FINAL

Perfluorinated Compounds Preliminary Assessment

Former Roslyn Air National Guard Station

Perfluorinated Compounds (PFCs) Release Determination at Multiple BRAC Bases

Contract FA8903-08-D-8766
Task Order 0177

Prepared for:

Air Force Civil Engineer Center
JBSA Lackland, Texas
4PAE08 Contract

February 2015

Submitted by:

Environment & Infrastructure, Inc.

FINAL

PERFLUORINATED COMPOUNDS PRELIMINARY ASSESSMENT

FORMER ROSLYN AIR NATIONAL GUARD STATION
EAST HILLS, NEW YORK

PROJECT NO. UMLH20147242

Prepared for:
Air Force Civil Engineer Center
Joint Base San Antonio – Lackland, Texas

Prepared by:

AMEC Environment & Infrastructure, Inc.
(now known as Amec Foster Wheeler Environment & Infrastructure, Inc.)
Contract FA8903-08-D-8766
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February 2015

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ACRONYMS

ADC	Air Defense Command
AFCEC	Air Force Civil Engineer Center
AFFF	Aqueous Film Forming Foam
AFHRA	Air Force Historical Research Agency
AFB	Air Force Base
AFSEC	Air Force Safety Center
AMEC	AMEC Environment & Infrastructure, Inc.
amsl	above mean sea level
ANGS	Air National Guard Station
AOI	Areas of Interest
AR	Administrative Record
AST	Aboveground Storage Tank
BEC	BRAC Environmental Coordinator
bgs	below ground surface
CAP	Civil Air Patrol
CCSQ	Combat Communications Squadron
BRAC	base realignment and closure
DoDI	Department of Defense Instruction
EIS	Engineering Installation Squadron
EBS	Environmental Baseline Study
ft	feet or foot
FTA	Fire Training Area
gpm	gallons per minute
mg/kg	milligrams per kilogram
MSL	mean sea level
NYANG	New York Air National Guard
NYSDEC	New York State Department of Environmental Conservation
OSRTI	Office of Superfund Remediation and Technology Innovation
PA	Preliminary Assessment
PFCs	perfluorinated compounds
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
TO	Task Order
µg/L	micrograms per liter
U.S.	United States
USAF	United States Air Force
USAFSC	United States Air Force Space Command
USDA	Unites States Department of Agriculture
USEPA	United States Environmental Protection Agency
UST	Underground storage tank

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EXECUTIVE SUMMARY

This Perfluorinated Compounds (PFCs) Preliminary Assessment (PA) provides findings from research conducted to determine whether and where aqueous film forming foam (AFFF), containing PFCs, was stored, handled, used or released at the former Roslyn Air National Guard Station (ANGS), located in East Hills, Nassau County, New York. Research was conducted for the years 1970 through installation closure in 2000 using: 1) personnel interviews; 2) online research; and 3) archival research at the Air Force Historical Research Agency (AFHRA) and the Air Force Safety Center (AFSEC). Information obtained during the research was evaluated to determine if AFFF storage, handling, use or release areas, hereafter referred to as "AFFF areas," are located on the former Roslyn ANGS. Potential AFFF areas may include:

- crash sites/aircraft fires;
- Fire Training Areas (FTAs) used after 1970;
- areas with underground storage tanks (USTs), aboveground storage tanks (ASTs), drums, buckets, etc. where virgin or spent AFFF was stored with or without secondary containment;
- areas where AFFF use or release was documented via personnel interviews, environmental reports, electronic or print media, etc.; and,
- areas where AFFF was handled, used/released indoors and fully contained.

The former Roslyn ANGS was in operation from 1943 through 2000 and occupied approximately 50.34 acres. The installation did not contain any runways or hangars, nor did records indicate that it contained a fire station after 1970. AFFF was not mentioned/listed in the reviewed installation documents.

A municipal fire department owned by the Village of East Hills (Roslyn Highlands Fire Station 2) was located outside the southeastern portion of the former installation on Harbor Hill Road, but it was not associated with the installation. Municipal fire department personnel indicated fire training was not conducted at the installation and they only responded to a few brush fires at the installation.

The installation was transferred to the Village of East Hills in November 2000 and opened as a public recreational facility and park in 2006.

The information obtained during the research indicates that AFFF, containing PFCs, was not used at the former Roslyn ANGS and no AFFF Areas were identified. In addition, the Roslyn Water District currently samples their water supply wells for PFCs, and non were detected in samples collected in August 2014. Therefore, no further action is recommended at this time for PFCs at former Roslyn ANGS.

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1.0 INTRODUCTION

This Perfluorinated Compounds (PFCs) Preliminary Assessment (PA) for the former Roslyn Air National Guard Station (ANGS) has been prepared by AMEC Environment & Infrastructure, Inc., now known as Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), on behalf of the Air Force Civil Engineer Center (AFCEC) under Contract No. FA8903-08-D-8766, Task Order (TO) 0177, PFCs Release Determination at Base Realignment and Closure (BRAC) Installations. The research is being conducted as part of a United States Air Force (USAF) enterprise-wide response to possible release of PFCs per Department of Defense Instruction (DoDI) 4715.18, Emerging Contaminants. This report provides findings from the research conducted to determine whether and where aqueous film forming foam (AFFF), containing PFCs, was stored, handled, used or released at former Roslyn ANGS in Roslyn, New York (**Figure 1**).

1.1 Background

PFCs are a large group of synthetic fluorinated compounds that are widely used to make everyday products more resistant to heat, stains, grease, and water. PFCs are also components in fire fighting foams. The chemical structures of PFCs make them resistant to natural environmental degradation. Due to their persistence in the environment, bioaccumulation potential, and toxicity, PFCs have a potential impact on human health and the environment. Currently, PFCs are not regulated by the United States Environmental Protection Agency (USEPA); however, the USEPA has recently developed provisional health advisories for two PFCs (perfluorooctane sulfonic acid [PFOS] and perfluorooctanoic acid [PFOA]) to protect against potential exposure risk through drinking water (USEPA, 2009). Based on these provisional health advisories and direct contact residential soil concentrations developed by the USEPA Office of Superfund Remediation and Technology Innovation (OSRTI), the USAF defines a release of PFCs if concentrations exceeding the following are identified:

PFOS:

- 0.2 micrograms per liter (µg/L) in groundwater or surface water; and,
- 5 milligrams per kilogram (mg/kg) in soil or sediment.

PFOA:

- 0.4 µg/L in groundwater or surface water; and,
- 12 mg/kg in soil or sediment (USAF, 2012).

In 1970, the USAF began purchasing and using AFFF, containing PFCs, for extinguishing petroleum fires and firefighting training activities (USAF, 2012). AFFF was used at USAF installations in and around fire training areas (FTAs). AFFF could have also have been used at other areas within installations; such as in and around hangars that had AFFF fire suppression systems, plane crash and fire emergency response sites, firefighting equipment testing areas, wash racks, areas where fire trucks and/or emergency vehicles were washed, and AFFF storage areas, to name a few.

