

# Former NAS Cecil Field, Jacksonville, Florida



## SUMMARY

The former Naval Air Station (NAS) Cecil Field was the largest military installation in the Jacksonville, Florida, area and the South's only Master Jet Base. NAS Cecil Field was placed on the National Priorities List in 1989, and in 1993, the Base Realignment and Closure (BRAC) Commission recommended closure of the base. At base closure in 1999, 285 sites required further evaluation, with 25 sites being investigated as part of the Installation Restoration (IR) Program. As of December 2013, 17,064 of the 17,225 acres have been transferred, and remedies are in place for all sites in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Florida Department of Environmental Protection (FDEP) Petroleum Program. The work was accomplished while maintaining a perfect safety record with zero recordable incidents and zero lost-time accidents.

The Cecil Field BRAC Cleanup Team (BCT) coordinated with the Restoration Advisory Board (RAB) and teamed with experts to devise and use innovative solutions and technologies to achieve its mission of property transfer while adhering to its vision of partnering. Forty percent of remediation work was subcontracted to local, small, and disadvantaged businesses.

The BCT has taken the necessary steps to protect the public and the environment through expedited response and saved over \$10 million in the cleanup process. Significant recent and ongoing accomplishments achieved by the BCT include:

## Cecil Field BRAC Cleanup Team

The Cecil Field BRAC Cleanup Team (BCT) is comprised of the following individuals:

- **David Criswell and Art Sanford**, NAVFAC SE
  - **David Grabka**, FDEP
  - **Peter Dao**, EPA Region 4
  - **Kara Wimple**, Resolution Consultants  
Comprehensive Long-term Environmental Action Navy (CLEAN) Contractor
  - **Robert Simcik and Megan Boerio**, Tetra Tech, Inc,  
CLEAN Contractor
  - **Jessica Keener**, Solutions-IES, Basic Ordering Agreement (BOA) Contractor
- 
- Investigation of 644 sites
  - Transfer of 99 percent of the property
  - Achievement of site-wide Construction Complete status by having remedies implemented at all sites
  - Re-evaluation of an existing Record of Decision (ROD) to modify the remedy and save over \$1 million in costs
  - Expeditious removal of munitions and explosives of concern (MEC) to minimize impacts to construction/remediation activities
  - Community trust and acceptance of Navy's activities through active RAB
  - Site 15 approved for selected reuse, cleared of MEC, and being prepared for transfer
  - Recent site rehabilitation completion and closeout of several sites
  - Site 3 solar-powered air sparging system
  - Jacksonville Aviation Authority (JAA) Cecil Airport development and work with JAA to allow for their successful expansion
  - Oxygen Release Compound (ORC) Advanced™ injections at BP Wells site coordinated with JAA construction

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Category:  
Environmental  
Restoration—Team



*The BCT has worked closely to achieve their mission for former NAS Cecil Field. Their success is demonstrated by having 99 percent of the property transferred and in the prosperous development of the property through teamwork with the current property owners.*

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## BACKGROUND

In July 1993, the BRAC Commission recommended closure of NAS Cecil Field, a 17,225-acre facility in Jacksonville, Florida. At base closure in 1999, 285 sites required further evaluation, with 25 sites in 12 Operable Units (OUs) being investigated as part of the IR Program under the CERCLA. Today, remedies have been implemented for all CERCLA sites at the facility. The work was accomplished while maintaining a perfect safety record with zero recordable incidents and zero lost-time accidents.

The Cecil Field BCT was formed to establish a teaming relationship among Naval Facilities Engineering Command Southeast (NAVFAC SE) personnel and contractors and representatives of the FDEP and United States Environmental Protection Agency (EPA). This team has worked together successfully to accomplish a common goal—cleanup of environmental contamination and transfer of the former NAS Cecil Field property to the community to promote economic development in the area.

