

FIVE-YEAR REVIEW REPORT

PLATTSBURGH AIR FORCE BASE

PLATTSBURGH, NEW YORK

Prepared By:

United States Environmental Protection Agency

Region II

New York, New York

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**U.S. Environmental Protection Agency
Region II
Emergency and Remedial Response Division
Five-Year Review (Type Ia)
Plattsburgh Air Force Base, New York**

I. Introduction

Authority Statement & Purpose. EPA Region II conducted this review pursuant to CERCLA Section 121 (c), NCP section 300.430 (f) (4) (ii), and OSWER Directives 9355.7-02 (May 23, 1991), 9355.7-02A (July 26, 1994), and 9355.7-03A (December 21, 1995). It is a statutory review, and the first five-year review conducted for Plattsburgh Air Force Base (PAFB). The purpose of a five-year review is to ensure that remedial actions remain protective of public health and the environment and are functioning as designed. This document will become a part of the Administrative Record for PAFB. This review (Type Ia) is applicable to a site at which response is still ongoing.

Site Background.

Plattsburgh Air Force Base (PAFB) is located within the Town and City of Plattsburgh, Clinton County, New York, approximately 26 miles south of the Canadian border and 167 miles north of Albany, New York. The facility is approximately 3,449 acres in size with an additional 1,292 acres in easements, and is bordered in part by the Saranac River and City of Plattsburgh to the north, the Salmon River to the south, Lake Champlain to the east, and Interstate 87 and State Route 22 to the west. Lands to the east, west, and south of the base are predominantly rural and residential. Approximately 2,000 people obtain drinking water from private wells located within 3 miles of the base.

PAFB served as a tactical (bombardment and air refueling) wing in the Air Force Strategic Air Command (SAC) from 1955 to 1991. In 1991, the bombardment wing was removed and in 1992 operations were realigned to form the 380th Air Refueling Wing under the Air Mobility Command (AMC). PAFB was slated for closure in 1993 under the Defense Base Closure and Realignment Act (BRAC), and the base was closed on September 30, 1995. Reuse of PAFB is being administered by the Air Force Base Conversion Agency (AFBCA) in conjunction with the Plattsburgh Airbase Redevelopment Corporation (PARC) and the Clinton County Industrial Development Agency (CCIDA).

The Air Force has conducted environmental investigations at PAFB since the early 1980s. The Installation Restoration Program (IRP) at PAFB, which involves investigation and cleanup under CERCLA, currently includes a total of forty sites at various stages of investigation and/or cleanup (see Attachment I, Plattsburgh AFB Location of IRP Sites). The IRP is being implemented according to a Federal Facilities Agreement (Docket No.: II-CERCLA-FFA-10201) signed between the Air Force, EPA, and the New York State Department of Environmental Conservation (NYSDEC) on July 10, 1991. PAFB was placed on the National Priorities List (NPL) on July 10, 1989.

Site Cleanup/Characteristics.

As of the date of this Report, Records of Decision (RODs) have been signed for nine Operable Units (OUs) at PAFB. The nine OUs, covering eight of the forty IRP sites at PAFB, include:

- SS-011 (Defense Reutilization and Marketing Office (DRMO)) Soil Operable Unit
- Landfill LF-022 Source Control
- Landfill LF-023 Source Control
- Landfill LF-023 Groundwater Surface Water, Sediment
- Landfill LF-021 Soil and Groundwater
- Landfill LF-024 Soil and Groundwater
- SS-005 (Non-Destructive Inspection Facility) Soil Operable Unit
- SS-006 (Aerospace Ground Equipment Facility) Soil Operable Unit
- ST-020 (Civil Engineering Squadron Pesticide Tank)

As the ST-020 ROD called for no further action, and did not require that a five-year review be conducted, it is not discussed in this Report. Descriptions of the remedies for the other eight OUs are provided below.

SS-011 Soil Operable Unit:

This facility consisted of several small buildings used for storage and offices and an adjacent, paved open storage area. Its function was to handle Air Force discarded materials (such as transformers and refrigerators) that may have had reclaimable components. Soil at the site was contaminated with DDT from leaking storage drums. A Removal Action consisting of the excavation of approximately 600 cubic yards of soil and offsite disposal was conducted in November 1991.

The ROD for this site, signed in March 1993, states the following:

- Based on the Risk Assessment, the Removal Action conducted in 1991 was fully effective in achieving protection of human health and the environment. No further action will be taken to reduce site contaminants beyond their current levels.
- Inspections will be conducted to assess the general condition of the site, including the progress of revegetation in areas disturbed by the Removal Action and the potential effects of runoff from or onto the site. The first inspection was completed in 1992. Future inspections are planned at five year intervals. After each inspection, an evaluation will be undertaken to insure the continued protection of human health and the environment.

LF-021:

This six acre landfill was used from 1956 to 1959 for the disposal of municipal wastes, construction and demolition debris, and sludge from the PAFB waste water treatment plant. Soil and fill are contaminated with VOCs, SVOCs, PCBs, and pesticides.

The ROD for this site was signed in March 1997. The remedy selected for the site is Native Soil Cap and Institutional Controls. According to the ROD, the 12 inch cap, constructed so as to control surface water runoff and erosion, is to consist of a nine inch borrow layer, three inches of topsoil, and a vegetative cover. The cap is to be inspected annually, with repair/replacement of the cap as required. The institutional controls consist of deed restrictions that will be imposed to:

- Limit development of any structure on the landfill site which would adversely affect human health and safety;
- Prevent any adverse action leading to the deterioration of the cap;
- Prohibit the installation of any wells which could result in use of the underlying groundwater;
- Prohibit any excavation of the landfill cap without prior approval of NYSDEC.
- Restrict groundwater use in the area encompassing the landfill, northward to the Saranac River within the property boundaries.

The remedy also includes the installation of one additional groundwater monitoring well, monitoring of the new well and five existing wells for a period of thirty years, Five-Year Reviews, and the development of a post closure plan that will specify more detailed requirements for cap maintenance and inspection, and monitoring.

LF-024:

This one acre construction / demolition landfill was used from 1980 to 1986. Soils at the site are contaminated with metals.

