



# WELCOME

## Air Installation Compatible Use Zones (AICUZ) Study Update Naval Air Station North Island And Naval Outlying Landing Field, Imperial Beach

### Public Outreach



### City of Coronado

May 31, 2012

Coronado Public Library, Winn Room  
640 Orange Avenue, Coronado, CA 92118

Time: 5:30 p.m. - 8:00 p.m.

Representatives are available to provide information  
and answer questions.



# WELCOME

## Air Installation Compatible Use Zones (AICUZ) Study Update Naval Air Station North Island And Naval Outlying Landing Field, Imperial Beach

### Public Outreach



### City of Imperial Beach

May 30, 2012

Imperial Beach Community Meeting Room  
825 Imperial Beach Boulevard, Imperial Beach, CA 91932

Time: 5:30 p.m. - 8:00 p.m.

Representatives are available to provide information  
and answer questions.



# NAVAL BASE CORONADO

## History and Mission

### Naval Base Coronado (NBC)

NBC provides a shore-based platform for helicopters, aircraft carriers, SEAL Teams and other ashore and afloat commands to access a consortium of ground, sea, air and undersea operational and training spaces.

Its mission is to provide the highest quality logistical support and quality of life services to US Navy operating forces and for assigned activities and other commands as needed, and to provide the right support, at the right time, in the right amount, enabling operating forces to produce the right level of combat readiness; that is, support the Fleet, Fighter and Family.

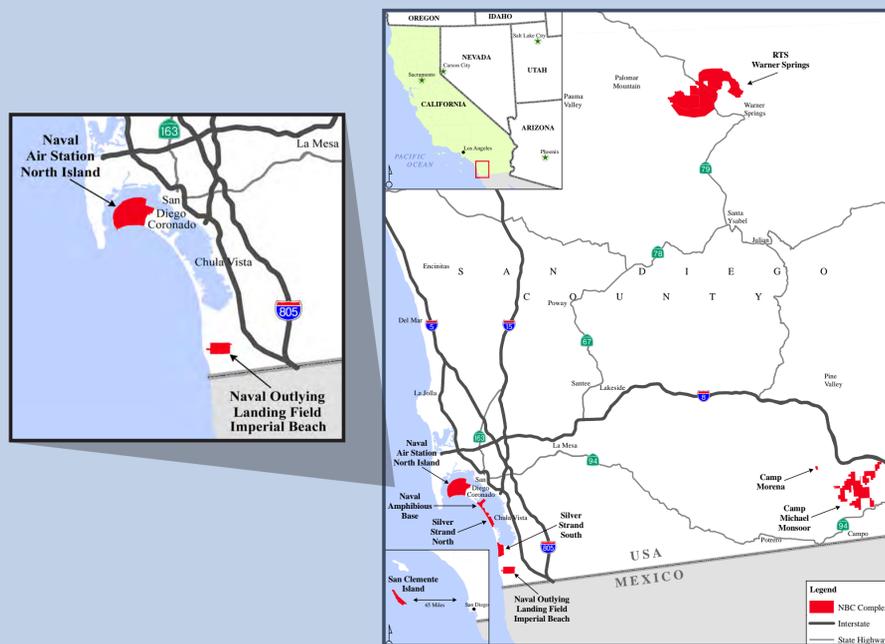
### Naval Outlying Landing Field, Imperial Beach (NOLF IB)

NOLF IB operates as an extension of Naval Air Station North Island (NASNI), specifically providing a practice field for helicopter operations and personnel support facilities. Navy helicopters conduct various landing practice scenarios, lift training, and many other required flight operations on a daily basis.

### Naval Air Station North Island (NASNI)

NASNI is the anchor base of Naval Base Coronado and is home to Commander Naval Air Forces who is responsible for equipping and training all naval aviation units in the US Navy. Aircraft activities involve both fixed and rotary-wing operations.

### NBC Location Map



NBC is a consortium of 8 Navy installations and or special use areas: NASNI, Naval Amphibious Base, Coronado; NOLF IB; Naval Auxiliary Landing Field, San Clemente Island; Silver Strand Training Complex; Camp Michael Monsoor; Camp Morena; and the Remote Training Site, Warner Springs.

### Airfield History NOLF IB

- 1917** NOLF IB established as aviation field by US Army named Ream Field
- 1920s** Navy began using Ream Field
- WWII** Navy acquires Ream Field from US Army
- 1945-1951** Ream Field decommissioned
- 1952-1974** Reactivation serving Navy west coast helicopter squadrons
- 1975** Renamed to Naval Outlying Landing Field, Imperial Beach



### Airfield History NASNI

- 1910** Glen Curtiss founded an aviation camp
- 1911** Military establishes Aviation School, Rockwell Field, the birth of Navy aviation
- 1917** Army and Navy share North Island, each with their own airfield and facilities
- 1935** President Franklin Roosevelt establishes Naval Air Station by Executive Order
- 1940s** World War II brings more personnel, aircraft, and facilities. Spanish Bight filled and Runways 11/29 and 18/36 are constructed
- 1950s** Korean War increases aviation training, more aircraft and maintenance facilities, and introduction of jet aircraft. Runways 11/29 and 18/36 extended
- 1960s** Aircraft carrier berthing capacity increased, Coronado Bay Bridge built, and an aircraft assembly and repair facility increases aircraft depot level maintenance
- 1990s** Navy begins relocating jet aircraft away from NASNI
- 2000s** Consolidation and realignment, multi-mission airframes, NASNI is Navy's west coast "Master Helicopter Base"

### Economic Impact

Fiscal year 2009 direct Navy spending catalyzed \$30.5 billion in economic impact and sustained approximately 354,627 jobs with earnings of \$16.3 billion. Tourism for the same period had \$15.9 billion in economic impact.

