

MEMORANDUM OF UNDERSTANDING
BETWEEN
U.S. FISH AND WILDLIFE SERVICE
AND
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND

This Memorandum of Understanding (MOU) is entered into by the Department of the Interior, U.S. Fish and Wildlife Service, hereinafter referred to as the Service, and the U.S. Navy represented by Southwest Division, hereinafter referred to as the Navy, pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1533, 1534, 1536). This MOU continues efforts in endangered species conservation started in October 1987 under a similar MOU.

BACKGROUND

The purpose and objective of the MOU is to establish standards and conditions for Navy in-water construction activities conducted in San Diego Bay to prevent adverse effects to the endangered California least tern (*Sterna antillarum browni*). Maintenance and new construction of Navy facilities routinely require in-water construction activities in San Diego Bay including pier and quaywall construction and repair, pile driving, placement of sheet pile and riprap, and dredging.

This agreement defines geographical areas and physical conditions under which in-water naval construction activities may occur in San Diego Bay without the need to conduct formal consultation pursuant to Section 7 of the Endangered Species Act. Attachment A of the MOU provides a list of compensation measures to be implemented by the Navy to improve nesting and foraging success of the California least tern population dependent upon San Diego Bay. The MOU also identifies the need for the Navy to conduct studies to better determine the effects of in-water construction activities on other marine birds. Land-based naval construction activities that may affect the California least tern are not covered under this MOU and shall be resolved on a case-by-case basis through consultation with the Service.

DESCRIPTION AND BIOLOGY

The California least tern (tern) occurrence in and use of San Diego Bay (Bay) typically occurs between April 1 and September 15. During this period, the tern migrates north from wintering areas in Central and South America to southern California coastal areas to nest and raise its young. There are eight recognized tern nesting colonies that surround the Bay. These nesting colony locations include Naval Air Station (NAS) North Island, Naval Training Center, San Diego (NTC), Naval Amphibious Base (NAVPHIBASE) Coronado, Lindbergh Field (San Diego International Airport), "D" Street Fill (Chula Vista), Chula Vista Wildlife Reserve, Grand Caribe Isle and the levees at the Western Salt Works. The first three of the above listed locations are located on Naval property.

During the nesting season, adult terns and their young feed almost exclusively on small marine fish captured in the surface waters (top six feet) within the Bay, in river mouths in the Bay such as the Sweetwater Channel, and nearshore ocean waters adjacent to the Silver Strand. Figures 1 through 4 depict tern nesting sites and foraging areas in the Bay.

Major reasons for the failure of tern breeding colonies adjacent to the Bay, including those found on Navy properties, have been bird and mammal predation, loss of preferred habitat and human disturbance. Additional adverse impacts to the terns can occur if in-water construction activities inhibit or prevent foraging opportunities for the tern or disrupt nesting pairs on the colony. Poor foraging may affect the survival of chicks by requiring adult terns to forage farther from their nesting colony or for a longer period of time, thus leaving tern chicks at the nesting colony unprotected from predators and may increase the total number of foraging trips. It has been shown that chick survival can be significantly reduced during El Niño events when available food supplies are severely reduced.

STATUS OF 1987 CONSERVATION EFFORTS

In accordance with direction in the 1987 MOU, the Navy established a permanent, full-time natural resource position at the beginning of 1988, and intensified its efforts in the management of the tern colonies on its lands in two major areas: predator management and biological information gathering.

Predator management has been administered by U.S. Department of Agriculture, Animal Damage Control (ADC) since March 1988, when initial efforts to control both avian and mammalian predators began. A permanent position was created in San Diego at the end of 1988 that has implemented predator management activities at the three Navy sites since the 1989 breeding season. These efforts have resulted in significant reductions in the numbers of both avian and mammalian predators found at the tern nesting sites, thereby enhancing the species' productivity. From 1984 to 1987 the tern fledglings per pair averaged .38; between 1988 and 1991 the number of tern fledglings averaged .50 per pair, a 32% increase in fledgling production. Undoubtedly, a significant portion of the increased productivity can be attributed to the predator management program.

