AN OILSPILL RISK ANALYSIS FOR THE SOUTH ATLANTIC (PROPOSED SALE 78) OUTER CONTINENTAL SHELF LEASE AREA

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Abstract

An oilspill risk analysis was conducted for the South Atlantic (proposed sale 78) 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, (2) that either 0.228 billion (mean case) or 1.14 billion (high case) barrels of oil will be found and produced from tracts sold in sale 78, and (3) that all the oil will be found either in the northern or the southern portion of the lease area. On the basis of these resource estimates, it was estimated that 1 to 5 oilspills of 1,000 barrels or greater will occur over the 25 to 30-year production life of the proposed sale 78 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 less than 15 percent for all cases considered; for spills 10,000 barrels or larger, the probability is less than 10 percent. 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 80 percent of the risk of oilspill occurrence from proposed sale 78 is due to transportation rather than production of oil. In addition, the risks of oilspill occurrence from proposed sale 78 (mean resource esimate) are less than one-tenth of the risks of existing tanker transportation of crude oil imports and refined products in the South Atlantic area.

Introduction

The Federal Government has proposed to offer Outer Continental Shelf (OCS) lands off the South Atlantic coast for oil and gas leasing. The conditional mean estimate of oil resources for the proposed tracts in the sale 78 area is 0.228 billion barrels of crude oil. There is an 84 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 25 to 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 South Atlantic OCS Lease Sale 78. 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 Minerals Management Service (MMS), formerly 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 South Atlantic coast. The study area for this analysis includes all of these tracts and extends from latitude 28° N. to 37° N., and from longitude 73° W. to 81° 40' W. (figure 1). The study area also includes existing lease tracts from OCS sales 43 and 56. RS-2 is a sale reoffering tracts not previously sold in the South Atlantic and other OCS lease areas. The South Atlantic tracts to be reoffered are located within the sale 56 lease area.

For purposes of this analysis, lease tracts are combined into tract groups; the proposed sale 78 tracts are divided into 18 groups. The proposed study area is shown in figure 1. The subdivisions of the proposed tract groups (P1-P18) are shown in figure 2. The existing tract groups from OCS Lease Sales 56 (E1-E23) and 43 (E24-E33) are shown in figures 3 and 4, respectively.

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 5. The following hypothetical transportation scheme is proposed for the tracts in the sale 78 area for the purpose of impact assessment:

(1) If the mean resource estimate of oil (0.228 billion barrels) is found in the northern portion of the lease area (P10-P17, E1-E5) then a combined pipeline (T43, T44, T46) and tanker scheme (T47-T50) will transport 20 percent of the oil to Chesapeake Bay and 80 percent to Delaware Bay. If the high resource estimate (1.14 billion barrels) is discovered, then the percentages transported to Chesapeake and Delaware Bays change to 5 and 95 percent, respectively.

(2) If all the oil is found in the southern portion of the lease area (P1-P9, E6-E33), then pipelines (for example, T12-T14) would bring the oil to a central location near tract group E13. From there, the oil would be transported north by tankers to Chesapeake and Delaware Bays. The same percentages apply as mentioned in (1) above.

Tract group P18 was not included in this transportation scheme. It was considered by MMS to have, at the present time, little potential for the presence of oil resources. Other routes shown in figure 5 are those used for the tankering of imported crude oil and refined products to the various ports along the coast.

Environmental Resources

The locations of 27 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 MMS analysts. Maps showing the digitized targets are shown in appendix A, figures A-1 to A-26. 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:

Brown Pelican Rookeries
Marine Turtle Nesting Habitat (vulnerable May through October)
Onslow Bay Live Bottom Area
Federal and State Wildlife Conservation Areas
Federal and State Parks (vulnerable May through October)

Federal and State Parks (vulnerable November through April)
Blackbeard, Sapelo, and Wolf Islands
Gray's Reef
Cape Romain National Wilderness
Monitor Marine Sanctuary
Tourist Beaches, N.C. (vulnerable May through October)
Tourist Beaches, S.C. (vulnerable May through October)
Tourist Beaches, Ga. (vulnerable May through October)
Tourist Beaches, Fla. (vulnerable April through November)
Coastal Inlets, N.C.
Coastal Inlets, S.C.
Coastal Inlets, Ga.
Coastal Inlets, Fla.
Historic Sites
Prehistoric Sites
Coastal Waterbird Colonies
Manatee Critical Habitat
Salt Marsh and Wetlands
Royal Red Shrimp Grounds
Calico Scallop Area
Peregrine Falcon Migration Area (vulnerable February through March and September through November)
Bald Eagle Nesting Area (vulnerable January through May)

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 6 shows the coastline divided into 26 segments of approximately equal length (set 1). Figure 7 shows the coastline divided into 27 segments selected by MMS (set 2) that represents the ocean boundaries of each coastal county. Brevard county spans segments 25 and 26. The county names corresponding to the land segments in figure 7 are listed below:

Land Segment Number (set 2)	County Name
1	Currituck, NC
2	Dale, NC
3	Hyde, NC
4	Carteret, NC
5	Onslow, NC
6	Pender, NC
7	New Hanover, NC
8	Brunswick, NC

9	Horry, SC
10	Georgetown, SC
11	Charleston, SC
12	Colleton, SC
13	Beaufort, SC
14	Jasper, SC
15	Chatham, GA
16	Liberty, GA
17	McIntosh, GA
18	Glynn, GA
19	Carnden, GA
20	Nassau, FL
21	Duval, FL
22	St. Johns, FL
23	Flagler, FL
24	Volusia, FL
25	Brevard, FL
26	Brevard, FL
27	Virginia Beach, VA

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 MMS in preparing the draft EIS for the lease sale. These estimates are based on those derived by the Resource Appraisal Group, Geologic Division, USGS, for the MMS. An 84 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 assumed, for this analysis, that any oil found would be present either in the northern tract groups (P10-P17, E1-E5) or southern tract groups (P1-P9, E6-E33). If oil is present in the OCS Lease Sale 78 area, an estimated conditional mean value of 0.228 billion barrels may occur (Krahl, 1982). A second resource estimate (1.14 billion barrels) was also considered in this analysis as a high case of oil resource recovery (Krahl, 1982).

The assumed volume of oil for leased lands (OCS Lease Sales 43, 56, and RS-2) is 0.129 billion barrels with a 21 percent probability of commercial hydrocarbons being present (Krahl, 1982).

We cannot overemphasize that these estimates are based on the assumption that oil is present; if it is not present, a 16 percent probability for sale 78 and a 79 percent probability for leased lands (Krahl, 1982), then, obviously, no oilspill 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 25- to 30-year expected life of the sale 78 leases, MMS estimates that 5.9 billion barrels of crude oil and 28.7 billion barrels of 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 that 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 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, 1980, 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 the 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 spills of 10,000 barrels and larger 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 also calculated for production and transportation of oil from sales 43 and 56 and for transportation of oil imported from other areas by tankers. The assumption was made that only one-half of the spills from tanker transportation of imported oil would occur within the study area and that the other half of the spills would 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 8 shows the probabilities of 0, 1, 2, ... N spills occurring for proposed sale 78.

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 seasonal surface-water velocity fields were provided by Dynalysis, Inc., Princeton, N.J., using their characteristic tracing model (Kantha and others, 1981). Basically, this model utilizes the geostrophic approximation to the governing equations of fluid motion in rotating coordinates. Temperature and salinity data were

obtained on 1° squares in the study area and then distributed over 1/4° squares (Kantha, 1980). The density field could then be computed and used in the diagnostic calculations. The model uses as boundary conditions bottom velocity and transport on the southern boundary (that is, a transect through the Straits of Florida). A large number of current meter measurements were available for this southern transect. The model does not require the designation of any boundary conditions on the open ocean side. The assumption that velocities vanish at some arbitary depth need not be made in these calculations since the selection of the southern boundary was made so that information on the transport at this boundary was known. It is critical, though, that the southern boundary cross all f/H (f = coriolis parameter, H = depth) contours in the study area. It is possible then to derive the circulation of the region by integrating a vorticity equation along the f/H contours.

Short-term patterns in wind variability were characterized by probability matrices for successive 3-hour velocity transitions. A first-order Markov process with 41 wind velocity states (eight compass directions by five wind speed classes, and a calm condition) was assumed. The elements of this matrix are the probabilities, expressed as percent chance, that a particular wind velocity will be succeeded by another wind velocity in the next time step. If the present state of the wind is given, then the next wind state is derived by random sampling according to the percentages given in the appropriate row of the matrix. Wind transition matrices were calculated from the U.S. Weather Service records from Charleston, S.C. (station number 13880); Savannah, Ga., (station number 3822); and Cape Kennedy, Fla. (station number 12868). 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. JAYCOR (1979) compared winds observed at Charleston, S.C., with winds observed about 200 km offshore to the east on a National Data Buoy Office meteorological data buoy over a 1-year period. They found that offshore wind speed averaged 1.8 times the coastal wind speed. This factor was applied to the Charleston and Savannah wind speeds; it was concluded that the Cape Kennedy wind data did not require this adjustment.

Five hundred hypothetical oilspill trajectories were simulated in Monte-Carlo fashion for each of the four seasons from 18 potential oilspill locations in the study area (P1-P18, figure 2); from 33 locations in the existing lease areas (E1-E33, figures 3 and 4); and from 58 locations along the transportation network (T1-T58, figure 5). Each potential spill source was represented as either a single point, a straight line with the potential spill sources uniformly distributed along the line (for example, a transportation route), or as an area (for example, the potential spill sources 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 3-hour period. The assumptions used are as follows: (1) the effects of wind and currents act independently, (2) only a fraction of the velocity

of the wind, as a result of surface shear stress, is imparted to the body of oil; and (3) the direction of oilspill motion induced by the wind is at a non-zero angle to the direction of the wind (a result of the Ekman effect). 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 (in press). The deflection angle is greatest at low wind speeds. 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 s, for a particular probability p is calculated as follows:

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

where 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 s as a function of p and N. For N = 2,000, 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.

Combined Analysis of Oilspill Occurrence and Oilspill Trajectory Simulations

Data in figure 8 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. The probability that, if an oilspill occurs at a certain location, or launch point, it will contact a specific target within a given time-of-travel (under the circumstances described above) is termed a conditional probability because it depends on oilspill occurrence. For a set of nt targets and nl launch points, these conditional probabilities can be represented in a matrix form. Let [C] be an nt x nl matrix, where each element $c(i,j)$ is the probability that an oilspill will hit target i, given that a spill occurs at launch point j. Note that launch points can represent potential spill starting points from production areas or transportation routes.

Spill occurrence can be represented by another matrix [S]. With nl launch points and ns production sites, the dimensions of [S] are nl x ns. Let each element $s(j,k)$ be the expected number of spills occurring at launch point j due to production of a unit volume of oil at site k. These spills can result from either production or transportation. The $s(j,k)$ can be determined as functions of the volume of oil (spills per billion barrels). Each column of [S] corresponds to one production site and one transportation route. If alternative and mutually exclusive transportation routes are considered for the same production site, they can be represented by additional columns of [S], effectively increasing ns.

Define matrix [U] as:

$$[U] = [C] \times [S]$$

Matrix [U] which has dimensions nt x ns, is termed the unit risk matrix because each element $u(i,k)$ corresponds to the expected number of spills occurring and contacting target i due to the production of a unit volume of oil at site k. With [U], it is a relatively simple matter to find the expected contacts to each target, given a set of oil volumes at each site. Let [V] be a vector of dimension ns, where each element $v(k)$ corresponds to the volume of oil expected to be found at production site k. Then, if [L] is a vector of dimension nt, where each element $l(i)$ corresponds to the expected number of contacts to target i,

$$[L] = [U] \times [V]$$

Similar calculations can also be made for land segments.

Using Bayesian techniques, Devanney and Stewart (1974) showed that the probability of n oilspill contacts can be described by a negative binomial distribution. Smith and others (1980), however, noted that when actual exposure is much less than historical exposure, as is the case for most oilspill risk analyses, the negative binomial distribution can be approximated by a Poisson distribution. The Poisson distribution has a significant advantage in calculations because it is defined by only one parameter, the expected number of spills. The matrix [L] thus contains all the information needed to use the Poisson distribution: if $P(n,i)$ is the probability of exactly n contacts to target i, then:

$$P(n,i) = [1(i)^n * \exp(-1(i))]/n!$$

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 15 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 within periods of 3, 10, and 30 days, over the expected production life of the lease area, for proposed sale 78 alone, proposed sale 78 plus existing leases, and tanker transportation of crude oil and refined products. The oilspill risks were compared for both the mean and high resource estimates using the assumption that the oil would be found either in the northern or southern portion of the study area. Tables 16 to 19 and 20 to 23 show similar probabilities to land segments set 1 and set 2, respectively.

Two oilspill sizes were considered in this analysis, those greater than 1,000 barrels and those greater than 10,000 barrels. Tables 12 to 23 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.

The overall probabilities are also shown graphically for selected targets and land segments in appendices C and D. Figures C-1 through C-28 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 and D-2 indicate, through circles superimposed on maps of the coastline, the probabilities of one or more spills occurring and contacting land

segments (set 1) within 30 days, for 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 78 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 less than 15 percent 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 less than 1 percent 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 6 percent chance of being contacted by one or more spills (of 1,000 barrels and greater) within 30 days. Furthermore, all land segments have less than 2 percent chance of oilspill (1,000 barrels and greater) contact within 3 days. It is readily apparent that the risks of oilspill contact to the coastline from proposed sale 78 are very small.

In general, it appears that if the high resource estimate of oil is found, the oilspill risks incurred will be approximately two to four times the risks which would result if the mean resource estimate is found. For example, the mean case indicates a 2 percent chance of one or more oilspills (of 1,000 barrels and greater) occurring and contacting the Royal Red Shrimp grounds within 30 days (assuming that the oil is found in the southern lease tracts). If the high case is considered, this risk increases to 7 percent. Whether the oil is found in the north or south could make a significant difference in the oilspill risks to several targets. For example, considering the discovery of the high resource estimate of oil in the northern leases, the risks of oilspill contact to the Calico Scallop grounds is only 1 percent (within 30 days travel time). If this similar amount of oil is found in the southern leases, the risks to the Calico Scallop increase to 14 percent.

It is useful to compare the probabilities of spills occurring and contacting targets over the expected production life of the proposed sale 78 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 tables 12-23, the effect of existing tankering substantially increases the risk to almost all of the targets and land segments. It is clear that there already exists a high risk of oilspill contact to targets and the coastline in the study area as a result of transportation. The production and transportation of OCS oil appears to add little risk to what already exists.

Conclusions

This analysis with its assumptions indicates that if oil exists in commercial quantities in the OCS sale 78 area (an 84 percent chance), the probability that one or more oilspills of 1,000 barrels of larger will occur and contact land within 3 days is less than 1 percent; for contact within 30 days, the probability increases to less than 15 percent. For spills of 10,000 barrels or larger, these probabilities are reduced to less than 0.5 and less than 10 percent, respectively. Over 80 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 0.36 for crude oil imports and 0.91 for crude oil imports and refined products.

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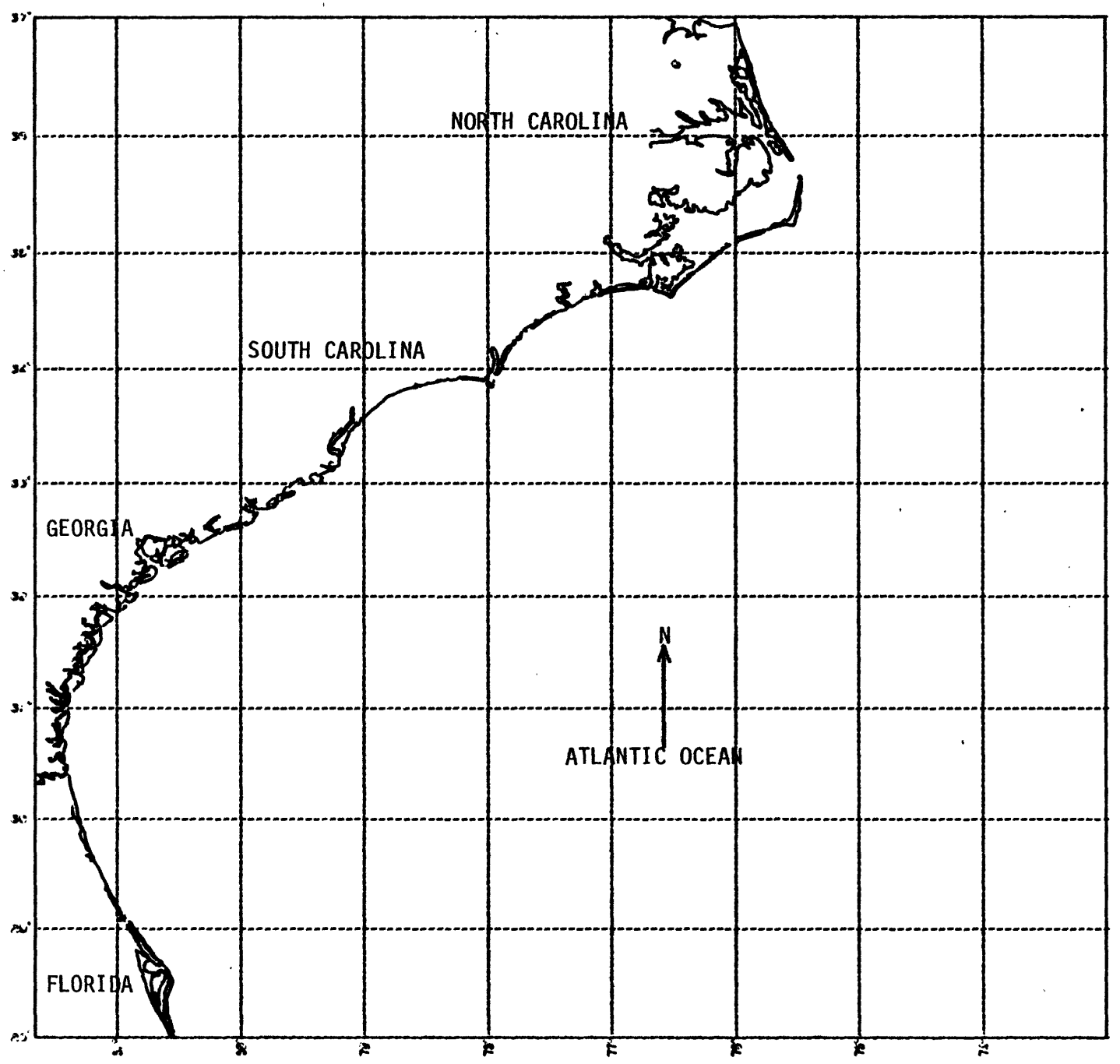

Figure 1.--Map showing the South Atlantic OCS Lease Sale 78 study area.

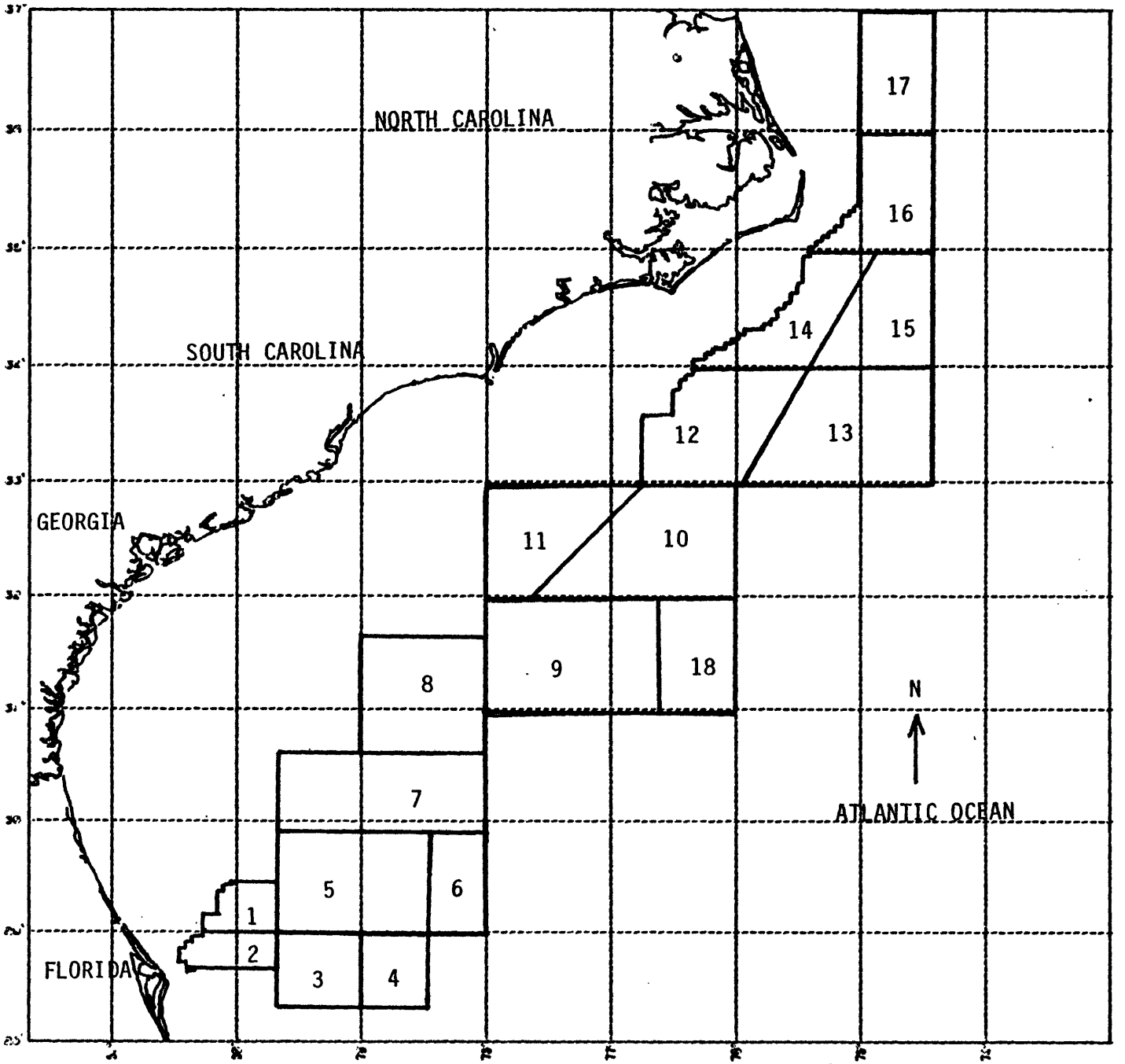

Figure 2.--Map showing the proposed lease tract groups (P1-P18) for South Atlantic OCS Lease Sale 78.

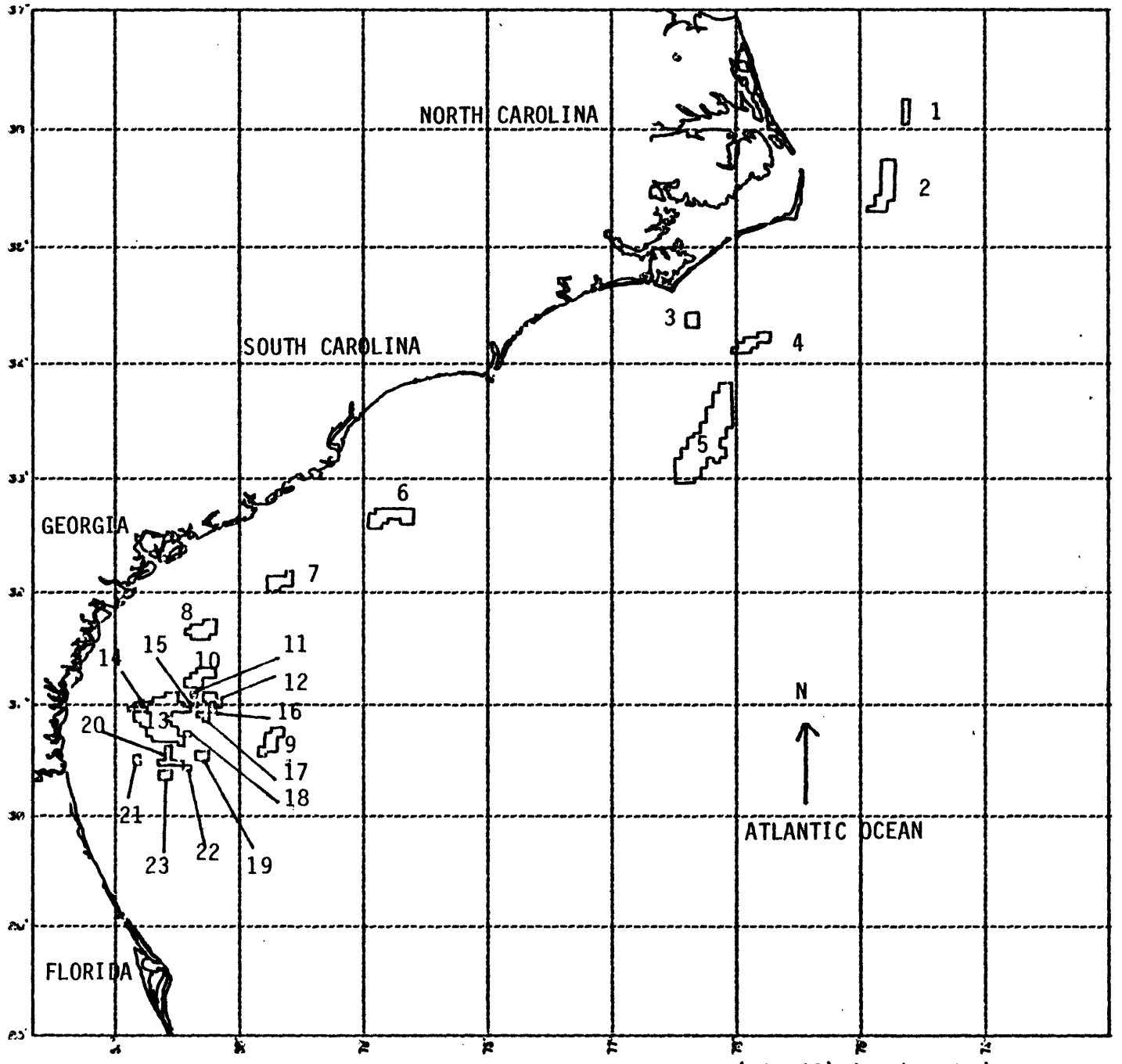

Figure 3.--Map showing the existing lease tract groups (E1-E23) in the study area for OCS Lease Sale 56.

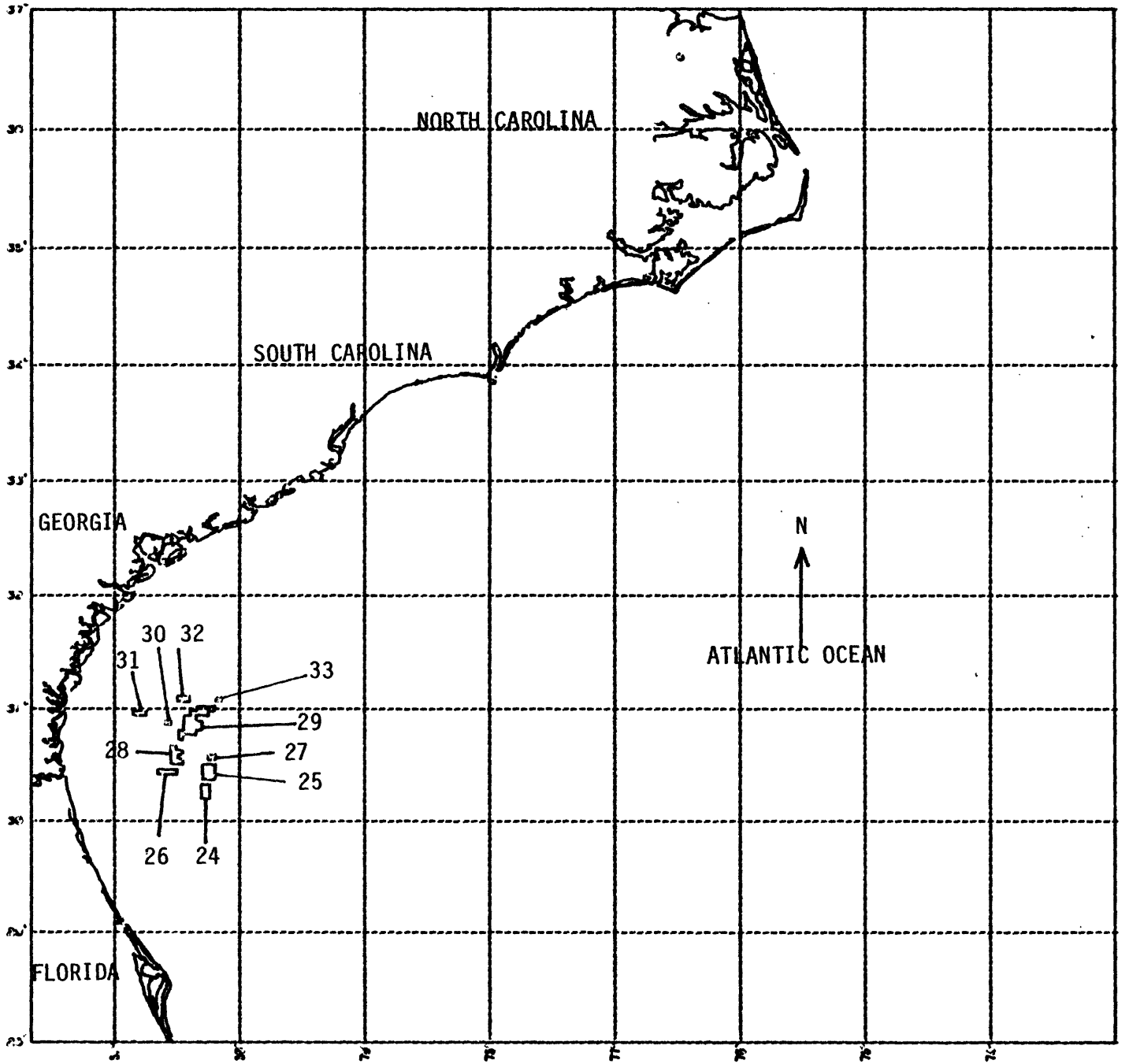

Figure 4.--Map showing the existing lease tract groups (E24-E33) in the study area for OCS Lease Sale 43.

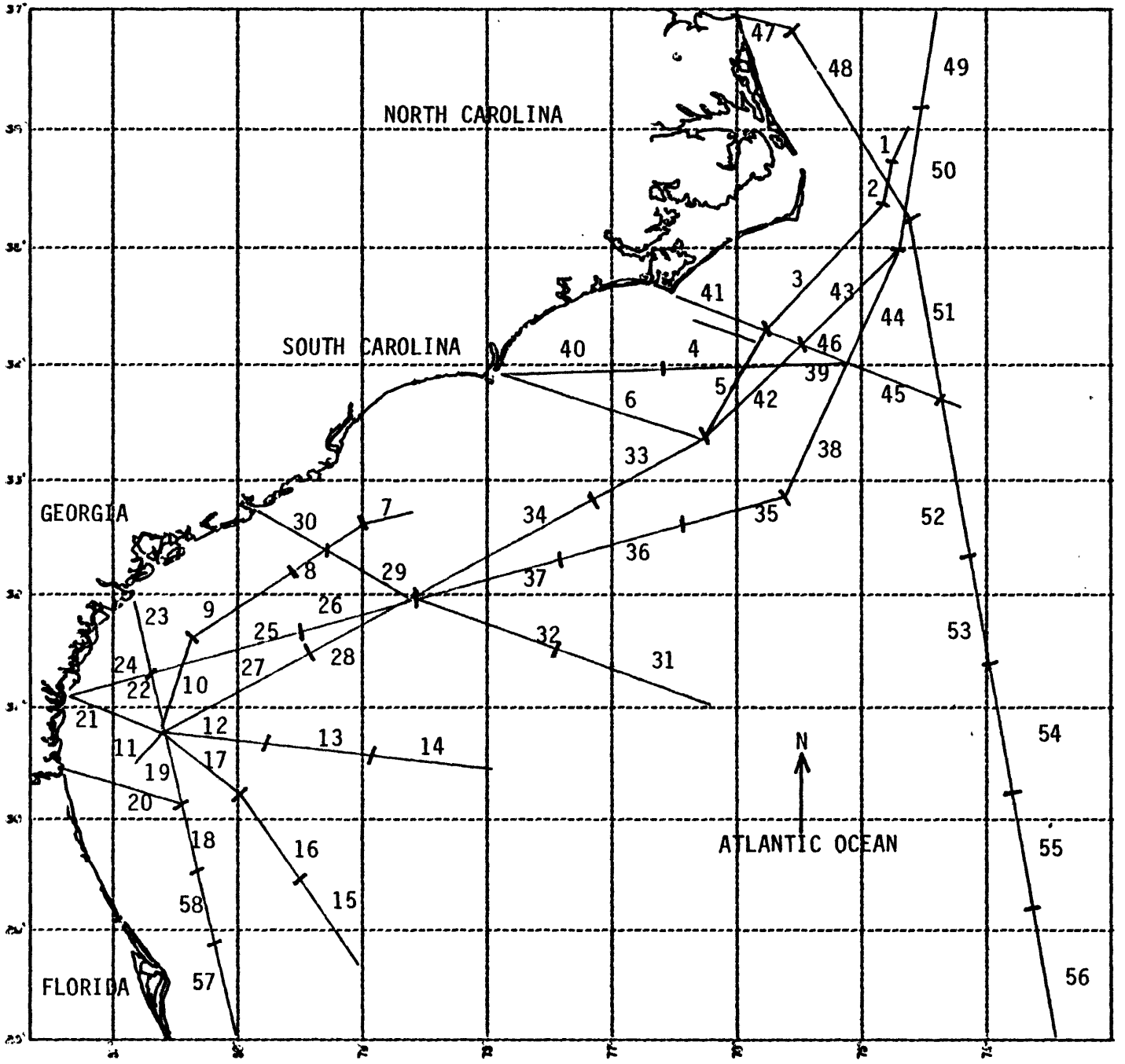

Figure 5.--Map showing the transportation route segments (T1-T58).

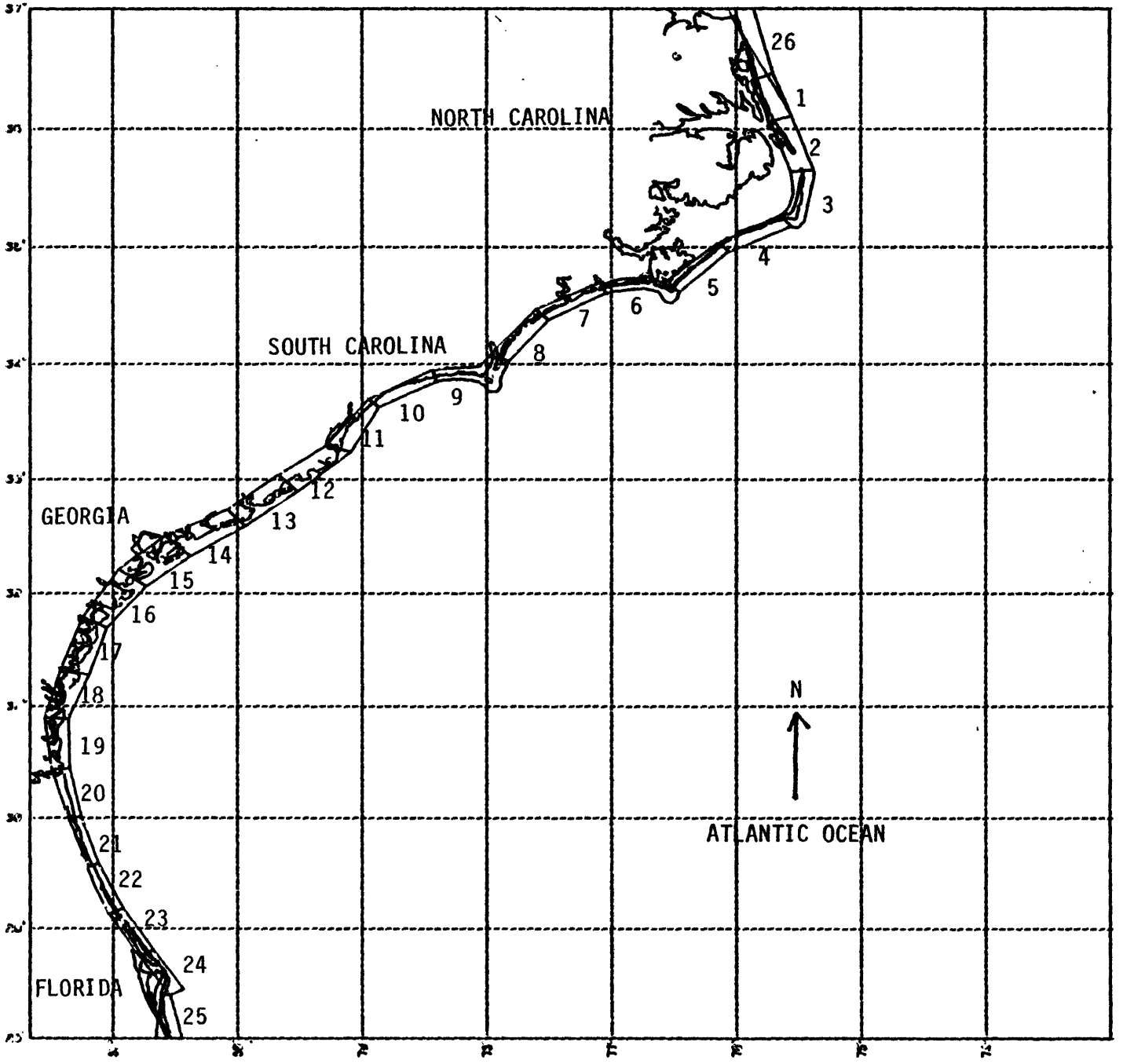

Figure 6.--Map showing the division of the South Atlantic shoreline into 26 segments of approximately equal length (set 1).

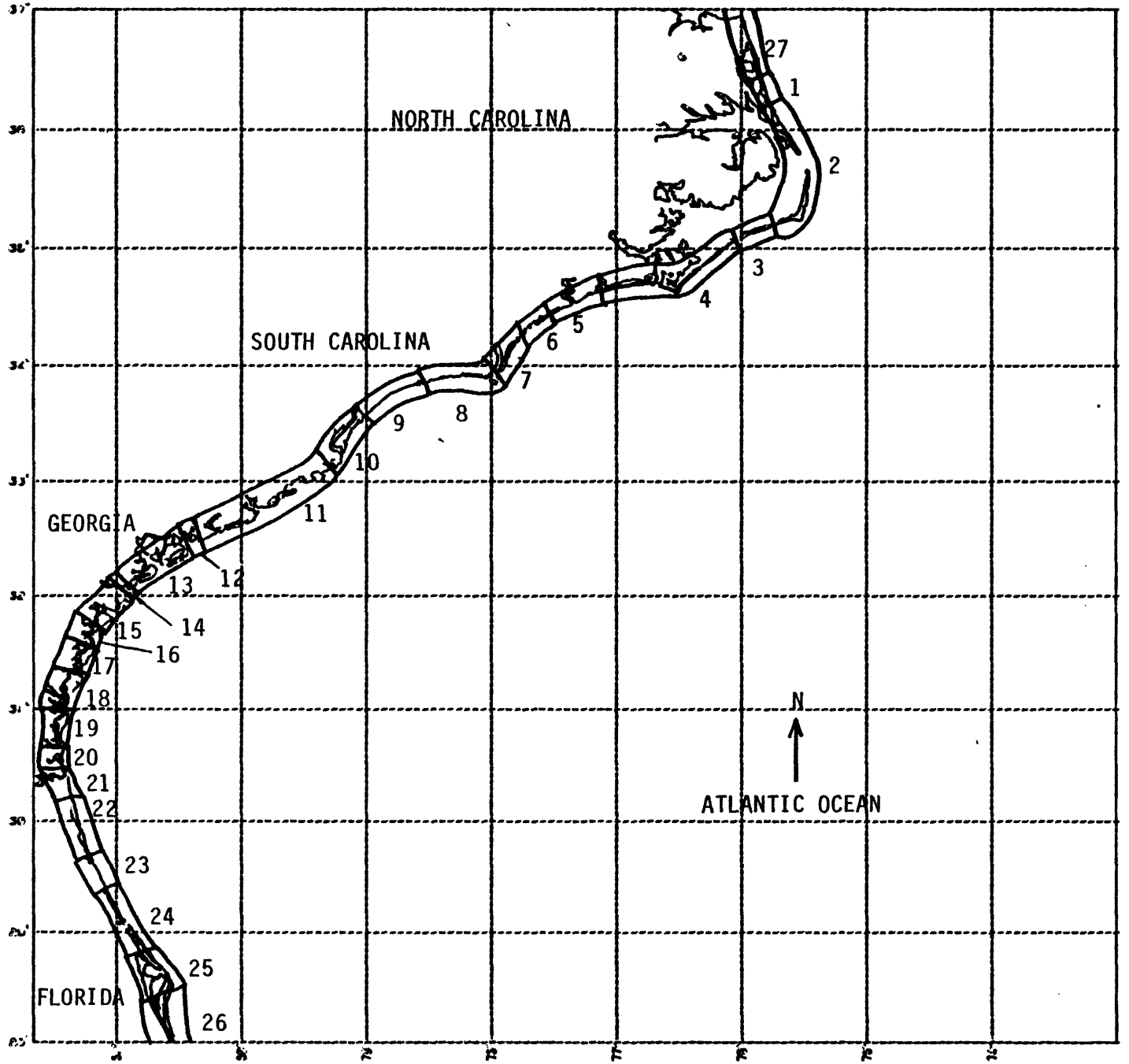

Figure 7.--Map showing the division of the South Atlantic shoreline into 27 segments selected by MMS (set 2).