NBC sustains approximately 27,000 jobs and contributes to the region's economy by providing:

- Stable and consistent employment
- Military, civilian, and contractor salaries
- Spending associated with personnel and facilities
  - A stable and consistent source of tax revenue for the region



1910



1930s



1940s-1950s



1970s-1980s



2012



# NAVAL BASE CORONADO

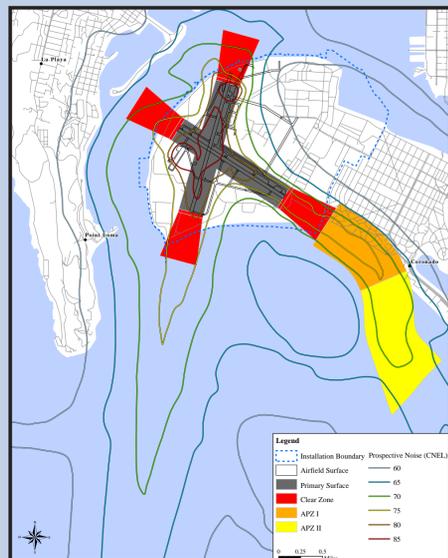
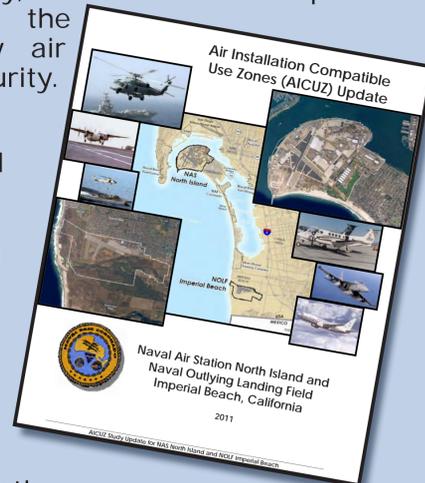
# AICUZ Program

## Air Installation Compatible Use Zones (AICUZ) Program Overview

The Department of Defense (DoD) initiated the AICUZ program to protect the public's health, safety, and welfare and to prevent encroachment from degrading the operational capability of military air installations in meeting national security.

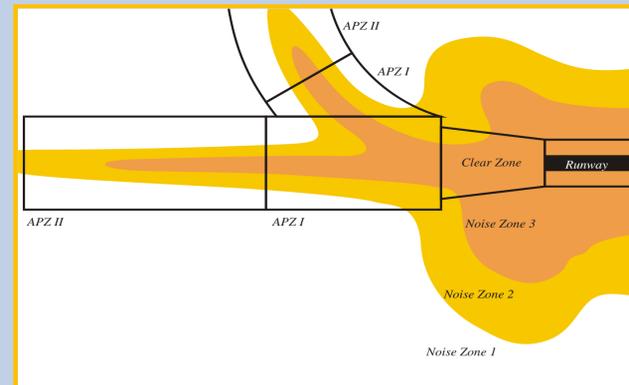
### Objectives

- Promote the health, safety, and welfare of civilians and military personnel by encouraging land uses which are compatible with aircraft operations
- Protect Navy installation investments by safeguarding the installations' operational capabilities
- Reduce noise impacts caused by aircraft operations while meeting operational, training, and flight safety requirements, both on and in the vicinity of the air installations
- Inform the public about the AICUZ Program and seek cooperative efforts to minimize noise and aircraft accident potential impacts by promoting compatible development in the vicinity of military air installations



## Noise

The State of California, US Environmental Protection Agency, the Federal Aviation Administration (FAA), and the DoD measure noise exposure from aircraft using the Community Noise Equivalent Level (CNEL).



Sample Noise Contours

### Community Noise Equivalent Level

- CNEL averaging is done to obtain a stable representation of the noise environment free of variations in day to day operations as well as from fluctuations in wind direction, runway use, temperature, aircraft performance, and total airfield operations, and time of day
- CNEL can be thought of as an accumulation of all of the sound produced by individual events that occur throughout a 24-hour period
- CNEL values around an air installation are presented not just for a single specific 24-hour period, but rather for an annual average day
- To account for increased human sensitivity to noise at night, CNEL levels include a 5-decibel penalty on noise during the 7:00 p.m. to 10:00 p.m. time period and a 10-decibel penalty on noise during the 10:00 p.m. to 7:00 a.m. time period

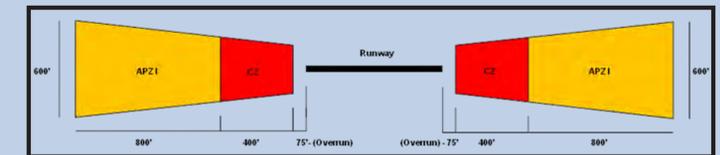
The main sources of noise at airfields are flight operations and engine maintenance operations, otherwise known as run-ups. Computer models are used to develop noise contours based on information about these operations, including:

