

## *FactFinder* Environmental Update

Fact Sheet #19  
November, 2001

### **Five Year Review Operable Units (OUs) 1 and 2**

#### **Introduction**

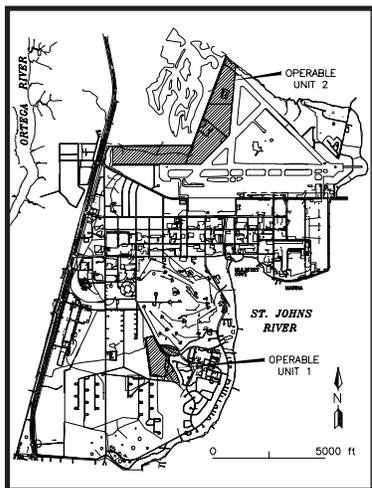
The Installation Restoration Program is an ongoing Department of Defense program conducted at military bases nationwide to identify and address potential sites of contamination resulting from past waste disposal practices. This fact sheet is one in a series to inform interested citizens of environmental investigations and remedial actions at NAS Jacksonville.

The purpose of NAS Jacksonville's Installation Restoration Program is to identify and clean up sites where contamination could pose a risk to people and/or the environment.

This fact sheet summarizes the results of the Five-Year Review conducted at Operable Units (OU) 1 and 2 at NAS Jacksonville. The purpose of the five-year review is to determine whether the selected remedies at the NAS Jacksonville OUs are protective of human health and the environment. Five-Year Reviews are required by law and begin after the first Record of Decision (ROD) is signed.

#### **Location**

OU 1 is located in the southwestern portion of the air station in the area of the former landfill. Base housing and the golf course



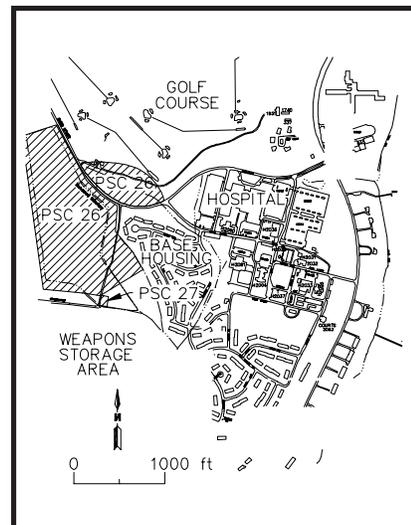
**Location of Operable Units at NAS Jacksonville, Jacksonville, Florida**

are to the east and north, and the restricted weapons storage area is located to the south and west.

OU 2 is located in the northern portion of the air station. The St. Johns River is to the east, while Timiquana Country Club is located to the west. NAS Jacksonville's taxiways and runways are located to the south and east.

#### **Site Background**

There are two Potential Sources of Contamination (PSC) at OU 1:



**Operable Unit 1  
NAS Jacksonville**

#### **PSC 26 The Old Main Registered Disposal Area**

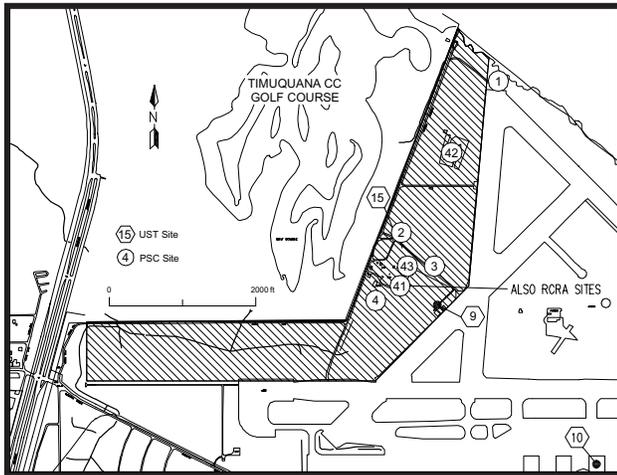
This site was also known as the Oil and Solvents Disposal Pits Area. From 1940 to 1950, the Navy disposed of radium-226 and radium-228 paint waste and luminescent dials at this location. From 1940 to 1979, the site was the basewide disposal area for household and sanitary waste, industrial waste and demolition and construction debris. During this time some liquids and solids were placed in open pits or trenches, ignited, and then covered with soil when full of burned residues. The Navy officially closed PSC 26 as a disposal site in 1979.