1.2 Objective

The objective of the PFCs PA is to identify areas where AFFF was potentially stored, handled, used or released between 1970 and 2000 (installation closure) to aid the USAF in exercising due diligence to protect human health and the environment. For the purposes of this report, areas where AFFF was stored, handled, used or released are referred to as "AFFF areas." The word "release" in this report refers to areas where AFFF was unintentionally discharged.

This PFCs PA focuses on potential AFFF areas at the former Roslyn ANGS and presents results from the research and evaluation, concludes whether a reasonable basis exists to suspect PFCs presence, and provides recommendations regarding the need for further evaluation of PFCs.

1.3 Scope

To achieve the aforementioned objectives, research was conducted using: 1) personnel interviews; 2) online research; and 3) archival research at the Air Force Historical Research Agency (AFHRA) and the Air Force Safety Center (AFSEC). Research was conducted to find information on the AFFF Areas on the installation property for the years 1970 through the installation closure. Limited information was also obtained regarding the use of AFFF after installation closure, and is provided in **Appendix A**.

2.0 INSTALLATION DESCRIPTION

The former Roslyn ANGS was located in the Village of East Hills, Nassau County, New York and occupied approximately 50.34 acres (USAF, 1996) (**Figure 2**). The installation was in operation from 1943 through 2000 (USAF, 2014).

The installation was located north of Harbor Hill Road in a primarily residential area, with Walnut Drive to the east, Crabapple Drive and Hickory Drive to the north, and Chestnut Drive to the West.

2.1 Former Mission and Land Use

The former Roslyn ANGS property was first leased by the United States (U.S.) government on July 8, 1943, and purchased in 1953 for use primarily by the 1st Fighter Command and later by the 26th Air Division, USAF Air Defense Command (ADC). Originally an air force station, the installation was re-designated Roslyn ANGS on July 1, 1959, and was occupied by the New York Air National Guard (NYANG) until 1996. The two principal tenants at the installation in 1996 were the 213th Engineering Installation Squadron (EIS) and the 274th Combat Communications Squadron (CCSQ), although the Civil Air Patrol (CAP) and satellite offices of the federal government were also located on the installation. The 274th CCSQ was the host unit and supported USAF missions worldwide with communications packages; whereas, the 213th EIS provided day-to-day operational support to the installation. The 213th EIS accomplished the engineering, installation, removal, and relocation of ground communications electronics facilities and performed serviceability certification, emergency and/or on-site repair, and modification of communications equipment (USAF, 2014).

The installation did not contain any runways or hangars, or a fire station after 1970. The Roslyn Highlands Fire Station 2 was located outside the southeastern portion of the former installation on Harbor Hill Road (**Figure 2**); however, this fire station was part of the local municipal fire department and not associated with the installation.

The installation was closed under BRAC in 1995. Environmental restoration activities, prior to installation closure, were conducted in 2000 through the abandonment of monitoring wells, closure of aboveground storage tanks (ASTs), removal of an oil/water separator (OWS) at Building 36, and decontamination and removal of hazardous waste satellite accumulation areas (FPM Group, 2001). The activities were coordinated with and approved by the Nassau County Department of Health (FPM Group, 2000). The installation was officially transferred to the village of East Hills on November 30, 2000 (USAF, 2014).

2.2 Current Land Use and Property Information

The 50 acre installation is currently referred to as “The Park at East Hills” and includes a large pool, locker rooms, the Park Grille, tennis courts, basketball courts, a senior community center, auditorium,

fitness facility walking trails, playground, sports fields, and 15 acres preserved in its pristine condition (http://www.villageofeasthills.org/park.html).

2.3 Environmental Data

The following sections describe the environmental characteristics of the installation.

2.3.1 Geology and Soils

The geology of Long Island has been greatly influenced by two episodes of glaciation in the Wisconsin stage at the end of the Pleistocene Epoch. Three distinct geomorphologic areas in the vicinity of the former installation include the headlands, the Harbor Hill terminal moraine, and the glacial outwash plain (USAF, 1996).

The headlands area is a relatively uniform undulating land surface that rises sharply above the bays of Long Island Sound. The Harbor Hill terminal moraine, located just south of the headlands area, and just northeast of the former installation, consists of a series of irregular hills that form a distinct northeast-trending ridge, reaching a high point of 368 feet (ft) above mean sea level (amsl) on the crest of Harbor Hill. The glacial outwash plain is located south of the Harbor Hill terminal moraine and extends southeast at a slope of 20 ft per mile (USAF, 1996).

The northwest half of the former Roslyn ANGS is located on the Harbor Hill terminal moraine, while the southern half lies on the glacial outwash plain. The northwestern portion of the installation exhibits considerable topographic relief, with flatter terrain associated with the southeastern portion of the installation located on the outwash plain (USAF, 1996).

The soils underlying the former Roslyn ANGS are of the Riverhead, Plymouth, and Enfield series. The Riverhead sandy loam, the Plymouth-Riverhead complex, and to a lesser extent, the urban derivatives of the Plymouth soils, constitute the northwestern portion of the property and are well-drained soils that form in glacial outwash deposits and occur on morainic hills and the tops of outwash plains. These soils are composed of sandy loam and loamy sand with a gravely sand substratum occurring in each type. The Enfield series consist of well drained soils formed in association with eolian material and are generally located on the side slopes and tops of outwash plains in the southeastern half of the former installation (USAF, 1996).

2.3.2 Surface Water

There are no significant surface water bodies apparent at the installation. Surface water drainage at the installation can be divided into three basic drainage areas: the western half, the northeastern quarter, and the southeastern quarter. Each area drains independently of the others, and surface runoff drains to separate destinations (USAF, 1996).

Surface runoff from the western half of the installation flows overland and is collected in drainage ditches that empty into a catch basin located west of the main entrance to the installation. The catch basin collects and transports all surface water runoff underground to the south approximately 0.35 miles to the Nassau County No. 72 surface water retention basin. Surface water percolates into the groundwater system from the retention basin. The northeastern area of the installation is drained primarily by overland runoff, where it was previously captured by catch basins that emptied into two dry wells located northeast of building 36 (**Figure 2**). Water entering the dry wells was introduced into the groundwater system through natural seepage. This area of the installation has been reconfigured since the transfer of the property in 2000, and it is not known if this is still the current drainage pattern for this area of the installation. The southeastern area is drained by a combination of overland runoff and underground storm sewers. Surface runoff from the southeastern area does not leave the installation property, but is introduced into the groundwater system through a leach pit located in the vicinity of Building 3, a leach pit by the southern property boundary, and natural seepage in the vicinity of the sewage leach field (**Figure 2**) (USAF, 1996).

2.3.3 Groundwater

Three aquifers comprise the groundwater reservoir in northwestern Nassau County that are identified separately, but considered a single hydrologic system (USAF, 1996). The aquifers are classified as the upper glacial (unconfined), the Magothy (principal aquifer), and the Lloyd (deep confined), and all are present beneath Roslyn ANGS. Perched groundwater also exists locally in the Pleistocene glacial deposits above the water table and close to land surface, primarily in areas north of and within the Harbor Hill terminal moraine. As a result of Roslyn ANGS's position with respect to the Harbor Hill terminal moraine, perched groundwater is likely to occur at this location; however, perched water is not used as a groundwater supply source because of its high susceptibility to surface contamination (USAF, 1996).