- Aircraft arrival, departure, and pattern work
- Number of operations per day
- Aircraft Power settings, speeds, and run-ups
- Number and duration of maintenance run-ups
- Environmental data (temperature and humidity)
- Time of operations
- Flight route
- Terrain and surface type

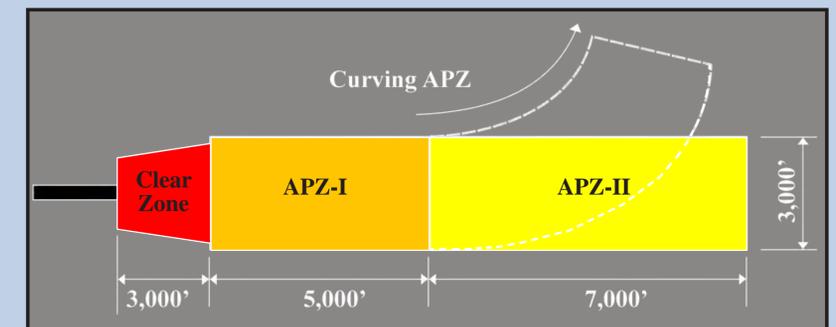
## Safety

The accident potential concept describes the probable impact area if an accident were to occur, which is to be distinguished from the probability of an accident occurring. Probable impact area information is based upon historical accident data. This data is used to determine: (1) the size of the Clear Zone and Accident Potential Zones (APZs) I and II, and (2) suggested land use guidelines for each zone. Application of this concept includes not only statistical but operational considerations.

The Navy recognizes three APZs: Clear Zone, APZ I, and APZ II



Sample Helicopter Zones



Sample Fixed Wing Zones

- **Clear Zone** is the area lying immediately beyond the runway and along the extended runway centerline. A clear zone is required for all active runways and should remain undeveloped. The Clear Zone is a trapezoidal shape, measuring 3,000 feet beyond the end of the runway and begins at 1,500 feet wide, ending at 2,284 feet wide.
- **APZ I** is an area that extends beyond the Clear Zone which has less potential for aircraft accidents relative to the Clear Zone. APZ I extends 5,000 feet beyond the Clear Zone and has a width of 3,000 feet. APZ I is typically rectangular, although it may curve to conform to the curve of the predominant flight track.
- **APZ II** is the area that extends beyond APZ I which has lesser but still measurable potential for aircraft accidents. APZ II extends 7,000 feet beyond APZ I and has a width of 3,000 feet. This zone is typically rectangular, although it too may conform to the curve of the predominant flight track.





# NAVAL BASE CORONADO

# NASNI AICUZ Study

## NASNI AICUZ History

**1979**

Release AICUZ for NASNI

**1984**

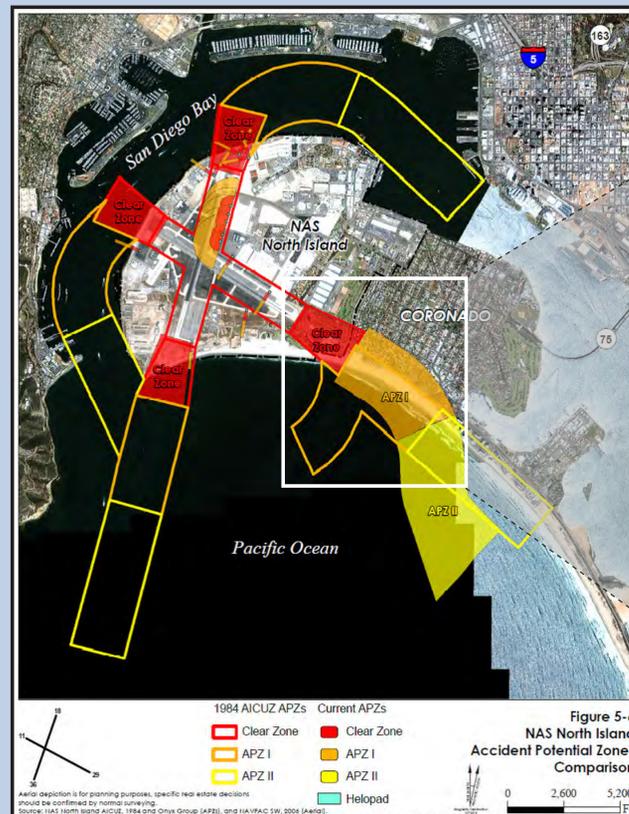
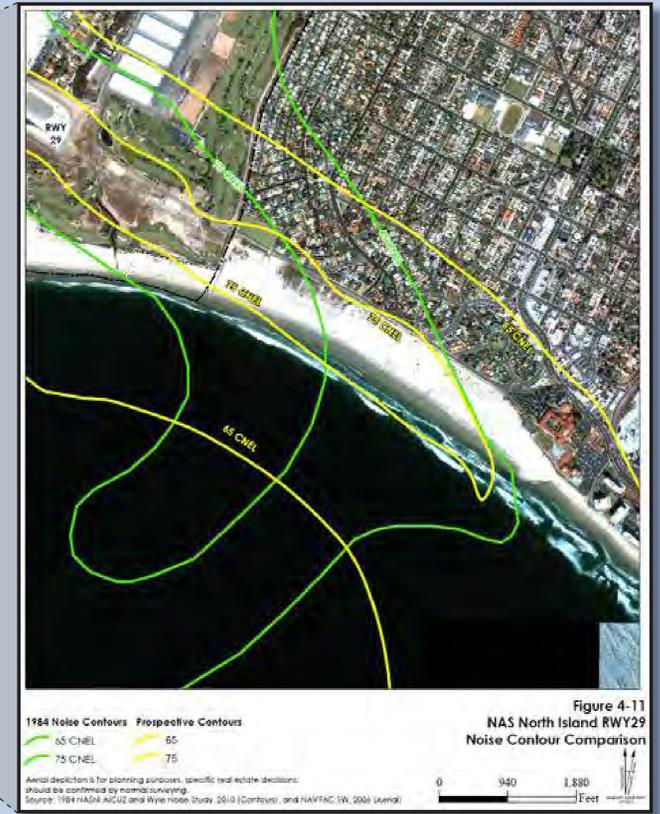
Update AICUZ for NASNI