*For more information about the environmental cleanup at NAS Jacksonville, call the Public Affairs Office, (904) 542-3846, or the Installation Restoration Manager at (904) 542-2717, ext. 120. A public information repository is also available at the Charles D. Webb Wesconnett Branch of the Jacksonville Public Library, 6887 103rd Street, Jacksonville, FL 32210, (904) 778-7305.*

### *PSC 27 Former Transformer Storage Area*

PSC 27, the Former Polychlorinated Biphenyl (PCB) Transformer Storage Area, is adjacent to PSC 26, the Old Main Registered Disposal Area. PCB-containing electrical transformers were stored at this location until 1978. Vandalism to the transformers occurred in 1978 and resulted in the release of dielectric fluid containing PCBs.

There are six PSC sites within OU 2:



**Operable Unit 2  
NAS Jacksonville**

### *PSC 2 Former Fire Fighting Training Area*

A 100-foot by 100-foot area, this site was used for fire fighting training from 1966 to 1997. Mock airplane forms were ignited using JP-4, JP-5, and AV-GAS aviation fuel. It's estimated that 6,000 gallons of fuel were burned annually. PSC 2 was transferred to the State's petroleum clean-up program in 1998. Therefore, PSC 2 was not reviewed as part of the five-year review.

### *PSC 3 Wastewater Treatment Plant Ex-Sludge Disposal Area*

From 1962 to 1980, more than 20,000 tons of sewage sludge containing metals and organic compounds were disposed in a 15-acre area just east of the sewage treatment plant.

### *PSC 4 Pine Tree Planting Area*

Until 1975, this area, located 200 feet south of the sewage treatment plant, was used for the disposal of paint shavings, sewage sludge, asbestos, oil, and other petroleum products.

### *PSC 41 Domestic Waste Sludge Drying Beds*

Operated under a Resource, Conservation, and Recovery Act (RCRA) permit, an average of 90 gallons per day of sludge was dewatered in these domestic sludge-drying beds. The sludges contained heavy metals.

### *PSC 42 Polishing Pond*

The polishing pond, built in 1970, provided a means to pass water through winding turns, allowing solid waste to settle to the bottom of the pond. The solid waste that settled to the bottom of the man-made pond created a "sludge" layer, which was identified as hazardous. The air station stopped using the pond in 1987.

### *PSC 43 Industrial Waste Sludge Drying Beds*

Like PSC 41, this was a RCRA permitted site. Constructed in 1980, it was operated to dewater metal sludges from paint removal operations. Between 1980 and 1988, about 8,250 gallons of dried sludges were excavated and removed from the sludge drying beds. The air station stopped using the area in 1988, and a RCRA closure permit to close the beds was issued in 1991.

## **Investigations**

Numerous environmental investigations were conducted at OU 1 between 1990 and 1996. The environmental investigations were completed in 1996 with the Remedial Investigation/Feasibility Study (RI/FS) for OU 1. The sampling and testing at the site showed that the soil on the landfill contained metals, PCBs, and low level radioactive paint wastes. The soil just outside the landfill contained petroleum products, metals and PCBs. Petroleum was discovered floating on the groundwater in the area where oil was previously disposed in pits in the ground, and the sediment in the creek that passes through the area contained pesticides, PCBs, and metals. The shallow groundwater in the area contained low levels of petroleum products and chlorinated solvents. Chlorinated solvents were used as cleaning compounds and degreasers. The materials found at OU 1 were a result of the past landfill disposal practices.

At OU 2, numerous environmental investigations were conducted from 1993 to 1997. Focused remedial investigations were conducted at the sites starting in 1993. The sampling and testing showed levels of metals in soil and sediment (e.g., cadmium, chromium, lead, nickel, and silver) in excess of naturally occurring levels for NAS Jacksonville. The contamination was a result of past sludge disposal practices.