A total of 644 potential sites were initially identified, with 285 sites requiring further evaluation under CERCLA. All required investigations have been completed, and all storage tanks associated with FDEP's Petroleum Program have been removed or transferred to COJ. Over 250 buildings/sites and approximately 16,000 acres were removed from the NPL. Fourteen IR sites have been granted No Further Action (NFA) status; RODs have been signed for all of 25 identified IR sites, and long-term monitoring (LTM) is ongoing at 11 sites.

The BCT has taken the necessary steps to protect the public and the environment through expedited response and has developed and applied innovative remedial technologies. It is estimated that over \$10 million has been saved through decisions made by the BCT to achieve fast-track and innovative cleanup.

The public has participated in the cleanup process through the RAB, which has always been very supportive of the Navy's cleanup efforts. Since the base's closure in 1999, the BCT has progressed consistently towards its goal of transferring the former NAS Cecil Field, with 99 percent of former base property currently transferred.

Property at the former NAS Cecil Field has been transferred primarily to COJ or JAA, and both parties have begun improving and developing the property. To date, the redevelopment has included:

- Utility upgrades
- Building demolition and renovation
- Improvement and expansion of existing hangars and significant development of new hangars
- Roadway construction/realignment
- Lake Fretwell expansion
- Construction of an Equestrian Center and Recreation Complex
- Construction of a Florida Community College of Jacksonville campus

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*The City of Jacksonville has been working with developers, in cooperation with the BCT, to safely and beneficially make use of property at former NAS Cecil Field.*



*The Jacksonville Equestrian Center at Cecil Commerce Center*



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## POSITION DESCRIPTION

The former NAS Cecil Field is located 14 miles southwest of Jacksonville, Florida. The majority of Cecil Field is located with Duval County, and the southernmost portion of the facility is located in Clay County. Overall, the former NAS Cecil Field comprises 17,225 acres. The BRAC Commission selected the former NAS Cecil Field for closure in 1993, and in 1994, the Navy completed an Environmental Baseline Survey (EBS) to satisfy BRAC guidelines for property transfer. The EBS and other initial environmental studies identified 644 potential CERCLA sites and 235 petroleum sites, which were evaluated in accordance with state and federal guidance.

The former NAS Cecil Field was decommissioned under BRAC on April 30, 1999. As of December 2013, 99 percent of the 17,225 acres have been transferred. The single remaining site property has been approved for the intended reuse and cleared of MEC, and a Finding of Suitability to Transfer (FOST) is currently in preparation to allow for transfer of the site.

The BCT was established to provide safe and efficient management during the lifecycle of all environ-

mental actions performed at the former NAS Cecil Field. Its mission is to facilitate the return of NAS Cecil Field to the community through cost-effective fast-track cleanup while ensuring protection of human health and the environment.

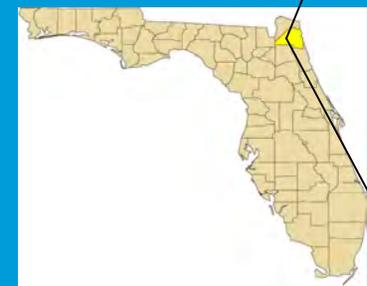
In summary, the team's major responsibilities include:

- Ensuring that environmental restoration activities are performed safely and efficiently
- Implementing innovative technologies, solutions, and sound technical decisions to protect human health and the environment while achieving cost avoidance
- Providing efficient award and execution of contracts to streamline the cleanup process
- Establishing and maintaining an active RAB to foster cooperation and communication among all stakeholders

These duties have been conducted via proper allocation of resources, close coordination with community groups, timely application of innovative technologies and solutions, and a superb quality control program, while concurrently subcontracting a significant portion of the work to local, small, and small disadvantaged businesses.

**Mission Statement:**  
To facilitate the return of NAS Cecil Field to the Community through cost effective fast-track cleanup, while ensuring protection of human health and the environment.

**Vision Statement:**  
We will continually strive to become better at achieving our mission by adhering to our team's concept of partnering.