**2011**

The 2011 NBC AICUZ Study for NASNI is an update of the 1984 AICUZ Study. The Study has been prepared in consideration of existing and future changes in mission, aircraft, and projected operational levels through 2020.



1984 Noise Contours and Prospective Noise Contours



1984 AICUZ APZs and Current APZs





## NOLF IB AICUZ History

### 1977

Release AICUZ for NOLF IB

### 1989

Update AICUZ with Master Plan for NOLF IB

### 2011

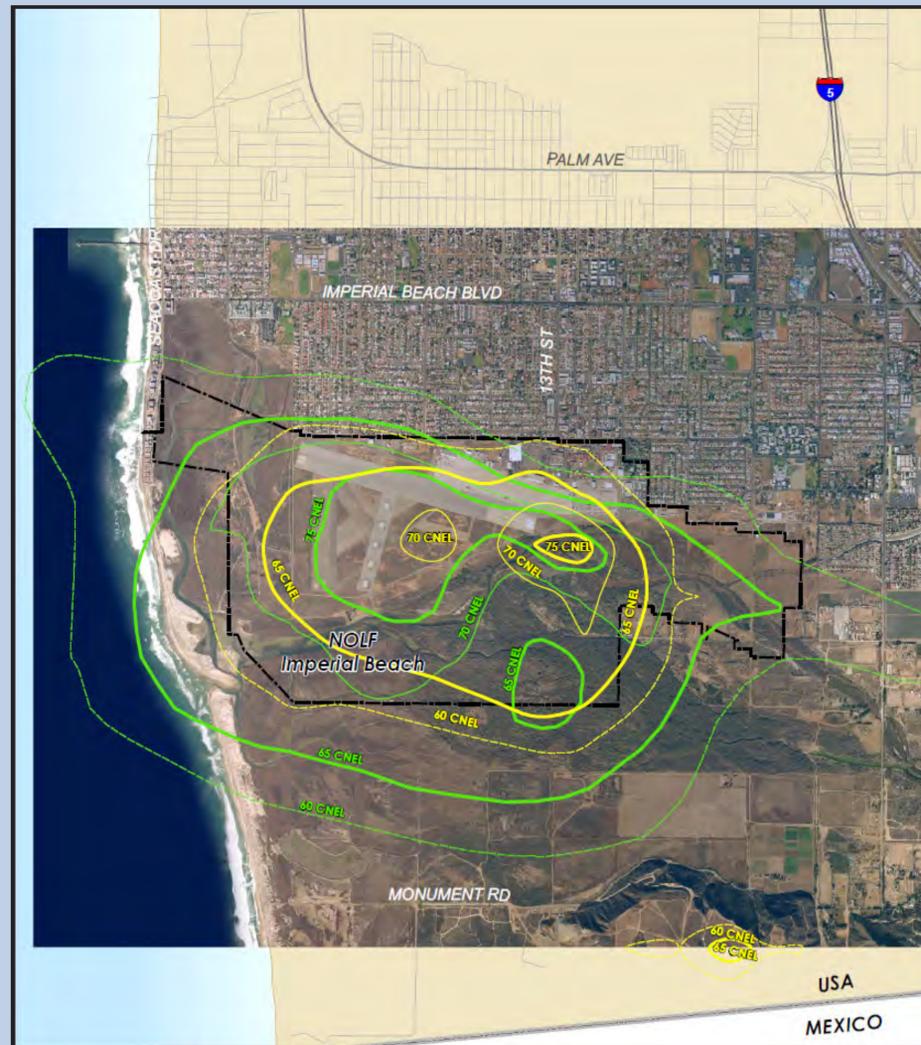
The 2011 NBC AICUZ Study for NOLF IB is an update of the 1989 AICUZ Study. The Study has been prepared in consideration of existing and future changes in mission, aircraft, and projected operational levels through 2020.