## **Cleanups**

At OU 1, an interim remedial action (cleanup) was started in 1995 to remove the petroleum floating on the groundwater. In September 1997, a ROD was signed for OU 1. The ROD was an agreement between the Florida Department of Environmental Protection (FDEP), the United States Environmental Protection Agency (USEPA), and Navy on the cleanup of OU 1. It was agreed that the petroleum recovery system would continue to operate until the petroleum was removed. In 1998, the contaminated soil and sediment outside the landfill was removed and placed in the landfill. After the contaminated soil and sediment was placed in the landfill, the landfill was capped and covered, protecting the surrounding environment from the soil and sediment. The landfill area now appears as a large raised grass field. A long-term groundwater and surface water monitoring program was started

in 1999. The groundwater monitoring confirms that the contaminants will break down to safe levels over time by a method called natural attenuation.

At OU 2, interim actions (cleanups) were designed to address the individual PSCs. PSCs 3 and 4 were investigated and a small area of contamination was added with the PSC 42 polishing pond cleanup and has been treated.

PSCs 41 and 43 contaminated soils were also consolidated into PSC 42. PSC 42 underwent "in place" stabilization, which involved mixing a cement mixture with the sediment and groundwater in the pond to form a large, solid block about two to four feet below the surface of the soil cover. The area, which was backfilled and seeded, is now a large grassy field on the northeast corner of the air station. The cleanup at PSC 42 was completed in March 1997.

As a result of the cleanups of the PSCs at OU 2, the final remedial investigation recommended that no further cleanup action was required. Per RCRA, the Navy will continue to conduct groundwater monitoring and maintain land use controls at these sites.

### Five Year Review Purpose

The purpose of the five year review is to evaluate whether the remedial actions (clean-up methods) selected at the OUs worked or are working as planned and that the actions are protecting human health and the environment.

As part of the five year review, three main actions were performed.

- 1) The sites were inspected to verify that the cleanup and protective measures were installed and operated as designed.
- 2) The historical OU documents were reviewed to determine if the cleanup actions were installed as designed, to determine if any new information has come to light since that time, and to determine if the cleanup actions selected are working as designed.
- 3) Review current environmental regulations to ensure no new laws were passed that would result in the selected cleanups being unsuitable or ineffective.

### Five Year Review Findings

The five year review for NAS Jacksonville was conducted between December 2000 and April 2001. The results of the five year review found the following:

- The selected cleanup methods at OU 1 and OU 2 were completed and installed as designed.
- The cleanup actions performed to date are protective of human health and the environment.
- The Navy is meeting the requirements of the cleanup decision documents.

- The land use controls and long term monitoring of the OUs helps ensure that human health is protected.

To ensure the cleanup methods used remain protective, several recommendations were noted, including:

- Repair and upgrade the petroleum recovery system at OU 1 to improve cleanup, and investigate the area to determine whether the site conditions have changed.
- Update the monitoring program for OU 1 to monitor for the same types of contamination in groundwater and surface water.
- Investigate rising chemical concentrations in monitoring well MW-89.
- Track the long-term groundwater monitoring at OU 2.
- Ensure that the land-use inspections at both OU 1 and OU 2 are performed on a quarterly basis.

### What's Next

With the finding that the cleanup actions at OU 1 and OU 2 are protective of human health and environment, no major changes will occur at OU 1 and OU 2. The majority of cleanup actions have occurred at both sites and long term monitoring and maintenance programs are in place. The long-term monitoring at both locations will continue and the recommendations made during the five year review will be put into place over the next few years to continue to protect human health and the environment. The next five year review will occur in 2005, and OU 1, OU 2, and any other sites undergoing cleanup at the air station will be included in the review.

### Available Information

Information on the five year review, as well as materials regarding environmental cleanups at NAS Jacksonville, are available for public review at the Charles D. Webb Wesconnet Branch of the Jacksonville Public Library, 6887 103<sup>rd</sup> Street.

Library hours are:

Monday – Wednesday from 10 a.m. to 9 p.m.  
Thursday – Saturday from 10 a.m. to 6 p.m.  
Sunday from 1 p.m. to 5 p.m.

### Written Comments/Mailing List

If you would like more information or would like to become a member of NAS Jacksonville's Restoration Advisory Board (RAB), which meets regularly to discuss cleanup actions on the installation, please contact:

Bill Dougherty  
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Box 2, Naval Air Station  
Jacksonville, FL 32212-5000  
(904) 542-3846

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