

CRANE NAVAL SURFACE WARFARE CENTER CRANE, INDIANA



Engineering Field Division/Activity: SOUTHDIV
Major Claimant: COMNAVSEASYSKOM
Size: 62,463 Acres
Funding to Date: \$28,504,000
Estimated Funding to Complete: \$71,819,000

Base Mission: Provides quality engineering, testing and technical material to support fleet combat system, small arms, microelectric technology, microwave warfare acoustical sensors, pyrotechnics

Contaminants: Acid, chemical agents, explosive and ordnance chemicals, heavy metals, low-level radiation, paint, PCBs, pesticides, POLs, plating waste, solvents, unexploded ordnance

Number of Sites:		Relative Risk Ranking of Sites:			
CERCLA:	0	High:	21	Not Evaluated:	0
RCRA Corrective Action:	32	Medium:	5	Not Required:	1
RCRA UST:	1	Low:	6		
Total Sites:	33				

Sites Response Complete: 1

PROGRESS AND PLANS

RCRA CA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
RFA	26	2	1					3
RFI / CMS	1		1	4		1	1	23
DES				1		1	1	28
CMI						1		30
CMO								30
IRA	3(4)	7(10)	2(2)	2(2)	1(1)	1(1)		
RC	1							31
Cumulative % RC	3%	3%	3%	3%	3%	3%	3%	100%
UST	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
SA								
CAP						1		
DES							1	
IMP								1
IMO								1
IRA								
RC								1
Cumulative % RC	0%	0%	0%	0%	0%	0%	0%	100%

INDIANAPOLIS NAVAL AIR WARFARE CENTER

INDIANAPOLIS, INDIANA



Engineering Field Division/Activity: SOUTHDIV
Major Claimant: COMNAVAIRSYSCOM
Size: 163 Acres
Funding to Date: \$541,000
Estimated Funding to Complete: \$5,050,000

Base Mission: Provides Research, Development, Test and Evaluation (RDT&E) and ILS maintenance services and support for aviation electronics and weapons systems

Contaminants: POLs

Number of Sites:		Relative Risk Ranking of Sites:			
CERCLA:	1	High:	1	Not Evaluated:	0
RCRA Corrective Action:	0	Medium:	0	Not Required:	2
RCRA UST:	2	Low:	0		
Total Sites:	3				

BRAC IV

Sites Response Complete: 2

EXECUTIVE SUMMARY

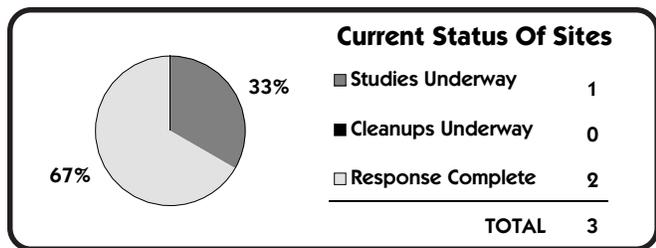
Indianapolis Naval Air Warfare Center (NAWC) is located in the city of Indianapolis, Indiana in the south central part of the state. The NAWC was commissioned in 1942 as the Naval Ordnance Plant Indianapolis, a Government-Owned, Contractor Operated (GOCO) facility. It produced the then top-secret Norden Bombsight. In 1945, it was converted to a Government Owned, Government Operated (GOGO) facility, and expanded its capability to include more aviation electronics items. In 1977, the mission was redefined to add space, undersea and surface weapons as well. Typical operations conducted at the facility in support of its mission include machining, electroplating, degreasing of metal parts, carpentry shops, painting, photographic labs, test and evaluation, document burning, and storage of materials, supplies and fuels. The majority of the wastes produced by the operations on the facility were shipped off site for recycling or disposal, or were discharged to the sanitary sewer system. Recent surveys have indicated the potential for contamination from leaking floor drains due to deterioration of the drainage structures. These areas are under investigation to determine if they are sites requiring cleanup. The NAWC is not under any kind of legal agreement prescribing cleanup requirements.

