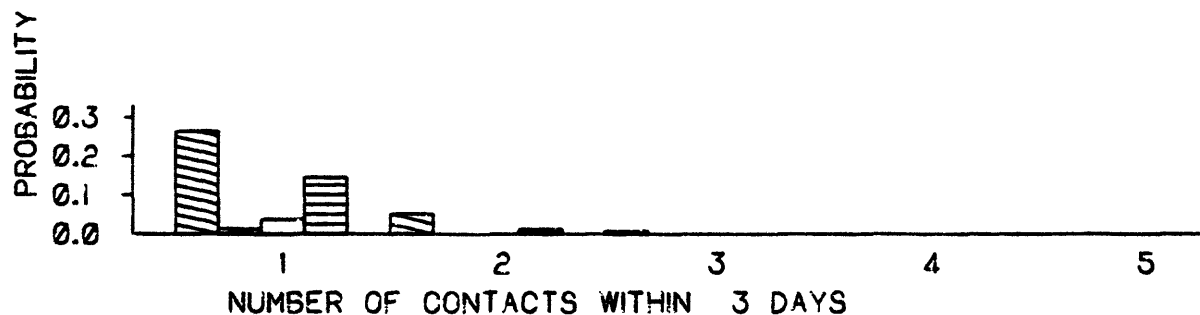
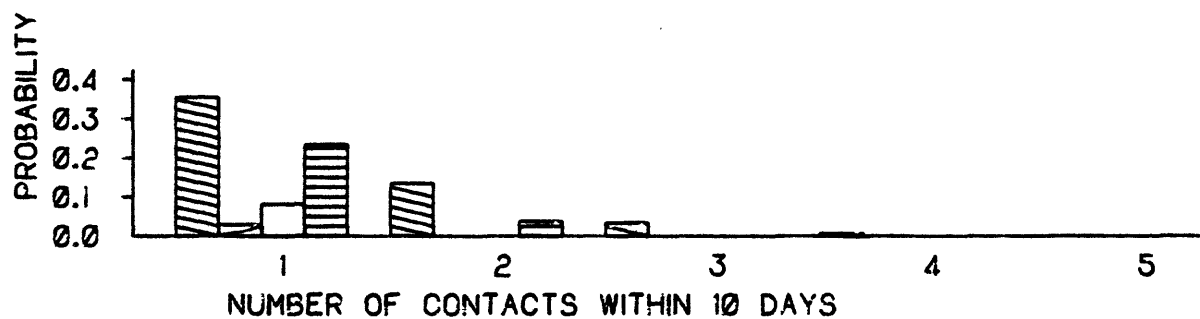
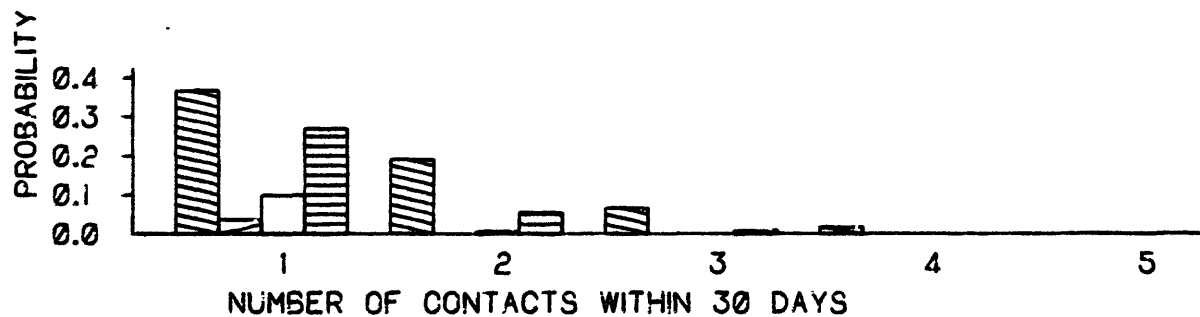
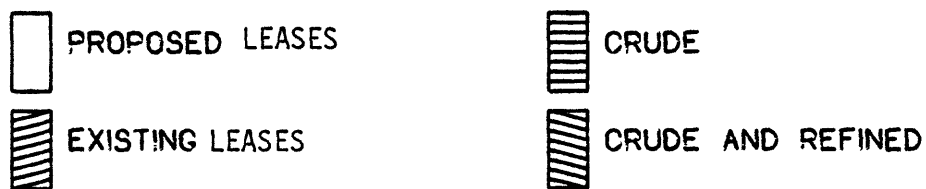


Figure C-19.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting State parks and seashores.

NALT. WILDLIFE REFS.

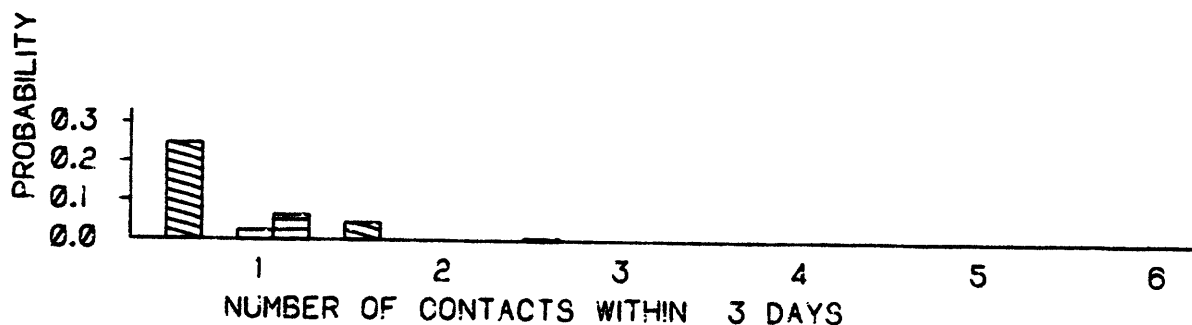
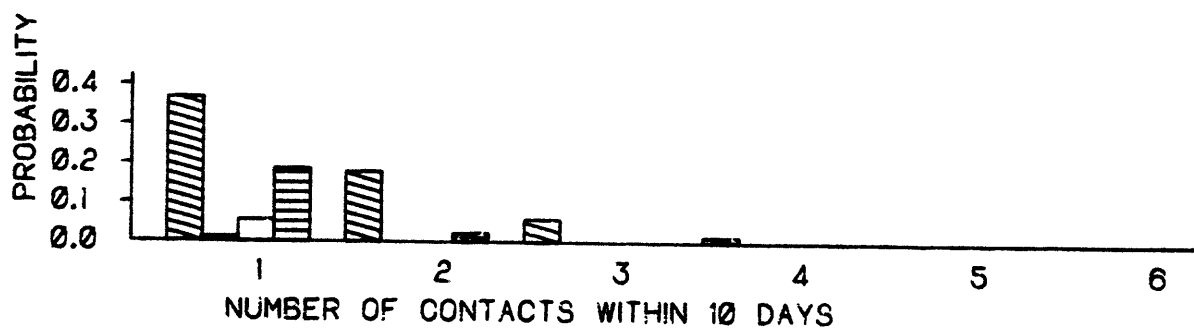
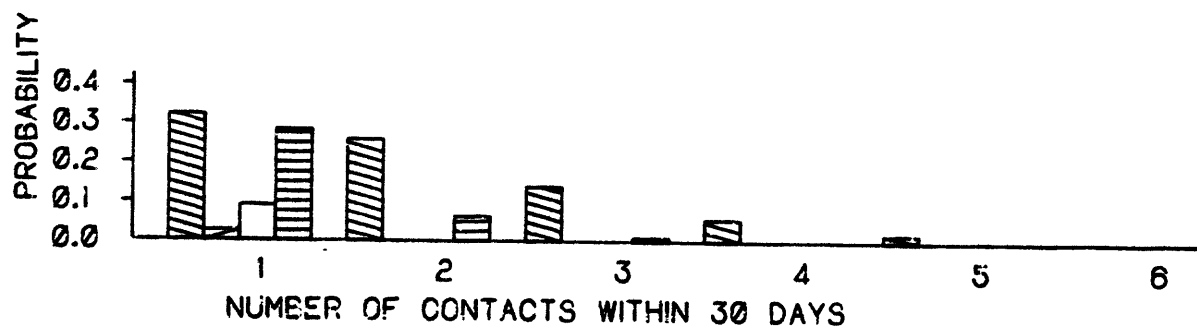


Figure C-20.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting National wildlife refuges.

STATE WILDLIFE NAT.

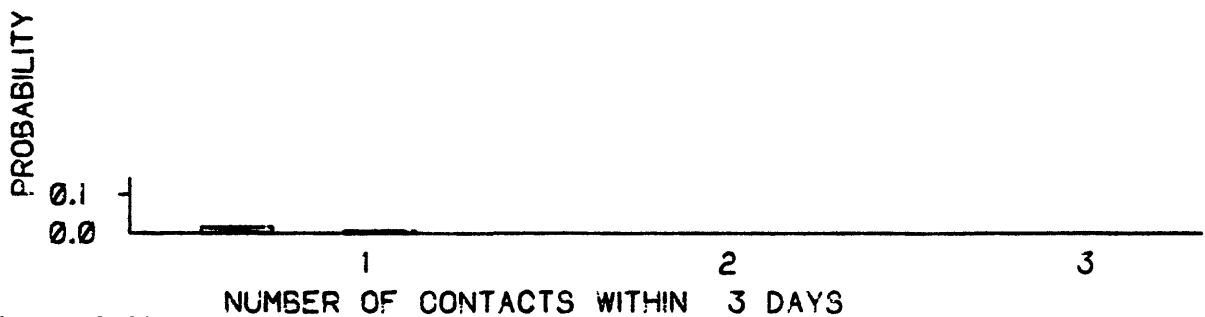
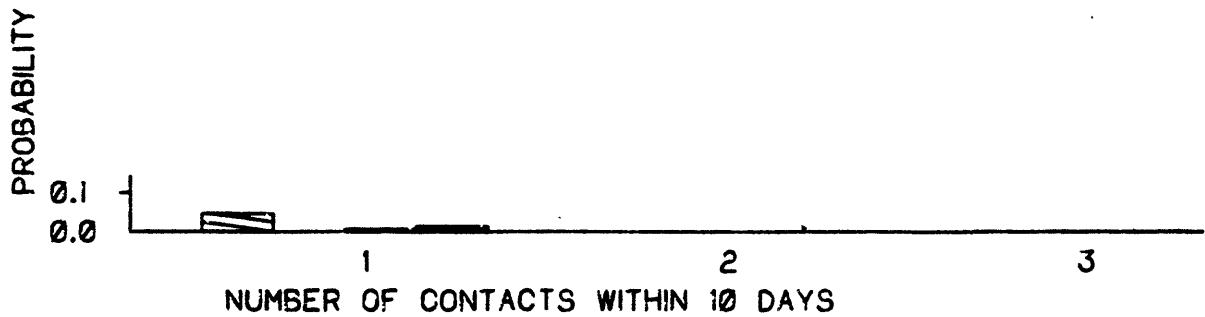
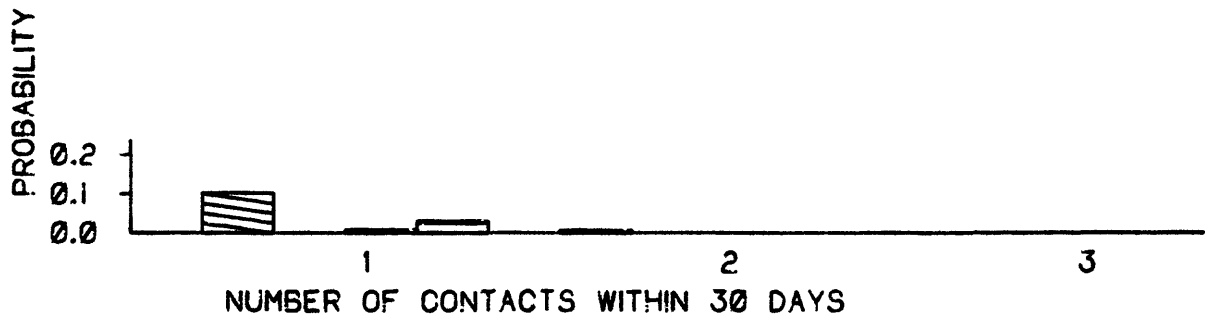
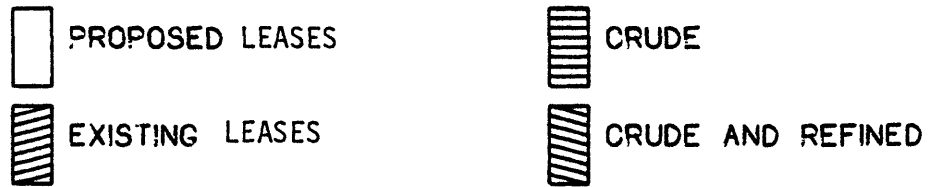


Figure C-21.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting State wildlife and natural areas.