The ROD for this site was signed in March 1997. The remedy selected for the site, based on EPA's Presumptive Remedy for Military Landfills, is "Containment with a Native Soil Cap and Institutional Controls". According to the ROD, the 12 inch cap, constructed so as to control surface water runoff and erosion, is to consist of nine inches of inorganic soil, three inches of topsoil, and a vegetative cover. The cap is to be inspected annually, with repair/replacement of the cap as required. The institutional controls consist of deed/lease restrictions that will be imposed to:

- Limit development of any structure on the landfill site which would adversely affect human health and safety;
- Prevent any adverse action leading to the deterioration of the cap;
- Prohibit the installation of any wells which could result in use of the underlying groundwater;
- Prohibit any excavation of the landfill cap without prior approval of NYSDEC.
- Restrict groundwater use in the area encompassing the landfill and groundwater pathway between

the landfill and the Salmon River.

The remedy also includes the installation of three groundwater monitoring wells near the locations of three existing well points, an additional new well downgradient of the landfill to serve as a sentry well to monitor plume containment, monitoring of the four new wells and an existing upgradient well (for comparison to background conditions) for a period of thirty years, Five-Year Reviews, and the development of a post closure plan that specifies more detailed requirements for cap maintenance and inspection, and monitoring.

LF-022:

This 500 by 1200 by 30 foot landfill received domestic wastes from 1959 to 1966. Contaminants are metals and organics. The volume of fill is estimated to be 524,000 cubic yards.

The ROD for this site was signed in September 1992. The remedy selected for the site was “Site Grading and Vegetation Establishment For Closure”, and called for clearing and grubbing of the site, managing surface water runoff to minimize erosion of the final cover and minimize maintenance requirements, establishing a 12 inch soil cover thickness, establishing vegetation to minimize erosion of the final cover and enhance evapotranspiration, developing a post-closure plan to monitor, maintain, and inspect the site, monitoring groundwater, and conducting five year site reviews. The ROD also stated that institutional controls for the site would be incorporated into the PAFB Comprehensive Plan to ensure that future owners will be made aware of the landfill location and are informed that the integrity of the final cover or any other component of the containment or monitoring system must not be compromised.

LF-023 Source Control:

This 500 by 800 by 30 ft landfill received domestic wastes and construction debris from 1966 to 1981. Contaminants are metals, organics, and PCBs. The maximum volume of fill is estimated to be 406,000 cubic yards.

The ROD for this OU was signed in September 1992. The remedy selected was “Installation of a Low Permeability Barrier Cover System”, calling for installation of a landfill cap meeting the requirements of 6 NYCRR Part 360. The ROD called for clearing and grubbing of the site, removal of existing vegetation, regrading to control rainwater runoff and minimize erosion, installation of a gas detection system to monitor for the presence or migration of methane and other landfill gases, installation of a gas management system (including venting pipes between a gas-venting soil layer and the cover system surface), and installation of the cover itself. The cover’s barrier layer was to be constructed of a synthetic liner to keep rainwater and snowmelt from infiltrating the landfill. The barrier layer was to be covered by a soil barrier protection layer to protect the barrier layer from frost and root penetration. Six inches of topsoil was to be placed on top of the barrier protection layer, with the establishment of grass and small plants having only limited root systems. A post closure plan was to be developed specifying inspection, monitoring and maintenance

programs to be carried out over a 30 year period. . The ROD also stated that five year site reviews would be conducted and that institutional controls for the site would be incorporated into the PAFB Comprehensive Plan to ensure that future owners will be made aware of the landfill location and are informed that the integrity of the final covers, liners, or any other component of the containment or monitoring system must not be compromised.

LF-023 Groundwater, Surface Water, and Sediment:

The ROD for this OU was signed in March 1995. The remedy selected was “Institutional Action”, and it calls for deed restrictions prohibiting withdrawal of groundwater for potable use in the area, all elements of the Source Control ROD, installation of additional side and down gradient monitoring wells, long-term environmental monitoring of groundwater, action criteria for sidegradient wells to protect drinking water, action criteria for downgradient wells to protect surface water resources, and five-year reviews.” The action criteria for the new sidegradient wells were set in the ROD as groundwater ARARs. The action criteria for the downgradient wells were to be set after “baseline” levels for the contaminants of concern were established. The “baseline” levels were to be determined by initially sampling each of the two new down gradient wells twice, with the highest level detected for each contaminant of concern to be set as the baseline level for that particular contaminant. If either set of action criteria are exceeded, a focused feasibility study is to be conducted. The feasibility study for the sidegradient wells would include an initial phase addressing immediate measures that could be taken to protect human health, such as the provision of potable water to affected residences.

SS-005 Soil Operable Unit:

Site SS-005 is the Non-Destructive Inspection Facility and is located on approximately 750 square yards in the industrial area of the base, approximately 1200 feet east of the flightline. The facility was used for the non-destructive x-ray inspection of aircraft parts. A waste accumulation area was formerly located at the site, handling various cleaning solvents and petroleum products. Although there was evidence of spillage and/or disposal of hazardous substances at the site, chlorinated hydrocarbons and fuel-related compounds were detected in site soils and groundwater during the RI at levels only slightly above ARARs and guidance values, and the minor groundwater contamination detected was shown to be unrelated to soil contamination at the site. The Risk Assessment for the site, which did not include evaluation of a future residential use scenario, concluded that risks to human health and the environment, given the current and planned future use of the site (industrial/commercial), were within acceptable levels.

The ROD for the Soil OU at this site was signed in April 1998. The remedy selected for the site was “Institutional Controls”, and called for restrictions limiting development of the site to non-residential uses, prohibition of the installation of any wells that could result in the use of groundwater underlying the site, and evaluation of the institutional controls during five-year reviews of the remedy. The ROD specified that the institutional controls would be implemented through lease and deed restrictions, and that groundwater

remedial actions, including monitoring, would be specified in the preferred alternative for the Fire Training Area/Industrial Area (FTA/IA) Groundwater OU. The FTA/IA Groundwater OU currently includes groundwater at site SS-005.

SS-006 Soil Operable Unit:

Site SS-006 is the former Aerospace Ground Equipment (AGE) Facility, and is located on approximately 1.6 acres in the industrial area of the base, approximately 600 feet east of the flightline. The site consists of the AGE Building (# 2815), at which power carts utilized on the flightline were maintained and repaired, and Building 2801, which housed the Precision Measurement Equipment Laboratory, The Weapons Systems Management and Maintenance Facility, and other flightline-related offices. A hazardous waste accumulation point was also located within the site, in addition to two underground storage tanks (USTs) for diesel storage and an oil/water separator. Although there was evidence of spillage and/or disposal of hazardous substances at the site, chlorinated hydrocarbons and fuel-related compounds were detected in site soils and groundwater during the RI at levels only slightly above ARARs and guidance values, and the minor groundwater contamination detected was shown to be unrelated to soil contamination at the site. The Risk Assessment for the site, which did not include evaluation of a future residential use scenario, concluded that risks to human health and the environment, given the current and planned future use of the site (industrial/commercial), were within acceptable levels.