The upper unconfined aquifer is defined as permeable Pleistocene and Cretaceous deposits that occur below the water table to a point slightly below mean sea level (MSL). Higher water yields from the upper unconfined aquifer occur from the permeable sand and gravel deposits associated with the glacial outwash plains that occur in the area south from the Harbor Hill terminal moraine. The installation is within an area where permeable outwash deposits can be expected to occur; however, the majority of the glacial deposits are likely to be present above the water table, precluding them as an aquifer. The existence of the permeable glacial deposits above the water table is significant because their presence enhances the downward movement and flow of groundwater toward the water table (USAF, 1996).

The principal aquifer is defined as being that section of the Magothy Formation that occurs above the Clay Member of the Raritan Formation to approximately 50 ft below MSL. Groundwater exists under both unconfined and confined conditions in the principal aquifer. The principal aquifer is the major source of water in the installation area with yields ranging from 500 to 1,400 gallons per minute (gpm).

The deep confined aquifer consists of the Lloyd Sand Member of the Raritan Formation. Although the deep aquifer is considered to be confined, it actually functions as a semi-confined aquifer as a result of the leaky nature of the upper confining unit. The deep confining aquifer is a major source of water in the area with yields as high as 1,600 gpm.

Recharge of the upper unconfined aquifer occurs primarily from precipitation. The principal and deep confined aquifers are recharged by the continued downward movement of groundwater from the upper unconfined aquifer. Depth to groundwater at the installation ranges from 125 to 215 ft below ground surface (bgs) from southeast to northwest, respectively, and groundwater flow is in a westerly direction (USAF, 1996).

The USEPA has designated the aquifers in Nassau County as sole-source aquifers since Long Island is totally dependent on groundwater for its drinking water supply (USAF, 1996).

2.3.4 Drinking Water Supply

Potable water was supplied to the Roslyn ANGS by the Roslyn Water District via eight production wells constructed to an average depth of 475 ft within the Magothy aquifer (USAF, 1996). Water to the former installation property is still supplied by the Roslyn Water District from seven deep wells in the Magothy aquifer and one well field consisting of eight wells (seven in the Magothy aquifer and one in the Lloyd aquifer) connected to a common suction pump, although one of the wells is currently off-line (Roslyn Water District, 2014). The wells are located in all directions of the installation, with the closest well located 900 feet away (the Roslyn Water District would not disclose specific locations due to security requirements).

The water district currently analyzes groundwater from the supply wells twice a year for the USEPA's unregulated compound list, which includes the PFCs PFOS (detection limit of 0.02 µg/L) and PFOA (detection limit of 0.04 µg/L). PFCs were not detected in the samples collected in August 2014 from the seven supply wells sampled (Passariello, 2015).

3.0 PREVIOUS PFCS INVESTIGATIONS

No previous PFCs investigations have been conducted at the installation.

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4.0 RESEARCH ACTIVITIES

To initiate the research process, a general PFCs information questionnaire for former Roslyn ANGS was completed by Mr. David Farnsworth, the BRAC Environmental Coordinator (BEC) for the installation. This completed questionnaire provided general information on the installation and is included in **Appendix B** and discussed further in Section 4.2.1.

The following sections describe the research conducted through record and document reviews and interviews.

4.1 Summary of Interviews

AMEC conducted three interviews with people familiar with the installation as part of this research project. The employees were interviewed to document their knowledge of former AFFF use at Roslyn ANGS. A summary of the interviewees (name, title, date, and interview relevance) is provided in **Table 1** and information obtained from the interviews is documented on Telephone Interview Logs provided in **Appendix C**.

Table 1: Summary of Interviews

Person Interviewed	Title	Date	Relevance of Interview
David Farnsworth	BRAC Environmental Coordinator	2011 to present	Knowledge of environmental issues and general information at installation.
Peter Newman	Former Chief of Roslyn Highland Fire Department	1975 to present	Knowledge of fire fighting activities in East Hills and toured installation in early 1980s to evaluate fire preparedness.
William Trottier	Former Chief of Roslyn Highland Fire Department	1966 to present	Knowledge of firefighting activities in East Hills and general knowledge of installation activities.

Mr. Farnsworth provided historical information on the former Roslyn ANGS and confirmed that AFFF was not used or stored, nor were there any fire stations, at the installation. Mr. Newman and Mr. Trottier are active at the Roslyn Highland Fire Department and were former fire department chiefs. Neither was aware of any fire training activities conducted on the installation or of any AFFF storage on the installation. Mr. Newman was told that the installation had a fire brigade; however, during his tour of the installation in the mid-1980s, no firefighting equipment other than fire extinguishers was identified. During the visit, the fire department was given several five-gallon containers of protein foam, but no dispensers of AFFF were identified. Mr. Newman also stated that the Roslyn Highland Fire Department responded to all fire calls at the installation, although the only actual fires were small brush fires that were extinguished with water.

Mr. Newman and Mr. Trottier also stated that there is a small Village of East Hills-owned fire station (Roslyn Highlands Fire Station 2) located on Harbor Hill Road, adjacent to the southeast corner of the installation (**Figure 2**), which was built in 1964 and reconstructed in 2012. The fire station contained a water based ladder truck as well as small quantities of AFFF stored in five gallon containers in the event of fuel fires, although AFFF was rarely used on any fires.

4.2 Review of Records

The internet was used to obtain records such as historical images and drawings, technical reports, property records, news articles, and other available or appropriate information to aid in documenting the use of AFFF at the former Roslyn ANGS. The AFCEC Administrative Record (AR) was the primary source of information as it included most environmental documents for the installation. Other general search engines were also used to locate news articles and other information. After the internet research was completed, a review of available documents was conducted at: 1) the AFHRA at Maxwell AFB located in Montgomery, Alabama; and, 2) the AFSEC at Kirtland AFB located in Albuquerque, New Mexico. Research was documented using the Research Logs (**Appendix D**) and a summary of the research is included in the following sections.

4.2.1 Administrative Record Document Review

The AFCEC AR (http://afcec.publicadmin-record.us.af.mil/) was utilized to identify potential documents and reports relevant to AFFF usage at the installation. Keywords searched within the AR include "fire," "AFFF," "foam," and "wash racks." **Table 2** summarizes the five relevant documents identified during the search and subsequently reviewed. Additional supporting information, including the document Research Logs, is located in **Appendix D**.