NONGOV. WILD.. NAT.

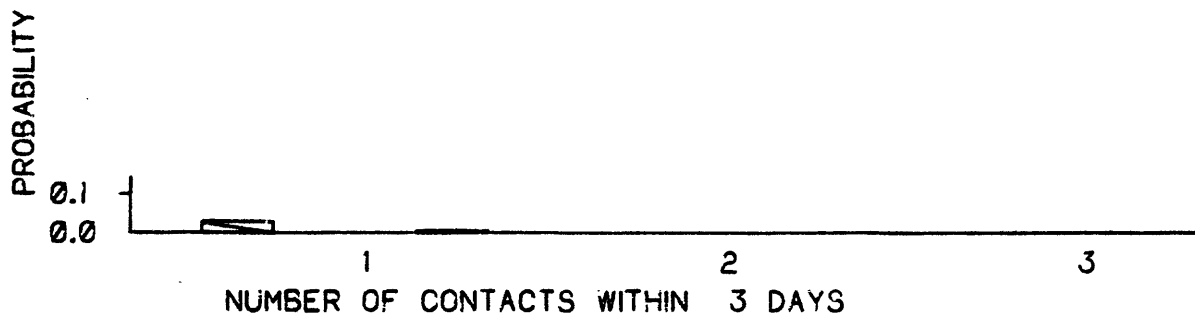
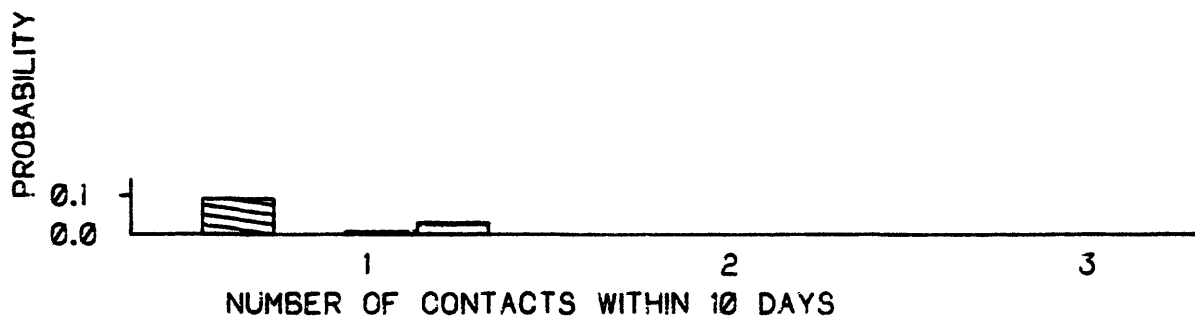
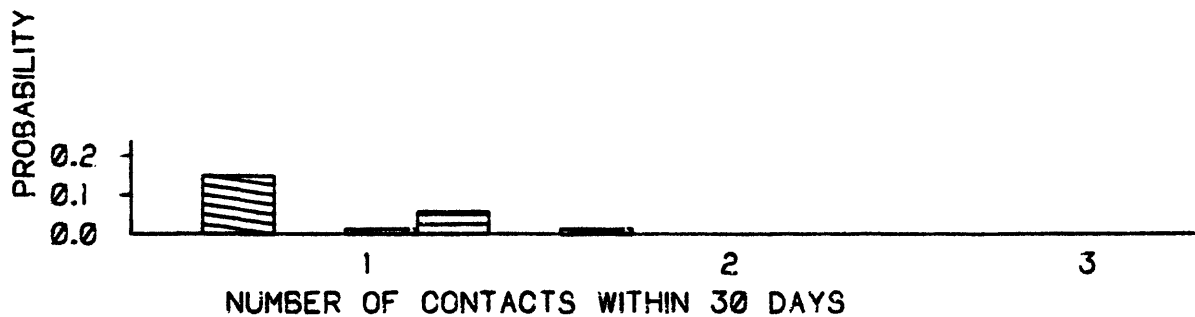
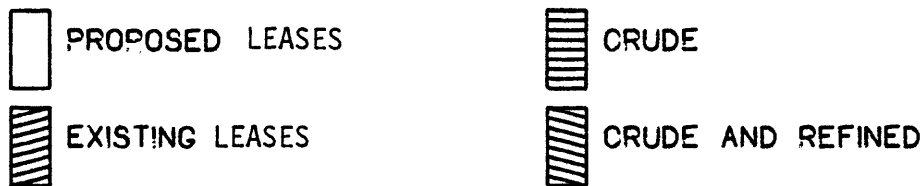


Figure C-22.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Nongovernment wildlife and natural areas.

GULF STREAM SEG. 1

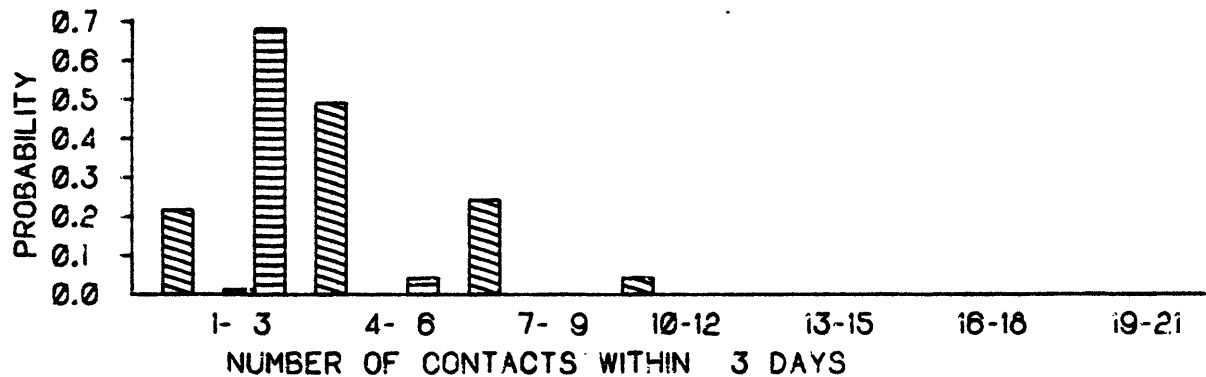
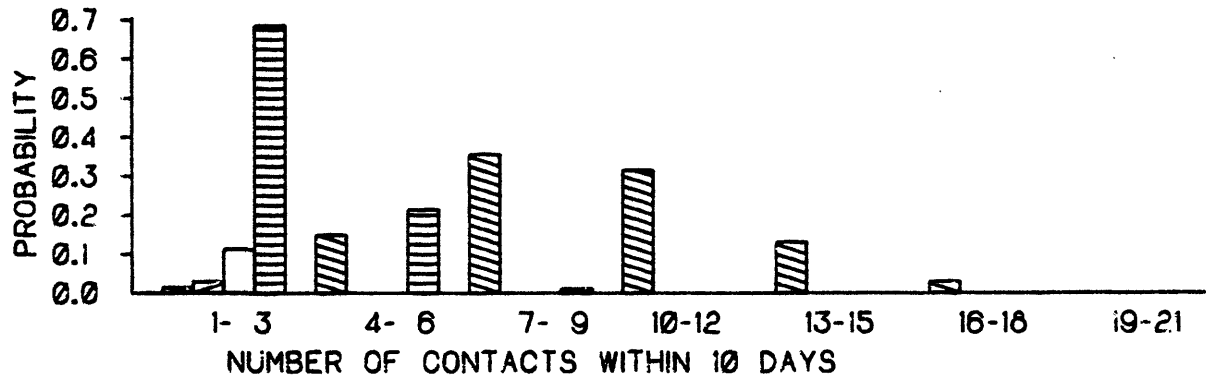
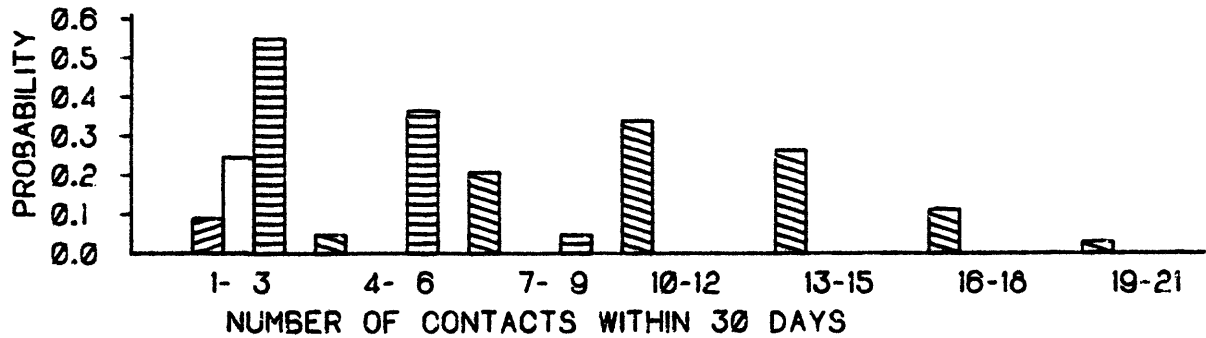
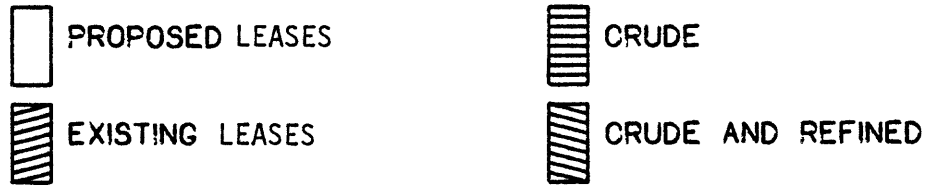


Figure C-23.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 1.