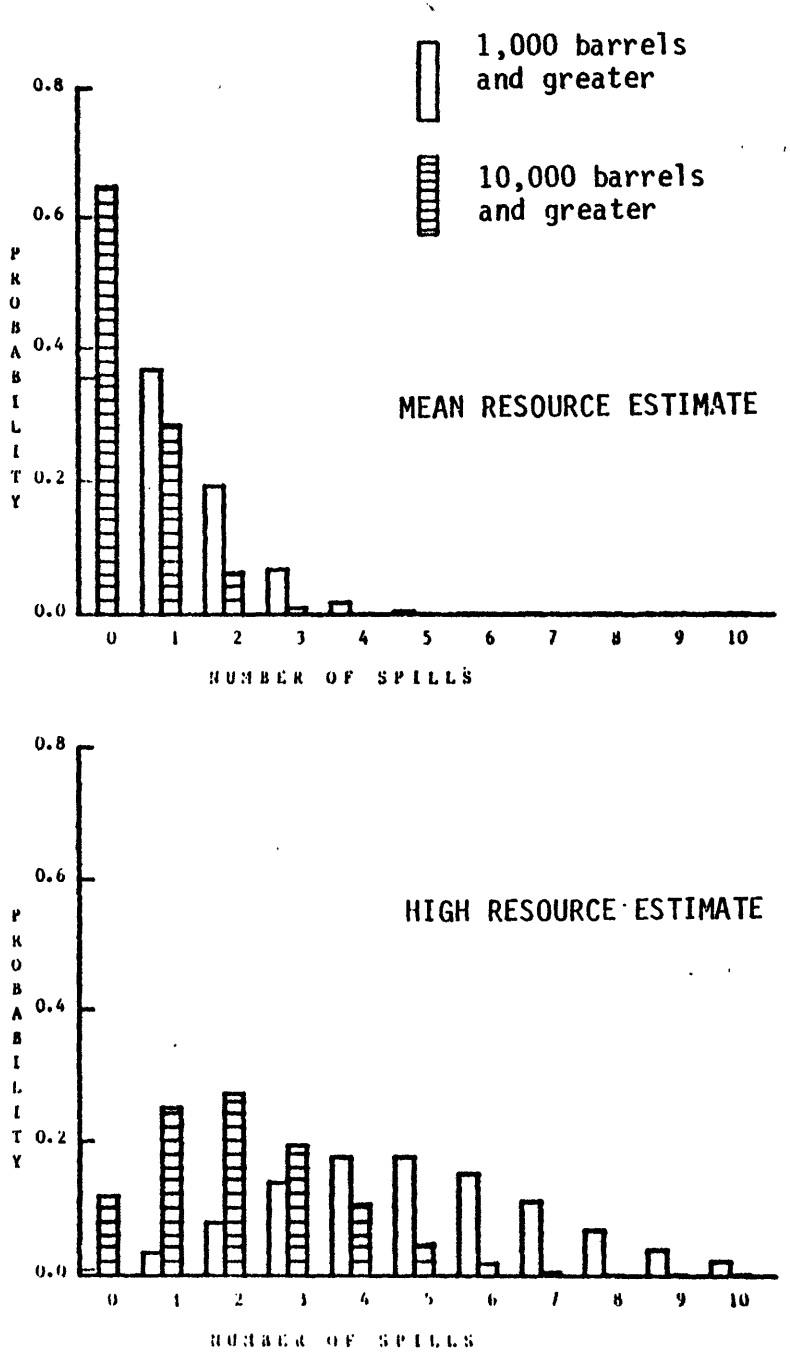

Figure 8.--Estimated frequency distribution for oilspills greater than 1,000 and 10,000 barrels occurring during the expected production life of OCS Sale 78 leases.

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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 78, from existing Federal leases, and from existing oil transportation in the study area.

	Expected number of spills from platforms		Expected number of spills from transportation		Total Number of Spills		Probability of one or more spills (platforms)		Probability of one or more spills (transportation)	
	≥1,000	≥10,000	≥1,000	≥10,000	≥1,000	≥10,000	≥1,000	≥10,000	≥1,000	≥10,000
Proposed action (.228)* (mean estimate)	0.18	0.07	0.86	0.37	1.04	0.44	0.17	0.07	0.58	0.31
Proposed action (1.14)* (high estimate)	0.88	0.36	4.18	1.80	5.06	2.16	0.59	0.30	0.99	0.84
Existing leases from sales 43 and 56 (0.129)*	0.10	0.04	0.48	0.21	0.58	0.25	0.10	0.04	0.38	0.19
Tanker transportation of crude oil imports (5.9)*	0.0	0.0	11.4	6.84	11.4	6.84	0.0	0.0	0.99+	0.99+
Tanker transportation of crude oil imports and refined products (28.7)*	0.0	0.0	55.4	33.3	55.4	33.3	0.0	0.0	0.99+	0.99+

*Assumed amount of oil in billion barrels

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

	NUMBER OF TRIALS									
PROB	10	20	40	46	50	100	200	500	1000	2000
0.02	0.07	0.05	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01
0.04	0.10	0.07	0.05	0.05	0.05	0.03	0.02	0.01	0.01	0.01
0.06	0.12	0.09	0.06	0.06	0.06	0.04	0.03	0.02	0.01	0.01
0.08	0.14	0.10	0.07	0.07	0.06	0.04	0.03	0.02	0.01	0.01
0.10	0.16	0.11	0.00	0.07	0.07	0.05	0.04	0.02	0.02	0.01
0.12	0.17	0.12	0.08	0.08	0.08	0.05	0.04	0.02	0.02	0.01
0.14	0.18	0.13	0.09	0.00	0.08	0.06	0.04	0.03	0.02	0.01
0.16	0.19	0.14	0.10	0.09	0.09	0.06	0.04	0.03	0.02	0.01
0.10	0.20	0.14	0.10	0.09	0.09	0.06	0.04	0.03	0.02	0.01
0.20	0.21	0.15	0.10	0.10	0.09	0.07	0.05	0.03	0.02	0.01
0.22	0.22	0.15	0.11	0.10	0.10	0.07	0.05	0.03	0.02	0.02
0.24	0.22	0.16	0.11	0.10	0.10	0.07	0.05	0.03	0.02	0.02
0.26	0.23	0.16	0.11	0.11	0.10	0.07	0.05	0.03	0.02	0.02
0.28	0.23	0.17	0.12	0.11	0.10	0.07	0.05	0.03	0.02	0.02
0.30	0.24	0.17	0.12	0.11	0.11	0.08	0.05	0.03	0.02	0.02
0.32	0.24	0.17	0.12	0.11	0.11	0.08	0.05	0.03	0.02	0.02
0.34	0.25	0.17	0.12	0.12	0.11	0.08	0.06	0.03	0.02	0.02
0.36	0.25	0.18	0.13	0.12	0.11	0.00	0.06	0.04	0.03	0.02
0.38	0.25	0.18	0.13	0.12	0.11	0.08	0.06	0.04	0.03	0.02
0.40	0.26	0.18	0.13	0.12	0.11	0.08	0.06	0.04	0.03	0.02
0.42	0.26	0.18	0.13	0.12	0.12	0.08	0.06	0.04	0.03	0.02
0.44	0.26	0.18	0.13	0.12	0.12	0.08	0.06	0.04	0.03	0.02
0.46	0.26	0.10	0.13	0.12	0.12	0.08	0.06	0.04	0.03	0.02
0.48	0.26	0.18	0.13	0.12	0.12	0.08	0.06	0.04	0.03	0.02
0.50	0.26	0.18	0.13	0.12	0.12	0.08	0.06	0.04	0.03	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																							
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
Land	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	4	n	n	n	n
Brown Pelican	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Marine Turtle	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	38	n	n	n	n
Wildlife Conser.	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Parks (May-Oct)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n
Parks (Nov-Apr)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n
Blkbrd, Sapelo, Wolf	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
Gray's Reef	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
Cape Romain Wild.	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
Monitor	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	1	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n
Tourist Beaches, SC	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
Tourist Beaches, GA	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
Tourist Beaches, FL	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 Inlets, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n	n	n
Coastal Inlets, SC	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 Inlets, GA	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 Inlets, FL	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
Historic Sites	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	3	n	n	n	n
Prehistoric Sites	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	4	n	n	n	n
Manatee Habitat	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Salt Marsh, Wetlands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n
Royal Red Shrimp	51	60	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Calico Scallop	5	34	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	n	n	15
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n
Bald Eagle Nesting	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

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																								
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
Land	n	n	n	n	n	n	1	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
Brown Pelican	n	n	n	n	n	1	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n
Marine Turtle	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Onslow Bay Live Bot.	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
Wildlife Conser.	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
Parks (May-Oct)	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Parks (Nov-Apr)	n	n	n	n	n	n	1	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
Blkhrd, Sapelo, Wolf	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
Gray's Reef	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
Cape Romain Wild.	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
Monitor	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
Tourist Beaches, NC	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
Tourist Beaches, SC	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
Tourist Beaches, GA	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, FL	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 Inlets, NC	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 Inlets, SC	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 Inlets, GA	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
Historic Sites	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prehistoric Sites	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
Manatee Habitat	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
Salt Marsh, Wetlands	n	n	n	n	n	n	3	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	1	n
Royal Red Shrimp	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
Calico Scallop	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
Pereg. Falc. Migr.	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Bald Eagle Nesting	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

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																								
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
Land	n	n	1	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	12	12	n	16	17
Brown Pelican	n	n	n	n	n	n	10	n	n	n	1	n	n	n	n	n	n	n	n	n	n	30	3	3	66
Marine Turtle	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	10	n	8	15
Onslow Bay Live Bot.	n	n	n	n	6	n	55	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wildlife Conser.	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	15	1	n	23	2
Parks (May-Oct)	n	n	1	n	1	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	10	4	n	1	1
Parks (Nov-Apr)	n	n	1	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	8	4	n	n	1
Blkbrd, Sapelo, Wolf	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1
Gray's Reef	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	1	10	8
Cape Romain Wild.	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
Monitor	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	n	1	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	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
Tourist Beaches, GA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	6	15
Tourist Beaches, FL	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
Coastal Inlets, NC	n	n	n	n	1	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n
Coastal Inlets, GA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	18	n	24	28
Coastal Inlets, FL	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
Historic Sites	n	n	1	2	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	8	5	n	7	7
Prehistoric Sites	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
Coastal Waterbirds	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	5	12	n	15	17
Manatee Habitat	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
Salt Marsh, Wetlands	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	10	21	n	8	27
Royal Red Shrimp	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Calico Scallop	n	n	n	n	2	n	n	n	1	40	n	n	n	n	n	n	n	n	6	n	n	n	n	n	n
Pereg. Falc. Migr.	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	4	1
Bald Eagle Nesting	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

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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
Land	n	n	n	n	n	14	n	n	n	n	n	n	n	n	n	6	8	n	n	n	n	n	30	5	n
Brown Pelican	n	n	n	n	n	20	n	n	n	n	n	n	n	n	n	13	n	n	n	n	n	n	n	n	n
Marine Turtle	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	1	9	n	n	n	n	n	n	n	n
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	82	4	n	n	n	n	n	n	n	n
Wildlife Conser.	n	n	n	n	n	15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
Parks (May-Oct)	n	n	n	n	n	10	n	n	n	n	n	n	n	n	n	5	8	n	n	n	n	n	n	2	n
Parks (Nov-Apr)	n	n	n	n	n	9	n	n	n	n	n	n	n	n	n	4	6	n	n	n	n	n	n	1	n
Blkbrd, Sapelo, Wolf	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
Gray's Reef	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cape Romain Wild.	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Monitor	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
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	7	n	n	n	n	n	n	1	n
Tourist Beaches, SC	n	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, GA	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
Tourist Beaches, FL	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 Inlets, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	11	n	n	n	n	n	n	1	n
Coastal Inlets, SC	n	n	n	n	n	26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, GA	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 Inlets, FL	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
Historic Sites	n	n	n	n	n	13	n	n	n	n	n	n	n	n	n	6	6	n	n	n	n	n	n	2	n
Prehistoric Sites	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	10	n	n	n	n	n	n	n	n	n	6	5	n	n	n	n	n	n	1	n
Manatee Habitat	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
Salt Marsh, Wetlands	n	n	n	n	n	20	n	n	n	n	n	n	n	n	n	5	1	n	n	n	n	n	n	n	n
Royal Red Shrimp	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
Calico Scallop	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	3	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	3	5	n	n	n	n	n	n	n	n
Bald Eagle Nesting	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

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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
Land	n	n	n	n	n	n	n	n	n
Brown Pelican	n	n	n	n	n	n	n	n	n
Marine Turtle	n	n	n	n	n	n	n	n	n
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	n
Wildlife Conser.	n	n	n	n	n	n	n	n	n
Parks (May-Oct)	n	n	n	n	n	n	n	n	n
Parks (Nov-Apr)	n	n	n	n	n	n	n	n	n
Blkbrd, Sapelo, Wolf	n	n	n	n	n	n	n	n	n
Gray's Reef	n	n	n	n	n	n	n	n	n
Cape Romain Wild.	n	n	n	n	n	n	n	n	n
Monitor	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	n	n	n	n	n	n	n	n	n
Tourist Beaches, GA	n	n	n	n	n	n	n	n	n
Tourist Beaches, FL	n	n	n	n	n	n	n	n	n
Coastal Inlets, NC	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	n	n
Coastal Inlets, GA	n	n	n	n	n	n	n	n	n
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n
Historic Sites	n	n	n	n	n	n	n	n	n
Prehistoric Sites	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n
Manatee Habitat	n	n	n	n	n	n	n	n	n
Salt Marsh, Wetlands	n	n	n	n	n	n	n	n	n
Royal Red Shrimp	n	n	n	n	n	n	n	68	27
Calico Scallop	n	n	n	n	n	n	n	39	87
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n
Bald Eagle Nesting	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																							
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
Land	n	4	n	n	n	n	n	n	n	n	n	n	n	1	n	4	7	n	n	6	22	2	n	4	1
Brown Pelican	n	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	1	n	5	3
Marine Turtle	n	3	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	n	n	2	22	3	n	3	1
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	n	n	3	4	n	1	n	n	n	n	n	n	40	1	2	n	n
Wildlife Conser.	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	3	2	n	n	4	n	n	n	6	1
Parks (May-Oct)	n	3	n	n	n	n	n	n	n	n	n	n	n	1	n	1	2	n	n	2	21	3	n	n	n
Parks (Nov-Apr)	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n	n	2	11	1	n	n	n
Blkbrd, Sapelo, Wolf	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
Gray's Reef	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
Cape Romain Wild.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n
Monitor	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	1	n	n	n	n	9	6	1	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	2	2	n	n	2	20	2	n	n	n
Tourist Beaches, SC	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
Tourist Beaches, GA	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
Tourist Beaches, FL	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
Coastal Inlets, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	2	2	n	n	3	21	2	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	1
Coastal Inlets, GA	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 Inlets, FL	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
Historic Sites	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	2	4	n	n	3	17	4	1	1	n
Prehistoric Sites	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	2	n	n	n	18	2	n	2	1
Manatee Habitat	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Salt Marsh, Wetlands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	4	1
Royal Red Shrimp	51	61	11	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Calico Scallop	5	35	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	15	n	1	n	18
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	9	1	n	n	n
Bald Eagle Nesting	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	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																								
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
Land	8	n	2	1	1	5	15	1	n	1	1	n	3	12	2	4	n	n	4	n	1	1	3	10	1
Brown Pelican	3	n	3	3	2	7	21	3	1	2	2	1	n	1	n	n	n	n	n	1	1	3	6	15	5
Marine Turtle	5	n	1	1	1	3	11	n	n	n	n	n	2	8	1	2	n	n	2	n	1	1	2	7	1
Onslow Bay Live Bot.	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
Wildlife Conser.	6	n	2	1	1	3	5	1	n	n	n	n	2	10	1	2	n	n	3	n	1	1	2	3	1
Parks (May-Oct)	1	n	n	n	n	2	7	n	n	n	n	n	2	7	1	1	n	n	2	n	1	n	1	5	n
Parks (Nov-Apr)	1	n	n	n	n	2	4	n	n	n	n	n	2	6	n	2	n	n	1	n	1	n	1	3	n
Blkbrd, Sapelo, Wolf	1	n	1	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
Gray's Reef	2	n	4	3	1	1	3	1	1	1	n	n	n	n	n	n	n	n	n	n	n	1	1	3	3
Cape Romain Wild.	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
Monitor	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
Tourist Beaches, NC	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
Tourist Beaches, SC	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
Tourist Beaches, GA	2	n	1	n	n	3	10	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	2	7	1
Tourist Beaches, FL	n	n	n	n	n	1	1	n	n	n	n	n	2	7	1	2	n	n	2	n	1	n	n	1	n
Coastal Inlets, NC	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 Inlets, SC	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
Coastal Inlets, GA	6	n	2	2	1	5	16	1	1	n	1	n	1	3	n	n	n	n	1	n	1	1	4	11	2
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n	n	n	n	2	8	1	2	n	n	2	n	1	n	n	n	n
Historic Sites	2	n	n	n	n	2	7	n	n	n	n	n	2	6	1	2	n	n	2	n	1	n	1	4	n
Prehistoric Sites	1	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	6	n	2	1	1	4	12	1	n	1	1	n	1	5	n	1	n	n	1	n	1	1	3	9	1
Manatee Habitat	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
Salt Marsh, Wetlands	7	n	2	1	1	6	19	1	n	1	1	n	3	10	1	2	n	n	3	n	2	1	5	13	2
Royal Red Shrimp	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
Calico Scallop	20	n	7	3	4	1	n	2	2	1	n	n	n	n	n	n	1	n	n	n	n	1	n	n	3
Pereg. Falc. Migr.	1	n	n	n	n	2	7	n	n	n	n	n	1	3	n	1	n	n	1	n	n	n	1	5	n
Bald Eagle Nesting	1	n	n	n	n	n	n	n	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 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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
Land	n	6	7	1	9	1	8	5	4	3	4	7	1	n	n	n	n	1	1	4	25	28	5	35	36
Brown Pelican	2	n	n	n	2	n	13	6	6	3	6	2	1	n	n	n	n	1	n	1	n	38	13	13	72
Marine Turtle	n	2	2	1	10	1	1	3	2	3	3	5	n	n	n	n	n	1	1	3	17	19	4	19	24
Onslow Bay Live Bot.	n	n	n	n	8	5	63	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wildlife Conser.	n	4	6	n	n	n	n	6	4	2	4	7	1	n	n	n	n	1	1	2	21	7	3	35	10
Parks (May-Oct)	n	2	3	1	10	1	5	n	1	1	1	4	n	n	n	n	n	1	n	2	14	10	2	2	4
Parks (Nov-Apr)	n	2	3	1	5	n	5	n	1	n	n	4	n	n	n	n	n	n	n	1	11	8	1	1	4
Blkbrd, Sapelo, Wolf	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	1	1	6	6
Gray's Reef	2	n	n	n	n	n	n	n	n	1	6	n	n	n	n	n	n	n	n	n	n	3	6	17	17
Cape Romain Wild.	n	n	n	n	n	n	n	5	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Monitor	n	n	1	6	11	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	2	2	1	10	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	n	n	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n
Tourist Beaches, GA	n	n	n	n	n	n	n	n	n	1	2	1	n	n	n	n	n	1	n	n	n	18	3	9	22
Tourist Beaches, FL	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	1	2	17	1	n	n	n
Coastal Inlets, NC	n	3	3	1	8	1	11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	8	6	3	1	n	n	n	n	n	n	n	n	n	n	n	n	12	n
Coastal Inlets, GA	1	n	n	n	n	n	n	n	n	2	5	3	1	n	n	n	n	1	n	1	1	31	6	37	44
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	1	2	19	1	n	n	n
Historic Sites	n	2	3	4	12	1	5	1	1	1	1	4	n	n	n	n	n	n	n	2	14	13	2	10	13
Prehistoric Sites	n	n	n	n	n	n	n	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n
Coastal Waterbirds	1	n	1	1	7	1	6	2	1	3	4	4	1	n	n	n	n	1	n	1	8	23	5	26	29
Manatee Habitat	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
Salt Marsh, Wetlands	1	n	n	n	1	n	6	5	4	3	5	8	1	n	n	n	n	1	n	3	15	35	7	24	43
Royal Red Shrimp	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
Calico Scallop	4	n	n	n	4	2	5	n	2	47	6	n	n	n	n	n	n	n	16	n	1	n	1	6	n
Pereg. Falc. Migr.	n	n	n	n	5	n	4	n	n	n	1	3	n	n	n	n	n	n	n	1	1	10	2	9	6
Bald Eagle Nesting	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
Land	2	n	1	n	n	26	n	n	n	n	n	n	n	n	1	17	22	n	n	n	n	n	41	22	n
Brown Pelican	4	n	1	n	1	32	n	n	n	n	n	n	n	n	n	18	4	n	n	n	n	n	n	n	n
Marine Turtle	2	n	1	n	n	8	n	n	n	n	n	n	n	n	1	3	20	n	n	n	n	1	n	2	n
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	6	2	n	1	1	n	7	85	7	n	n	n	n	n	n	n	n
Wildlife Conser.	2	n	n	n	1	26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	7	n
Parks (May-Oct)	n	n	n	n	n	14	n	n	n	n	n	n	n	n	1	11	20	n	n	n	n	1	n	5	n
Parks (Nov-Apr)	n	n	n	n	n	11	n	n	n	n	n	n	n	n	n	9	12	n	n	n	n	n	1	6	n
Blkbrd, Sapelo, Wolf	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gray's Reef	5	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cape Romain Wild.	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Monitor	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	15	1	n	n	n	2	n	1	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	7	19	n	n	n	n	1	n	5	n
Tourist Beaches, SC	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
Tourist Beaches, GA	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, FL	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 Inlets, NC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	20	22	n	n	n	n	1	n	5	n
Coastal Inlets, SC	1	n	n	n	1	37	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, GA	3	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, FL	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
Historic Sites	1	n	n	n	n	17	n	n	n	n	n	n	n	n	1	11	21	n	n	n	n	2	1	8	n
Prehistoric Sites	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	2	n	1	n	n	14	n	n	n	n	n	n	n	n	1	14	15	n	n	n	n	n	1	3	n
Manatee Habitat	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
Salt Marsh, wetlands	3	n	1	n	n	31	n	n	n	n	n	n	n	n	n	12	2	n	n	n	n	n	n	n	n
Royal Red Shrimp	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
Calico Scallop	10	1	2	n	n	1	n	n	1	n	n	n	n	n	3	18	6	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	8	11	n	n	n	n	n	n	1	n
Bald Eagle Nesting	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

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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
Land	n	n	n	n	n	n	n	1	1
Brown Pelican	n	n	n	n	n	n	n	3	2
Marine Turtle	n	n	n	n	n	n	n	1	1
Onslow Bay Live Bot.	n	n	n	n	n	n	n	n	n
Wildlife Conser.	n	n	n	n	n	n	n	1	n
Parks (May-Oct)	n	n	n	n	n	n	n	1	n
Parks (Nov-Apr)	n	n	n	n	n	n	n	1	n
Blkbrd, Sapelo, Wolf	n	n	n	n	n	n	n	n	n
Gray's Reef	n	n	n	n	n	n	n	n	n
Cape Romain Wild.	n	n	n	n	n	n	n	n	n
Monitor	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	n	n	n	n	n	n	n	n	n
Tourist Beaches, GA	n	n	n	n	n	n	n	n	n
Tourist Beaches, FL	n	n	n	n	n	n	n	2	1
Coastal Inlets, NC	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	n	n
Coastal Inlets, GA	n	n	n	n	n	n	n	n	n
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n
Historic Sites	n	n	n	n	n	n	n	n	n
Prehistoric Sites	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	n	n	n	n	n	n	n	n	n
Manatee Habitat	n	n	n	n	n	n	n	1	n
Salt Marsh, Wetlands	n	n	n	n	n	n	n	n	n
Royal Red Shrimp	n	n	n	n	n	n	n	80	27
Calico Scallop	n	n	n	n	n	n	n	40	89
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n
Bald Eagle Nesting	n	n	n	n	n	n	n	n	n

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																								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
Land	3	13	n	n	n	n	n	n	n	n	3	2	n	2	n	5	14	n	1	8	36	4	3	21	8
Brown Pelican	1	13	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	6	1	n	15	9
Marine Turtle	2	9	n	n	n	n	n	n	n	n	1	2	n	2	n	1	1	n	n	2	30	4	3	12	4
Onslow Bay Live Bot.	1	1	1	n	n	n	n	2	n	n	8	6	n	1	n	n	n	n	n	n	40	1	4	7	4
Wildlife Conser.	1	8	n	n	n	n	n	n	n	n	1	n	n	n	n	3	4	n	1	5	n	n	n	19	6
Parks (May-Oct)	1	7	n	n	n	n	n	n	n	n	1	2	n	2	n	2	5	n	n	3	30	4	3	2	3
Parks (Nov-Apr)	1	5	n	n	n	n	n	n	n	n	1	1	n	1	n	2	5	n	n	2	14	1	1	2	1
Blkbrd, Sapelo, Wolf	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
Gray's Reef	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
Cape Romain Wild.	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	12	2
Monitor	n	n	n	n	n	n	n	n	n	n	1	2	n	6	n	1	n	n	n	n	19	8	2	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n	n	1	2	n	2	n	2	4	n	n	3	29	4	3	1	n
Tourist Beaches, SC	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	3
Tourist Beaches, GA	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
Tourist Beaches, FL	1	10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, NC	n	n	n	n	n	n	n	n	n	n	1	2	n	2	n	2	3	n	1	4	29	3	2	1	n
Coastal Inlets, SC	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	23	9
Coastal Inlets, GA	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
Coastal Inlets, FL	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Historic Sites	1	2	n	n	n	n	n	n	n	n	2	2	n	4	n	3	6	n	1	4	29	6	2	5	2
Prehistoric Sites	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1
Coastal Waterbirds	1	1	n	n	n	n	n	n	n	n	2	2	n	2	n	1	2	n	n	n	27	3	2	9	3
Manatee Habitat	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
Salt Marsh, Wetlands	1	1	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	7	n	n	20	8
Royal Red Shrimp	51	62	13	3	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Calico Scallop	6	36	n	n	n	n	n	n	n	n	1	2	n	1	n	n	n	n	n	n	16	n	2	1	19
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	1	n	n	n	15	1	1	n	n
Bald Eagle Nesting	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
Land	25	1	14	14	10	19	31	11	9	8	11	7	15	27	13	15	12	8	16	7	12	11	16	29	14
Brown Pelican	12	1	11	12	8	17	31	12	7	9	10	5	7	6	7	6	4	4	6	6	8	10	17	28	15
Marine Turtle	16	1	10	10	7	14	23	9	7	6	7	5	11	18	9	10	7	6	10	5	9	8	13	21	10
Onslow Bay Live Bot.	1	2	1	1	1	n	n	1	1	n	1	1	n	n	1	n	n	1	n	1	1	1	n	n	1
Wildlife Conser.	16	1	10	9	7	10	14	7	5	4	5	4	9	19	8	9	7	5	10	4	7	6	8	12	8
Parks (May-Oct)	5	n	2	2	2	6	13	2	2	2	3	2	7	14	6	6	3	3	7	2	4	2	5	11	3
Parks (Nov-Apr)	2	n	1	1	1	4	6	1	1	1	2	1	4	9	3	5	3	2	4	2	3	1	3	6	1
Blkbrd, Sapelo, Wolf	3	n	3	3	2	3	4	3	1	2	1	1	1	1	1	1	1	1	1	1	1	3	3	4	3
Gray's Reef	5	n	9	8	6	7	10	6	4	5	4	3	3	2	3	2	2	2	3	3	4	5	7	10	9
Cape Romain Wild.	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
Monitor	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	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
Tourist Beaches, SC	9	n	3	2	2	1	n	2	2	2	1	1	1	n	1	n	1	1	n	1	1	1	1	1	2
Tourist Beaches, GA	4	n	4	5	3	9	19	4	2	3	4	2	5	5	3	3	1	2	3	3	4	5	9	16	6
Tourist Beaches, FL	n	n	n	n	n	2	3	n	n	n	1	1	5	14	5	6	3	2	6	1	3	n	1	2	n
Coastal Inlets, NC	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 Inlets, SC	15	n	5	4	4	2	1	4	4	3	2	2	1	n	1	1	1	1	1	2	1	3	2	2	5
Coastal Inlets, GA	14	1	11	12	8	18	29	10	7	6	10	5	8	10	7	6	4	4	6	6	8	9	15	27	13
Coastal Inlets, FL	n	n	n	n	n	1	2	n	n	n	1	1	5	13	5	6	3	2	5	n	3	n	1	2	n
Historic Sites	7	1	3	4	2	8	14	3	3	2	4	2	7	14	6	7	3	3	6	3	5	3	5	11	4
Prehistoric Sites	3	n	1	1	1	n	n	n	1	n	n	n	n	n	1	n	n	1	n	1	n	1	1	n	1
Coastal Waterbirds	16	1	10	11	8	15	25	9	7	6	8	5	8	13	6	6	4	4	8	6	8	8	14	24	11
Manatee Habitat	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
Salt Marsh, Wetlands	21	1	13	13	10	20	34	12	9	8	11	6	13	22	10	11	5	6	12	8	11	11	17	32	15
Royal Red Shrimp	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
Calico Scallop	27	2	16	11	14	8	6	13	10	9	8	6	5	3	4	5	5	5	4	7	6	9	9	7	13
Pereg. Falc. Migr.	3	n	2	2	1	5	10	2	1	1	3	1	4	7	3	3	1	1	3	1	2	1	4	10	2
Bald Eagle Nesting	1	n	n	n	n	n	n	n	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 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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
Land	9	7	10	2	17	4	20	21	14	14	21	21	7	n	n	n	n	9	21	15	37	43	23	50	52
Brown Pelican	8	n	n	n	3	1	17	16	14	10	17	9	7	n	n	n	n	6	5	6	4	46	25	22	76
Marine Turtle	7	3	3	1	15	5	9	12	8	10	16	14	5	n	n	n	n	6	12	10	24	29	17	27	34
Onslow Bay Live Bot.	1	n	n	n	8	6	65	7	5	2	1	n	1	1	n	n	1	1	n	n	n	n	1	1	n
Wildlife Conser.	6	5	7	n	n	n	1	19	12	9	13	15	3	n	n	n	n	5	10	9	27	15	13	43	19
Parks (May-Oct)	2	3	4	1	15	5	14	2	3	4	4	9	2	n	n	n	n	3	6	6	19	14	6	5	7
Parks (Nov-Apr)	n	2	3	1	6	n	8	2	2	1	2	7	1	n	n	n	n	1	6	4	14	10	3	2	6
Blkbrd, Sapelo, Wolf	1	n	n	n	n	n	n	n	n	1	4	1	1	n	n	n	n	1	n	1	n	4	6	9	10
Gray's Reef	5	n	n	n	n	n	n	n	n	2	11	3	3	n	n	n	n	3	1	2	1	9	14	20	23
Cape Romain Wild.	n	n	n	n	n	n	n	13	7	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Monitor	n	n	1	6	19	4	3	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	2	3	1	15	5	11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	5	n	n	n	n	n	n	3	3	7	3	n	1	n	n	n	n	1	n	n	n	n	1	9	1
Tourist Beaches, GA	2	n	n	n	n	n	n	n	n	2	7	6	3	n	n	n	n	3	1	3	3	25	12	12	27
Tourist Beaches, FL	n	n	n	n	n	n	n	n	n	n	1	8	n	n	n	n	n	2	9	5	21	3	1	n	1
Coastal Inlets, NC	n	4	5	1	13	4	21	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	5	n	n	n	n	n	n	24	16	12	6	1	2	n	n	n	n	1	n	1	n	1	3	17	2
Coastal Inlets, GA	6	n	n	n	n	n	n	n	n	6	18	12	5	n	n	n	n	6	1	7	5	44	22	45	57
Coastal Inlets, FL	n	n	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n	1	9	5	24	2	n	n	n
Historic Sites	2	3	5	4	21	5	12	4	3	4	6	10	2	n	n	n	n	4	6	6	19	19	7	13	17
Prehistoric Sites	1	n	n	n	n	n	n	2	2	2	2	n	1	n	n	n	n	n	2	n	n	n	1	5	1
Coastal Waterbirds	6	n	1	1	12	3	15	8	5	9	16	13	5	n	n	n	n	5	1	7	13	35	19	35	42
Manatee Habitat	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
Salt Marsh, Wetlands	9	n	n	n	1	1	13	20	13	13	21	20	7	n	n	n	n	8	2	11	22	49	25	37	57
Royal Red Shrimp	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	n	n	1	n	n	n	n	n	n
Calico Scallop	13	n	n	n	4	3	16	n	4	53	16	5	6	n	n	n	n	6	20	5	3	4	9	14	5
Pereg. Falc. Migr.	1	n	n	1	8	1	8	n	n	1	3	6	1	n	n	n	n	3	n	3	2	14	6	10	9
Bald Eagle Nesting	n	n	n	n	n	n	n	4	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
Land	15	2	8	2	4	37	n	1	3	3	n	n	2	n	5	38	32	n	n	n	n	1	44	31	2
Brown Pelican	11	2	7	1	3	40	n	n	1	3	n	n	1	n	1	22	6	n	n	n	n	n	n	n	n
Marine Turtle	10	1	6	1	2	13	n	1	2	2	n	n	1	n	5	17	25	n	n	n	n	1	n	3	n
Onslow Bay Live Bot.	1	5	1	5	6	3	n	2	9	9	n	2	5	n	10	86	7	1	n	n	n	n	n	n	n
Wildlife Conser.	9	1	5	1	3	34	n	n	n	2	n	n	1	n	n	2	n	n	n	n	n	n	1	9	n
Parks (May-Oct)	2	1	2	n	1	16	n	1	2	1	n	n	1	n	5	25	26	n	n	n	n	1	n	8	1
Parks (Nov-Apr)	1	1	1	n	1	12	n	n	1	1	n	n	1	n	1	13	15	n	n	n	n	n	2	7	n
Blkbrd, Sapelo, Wolf	3	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gray's Reef	9	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cape Romain Wild.	n	n	n	n	2	8	n	n	n	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Monitor	n	n	n	n	1	n	n	1	1	1	n	1	1	n	4	5	22	1	n	n	n	3	n	1	n
Tourist Beaches, NC	n	n	n	n	1	n	n	1	2	1	n	n	n	n	4	19	25	n	n	n	n	1	n	7	1
Tourist Beaches, SC	4	n	1	n	1	12	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, GA	3	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tourist Beaches, FL	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 Inlets, NC	n	1	n	n	1	n	n	1	2	1	n	n	1	n	4	37	27	n	n	n	n	1	n	7	n
Coastal Inlets, SC	7	1	2	1	4	46	n	n	n	2	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, GA	10	n	7	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Coastal Inlets, FL	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
Historic Sites	4	1	3	1	1	19	n	1	2	2	n	1	1	n	4	21	31	1	n	n	n	2	2	11	1
Prehistoric Sites	2	n	1	n	n	3	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n
Coastal Waterbirds	10	1	6	1	2	19	n	n	2	2	n	n	1	n	4	28	20	n	n	n	n	1	1	4	n
Manatee Habitat	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
Salt Marsh, Wetlands	14	2	9	1	3	40	n	n	1	3	n	n	1	n	1	24	2	n	n	n	n	n	n	n	n
Royal Red Shrimp	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
Calico Scallop	16	2	9	1	1	3	n	1	3	1	n	n	1	n	5	28	6	n	n	n	n	n	n	n	n
Pereg. Falc. Migr.	2	n	2	n	n	n	n	n	1	n	n	n	n	n	2	13	14	n	n	n	n	n	n	1	n
Bald Eagle Nesting	n	n	n	n	1	1	n	n	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 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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
Land	n	n	n	n	n	n	n	11	21
Brown Pelican	n	n	n	n	n	n	n	6	8
Marine Turtle	n	n	n	n	n	n	n	8	14
Onslow Bay Live Bot.	n	n	n	n	n	n	n	1	n
Wildlife Conser.	n	n	n	n	n	n	n	6	9
Parks (May-Oct)	n	n	n	n	n	n	n	3	8
Parks (Nov-Apr)	n	n	n	n	n	n	n	3	6
Blkbrd, Sapelo, Wolf	n	n	n	n	n	n	n	n	n
Gray's Reef	n	n	n	n	n	n	n	1	1
Cape Romain Wild.	n	n	n	n	n	n	n	n	n
Monitor	n	n	n	n	n	n	n	n	n
Tourist Beaches, NC	n	n	n	n	n	n	n	n	n
Tourist Beaches, SC	n	n	n	n	n	n	n	n	n
Tourist Beaches, GA	n	n	n	n	n	n	n	1	n
Tourist Beaches, FL	n	n	n	n	n	n	n	7	11
Coastal Inlets, NC	n	n	n	n	n	n	n	n	n
Coastal Inlets, SC	n	n	n	n	n	n	n	1	n
Coastal Inlets, GA	n	n	n	n	n	n	n	2	1
Coastal Inlets, FL	n	n	n	n	n	n	n	3	8
Historic Sites	n	n	n	n	n	n	n	2	5
Prehistoric Sites	n	n	n	n	n	n	n	1	4
Coastal Waterbirds	n	n	n	n	n	n	n	2	1
Manatee Habitat	n	n	n	n	n	n	n	1	n
Salt Marsh, Wetlands	n	n	n	n	n	n	n	3	2
Royal Red Shrimp	n	n	n	n	n	n	n	80	28
Calico Scallop	n	n	n	n	n	n	n	42	89
Pereg. Falc. Migr.	n	n	n	n	n	n	n	n	n
Bald Eagle Nesting	n	n	n	n	n	n	n	n	n

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	Hypothetical Spill Location																								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
18	n	n	n	n	n	n	1	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																								
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
3	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
9	n	n	n	n	n	n	4	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	1	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	12	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	3	2
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	n	n	15
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	1	n	n	n
20	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	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
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n
5	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
6	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
8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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	5	n	n	n	n	n	n	n	n	n
13	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
14	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	30	1	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58

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. -- 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																							
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
1	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
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	5	n	n	3	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	3	n	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	11	1	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	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	3	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	1	n
23	n	3	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	1	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 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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
14	1	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	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
16	4	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	2	n	1	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
18	n	n	n	n	n	2	7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	5	n
19	n	n	n	n	n	2	6	n	n	n	n	n	1	5	1	1	n	n	1	n	1	n	1	3	n
20	n	n	n	n	n	n	n	n	n	n	n	n	1	6	1	2	n	n	3	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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
2	n	3	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
3	n	2	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	1	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	6	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	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	2	2	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
15	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n
16	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n	n	n	n	18	n
17	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	2	2	11	9
18	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	19	2	2	25
19	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	1	8	7	1	n	2
20	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	2	16	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	5	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	11	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	2	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	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	12	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	6	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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	4	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	9	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	2	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	21	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	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	1	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	38	4	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
23	n	n	n	n	n	n	n	1	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																							
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	9	n	1	4	n	n	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2	n	n	4	1	n	n	n	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	7	2	1	n	n
5	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	16	2	1	n	n
6	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	10	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	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	1	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	1	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	3	n
12	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	11	2
13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	3
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	1
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	1
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	1
20	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
21	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
22	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
23	n	5	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	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
13	1	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	3	n	1	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
15	6	n	2	2	2	n	n	1	1	1	n	1	n	n	n	n	n	1	n	1	n	1	n	1	2
16	9	n	4	3	3	1	1	2	3	1	1	1	1	n	1	n	1	1	n	1	1	2	1	1	3
17	6	n	5	5	3	4	6	4	2	2	3	1	1	1	1	1	1	1	2	1	2	4	4	6	4
18	n	n	1	3	2	7	13	3	2	2	3	1	3	3	2	2	1	1	2	2	2	3	7	12	4
19	n	n	n	1	n	5	10	1	n	1	2	2	5	11	4	4	2	1	5	1	4	1	3	8	1
20	n	n	n	n	n	n	1	n	n	n	n	n	4	10	4	7	4	2	6	n	2	n	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	1	2	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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
2	n	5	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
3	n	3	4	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	1	6	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
5	n	n	n	n	7	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	n	2	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	4	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	8	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	1	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	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
12	n	n	n	n	n	n	n	11	5	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	n	n	n	5	5	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	1	n	n	n	n	n	n	n	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	2	n
15	2	n	n	n	n	n	n	n	n	4	2	n	1	n	n	n	n	n	n	n	n	n	1	7	1
16	3	n	n	n	n	n	n	n	n	5	5	1	1	n	n	n	n	n	n	1	n	1	2	21	3
17	2	n	n	n	n	n	n	n	n	2	7	1	1	n	n	n	n	2	n	1	1	6	7	15	16
18	1	n	n	n	n	n	n	n	n	n	4	4	2	n	n	n	n	2	n	2	1	24	8	4	29
19	n	n	n	n	n	n	n	n	n	n	2	9	1	n	n	n	n	2	1	4	11	11	4	n	3
20	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	1	5	5	22	1	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	1	2	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n
23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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																								
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	7	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	15	1
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	1	4	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	8	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	1	n	n	n	n	n	2	3	15	n	n	n	n	n	n	n	n
6	n	n	n	n	n	n	n	n	1	n	n	n	n	n	1	8	7	n	n	n	n	n	n	n	n
7	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
8	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
9	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
12	n	n	n	1	2	5	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	n	n	n	n	1	24	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
14	1	n	n	n	n	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	3	n	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	3	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	5	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	2	n	2	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	39	5	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
17	n	n	n	n	n	n	n	1	n
19	n	n	n	n	n	n	n	1	1
20	n	n	n	n	n	n	n	1	4
21	n	n	n	n	n	n	n	2	7
22	n	n	n	n	n	n	n	3	7
23	n	n	n	n	n	n	n	2	1
24	n	n	n	n	n	n	n	1	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	Hypothetical Spill Location																								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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	n	n	n	n	4	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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
18	n	n	n	n	n	n	1	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	1	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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
2	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
7	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	2	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	1	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	12	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	2	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	1	2
18	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	n	n	14
19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	1
20	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
21	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
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	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																							
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	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
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	8	n	n	n	n	n	n	n	n
7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	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	2	n	n	n	n	n	n	n	n	n
11	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
27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	30	1	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58