Table 2: Summary of Relevant Reports from the Administrative Record

AR Document Number	Document	Date	Relevance
AR00029	Station-wide Environmental Baseline Survey (EBS)	November 1996	Provided history of station, location information, building uses, and chemicals stored.
AR00033	Environmental Assessment Disposal and Reuse of Roslyn Air National Guard Station	March 1998	Provides environmental information on reuse of Roslyn ANGS.
AR00102	Final Site Investigation Report	November 1999	Provided findings from environmental investigations conducted at Areas of Interest (AOI).
AR00122	Final Supplemental Environmental Baseline Survey	September 2000	Discusses changes in environmental conditions since 1996 EBS.
AR00124	Finding of Suitability to Transfer (FOST)	November 2000	Presents layout of installation, environmental findings/remediation conducted to date, and suitability to transfer installation for other uses.

Notes: AR – Administrative Record

AR Document Number AR00029 (USAF, 1996): The document provides a history of the installation and environmental conditions resulting from historic operations at the installation. No FTAs, use of AFFF, or fires were identified. One "Firehouse" was identified as a portion of building 7 (building removed prior to 1994), but the actual use or date of demolition was not identified.

AR Document Number AR00033 (USAF, 1998): The document presents the potential reuse alternatives for the installation. Underground storage tanks (USTs) and ASTs are also listed, but no AFFF use/storage was identified.

AR Document Number AR00102 (Fanning Phillips and Molnar, 1999): The document provides results of investigations at 12 AOI and includes a No Further Action Decision Document for these 12 AOIs. No AFFF use or storage at the installation was identified in the report.

AR Document Number AR00122 (USAF, 2000): The document provided an update to the 1996 EBS, with no AFFF use or storage identified at the installation.

AR Document Number AR00124 (FPM Group, 2000): The document provided information on the suitability to transfer the installation based on a review of previous environmental reports for the installation. No factors were found that posed a threat to human health or the environment, and no deed restrictions or notifications to the transferee were required.

Review of relevant information from the AR did not identify any AFFF Areas at Roslyn ANGS.

4.2.2 Internet/News Review

A general search of the internet was conducted. Keywords searched included:

- "Fire Roslyn air force"
- "Firehouse Roslyn air"
- "Fire Roslyn AFB"
- "Roslyn fire fighting foam"
- "aqueous foam Roslyn air"
- "AFFF Roslyn air"
- "Crash Roslyn air"

No relevant documents or websites were found during the internet/news review search.

4.2.3 Air Force Historical Research Agency, Maxwell AFB, AL

The online AFHRA Records Index was searched for the following keywords: “crash,” “fire,” “mishap,” “AFFF,” “aqueous film forming foam,” “as-built,” and “real property.” No documents were requested for review since none of the abstracts were relevant to AFFF at the installation.

4.2.4 Air Force Safety Center at Kirtland AFB, Albuquerque, NM

Colonel Jeffrey Slagle, AFSEC Staff Judge Advocate, conducted a search within the Air Force Safety Automated System (AFSAS) and legacy safety records using the following words and word combinations: “foam,” “foam fire,” “foam crash,” “perfluorinated,” and, “PFC”. No records were identified for Roslyn ANGS.

4.3 Data Quality

As discussed in Section 1, the goal of the PFCs research is to identify potential AFFF Areas where PFCs may be present as a result of the use of AFFF during firefighting activities, emergency responses, fire suppression system testing or releases, or any other activities conducted at the installation. In order to ensure that research activities were conducted sufficiently to fulfill these project objectives, a PFCs Research Checklist was used as a data quality tool which summarizes the research activities discussed in Sections 4.1 and 4.2. The completed PFCs Research Checklist is included in **Appendix E**.

5.0 SUMMARY OF AFFF STORAGE, HANDLING, AND USAGE

The information obtained during the research was evaluated to determine if areas at the former Roslyn ANGS potentially stored, handled, or used AFFF. If identified, AFFF Areas are classified as either: storage areas; handling areas; or, usage/release areas, which are defined below.

Storage Area: An area where AFFF was stored in bulk. Storage containers/areas contained:

- Virgin AFFF for use; and,
- Spent AFFF/water mixture.

Handling Area: An area where AFFF was transferred from or to storage either manually or by pipeline.

Usage/Release Area: An area where AFFF was discharged intentionally or unintentionally, including instances when:

- AFFF was discharged intentionally (fire training exercises or equipment testing);
- AFFF was released unintentionally (e.g. discharge from fire suppression system); and,
- AFFF was released through transport mechanisms (overland flow to surface water bodies).

AFFF Areas may include:

- crash sites/aircraft fires;
- FTAs used after 1970;
- areas with USTs, ASTs, drums, buckets, etc., where virgin or spent AFFF was stored with or without secondary containment;
- areas where AFFF use or release was documented via personnel interviews, environmental reports, electronic or print media, etc.; and,
- areas where AFFF was handled, used/released indoors and fully contained.

Based on the research conducted on the use of AFFF at the former Roslyn ANGS, no potential AFFF areas were identified.

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6.0 CONCLUSIONS AND RECOMMENDATIONS

This PFCs PA was conducted to determine whether and where AFFF containing PFCs was stored, handled, used or released at the former Roslyn ANGS between 1970 and 2000. Research was conducted using personnel interviews, online research, and archival research. After this information was evaluated; AFFF, containing PFCs, was not used at the former Roslyn ANGS. Therefore, no further action is recommended for PFCs associated with AFFF at Roslyn ANGS.

The New York State Department of Environmental Conservation letter dated 13 February 2015, included in **Appendix F**, stating concurrence with the conclusions and recommendations within this report.