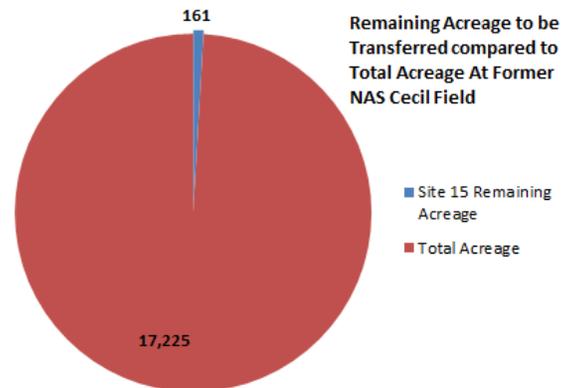
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## ACCOMPLISHMENTS

### Transfer of Cecil Field

- 99 percent of the total 17,225 acres has been transferred.
- One FOST for the remaining site under Navy ownership is currently in review, and upon its acceptance and deed preparation, all former NAS Cecil Field property will have been transferred.
- Partial deletion of sites from the NPL in June 2003 facilitated the transfer of property and significantly reduced CERCLA-related costs.
- RODs have been signed and remedies implemented for all 25 CERCLA sites.
- LTM is ongoing at 11 IR sites.



*Solar-powered air sparging system at Site 3*



### Implementation of Innovative and Sustainable Remediation Techniques

- A solar-powered air sparging system was chosen by the BCT for a pilot study at Site 3 to act as a cut-off wall to prevent groundwater contamination from discharging into the nearby creek. The system was installed in October 2012 and began operation in November 2012. The system is still in the pilot-study stage but has functioned with very little downtime or need for maintenance and repairs.
- ORC Advanced™ injection at the BP Wells petroleum site treated groundwater contamination directly, quickly, and effectively. ORC Advanced™ was injected at the site, in cooperation with the property owner, JAA, and timed to coincide with new construction in November 2011. Concentrations of 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and total xylenes in groundwater at the site are nearing regulatory limits, after exceeding these limits by more than an order of magnitude prior to injection.
- A biosparging system was used to effectively treat chlorinated VOC contamination in groundwater at Site 59. The system was initially started in November 2008, and the system has since been adapted and expanded to treat the only remaining hot spot area. The adapted system began operation in May 2011. TCE concentrations in groundwater in hot spot wells have decreased from 1,400 mg/L to less than 100 mg/L, with many concentrations less than the regulatory goal of 3 mg/L.

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### Major Recent Accomplishments

- ◆ Transfer of 99 percent of former base property
- ◆ Achievement of site-wide Construction Complete status
- ◆ Recent achievement of Site Rehabilitation Completion Orders and site closeouts
- ◆ BCT responsive to stakeholders allowing for efficient redevelopment
- ◆ Stakeholder involvement with environmental activities
- ◆ Regulatory coordination
- ◆ Zero-incident safety record
- ◆ Community trust
- ◆ Meeting Navy's small-business goals

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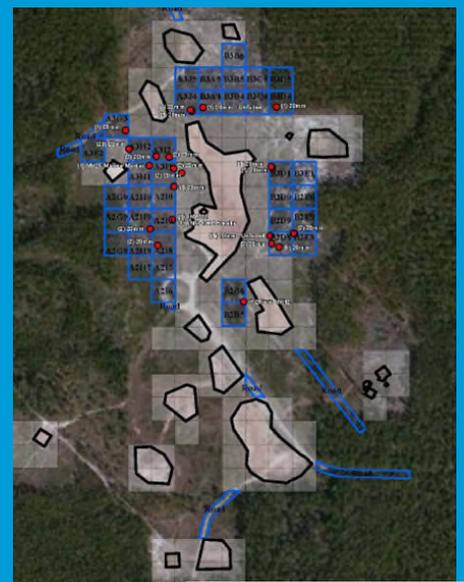
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## MEC Issues and Management