Courtesy of US Navy / Barton



Courtesy of US Navy / Moat

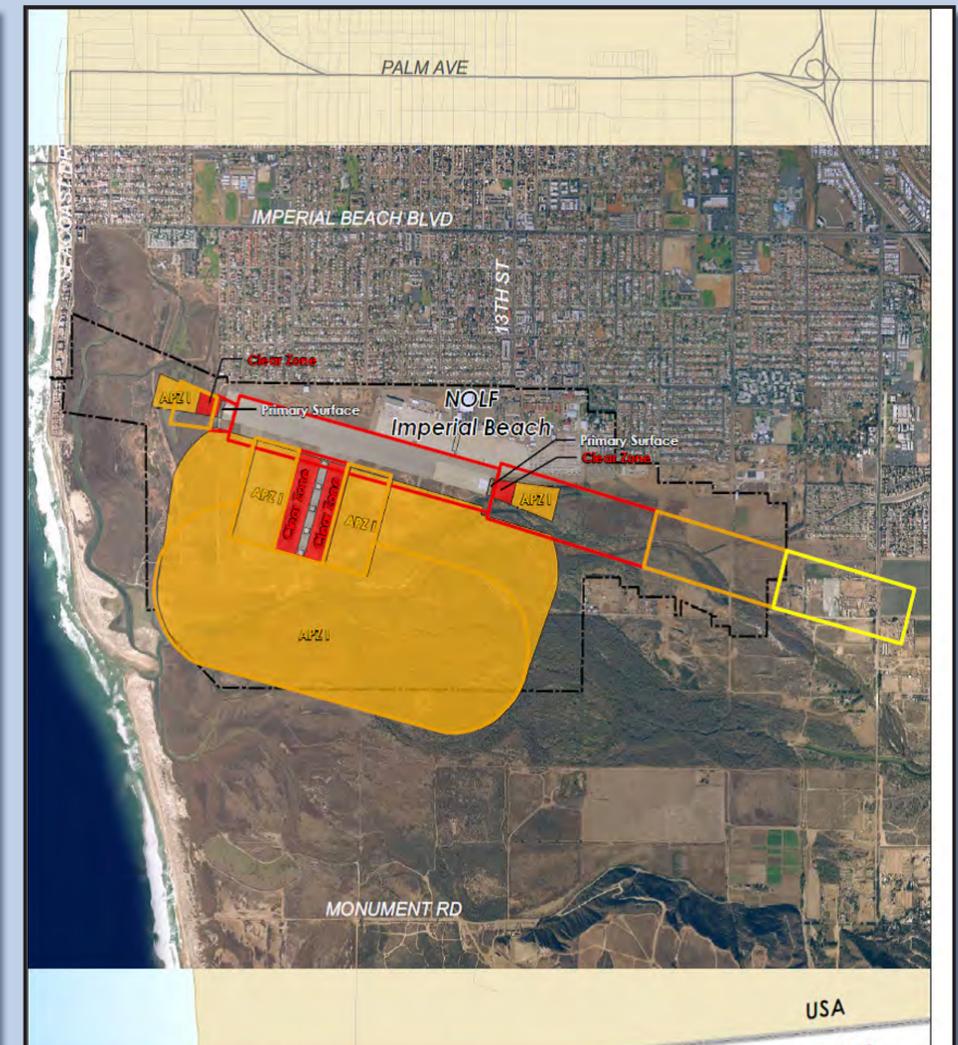


**Figure 4-12**  
NOLF Imperial Beach  
Comparison of 1989 Noise  
with Prospective Noise Contours

1989 NOLF IB Noise Contours	Prospective NOLF IB Noise Contours
60 CNEL	60
65 CNEL	65
70 CNEL	70
75 CNEL	75

Aerial depiction is for planning purposes, specific real estate decisions should be confirmed by normal surveying.  
Source: Wyle Labs Noise Study, 2010 and NOLFIB AICUZ, 1989 (Contours), and NAVFAC SW, 2006 (Aerial).

1989 Noise Contours and Prospective Noise Contours



**Figure 5-8**  
NOLF Imperial Beach  
Accident Potential Zones  
Comparison

1989 AICUZ APZs	Current APZs
Clear Zone	Primary Surface
APZ I	Clear Zone
APZ II	APZ I

Aerial depiction is for planning purposes, specific real estate decisions should be confirmed by normal surveying.  
Source: 1989 NOLFIB AICUZ and The Onyx Group (APZs), and NAVFAC SW, 2006 (Aerial).

1989 AICUZ APZs and Current APZs



# NAVAL BASE CORONADO

# Air Operations

## Tenant Aircraft



**SH-60B Seahawk** operates as the Light Airborne Multipurpose System (LAMPS). It is a complete (ship/air) system designed to keep sea lanes open and to protect high-value military and commercial ships.



**SH-60F Seahawk** provides close-in anti-submarine protection of the carrier strike group and Search and Rescue (SAR), and is used for logistics, transporting personnel, mail, and supplies between ships or ship to shore.



**HH-60H Seahawk** is designed specifically as a Combat Search and Rescue (CSAR) and a Naval Special Warfare platform.



**MH-60S Knighthawk** is a multi-mission helicopter with primary missions of CSAR, day and night vertical replenishment, and mine countermeasures.



**MH-60R Seahawk** primary missions include SAR, vertical replenishment, fire support, medical evacuation, communications and data relay.



**C-2A Greyhound** is a carrier-based transport, capable of carrying high-priority cargo and passengers.



**C-40A Clipper** primary mission is Navy Unique Fleet Essential Airlift (NUFEA) providing high-priority cargo and passenger airlift worldwide.

## Summary of Military Aircraft Loading at NASNI

Type Aircraft	1984 AICUZ	2000 Site Development Plan	Prospective
S-3	78	56	0
H-2	31	0	0
H-3	58	1	0
H-46	35	33	0
CH58A	0	3	0
H-60	0	97	203
C-1A	8	0	0
C-2	0	13	10
C-9B	3	0	0
C-40	0	0	3
C-12	3	6	0
P-3C	0	6	0
T-39	3	0	0
U-11	1	0	0
<b>Totals</b>	<b>220</b>	<b>215</b>	<b>216</b>

## Aircraft Flight Operations

### NASNI

A diverse set of missions are flown by tenant and transient aircraft at NASNI. Aircraft operations involve operational support flights to and from ships, fleet replacement training, transient flights, and maintenance check flights.