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7.0 REFERENCES

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FIGURES

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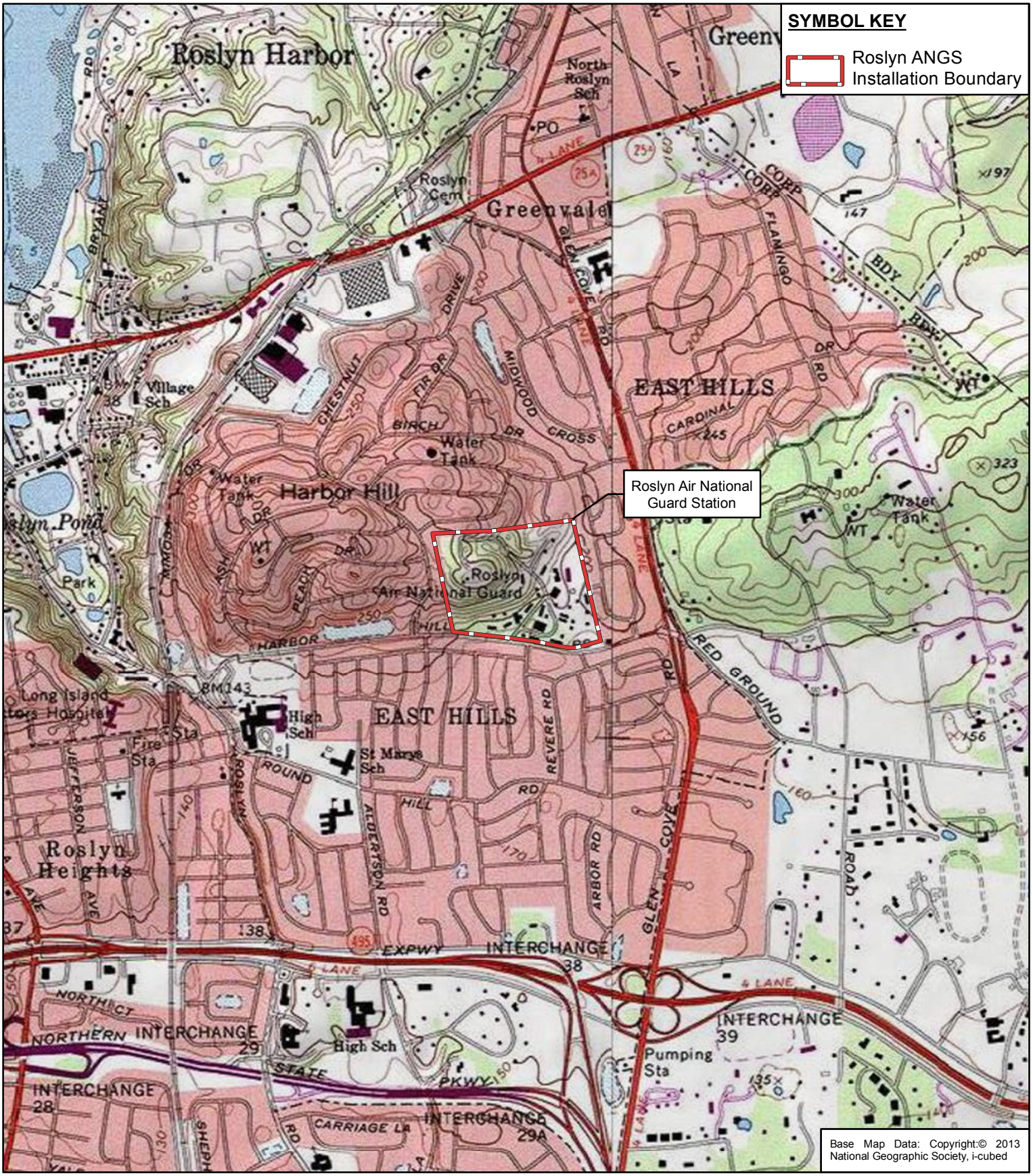

Air Force Civil Engineering Center 2261 Hughes Avenue Building 171, Ste 155 JBSA Lackland, Texas 78236		N	**FIGURE 1** **Site Location Map** PFC Preliminary Assessment Roslyn Air National Guard Station East Hills, New York
0 250 500 1,000 1,500 2,000 Meters 0 2,000 4,000 6,000 8,000 Feet	12/31/2014	Roslyn_Install_Loc_PRR	
	PROJ: 775290177	Drawn: JBO	

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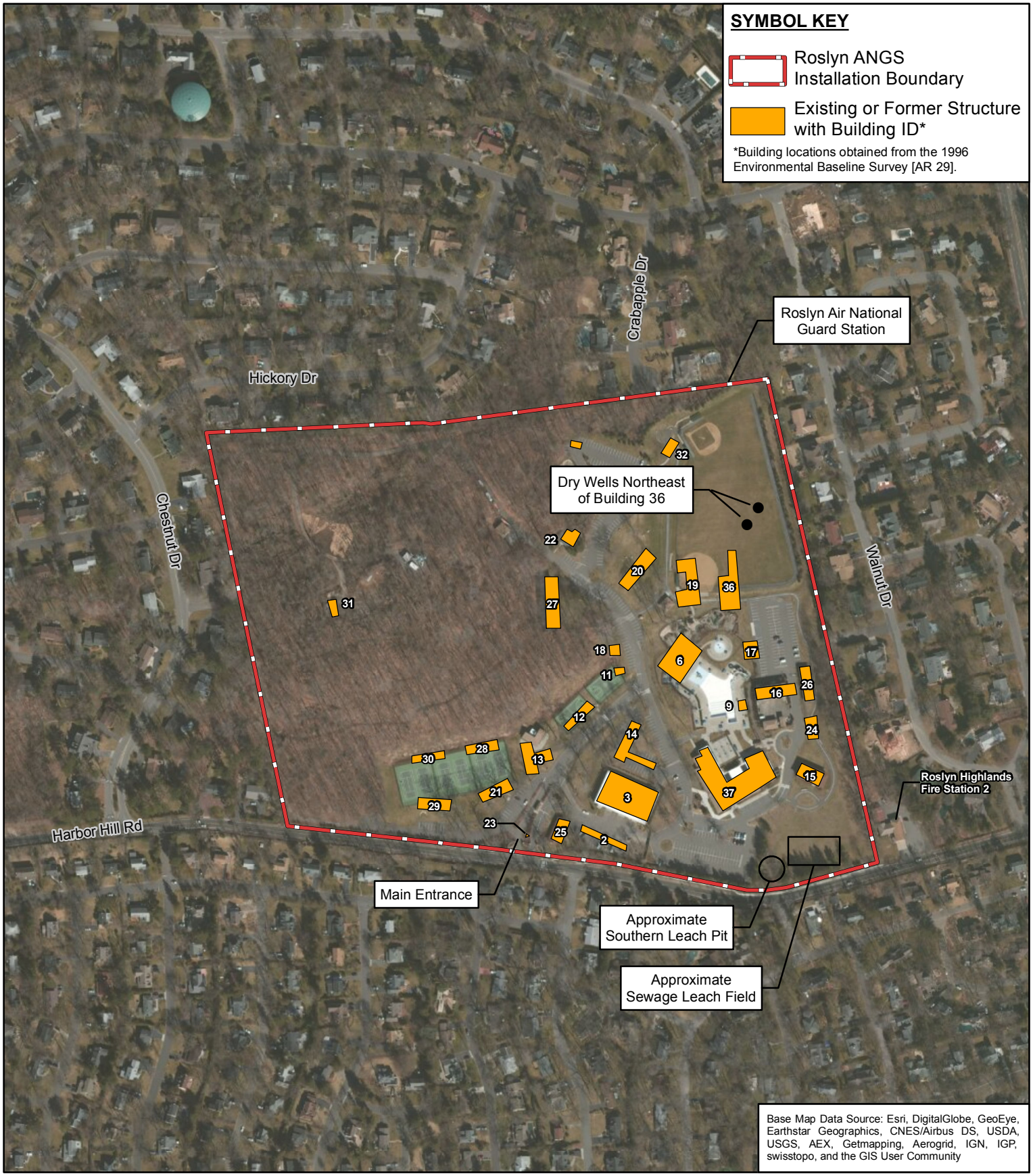

Air Force Civil Engineering Center
2261 Hughes Avenue
Building 171, Ste 155
JBSA Lackland, Texas 78236

N

FIGURE 2
Site Layout Map
PFC Preliminary Assessment
Roslyn Air National Guard Station
East Hills, New York

0 50 100 200 300 400 500 600 Meters
0 500 1,000 1,500 2,000 Feet

01/26/2015	Roslyn_Site_Layout_PRR
PROJ: 775290177	Drawn: JBO

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APPENDIX A

SUPPLEMENTAL INFORMATION ON AFFF USE AFTER INSTALLATION CLOSURE

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Appendix A: Supplemental Information on AFFF use after Installation Closure

Mr. Peter Newman, former Roslyn Highlands Fire Chief, was interviewed by Chuck Staples on December 10th, 2014. The former Roslyn Air National Guard Station (ANGS) did not have a fire station. The questions and associated responses are summarized below.