- MEC was encountered during construction/remediation projects at Building 365, Hangar 860, Sites 1 and 2, and Site 15 and was removed in accordance with FDEP and federal regulations and in compliance with all requirements of the Naval Ordnance Safety and Security Activity (NOSSA) and Department of Defense Explosives Safety Board (DDESB).
- MEC was removed at Site 15 after all environmental issues had been addressed to allow for specified reuse of the site and transfer of the site to the COJ Parks and Recreation Department. The final MEC removal action was conducted in July and August 2012.
- Emergency permit orders were obtained to ensure that MEC removal was conducted under appropriate authorization and using applicable safety measures.
- Two other areas where MEC was located had already been transferred to JAA and are being cleared of MEC concerns by CH2MHill in cooperation with JAA. The Phase III clearance in the Building 365 area was completed from July 2010 to April 2012, and MEC removal is ongoing in the Hangar 860 area. A detonation event was conducted April 11, 2012 to safely dispose of 784 items identified during MEC investigations at Building 365 and Hangar 860.
- Practice bombs were discovered in Rowell Creek in May 2011 during regular sampling at Sites 1 and 2. The property owner, JAA, and Explosive Ordnance Disposal Mobile Unit (EODMU) Six DET from Mayport, Florida, were notified, and on May 9, 2011, a total of 31 Mk76 practice bombs were safely recovered.

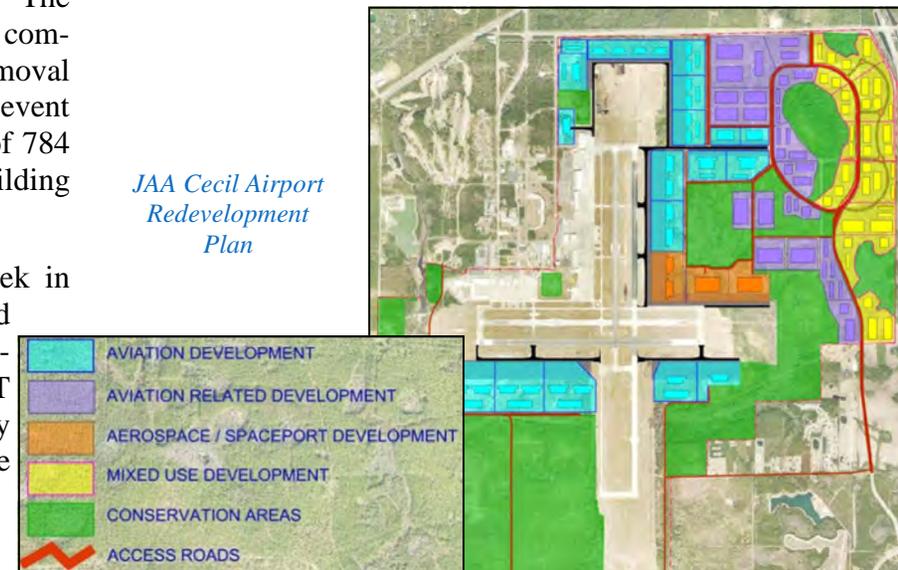
## Cooperation with Developers and Property Owners

- JAA and COJ are the current main property owners at the former NAS.
- Airfield operations at JAA have gone from 7,910 touches in 1999 to 89,508 in 2012.
- JAA activities have created 3,105 jobs at the former base since the initial transfer of property.
- The BCT maintains a strong relationship working with JAA and COJ to assist with proposed construction to avoid environmental impacts, address any impacts to environmental systems if and when they occur, and assist with verification of compliance with land use controls (LUCs).
- Cooperation with current property owners has allowed for improved performance both environmentally and in terms of JAA and COJ operations. For example, coordination of the BP Wells site ORC Advanced™ injection with new hangar construction at JAA Cecil Airport allowed successful completion of both projects with minimal interference.



Map showing the munitions clearance areas at Site 15, MEC items identified, and previous soil excavation areas.