GULF STREAM SEG. 2

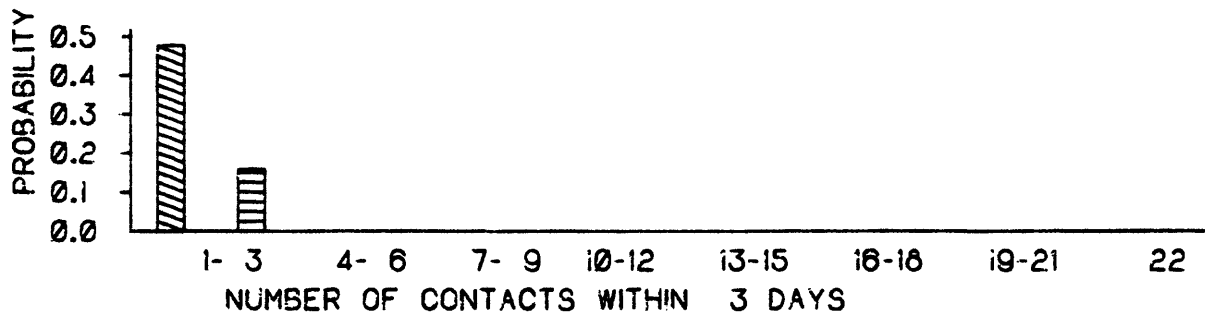
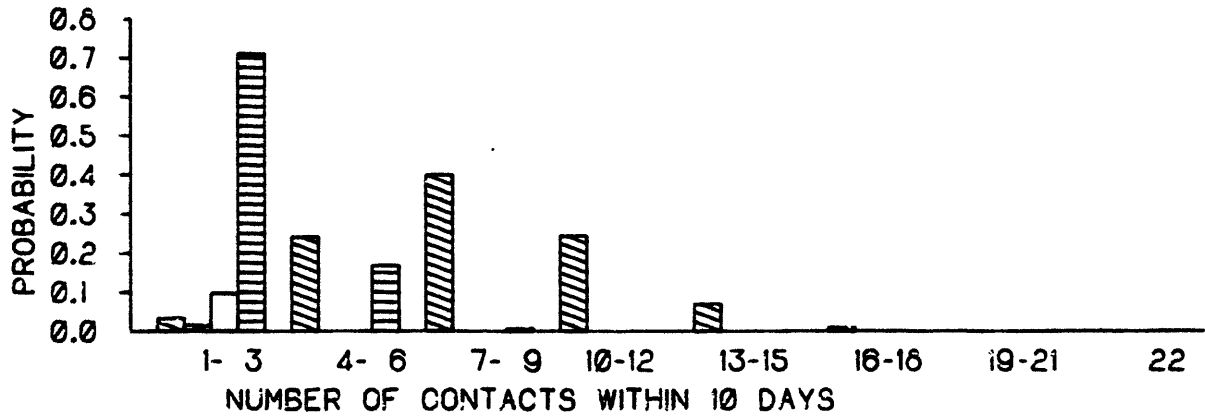
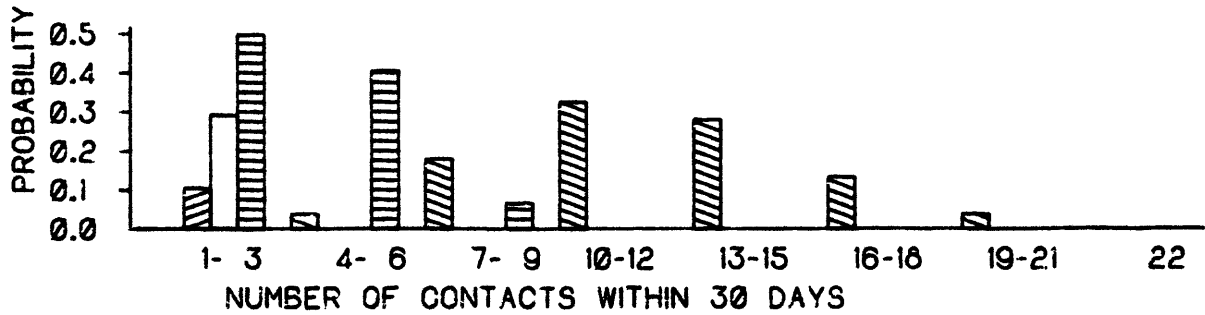
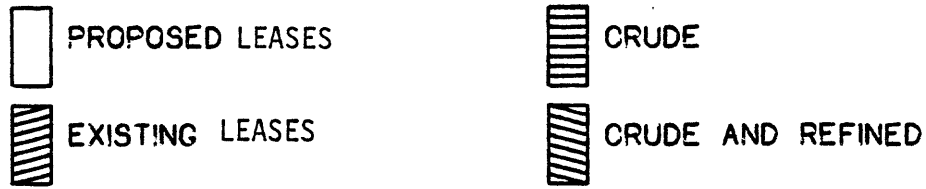


Figure C-24.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 2.

GULF STREAM SEG. 3

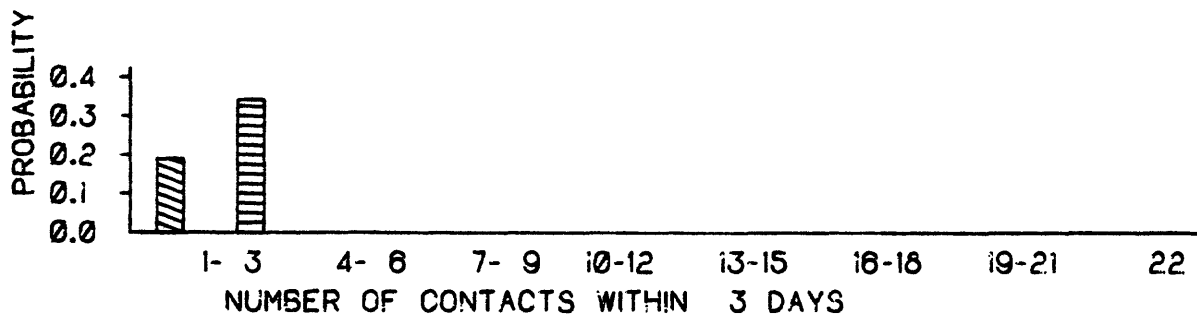
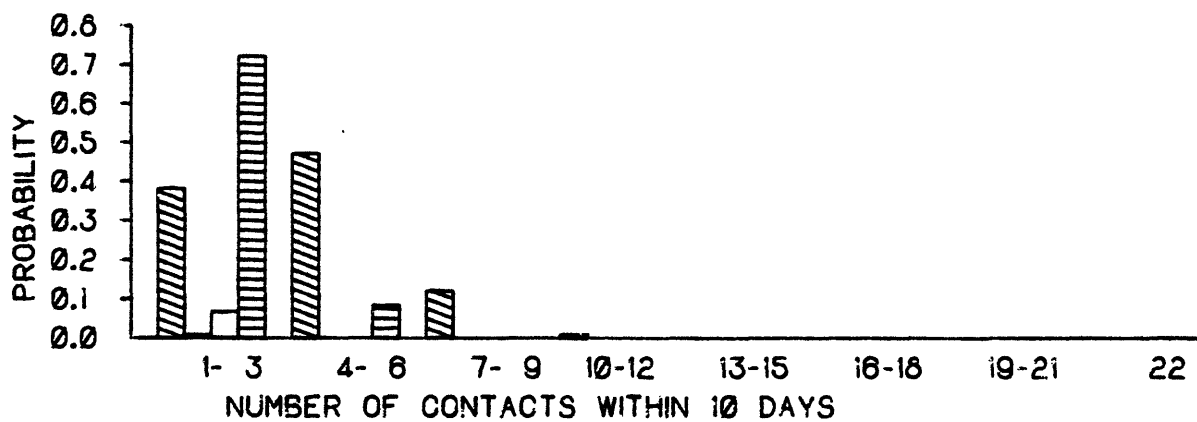
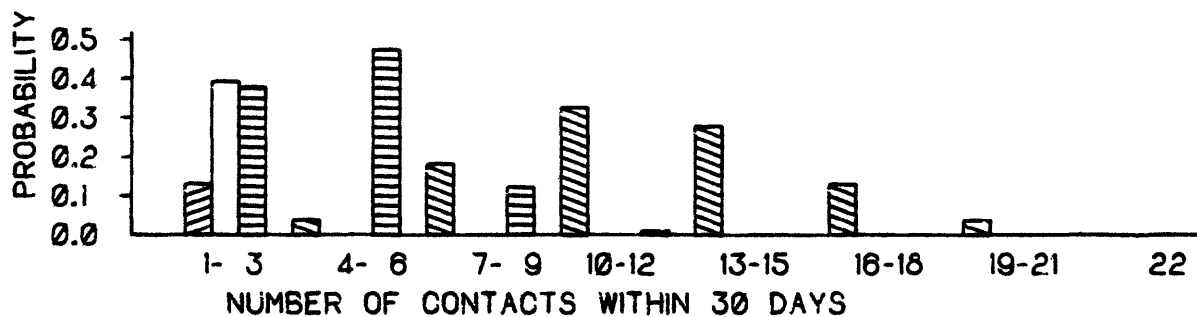
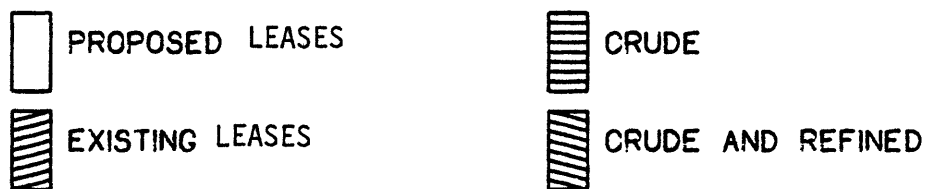


Figure C-25.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 3.

GULF STREAM SEG. 4

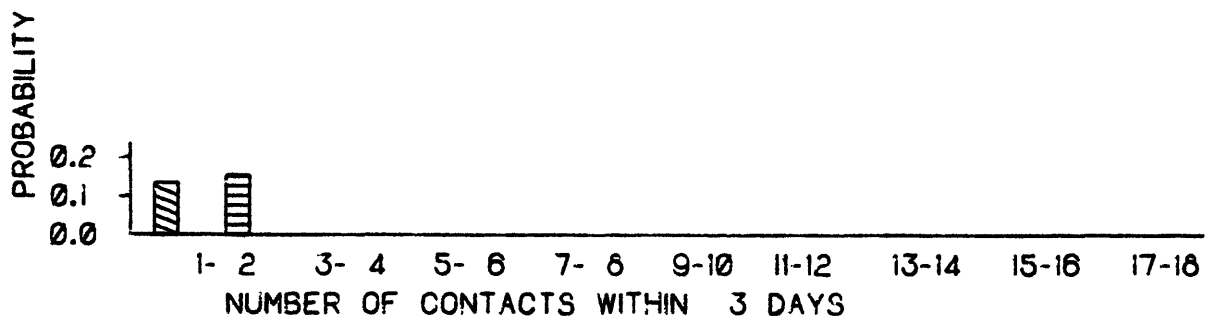
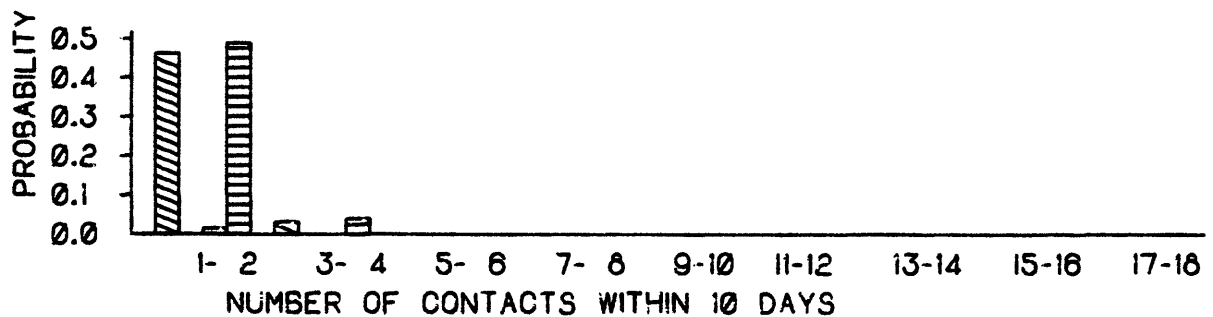
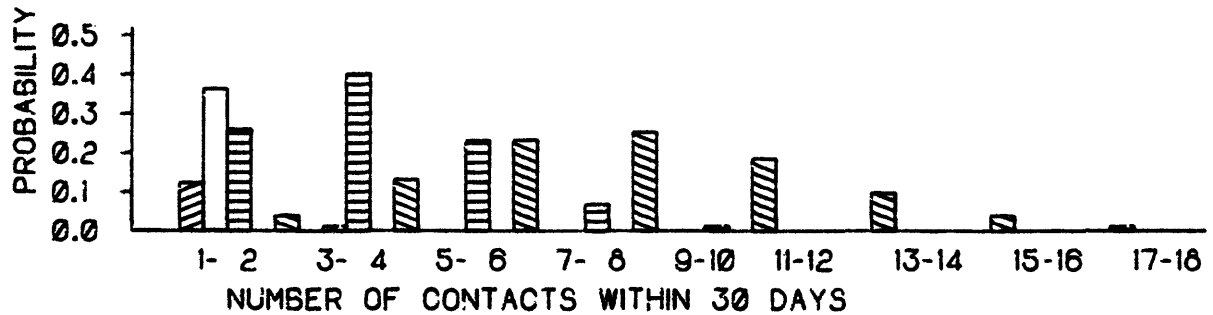
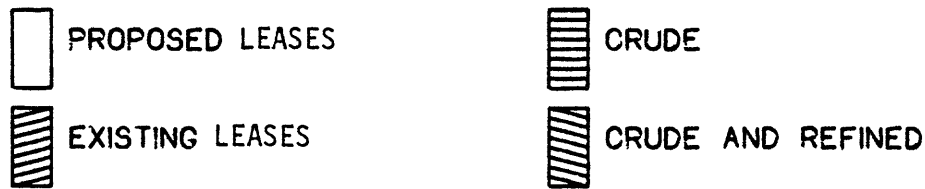


Figure C-26.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 4.