The ROD for the Soil OU at this site was signed in April 1998. The remedy selected for the site was “Institutional Controls”, and called for restrictions limiting development of the site to non-residential uses, prohibition of the installation of any wells that could result in the use of groundwater underlying the site, and evaluation of the institutional controls during five-year reviews of the remedy. The ROD specified that the institutional controls would be implemented through lease and deed restrictions, and that groundwater remedial actions, including monitoring, would be specified in the preferred alternative for the FTA/IA Groundwater OU. The FTA/IA Groundwater OU currently includes groundwater at site SS-006.

More complete descriptions of the history and characteristics of the seven sites (eight OUs) that are the focus of this review are contained in the RODs and in Appendix D of the Basewide Environmental Baseline Survey (EBS).

Status of Other IRP Sites

Brief discussions on the 32 other sites in the IRP at various stages of the CERCLA process are presented below. Complete descriptions of all 40 IRP sites are contained in Appendix D of the Basewide EBS. A schedule for completion of ongoing studies and cleanup for the sites not currently covered by RODs or regulator-approved Decision Documents is provided in Attachment II to this Report.

No Further Action (NFA):

Preliminary Assessments (PA): EPA has concurred on Air Force NFA decisions for five sites (ST-032, SS-035, SS-036, SS-037, and SS-038) which, based on PAs conducted for each site, have been determined not to be of environmental concern.

Site Investigations (SI): EPA has concurred on Air Force NFA decisions for five sites (SD-001, SS-007, and SS-029, SS-034, and SS-040) which, based on SIs conducted for each site, have been determined not to be of environmental concern.

Pending Investigations:

Site Investigations (SI): Three Sites (SS-026, SS-027, and SS-033). A Removal Action was conducted at site SS-033 in November and December 1997 to remove additional lead-contaminated soils from the site (soils, bullets, and shell casings were excavated from the firing range backstop during an earlier Removal Action conducted in 1993). Regulator comments on the draft Closure Report for site SS-033 are currently under review by the Air Force. Chemical agent identification kits (CAIS) were discovered at Site SS-026 (Explosive Ordnance Demolition Range) in late 1997. The U.S. Army Corps of Engineers, acting as contractor to the Air Force, conducted “safing” operations at the site during 1998 and 1999. “Safing” consists of the location of ordnance and its removal from site soils. AFBCA has stated that the intended outcome of the safing operations is to obtain a certificate of unrestricted occupancy from the USACOE. A number of drums containing a tar-like substance believed to be waste heating oil were also discovered at the site in late 1997. The drums were removed from the site in April 1998. Additional investigation of the site is planned. The Site SS-027 SI Report is currently being finalized by the Air Force.

Remedial Investigations (RI):

FT-002: A revised Soil/Source Control OU Proposed Plan was submitted to the regulators in April 1998. AFBCA is currently revising the document in response to comments submitted by EPA and NYSDEC. A Removal Action consisting of Bioventing, Soil Vapor Extraction (SVE), and free product removal is currently in progress for the Source OU. The RI/FS for the FT-002/Industrial Area Groundwater Operable Unit is currently being revised by the Air Force based on comments provided by the regulators. Sentry wells were installed during 1997 to address potential offbase migration of the TCE plume.

SS-004: NYSDEC is currently reviewing Closure Reports for removal of the Aircraft Refueling System and contaminated soil.

SS-010: A Removal Action consisting of the excavation of 8,670 cubic yards of soil contaminated with fuel-related compounds and TCE (and backfilling with clean fill) was conducted from December 5, 1996 to March 27, 1997. Soils with contaminant concentrations that exceeded cleanup levels contained in

NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) were removed. Regulator comments on the draft Closure Report, which recommended no further action for site soils, are currently under review by the Air Force.

SS-013: A Removal Action consisting of the excavation of approximately 100 cubic yards of soil contaminated with VOCs and SVOCs was conducted at the Former Waste Accumulation Area (FWAA) of the site on November 3, 1997. Soils at the FWAA with contaminant concentrations that exceeded cleanup levels contained in NYSDEC's TAGM were removed. The excavation was backfilled with clean fill in May 1998. Removal of the underground storage tank (UST), piping, and septic systems at the site has also been completed. Regulator comments on the Removal Action Report, which recommends no further action for soils at the FWAA, are currently under review by the Air Force.

SS-016: A Treatability Study consisting of the installation and operation of a groundwater extraction and treatment system was conducted during 1997 and 1998. Regulator comments on the draft final Engineering Evaluation/Cost Analysis (EE/CA) are currently under review by the Air Force. Additional RI sampling was conducted in mid 1999, and a Focused Feasibility Study, containing the sampling results, is planned by the Air Force.

SS-017: A Removal Action incorporating Soil Vapor Extraction, begun in late 1997, is currently underway at the site. Prior to the Removal Action, delineation sampling of site soils was conducted to determine placement of the SVE system components. Additional groundwater sampling was conducted near the site during 1999 as part of the investigation of EBS Factor Building 2612. This data is also to be used to address a data gap near SS-017 and SS-011 (the DRMO), which was identified by EPA in the FT-002 / Industrial Area Groundwater RI/FS. A draft Site Progress Evaluation Report, incorporating the soil delineation and groundwater sampling results, as well as performance data on the SVE system, is scheduled to be submitted by the Air Force in late Fall 1999.

SS-028: Although the draft SI Report recommended no further action, PCE had been detected in groundwater at the site at levels slightly above groundwater standards. After submittal of the SI Report, it was determined that an RI would be conducted for this site in an attempt to locate the source of the PCE contamination in the groundwater. Initial results of groundwater sampling conducted during the RI revealed additional (although minor) PCE contamination. A Removal Action to excavate a small area of PCE-contaminated soil (believed to be the source of groundwater contamination at the site) was conducted in 1998, and the excavation was backfilled after approval by the regulators. Soils with volatile organic contaminant (VOC) concentrations that exceeded cleanup levels contained in NYSDEC's TAGM were removed. Regulatory comments on the draft final RI for the site are currently under review by the Air Force. A site closure report is scheduled for submission in early 2000.

NYSDEC Fuel Sites: PAs were done at these ten sites. Seven sites have been designated by the Air Force as No Further Action, and three are being addressed by the NYSDEC Region 5 Spill Response Division. The Air Force has not yet requested formal concurrence on any of these sites from EPA.