NASNI Historical Annual Operations	
Year	Totals
1998	137,281
1999	134,731
2000	136,566
2001	135,507
2002	138,153
2003	115,475
2004	108,041
2005	95,309
2006	82,885
2007	86,979
2008	83,083
2009	90,136
2020*	100,325

\*projected

### NOLF IB

A diverse set of training flights are flown by Navy helicopters.

NOLF IB Historical Annual Operations	
Year	Totals
1998	219,201
1999	222,837
2000	180,363
2001	209,485
2002	238,904
2003	253,278
2004	242,801
2005	223,729
2006	235,792
2007	233,938
2008	267,214
2009	295,672
2020*	323,344

\*projected

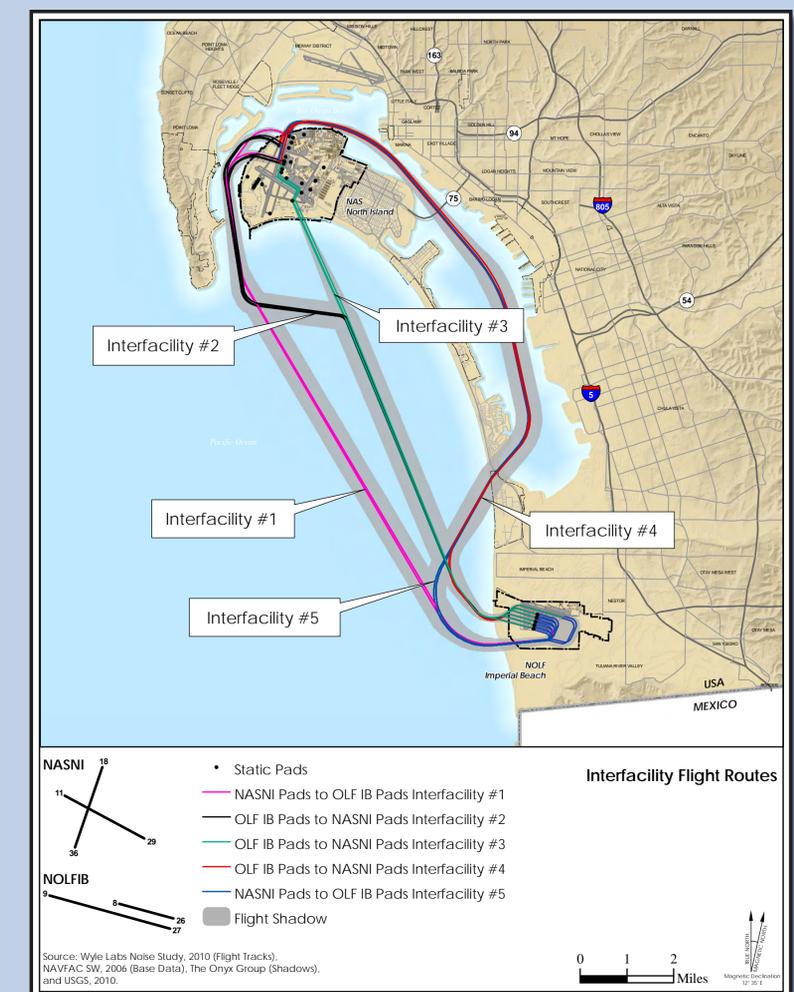
## Typical Aircraft Flight Operations

A flight operation is any takeoff or landing at an airfield/landing area. Takeoff and landing may be part of a training maneuver, a departure, or an arrival of an aircraft.

### Flight Routes

Flight routes are developed using aircraft operational procedures, air traffic control, flight safety, and noise reduction measures. Dominant flight routes shown below are arrival, departure, and interfacility routes.

### Interfacility Flight Routes



## Examples of Transient Aircraft at NASNI



C-130



C-5



C-17



H-53



E-2



Metroliner



F-18



LEAR



# NAVAL BASE CORONADO

## Air Operations

### Noise Reduction Efforts

Implementation of procedures to reduce noise by:

- Runway usage
- Arrival/departure routes
- Time of operations

Implementation is established locally and "self-imposed" by flight routes (course rules) for aircraft conducting air operations at NASNI and NOLF IB.

### Purpose of Course Rules

- Allow safe and expeditious handling of aircraft
- Reduce noise impacts
- De-conflict with airport traffic conditions at adjacent airfields
- Coordinated with the FAA

Advanced Search

CNIC // NAVAL BASE CORONADO

Change your region or installation

About Operations and Management Installation Guide Fleet and Family Readiness News And Current Info

Welcome to Naval Base Coronado

In order to serve as the Navy's West Coast Quarterdeck in America's Finest City, NBC is committed to delivering and directing base operating support programs and services that exceed customer expectations and contribute to the operational readiness of ashore and afloat commands at Naval Base Coronado.