GULF STREAM SEG. 5

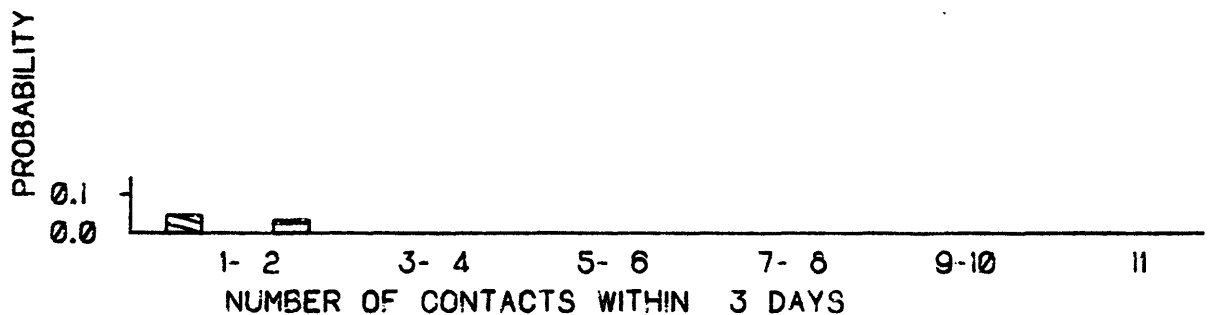
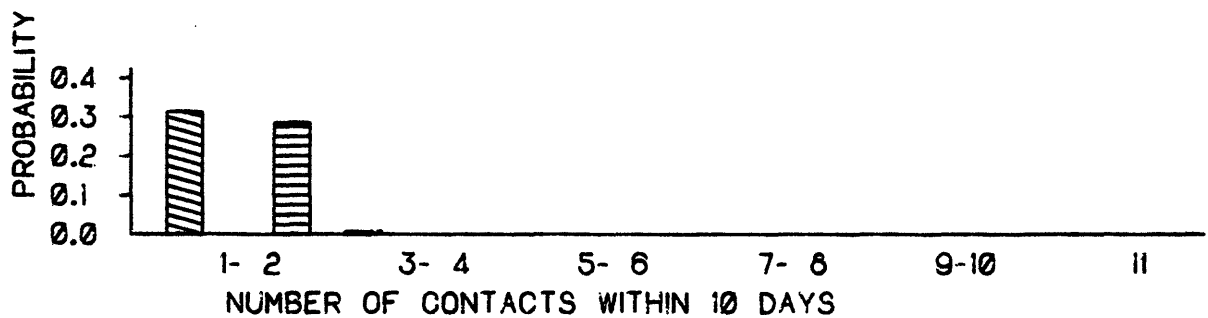
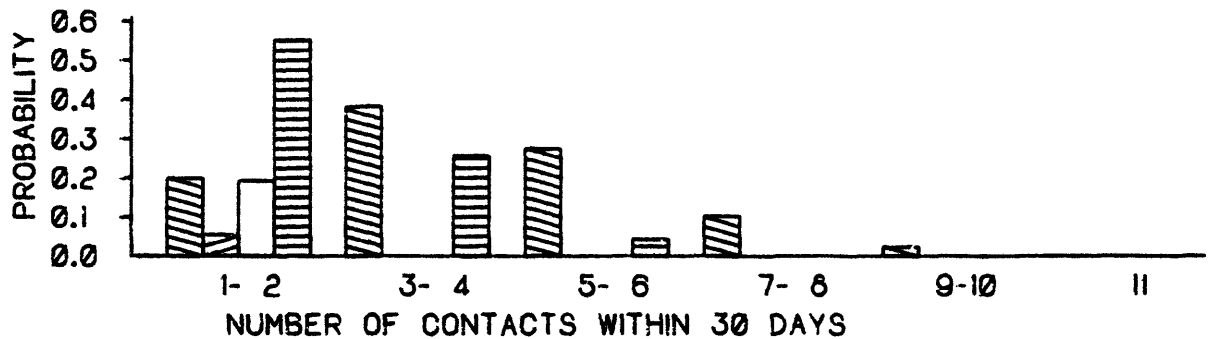
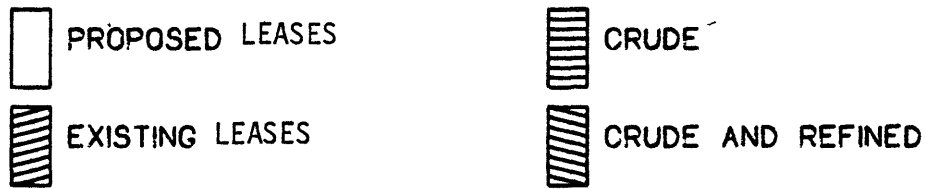


Figure C-27.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 5.

GULF STREAM SEG. 6

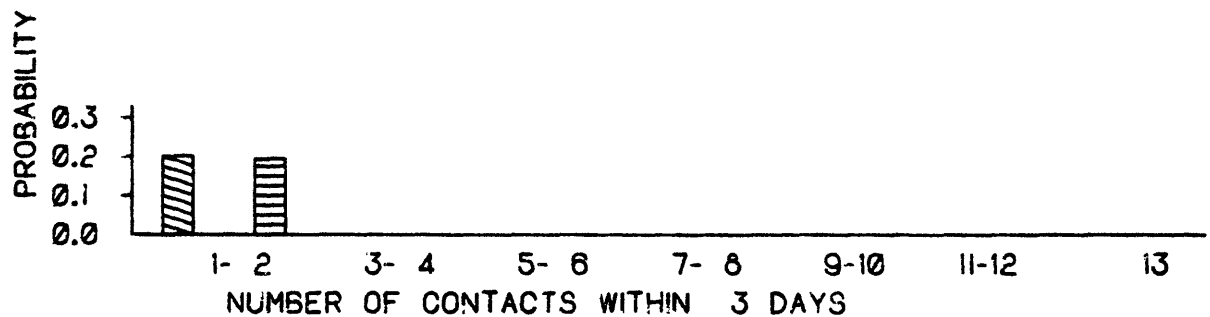
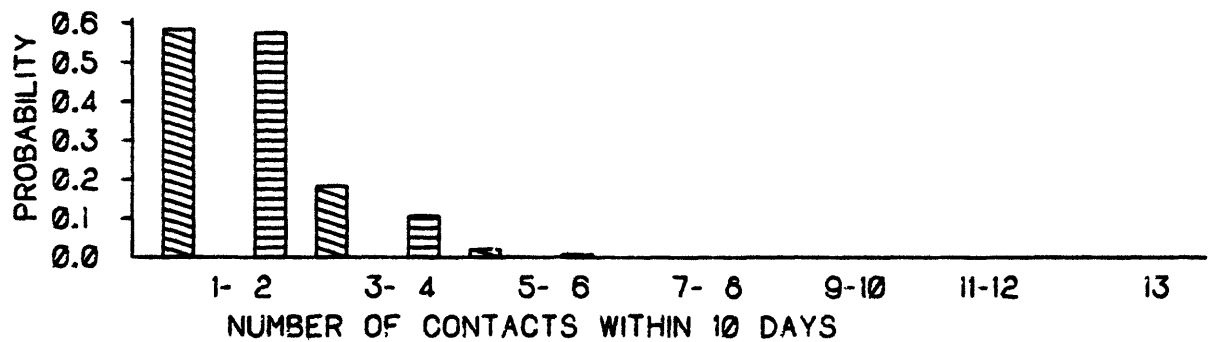
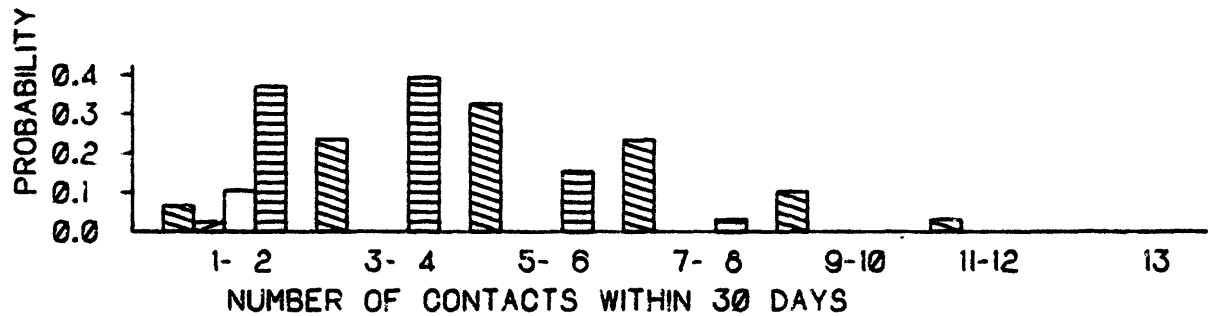
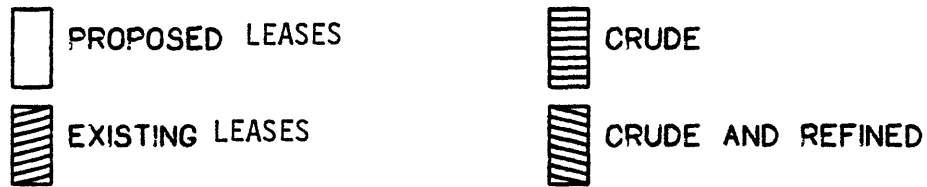


Figure C-28.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Gulf Stream boundary segment 6.