Other Potential Areas of Concern

Fourteen additional areas of potential environmental concern, known as “EBS Factors”, are currently under investigation at PAFB. The Air Force selected the fourteen “Factors”, or areas of potential concern, based on record searches, interviews, and research performed as part of the 1997 PAFB Basewide EBS, and potential concerns related to CERCLA 120 (h) (3) requirements for future property transfer. EPA submitted comments to the Air Force on the Work Plan for the EBS Factor Investigation and field work has been completed at the sites. EPA will review the Investigation Report upon its submittal, which is scheduled for the fall of 1999.

Additional areas of environmental concern may be discovered in the future during investigations conducted as part of parcel-specific Environmental Baseline Surveys (EBSs) that are required by the Finding of Suitability to Lease (FOSL) and Finding of Suitability to Transfer (FOST) Base Closure processes. Both EPA and NYSDEC provide comments to AFBCA on the SEBSs, FOSLs, and FOSTs, as well as on any work plans and reports developed for these investigations.

II. Compliance with Remedial Action Objectives .

SS-011 Soil Operable Unit:

Remedial Action Objectives (RAOs) were not established for the Soil OU at this site as it was determined that the cleanup levels attained by the Removal Action were ARAR compliant and no further action was required to protect human health and the environment.

As required by the ROD, however, an inspection of the site was conducted by EPA and the Air Force on September 17, 1998. Adequate revegetation has occurred and no negative effects due to runoff from or onto the site were noted. No problems were noted with the general condition of the site.

Although TCE and DCE were detected in site groundwater at levels slightly above ARARs during the original SS-011 RI, wells upgradient of the site showed significantly higher levels of TCE and DCE and the contamination was thought to be due to an upgradient source. SS-011, at which groundwater contamination has been found to be marginally within EPA’s acceptable risk range, appears to be at the downgradient edge of this upgradient source. Contamination detected in site groundwater was subsequently investigated as part of IRP Site SS-017 (Building 2774), and is currently being further investigated as part of the FT-002/Industrial Area (FT-002/IA) Groundwater OU RI/FS. SS-011 itself is not believed to have contributed to underlying groundwater contamination, but nevertheless, as a result of soil Removal Action, has been removed as a potential future source of groundwater contamination.

The area encompassing this site is designated as “light industrial” in the PAFB Reuse Plan. Site SS-011 lies within the Railroad Spurs, Industrial Area, and Vacant Land FOSL property. The FOSL states that

notice will be given in the lease documents of the type and quantity of hazardous substances and the time at which storage and release took place, and that the lessee will be restricted from conducting any subsurface excavation, digging, drilling, withdrawal of groundwater, or other ground-disturbing activities at the site without prior written approval from the Air Force. The FOSL also states that provisions will be placed in the lease to allow the Air Force and regulatory agencies unrestricted access to the site to conduct any necessary investigation and/or cleanup activities.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed restrictions need to be addressed before any property located at the site is transferred.

LF-021

According to the Proposed Plan for LF-021, the RAO for the site is to prevent direct contact with onsite soil/fill by human or ecological receptors. An RAO was not established for groundwater because the low level contamination detected in this medium does not pose a significant risk to human health.

Construction of the cap was completed in the Fall of 1997. The vegetative cover was established in the Spring of 1998 and the grass was mowed for the first time in July 1998. Installation of the additional groundwater monitoring well was completed in August 1998. No areas of non-compliance were noted by the Air Force during construction. Air Force and EPA personnel conducted an inspection of the landfill on September 17, 1998, and found the remedial construction to be satisfactorily completed. A Remedial Action Construction Completion Report was written and signed by EPA in September, 1998. Quarterly monitoring of site groundwater began in November 1998. Results of that monitoring and monitoring conducted in February 1999 have been submitted to EPA. Thus far, there have been no significant exceedances of groundwater ARARs during monitoring. The Post-Closure Plan for this landfill is contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan.

The area encompassing this site is designated as “open space/recreation” in the PAFB Reuse Plan. As of the date of this Report, no portion of the site has been included in any of the proposed leases received by EPA. According to the Air Force, site access has been restricted by fencing since the landfill was in use, and appropriate health and safety measures were followed during construction.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed and lease restrictions need to be addressed before any property located at the site is transferred or leased.

LF-024

According to the Proposed Plan for LF-024, the RAO for soil/fill at the site is to prevent construction workers from inhaling contaminated fugitive dust resulting from earth-moving activities during site remediation and post-closure maintenance operations. The RAO for groundwater is to prevent human ingestion of contaminated groundwater on and immediately downgradient of the site.

Construction of the cap was completed in the Fall of 1997. The vegetative cover was established in the Spring of 1998 and the grass was mowed for the first time in July 1998. Installation of the additional groundwater monitoring well was completed in August 1998. No areas of non-compliance were noted by the Air Force during construction. Air Force and EPA personnel conducted an inspection of the landfill on September 17, 1998, and found the remedial construction to be satisfactorily completed. A Remedial Action Construction Completion Report was written and signed by EPA in September, 1998. Semi-annual monitoring of site groundwater began in November, 1998. Results from that sampling event revealed

exceedances of groundwater ARARs for five metals (cadmium, iron, manganese, selenium, and thallium). Both filtered and unfiltered samples were to be collected during the next sampling event, scheduled for May 1999, to aid in evaluation of the results. Results from the May event have not yet been received by EPA. The Post-Closure Plan for this landfill is contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan.

The area encompassing this site is designated as “open space/recreation” in the PAFB Reuse Plan. As of the date of this Report, no portion of the site has been included in any of the proposed leases received by EPA. According to the Air Force, site access has been restricted by fencing since the landfill was in use, and appropriate health and safety measures were followed during construction.

Although lease and deed restrictions are specified in the ROD, it should be noted that the Proposed Plan for the site did not specifically mention leases. Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed and lease restrictions need to be addressed before any property located at the site is transferred or leased.

LF-022

According to the LF-022 ROD, the RAO for the site is to minimize potential current and future ecological risks associated with exposure to pesticides in surface soil. An RAO was not established for groundwater because contaminants were not found at levels warranting remedial action.

Construction of the landfill cover was completed in the Spring of 1995. Air Force and EPA personnel conducted an inspection of the construction on May 17, 1995. The Air Force conducted a final inspection of the landfill cap construction on July 20, 1995 and notified EPA that the project was completed on July 24, 1995. A Remedial Action Construction Completion Report was signed by EPA on September 27, 1995. The Post-Closure Plan for this landfill is contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan.