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																								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	7	n	n	6	1	n	n	n	n
3	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
4	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	20	1	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	1	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	3	n
24	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	1	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																							
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
13	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
15	4	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	1	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	1	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1
18	n	n	n	n	n	2	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n
19	n	n	n	n	n	1	6	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	1	5	n
20	n	n	n	n	n	1	1	n	n	n	n	n	n	3	n	n	n	n	1	n	n	n	n	1	n
21	n	n	n	n	n	n	n	n	n	n	n	n	1	6	1	2	n	n	2	n	1	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	1	n	n	1	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																								
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
2	n	6	7	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	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	n	n	n
4	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
7	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	3	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	1	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	4	3	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n
15	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	17	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	5	1
17	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	2	2	5	8
18	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	14	2	2	22
19	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	1	10	1	n	4
20	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	1	2	2	n	n	n
21	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	1	15	n	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	1	1	7	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																								
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	1	16	n
3	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
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	18	n	n	n	n	n	n	n	n
5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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	1	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	7	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	5	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
17	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	38	4	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
24	n	n	n	n	n	n	n	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. -- 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																							
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	E1	E2	E3	E4	E5	E6	E7
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	5	13	n	1	8	3	1	n	n	n
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	1	n	n	n
4	n	n	n	n	n	n	n	n	n	n	1	1	n	1	n	n	n	n	n	n	28	2	2	n	n
5	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
8	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
9	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
10	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	7	1
11	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	12	5
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	2
22	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
23	n	1	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	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	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																								
	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32
11	2	n	1	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	9	n	3	2	2	1	n	2	3	1	1	1	1	n	1	n	n	1	n	1	1	1	1	1	2
15	8	n	4	3	3	1	1	2	2	1	1	1	1	n	1	n	1	1	n	1	1	2	1	1	2
16	3	n	2	2	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	1	1	1	1	1
17	2	n	3	3	2	3	4	2	1	2	2	1	1	1	1	1	1	1	1	1	1	3	3	5	3
18	n	n	1	2	1	5	10	2	1	1	2	1	2	2	2	2	n	1	1	2	2	2	5	8	3
19	n	n	1	1	1	5	10	1	n	1	2	1	3	4	1	2	1	1	2	1	2	1	4	9	1
20	n	n	n	n	n	2	2	n	n	n	1	n	2	6	2	2	1	1	2	n	1	n	1	3	n
21	n	n	n	n	n	n	1	n	n	n	1	1	4	10	4	5	1	1	5	n	2	n	n	1	n
22	n	n	n	n	n	n	n	n	n	n	n	n	1	3	2	3	5	2	3	n	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 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																							
	E33	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24
2	n	7	10	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
3	n	n	n	1	4	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
4	n	n	n	1	10	3	5	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
6	n	n	n	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	n	n	n	n	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
8	n	n	n	n	n	n	5	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	1	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	6	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	1	n	n	n	n	n	n	13	10	3	1	n	n	n	n	n	n	n	n	n	n	n	n	2	n
13	3	n	n	n	n	n	n	n	n	5	3	n	1	n	n	n	n	1	n	n	n	n	1	9	1
15	2	n	n	n	n	n	n	n	n	4	5	1	1	n	n	n	n	1	n	1	n	1	2	21	3
16	1	n	n	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	1	2	7	3
17	1	n	n	n	n	n	n	n	n	n	4	1	1	n	n	n	n	1	n	1	1	5	5	7	12
18	1	n	n	n	n	n	n	n	n	n	4	3	2	n	n	n	n	2	n	2	1	17	6	3	25
19	n	n	n	n	n	n	n	n	n	n	2	4	1	n	n	n	n	2	n	2	2	13	4	1	6
20	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	1	n	1	3	4	1	n	1
21	n	n	n	n	n	n	n	n	n	n	n	5	n	n	n	n	n	1	1	4	19	1	n	n	n
22	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	1	12	4	11	n	n	n	n
23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	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	3	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																								
	T25	T26	T27	T28	T29	T30	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45	T46	T47	T48	T49
1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	3	n
2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	4	n	n	n	n	n	4	23	2
3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	5	n	n	n	n	n	n	n	n
4	n	1	n	n	n	n	n	n	2	1	n	n	n	n	4	12	23	n	n	n	n	n	n	n	n
5	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
6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	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	11	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	6	n	n	n	n	n	n	n	n	n
9	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
10	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
11	1	1	n	n	2	32	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
13	4	n	1	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
15	3	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
16	2	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
17	2	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
18	2	n	1	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	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	39	5	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								
	T50	T51	T52	T53	T54	T55	T56	T57	T58
21	n	n	n	n	n	n	n	1	1
22	n	n	n	n	n	n	n	2	10
23	n	n	n	n	n	n	n	2	4
24	n	n	n	n	n	n	n	3	5
25	n	n	n	n	n	n	n	1	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 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 lease area, proposed sale 78 (northern leases, P10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	1	0.0	1	0.0	2	0.0	2	0.0	4	0.0	9	0.1	3	0.0	8	0.1	36	0.4
Brown Pelican	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.0	n	0.0	1	0.0	17	0.2
Marine Turtle	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	4	0.0	1	0.0	3	0.0	23	0.3
Onslow Bay Live Bot.	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	6	0.1	1	0.0	4	0.0	15	0.2
Wildlife Conser.	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	4	0.0	1	0.0	2	0.0	19	0.2
Parks (May-Oct)	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	3	0.0	1	0.0	4	0.0	14	0.1
Parks (Nov-Apr)	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	10	0.1
Blkbrd, Sapelo, Wolf	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
Gray's Reef	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.0
Cape Romain Wild.	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
Monitor	n	0.0	1	0.0	n	0.0	1	0.0	5	0.0	1	0.0	1	0.0	6	0.1	2	0.0
Tourist Beaches, NC	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	1	0.0	4	0.0	4	0.0
Tourist Beaches, SC	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
Tourist Beaches, GA	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0
Tourist Beaches, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	12	0.1
Coastal Inlets, NC	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	1	0.0	3	0.0	4	0.0
Coastal Inlets, SC	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1
Coastal Inlets, GA	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	10	0.1
Coastal Inlets, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	10	0.1
Historic Sites	n	0.0	n	0.0	1	0.0	1	0.0	4	0.0	3	0.0	2	0.0	7	0.1	14	0.2
Prehistoric Sites	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
Coastal Waterbirds	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	3	0.0	15	0.1
Manatee Habitat	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
Salt Marsh, Wetlands	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	16	0.2
Royal Red Shrimp	n	0.0	n	0.0	36	0.4	n	0.0	n	0.0	40	0.5	n	0.0	n	0.0	40	0.5
Calico Scallop	n	0.0	n	0.0	42	0.6	n	0.0	n	0.0	46	0.6	n	0.0	1	0.0	52	0.7
Pereg. Falc. Migr.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	4	0.0
Bald Eagle Nesting	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.

Table 13. -- 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 lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	n	0.0	n	0.0	28	0.3	1	0.0	2	0.0	58	0.9	3	0.0	13	0.1	91	2.4
Brown Pelican	n	0.0	n	0.0	10	0.1	n	0.0	2	0.0	28	0.3	2	0.0	8	0.1	56	0.8
Marine Turtle	n	0.0	n	0.0	13	0.1	n	0.0	1	0.0	31	0.4	2	0.0	9	0.1	71	1.3
Onslow Bay Live Bot.	n	0.0	n	0.0	15	0.2	n	0.0	2	0.0	20	0.2	2	0.0	9	0.1	32	0.4
Wildlife Conser.	n	0.0	n	0.0	25	0.3	n	0.0	1	0.0	41	0.5	1	0.0	7	0.1	70	1.2
Parks (May-Oct)	n	0.0	n	0.0	13	0.1	n	0.0	1	0.0	27	0.3	1	0.0	5	0.1	55	0.8
Parks (Nov-Apr)	n	0.0	n	0.0	12	0.1	n	0.0	n	0.0	22	0.2	1	0.0	3	0.0	45	0.6
Blkbrd, Sapelo, Wolf	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	8	0.1
Gray's Reef	n	0.0	n	0.0	5	0.0	n	0.0	n	0.0	9	0.1	1	0.0	3	0.0	20	0.2
Cape Romain Wild.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	2	0.0	5	0.1
Tourist Beaches, NC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	14	0.1
Tourist Beaches, SC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	9	0.1
Tourist Beaches, GA	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	6	0.1	1	0.0	3	0.0	19	0.2
Tourist Beaches, FL	n	0.0	n	0.0	11	0.1	n	0.0	n	0.0	22	0.2	n	0.0	2	0.0	51	0.7
Coastal Inlets, NC	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	9	0.1	n	0.0	2	0.0	16	0.2
Coastal Inlets, SC	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	11	0.1	1	0.0	3	0.0	22	0.3
Coastal Inlets, GA	n	0.0	n	0.0	10	0.1	n	0.0	1	0.0	19	0.2	1	0.0	6	0.1	40	0.5
Coastal Inlets, FL	n	0.0	n	0.0	12	0.1	n	0.0	n	0.0	19	0.2	n	0.0	2	0.0	46	0.6
Historic Sites	n	0.0	n	0.0	15	0.2	n	0.0	1	0.0	30	0.4	1	0.0	6	0.1	55	0.8
Prehistoric Sites	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	16	0.2
Coastal Waterbirds	n	0.0	n	0.0	14	0.2	n	0.0	1	0.0	27	0.3	2	0.0	7	0.1	50	0.7
Manatee Habitat	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
Salt Marsh, Wetlands	n	0.0	n	0.0	16	0.2	n	0.0	1	0.0	32	0.4	2	0.0	9	0.1	59	0.9
Royal Red Shrimp	1	0.0	6	0.1	84	1.8	1	0.0	7	0.1	88	2.1	2	0.0	7	0.1	88	2.1
Calico Scallop	1	0.0	6	0.1	91	2.4	2	0.0	7	0.1	93	2.7	3	0.0	14	0.2	95	3.0
Pereg. Falc. Migr.	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	8	0.1	n	0.0	2	0.0	18	0.2
Bald Eagle Nesting	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

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

Table 14. -- 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 lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	1	0.0	1	0.0	2	0.0	3	0.0	4	0.0	9	0.1	5	0.1	9	0.1	36	0.4
Brown Pelican	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.0	n	0.0	1	0.0	17	0.2
Marine Turtle	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	4	0.0	1	0.0	4	0.0	23	0.3
Onslow Bay Live Bot.	n	0.0	n	0.0	1	0.0	1	0.0	3	0.0	6	0.1	1	0.0	5	0.0	15	0.2
Wildlife Conser.	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	4	0.0	1	0.0	2	0.0	19	0.2
Parks (May-Oct)	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	3	0.0	2	0.0	5	0.0	14	0.1
Parks (Nov-Apr)	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	1	0.0	2	0.0	10	0.1
Blkbrd, Sapelo, Wolf	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
Gray's Reef	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.0
Cape Romain Wild.	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
Monitor	n	0.0	1	0.0	n	0.0	2	0.0	5	0.1	1	0.0	2	0.0	7	0.1	2	0.0
Tourist Beaches, NC	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	4	0.0	4	0.0
Tourist Beaches, SC	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
Tourist Beaches, GA	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0
Tourist Beaches, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	12	0.1
Coastal Inlets, NC	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	4	0.0	4	0.0
Coastal Inlets, SC	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1
Coastal Inlets, GA	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	10	0.1
Coastal Inlets, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	10	0.1
Historic Sites	n	0.0	n	0.0	1	0.0	2	0.0	5	0.0	3	0.0	3	0.0	8	0.1	14	0.2
Prehistoric Sites	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
Coastal Waterbirds	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	3	0.0	1	0.0	3	0.0	13	0.1
Manatee Habitat	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
Salt Marsh, Wetlands	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	16	0.2
Royal Red Shrimp	n	0.0	n	0.0	36	0.4	n	0.0	n	0.0	40	0.5	n	0.0	n	0.0	40	0.5
Calico Scallop	n	0.0	n	0.0	42	0.6	n	0.0	1	0.0	46	0.6	1	0.0	2	0.0	52	0.7
Pereg. Falc. Migr.	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	4	0.0
Bald Eagle Nesting	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.

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 lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 1,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	n	0.0	n	0.0	28	0.3	2	0.0	3	0.0	58	0.9	9	0.1	18	0.2	91	2.4
Brown Pelican	n	0.0	n	0.0	10	0.1	2	0.0	3	0.0	28	0.3	7	0.1	13	0.1	56	0.8
Marine Turtle	n	0.0	n	0.0	13	0.1	1	0.0	2	0.0	31	0.4	6	0.1	12	0.1	71	1.3
Onslow Bay Live Bot.	n	0.0	n	0.0	15	0.2	1	0.0	2	0.0	20	0.2	3	0.0	10	0.1	32	0.4
Wildlife Conser.	n	0.0	n	0.0	25	0.3	1	0.0	2	0.0	41	0.5	5	0.1	10	0.1	70	1.2
Parks (May-Oct)	n	0.0	n	0.0	13	0.1	1	0.0	1	0.0	27	0.3	3	0.0	7	0.1	55	0.8
Parks (Nov-Apr)	n	0.0	n	0.0	12	0.1	n	0.0	1	0.0	22	0.2	2	0.0	4	0.0	45	0.6
Blkbrd, Sapelo, Wolf	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	2	0.0	8	0.1
Gray's Reef	n	0.0	n	0.0	5	0.0	1	0.0	1	0.0	9	0.1	3	0.0	5	0.1	20	0.2
Cape Romain Wild.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	5	0.1
Tourist Beaches, NC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1	1	0.0	2	0.0	14	0.1
Tourist Beaches, SC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	1	0.0	2	0.0	9	0.1
Tourist Beaches, GA	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0	6	0.1	2	0.0	5	0.0	19	0.2
Tourist Beaches, FL	n	0.0	n	0.0	11	0.1	n	0.0	1	0.0	22	0.2	1	0.0	3	0.0	51	0.7
Coastal Inlets, NC	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	9	0.1	1	0.0	2	0.0	16	0.2
Coastal Inlets, SC	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	11	0.1	2	0.0	5	0.0	22	0.3
Coastal Inlets, GA	n	0.0	n	0.0	10	0.1	1	0.0	2	0.0	19	0.2	5	0.1	9	0.1	40	0.5
Coastal Inlets, FL	n	0.0	n	0.0	12	0.1	n	0.0	n	0.0	19	0.2	1	0.0	2	0.0	46	0.6
Historic Sites	n	0.0	n	0.0	15	0.2	1	0.0	1	0.0	30	0.4	3	0.0	8	0.1	55	0.8
Prehistoric Sites	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0	16	0.2
Coastal Waterbirds	n	0.0	n	0.0	14	0.2	1	0.0	2	0.0	27	0.3	5	0.1	11	0.1	50	0.7
Manatee Habitat	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
Salt Marsh, Wetlands	n	0.0	n	0.0	16	0.2	2	0.0	2	0.0	32	0.4	7	0.1	14	0.1	59	0.9
Royal Red Shrimp	1	0.0	6	0.1	84	1.8	1	0.0	7	0.1	88	2.1	2	0.0	7	0.1	88	2.1
Calico Scallop	2	0.0	7	0.1	91	2.4	3	0.0	9	0.1	93	2.7	7	0.1	18	0.2	95	3.0
Pereg. Falc. Migr.	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	8	0.1	2	0.0	3	0.0	18	0.2
Bald Eagle Nesting	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

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

Table 16. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 (northern leases, R10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	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	1	0.0	1	0.0	n	0.0	1	0.0	1	0.0
2	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	3	0.0	3	0.0
3	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	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	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	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	n	0.0	n	0.0	1	0.0
12	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
13	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
15	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
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
18	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
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
20	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	6	0.1
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	7	0.1
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1
23	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
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
26	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	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 17. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1
2	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	11	0.1	n	0.0	1	0.0	17	0.2
3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	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
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
6	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
7	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
8	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
9	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	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
12	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
13	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	5	0.1
14	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
15	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	5	0.1
16	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1	n	0.0	1	0.0	12	0.1
17	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	n	0.0	2	0.0	14	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	2	0.0	11	0.1
19	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	9	0.1	n	0.0	2	0.0	17	0.2
20	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	16	0.2	n	0.0	1	0.0	35	0.4
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	28	0.3
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	22	0.2
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
26	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	11	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 18. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	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	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0
2	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	3	0.0	3	0.0
3	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
4	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
5	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	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	n	0.0	n	0.0	1	0.0
12	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
13	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
15	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
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
18	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
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
20	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	6	0.1
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	7	0.1
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1
23	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
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
26	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	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 19. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1
2	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	11	0.1	1	0.0	1	0.0	17	0.2
3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	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
5	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
6	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
7	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
8	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
9	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	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
12	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
13	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	5	0.1
14	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
15	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	5	0.1
16	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1	1	0.0	2	0.0	12	0.1
17	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	2	0.0	3	0.0	14	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	3	0.0	2	0.0	3	0.0	11	0.1
19	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	9	0.1	1	0.0	2	0.0	17	0.2
20	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	16	0.2	1	0.0	1	0.0	35	0.4
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	28	0.3
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	22	0.2
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
26	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	11	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 20. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 (northern leases, P10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	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	2	0.0	2	0.0	2	0.0	4	0.0	4	0.0
3	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
4	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
10	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
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	2	0.0
13	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
15	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
16	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
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	2	0.0
18	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
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	2	0.0
20	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
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	10	0.1
23	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
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	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
27	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	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 21. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0
2	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	15	0.2	1	0.0	1	0.0	25	0.3
4	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
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
7	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
8	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
9	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
10	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
11	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	0.0	n	0.0	1	0.0	9	0.1
13	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	7	0.1
15	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1	n	0.0	1	0.0	12	0.1
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	6	0.1
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	7	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	2	0.0	8	0.1
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	8	0.1
20	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	6	0.1
21	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	15	0.2	n	0.0	1	0.0	23	0.3
22	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	8	0.1	n	0.0	2	0.0	42	0.5
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	14	0.2
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	18	0.2
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
27	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	11	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 22. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	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	2	0.0	3	0.0	2	0.0	3	0.0	5	0.0	4	0.0
3	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
4	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	2	0.0	2	0.0
10	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
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	2	0.0
13	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
15	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
16	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
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	2	0.0
18	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
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	2	0.0
20	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
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	10	0.1
23	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
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	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
27	1	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	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 23. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products Probabilities are for spills 1,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0
2	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	15	0.2	1	0.0	1	0.0	25	0.3
4	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
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
7	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
8	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
9	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
10	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
11	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	0.0	1	0.0	1	0.0	9	0.1
13	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0	7	0.1
15	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	7	0.1	1	0.0	2	0.0	12	0.1
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	6	0.1
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	1	0.0	2	0.0	7	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	3	0.0	8	0.1
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	2	0.0	8	0.1
20	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	6	0.1
21	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	15	0.2	n	0.0	1	0.0	23	0.3
22	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	8	0.1	1	0.0	2	0.0	42	0.5
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	14	0.2
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	18	0.2
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
27	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	11	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.

Appendix A

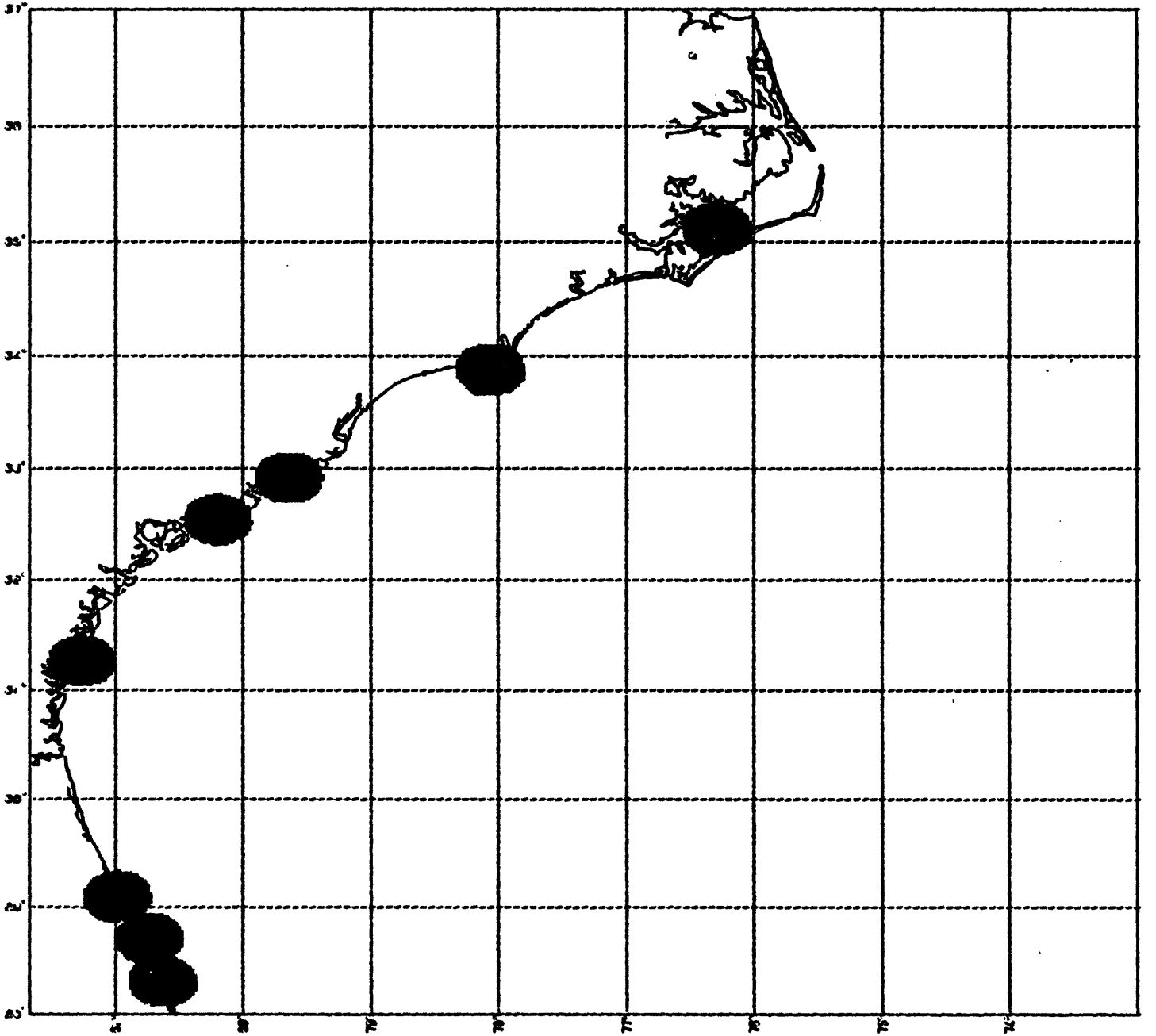

Figure A-1.--Map showing the location of Brown Pelican rookeries, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

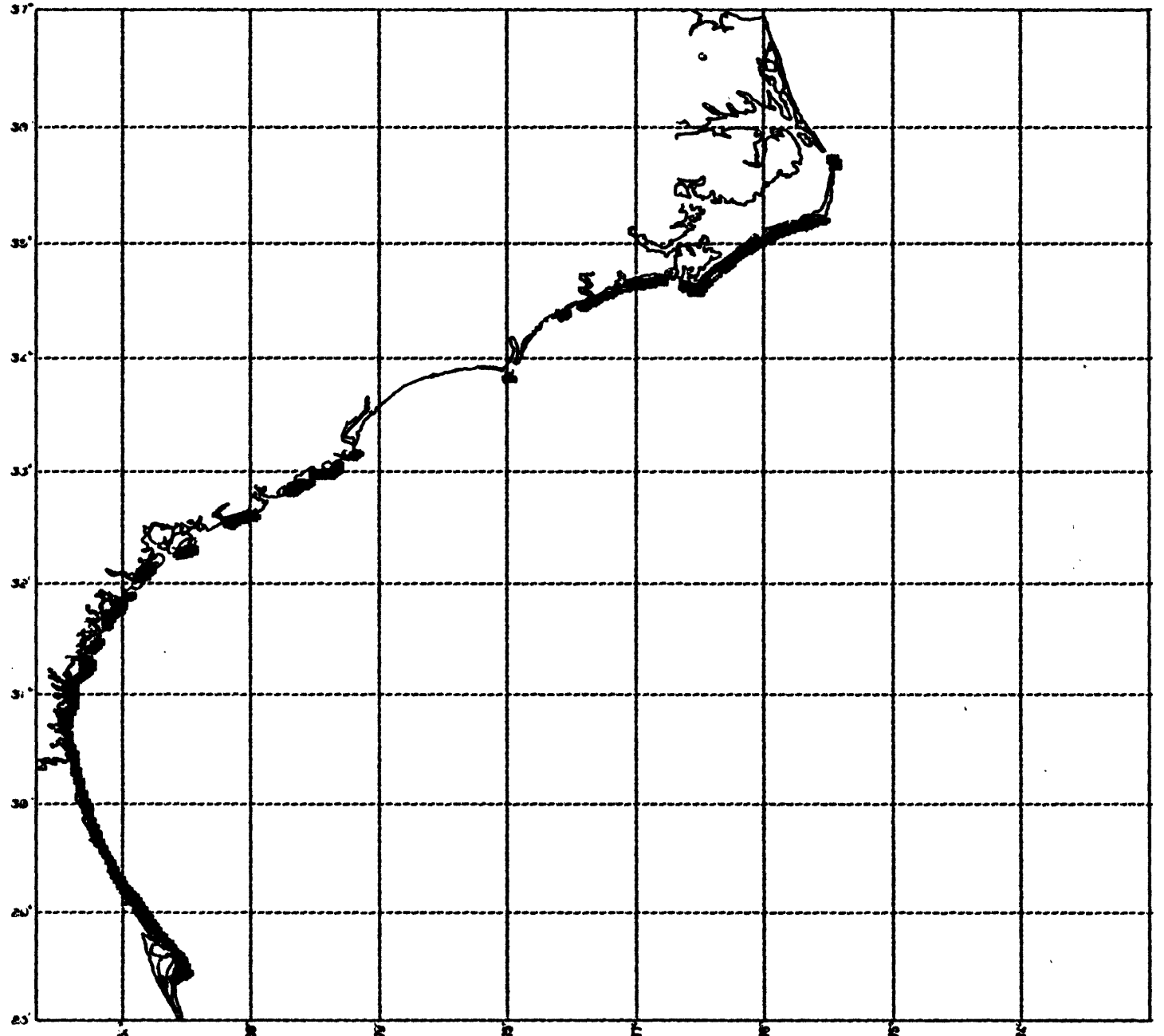

Figure A-2.--Map showing the location of marine turtle nesting habitat, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

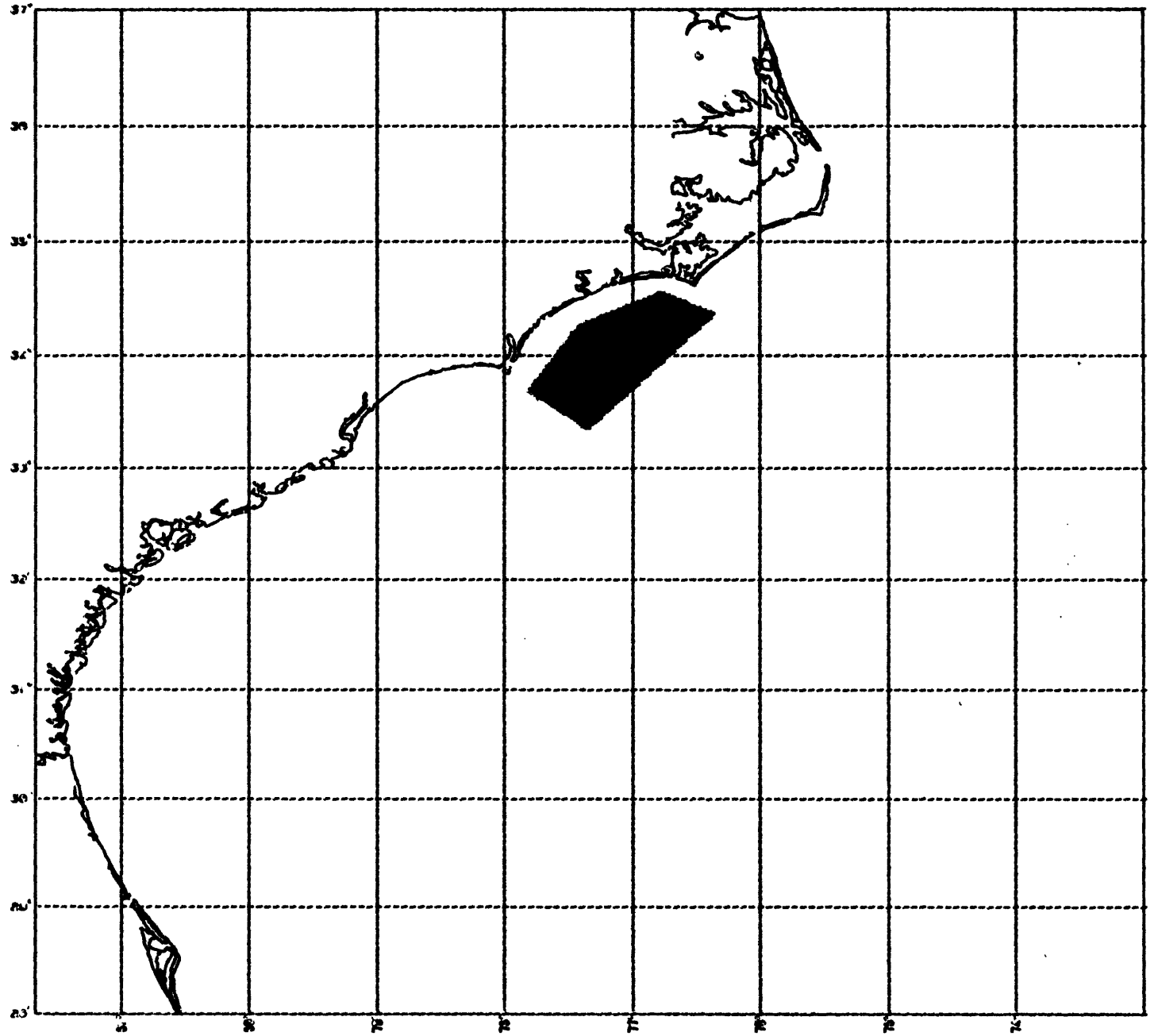

Figure A-3.--Map showng the location of Onslow Bay live bottom area, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

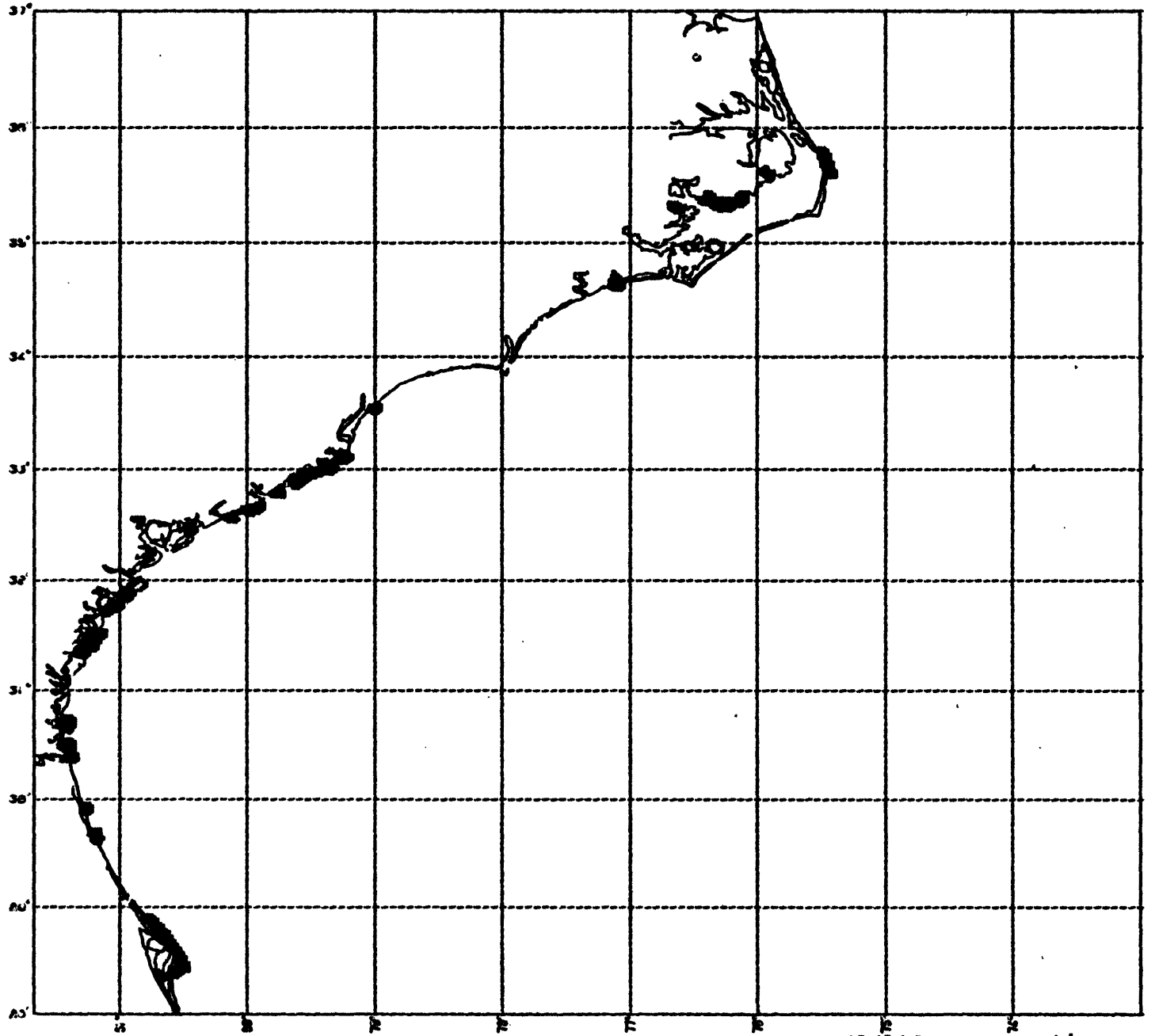

Figure A-4.--Map showing the location of Federal and State wildlife conservation areas, OCS Lease Sale 78: cross hatching indicates areal extent.