1. Question: Are there AFFF systems today?

   Response: None known.

2. Question: Are these new or AF vintage?

   Response: No systems identified.

3. Question: Is AFFF used today?

   Response: No fire stations or fire training is currently associated with the former Roslyn ANGS installation.

4. Question: Is product left over from Air Force Inventory?

   Response: No AFFF product from air force given to fire department (old protein foam given in mid-1980's, but long since used).

APPENDIX B

PFCs GENERAL QUESTIONNAIRE

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General PFC Information Questionnaire

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases
Contract FA8903-08-8766, Task Order 0177

Roslyn ANGS, NY	
BEC (name and phone)	David Farnsworth, 518-563-2871, david.farnsworth@us.af.mil
BEC preferred contact method (phone, e-mail)	email
Installation support staff (name and phone)	Brad Juneau, 210-395-8266, brad.juneau@cn-bus.com
List of potential interviewees and contact information	

	General Installation Information	Comment
1.	In what years was the installation operational?	Approx 1943-1996
2.	Please briefly describe installation mission.	50 acre ANGS with 2 support units (communications and civil engineering squadron), 30-35 buildings, no flight line
3.	Current property owner/land use	Village of East Hills
4.	List FTAs	no
5.	List hangars with fire suppression systems	There are no hangars associated with Roslyn ANGS
6.	Are there known spill/crash sites at the base where AFFF could have been used?	no
7.	Was AFFF stored and/or disposed at the installation?	unknown, but not likely based on the mission
8.	Was there an on-base fire station?	1996 Station-wide EBS (AR#29) list a Firehouse but no other details
9.	Was there a truck washing station/area at the base?	Unknown, likely done at one of the two listed vehicle maintenance shops
10.	Is there a Federal Facilities Agreement in place?	No
11.	Are there specific relevant documents available (include AR document number if possible)?	1. Stationwide EBS (AR#29); 2. 1999 Station-wide SI Report 3 Volumes (AR#103, 103.1, 103.2, 104); 3. Station-wide Closure Report (AR#123); 4. 2000 Supplemental EBS (AR#122).
12.	Are relevant as-builts available?	Don't know (not likely as most buildings have been demolished since the Station was closed)
13.	Are Historic Maps of the Installation available? Specifically with Building Numbers/Function?	Information is in the Station-wide EBS (AR#29)
14.	Are Shape files of the Installations available?	Don't know (not likely, as all USAF BRAC property transfer activities were completed in 2000)
15.	Are Accident and/or Fire Reports available?	No
16.	Is there a nearby drainage system or body of water that may have received AFFF?	Station drainage system is described in the EBS but there is limited detail provided; there are no water bodies on the former station or adjacent to it.
17.	Additional comments?	unlikely that AFFF was used at this installation

APPENDIX C

TELEPHONE LOGS

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Telephone Interview Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/10/2014 Installation: Roslyn ANGS

Name: David Farnsworth Position/Rank: BEC

Contact Information (phone, e-mail): 518-563-2871; david.farnsworth@us.af.mil

Years at or familiar with Installation (# and dates): 2011 to present.

Was AFFF used or stored on-base outside of FTAs? If so, where? Not aware of any FTA's, or AFFF use at base.

Were there hangars on-base with fire suppression systems? No Hangers on base.

If yes, was AFFF used in these systems?

Was there a fire station on-base? EBS documented indicated "firehouse", but use is unknown.

If yes, where was it located? Not known.

If no, what local fire station was on call for emergencies? unknown

Were there any planes crashes or fires on base? No planes on base, not aware of any fires.

If so, where were they located?

Was there a truck washing area for fire trucks or emergency vehicles on-base? No fire trucks on-base.

If yes, where was it located?

Is there an additional contact that could provide information of AFFF (name and contact info)?

None identified.

Additional Comments: Not aware of any fire fighting equipment or activities on the base. Only approx. 15 acres of base actively used. No large fuel storage on base. Base surrounded by residential properties. Base property deeded to Village of East Hills in November 2000. Currently used for village municipal offices and recreational facilities.

Interviewer: Charles Staples Date: 12/10/14

Telephone Interview Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/10/2014 Installation: Roslyn ANGS

Name: Chief Peter Newman Position/Rank: Former Fire Chief - Roslyn Highlands Fire Sta.

Contact Information (phone, e-mail): 516-621-7539

Years at or familiar with Installation (# and dates): 1975 to the present

Was AFFF used or stored on-base outside of FTAs? If so, where? No fire training areas, no AFFF use.

Were there hangars on-base with fire suppression systems? No hangers on base.

If yes, was AFFF used in these systems?

Was there a fire station on-base? Not aware of any fire stations on-installation (toured facility in early 1980's)

If yes, where was it located?

If no, what local fire station was on call for emergencies?

Roslyn Fire Station # 2 adjacent to southeast corner of ANGS installation.

Were there any planes crashes or fires on base? No, no planes

If so, where were they located?

Was there a truck washing area for fire trucks or emergency vehicles on-base? No fire trucks

If yes, where was it located?

Is there an additional contact that could provide information of AFFF (name and contact info)?

No.

Additional Comments: Chief Newman toured the base in the early 1980's. No fire station or fire trucks. Base/Installation director stated that they had a fire brigade on the base, but he wasn't sure what that meant since there didn't appear to be any equipment on-site (only hand extinguishers), and the base called the fire department for any fire issues (only issues were brush fires). In the mid 80's they were given a number of 5-gallon buckets of protein foam (not PFC AFFF)by the base to try (off-base). Fire department responded to a few brush fires. No fire training conducted on-base. Fire station next to base did not have AFF trucks (just 5 gal. containers).

Interviewer: Charles Staples Date: 12/10/2014

Telephone Interview Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 10-Dec-14 Installation: Roslyn ANGS

Name: William Trottier Position/Rank: Roslyn Highland Fire Department/trustee

Contact Information (phone, e-mail): 516-621-7539

Years at or familiar with Installation (# and dates): 1966 to the present

Was AFFF used or stored on-base outside of FTAs? If so, where? No (no FTAs)

Were there hangars on-base with fire suppression systems? Not relevant (no hangars).

If yes, was AFFF used in these systems?

Was there a fire station on-base? Not aware of any fire station on base.

If yes, where was it located?

If no, what local fire station was on call for emergencies? Fire station adjacent to southeast corner of installation. No AFFF at that fire station.

Were there any planes crashes or fires on base? No planes on installation

If so, where were they located?

Was there a truck washing area for fire trucks or emergency vehicles on-base? No fire trucks

If yes, where was it located?

Is there an additional contact that could provide information of AFFF (name and contact info)?