Post-closure groundwater monitoring at the site began in December 1995, and has been conducted quarterly since that time. Groundwater monitoring appears to have been conducted in accordance with the LF-022 ROD and LF-022 Post-Closure Monitoring and Maintenance Operations Manual (contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan) with no significant changes. In general, concentrations of chemicals have decreased since December 1995 and do not appear significantly elevated. During the last sampling event for which EPA has received results (December 1998), ARARs were exceeded for 3 analytes (iron, manganese, and sodium). These and other metals have been detected above ARARs in past sampling at the site. Iron and manganese concentrations have decreased since the original December 1995 sampling event. Sodium concentrations have remained steady, with the wells closest to Route 22, including the upgradient well, showing the highest concentrations. This may be due to road salting

Air Force and EPA personnel conducted an inspection of the cap on September 17, 1998. Subsequent to completion of remedial action construction, inspections of the landfill cap have been conducted quarterly. The most recent inspection of the cap conducted by AFBCA's contractor and reported to EPA was on December 14, 1998. The integrity of the landfill soil cap, drainage system, access road, and monitoring wells thus far has been found to be acceptable.

The area encompassing this site is designated as “light industrial” in the PAFB Reuse Plan. As of the date of this Report, no portion of the site has been included in any of the proposed leases received by EPA. According to the Air Force, site access has been restricted by fencing since the landfill was in use, and appropriate health and safety measures were followed during construction.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed and lease restrictions need to be addressed before any property located at the site is transferred or leased.

LF-023 Source Control:

According to the LF-023 Source Control ROD, the RAOs for the site are to minimize potential future human health and current and future ecological risks associated with exposure to polynuclear aromatic hydrocarbons (PAHs) in surface soil, minimize potential future human health risks associated with exposure to PAHs in dust emissions, minimize infiltration of precipitation into landfilled waste materials, minimize potential for contaminant migration from waste materials, and minimize erosion of existing cover soils. Additional RAOs established for site groundwater are addressed in a separate ROD (see LF-023 Groundwater, Surface Water, and Sediment below).

Construction of the landfill cover began in the Fall of 1992 and was completed in the Spring of 1994. Air Force and EPA personnel conducted an inspection of the construction on July 21, 1994. The Air Force conducted a final inspection of the landfill cap construction on September 19, 1994 and notified EPA that the project was completed on September 27, 1994. A Remedial Action Construction Completion Report was signed by EPA on September 30, 1994.

Although groundwater monitoring was included in the LF-023 Source Control ROD, it was more fully addressed in the LF-023 Groundwater, Surface Water, and Sediment ROD (see below).

The Post-Closure Monitoring and Maintenance Plan for this landfill is contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan. Air Force and EPA personnel conducted an inspection of the cap on September 17, 1998. Subsequent to completion of remedial action construction, inspections of the landfill cap have been conducted quarterly. The most recent inspection of the cap conducted by AFBCA’s contractor and reported to EPA was on December 15, 1998. The integrity of the landfill soil cap, drainage system, access road, and monitoring wells thus far has been found to be acceptable.

The area encompassing this OU is designated as “open space/recreation” in the PAFB Reuse Plan. As of the date of this Report, no portion of this OU has been included in any of the proposed leases received by EPA. According to the Air Force, site access has been restricted by fencing since the landfill was in use, and appropriate health and safety measures were followed during construction.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although

deed and lease restrictions need to be addressed before any property located at the site is transferred or leased.

LF-023 Groundwater, Surface Water, and Sediment:

According to the LF-023 Groundwater, Surface Water, and Sediment ROD, the RAOs for groundwater at the site are to prevent ingestion of water having carcinogens in excess of ARARs and a total cancer risk of greater than 1×10^{-4} and to prevent ingestion of water having noncarcinogens in excess of groundwater ARARs or having a total Hazard Index greater than one. RAOs were not developed for cleanup of surface water and sediment at the site because, based upon calculations performed using data collected during the RI and a supplemental investigation to the RI, those media appear to pose no unacceptable risk to human receptors or the environment.

Post-closure groundwater monitoring at the site began in December 1995 and has been conducted quarterly since that time. The four new wells called for in the Groundwater ROD (“Group B wells”) were monitored for the first time in April 1996. Of these four, the two down gradient wells were sampled twice in June 1996 to establish the baseline levels. The Air Force presented the baseline results and proposed action criteria for the two down gradient wells in a February 10, 1997 letter to the regulators. The action criteria were taken from a NYSDEC Division of Fish, Wildlife and Marine Resources memorandum dated December 9, 1996. EPA and NYSDEC concurred with the baseline levels and action criteria. The action criteria for the two down gradient wells are as follows: benzene 60 ppb, chlorobenzene 50 ppb, other VOCs at ten times the existing groundwater standard, bis (2-ethylhexyl) phthalate 6 ppb, naphthalene 100 ppb, arsenic 380 ppb, chromium 412 ppb, nickel 190 ppb, and zinc 165 ppb.

Groundwater monitoring appears to have been conducted in accordance with the LF-023 ROD and LF-023 Post-Closure Monitoring and Maintenance Operations Manual (contained in Volume I of the July 1997 PAFB Basewide Operation and Maintenance Plan) with no significant changes. In general, concentrations of chemicals have remained the same or decreased slightly since December 1995. Compounds detected during the April 1998 sampling in exceedance of groundwater standards in the “Group A” wells (well installed around the perimeter of the landfill during the RI) include ammonia, chloride, iron, manganese, and sodium. The ammonia, iron, and manganese detections are highest in the downgradient wells and are likely landfill-derived. The sodium and chloride exceedances occurred primarily in sidegradient wells and are probably not attributable to the landfill. With respect to the “Group B” wells (the 4 wells required by the ROD) the only action criteria exceedance in any of the samples collected thus far was of chloroform in one of the side gradient wells during the April and June 1996 sampling events (action criteria for the sidegradient wells are MCLs). Chloroform was not detected when the well was resampled in July 1996, however, or in any samples collected through December 1998. The action criteria have not been exceeded in the downgradient wells during any of the sampling events conducted through December 1998.

Methane has not been detected in any of the seven perimeter landfill gas monitoring wells. Iron and phenols

have been detected in surface water samples in exceedance of NYSDEC Class D surface water standards, but the concentrations have been similar to background groundwater concentrations.