106 MILE DUMPSITE

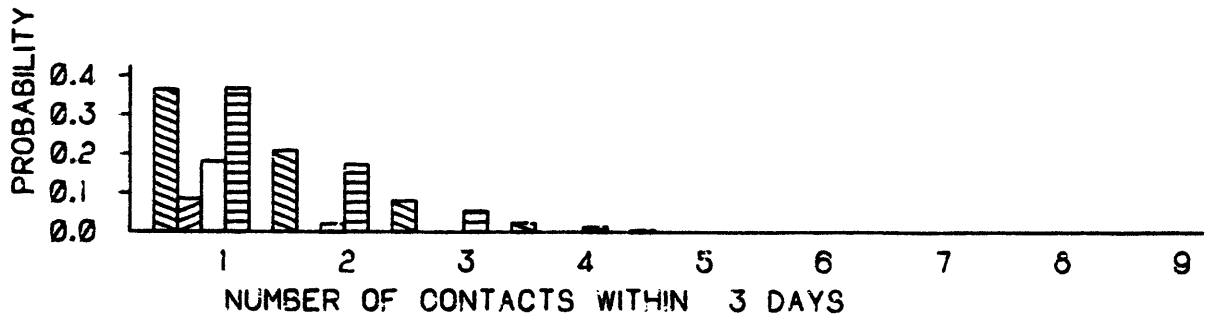
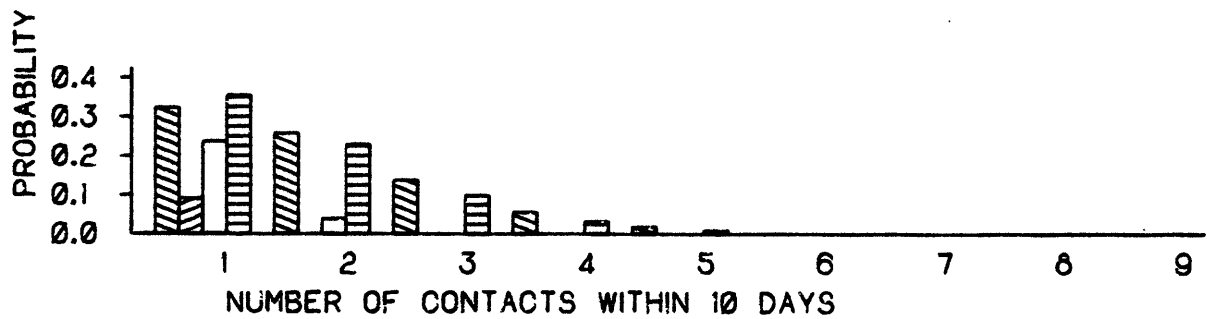
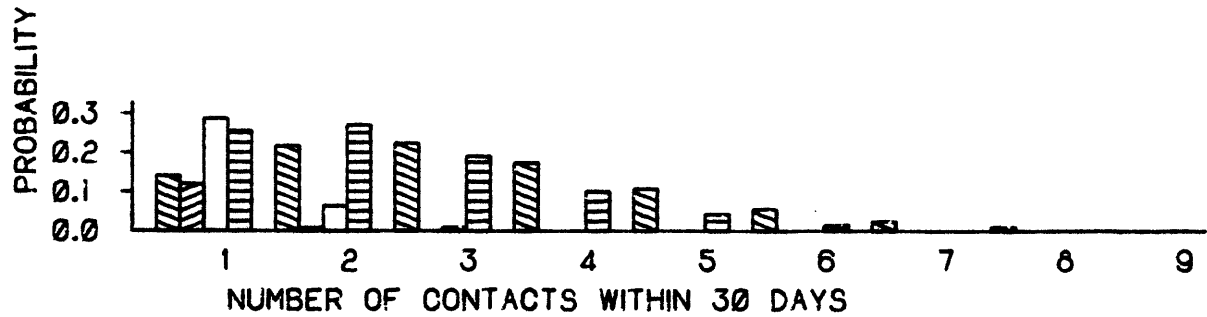
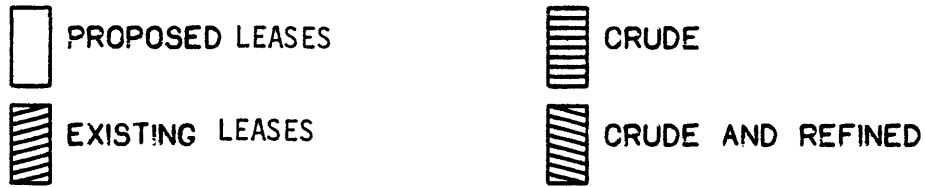


Figure C-29.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting 106 mile dumpsite.

Appendix D

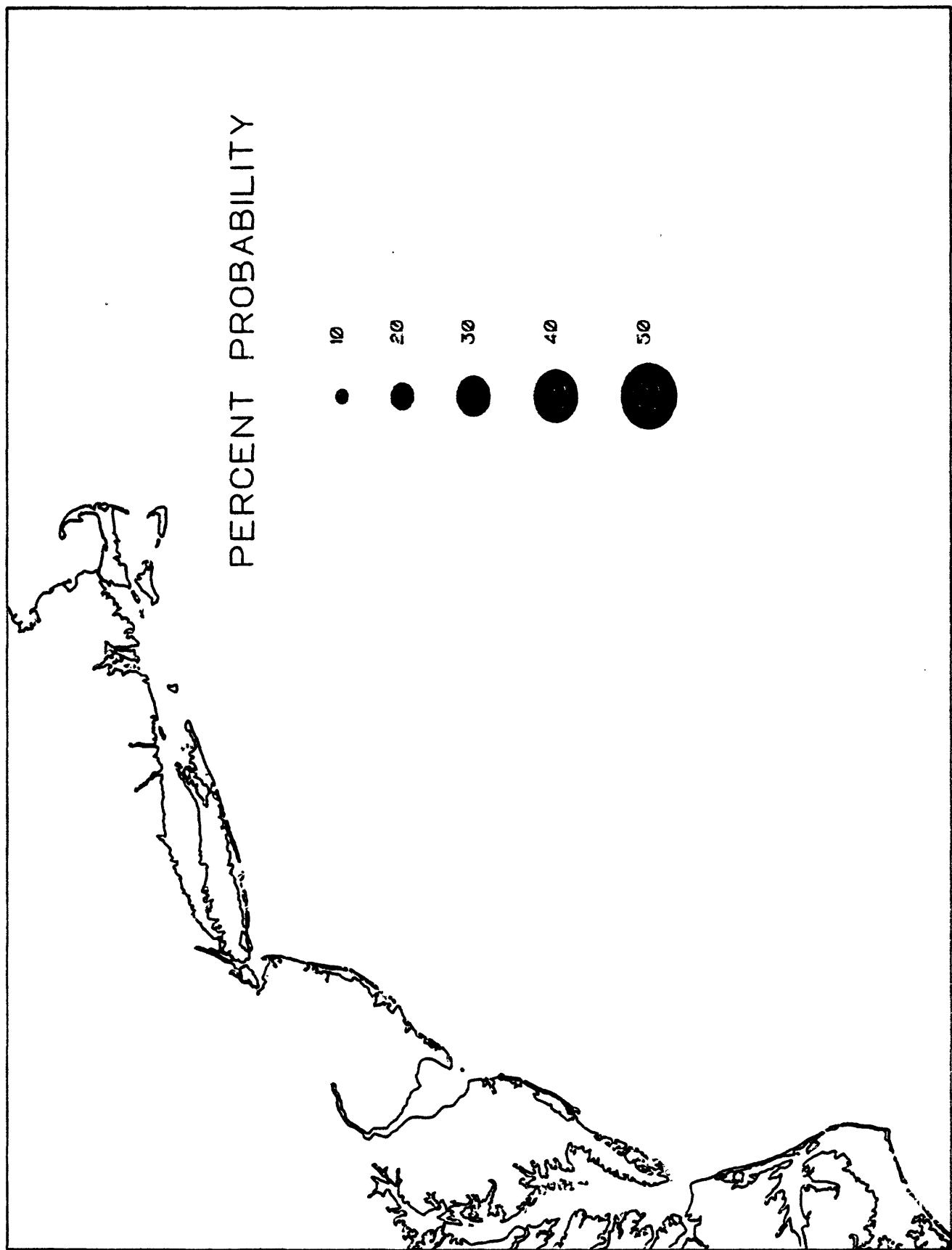


Figure D-1.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 3 days travel time (proposed leases).

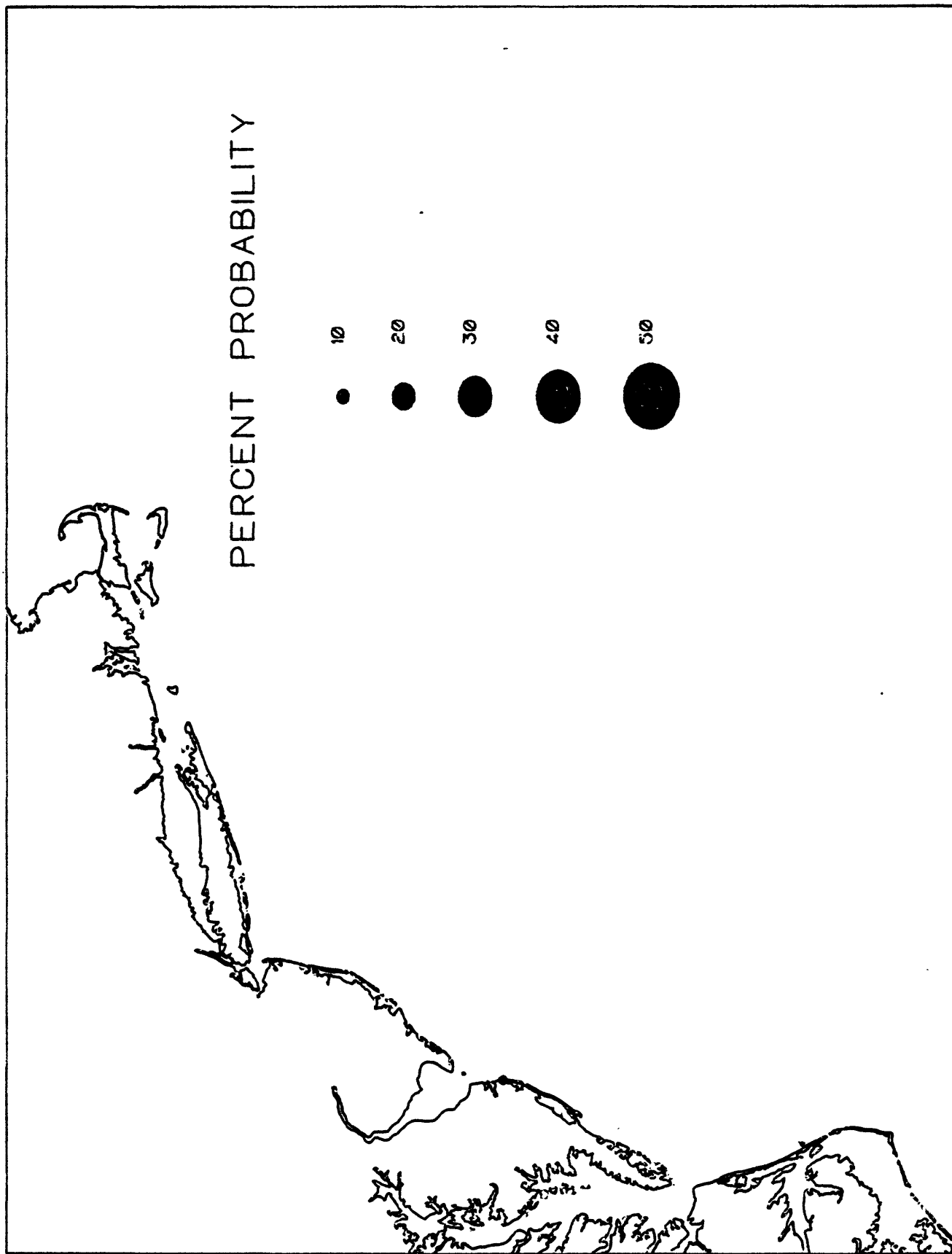


Figure D-2.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 10 days travel time (proposed leases).

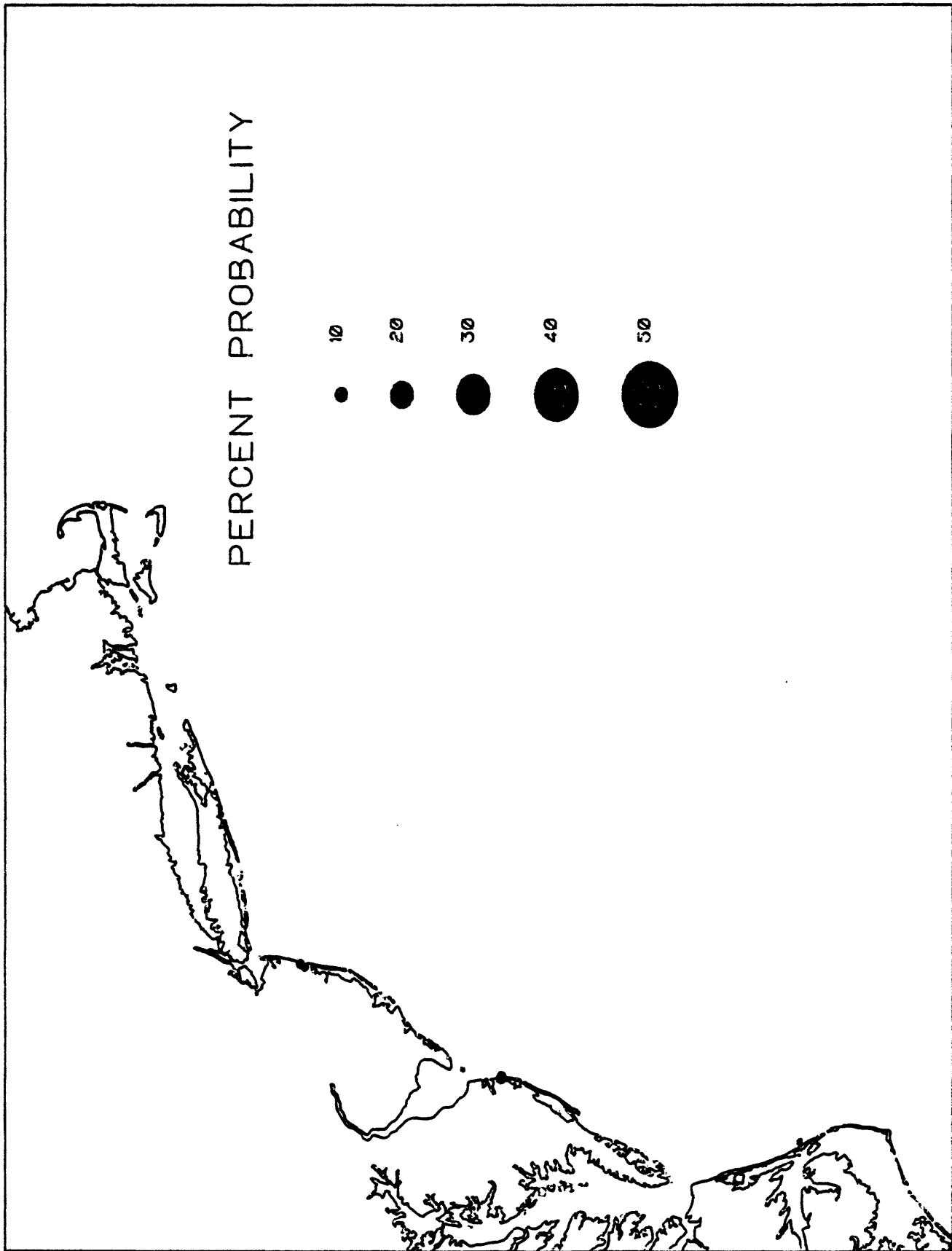


Figure D-3.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 30 days travel time (proposed leases).