Additional Comments: Has lived in the area entire life. Was Fire chief in 1979 and 1980. Roslyn ANGS did not have a firehouse that he was aware of, and he was not aware of any fire brigade. Fire department never did any fire trainings at the ANGS.

Interviewer: Charles Staples Date: 12/10/2014

APPENDIX D

RESEARCH LOGS

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Research Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/3/2014 Installation: Roslyn

Researcher: Charles Staples

Type of research:

X	Online - BRAC AR		AF Historical Research Agency
	Online - General Engine Search		AF Safety Center
	BRAC DR/ER		Misc. Document Review

Document Name: AR-29: Stationwide Environmental Baseline Study, Roslyn ANGS, NY

Document Author: United States Air Force

Document Date: November 1996

Was copy of title page obtained?: X Yes ____ No (provide reason)

Notes: Report prepared to document existing environmental conditions at the Roslyn Air National Guard Station.
Includes information on existing conditions (geology, hydrology, buildings, history, etc.).
Conducted search of document for "fire", "AFFF", "foam", "crash", "incident".
Foam identified, but not related to AFFF.
Fire identified, primarily related to firing range. Building 14 partially burned in 1960, but pre-AFFF use.
Building 14, constructed in 1948 was identified as "Firehouse; AGE shop; army mobility storage".
Use as firehouse not clear. Building demolished, but date not clear (between 1982 and 1994).

File: 17G
L.J.

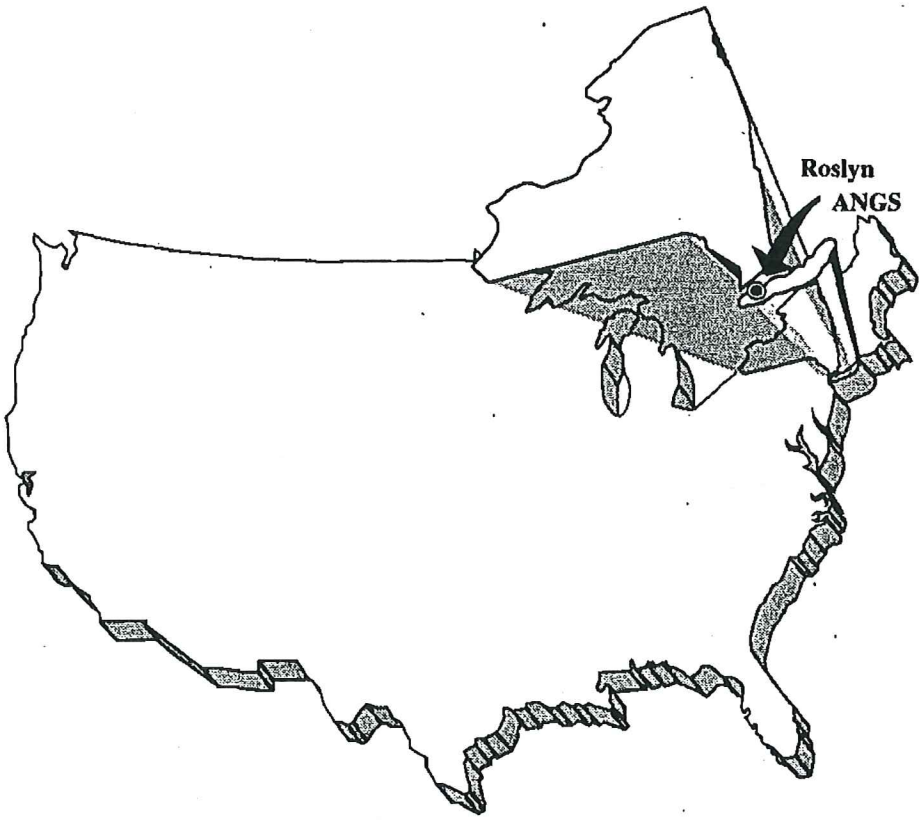
ROSLYN ANGS
NEW YORK

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 29

STATIONWIDE ENVIRONMENTAL BASELINE SURVEY ROSLYN AIR NATIONAL GUARD STATION, NEW YORK

November 1996



Research Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/3/2014 Installation: Roslyn

Researcher: Charles Staples

Type of research:	X	Online - BRAC AR		AF Historical Research Agency
		Online - General Engine Search		AF Safety Center
		BRAC DR/ER		Misc. Document Review

Document Name: AR-33: Environmental Assessment; Disposal and Reuse of Roslyn ANGS Findings of No Significant Impact (FNSI)

Document Author: US Department of Air Force

Document Date: March 1998

Was copy of title page obtained?: X Yes ____ No (provide reason)

Notes: Assessment report of the potential environmental concequences of the reuse of Roslyn ANGS.

Discusses reuse options.

Conducted search of document for "fire", "AFFF", "foam", "crash", "incident".

Fire Station identified just off-base, ajdacent to the southeast corner.

The other search words were not identified.

33

File: 17G
L.J.

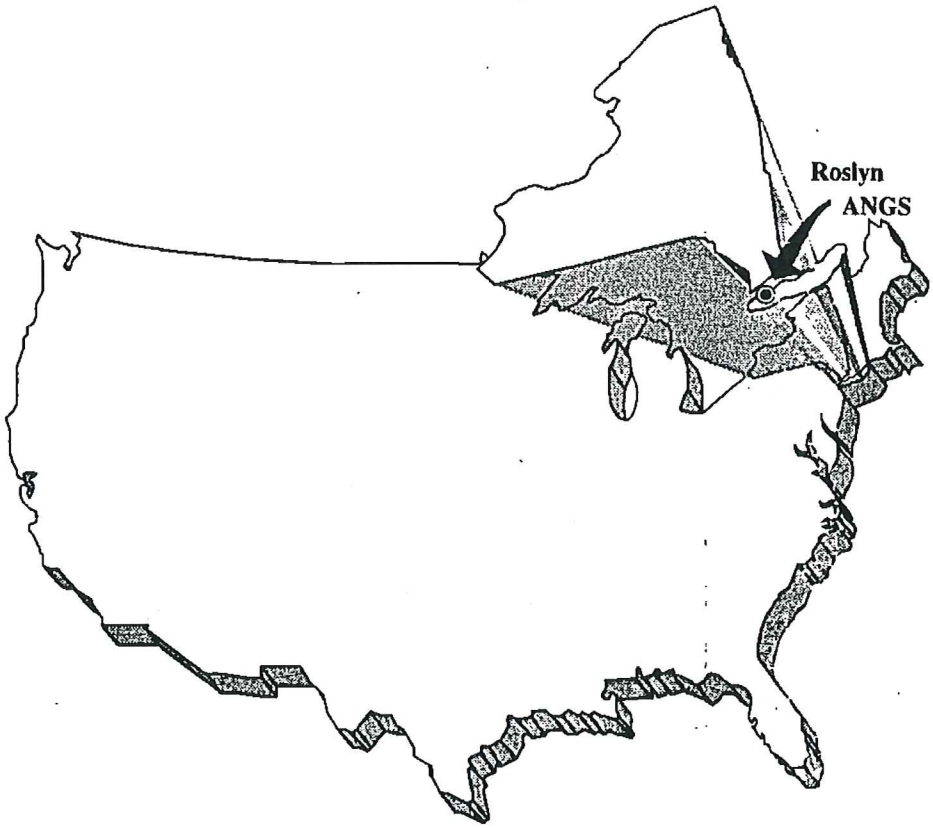
ROSLYN ANGS
NEW YORK

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 33

33

ENVIRONMENTAL ASSESSMENT
March 1998



DISPOSAL AND REUSE OF
ROSLYN AIR NATIONAL GUARD STATION
NEW YORK

Research Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/3/2014 Installation: Roslyn