The area encompassing this OU is designated as “open space/recreation” in the PAFB Reuse Plan. As of the date of this Report, no portion of this OU has been included in any of the proposed leases received by EPA. According to the Air Force, site access has been restricted by fencing since the landfill was in use, and appropriate health and safety measures were followed during construction.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed and lease restrictions, which were the main components of the ROD, need to be addressed before any property located at the site is transferred or leased.

SS-005

According to the ROD for the SS-005 Soil OU, based on the industrial use human health and ecological risk assessment results, chemical contaminants present at relatively low levels in soils at site SS-005 at the time the ROD was signed did not pose a significant threat to human health or the environment. The purpose of the institutional controls is to address potential future threats that could result from increased contaminant concentrations in site groundwater (due to possible migration of the FT-002/Industrial Area plume underneath the site) and from an unevaluated potential risk from surface soil under land use conditions other than the current and planned non-residential use.

The area encompassing this OU is designated as “Aviation Support” in the PAFB Reuse Plan. During the summer of 1998, EPA and NYSDEC requested that AFBCA submit for review draft copies of the text that will be utilized in future deeds for property at the site to implement the deed notifications and restrictions specified in the ROD. Site SS-005 lies within the Flightline, Industrial, and Administrative Buildings FOSL property. One of the institutional controls specified in the SS-005 ROD (well installation/groundwater use prohibition) is contained in the FOSL. However, the ROD restriction limiting site development to non-residential use is only discussed as a possibility in the FOSL. This is due to the fact that the FOSL was finalized in the Fall of 1997 and the ROD was not signed until April of 1998. Restriction of site development to non-residential uses needs to be added to the Flightline, Industrial and Administrative Buildings FOSL, and to any leases that include part of site SS-005. The FOSL states that notice will be given in the lease documents of the type and quantity of hazardous substances and the time at which storage or release took place, and that the lessee will be restricted from conducting any subsurface excavation, digging, drilling, withdrawal of groundwater, or other ground-disturbing activities at the site without prior written approval from the Air Force and Air Force coordination with applicable federal and state regulatory agencies as necessary. The FOSL also states that provisions will be placed in the lease to allow the Air Force and regulatory agencies unrestricted access to the site to conduct any necessary investigation and/or cleanup activities.

Thus far, the RAOs appear to have been met and no areas of non-compliance have been noted, although deed and lease restrictions need to be addressed before any property located at the site is transferred or

leased.

SS-006

According to the ROD for the SS-006 Soil OU, based on the industrial use human health and ecological risk assessment results, chemical contaminants present at relatively low levels in soils at site SS-006 at the time the ROD was signed did not pose a significant threat to human health or the environment. The purpose of the institutional controls is to address potential future threats that could result from increased contaminant concentrations in site groundwater (due to possible migration of the FT-002/Industrial Area plume underneath the site) and from an unevaluated potential risk from surface soil under land use conditions other than the current and planned non-residential use.

The area encompassing this OU is designated as “Aviation Support” in the PAFB Reuse Plan. During the summer of 1998, EPA and NYSDEC requested that AFBCA submit for review draft copies of the text that will be utilized in future deeds for property at the site to implement the deed notifications and restrictions specified in the ROD. Site SS-006 lies within the Building 2815 FOSL property. One of the institutional controls specified in the SS-006 ROD (well installation/groundwater use prohibition) is contained in the FOSL. However, the ROD restriction limiting site development to non-residential use is not discussed in the FOSL. This is due to the fact that the FOSL was finalized in January 1997 and the ROD was not signed until April of 1998. Restriction of site development to non-residential uses needs to be added to the Building 2815 FOSL, and to any leases that include part of site SS-006. The FOSL states that notice will be given in the lease documents of the type and quantity of hazardous substances and the time at which storage or release took place, and that the lessee will be restricted from conducting any subsurface excavation, digging, drilling, withdrawal of groundwater, or other ground-disturbing activities at the site without prior written approval from the Air Force and Air Force coordination with applicable federal and state regulatory agencies as necessary. The FOSL also states that provisions will be placed in the lease to allow the Air Force and regulatory agencies unrestricted access to the site to conduct any necessary investigation and/or cleanup activities.

RAOs have not been met in that deed and lease restrictions need to be addressed before any property located at the site is transferred or leased (see page 27 of this report, Section III Recommendations, Site SS-006). Although not yet added to any deed or lease, the ROD requirement, limiting site development to non-residential use, has not been violated as current use remains non-residential.

Reuse Considerations

Reuse of PAFB falls under the requirements of CERCLA 120 (h), the Community Environmental Response Facilitation Act (CERFA), which amended portions of CERCLA 120 (h), Department of Defense Regulations 32 CFR Parts 90 and 91 (Revitalizing Base Closure Communities and Community Assistance), the National Defense Authorization Act of 1994 and subsequent years, the Defense Base Closure and Realignment Act of 1990, various Base Closure and Realignment Act (BRAC) guidance, the National

Environmental Policy Act (NEPA), and regulations of the President's Council on Environmental Quality.

CERCLA 120 (h) addresses the transfer of federal property. The major requirements for an NPL site include:

- 120 (h) (3) (A) requirements for deed notification regarding hazardous substances, and a covenant in all deeds warranting that all remedial action necessary to protect human health and the environment has been taken prior to the date of transfer and that any additional remedial action found to be necessary after the date of transfer shall be conducted by the United States;
- 120 (h) (3) (B) option to the covenant requirement which allows for demonstration to EPA's Administrator that a remedy is operating properly and successfully and a covenant exclusion for property that is leased when the Air Force determines that a property is suitable to lease, the uses contemplated for the lease are consistent with protection of human health and the environment, and there are adequate assurances that the United States will take all necessary remedial action that has not been taken on the date of the lease; and
- 120 (h) (3) (C) option for a federal agency transferring property to request that EPA's Administrator (with the concurrence of the State Governor) defer the first part of the covenant that all necessary remedial action has been taken prior to the date of the transfer. The Administrator/Governor must determine that the property is suitable for transfer based on a finding that:
 - the property is suitable for transfer for the use intended by the transferee and the intended use is consistent with the protection of human health and the environment;
 - the deed contains the assurance that any additional remedial action found to be necessary after the date of transfer shall be conducted by the United States;
 - the public has been given the opportunity to comment on the suitability of the property for transfer with at least 30 days notice; and
 - the deferral and transfer will not substantially delay any necessary response action at the property.