Biological monitoring of the tern nesting colonies has provided critical information essential in developing prudent management strategy for least terns in San Diego Bay and elsewhere in Southern California. A tern expert exceptionally familiar with tern populations in San Diego County and specifically in San Diego Bay has been retained by the Navy since the 1988 breeding season. This expert has provided the Navy with sound, basic information on the breeding biology of the terns at the three Navy sites.

The Navy also funded basic research in assessing the effects of in-water pile driving on fish abundance and distribution, as well as research in identifying foraging areas important to the terns.

Major improvements have been done by the Navy adjacent to their tern nesting colonies. A tern nesting site (approximately 10 acres) was developed in 1988 at South Delta Beach on NAVPHIBASE Coronado. This site has been prepared and monitored every year since then and supported its first successful tern nest in 1992. A 10 acre eel grass bed was planted in the spring of 1990 immediately east of North Delta Beach on NAVPHIBASE Coronado as compensation for naval construction projects. This may provide a enhanced foraging for terns from both North and South Delta Beach colonies. Fences have been built or replaced at NAS North Island and NAVPHIBASE Coronado tern colonies. Nesting areas have been permanently gridded at NTC and NAVPHIBASE Coronado sites so that nest sites can be definitively located and monitored from year to year to measure any changes.

NAVAL CONSTRUCTION REQUIREMENTS

In order to support naval fleet activities in San Diego Bay, various types of in-water construction activities are conducted in the waters of San Diego Bay. The Navy believes that in order to accomplish this construction in a timely manner, to minimize taxpayers' expenses, and to ensure required fleet support, it is necessary to be able to initiate construction throughout the year, including during the tern nesting season (April 1-September 15) when impacts to terns may occur.

SPECIFIC OBLIGATIONS OF THE PARTIES

The mutual goal of the Navy and the Service is to ensure the protection and the recovery of the tern population in San Diego Bay. To help achieve this goal, the nesting colonies must be protected and expanded and sufficient foraging opportunities must be available immediately adjacent to tern nesting colonies. In concert with this goal, the Navy will: (1) eliminate impacts from in-water construction occurring within identified nesting and foraging areas (Figures 1 - 4) during the tern nesting season; or (2) eliminate effects of in-water construction to terns by implementing the obligations identified in this agreement.

NAVY OBLIGATIONS

The Navy hereby agrees to provide a management program that will continue a predator management effort at its current level for tern colonies existing on Navy properties in and adjacent to San Diego Bay, and provide additional nesting and foraging habitat wherever possible. The Navy agrees to accomplish items 1 through 5 below and to complete the specific obligations outlined in Attachment A by establishing an annual funding source of \$250,000 for the purpose of implementing the identified program. Current obligations are listed in order of priority. If the stipulated tern recovery obligations can be accomplished for less than the amount of annual funds identified above, then the amount committed for that year by the Navy can be decreased accordingly. It is recognized by the Navy that a pro-active program for enhancing tern survival is included within these funds.

Tern recovery objectives will be jointly reviewed on an annual basis to evaluate whether previously identified objectives should be modified or re-prioritized or new objectives should be added. The meeting will be held in August of each year. Objectives in subsequent years will be determined by mutual agreement through annual meetings when the previous year's results are reviewed and the next year's objectives are determined. Attachment A will be revised annually to reflect these decisions. The mutually agreed to objectives will be described in a letter prepared by the Navy.

The Navy will also provide a list and description of projects that they intend to construct during the current fiscal year (Attachment B). Attachment B will be revised annually to reflect the current list of Navy projects.

In addition to implement the compensation measures identified in Attachment A, the Navy is obligated to continue to study the effects of in-water construction activities on the foraging behavior of marine birds, especially least terns, in San Diego Bay, maintain a permanent position to oversee and coordinate the Navy's obligations to the tern in San Diego Bay, and place a high priority in using clean dredged material from Navy projects to enhance the substrate of tern nesting colony sites. These obligations are further described below:

1. Contract for studies to determine the effect various in-water construction activities conducted in San Diego Bay have on the foraging behavior and resting sites of migratory marine birds

during the least tern non-nesting season (September 15 to April 1) and both migratory marine birds and California least tern during the tern nesting season (April 1 to September 15). The specific study design will be developed in consultation with the Service. Such studies may require a Section 10(a) permit from the Service.