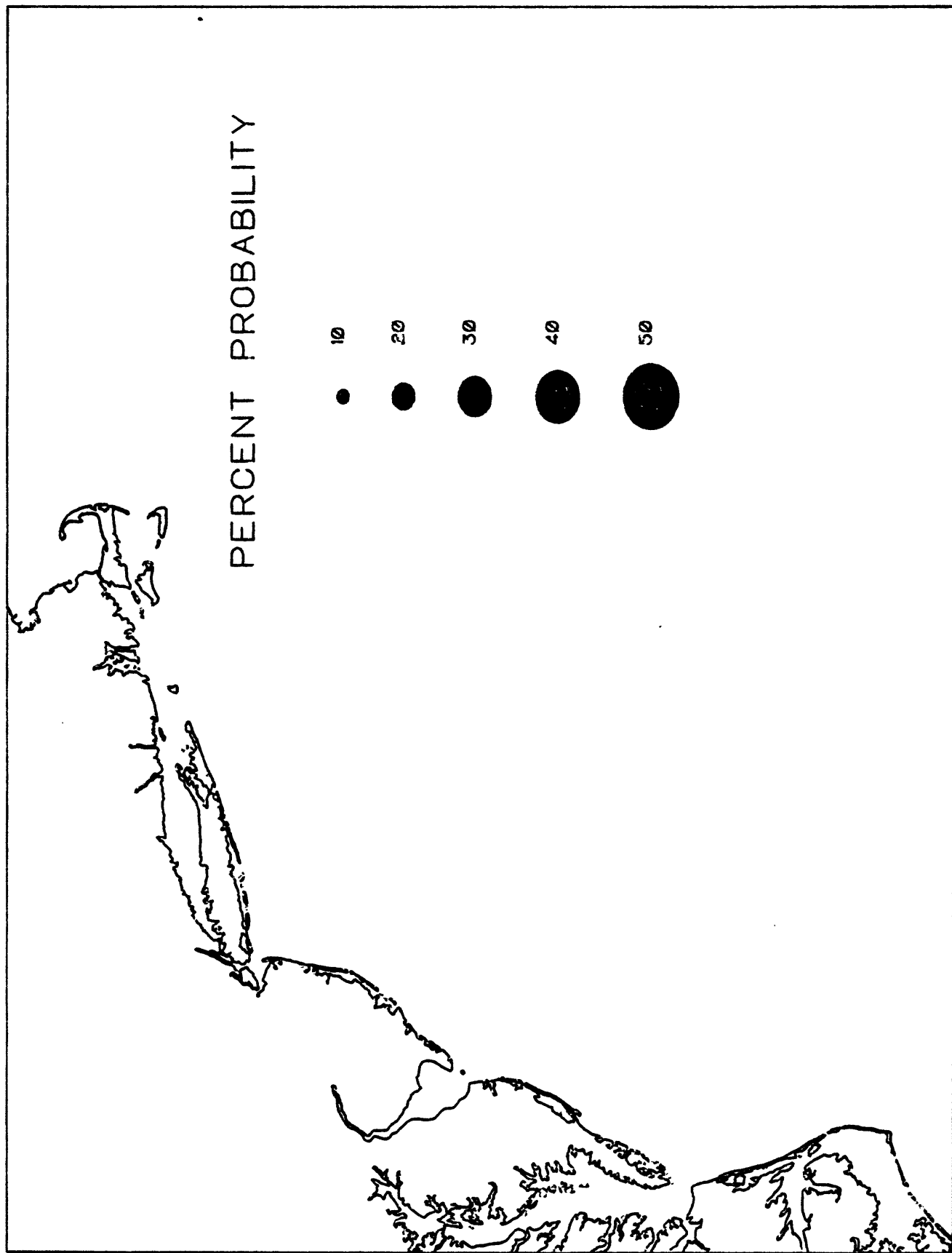


Figure D-4.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 3 days travel time (existing leases).

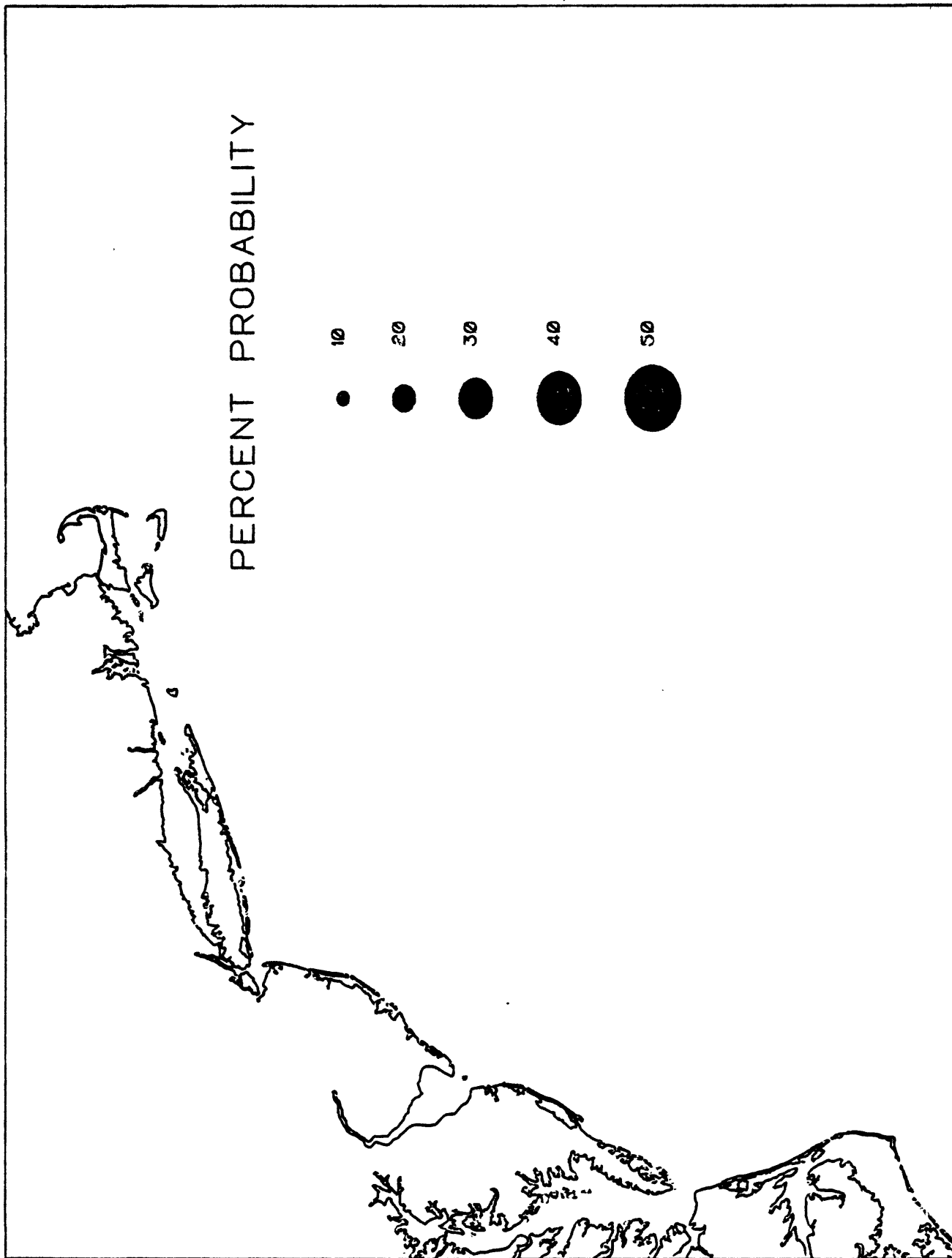


Figure D-5.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 10 days travel time (existing leases).

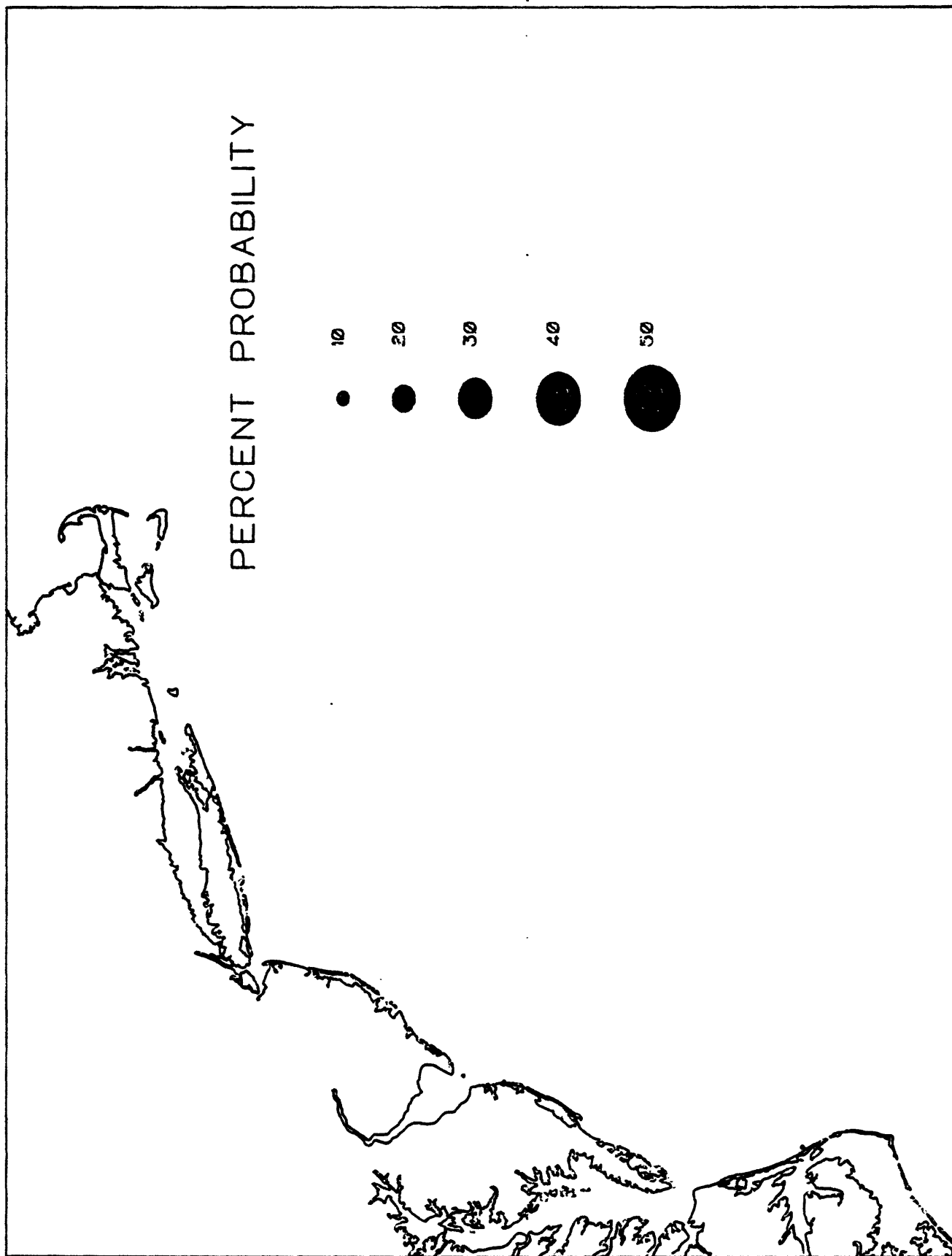


Figure D-6.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 30 days travel time (existing leases).