In addition, the deed for transfer shall contain assurances that:

- provide for any necessary property use restrictions that will be necessary to protect human health and the environment;
- provide that there will be restrictions on the use necessary to ensure that required investigations, response, and oversight will not be disrupted;
- provide that all necessary response action will be taken and identify the schedule (approved by the appropriate regulatory agency) for completion of investigation and response actions; and
- provide that the responsible federal agency will submit a budget request to the Director of OMB that adequately addresses the investigation and response schedule.

The Air Force has informed EPA that the Clinton County Industrial Development Agency (CCIDA) applied for designation as the local reuse authority (LRA) for disposal of PAFB, and that CCIDA has already been approved as a property receiving entity by the Office of Economic Adjustment (OEA) and the Air Force. PARC would continue to be responsible for caretaker activities at the base.

A reuse plan, entitled, Comprehensive Reuse Plan for Plattsburgh Air Force Base (Champlain Valley International TradeParc), dated September 15, 1995, was developed by the Plattsburgh Intermunicipal Development Corporation (PIDC) for PARC. The PIDC is no longer in existence. Figure 8B (Proposed Comprehensive Land Use Plan) of the PAFB Reuse Plan is included as Attachment III to this Report.

A draft Environmental Impact Statement (EIS) for the Disposal and Reuse of PAFB was presented at a public hearing on July 26, 1995, with a 45 day public comment period held from July 7 to August 22, 1995. EPA Region II reviewed the EIS and submitted comments to the Air Force. The Final EIS, dated November 1995, was filed with EPA and notice of its availability was published in the Federal Register on November 9, 1995. The Proposed Action presented in the EIS is based on the PAFB Reuse Plan and consists of the development of a commercial airport combined with a number of other uses.

According to the Air Force, no real property within the former Plattsburgh Air Force Base has been transferred as of the date of this Report. Transfers of five parcels, however, have been proposed, and EPA and NYSDEC reviewed and provided comments to the Air Force on the SEBSs and FOSTs for these parcels, which include:

- Parcel “E”: This 24.681 acre parcel is to be transferred to a private developer for extension of an off-base industrial park. The developer submitted the winning bid in a public sale administered by the GSA. The FOST included hazardous substance notification and a restriction requiring the transferee to coordinate with NYSDEC prior to developing any structure over two areas of the parcel where solid waste was known to be located. The two areas together comprise less than an acre where a pre-base dump containing non-industrial waste was located. Soil and groundwater sampling was conducted during the FOST process. There were a small number of exceedances of State soil guidelines and EPA Soil Screening Levels (SSLs) and sporadic, minor groundwater exceedances that could not be duplicated over four rounds of sampling. Although the risk assessment conducted indicated an acceptable degree of risk, it did not include a future residential exposure scenario, and both EPA and NYSDEC requested that part or all of the parcel be restricted to non-residential use. Although the Air Force initially refused to implement any land use restrictions during 1996 and 1997, it subsequently agreed to do so at this and a number of other sites at PAFB. AFBCA stated that the deed for this parcel would include this restriction. According to recent statements by PAFB staff, the proposed transfer may not take place.
- The Northside School: This 18 acre parcel was to be conveyed to the Peru School District for educational purposes by means of a “sponsored” transfer in which the property would be assigned to the U.S. Department of Education and then transferred via Public Benefit Conveyance (PBC) to the district. The FOST stated that hazardous substance notification would be included in the

transfer documents due to the presence of lead and lead bullet fragments in soil. Soils on the property were sampled as part of the IRP investigation of Site SS-040 (Abandoned Army Range), a site that was used by the Army prior to World War II as a firing range. The range was demolished during the construction of PAFB. Both EPA and NYSDEC concurred with AFBCA's recommendation of no further action for site SS-040 as lead concentrations in the soil were within acceptable levels. District officials and the school principal and staff were notified regarding the investigation and findings, including a limited potential for ingestion of bullet fragments by students. As a precaution, school children were screened for blood lead levels. Results of the screening showed that blood lead levels were not elevated. Additional restrictions were included in the FOST to allow the United States access to the school and adjacent property to conduct any future investigations and response actions needed and to protect the integrity of a piezometer located on the property. According to PAFB staff, the Peru School District recently stated that it was no longer interested in obtaining the property by deed transfer. It is EPA's understanding that although the Air Force still owns the property, the Peru School district is currently in operation at the school under the original agreement initiated between the district, the Air Force, and the U.S. Department of Education in 1959, and the terms of the FOST.

- The Southside School: This 9.3 acre parcel was to be conveyed to the Champlain Valley Educational Services for educational purposes by means of a "sponsored" transfer in which the property would be assigned to the U.S. Department of Education and then transferred via Public Benefit Conveyance (PBC) to Champlain Valley. The FOST stated that hazardous substance notification would be included in the transfer documents due to the storage of hazardous materials on the property. No other restrictions were listed. According to PAFB staff, Champlain Valley Educational Services recently stated that it was no longer interested in obtaining the property by deed transfer.
- The Lakefront Area (Parcels K-1 and K-3): AFBCA submitted a draft SEBS and FOSL to the regulators for this property in July 1999. The proposed transfer is to be a Public Benefit Transfer (PBT) to the City of Plattsburgh for anticipated recreational reuse. The property consists of approximately 37 acres located along the shore of Lake Champlain, separated in the middle by a 3rd parcel (K-2), which is not part of the property currently proposed for transfer. Parcel K-2 was not included in the proposal due to its proximity to IRP Site SS-028, located just upgradient of it. A Removal Action conducted at SS-028 in December 1998 is discussed above. Based on a site visit conducted by the BCT on April 20, 1999, the SS-028 excavation appears to be located approximately 20' west of the parcel boundary.

EPA and NYSDEC submitted comments on "informal" draft reports reports for sampling activities conducted at two EBS Factor sites located on the Lakefront property. AFBCA conducted additional sediment sampling at one of the sites (SPL-406) in response to regulator comments. Elevated levels of PAHs had been detected in drainage swales located near two storm sewer pipes that previously discharged from Building 406. AFBCA suggested that the high PAH levels were due to historic (pre-Air Force) railroad and coal operations, as well as current railroad operations

located at the site. Additional sampling conducted by AFBCA appears to have verified this conclusion. Sampling by the Air Force at the 2nd EBS Factor, ORD-951, showed the presence of lead in surface soils, but at concentrations below the 400 ppm screening level used by EPA. This EBS factor consisted of a machine gun firing range used by the Army prior to construction of PAFB (1955). The firing line appears to have been located on the shoreline of Lake Champlain, with the firing direction toward the lake.