2. Provide a permanent position within the Navy to oversee, coordinate and implement the Navy's obligations as identified in this MOU.

3. By August 30 of each year, meet with the Service to discuss the priority of tern projects to be initiated during the next fiscal year, and provide the Service a current list and description of proposed Navy projects to be constructed in San Diego Bay during the next 12 months.

4. By September 30 of each year, meet with the Field Supervisor, U.S. Fish & Wildlife Service, Carlsbad Field Office, or his designated representative and provide reports, when available, describing the results of efforts to accomplish the objectives outlined in Attachment A, monies expended to implement the objectives, and make recommendations for improving tern management on Navy lands.

5. Give a high priority to using non-contaminated dredged material of appropriate sediment grain size from future Navy dredging projects as a source of material to enhance the substrate of tern nesting colony sites on San Diego Bay Naval bases.

SERVICE OBLIGATIONS

Through informal consultation conducted in the development of this MOU, the Service hereby agrees that:

1. The Service recognizes that the proactive management program as implemented by the Navy has resulted in direct benefits (i.e., increases in fledgling production) to terns that would not have been achievable with rescheduling in-water construction during the non-breeding season of the tern or compensation obtained on a project-by-project basis.

2. The Navy in-water construction activities may be conducted in San Diego Bay during any time of the year without the requirement of conducting a formal Section 7 Consultation provided they are located outside the shaded areas shown in Figures 1, 2, 3, and 4 and provided that:

a. Surface turbidity resulting from dredging projects must not be allowed to intrude in those areas that are within a one kilometer (i.e., 3,280.6 feet or 0.6 mile) radius from all active tern nesting colonies located in San Diego Bay (Figures 1, 2, 3 and 4). Surface turbidity is defined as an obvious discoloration of the top three meters (9.8 feet) of the water column visible to the human eye.

b. Noise from pile driving, sheet pile driving, or other heavy construction activity is not to exceed ambient decibel levels measured at individual tern nesting areas. Vibrations from these activities shall not be allowed to disrupt nesting or loafing terns.

3. Proposed Naval projects located in the shaded areas (Figures 1, 2, 3 and 4) would require initial review by the Service through informal consultation if in-water construction activity during the nesting season (April 1 to September 15) is desired. Through discussions held between the Service

and the Navy during informal consultation, it will be decided if formal Section 7 Consultation shall be initiated. Consultation can be avoided provided the Navy can demonstrate in a letter to the Service that the following conditions listed below will be met and the Service concurs with the Navy's assessment. The Service will make a formal review of these projects on a case-by-case basis or on groups of projects with similar objectives, and will respond in writing whether they concur with the Navy's assessment.

a. A detailed discussion of dredging methodology and means to control turbidity from project construction activities, including dredged material disposal, will be provided in order to show that the project will not affect tern nesting or foraging activities.

b. Noise from pile driving, sheet pile driving, or other heavy construction activity is not to exceed ambient decibel levels measured at individual tern nesting areas. Vibrations from these activities shall not be allowed to disrupt nesting or loafing terns.

4. Foraging studies of migratory marine birds, as well as other studies that are conducted in conjunction with this MOU, will be carefully reviewed and evaluated on a continuous basis with the intention of modifying the restrictions placed on naval in-water construction activities, as warranted.

5. By August 30 of each year, meet with the Navy to determine the priority of tern compensation projects to be initiated during the next fiscal year and review the Navy's current list and description of proposed construction projects to be conducted in San Diego Bay during the next 12 months. The mutually agreed upon tern compensation projects will be identified in a letter prepared by the Navy within 45 days from the August meeting.

TERMS OF AGREEMENT

This MOU is effective when signed by both parties and shall extend for five years from that date. The MOU can be updated as an improved data base is developed from studies conducted in San Diego Bay and elsewhere.