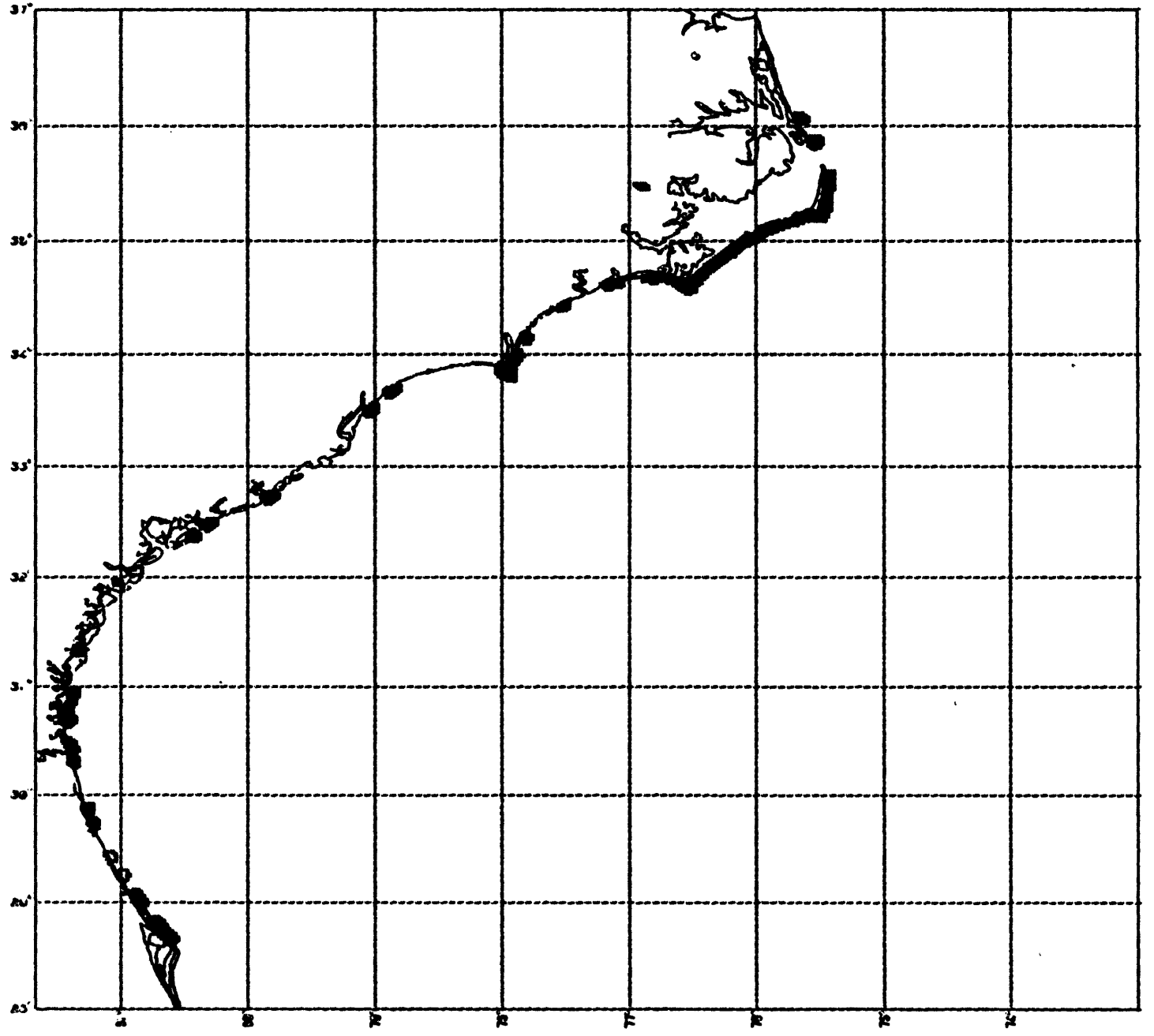

Figure A-5.--Map showing the location of Federal and State parks, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

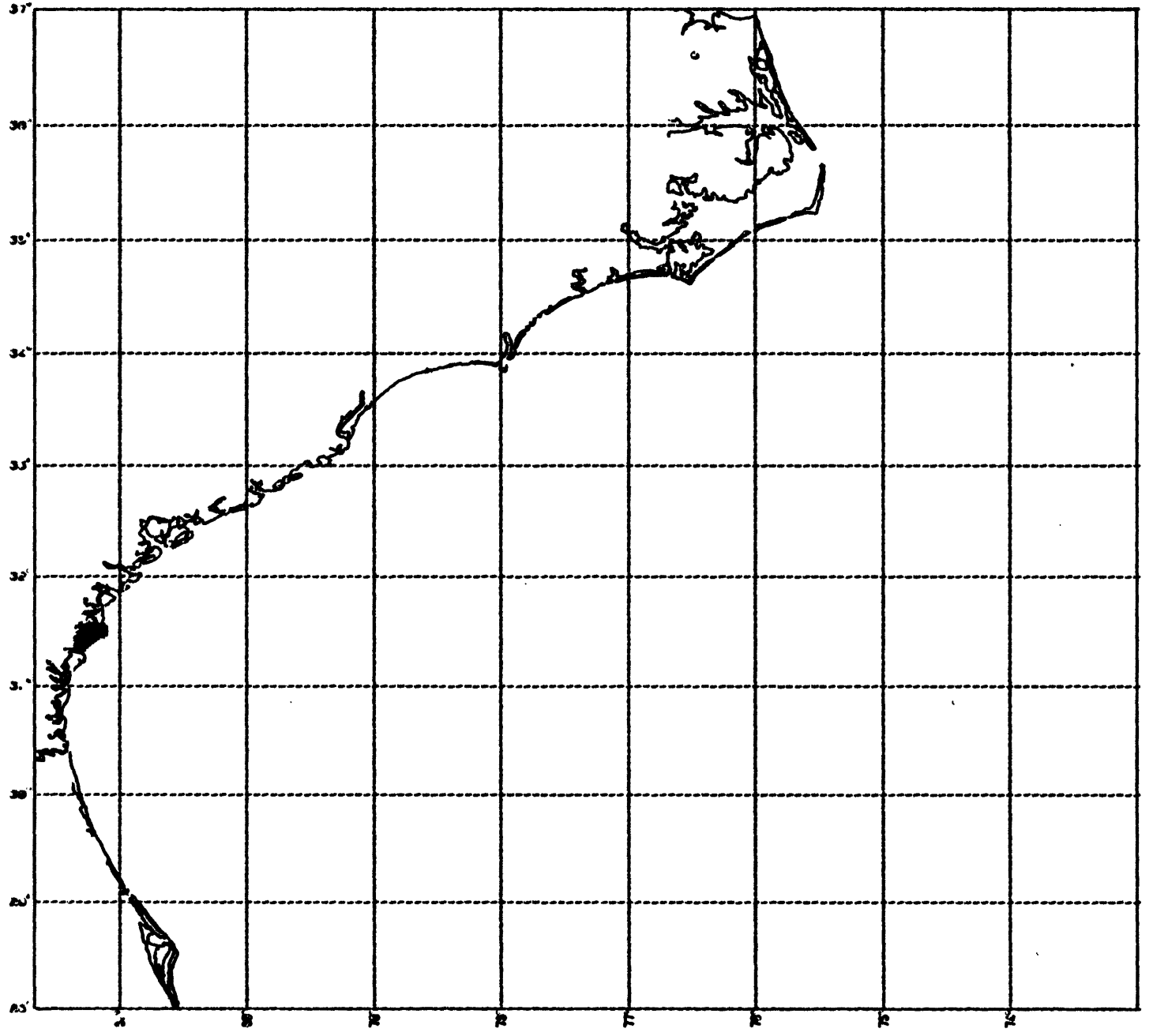

Figure A-6.--Map showing the location of Blackbeard Island, Sapelo Island, and Wolf Island, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

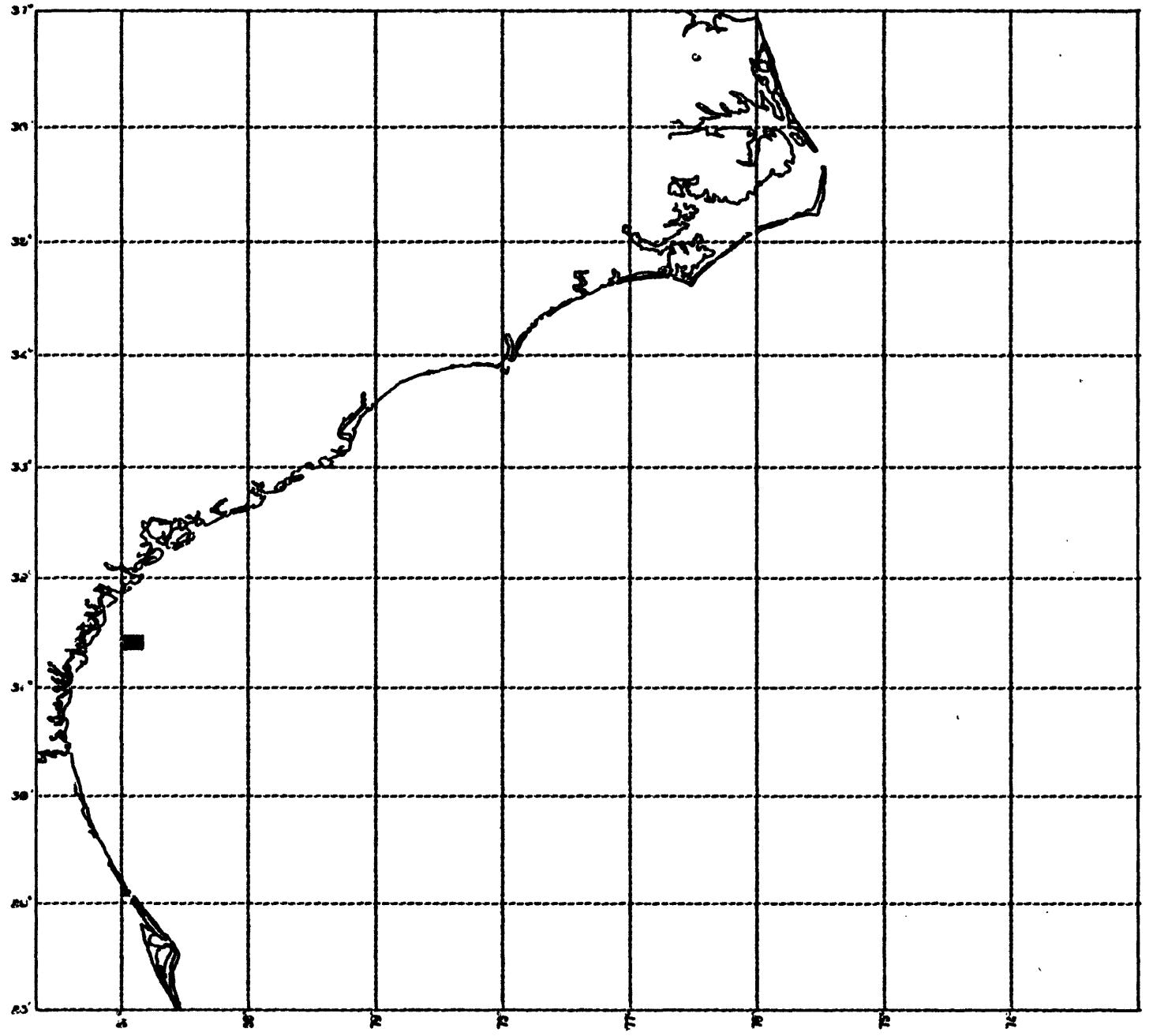

Figure A-7.--Map showing the location of Gray's Reef, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

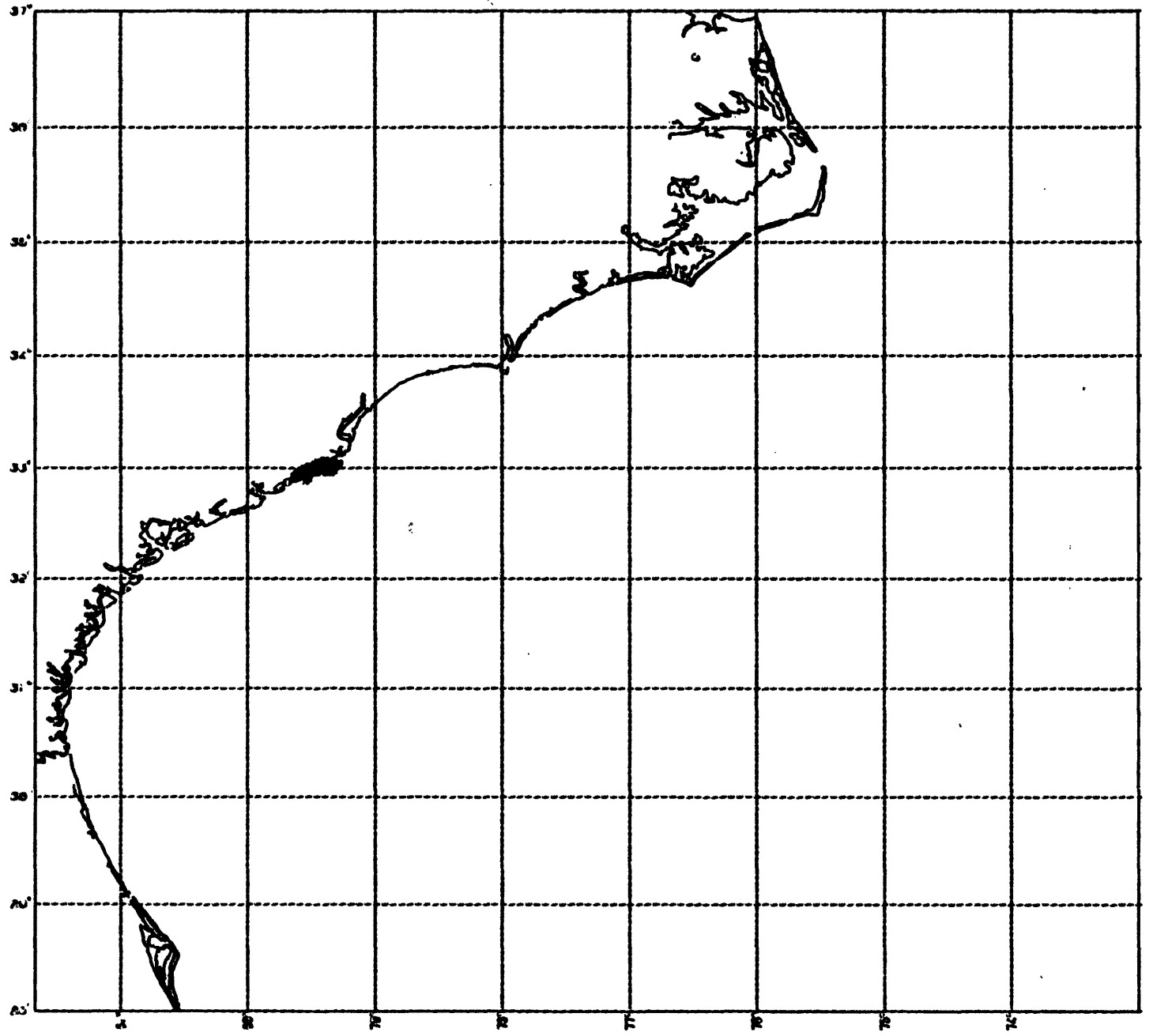

Figure A-8.--Map showing the location of Cape Romain National Wilderness area, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

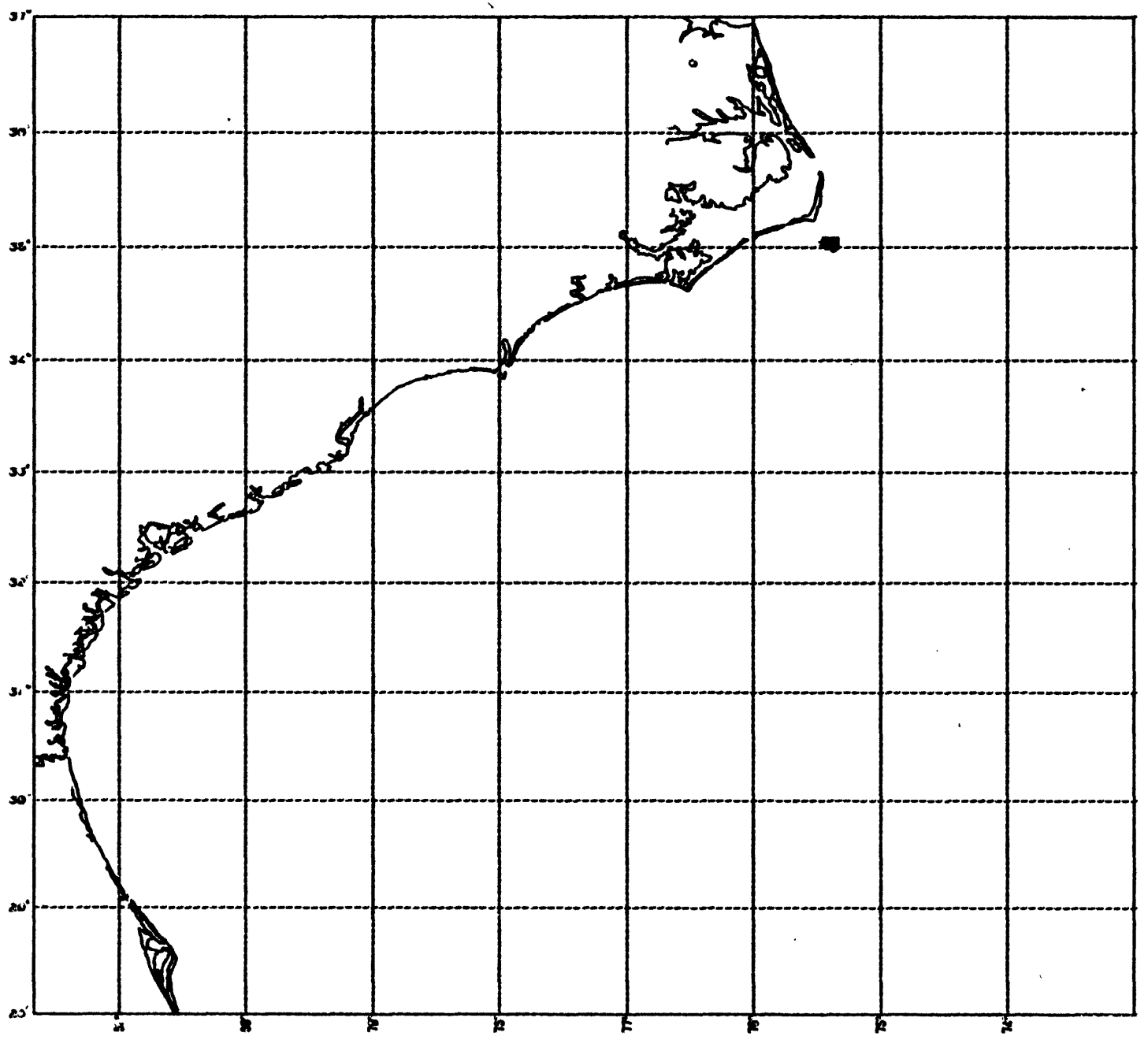

Figure A-9.--Map showing the location of Monitor Marine Sanctuary, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

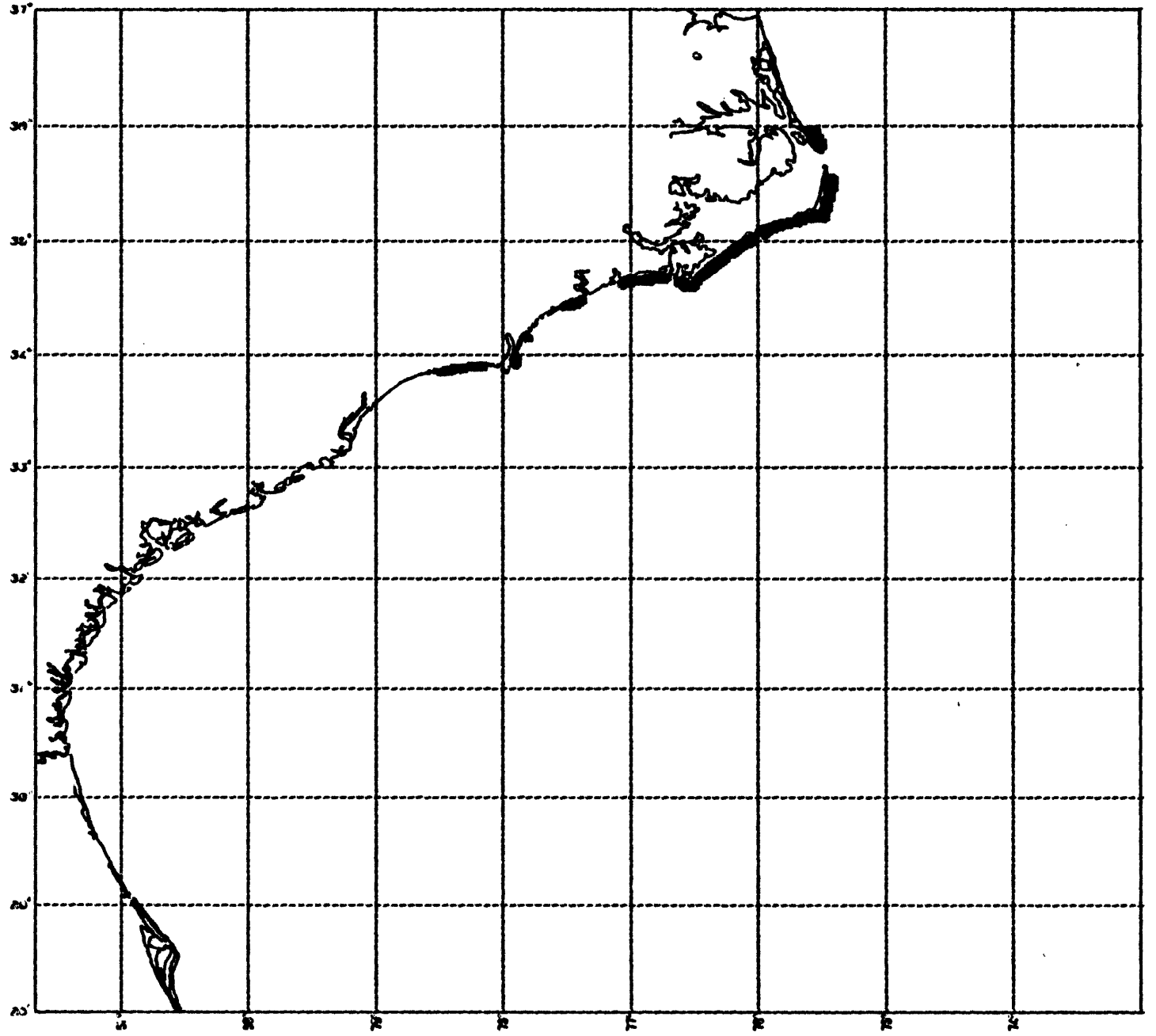

Figure A-10.--Map showing the location of tourist beaches - North Carolina, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

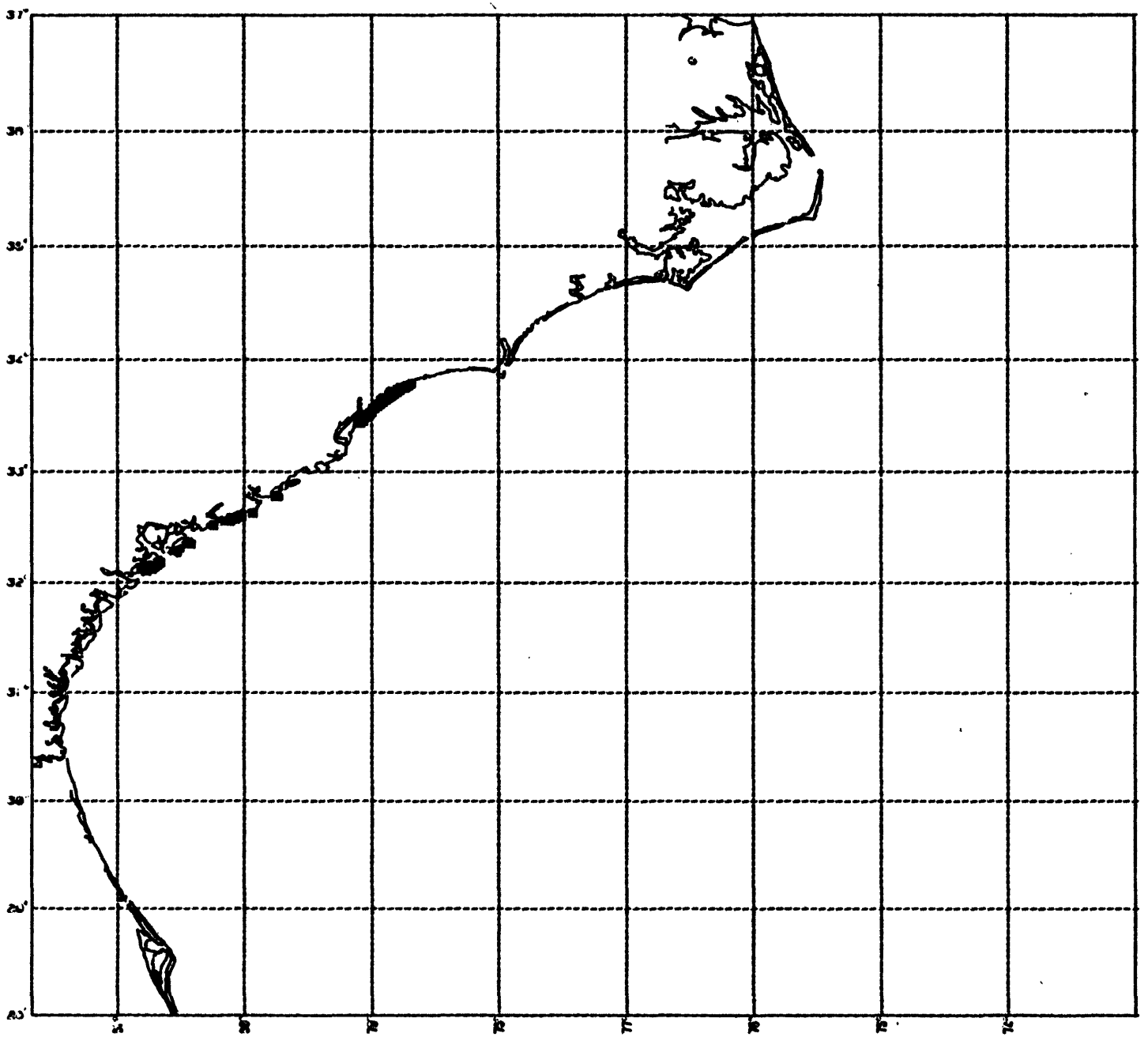

Figure A-11.--Map showing the location of tourist beaches - South Carolina, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

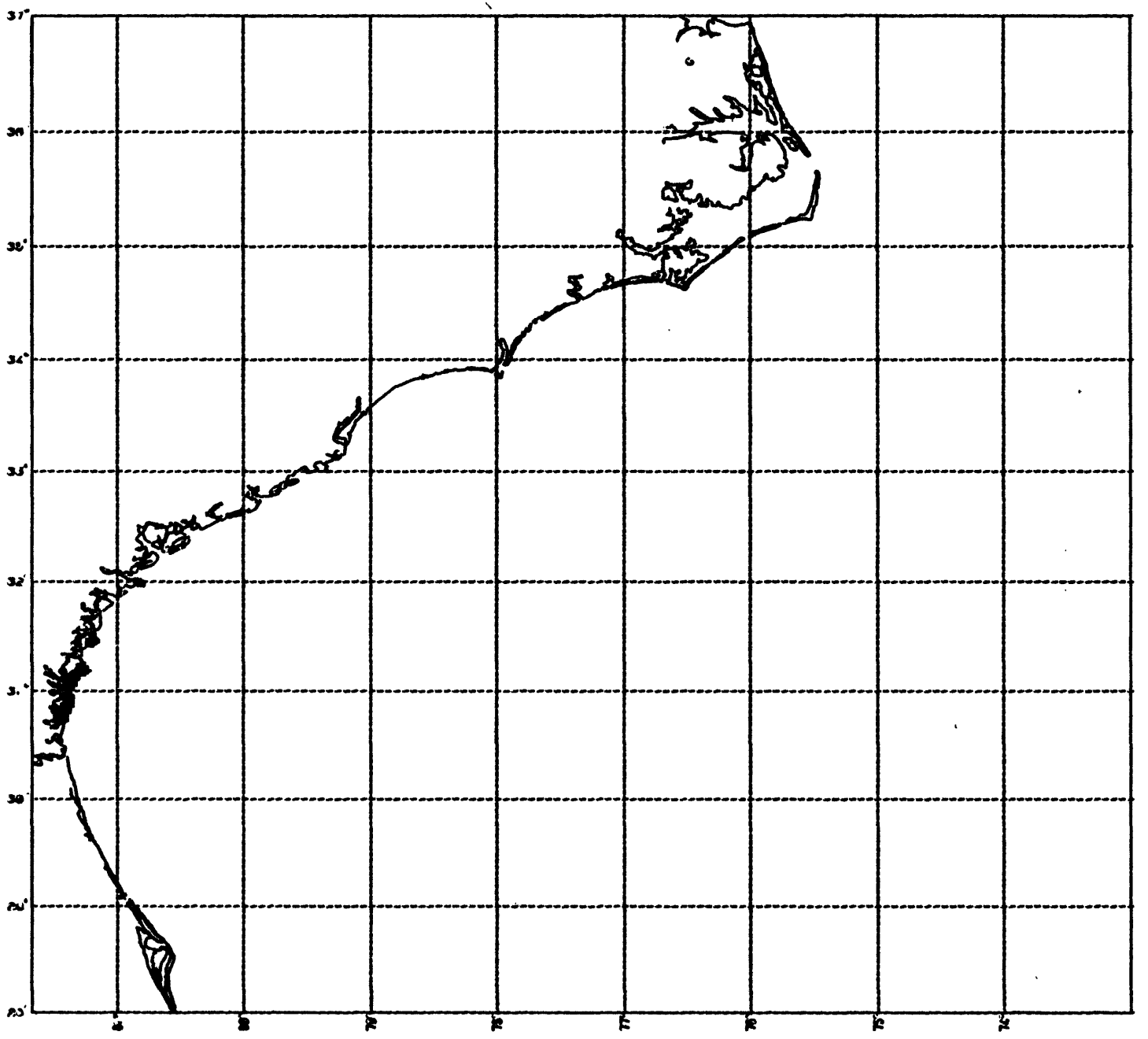

Figure A-12.--Map showing the location of tourist beaches - Georgia, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

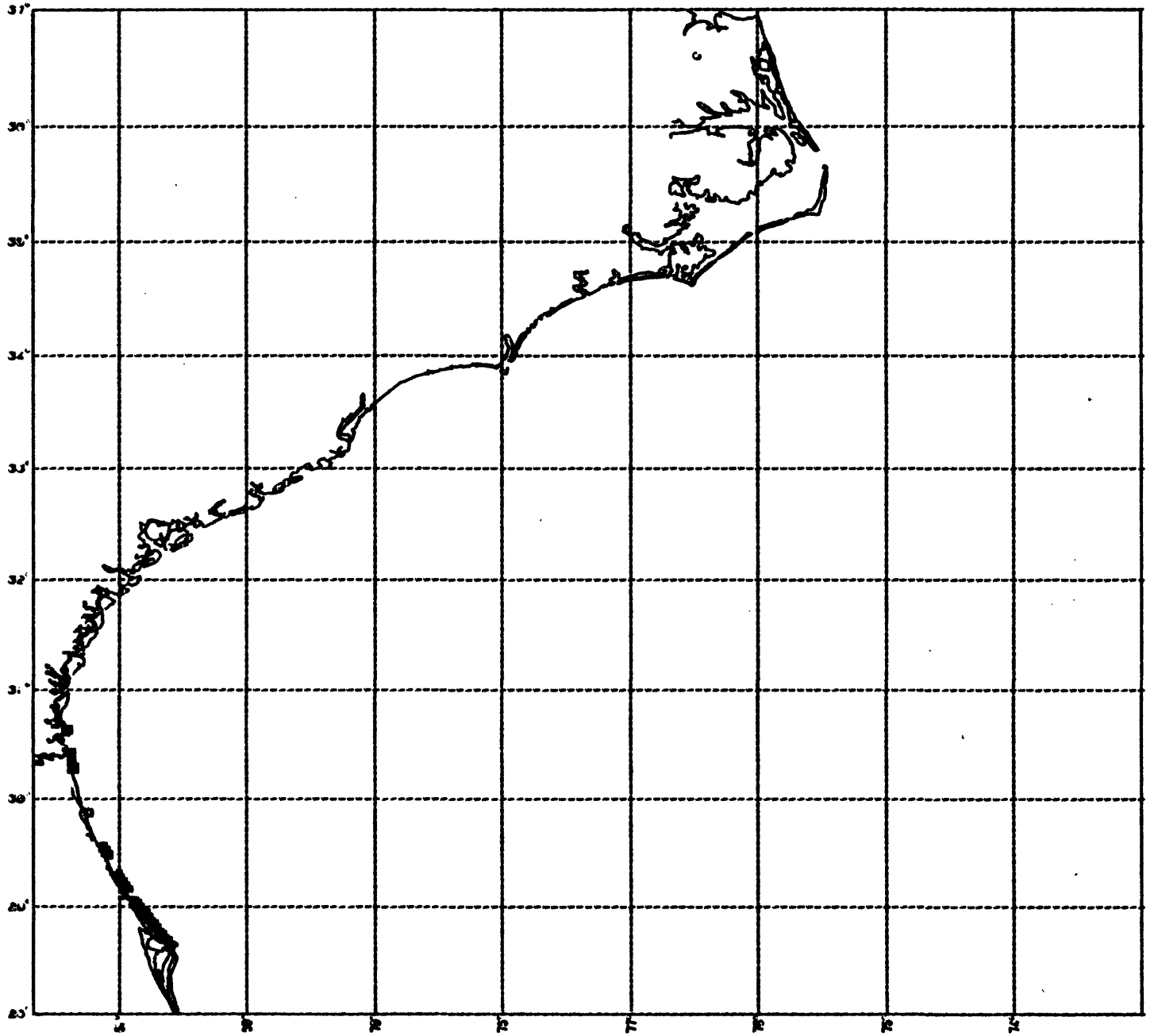

Figure A-13.--Map showing the location of tourist beaches - Florida, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

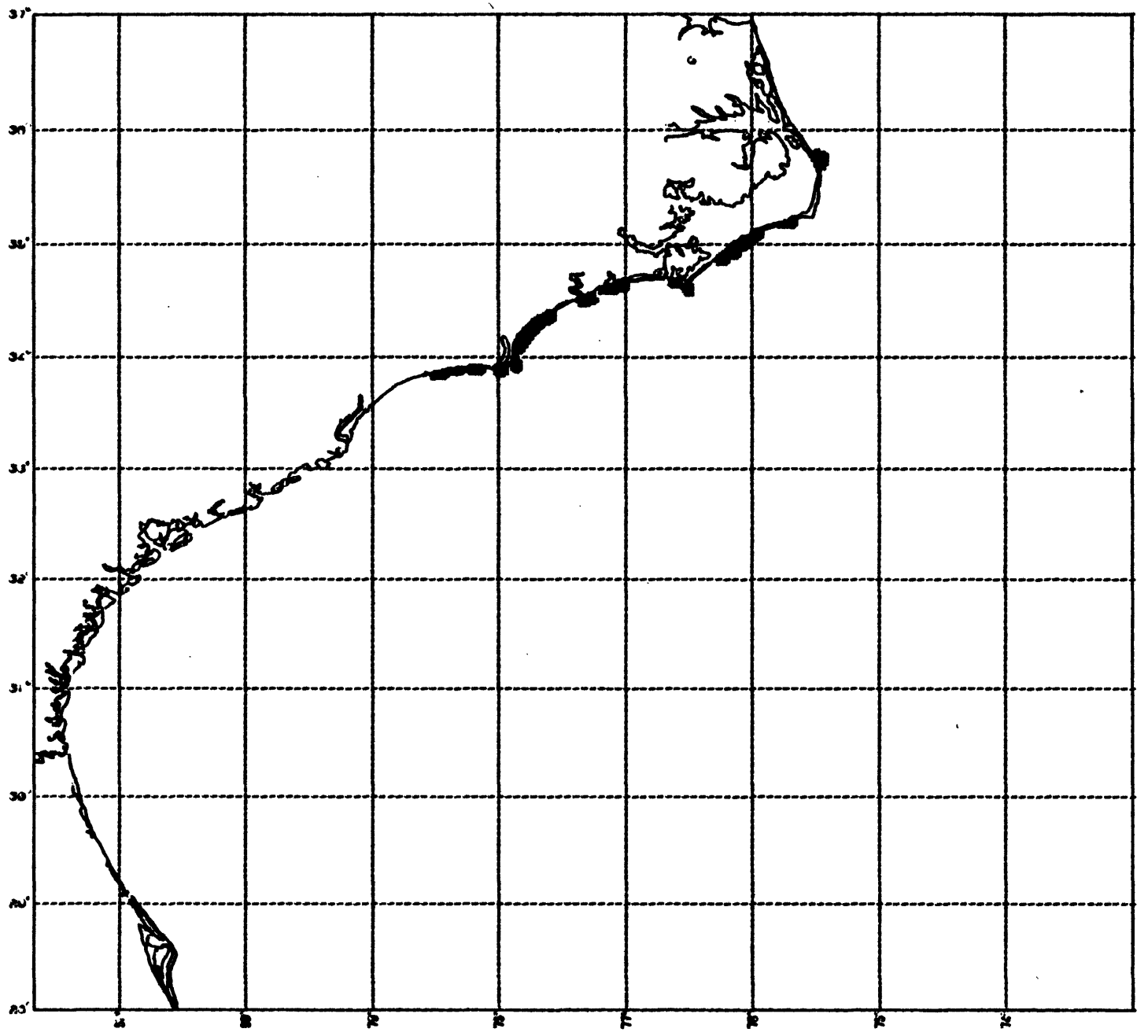

Figure A-14.--Map showing the location of coastal inlets - North Carolina, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

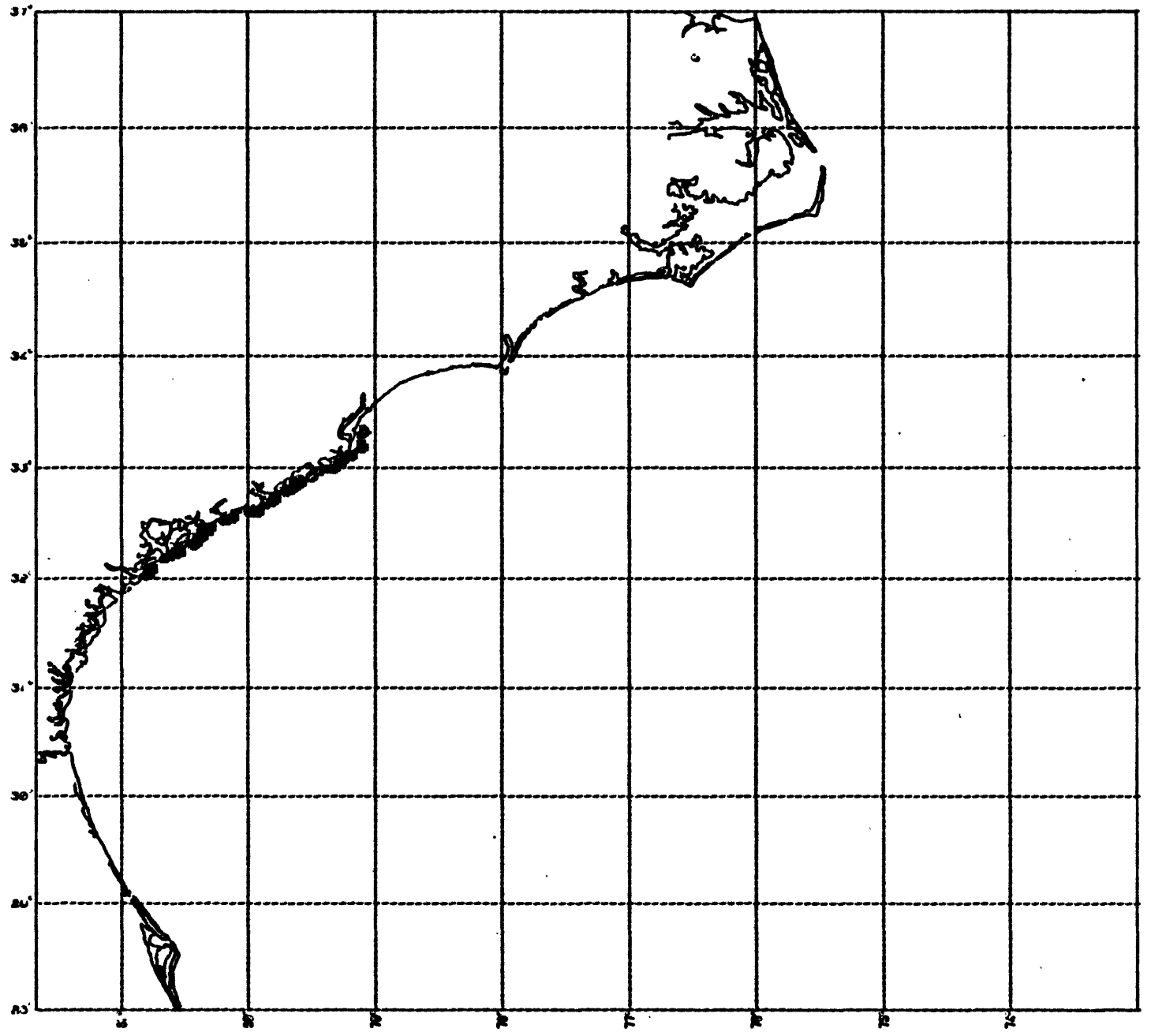

Figure A-15.--Map showing the location of coastal inlets - South Carolina, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

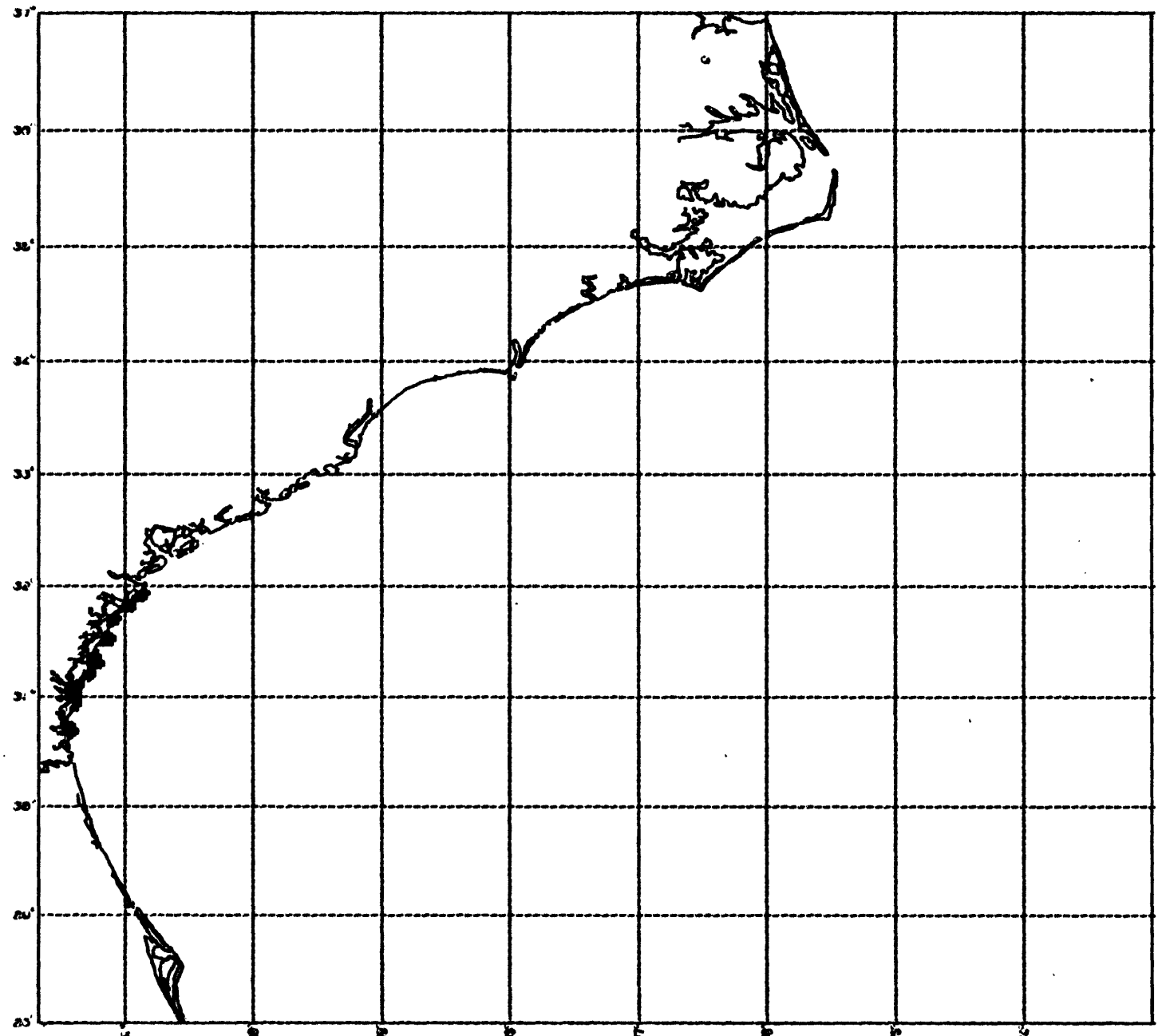

Figure A-16.--Map showing the location of coastal inlets - Georgia, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