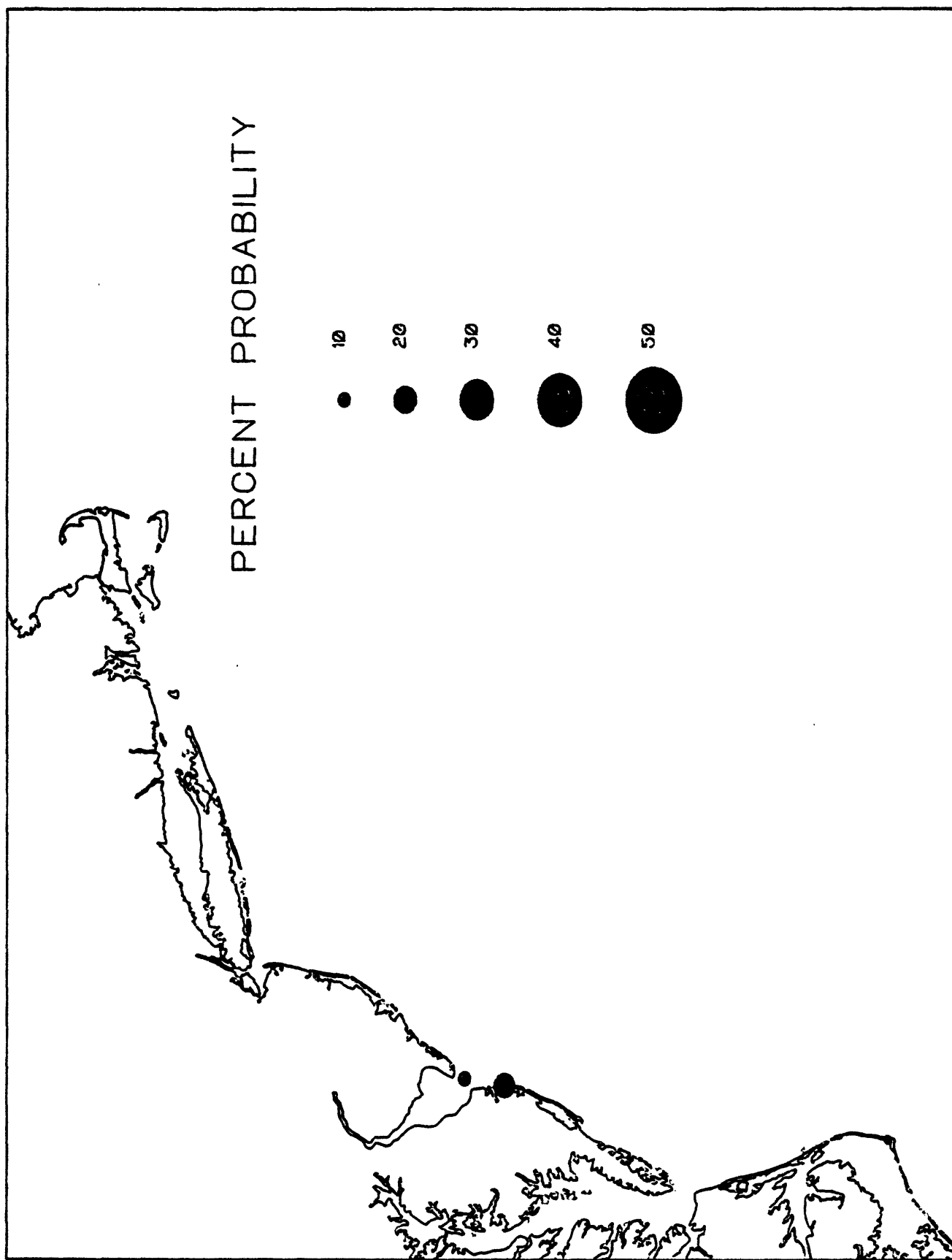


Figure D-7.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 3 days travel time (tanker transportation of crude oil imports).

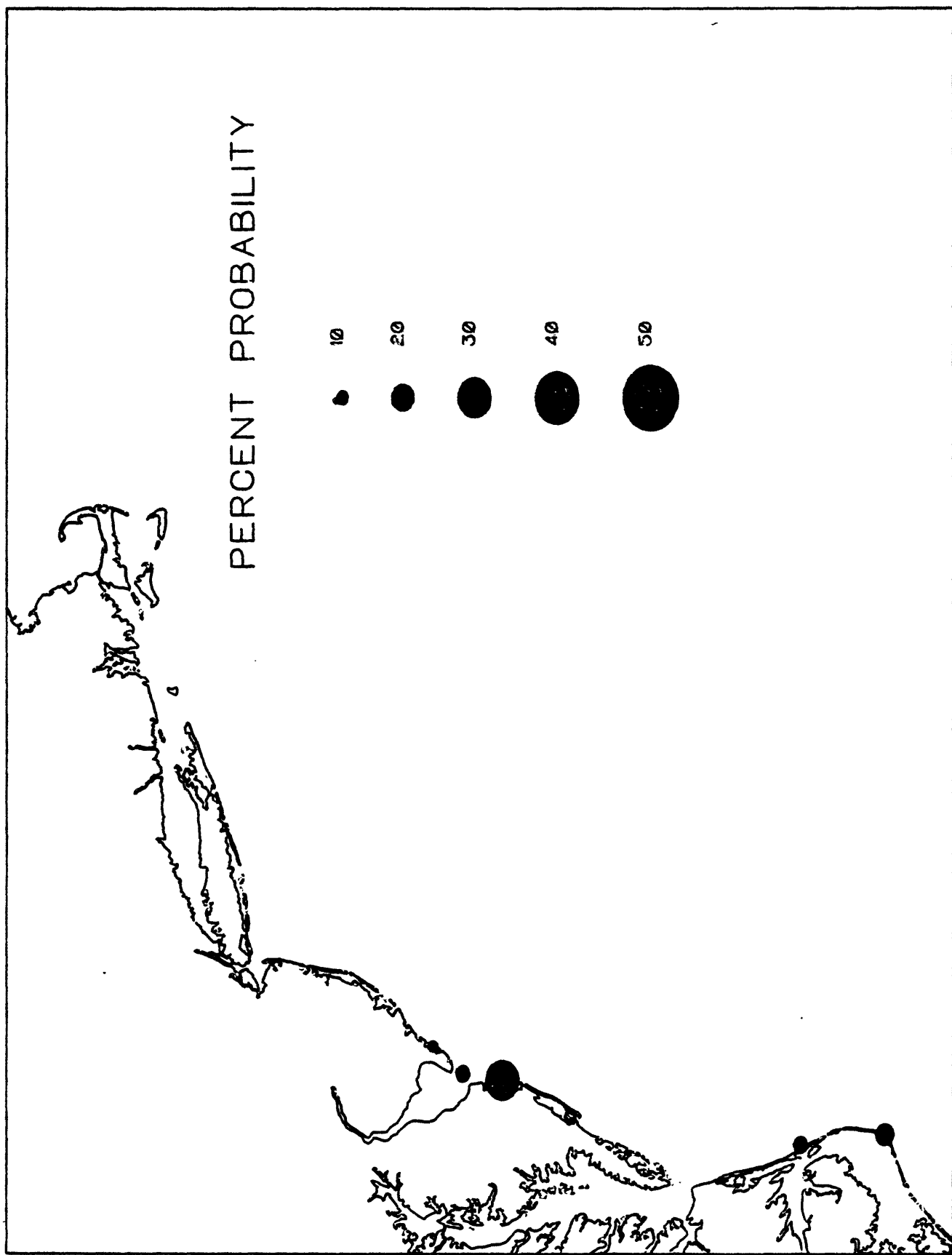


Figure D-8.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 10 days travel time (tanker transportation of crude oil imports).

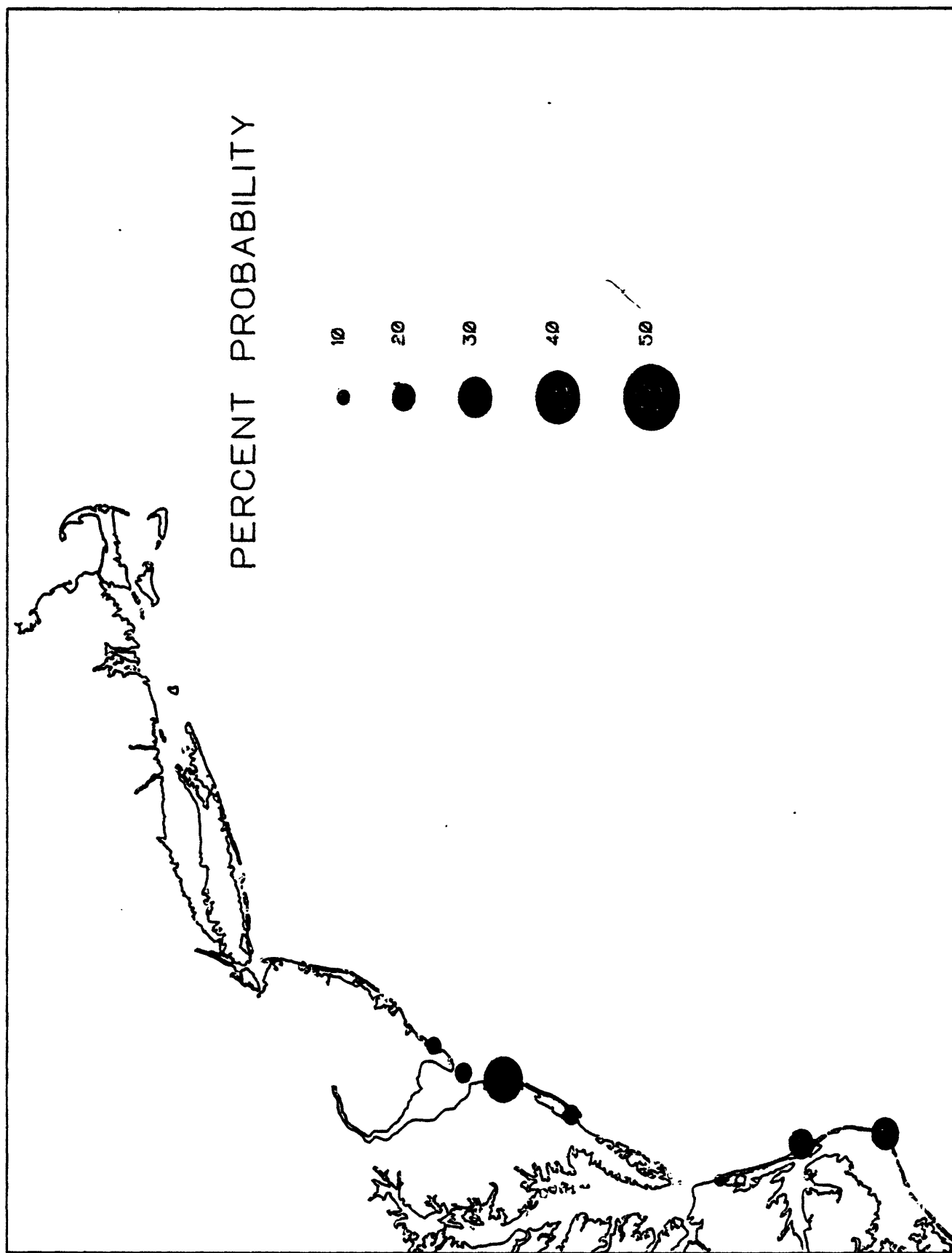


Figure D-9.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 30 days travel time (tanker transportation of crude oil imports).