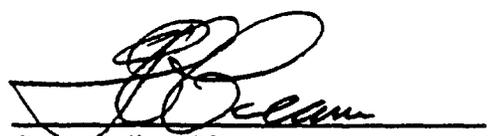
Nothing in this agreement is intended to abrogate the responsibility of the Navy or the Service to comply with any provision(s) of the Endangered Species Act, the Migratory Bird Treaty Act, the Clean Water Act, or the River and Harbor Act.

Any requirement for the payment or obligation of funds, pursuant to this MOU, shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of applicable law, including the Anti-Deficiency Act, 31 USC §1341 et seq. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established for requiring the payment or obligation of such funds shall be appropriately adjusted. Nothing in this MOU shall be construed as implying that Congress will, at a later time, appropriate funds sufficient to meet deficiencies.

Termination of this agreement by either party requires written notification to the other that such measure is being considered, and a meeting within 30 days of such notification will be held to informally address all concerns raised. If resolution of the concerns cannot be negotiated, the party wanting to terminate the MOU must provide a written notice within 60 days following the meeting stating the reasons why this agreement is being dissolved.


Assistant Regional Director, Enhancement
U.S. Fish and Wildlife Service
Region One

3/26/93
Date


Commanding Officer
Southwest Division
Naval Facilities Engineering Command

2/5/93
Date

ATTACHMENT A

Navy compensation measures ranked in the order which they should be implemented:

1. Prepare tern nesting colony sites at Naval Air Station, NAS North Island, Naval Training Center, San Diego (NTC), and Naval Amphibious Base (NAVPHIBASE) Coronado by March 30 of each year. Site preparation includes grading or mowing or use of Service-approved herbicides to remove annual plant growth, inspection/replacement or reinstallation of the chick barrier around the perimeter of the tern colony, inspection/repair/replacement of nest site grid poles and placement of chick shelters throughout the nesting colony. Chick shelters, usually consisting of ceramic roofing tiles, should be placed at approximately 15 meter intervals throughout the entire nesting sites. The main tern colony at NAS North Island (Mat site) requires additional preparation in that cracks in the asphalt may need to be reopened, and sand and shell material in sufficient quantities to provide suitable nesting sites must be placed on the site.

2. Monitor all tern nesting colonies on Navy property adjacent to San Diego Bay including NTC, NAS North Island and NAVPHIBASE to determine the status of the colony. Information recorded at each nesting site shall, at a minimum, include the number of adult nesting pairs, number and location of nests, number of eggs laid, number of chicks, fledglings produced, and level of depredation.

3. Provide funding to contract for providing predator management and monitoring at all least tern colonies on Navy property in San Diego Bay including NTC, NAS North Island and NAVPHIBASE Coronado. Only professional predator management specialists shall be used. A predator management program shall be developed specifically for feral cats, other mammalian predators (i.e., foxes, skunks, rats and dogs), and avian predators (i.e., ravens, gulls, loggerhead shrikes, herons, owls and American kestrels). A minimum predator management effort of five days a week for an eight month period from January 1 through August 31 of each year is required. It may be necessary to use drugs or poisoned bait to deal with some avian and mammalian species. In these cases, personnel licensed to use such drugs shall be required. Details of a predator management program will be developed in consultation with the Service.

Peregrine falcons have been seen exhibiting hunting behavior near the tern nesting colonies, as well as having been observed taking and eating tern adults and chicks. The Navy will coordinate the management of this endangered species with the Service using the Predator Management contractor. The Navy will be responsible for obtaining the proper federal endangered species permits from the Service and obtaining concurrence from the Service on the details of the proposed management actions.

4. Maintain annually and replace, as needed, all fences around active tern nesting sites on Navy lands in San Diego Bay. This includes maintaining and replacing nixolite on the top of the fence, any visual barriers on or attached to the fence, and chick movement barriers along the bottom of the fence. The fence design shall preclude cats and dogs (both feral and domestic) from entering the nesting colony.

5. Develop, implement and maintain an ant control program at all the nesting sites on Navy lands in San Diego Bay. Ants have been and continue to be documented as a cause of tern egg and chick mortalities.