Unequaled in operational scope and complexity, NBC provides a shore-based platform for helicopters, aircraft carriers, SEAL Teams and other ashore and afloat commands for access to a comprehensive quantity of ground, sea, air, and undersea operational and training space. NBC accommodates the requirements of 16 helicopter squadrons, 2 fixed wing squadrons, two aircraft carriers, four SEAL Teams, Navy Expeditionary Combat Command squadrons, and other air, surface and subsurface commands.

Popular Links

- Air Installations Compatible Use Zones (AICUZ) 2011
- Coalition of Sailors Against Destructive Decisions Rally
- Chain of Command
- CNRSW Bicycle Registration Form
- ICE survey site
- ID Card Information
- Navy Voting Assistance Program
- Noise Complaint Hotline Number
- Noise Complaint Form
- Training Exercises

CNIC Useful Information

Naval Aviation

MH-60R Sea Hawk helicopters assigned to the Raptors of Helicopter Maritime Strike Squadron (HSM) 71 prepare to land during a homecoming celebration at Naval Air Station North Island.

Installation Information

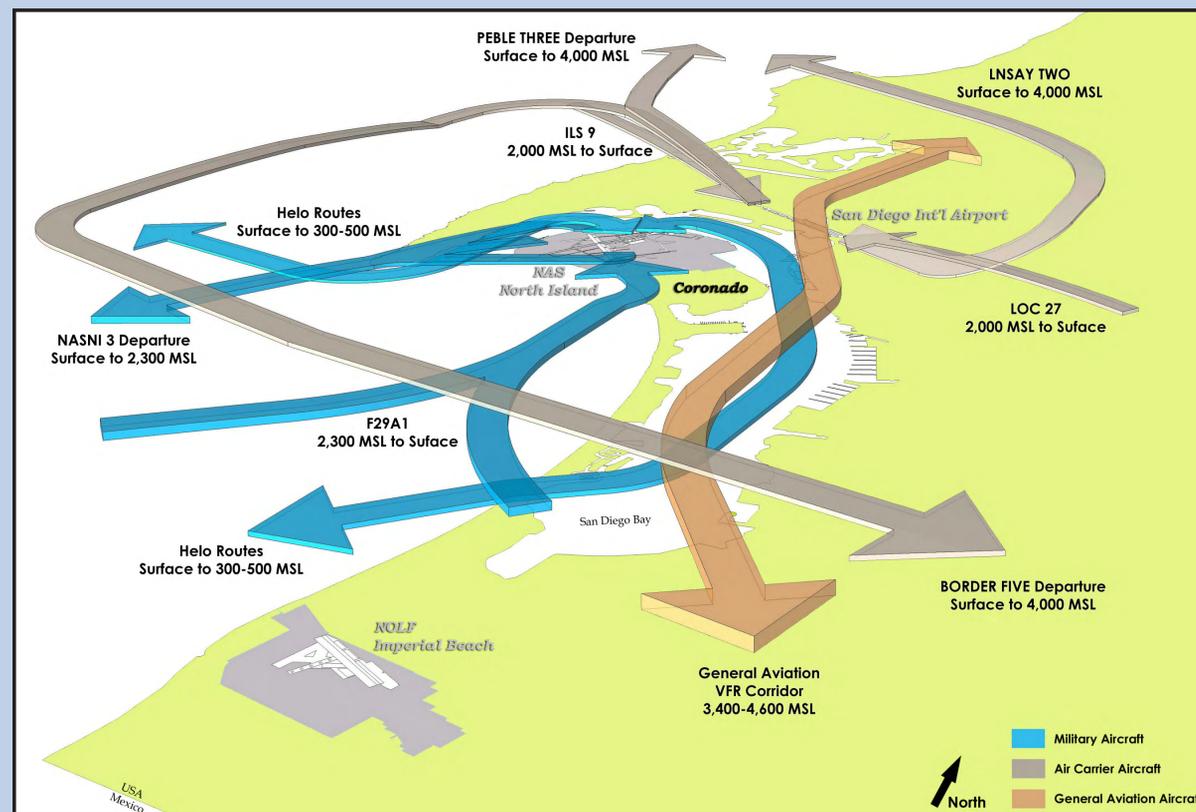
Naval Base Coronado is a consortium of eight Navy installations: Naval Air Station North Island, Coronado (NASNI); Naval Amphibious Base, Coronado (NAB); Naval Outlying Landing Field, Imperial Beach (NOLF IB); Naval Auxiliary Landing Field, San Clemente Island (NALF SCI); Silver Strand Training Complex, Coronado (SSTC), formerly known as the Naval Radio Receiving Facility; Camp Michael Monsor Mountain Warfare Training Center, La Posta; Camp Morena, La Posta and the Remote Training Site, Warner Springs (RTSWS).