NAWC is in a completely developed and urbanized setting in the northeast quadrant of the city of Indianapolis. The land in the area is flat, surrounded by commercial and residential areas. Due to the impervious nature of the surficial soils, most rainfall and snowmelt result in surface runoff that is channeled to a retention pond before being discharged to the storm sewer system. Groundwater is within 10 feet of the ground surface and is being investigated for potential contamination. Due to the highly developed nature of the area, little wildlife is present except those species that have adapted to an urban environment. The most likely receptor to any contamination present would be the local population and on-site workers. The greatest concern to the public and worker is surface and sub-surface soil contamination.

In order to better address the concerns of the public, a Restoration Advisory Board (RAB) was formed in April 1996 and meets every month. A publicly available Information Repository has been set up at Warren Library, Indianapolis, IN to provide information on the environmental cleanup program.

Currently, there is one active site in the IR program which is currently undergoing an RI/FS investigation. Two Underground Storage Tank (UST) sites have been investigated and remediated at NAWC. UST 1, a 15,000 gallon fuel oil tank at Building 6000 was found to leak and was taken out of service. UST 2, a 2,000 gallon gasoline tank was removed. Both sites are Response Complete (RC), with no further remedial action planned. The final Environmental Baseline Survey (EBS) identified 38 Areas of Concern (AOCs) which were reduced to 18 AOCs by consolidation and removal of 16 petroleum tank compliance sites. These 18 AOCs are incorporated into the RI/FS that began on Site 1. Some of these AOCs are expected to be converted to official Sites or SWMUs as sampling information is obtained revealing contamination. The petroleum sites will be addressed under the UST program as compliance sites.

In 1995, The Base Realignment and Closure (BRAC) commission recommended NAWC Indianapolis for closure. Operational closure is planned for 4 January 1997. Operations will be transferred to a private company. A BRAC Cleanup Team (BCT) was formed in December 1995, and a BRAC Cleanup Plan (BCP) will be completed in November 1996. An Environmental Baseline Survey (EBS) was conducted in the fall of 1995 and a final report was produced in March 1996. A local reuse committee, the NAWC Indianapolis Reuse Planning Authority (NAWC-RPA) has been formed and is in the process of privatizing the facility. A lease was signed with the City of Indianapolis in September 1996, with a turn-over to a private company scheduled for January 1997.



INDIANAPOLIS NAWC RELEVANT ISSUES

ENVIRONMENTAL RISK



HYDROGEOLOGY - Indianapolis NAWC is located in the northeast quadrant of the city of Indianapolis, Indiana and the facility is surrounded by commercial and industrial developed areas. The topography in the area is generally a flat plain gently sloping to the southeast. Rainfall and snowmelt in the area are relatively heavy. The surface soils in the area are composed of 12 to 14 inches of topsoil over a yellow hard pan clay, indicating that minimal amounts of precipitation would percolate into the ground to the water table. Most precipitation would either pond in depressions or become surface runoff. If undeveloped, natural surface drainage would be to Pleasant Run, an intermittent stream approximately 1000 feet southeast of NAWC that flows in a south-southwesterly direction. Due to the highly developed nature of the area and amount of paved surfaces and roof areas, more than a normal amount of precipitation is runoff which then ponds in low areas. As a result, the NAWC recently constructed rip-rap swales to channel the runoff and constructed a storm water retention pond in the southwest region of the facility to collect the runoff. The unlined retention pond, having a capacity of 1.2 million gallons, discharges to the city storm sewer system. The city storm sewer system eventually discharges to the White River watershed. Any contaminants from NAWC carried by surface runoff would end up in Pleasant Run.