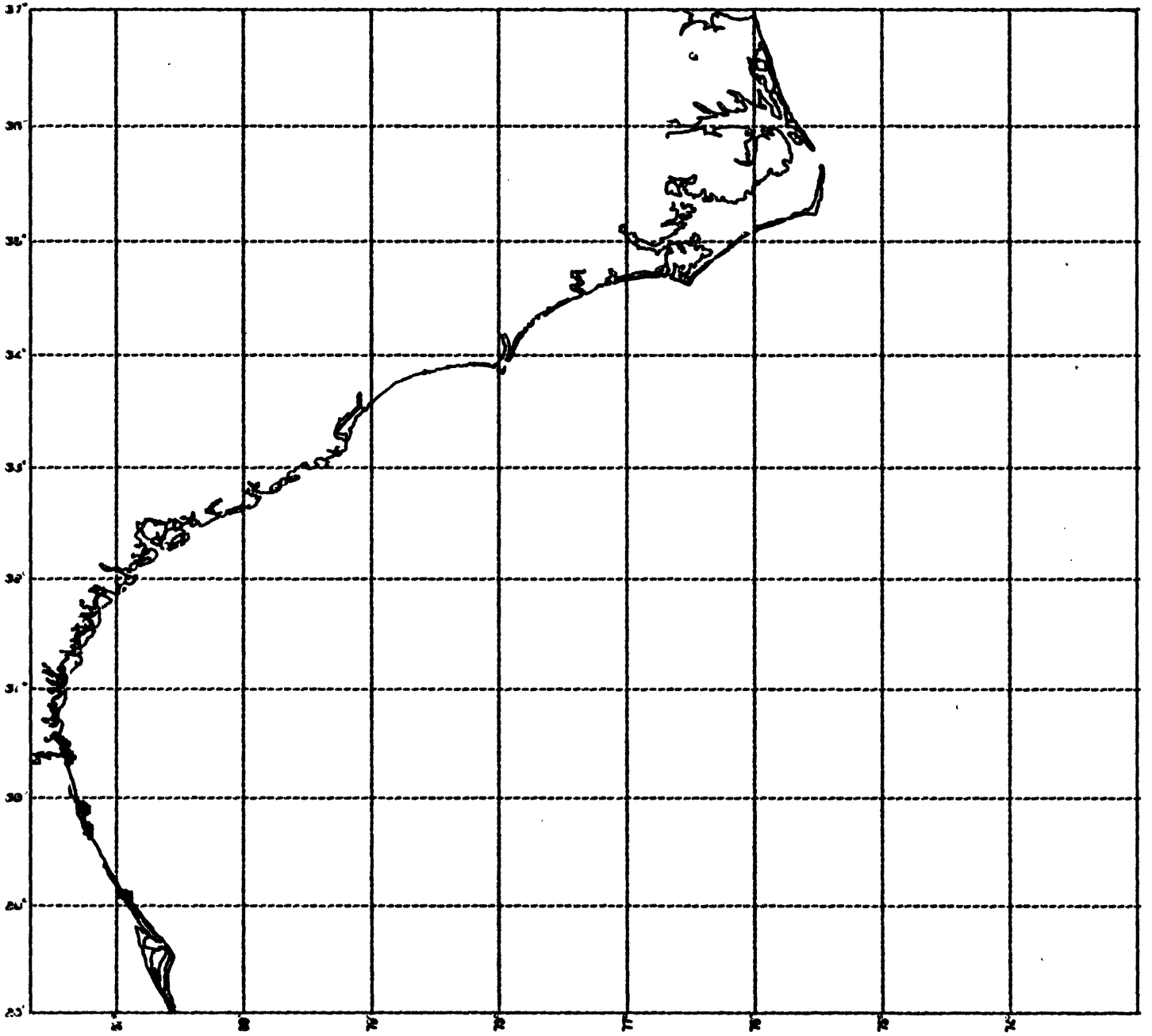

Figure A-17.--Map showing the location of coastal inlets - Florida, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

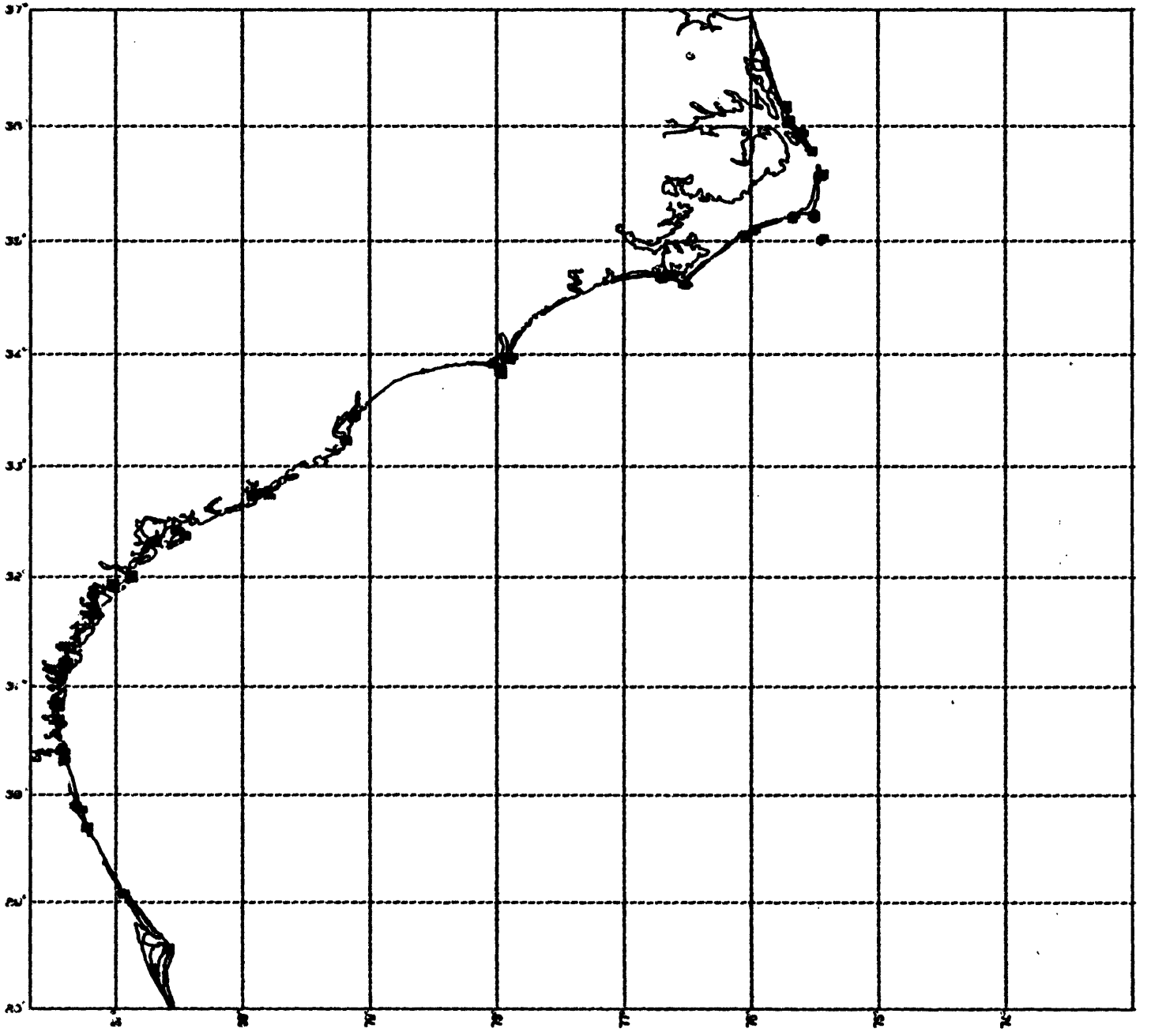

Figure A-18.--Map showing the location of historic sites, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

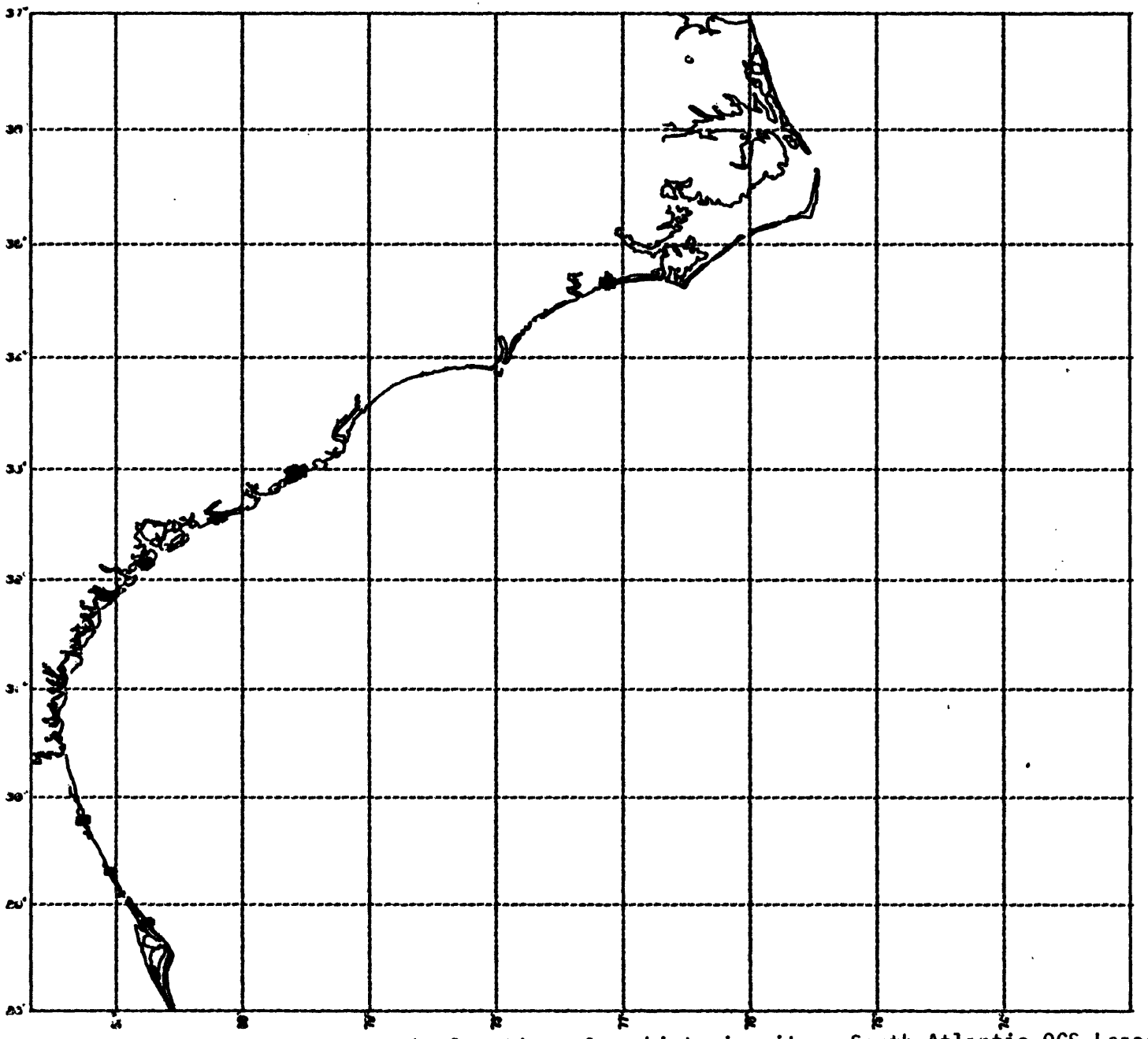

Figure A-19.--Map showing the location of prehistoric sites, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

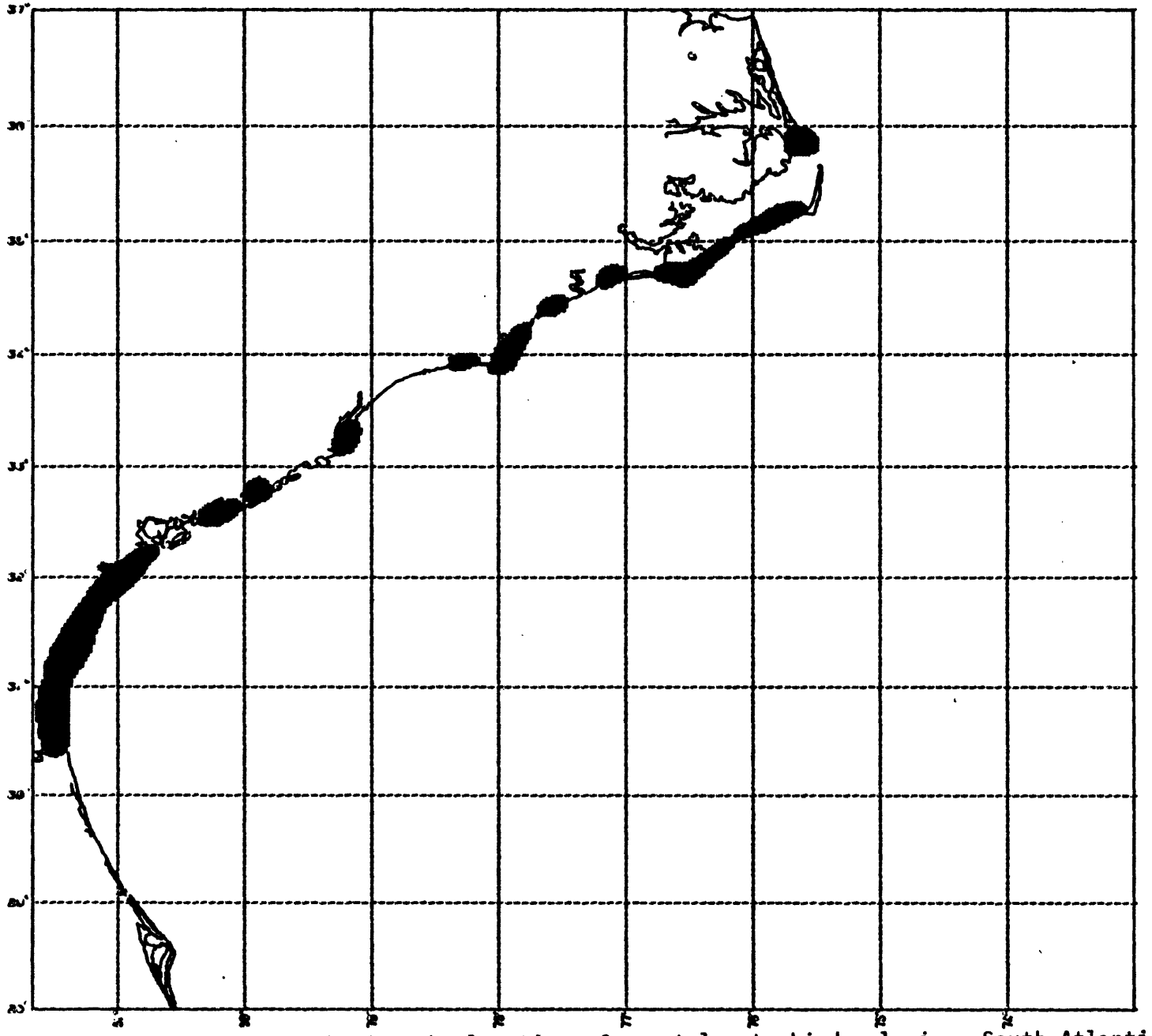

Figure A-20.--Map showing the location of coastal waterbird colonies, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

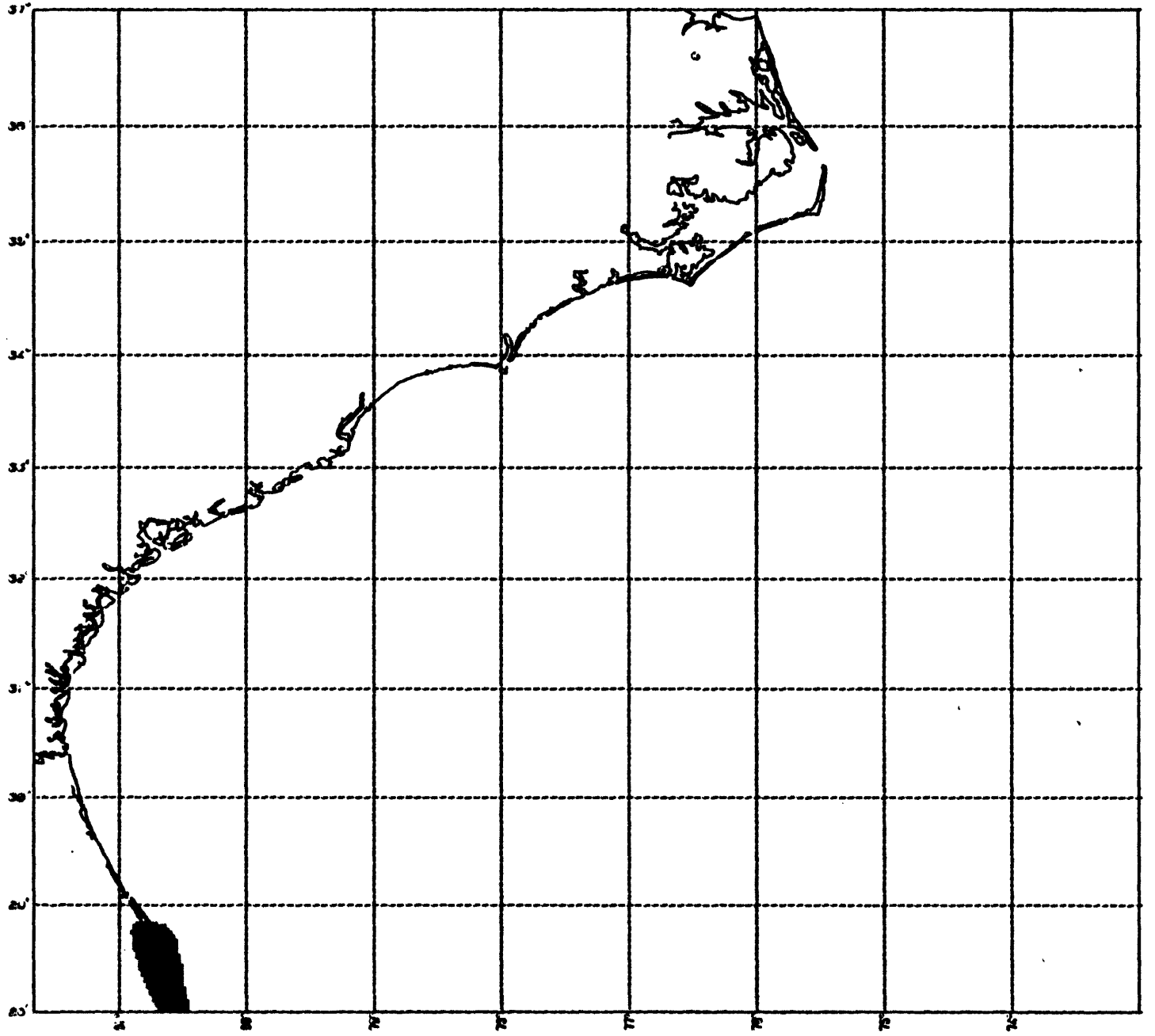

Figure A-21.--Map showing the location of manatee critical habitat, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

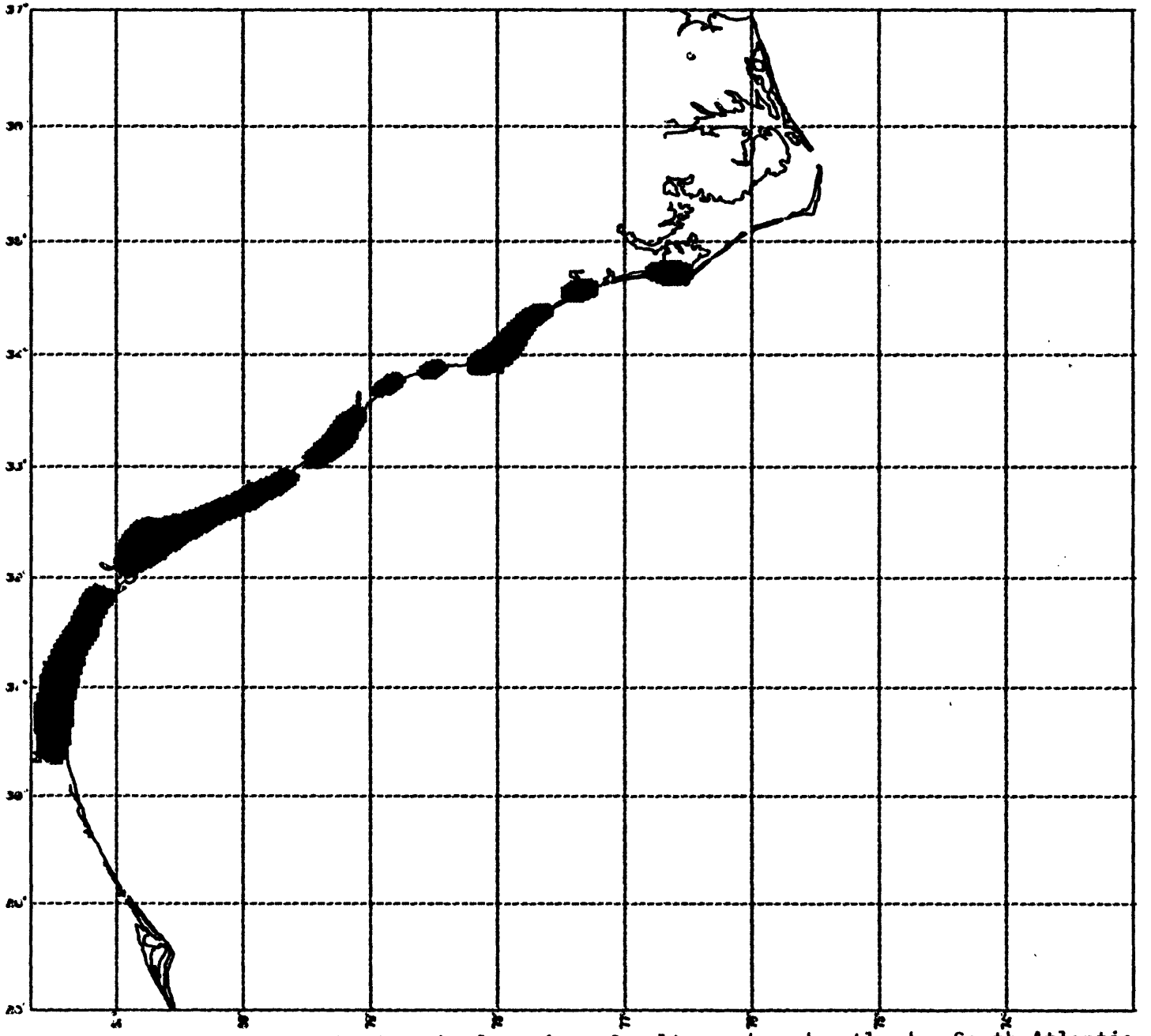

Figure A-22.--Map showing the location of salt marsh and wetlands, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

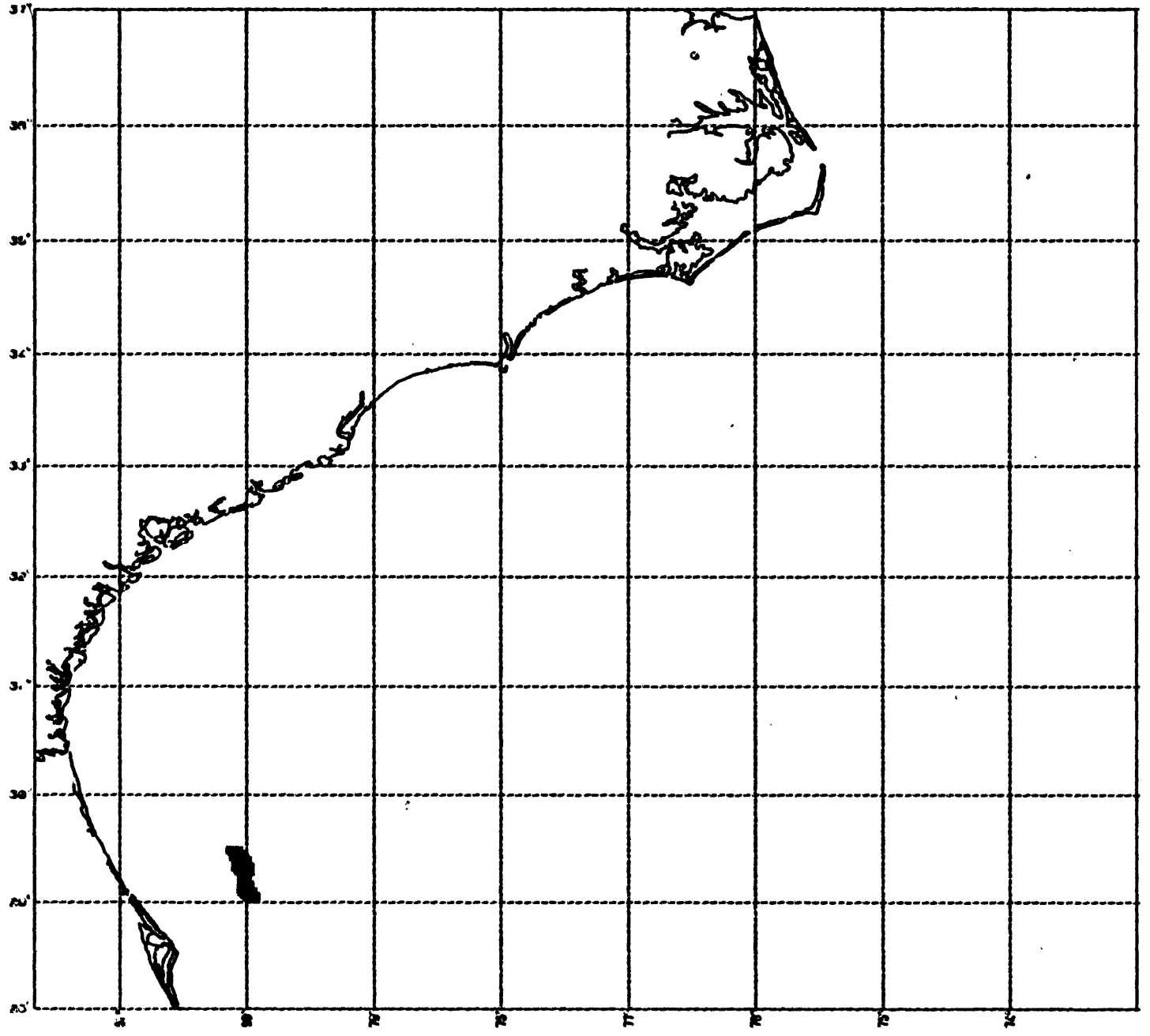

Figure A-23.--Map showing the location of Royal Red Shrimp, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

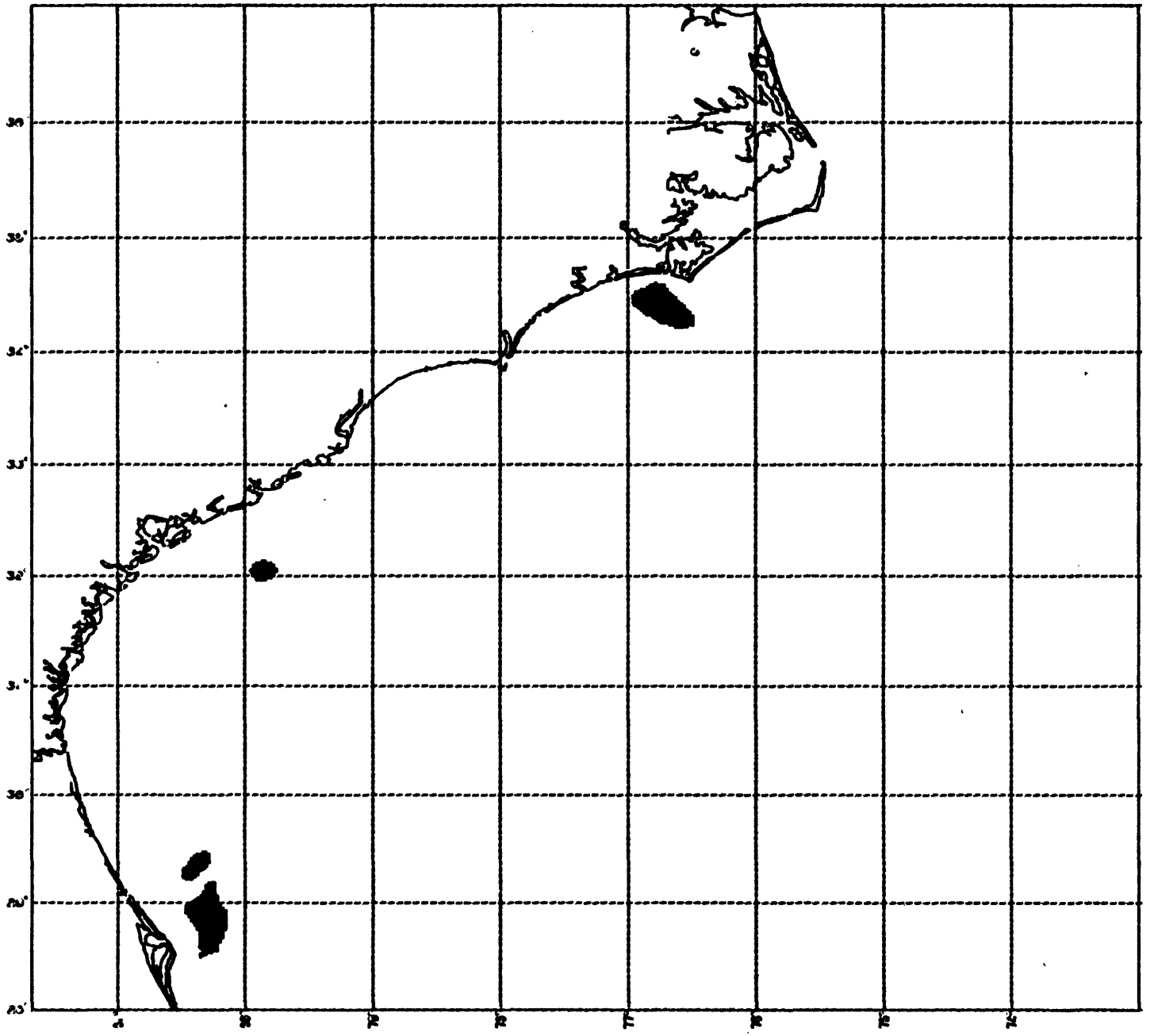

Figure A-24.--Map showing the location of Calico scallop, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

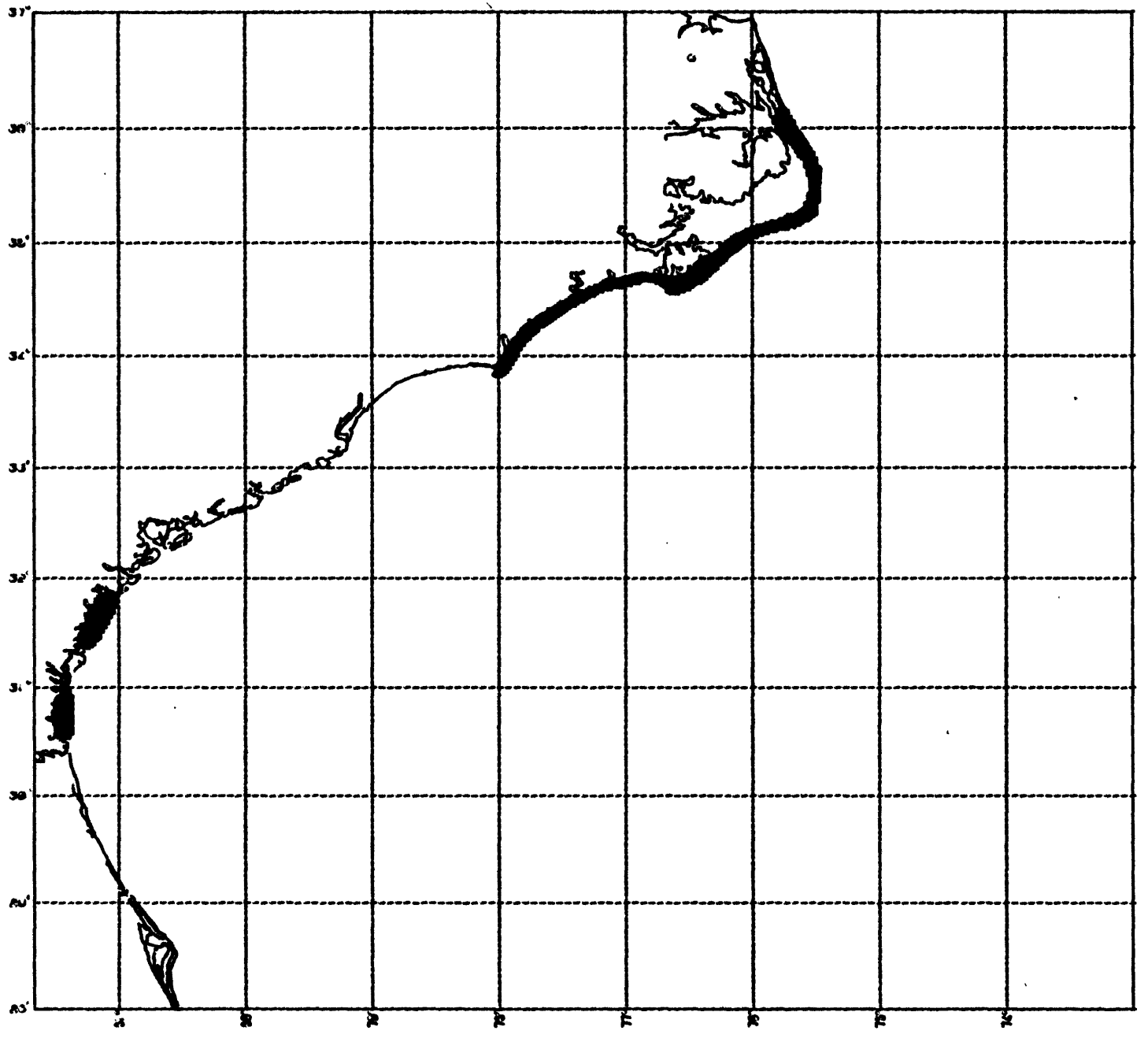

Figure A-25.--Map showing the location of Peregrine Falcon migratory stopover areas, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

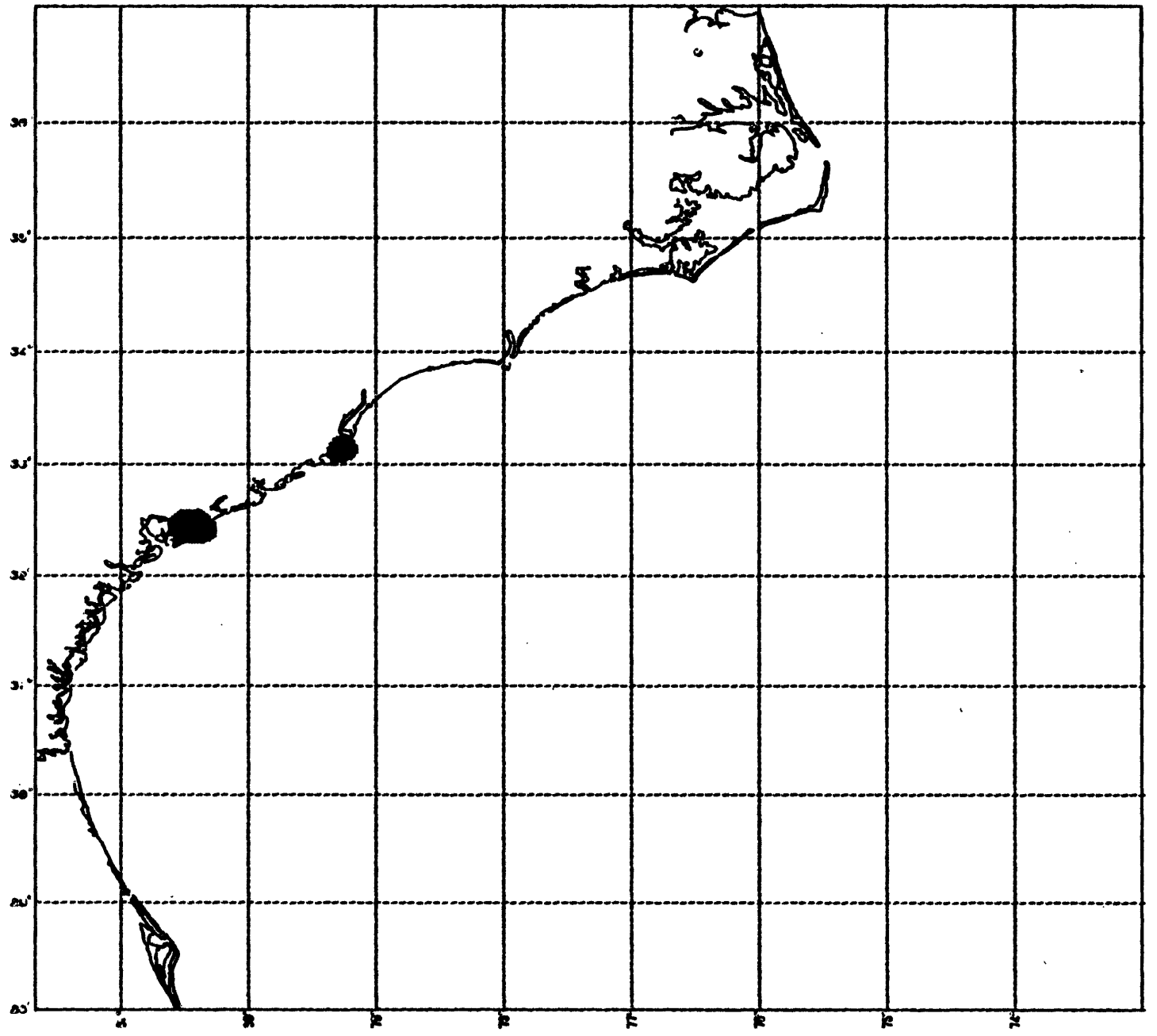

Figure A-26.--Map showing the location of Bald Eagle nesting sites, South Atlantic OCS Lease Sale 78: cross hatching indicates areal extent.

Appendix B

Table B-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 lease area, proposed sale 78 (northern leases, P10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	n	0.0	n	0.0	1	0.0	1	0.0	2	0.0	5	0.1	2	0.0	4	0.0	24	0.3
Brown Pelican	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	11	0.1
Marine Turtle	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	14	0.2
Onslow Bay Live Bot.	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0	n	0.0	1	0.0	9	0.1
Wildlife Conser.	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	12	0.1
Parks (May-Oct)	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	n	0.0	2	0.0	9	0.1
Parks (Nov-Apr)	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	6	0.1
Blkbrd, Sapelo, Wolf	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
Gray's Reef	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
Cape Romain Wild.	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
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	2	0.0
Tourist Beaches, NC	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0
Tourist Beaches, SC	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
Tourist Beaches, GA	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
Tourist Beaches, FL	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	0.1
Coastal Inlets, NC	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	n	0.0	1	0.0	2	0.0
Coastal Inlets, SC	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 Inlets, GA	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1
Coastal Inlets, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	6	0.1
Historic Sites	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	9	0.1
Prehistoric Sites	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
Coastal Waterbirds	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	8	0.1
Manatee Habitat	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
Salt Marsh, Wetlands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	10	0.1
Royal Red Shrimp	n	0.0	n	0.0	23	0.3	n	0.0	n	0.0	26	0.3	n	0.0	n	0.0	27	0.3
Calico Scallop	n	0.0	n	0.0	28	0.3	n	0.0	n	0.0	31	0.4	n	0.0	n	0.0	36	0.4
Pereg. Falc. Migr.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
Bald Eagle Nesting	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

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

Table B-2. -- 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 lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	n	0.0	n	0.0	18	0.2	n	0.0	1	0.0	40	0.5	1	0.0	6	0.1	76	1.4
Brown Pelican	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	18	0.2	1	0.0	3	0.0	39	0.5
Marine Turtle	n	0.0	n	0.0	8	0.1	n	0.0	n	0.0	20	0.2	1	0.0	3	0.0	53	0.8
Onslow Bay Live Bot.	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	12	0.1	1	0.0	5	0.0	20	0.2
Wildlife Conser.	n	0.0	n	0.0	16	0.2	n	0.0	n	0.0	27	0.3	1	0.0	3	0.0	52	0.7
Parks (May-Oct)	n	0.0	n	0.0	8	0.1	n	0.0	n	0.0	17	0.2	n	0.0	2	0.0	38	0.5
Parks (Nov-Apr)	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	14	0.1	n	0.0	1	0.0	30	0.4
Blkbrd, Sapelo, Wolf	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	0.1
Gray's Reef	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	12	0.1
Cape Romain Wild.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0
Tourist Beaches, NC	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	8	0.1
Tourist Beaches, SC	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	6	0.1
Tourist Beaches, GA	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	12	0.1
Tourist Beaches, FL	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	14	0.1	n	0.0	1	0.0	35	0.4
Coastal Inlets, NC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	10	0.1
Coastal Inlets, SC	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	7	0.1	n	0.0	1	0.0	14	0.1
Coastal Inlets, GA	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	12	0.1	n	0.0	2	0.0	26	0.3
Coastal Inlets, FL	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	12	0.1	n	0.0	1	0.0	31	0.4
Historic Sites	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	19	0.2	1	0.0	2	0.0	38	0.5
Prehistoric Sites	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	10	0.1
Coastal Waterbirds	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	17	0.2	1	0.0	3	0.0	34	0.4
Manatee Habitat	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
Salt Marsh, Wetlands	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	21	0.2	1	0.0	4	0.0	41	0.5
Royal Red Shrimp	n	0.0	2	0.0	67	1.1	n	0.0	2	0.0	72	1.3	1	0.0	3	0.0	72	1.3
Calico Scallop	n	0.0	2	0.0	76	1.4	n	0.0	2	0.0	80	1.6	1	0.0	5	0.1	84	1.8
Pereg. Falc. Migr.	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	0.1	n	0.0	1	0.0	11	0.1
Bald Eagle Nesting	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.