6. Place tern decoys on Navy lands in San Diego Bay in appropriate numbers and locations at all active tern nesting sites and at as many alternate nesting sites as decoys will allow.
7. Initiate appropriate pet control regulations, conduct base-wide pet licensing program for dogs and cats, and encourage the spay-neutering of pets on NTC, NAS North Island, and NAVPHIBASE to reduce feral dog and cat populations on base. Information should be provided to all owners of dogs and cats of the potential problems their pets can cause, especially to endangered and sensitive species nesting sites.
8. Prune all trees in the vicinity of the co-generation plant and along the south side of the canal north to the Marine Corps Recruit Depot marina to an appropriate height and shape to reduce perch sites for avian predators and provide clear passage for terns to and from adjacent foraging areas.
9. Provide additional foraging opportunities for terns through one or more of the following: creation/rehabilitation of eel grass beds; mooring of bait barges during the nesting season adjacent to tern colonies; creation/rehabilitation of intertidal/subtidal Bay habitat.
10. Continue to investigate the feasibility of creating a new least tern nesting site at the Naval Radio Receiving Facility, Imperial Beach.

ATTACHMENT B

<u>Activity</u>	<u>Project No.</u>	<u>Title</u>	<u>Narrative</u>	<u>Start Date</u>
SUBASE	C1-89	Extend Seawall	Extend concrete seawall on south side of Ballast Point about 150 feet to the west and repair the rip-rap slope stabilization for another 400 feet	FY93
	C11-90	Small Boat Floats	Drive about 12 piles to locate floats	FY93
		Dredging	Maintenance dredge around submarine piers to restore original depths; no cu yd figure available	FY93
		Pier Repairs	Replace deteriorated structural concrete and wooden fender piles on three submarine piers	FY93
	C3-90	Small Boat Marina	Construct 40-slip recreational marina	FY93
SUPPLY CNTR	SDO 92-3	Lube Oil Floating Pier	Replace existing deteriorated timber piles with concrete piles; repair floating lube oil pier on quay wall adjacent to pier 180, NSC fuel farm	late FY93/ early FY94
	06-627	Oil Skimmer Launch Facility	Project will remove contaminated soil behind quay wall adjacent to pier 180, NSC fuel farm	late FY93/ early FY94
	SDO 93-2	Repair/Replace Camels	Replace floating camels on SW side of pier 180, NSC fuel farm	FY94
	SDO 93-5	Dredge Pier 180	Dredge approx. 45K cu yd between pier 180 and quay wall	FY93/94
	R13-89	Replace Fender Sys, Pier 11 (North)	Remove existing timber fender system/replace with new concrete fender system	FY94(?)

<u>Activity</u>	<u>Project No.</u>	<u>Title</u>	<u>Narrative</u>	<u>Start Date</u>
NTC	P-352	Replace Bridge 80	Tear down existing wooden bridge 80; replace with new concrete bridge. New bridge to be built just north of existing bridge and will use same road intersections; duration expected to be 800 days	Aug/Sep 92
	R20-87	Repair Shoreline Rip-Rap	Remove approx. 1500 LF of existing non-spec shoreline rip rap, minor grading, install new spec 1/4 ton rip rap; project is outside of eel grass beds	Feb 93
PUBLIC WORKS		Upgrade Fleet Mooring Buoys	Two Types: Driven Plate, Drag Anchor (description attached)	
	84-269	Upgrade buoy CM-1	Drive Plate	Est 12/30/92
	84-210	Upgrade buoy DM-3	Drive Plate	Est 10/30/92
	84-211	Upgrade buoy DM-4	Drive Plate	Est 10/16/92
	84-212	Upgrade buoy DM-5	Drive Plate	Est 10/30/92
	none	Upgrade buoy DM-8	Drive Plate	Est 10/30/93
	84-256	Upgrade buoy DM-9	Drive Plate	Est 11/13/92
	84-209	Upgrade buoy DM-11	Drive Plate	Est 10/16/92
	84-263	Upgrade buoy P-1	Drive Plate	Est 9/30/92
	84-217	Upgrade buoy P-2	Drive Plate	Est 9/30/92
	84-218	Upgrade buoy T-1	Drive Plate	Est 11/30/92
	84-219	Upgrade buoy T-2	Drive Plate	Est 11/30/92
	84-255	Upgrade AS Med-Moor	Drive Plate/Pier	Est.2/28/93
	84-221	Upgrade buoy FM-19	Drag Anchor	Est 8/11/92
NAVAL STATION	P-294	Replace EMR Garden Pier	Tear down/remove existing wooden pier; construct new concrete pier and piles	FY92
	P-323	Upgrade Pier 3	Replace fendering system with new foam-filled ones with pre-stressed concrete pile backing	FY93
	P-332	Dredge Pier 2	Dredge the approach to pier 2 just outside the main channel limits to -37 feet; approx. 180K cu yd	FY93