A waste water treatment plant was built on the property in 1990 to handle industrial waste waters. The geological structure under the facility is composed of till with outwash deposits of sand at approximately 25 and 100 feet below ground surface. There are three aquifers underlying the Center. The water table aquifer located about 10 feet below ground surface and is thought to flow towards the southeast and discharge to Pleasant Run. Other aquifers are the Principle Pleistocene Aquifer, thought to underlie the facility at a depth of 75 to 100 feet and is estimated to be 10 feet thick, and the Bedrock Aquifer located approximately 170 feet below ground surface in the limestone geological unit. Due to the impervious nature of the local upper soil layers and the storm sewer system, it is not expected for contaminants from the NAWC to migrate to the groundwater. The Silurian/Devonian limestone bedrock aquifer is used for drinking water supplies and at least 25 privately owned drinking water wells are located within 3 miles of the NAWC. Monitoring wells installed as part of the UST program has so far detected only petroleum products in the groundwater.



NATURAL RESOURCES - Because the NAWC is located in the middle of a metropolitan area, natural resources are limited to those species common in developed areas. Common birds and rodents frequent the property, but no rare, threatened or endangered species have been observed on the compound or are known to frequent the area.

The facility is surrounded by urban residential, commercial and industrial development. Most of the commercial establishments within the immediate vicinity of NAWC Indianapolis are located along the northern and western boundaries. Businesses in the area include gas stations, car washes, dry cleaners, and office buildings. The areas immediately beyond the businesses lining the boundaries of the NAWC are predominantly residential, as are the areas south and east of the facility.



RISK - A draft Baseline Human Health and Ecological Risk Assessment will be completed in February 1997.

REGULATORY ISSUES



NATIONAL PRIORITIES LIST - The facility is not listed on the National Priorities List (NPL).



PARTNERING - From 31 January through 2 February 1996, the NAWC Indianapolis BCT met for the first time in a session facilitated by a contractor, the Galileo Quality Institute. The team, comprised of members from NAWC, SOUTH DIV, EPA Region V, Indiana Department of Environmental Management, EFD Midwest, and the CLEAN and RAC contractors, was introduced to the concept of "partnering" and each member explained his or her role in the process. Partnering was defined as a collaborative relationship that creates an environment where trust and teamwork prevent disputes from developing and where all team members seek to achieve common goals and objectives. Various training sessions were conducted by Galileo in the areas of meeting management, decision making, managing conflict, and team building. At the end of the sessions, the NAWC Indianapolis team had accomplished the following:

- Developed team mission statement and charter
- Identified roles and responsibilities
- Developed team Code of Conduct
- Developed meeting management rules
- Developed a decision making model
- Began to work together as a team

COMMUNITY INVOLVEMENT



RESTORATION ADVISORY BOARD - A Restoration Advisory Board (RAB) was formed in April 1996. The RAB has nineteen members and a community co-chair has been selected. The RAB meets every month and has received training/presentations on ecological and human health risk assessment. In FY96, the RAB made several site visits and observed at least one tank removal.



COMMUNITY RELATIONS PLAN - A Community Relations Plan (CRP) was completed in FY96.



INFORMATION REPOSITORY - To make cleanup information easily accessible by the public, an Information Repository was set up in April 1996 at Warren Library, Indianapolis, IN. The Information Repository contains a copy of the Administrative Record (the official file) and other documents describing the program. The Information Repository is updated and maintained on a regular basis by the Navy.

BASE REALIGNMENT AND CLOSURE



BRAC - NAWC Indianapolis is slated for operational closure on 30 September 2000 as recommended by the Base Realignment and Closure (BRAC) Commission in 1995. The operations at NAWC will be relocated to three other activities: Naval Surface Warfare Center, Crane, Indiana; NAWC Aircraft Division Patuxent river, Maryland; and NAWC Weapons Division, China Lake, California. The actual property transfer date has not been determined yet.



BRAC CLEANUP TEAM - The BRAC Cleanup Team (BCT) was established in December, 1995 and meets monthly. The BCT members include the Navy, Indiana Department of Environmental Management, and US EPA Region V.