Table B-3. -- 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 lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	1	0.0	n	0.0	1	0.0	2	0.0	2	0.0	5	0.1	3	0.0	4	0.0	24	0.3
Brown Pelican	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	11	0.1
Marine Turtle	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	1	0.0	14	0.2
Onslow Bay Live Bot.	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0	n	0.0	2	0.0	9	0.1
Wildlife Conser.	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0	1	0.0	1	0.0	12	0.1
Parks (May-Oct)	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	1	0.0	2	0.0	9	0.1
Parks (Nov-Apr)	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	6	0.1
Blkbrd, Sapelo, Wolf	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
Gray's Reef	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
Cape Romain Wild.	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
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	2	0.0	2	0.0
Tourist Beaches, NC	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	2	0.0
Tourist Beaches, SC	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
Tourist Beaches, GA	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
Tourist Beaches, FL	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	0.1
Coastal Inlets, NC	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	2	0.0	2	0.0
Coastal Inlets, SC	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 Inlets, GA	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1
Coastal Inlets, FL	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	6	0.1
Historic Sites	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0	2	0.0	1	0.0	3	0.0	9	0.1
Prehistoric Sites	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
Coastal Waterbirds	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	2	0.0	1	0.0	1	0.0	8	0.1
Manatee Habitat	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
Salt Marsh, Wetlands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	10	0.1
Royal Red Shrimp	n	0.0	n	0.0	23	0.3	n	0.0	n	0.0	26	0.3	n	0.0	n	0.0	27	0.3
Calico Scallop	n	0.0	n	0.0	28	0.3	n	0.0	n	0.0	31	0.4	n	0.0	1	0.0	36	0.4
Pereg. Falc. Migr.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0
Bald Eagle Nesting	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

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

Table B-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 lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 10,000 barrels and greater.

Target	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	n	0.0	n	0.0	18	0.2	1	0.0	1	0.0	40	0.5	4	0.0	7	0.1	76	1.4
Brown Pelican	n	0.0	n	0.0	6	0.1	1	0.0	1	0.0	18	0.2	2	0.0	5	0.1	39	0.5
Marine Turtle	n	0.0	n	0.0	8	0.1	n	0.0	1	0.0	20	0.2	2	0.0	5	0.0	53	0.8
Onslow Bay Live Bot.	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	12	0.1	2	0.0	5	0.1	20	0.2
Wildlife Conser.	n	0.0	n	0.0	16	0.2	n	0.0	1	0.0	27	0.3	2	0.0	4	0.0	52	0.7
Parks (May-Oct)	n	0.0	n	0.0	8	0.1	n	0.0	1	0.0	17	0.2	1	0.0	3	0.0	38	0.5
Parks (Nov-Apr)	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	14	0.1	1	0.0	2	0.0	30	0.4
Blkbrd, Sapelo, Wolf	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	5	0.1
Gray's Reef	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	6	0.1	1	0.0	2	0.0	12	0.1
Cape Romain Wild.	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
Monitor	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	1	0.0	3	0.0
Tourist Beaches, NC	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	8	0.1
Tourist Beaches, SC	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	6	0.1
Tourist Beaches, GA	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0	1	0.0	2	0.0	12	0.1
Tourist Beaches, FL	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	14	0.1	n	0.0	1	0.0	35	0.4
Coastal Inlets, NC	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	10	0.1
Coastal Inlets, SC	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	7	0.1	1	0.0	2	0.0	14	0.1
Coastal Inlets, GA	n	0.0	n	0.0	6	0.1	n	0.0	1	0.0	12	0.1	2	0.0	3	0.0	26	0.3
Coastal Inlets, FL	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	12	0.1	n	0.0	1	0.0	31	0.4
Historic Sites	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	19	0.2	1	0.0	3	0.0	38	0.5
Prehistoric Sites	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	10	0.1
Coastal Waterbirds	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	17	0.2	2	0.0	4	0.0	34	0.4
Manatee Habitat	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
Salt Marsh, Wetlands	n	0.0	n	0.0	10	0.1	n	0.0	1	0.0	21	0.2	3	0.0	5	0.1	41	0.5
Royal Red Shrimp	n	0.0	2	0.0	67	1.1	n	0.0	2	0.0	72	1.3	1	0.0	3	0.0	72	1.3
Calico Scallop	1	0.0	2	0.0	76	1.4	1	0.0	3	0.0	80	1.6	3	0.0	7	0.1	84	1.8
Pereg. Falc. Migr.	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	5	0.1	1	0.0	1	0.0	11	0.1
Bald Eagle Nesting	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.

Table B-5. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 (northern leases, P10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	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	n	0.0	n	0.0	1	0.0
2	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	2	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
12	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
15	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
16	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
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	2	0.0
18	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
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	2	0.0
20	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	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	4	0.0
22	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
23	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
26	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	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 B-6. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	5	0.0
2	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	11	0.1
3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	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
6	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
7	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
8	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
9	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
12	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
13	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0
14	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
15	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
16	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	8	0.1
17	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	8	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	7	0.1
19	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	5	0.1	n	0.0	1	0.0	11	0.1
20	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	23	0.3
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	18	0.2
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	14	0.1
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
26	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	7	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 B-7. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	Prob	Mean	Prob	Mean	Prob	Mean	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	n	0.0	n	0.0	1	0.0
2	n	0.0	n	0.0	n	0.0	1	0.0	1	0.0	1	0.0	1	0.0	1	0.0	2	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
12	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
15	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
16	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
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	2	0.0
18	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
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	2	0.0
20	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	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	4	0.0
22	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
23	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
26	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

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-8. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 1) over the expected production life of the lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
1	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	5	0.0
2	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	7	0.1	n	0.0	n	0.0	11	0.1
3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	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
6	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
7	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
8	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
9	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0
12	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
13	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0
14	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
15	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
16	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	8	0.1
17	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0	1	0.0	1	0.0	8	0.1
18	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	1	0.0	1	0.0	7	0.1
19	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	5	0.1	n	0.0	1	0.0	11	0.1
20	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	10	0.1	n	0.0	n	0.0	23	0.3
21	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	18	0.2
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	14	0.1
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	4	0.0
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
26	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	7	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 B-9. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 (northern leases, P10-P17, mean resource estimate) vs. proposed sale 78 (northern leases, P10-P17, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only		proposed north mean		proposed north high		crude oil only	
	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	1	0.0	2	0.0	2	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
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
13	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
15	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
16	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
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	1	0.0
18	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
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
20	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
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	2	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1
23	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
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	3	0.0
27	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	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 B-10. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 (southern leases, P1-P9, mean resource estimate) vs. proposed sale 78 (southern leases, P1-P9, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined		proposed south mean		proposed south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	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	1	0.0	n	0.0	n	0.0	2	0.0
2	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	16	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	0.0	2	0.0
7	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
8	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
10	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
11	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	5	0.1
13	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
15	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	7	0.1
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
18	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	0.0
19	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.0
20	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
21	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	14	0.2
22	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	28	0.3
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	9	0.1
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	11	0.1
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
27	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	7	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 B-11. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, mean resource estimate) vs. proposed sale 78 and existing tracts (northern leases, P10-P17, E1-E5, high resource estimate) vs. crude oil imports. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only		cumul. north mean		cumul. north high		crude oil only	
	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	1	0.0	2	0.0	2	0.0
4	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
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
13	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
15	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
16	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
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	1	0.0
18	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
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
20	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
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	2	0.0
22	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	6	0.1
23	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
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	3	0.0
27	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

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-12. -- Probabilities (expressed as percent chance) of one ormore spills, and the expected number of spills (mean) occurring and contacting land segments (set 2) over the expected production life of the lease area, proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, mean resource estimate) vs. proposed sale 78 and existing tracts (southern leases, P1-P9, E6-E33, high resource estimate) vs. crude oil and refined products. Probabilities are for spills 10,000 barrels and greater.

Land Segment	Within 3 days						Within 10 days						Within 30 days					
	cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined		cumul. south mean		cumul. south high		crude and refined	
	Prob	Mean	Prob	Mean	Prob	Mean	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	1	0.0	n	0.0	n	0.0	2	0.0
2	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	9	0.1	n	0.0	1	0.0	16	0.2
4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	2	0.0
7	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
8	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
10	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
11	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	3	0.0	n	0.0	1	0.0	5	0.1
13	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
15	n	0.0	n	0.0	3	0.0	n	0.0	n	0.0	4	0.0	n	0.0	1	0.0	7	0.1
16	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	3	0.0
17	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	1	0.0	4	0.0
18	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	0.0
19	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	0.0
20	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	4	0.0
21	n	0.0	n	0.0	5	0.1	n	0.0	n	0.0	9	0.1	n	0.0	n	0.0	14	0.2
22	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	5	0.1	n	0.0	1	0.0	28	0.3
23	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	9	0.1
24	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	2	0.0	n	0.0	n	0.0	11	0.1
25	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	1	0.0	n	0.0	n	0.0	1	0.0
27	n	0.0	n	0.0	4	0.0	n	0.0	n	0.0	6	0.1	n	0.0	n	0.0	7	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.

Appendix C

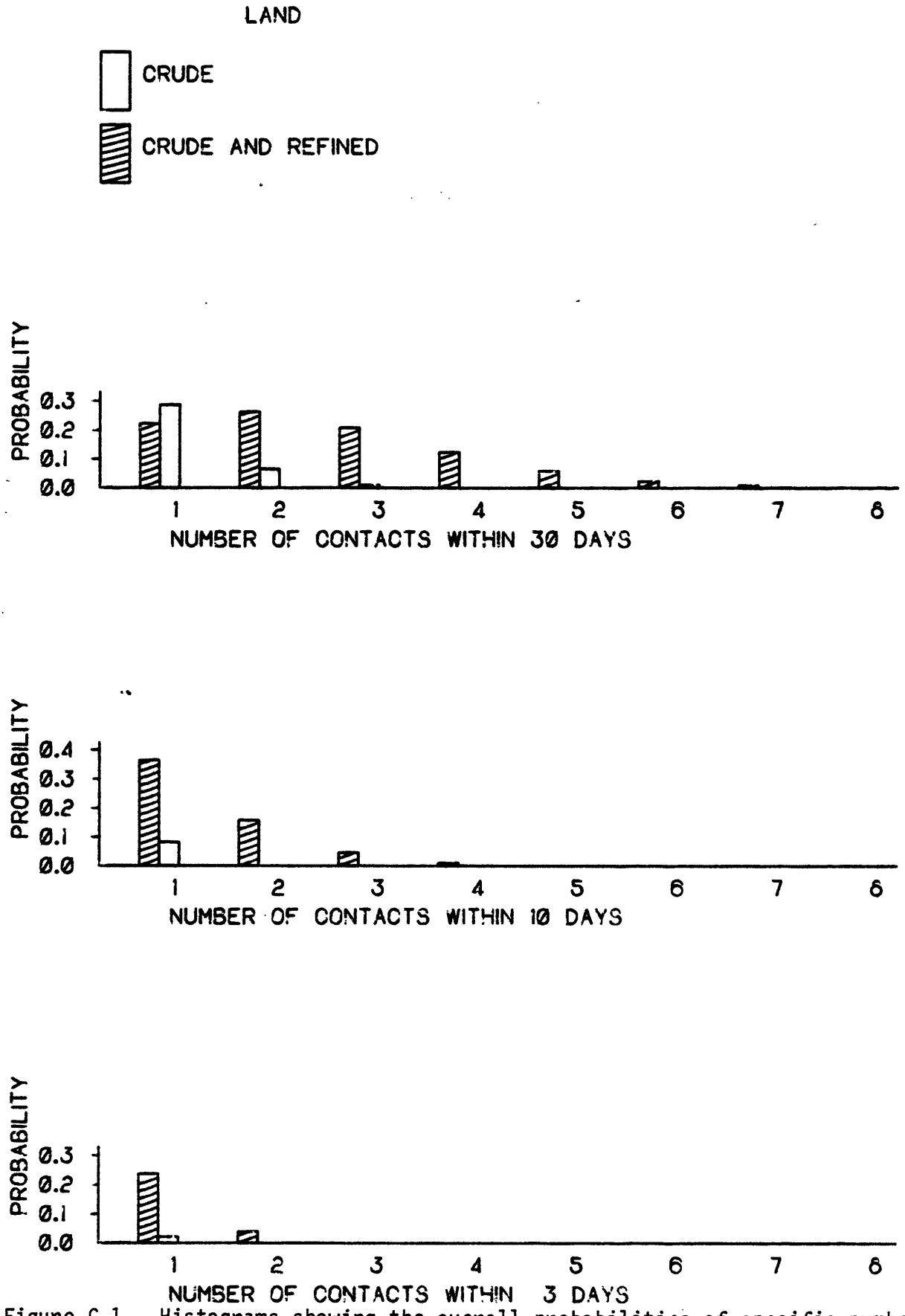

Figure C-1.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting land as a result of crude oil imports and refined products.

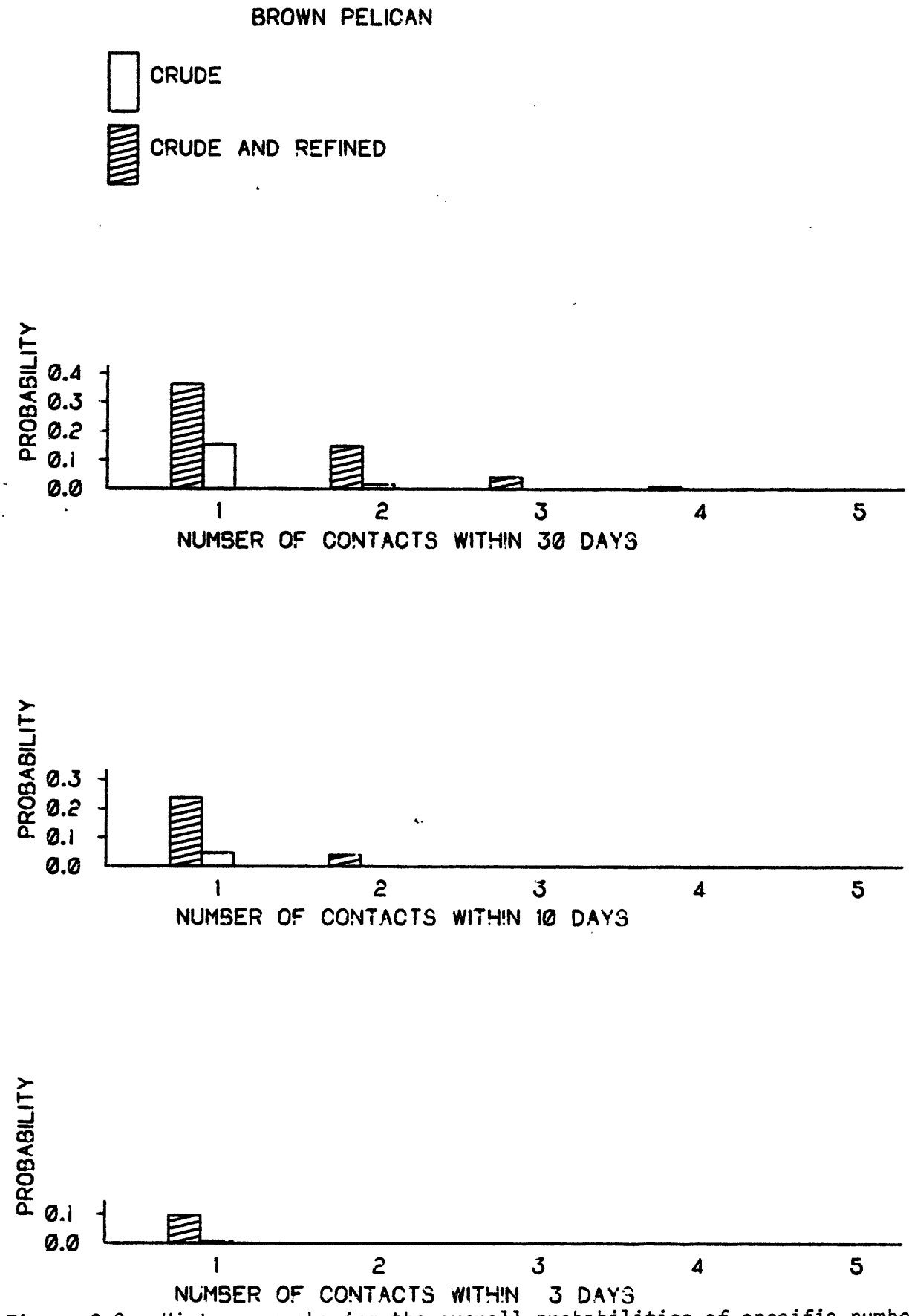

Figure C-2.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Brown Pelican rookeries as a result of crude oil imports and refined products.

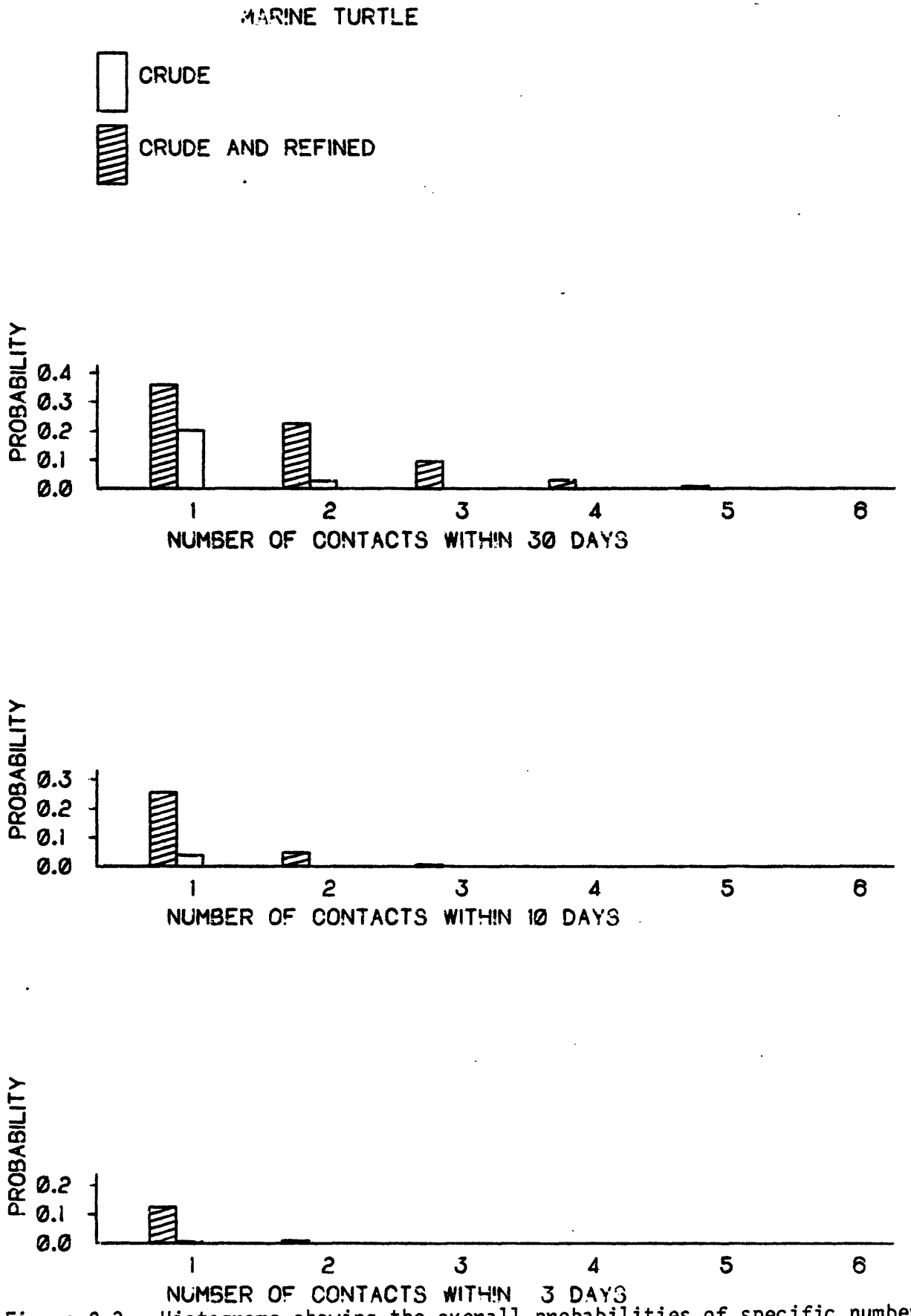

Figure C-3.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting marine turtle nesting habitat as a result of crude oil imports and refined products.

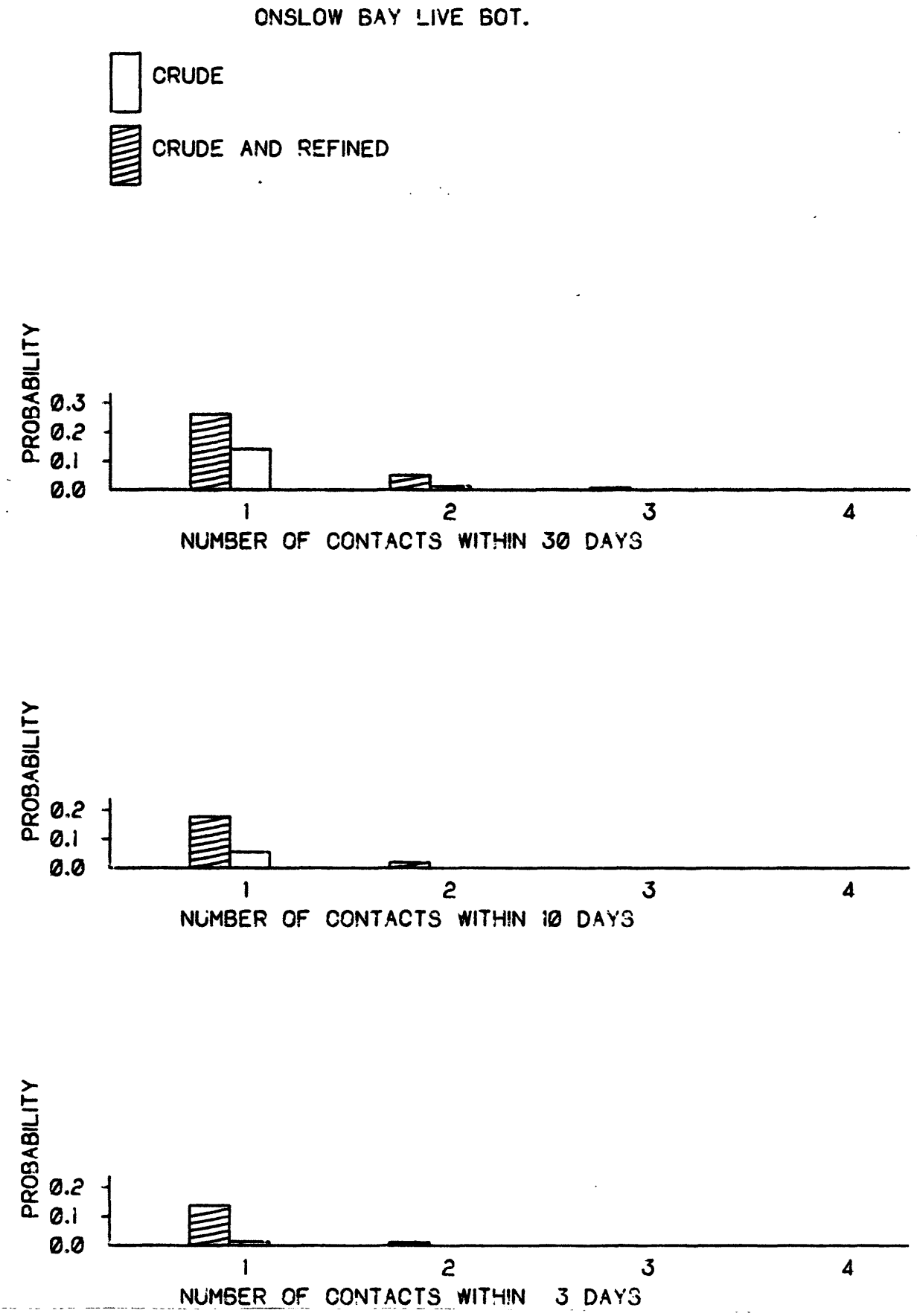

Figure C-4.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Onslow Bay Live bottom area as a result of crude oil imports and refined products.

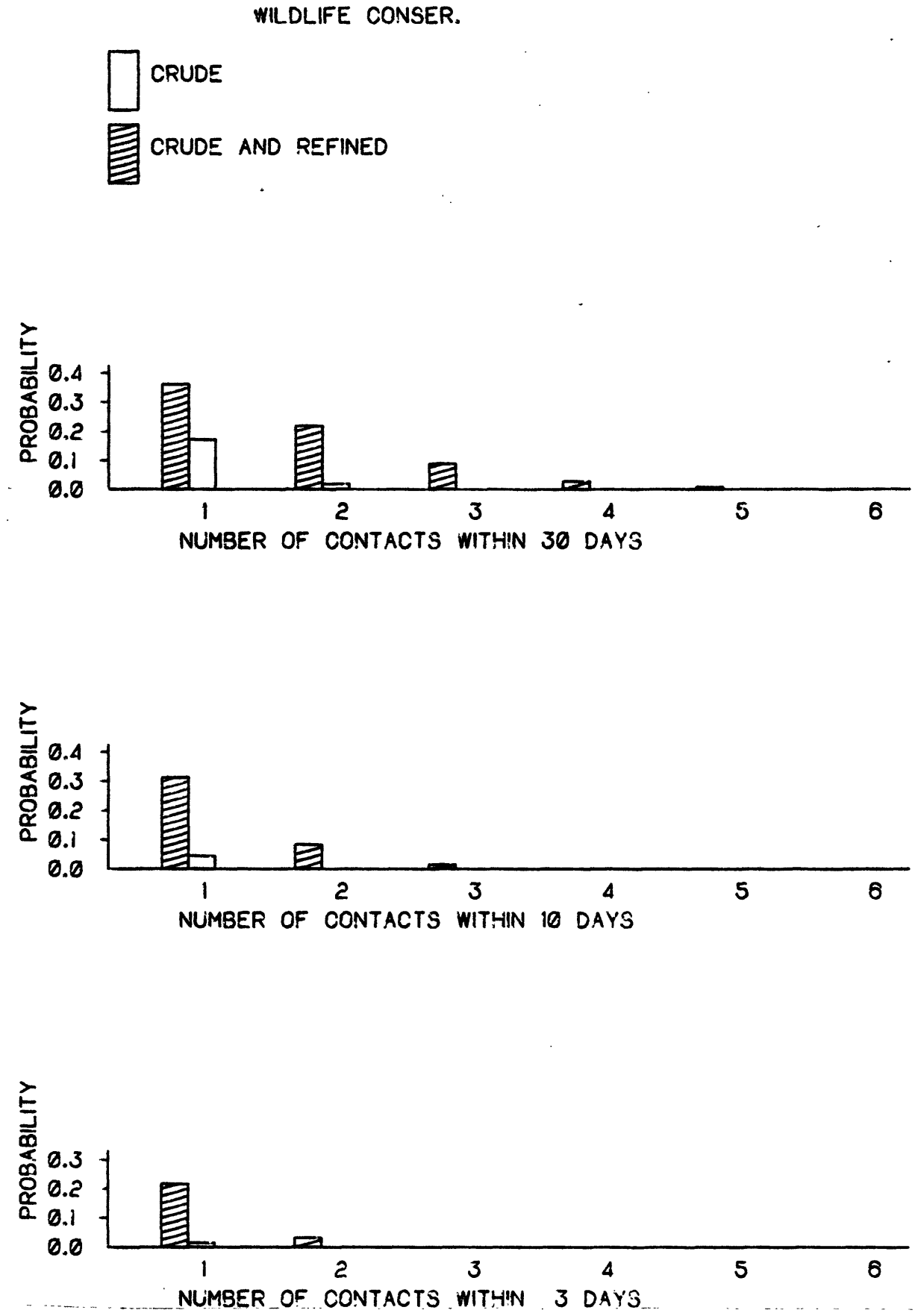

Figure C-5.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Federal and State wildlife conservation areas as a result of crude oil imports and refined products.

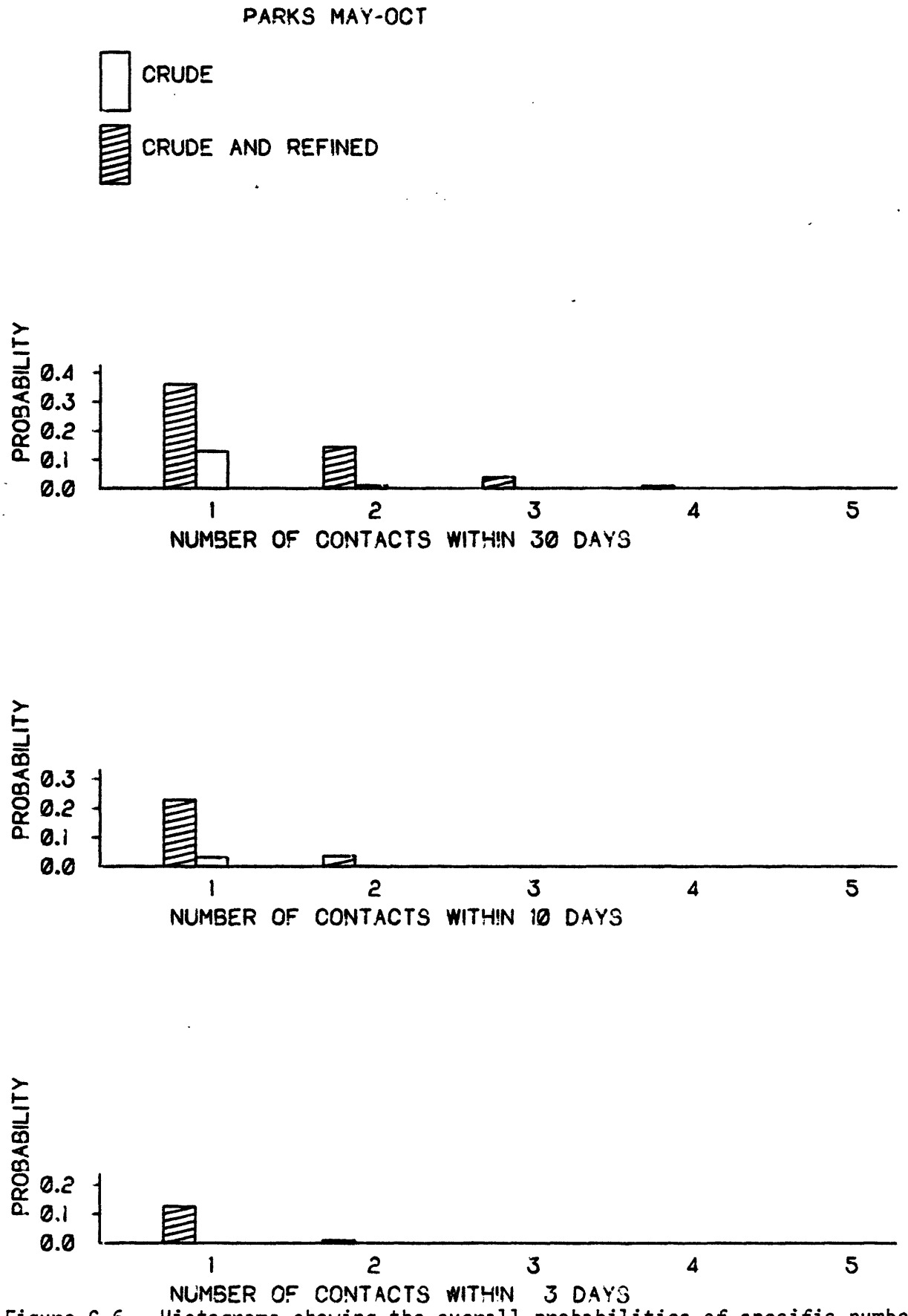

Figure C-6.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Federal and State parks from May through October as a result of crude oil imports and refined products.

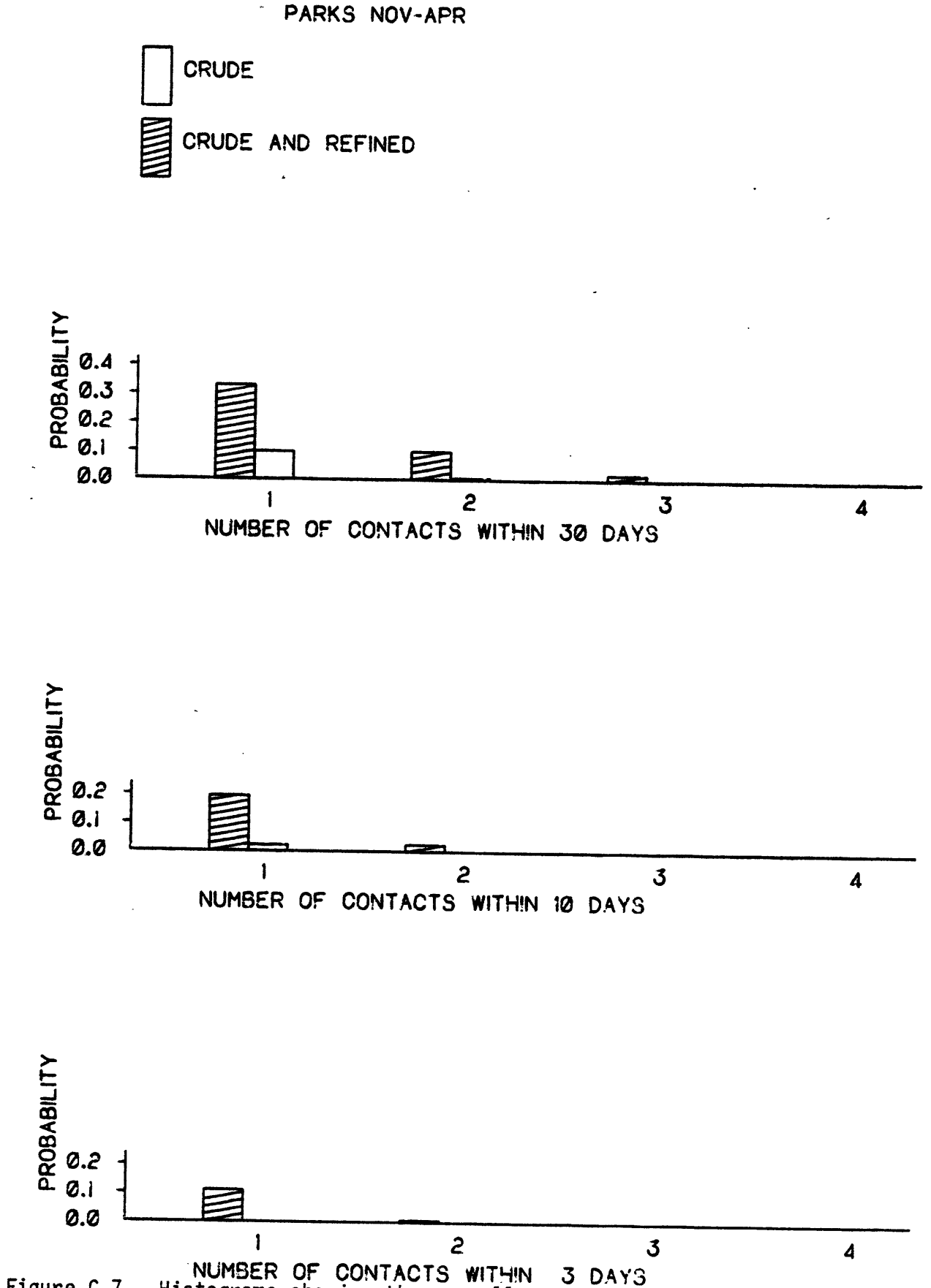

Figure C-7.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Federal and State parks from November through April as a result of crude oil imports and refined products.

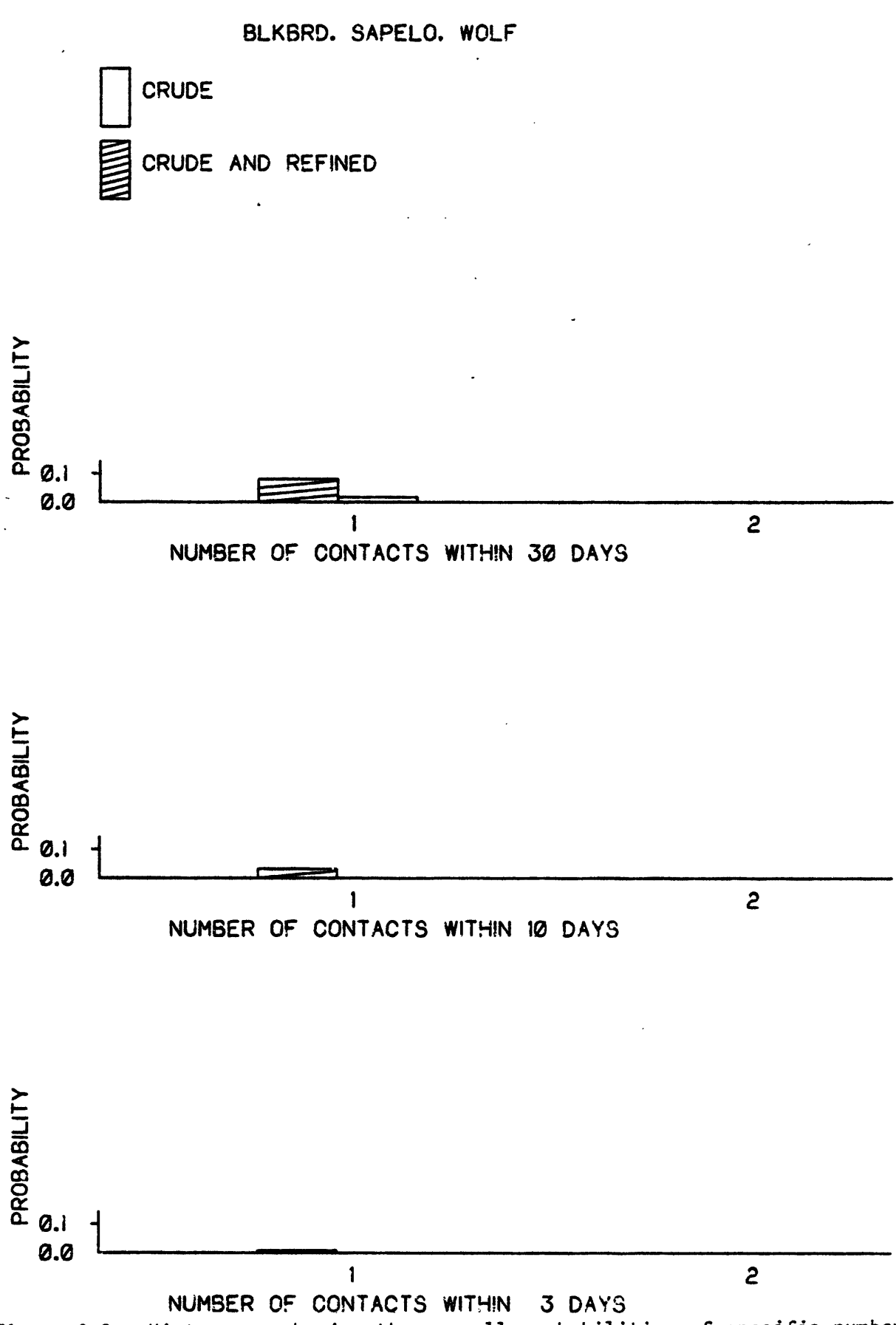

Figure C-8.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Blackbeard, Sapelo and Wolf Islands as a result of crude oil imports and refined products.

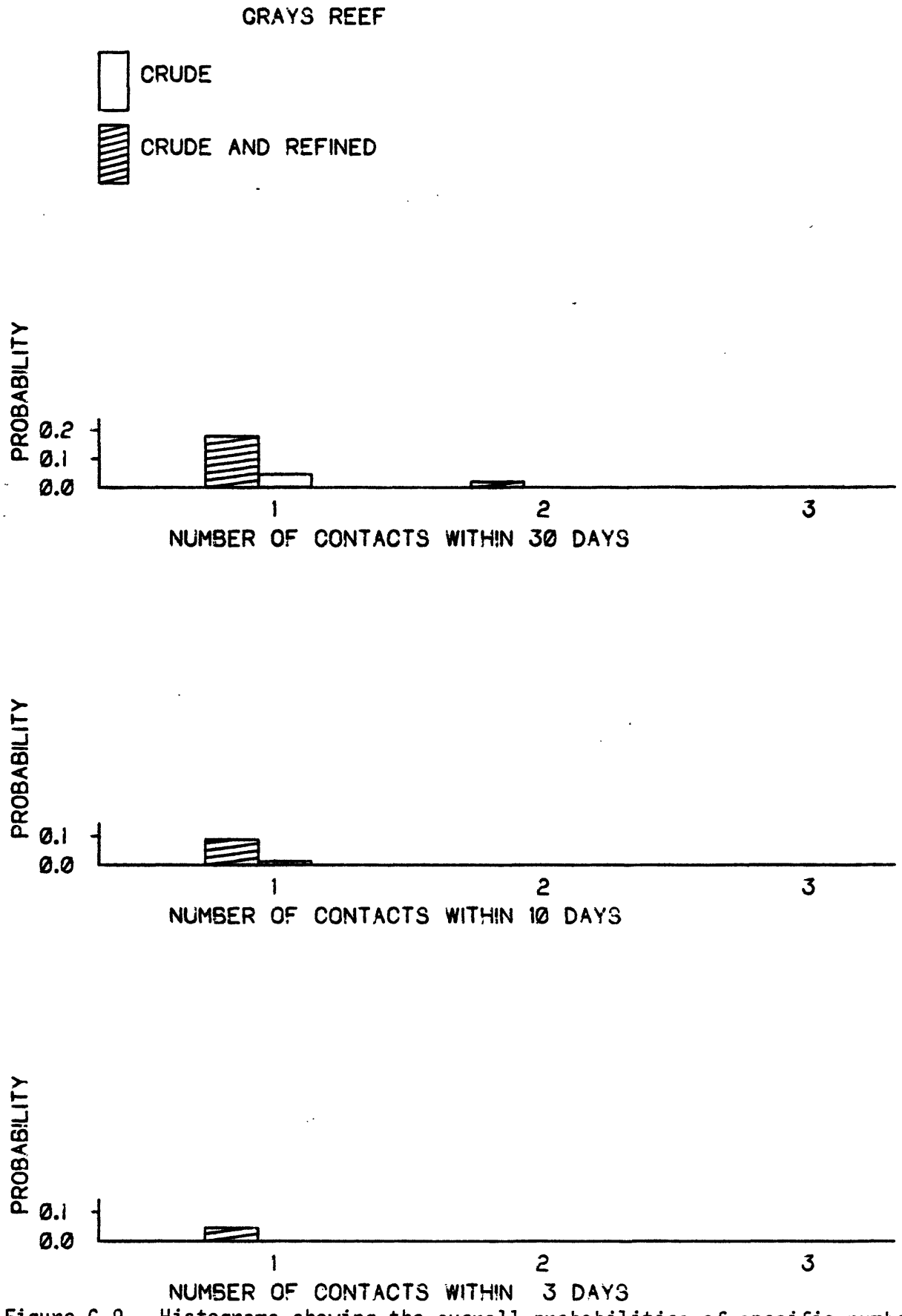

Figure C-9.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 and greater) occurring and contacting Grays Reef as a result of crude oil imports and refined products.