<u>Activity</u>	<u>Project No.</u>	<u>Title</u>	<u>Narrative</u>	<u>Start Date</u>
	P-338	Dredge Pier 3	Dredge pier 3 berths and approach to -37 feet; approx. 350K cu yd	FY93
	M10-90	Channel Dredging	Dredge main channel, pier entry channels and pier berths to design depths; no cu yd figure available	FY92
	R35-87A/B	Repair Quay Wall	Repair damaged/deteriorated sheet piles between piers 5 and 12; repair fendering system along quay wall by removing treated wood piles/replace with fewer pre-stressed reinforced concrete piles	FY92
	C27-91	Repair/Replace Fenders	Remove deteriorated wood fender piles/replace with concrete piles and floating foam-filled fenders	FY93
	R35-87C	Repair Quay Wall	Same work as A and B; between pier 12 and southern end of Base	FY93
	R10 91	repair Fenders, Pier 1	Remove broken and deteriorated creosote-treated wooden fender piles/replace with concrete piles as backing for floating, foam-filled fenders	FY93
	M5-91	Cathodic Protection, Quay Wall	Place zinc anode on bottom of bay immediately out-board of quay wall to reduce electrolytic deterioration of sheet piles	FY93
	C6-90	EODMU-3 Pier	Replace existing steel floating pier at Pt. Loma Magnetic Silencing Facility with new light-weight concrete pier supported by foam-filled floats and stabilized by concrete guide piles	FY93
NAB CORONADO	P-187	Construct Causeway Berthing Pier	Provide berths for 18 strategic sealift causeway training craft; reinforced concrete pier	FY93

<u>Activity</u>	<u>Project No.</u>	<u>Title</u>	<u>Narrative</u>	<u>Start Date</u>
	P-186	Sealift Instruct. Facility	Two story stucco bldg built on piles over water at base of P-187 pier	FY94
	P-144	EODMU Training Fac./ Marine Mammal Pens	Construct concrete building on fast land and marine mammal pens	FY94
	P-142	ELCAS Storage/Fill	Relocate ELCAS storage area (displaced by P-144); fill approx. 1 acre for pier head	FY95
NAS NORTH IS.	M1-90	Dredging Pier Bravo	Maintenance dredge pier Bravo to operating depths (44 feet) on the outboard side and at both ends; also includes dredging of the pier Bravo turning basin and the inboard side of pier Bravo	FY93
NCCOSC PT LOMA	C17-92	Construct Marine Mammal Pier, Fuel Depot	Will drive 16-18" sq. concrete guide piles for an 8' x 370' floating walkway w/ electrical ocean cable laid directly on the ocean floor; 4 clustered dolphins; total of 12-18" sq. concrete piles + 16 -12" treated wood piles.	FY93
	C42-92	Install Guide Piles for Walkways at Piers 159, 160 302		FY93
	C23-92	Construct Fish House/Freezer Pad		FY93
	C22-92	Vet Lab Addition to Bldg. 194		FY93
	C—	Marine Mammal Storage Facility		FY93
	P-122	Marine Mammal Pier		FY93

<u>Activity</u>	<u>Project No.</u>	<u>Title</u>	<u>Narrative</u>	<u>Start Date</u>
MCRD, SAN DIEGO	No Num.	Floating Pier Addition	Will add three floating finger floats to the existing dock system; water and electrical connections are from the existing pier; no piles will be driven. (MWR project)	FY93