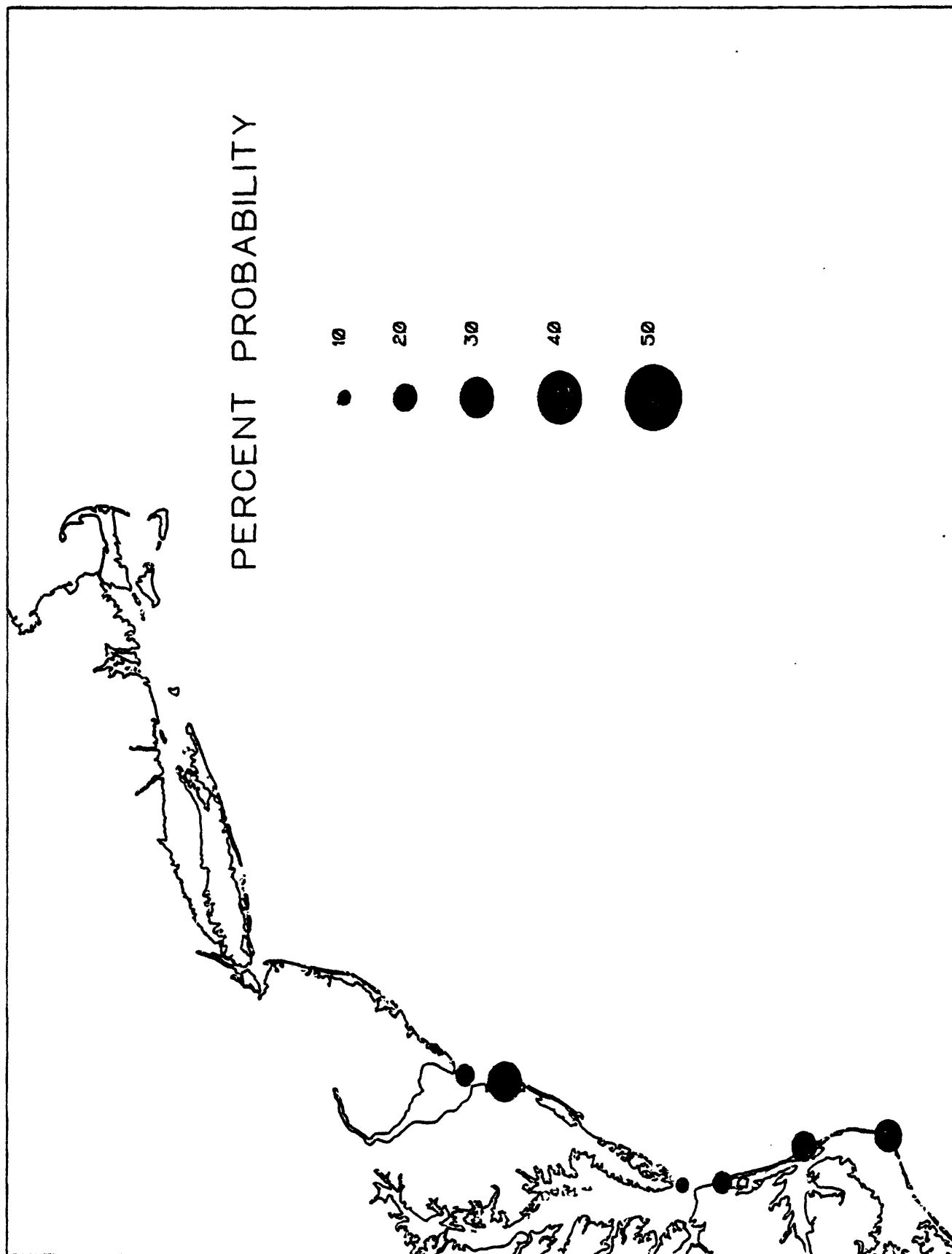


Figure D-10.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 3 days travel time (tanker transportation of crude oil imports and refined products).

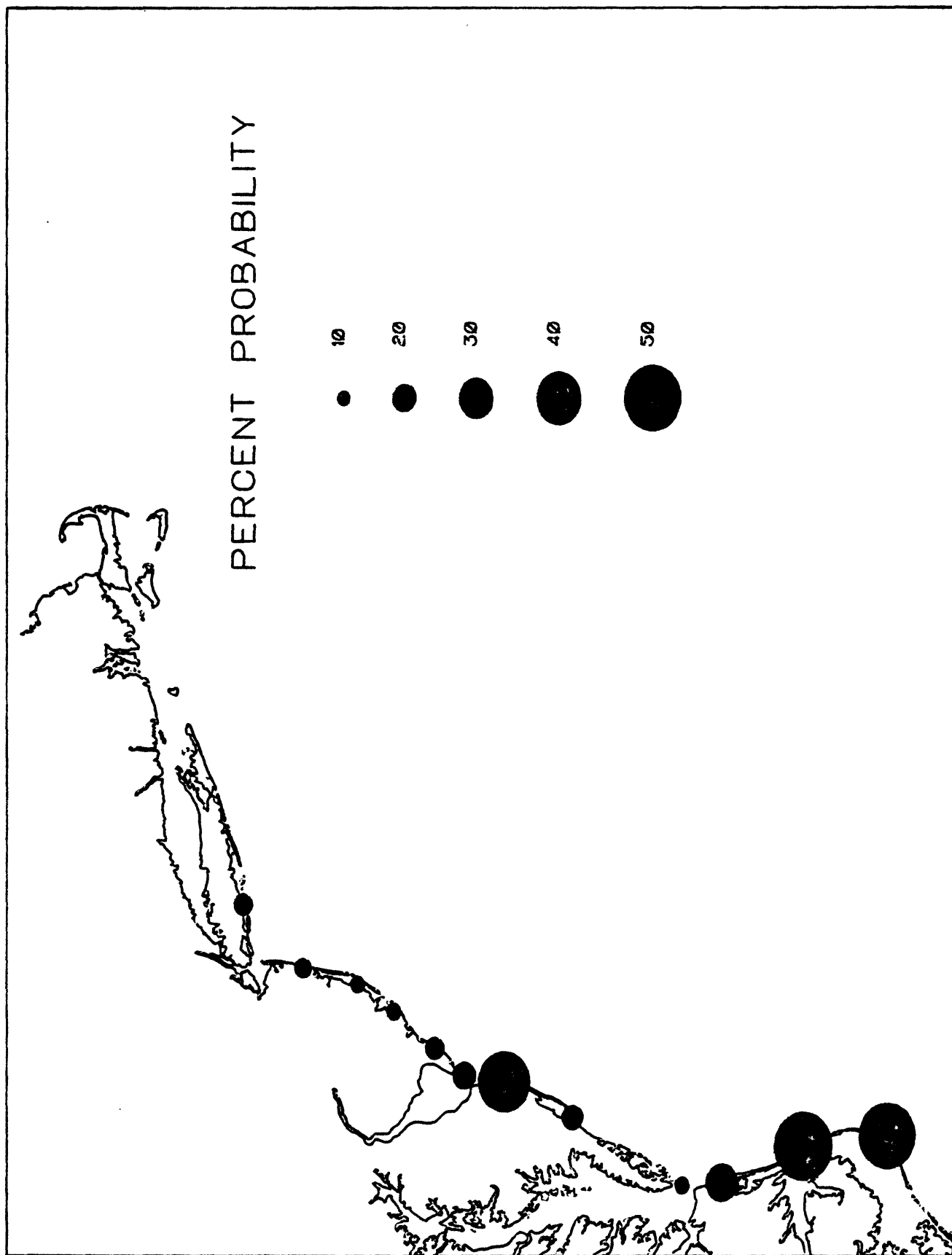


Figure D-11.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 10 days travel time (tanker transportation of crude oil imports and refined products).

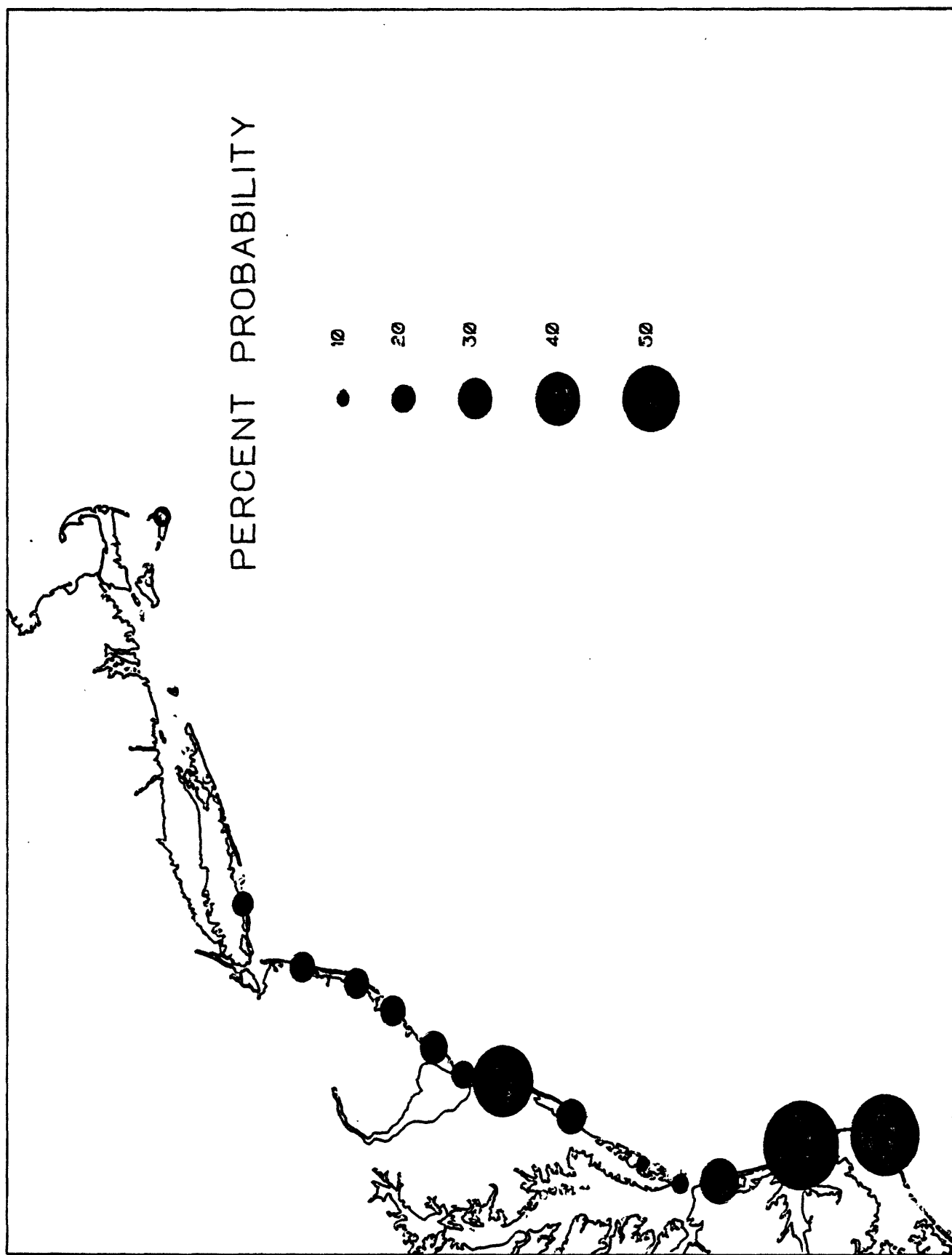


Figure D-12.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline within 30 days travel time (tanker transportation of crude oil imports and refined products).