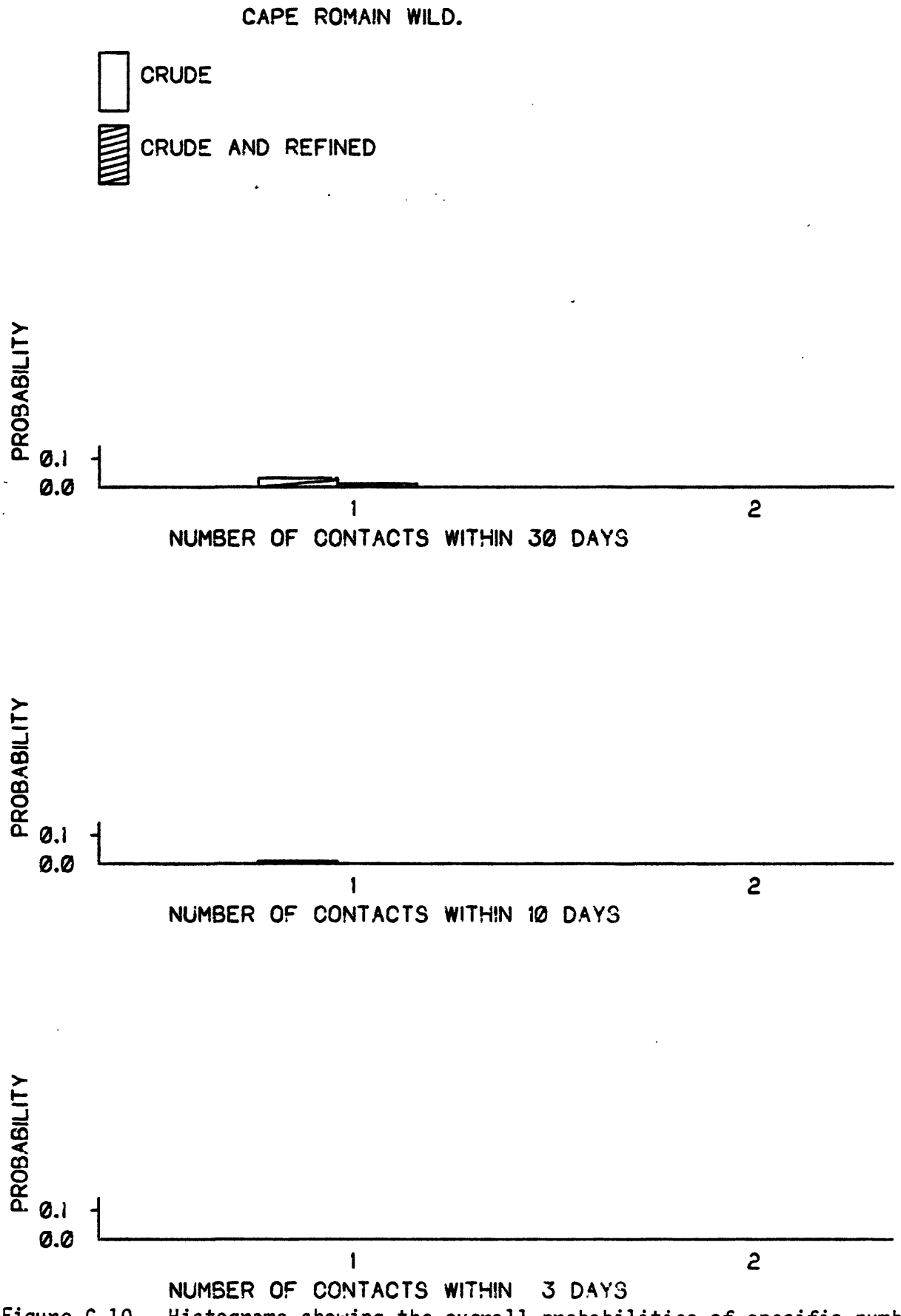

Figure C-10.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Cape RomaiM National Wilderness area as a result of crude oil imports and refined products.

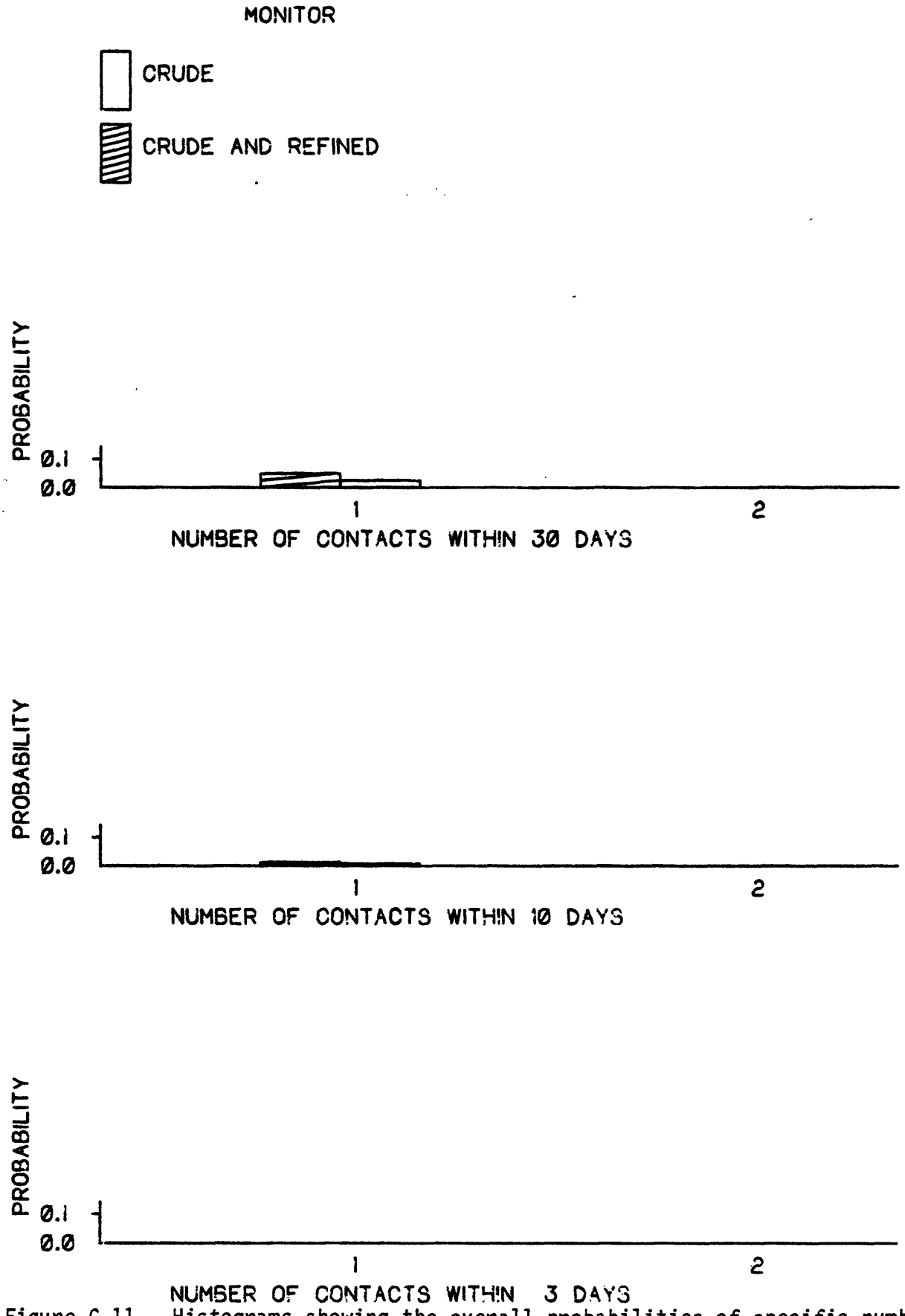

Figure C-11.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Monitor Marine Sanctuary as a result of crude oil imports and refined products.

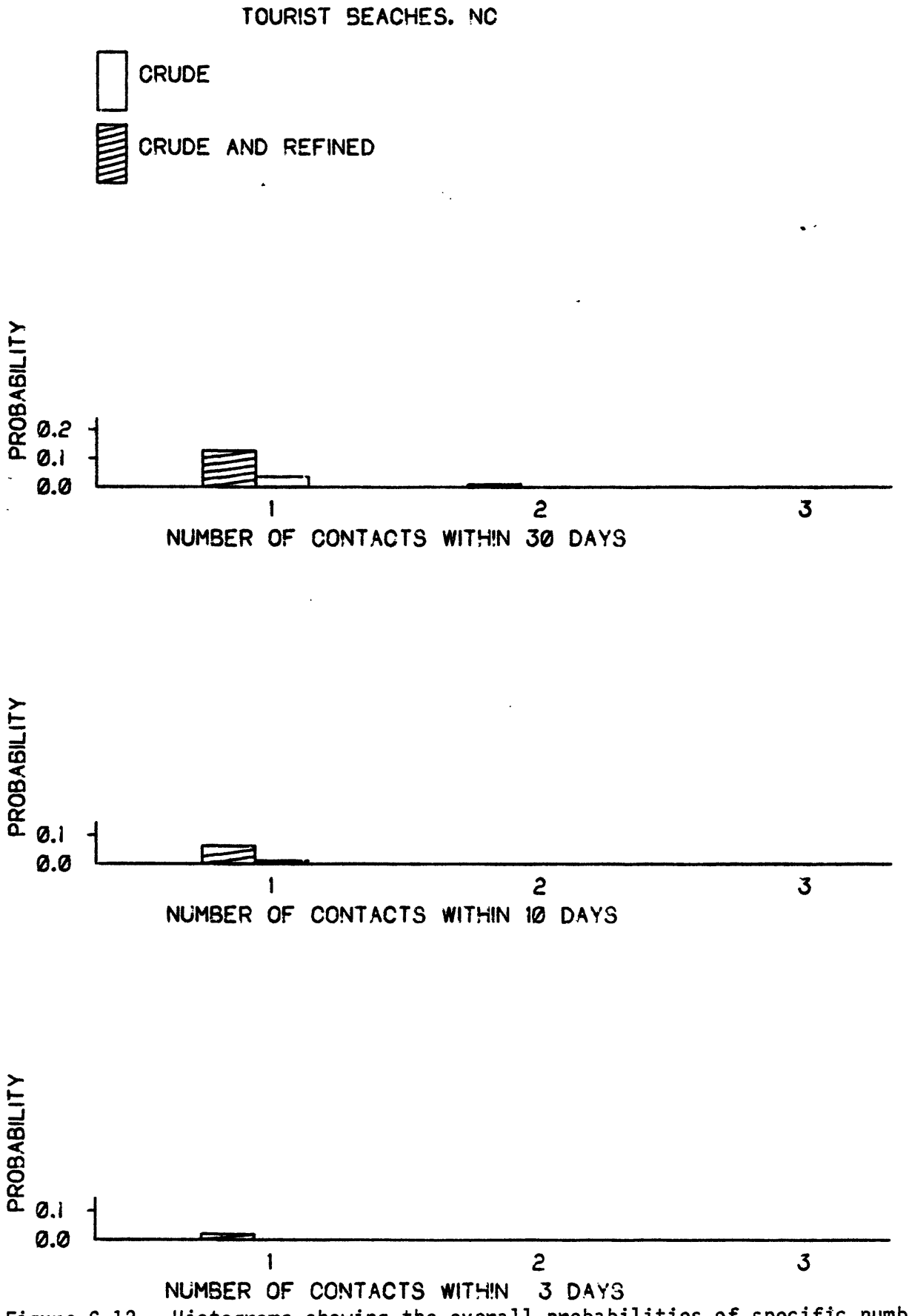

Figure C-12.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting tourist beaches - North Carolina as a result of crude oil imports and refined products.

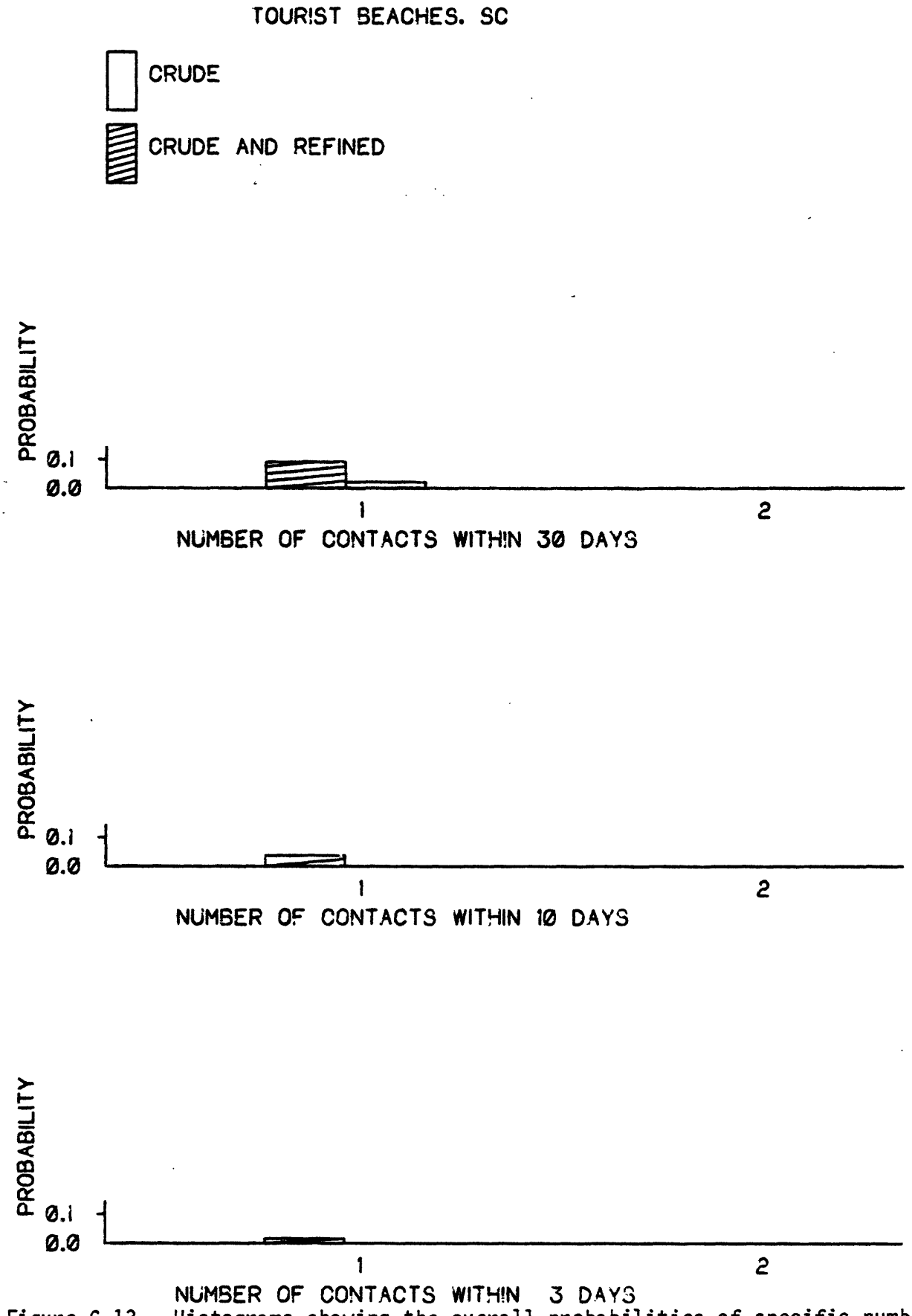

Figure C-13.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting tourist beaches - South Carolina as a result of crude oil imports and refined products.

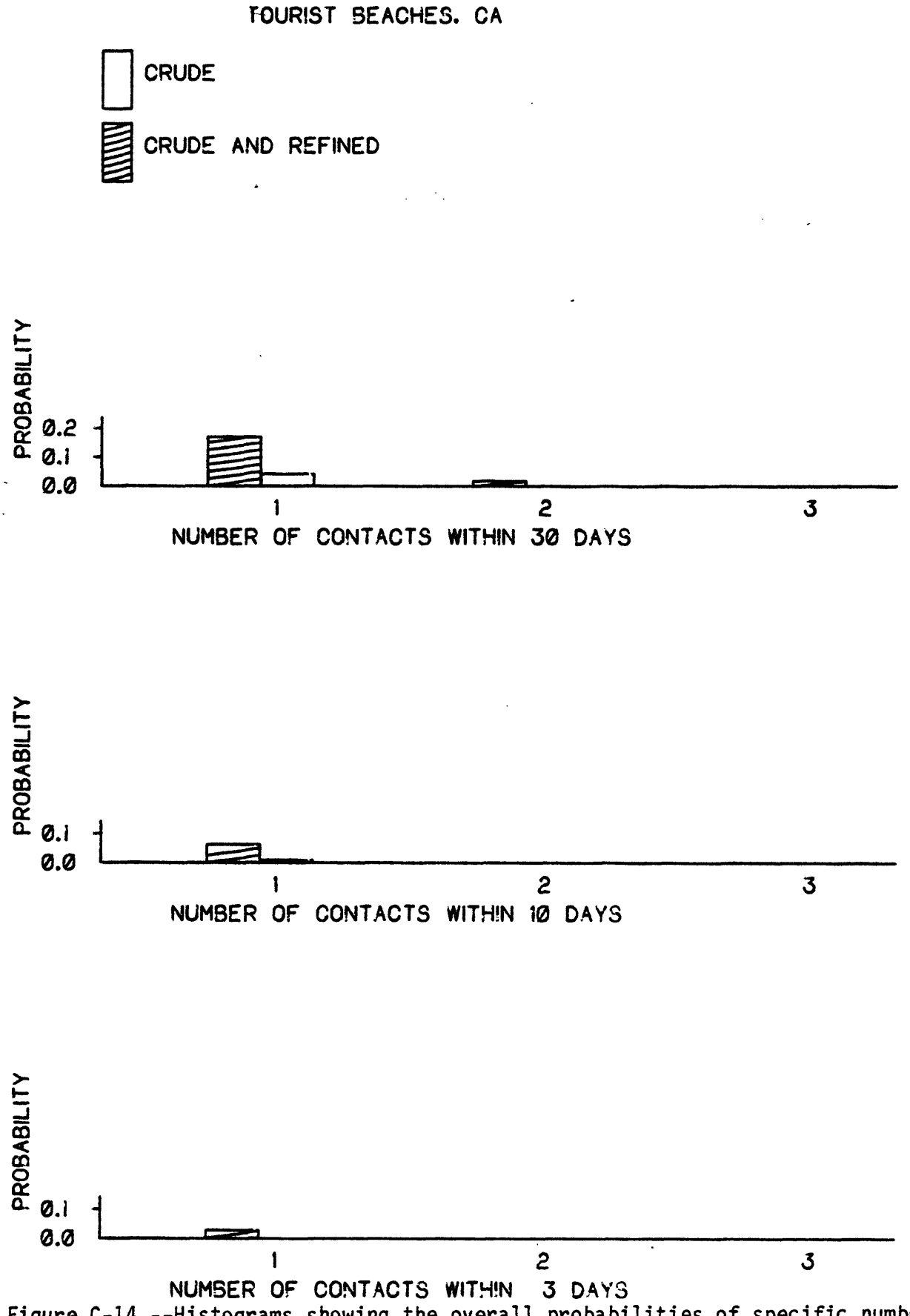

Figure C-14.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting tourist beaches - Georgia as a result of crude oil imports and refined products.

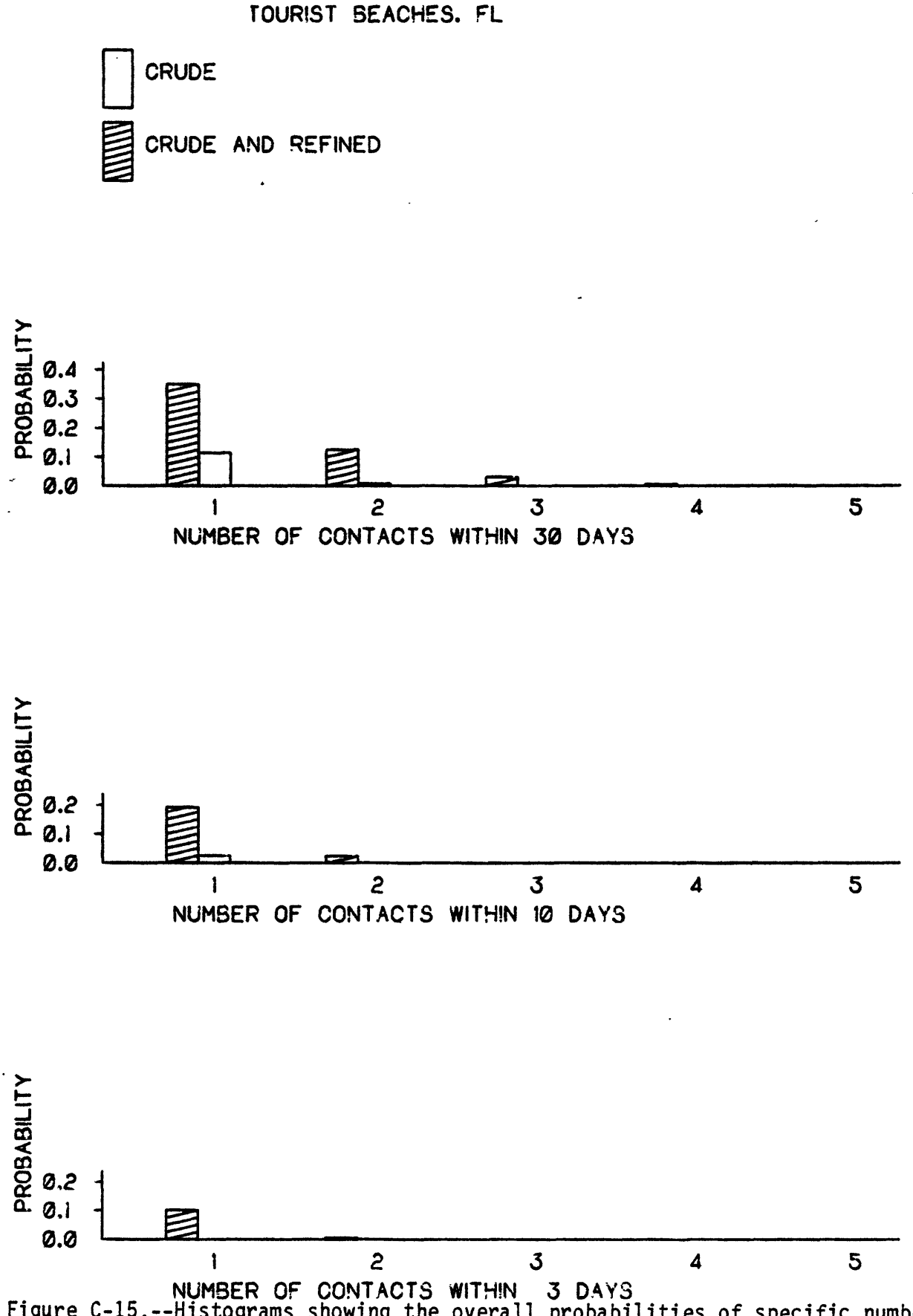

Figure C-15.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting tourist beaches - Florida as a result of crude oil imports and refined products.

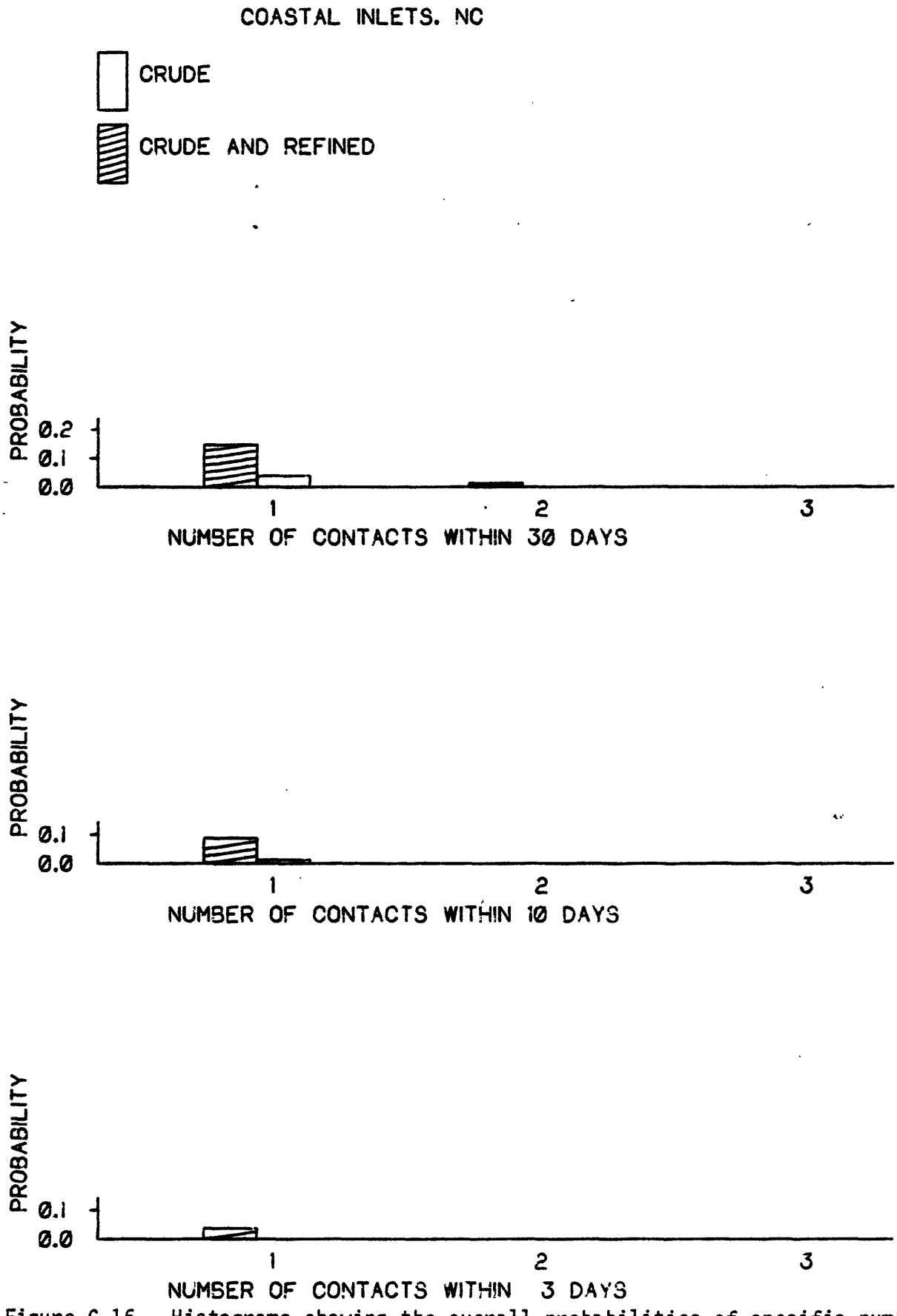

Figure C-16.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal inlets - North Carolina as a result of crude oil imports and refined products.

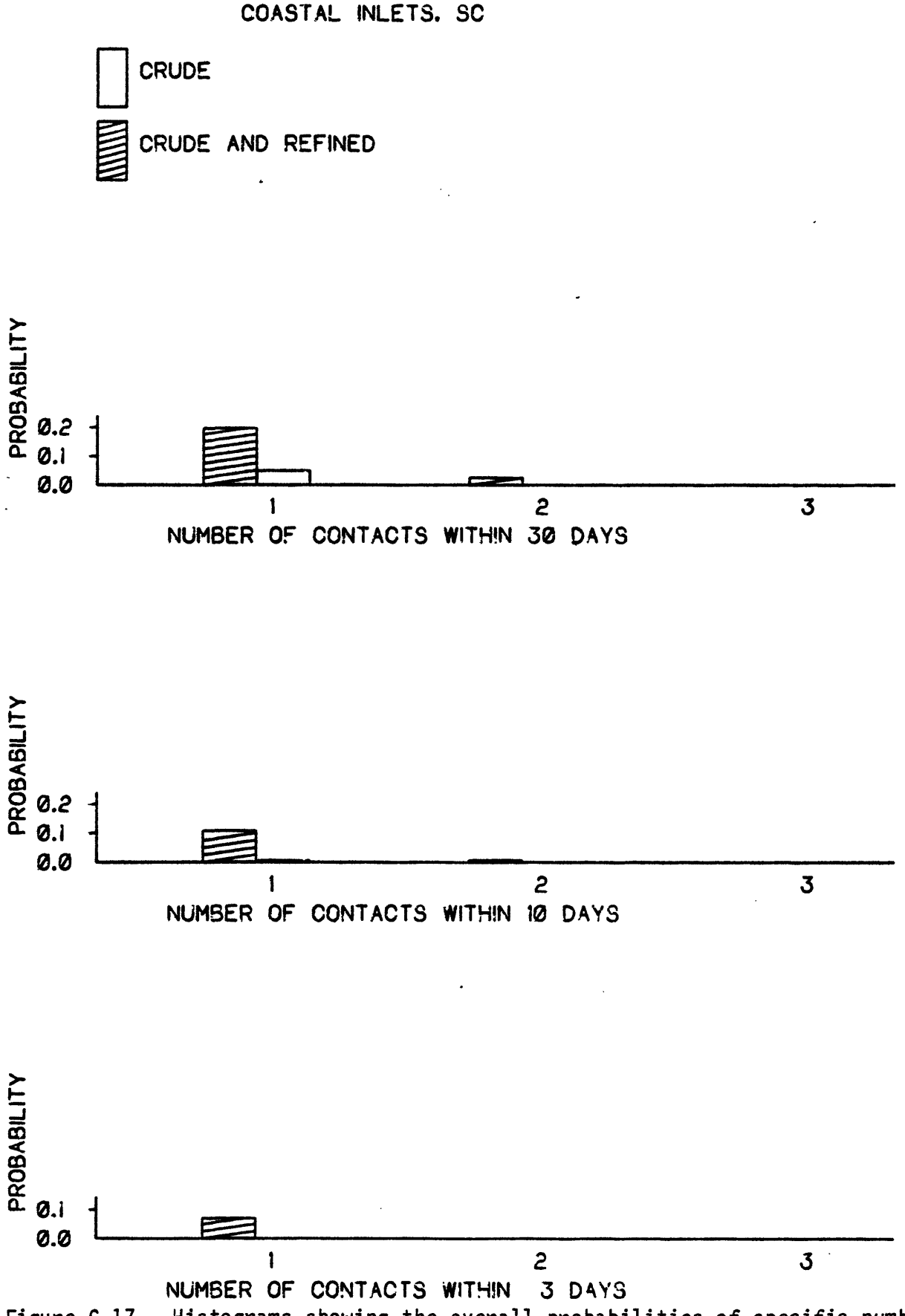

Figure C-17.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal inlets - South Carolina as a result of crude oil imports and refined products.

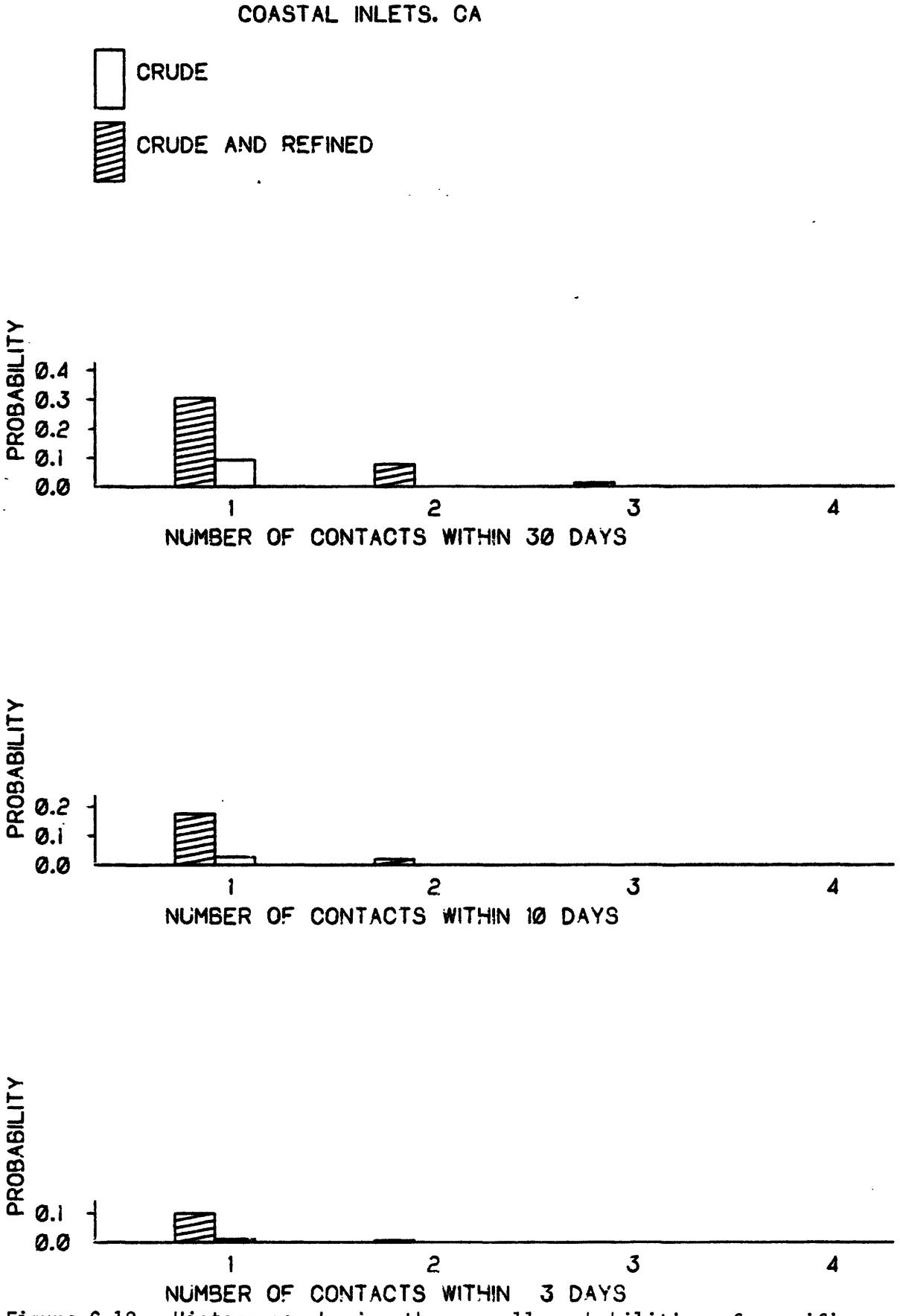

Figure C-18.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal inlets - Georgia as a result of crude oil imports and refined products.

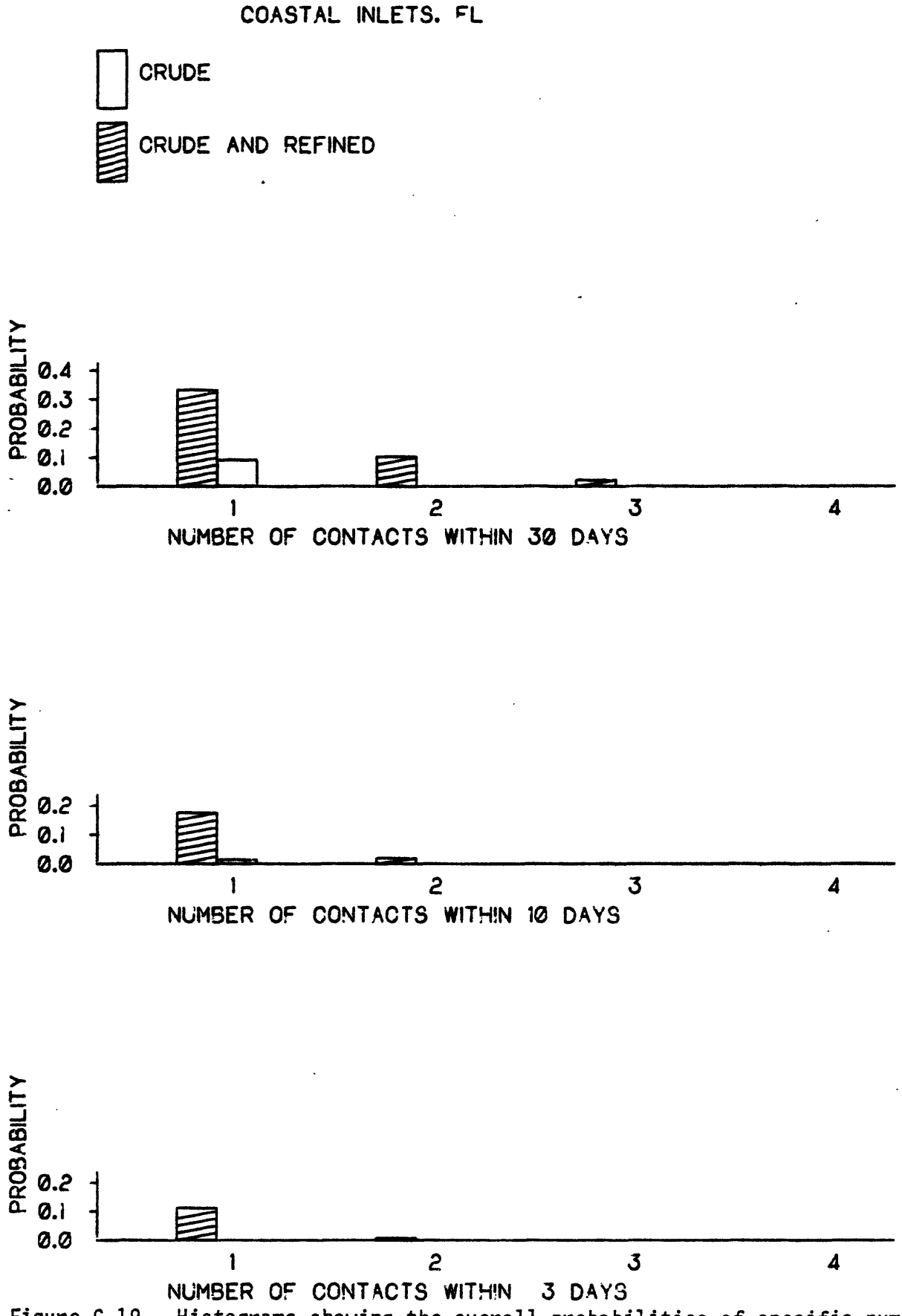

Figure C-19.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal inlets - Florida as a result of crude oil imports and refined products.