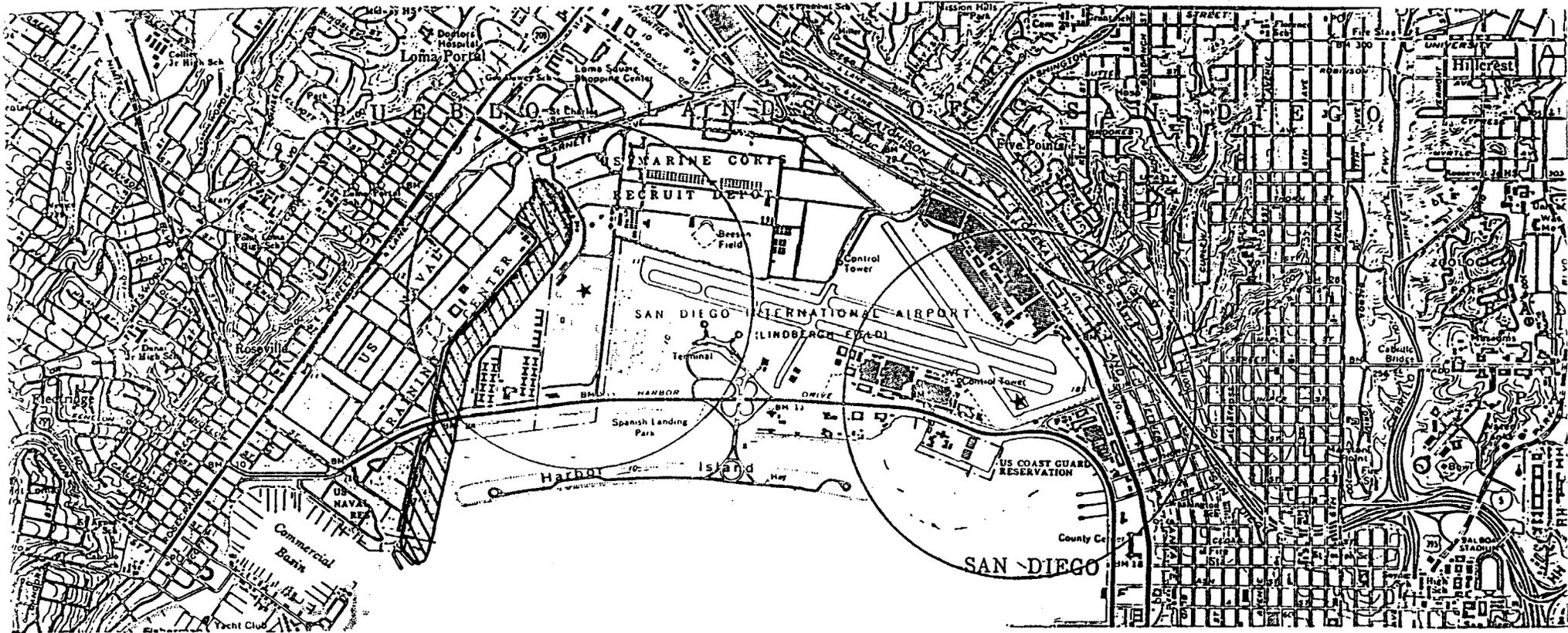


Figure 2.

The Naval Training Center, San Diego is located in this portion of northern San Diego Bay. The California least tern nesting colonies at The Naval Training Center and San Diego International Airport (Lindbergh Field) are located in the center of circles having radii of 1 kilometer. The shaded (hatched) portion of the bay illustrates a tern foraging area where in-water construction activities may not occur without prior consultation with the Service. This figure is a section of a U.S. Geological Survey Topographic Map (Point Loma Quadrangle, 7.5 minute series) having a scale of 1 mile = 2 5/8 inches.