Navy Housing HOUSING ASSISTANCE CONTACT INFORMATION

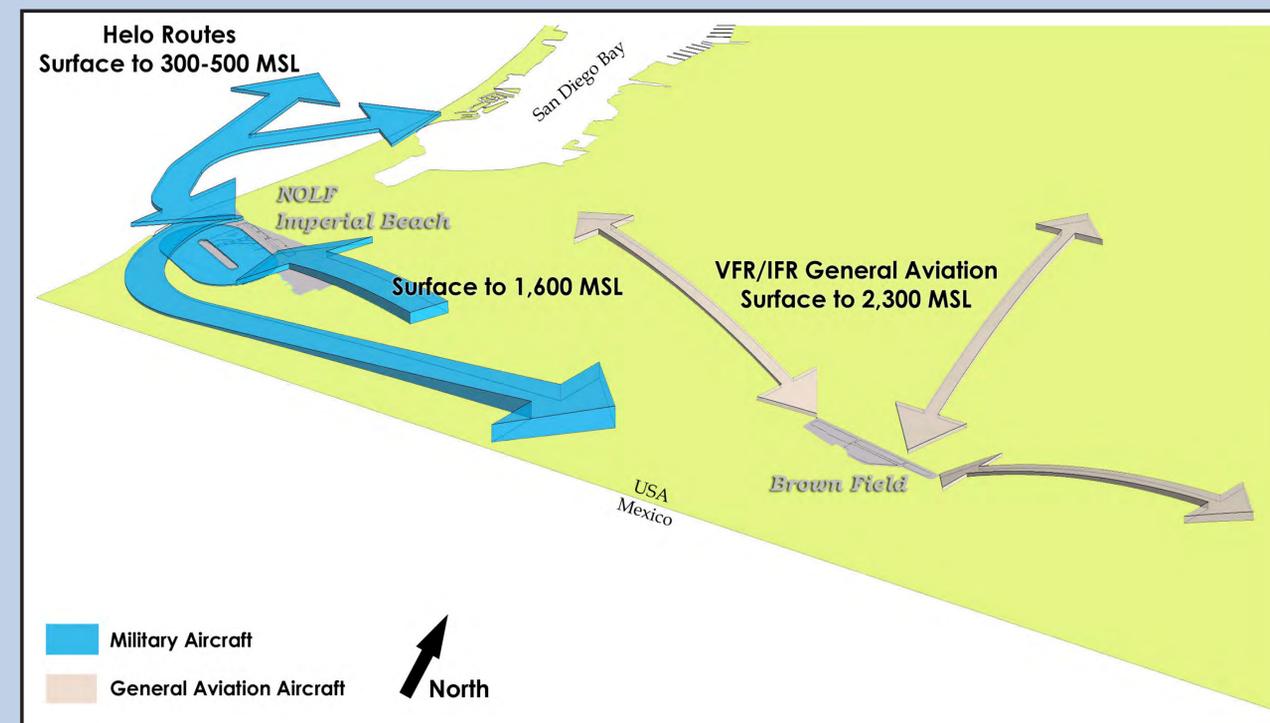
For more information visit:

<http://www.cnic.navy.mil/coronado/>

### Naval Air Station North Island



### Naval Outlying Landing Field, Imperial Beach



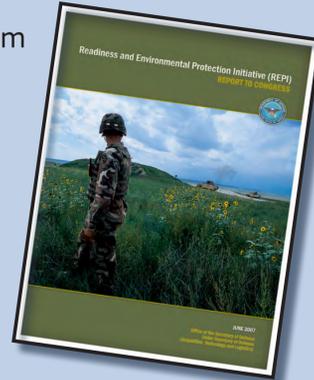


# NAVAL BASE CORONADO

## Land Use and Safety

### Navy Responsibility for Compatible Land Uses

- Continue community outreach and education efforts regarding AICUZ program
- Respond to AICUZ Study inquiries from government agencies and general public
- Continue NBC aircrew training on NASNI and NOLF IB course rules
- Implement Readiness Environmental Protection Initiative program
- Monitor and participate as appropriate in the following government processes:
  - City/County land use and plan updates
  - Agency land and resource management plans
  - San Diego County Regional Airport Authority Land Use Compatibility Plan process
  - Inter-agency land use and resource conservation initiatives
  - Make AICUZ Study updates available to the public
  - Monitor operations and noise complaints and take action as needed
  - Update AICUZ studies, as required



### Recommended Community Responsibility for Compatible Land Uses

#### Local Government

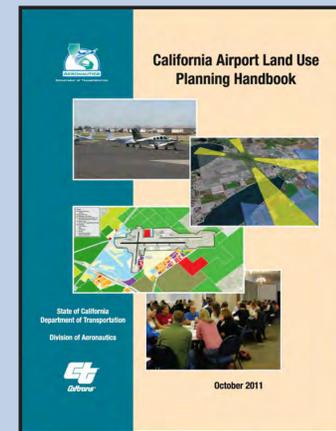
- Cities of Coronado, San Diego and Imperial Beach use this AICUZ Study as a guide for the review and update of City community plans and general plans and participate in a Joint Land Use Study with other land management agencies in the vicinity of NASNI and NOLF IB

#### San Diego County Regional Airport Authority

- It is recommended that the San Diego County Regional Airport Authority consider this AICUZ update in their deliberations and participate in a Joint Land Use Study with other land management agencies in the vicinity of NASNI and NOLF IB



[http://www.san.org/sdcraa/safety\\_security/default.aspx](http://www.san.org/sdcraa/safety_security/default.aspx)



### Other Considerations

#### Sound Insulation

- Where a community determines that noise sensitive developments (residential, hotel, schools, etc.) should be allowed in noise areas greater than 65-decibel CNEL, they should consider measures to achieve reductions to indoor noise levels
- Common measures used to achieve noise level reductions include using higher grade insulation and double-pane windows. Standard permanent construction typically provides a noise level reduction of 20-decibel CNEL



#### Private Citizens

- Consider the AICUZ Study in all property transactions
- Review governing regulations that may incorporate AICUZ information or recommendations before buying, renting, leasing, altering, or developing property



Other Land Use Resources