JAA Cecil Airport  
Redevelopment  
Plan



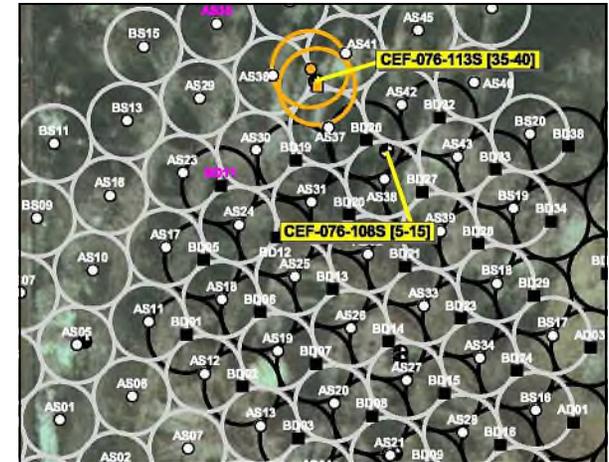
# Former NAS Cecil Field, Jacksonville, Florida



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## Cooperation in Team Transition

- The new Navy CLEAN contractor, Resolution Consultants, began attending meetings with the team and performing BCT activities in 2012.
- All BCT members and contractors have been working together to share institutional site knowledge with the new CLEAN contractor and continue to look for improved and innovative methods of addressing issues and community and property owner concerns.



*Layout of the modified air sparging system wells and radii of influence.*

## North Fuel Farm Remediation System Modification

- Over 1 million gallons of fuel was spilled over time at the North Fuel Farm (NFF).
- Soil removal was conducted prior to the groundwater treatment system being installed.
- A combination of remediation techniques was chosen to treat groundwater at the NFF, including air sparging, biosparging, and soil vapor extraction.
- Eighty-two vertical air sparging wells, 125 vertical biosparging wells, and 10 soil vapor extraction collection lines were installed to treat groundwater in the area.
- Full system operation began in 2005, and in 2010, it was decided that the system was working effectively for the majority of the site but that one well with high concentrations of benzene was outside of the area of system influence.
- In July and August 2010, Tetra Tech installed two new injection wells adjacent to the well with elevated levels of benzene and restarted the system with air flow directed to only the two new injection wells.
- The immediate results were favorable, but the system was inoperable for a period of time due to electrical and other issues. Concentrations rebounded with the system off, so the team decided to restart the system in December 2011.
- Throughout system operation in FY2012 and FY2013, benzene levels have decreased from over 5,000 mg/L to less than 5 mg/L and are approaching the regulatory limit of 1 mg/L.
- The immediate results were favorable, but the system was inoperable for a period of time due to electrical and other issues. Concentrations rebounded with the system off, so the team decided to restart the system in December 2011.
- Throughout system operation in FY2012 and FY2013, benzene levels have decreased from over 5,000 mg/L to less than 5 mg/L and are approaching the regulatory limit of 1 mg/L.



*The top image shows the safe removal of practice bombs found in the creek at Sites 1 and 2. The bottom image shows a scheduled detonation event conducted to allow for proper disposal of items found at Hangar 860 and Building 365.*

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## Site-Wide Construction Complete

- Preliminary Close-Out Report was issued August 26, 2009.
- Granting of Construction Complete status confirms that all construction activities have been completed for all NAS Cecil Field OUs.
- Determination was made possible by having all Operating Properly and Successfully (OPS) documentation for active remedies and all required LUC documentation in place.



*The BCT has worked with COJ to coordinate the removal of dredge spoils from Lake Fretwell expansion to prevent slumping soil from affecting Site 5.*

## Recent Site Rehabilitation and Closeout of Sites

- NFA was recently approved by FDEP for two sites managed under Florida's Petroleum Program (Building 502, November 2011, and Building 290A, January 2011).
- NFA was recently approved for two CERCLA sites with RODs (Site 8 in January 2011 and Site 15 in October 2011).
- 226 of 238 petroleum sites have been closed out and approved for intended reuse.
- 14 of 25 CERCLA sites have been closed out and approved for intended reuse.
- Total of 17,064 acres have been transferred primarily to JAA or COJ for redevelopment.



*The BP Wells Site is an excellent example of the infrastructure and development taking place at Cecil Airport in cooperation with the BCT. The image to the left shows the BP Wells site prior to construction and ORC Advanced™ injection, and the image to the right shows the new Jacksonville JetPort Hangar completed in June 2012.*