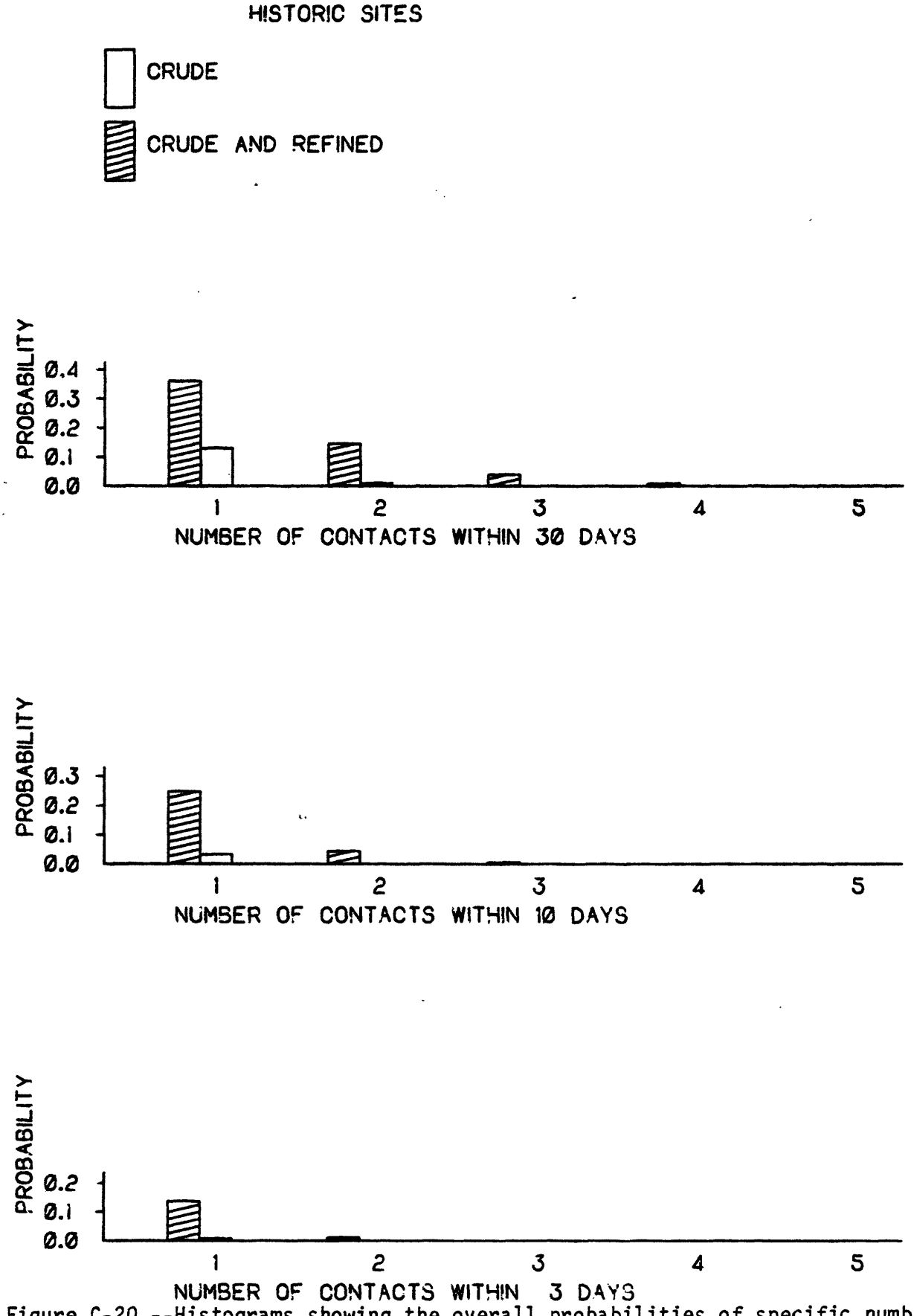

Figure C-20.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting historic sites as a result of crude oil imports and refined products.

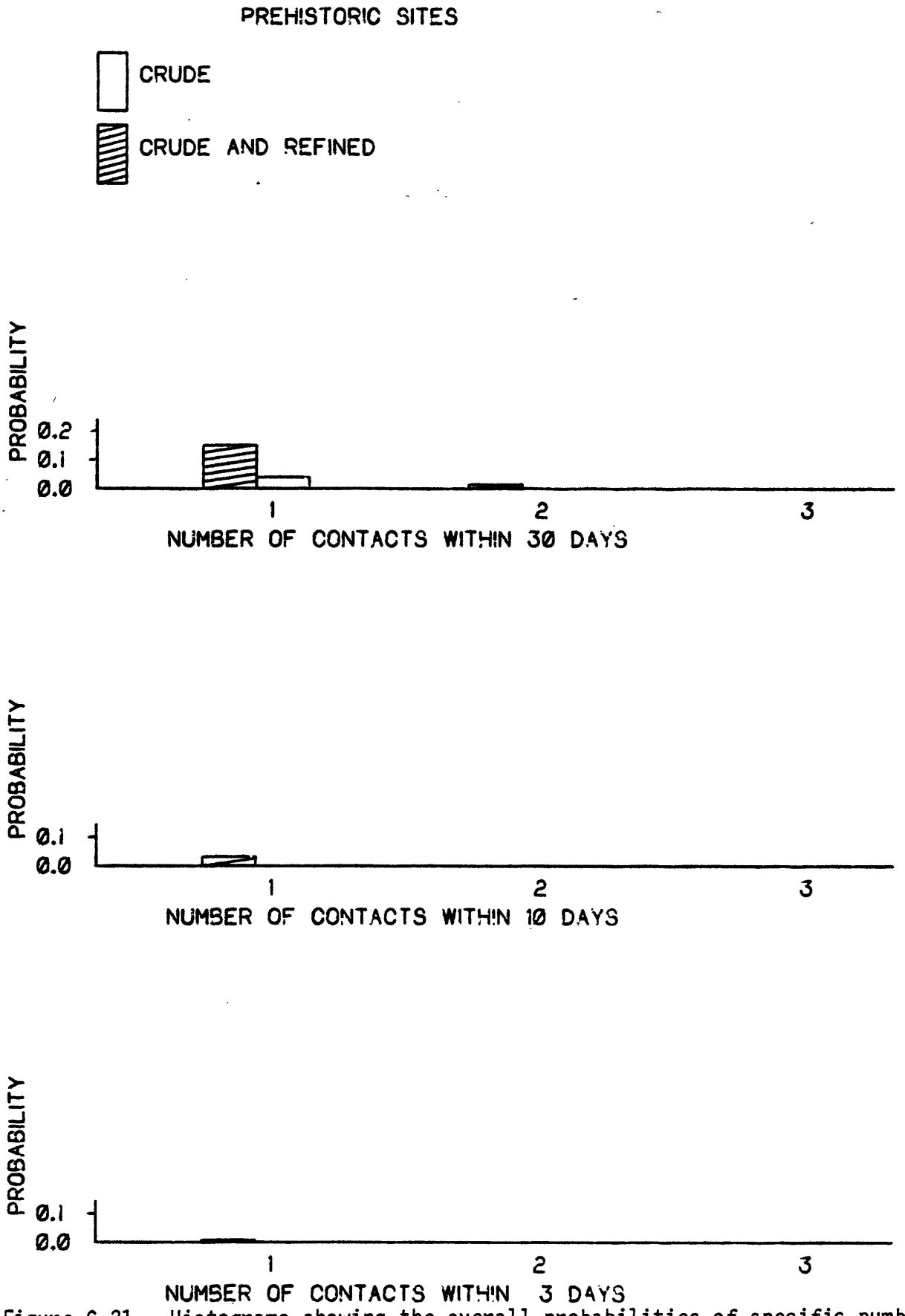

Figure C-21.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting prehistoric sites as a result of crude oil imports and refined products.

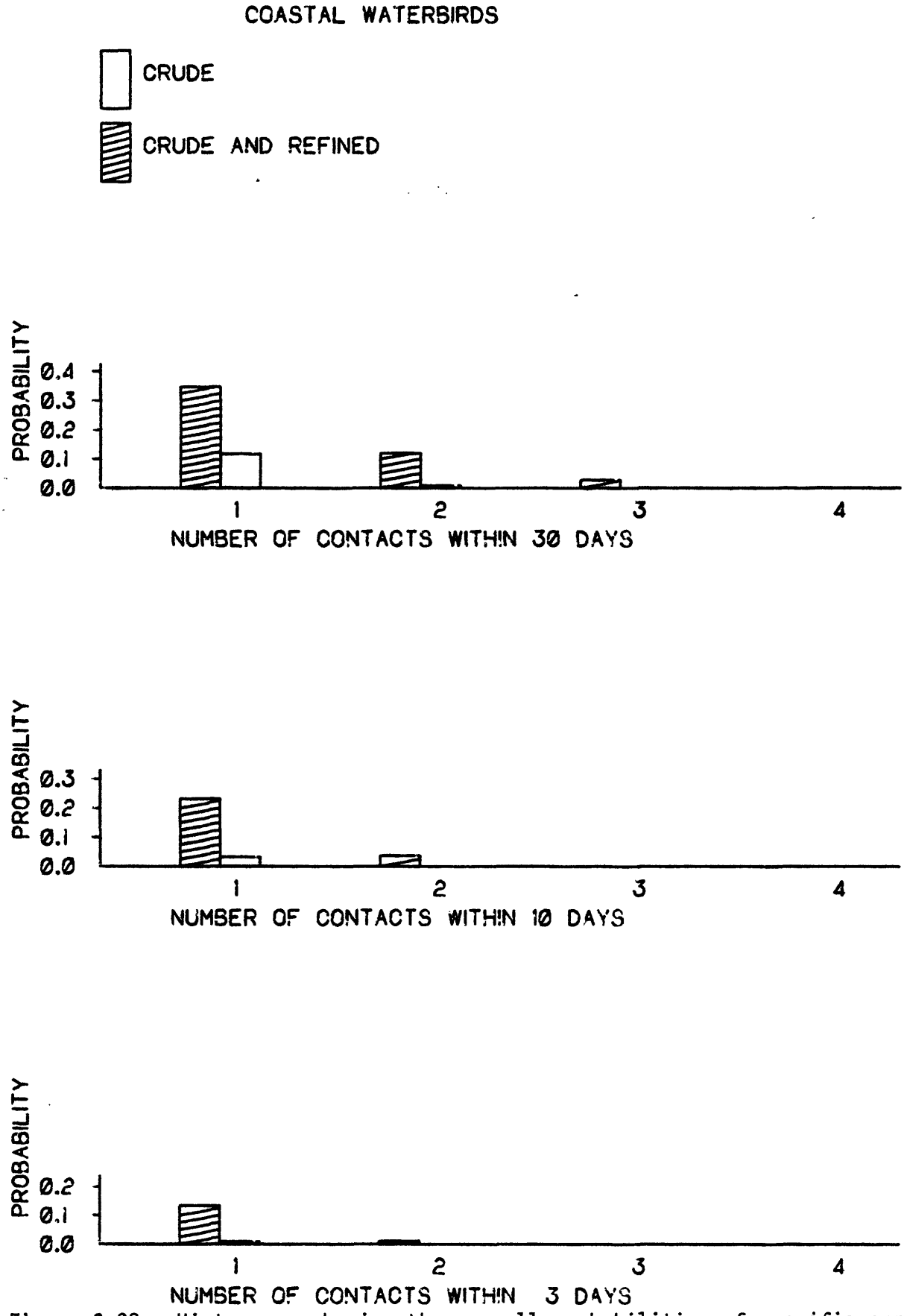

Figure C-22.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting coastal waterbird colonies as a result of crude oil imports and refined products.

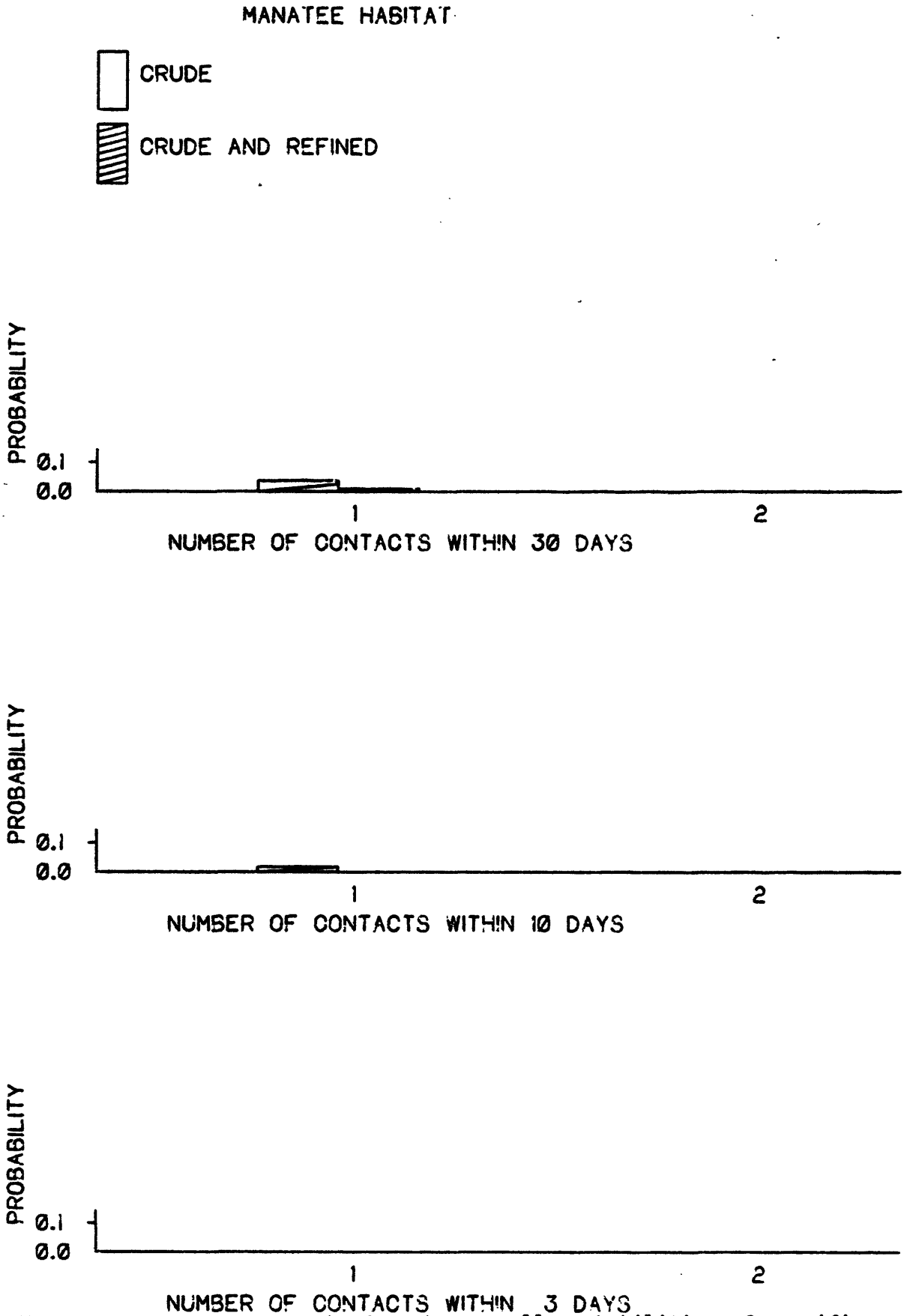

Figure C-23.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting manatee critical habitat as a result of crude oil imports and refined products.

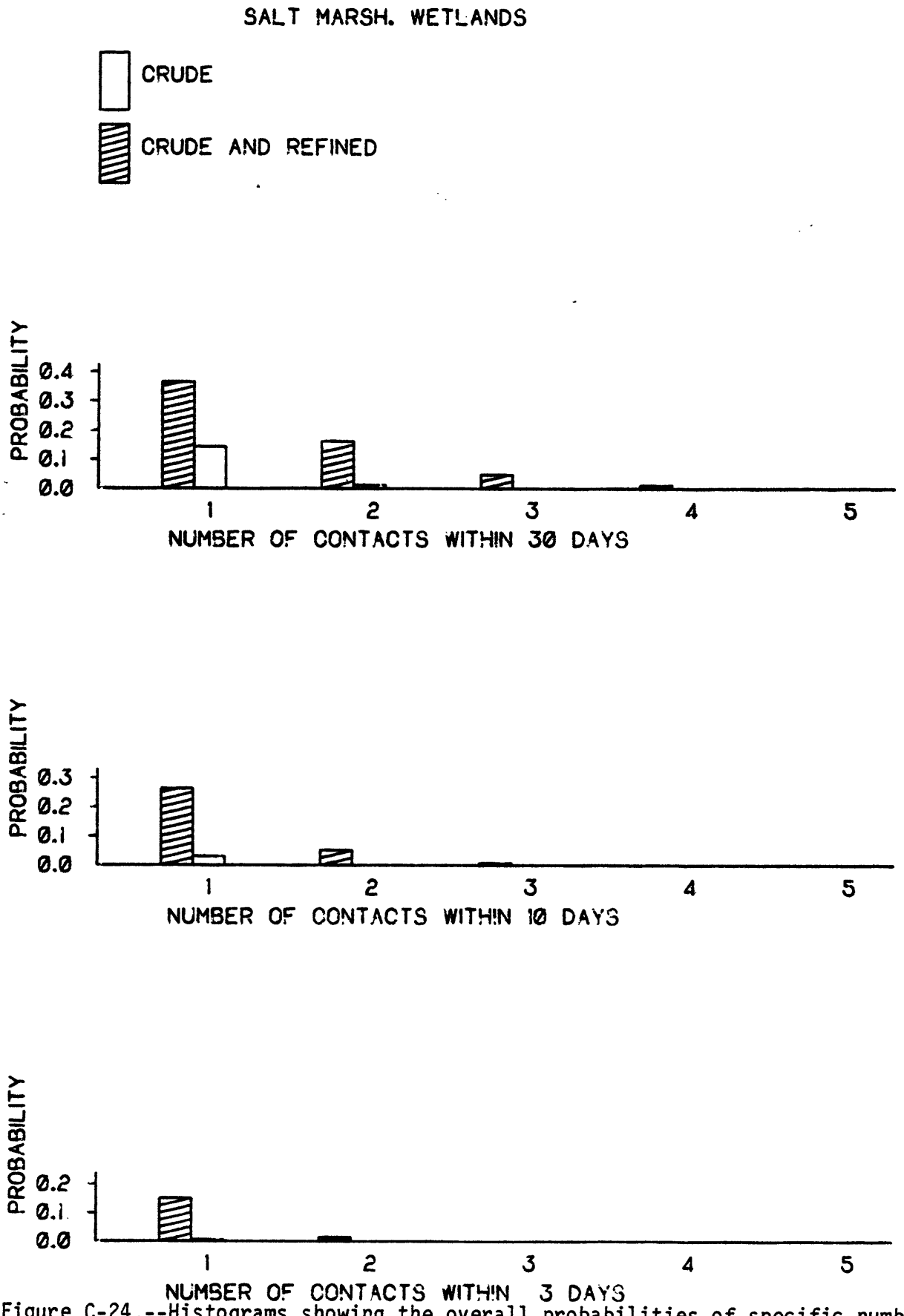

Figure C-24.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting salt marsh and wetlands as a result of crude oil imports and refined products.

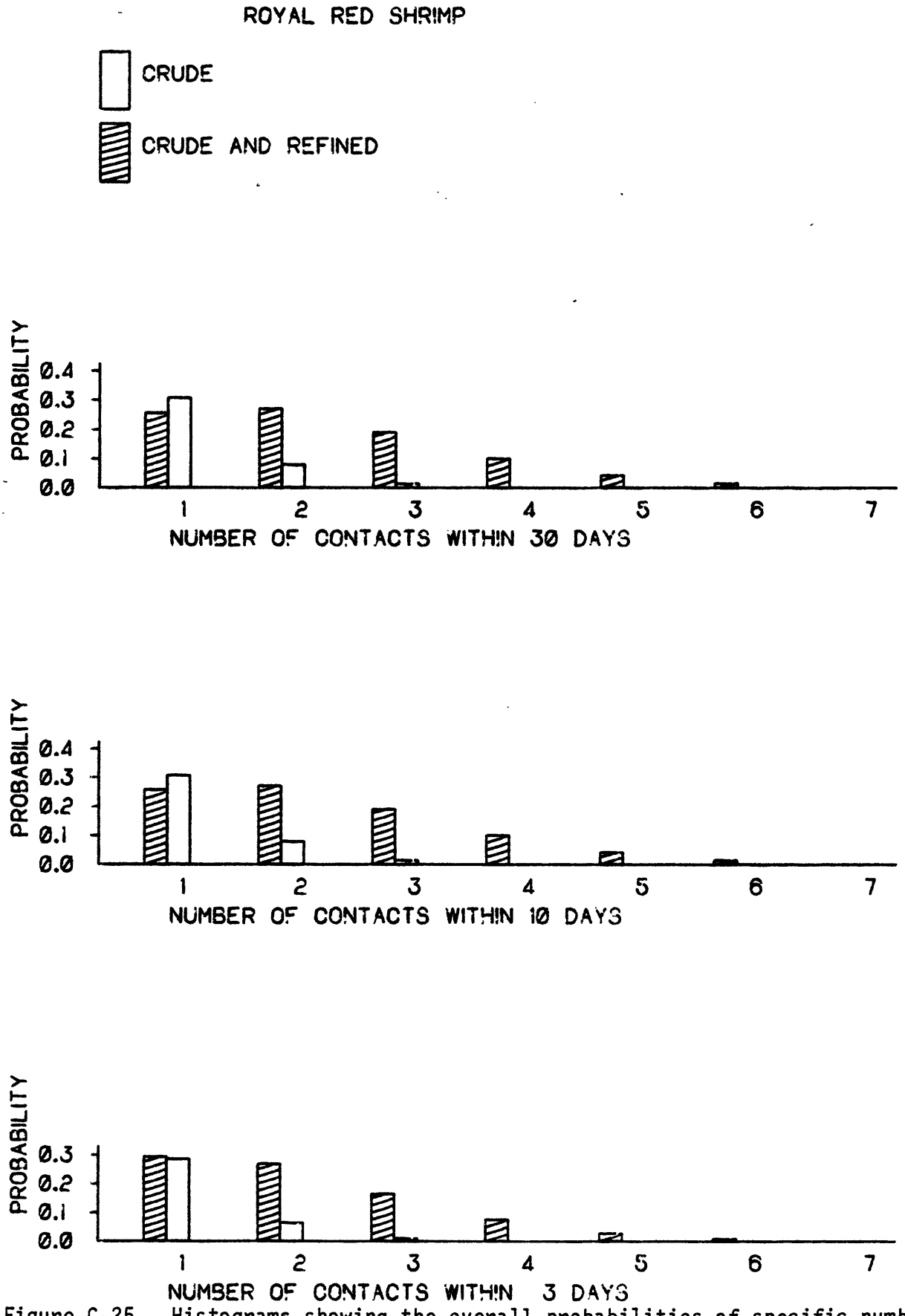

Figure C-25.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Royal Red Shrimp as a result of crude oil imports and refined products.

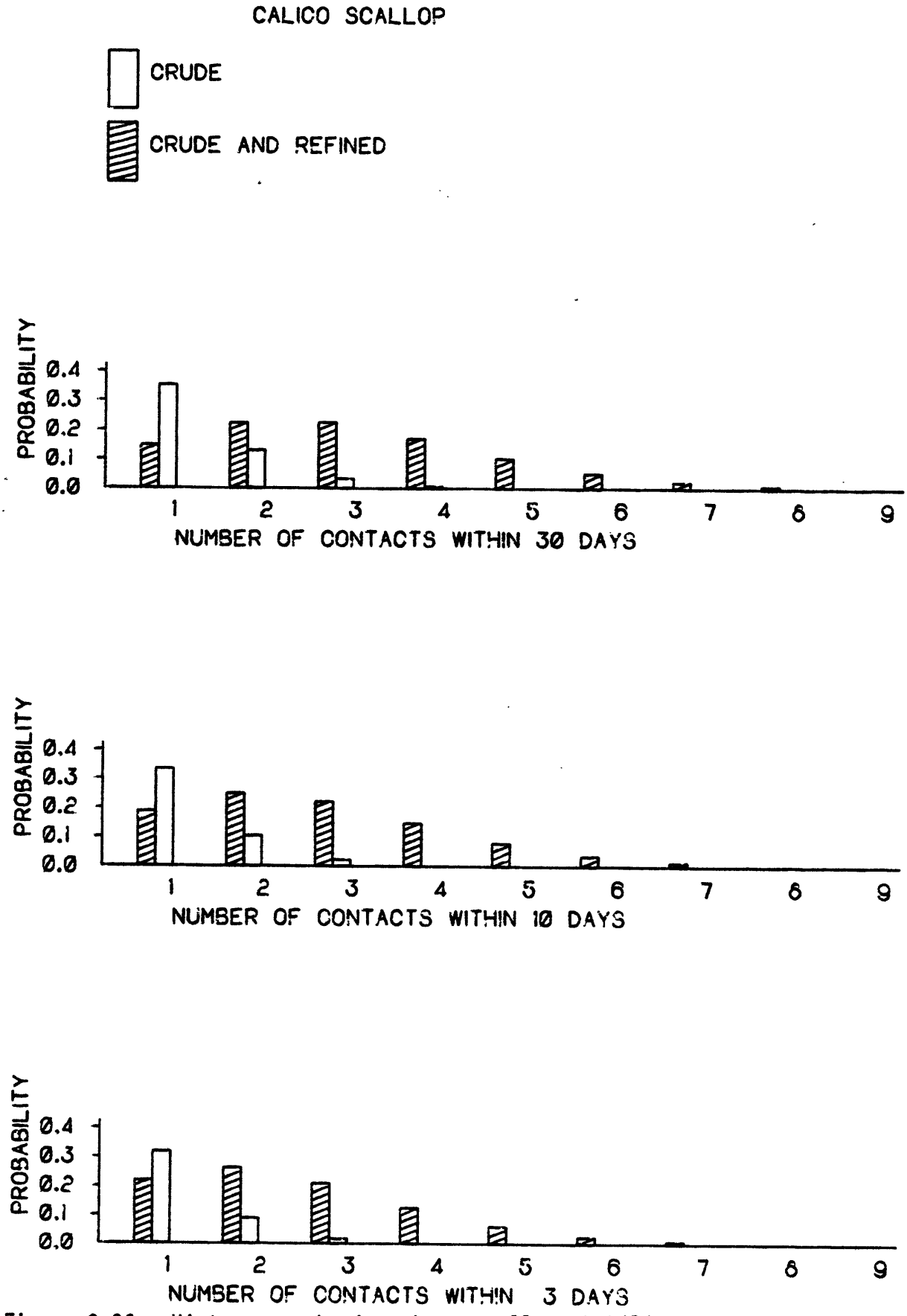

Figure C-26.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Calico Scallop as a result of crude oil imports and refined products.

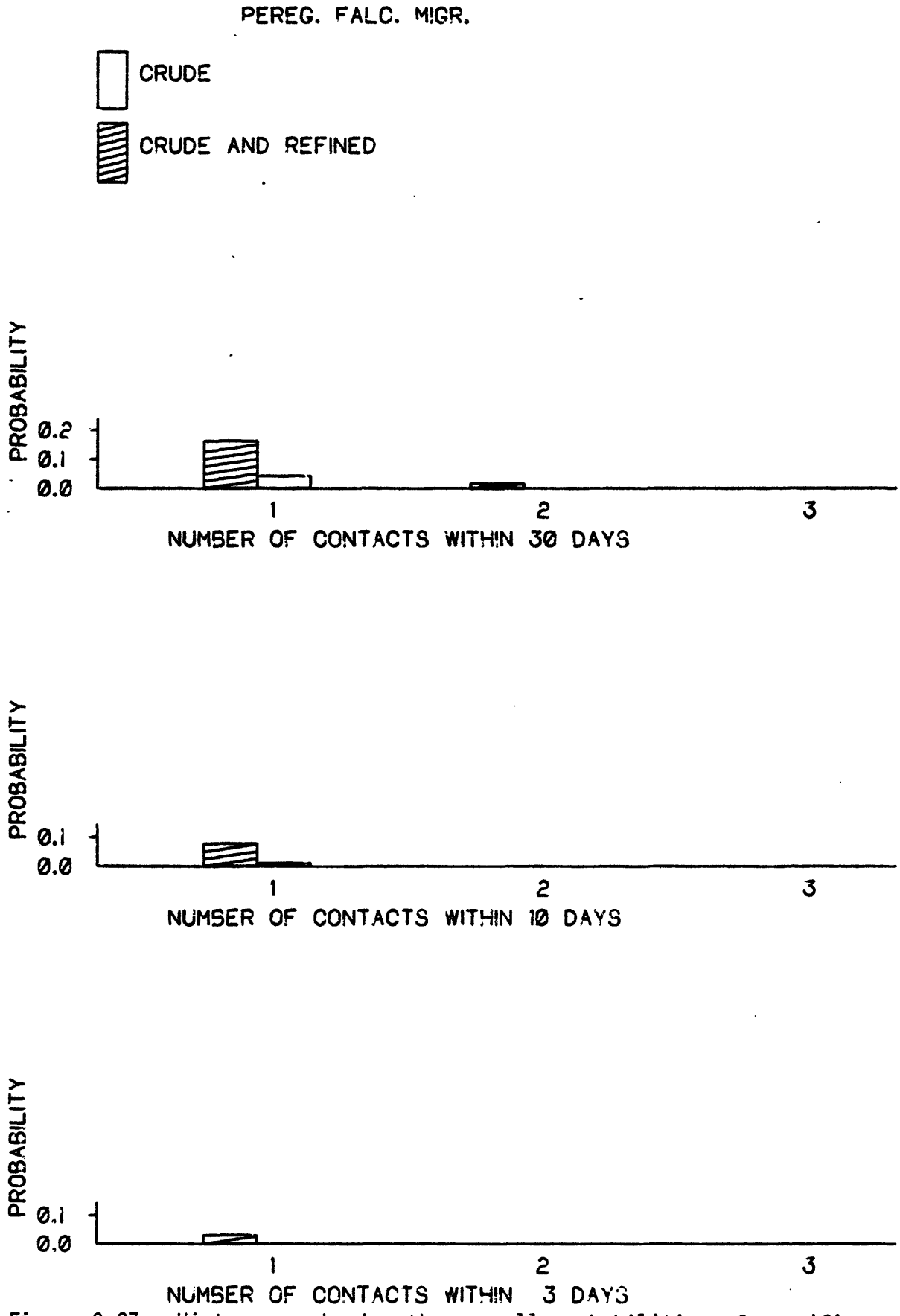

Figure C-27.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Peregrine Falcon migratory stopover areas as a result of crude oil imports and refined products.

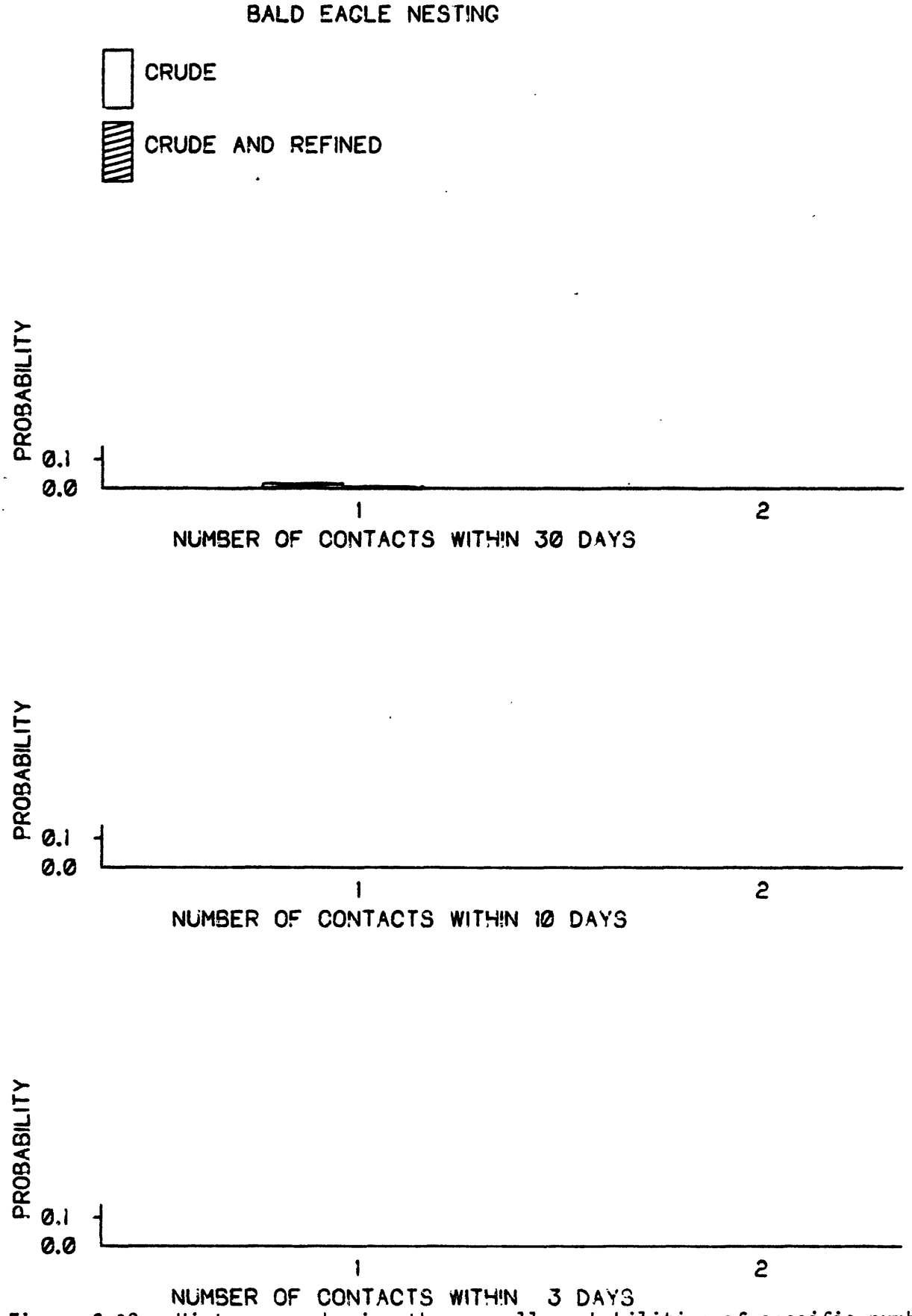

Figure C-28.--Histograms showing the overall probabilities of specific numbers of oilspills (1,000 barrels and greater) occurring and contacting Bald Eagle nesting sites as a result of crude oil imports and refined products.

Appendix D

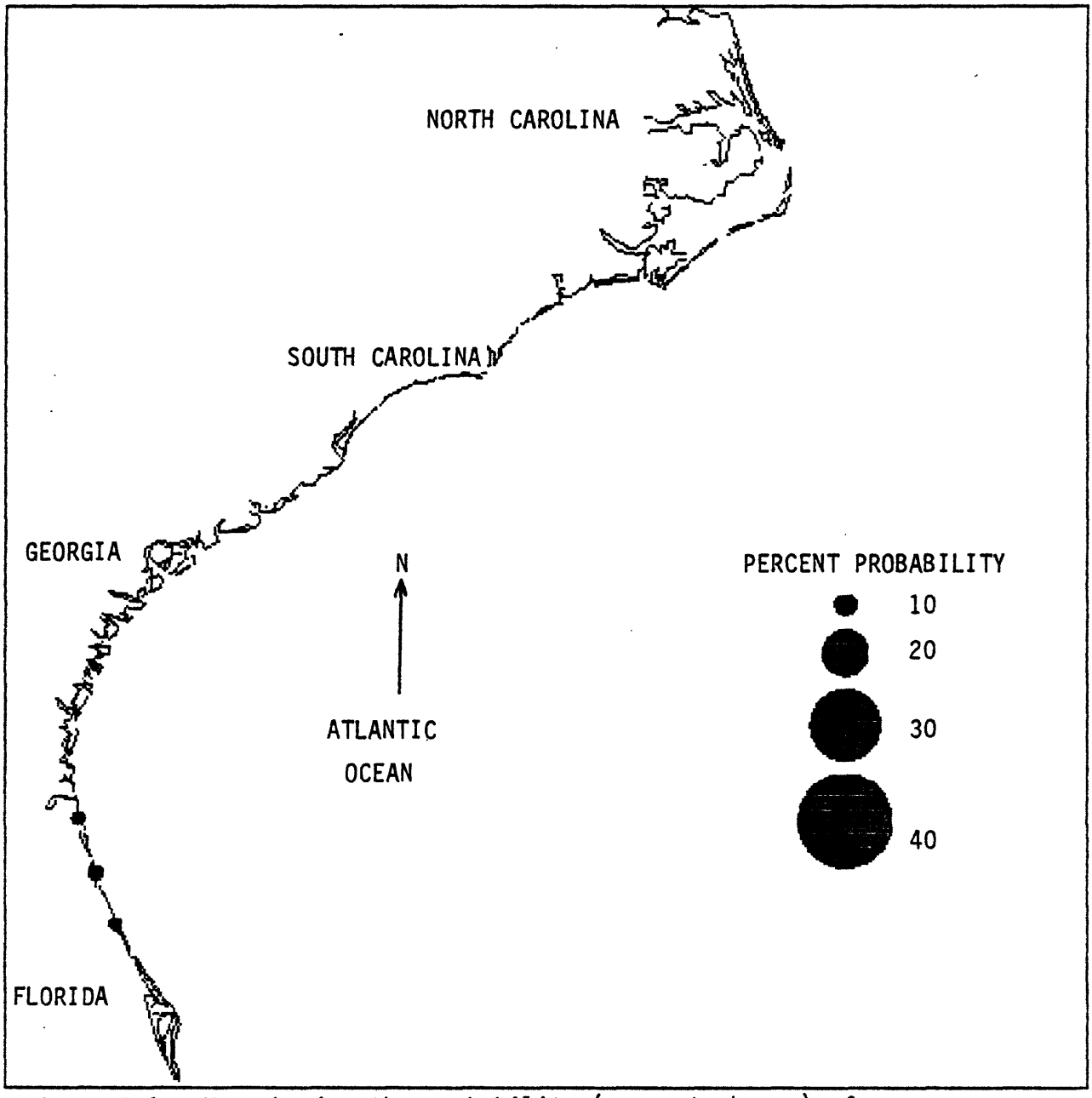

Figure D-1.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline (set 1) within 30 days travel time (crude oil imports).

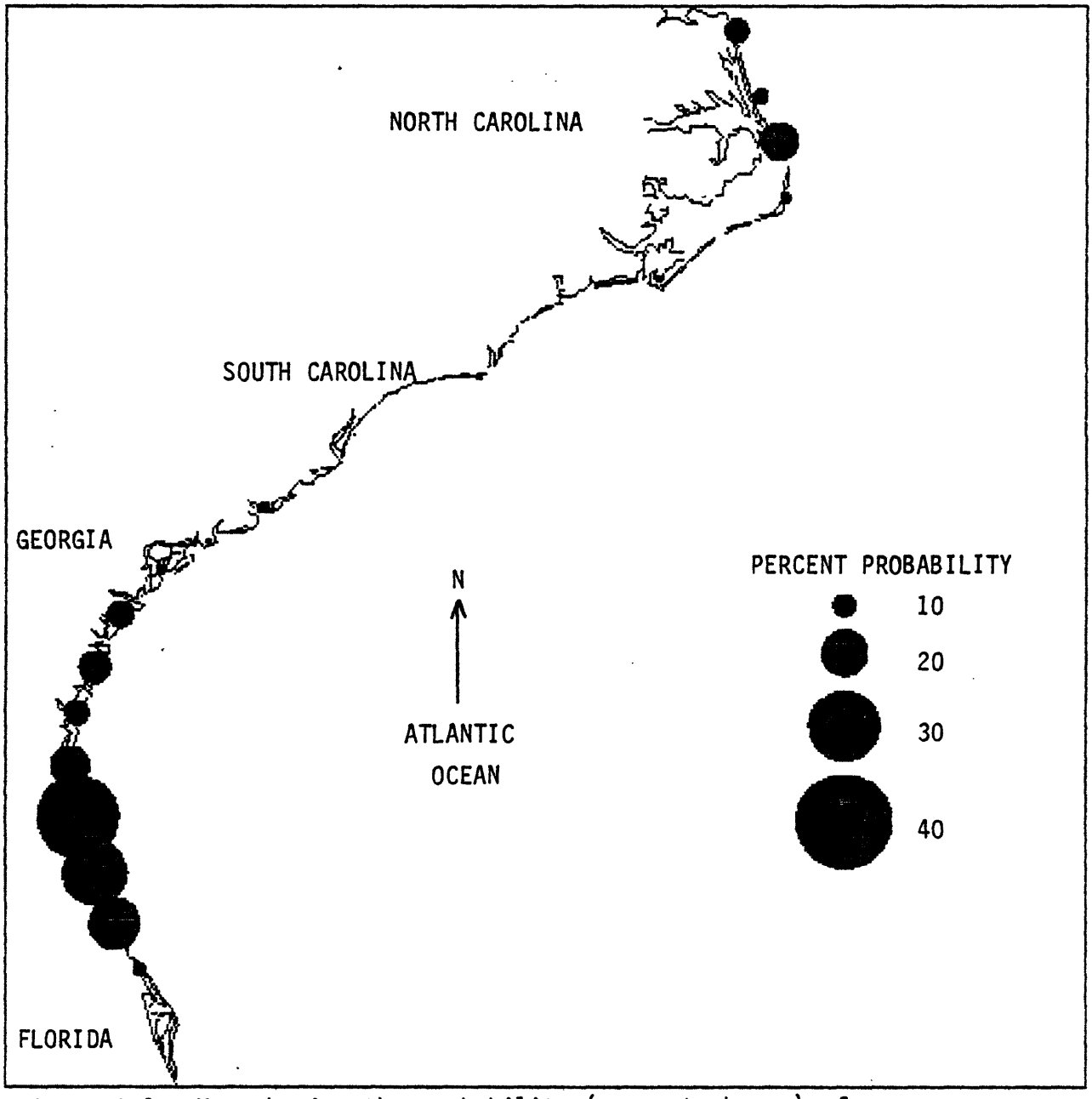

Figure D-2.--Map showing the probability (percent chance) of one or more spills (1,000 barrels and greater) occurring and contacting sections of the coastline (set 1) within 30 days travel time (crude oil imports and refined products).