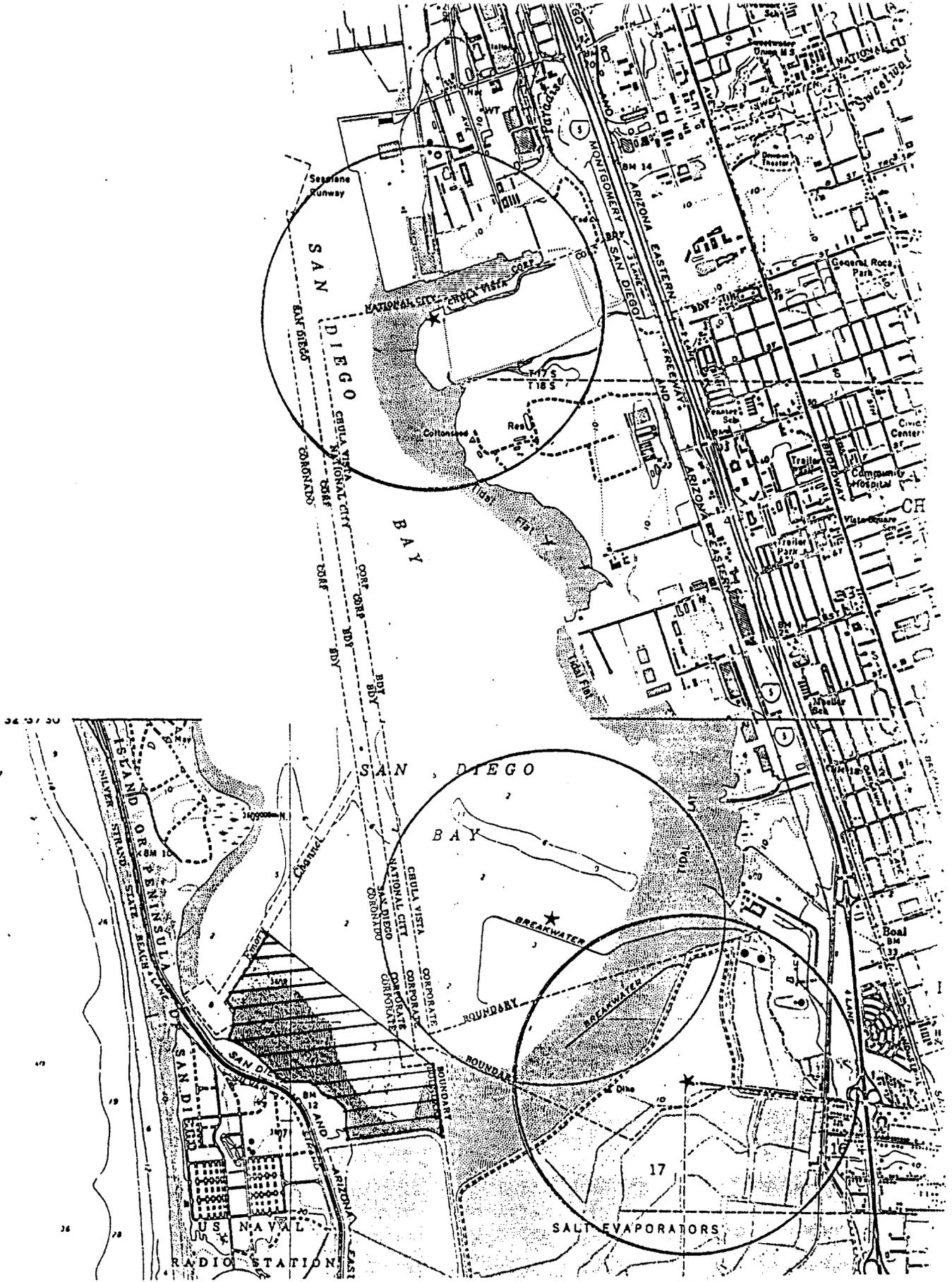


Figure 4. The Naval Station, San Diego and Naval Radio Receiving Station, Coronado are located in this portion of San Diego Bay. Also shown are three California least tern nesting colonies at "D" Street Fill, Chula Vista Wildlife Reserve, and the Salt works located in south San Diego Bay. A circle having a 1 kilometer radius has been drawn around each nesting colony. The shaded (hatched) portion of the bay illustrates a tern foraging area where in-water construction activities may not occur without prior consultation with the Service. This figure is a section of U.S. Geological Survey Topographic Maps (National City and Imperial Beach Quadrangles, 7.5 minute series) having a scale of 1 mile = 2 5/8 inches.

O C E A N