Researcher: Charles Staples

Type of research:	X	Online - BRAC AR		AF Historical Research Agency
		Online - General Engine Search		AF Safety Center
		BRAC DR/ER		Misc. Document Review

Document Name: AR-102:Final Site Investigation Report
No Further Action Decision Document

Document Author: Fannings, Phillips and Molnar

Document Date: November 1999

Was copy of title page obtained?: X Yes ____ No (provide reason)

Notes: Assessment report based on site investigations. Twelve areas of interest investigated.
Includes No Further Response Action Planned (NFRAP) decision document.
Conducted search of document for "fire", "AFFF", "foam", "crash", "incident".
Search words were not identified ("incidental" identified, but not relevant).

102 0

File: 17G
L.J.

ROSLYN ANGS
NEW YORK

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 102

FINAL

SITE INVESTIGATION REPORT

Prepared for:

Site Investigation Project No. UMLH98-7001
Roslyn Air National Guard Station
Roslyn, NY 11576

through

AFCEE
3207 North Road
Brooks AFB, TX 78235-5673

Prepared by:
Fanning, Phillips and Molnar
909 Marconi Avenue
Ronkonkoma, NY 11779

Contract No. F41624-95-D-8003
Delivery Order No. 0018

Volume I
Revision 3.0
November 1999

Research Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/3/2014 Installation: Roslyn

Researcher: Charles Staples

Type of research:				
	X	Online - BRAC AR		AF Historical Research Agency
		Online - General Engine Search		AF Safety Center
		BRAC DR/ER		Misc. Document Review

Document Name: AR-122: Final Supplimental Environmental Baseline Study, Roslyn ANGS, NY

Document Author: United States Air Force

Document Date: September 2000

Was copy of title page obtained?: X Yes ____ No (provide reason)

Notes: Report prepared to document changes in condition of installation since 1996 EBS completed.

Only discusses specific areas with changesin environmental conditions

Conducted search of document for "fire", "AFFF", "foam", "crash", "incident".

These words were not identified in the document.

122 0
File: 17G
L.J.

ROSLYN ANGS
NEW YORK

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 122

FINAL

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

ROSLYN AIR NATIONAL GUARD STATION
NEW YORK

SEPTEMBER 2000

Research Log

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

Date: 12/3/2014 Installation: Roslyn

Researcher: Charles Staples

Type of research:				
	X	Online - BRAC AR		AF Historical Research Agency
		Online - General Engine Search		AF Safety Center
		BRAC DR/ER		Misc. Document Review

Document Name: AR-124: Final Finding of Suitability to Transfer

Document Author: FPM, Group

Document Date: November 2000

Was copy of title page obtained?: X Yes No (provide reason)

Notes: Document presents layout of facility, environmental findings/remediation conducted to date, and suitability to transfer installation for other use.

Conducted search of document for "fire", "AFFF", "foam", "crash". These words were not present in the document.

124 0 File: 17G L.J.

ROSLYN ANGS
NEW YORK

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 124

FINAL

FINDING OF SUITABILITY TO TRANSFER

ROSLYN AIR NATIONAL GUARD STATION
NEW YORK

NOVEMBER 2000

APPENDIX E

RESEARCH CHECKLIST

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PFC Site Assessment/Research Checklist

Perfluorinated Compounds (PFCs) Release Determination, Delineation, and Remediation at Multiple BRAC Bases, Contract FA8903-08-8766, Task Order 0177

POC/Personnel Interviews	Yes	No (include reason)
Did installation POC complete PFC General Information Questionnaire?	X	
Was additional contact personnel provided by POC (i.e. Fire chief, longtime base employee). If yes, provide names and contact information (position/rank, phone number, e-mail address) below.	No	Did not know any. No fire station.
Called local Fire Station (Roslyn Highland) - Contact information:	Former Chief Peter Newman - 516-621-7539	
Called local Fire Station (Roslyn Highland) - Contact information:	Former Chief William Trottier -516-621-7539	
Was Telephone Interview Log completed for each person contacted?	Yes	

Online Research	Yes	No (include reason)
Searched for the following key words in online AF BRAC Administrative Record and general search engine?		
"crash"	Yes	
"fire"	Yes	
"accident"	Yes	
"mishap"	Yes	
"AFFF" and "aqueous film forming foam"	Yes	
List additional words searched in online AR:	"firehouse", "spill", "foam"	
Reviewed Environmental Baseline Survey?	Yes	
Located and reviewed Environmental Impact Statements and/or Environmental Assessments?	Yes	
Were Real Property Records (as-built drawings) located?	No	
Were installation maps with building functions located?	Yes	EBS - AR-29
Located and reviewed additional reports suggested by POC?	Yes	
Located historic aerial surveys (1970 - present)?	Yes	Google Earth - 1994

Archival Repository Research	Yes	No (include reason)
Searched for the following key words in online Air Force Historical Research Agency Records Index?		
"crash"	Yes	
"fire"	Yes	
"mishap"	Yes	
"accident"	Yes	
"as-built" and/or "as built"	Yes	
"real property"	Yes	
"AFFF" and "aqueous film forming foam"	Yes	
List additional words searched in Index:	None	
Conducted file review at the Air Force Historical Research Agency Records at Maxwell AFB?	None identified	
Conducted file review at the Air Force Safety Center at Kirtland AFB?	Yes - by AF	

APPENDIX F

NEW YORK STATE DEPARTMENT OF ENVIRONMENT CONSERVATION LETTER

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New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 12th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9620 • **Fax:** (518) 402-9022
Website: www.dec.ny.gov

Joe Martens
Commissioner

February 13, 2015

Mr. Davis S. Farnsworth
BRAC Environmental Coordinator
AFCEC/CIBE-Plattsburgh
8 Colorado Street, Suite 121
Plattsburgh, NY 12903

Re: Perfluorinated Compounds (PFCs) Release
Preliminary Assessment for the former Roslyn Air
National Guard Station, Roslyn, NY

Dear Mr. Farnsworth:

The New York State Department of Environmental Conservation has reviewed the referenced Preliminary Assessment for the former Roslyn Air National Guard Station and we concur with the conclusions and recommendations. The assessment found nothing to indicate that Aqueous Film Forming Foam containing PFCs had been used at this facility and recommended no further action.

Sincerely,

John B. Swartwout

John B. Swartwout, P.E.
Section Chief

Ecc: D. Eaton
R. Weitzman