DOCUMENTS - A draft BRAC Cleanup Plan (BCP) was completed in July 1996. The final BCP will be completed by November 1996. An Environmental Baseline Survey (EBS) was begun in September 1995, completed in November 1995 and a final report was produced in March 1996. The EBS identified 38 Areas of Concern (AOCs), which were then consolidated into 18 AOCs and 16 UST compliance sites, that will be further investigated to determine if they are contaminated sites. Currently there is one active site, a leaking waste machining coolant pit, which was removed in September 1995 and revealed high levels of volatile organics in the soil underneath. The Environmental Condition of Property is given below.

INDIANAPOLIS NAWC RELEVANT ISSUES

Environmental Conditions of Property Classification

1	2	3	4	5	6	7
132 acres	15 acres	1 acres	1 acres	1 acres	0 acres	13 acres



LEASE/TRANSFER - No acreage has been leased or transferred yet. The EBSL/FOSL was signed on 29 August 1996.



REUSE - A Reuse committee was formed in February 1996 and is known as the NAWC Indianapolis Reuse Planning Authority (NAWC-RPA). The RPA is working with the Navy to

facilitate privatization as an approach to closure. The RPA has developed a Preliminary Privatization Business Plan which will become part of the Reuse Plan. The Final Reuse Plan was completed in August 1996.



FAST TRACK INITIATIVES - Fast track initiatives being implemented include employing lessons learned from previous BRAC rounds, applying an integrated team approach to decision making, overlapping remedial investigation/feasibility studies (RI/FSs) planning phases, applying Indiana Department of Environmental Management (IDEM) voluntary cleanup criteria to risk based corrective actions, expediting contracting procedures, optimizing acquisition strategies and compressing work schedules where feasible.

HISTORICAL PROGRESS

FY88

Base-Wide - A Preliminary Assessment (PA) determined there were no hazardous waste disposal sites at NAWC, and no hazardous waste known or suspected to have been released.

FY90

USTs 1 and 2 - An Initial Site Characterization study was begun for these two UST sites.

FY92

USTs 1 and 2 - The Initial Site Characterization study was completed for these two sites. No remedial action was required and the sites are considered to be Response Complete (RC).

PROGRESS DURING FISCAL YEAR 1996

FY96

Site 1 - PA/SI completed at Site 1. Initiated an RI/FS at Site 1 and 18 AOCs. This work included developing a comprehensive and Site-specific Sampling Plan.

BRAC- Initiated an RI/FS at all 18 AOCs. BCT was established and is meeting at least once a month. Final EBS report completed in March. Local Reuse committee formed. Lease was signed with the City of Indianapolis. CRP was completed. An Information Repository was setup. RAB was formed in April. The FOSL for the property was completed in August. The Final Reuse Plan was completed in August.

PLANS FOR FISCAL YEARS 1997 AND 1998

FY97

Site 1 - Complete RI/FS at Site 1 and AOCs. At this time several of these areas might be identified as Sites or SWMUs by April 1996. Begin RD at Site 1 and any necessary AOCs (which would be identified as new Sites/SWMUs). A draft Baseline Human Health and Ecological Risk Assessment will be completed in February 1997. IRA completed at Site 1. BRAC- Initial BCP will be completed in November. Initial BCP abstract will be completed in October. BCP abstract will be modified in the spring. BCP will be modified in the spring.

FY98

Site 1 - Site 1 RD to be completed and RA to begin. Continue work on the AOCs, to include RD and RA work if necessary. Any RD and RA work would be conducted under the IR program as official Sites or SWMUs. Complete Final Baseline Human Health and Ecological Risk Assessment. BRAC BCP will be modified. BCP abstract will be updated.

**INDIANAPOLIS NAWC
PROGRESS AND PLANS**

CERCLA	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
PA / SI		1						
RI / FS			1					
RD				1				
RAC								1
RAO								1
IRA			1(1)					
RC								1
Cumulative % RC	0%	0%	0%	0%	0%	0%	0%	100%
UST	FY95 and before	FY96	FY97	FY98	FY99	FY00	FY01	FY02 and After
SA	2							
CAP								
DES								
IMP								
IMO								
IRA								
RC	2							
Cumulative % RC	100%	100%	100%	100%	100%	100%	100%	100%