EPA and NYSDEC submitted comments to AFBCA on the draft Lakefront SEBS and FOST in August 1999, and submittal of draft final transfer documents by AFBCA is expected during late September, 1999. AFBCA recently stated that the City of Plattsburgh was considering a lease in furtherance of conveyance to expedite its reuse. It is not known whether this is still the case.

- New Base Capehart Housing (6000 and 7000 Area): AFBCA submitted draft and draft final FOSTs and SEBSs for this parcel during the summer of 1999. The property consists of 158 housing buildings situated on approximately 118 acres. The transfer to PARC is in anticipation of resale to Select Group, a real estate development corporation, and projected reuse is residential. EPA and NYSDEC submitted comments to AFBCA on the transfer documents, expressing a number of concerns. EPA's major concern with the Capehart FOST is related to an apparent lack of compliance with the Residential Lead-Based Paint Hazard Reduction Act, commonly known as Title X (of the Housing and Community Development Act of 1992, 42 U.S.C. 4822). The FOST states that the transferee will be responsible for complying with all applicable laws, and that many non-renovated houses had extensive peeling paint in both interior and exterior areas, yet Title X is not mentioned in the FOST. EPA requested that the FOST state that the Air Force will comply with Title X, and informed the Air Force that EPA and HUD jointly issued regulations governing disclosure of known lead-based paint and lead-based paint hazards upon sale or lease of residential property (24 CFR Part 35 subpart H; 40 CFR Part 745, subpart F) under authority of section 1018 of Title X. EPA also stated that it is the responsibility of the Air Force to ensure that the above-mentioned disclosure requirements are carried through from CCIDA to PARC, the Select Group, and any additional transferees. EPA also informed the Air Force that if the Air Force chooses to transfer this parcel, and if at some time sampling data establishes that remedial action, including action relating to LBP risks, is found to be necessary after the date of property transfer, EPA believes that such action is the responsibility of the Department of Defense.

AFBCA cut out from the proposed transfer property a portion of land that overlies a groundwater contaminant plume caused by IRP site SS-030 (the BX Gas Station), a NYSDEC fuel site, and included some additional down gradient property to be cut out as a margin of safety/error as requested by EPA. NYSDEC requested additional time to conduct discussions with its petroleum spill office regarding Site SS-030 and its impact on the proposed property. EPA deferred comment on the adequacy of the area deleted due to the SS-030 plume, as not all of the supporting documentation was available to EPA, NYSDEC's spill response office was still evaluating the site, and additional evaluation of site SS-030 may be necessary as the transfer documents stated that solvent spills may have occurred at the site. In addition, the results of indoor air sampling conducted

at one of the buildings located over the plume have not yet been made available to EPA as requested, and although AFBCA agreed to omit the building from the proposed transfer, EPA stated that it could not concur prior to seeing the monitoring results. AFBCA's response to EPA's comments on the FOST stated that the property would be transferred to PARC through the CCIDA. EPA requested that additional information on the nature of this transfer (i.e., type, mechanisms, etc.) be provided. As comments provided by EPA and NYSDEC have not been adequately addressed, neither agency has provided concurrence on the suitability of this property for transfer. Additional research and discussion are planned.

As of the date of this Report, PARC has been the proposed lessee on all but two of the 39 FOSLs signed for PAFB, with the remaining two leases signed by private entities. EPA provided comments to the Air Force on all 39 FOSLs. NYSDEC did not comment on a number of the earliest FOSLs but has provided comments on FOSLs submitted since 1997. Land use restrictions at the various sites have included digging excavating, and ground disturbing activity restrictions, groundwater withdrawal restrictions, residential use restrictions, provisions to be placed in leases to allow the Air Force and regulatory agencies unrestricted access to sites to conduct any necessary investigation and/or cleanup activities, and notices in the lease documents of the type and quantity of hazardous substances and the time at which storage or release took place. According to the Air Force, land usage by lessees and sublessees thus far has been consistent with the PAFB Reuse Plan and EIS. FOSLs have been signed for property at three IRP sites discussed in this Report (SS-011, SS-005, and SS-006), and land usage at occupied areas within these sites has thus far been non-residential. EPA is not aware of any violations of lease restrictions as of the date of this Report, and this has been stated by the Air Force as well.

Attachment IV to this Report consists of a map submitted to EPA by AFBCA displaying the locations of FOSLs and FOSTs at PAFB as of August 1998.

A National Environmental Policy Act (NEPA) Record of Decision (ROD) for the Disposal and Reuse of PAFB was signed by the Assistant Secretary of the Air Force, Rodney Coleman, on October 2, 1997. The disposal ROD divides the base into two major parcels:

- "A-1", consisting of approximately 3,070 acres of all land and improvements located west of U.S. Route 9 (i.e., the "new base"), excepting 11 smaller parcels located within the A-1 parcel boundaries. It includes the airfield improvements, industrial and office facilities, former family housing, open space, and related infrastructure. The Disposal ROD lists "Airport Public Benefit Conveyance (PBC)" as the disposal method for this parcel, and AFBCA has stated that CCIDA would likely be the receiving entity. The 11 smaller parcels located within Parcel A-1 include the two schools, Parcel E, a 40 acre offbase radar site (to be retained by the Air Force), a 4 acre parcel containing housing units and a dormitory for transfer to the homeless through the Department of Health and Human Services, and 6 parcels containing state and interstate roadways that would be donated to the City of Plattsburgh and the New York State Department of Transportation; and

- “A-2”, consisting of approximately 250 acres of all land and improvements located east of U.S. Route 9 (i.e., the old base). It includes industrial and office facilities, former family housing, open space, and related infrastructure. This parcel was to be made available to an eligible applicant for an economic development conveyance (EDC).

The Air Force recently informed EPA that the dividing line between the two major parcels of the base is no longer U.S. Route 9 but now follows a rail line recently installed on base by Bombardier Corporation. The Air Force also stated that a Public Benefit Transfer (PBT) application was recently submitted by PARC to CCIDA for Parcel A-1 and that submission of the application to the Air Force was imminent. The status of the EDC for Parcel A-2 is not currently known. It is EPA’s understanding that transfer of ownership of the entire base could be proposed prior to the next five-year review. The Air Force has not provided EPA with specific dates or relative order for any of the transfers, and no FOSTs (other than those discussed above) have been submitted to EPA as of the date of this Report.

Site Access and Security

Access to the entire base prior to its closure (September 30, 1995) was heavily restricted as the base was under the tight security of a SAC installation. This included fencing of the entire base and use of heavily armed guards at stations at all three entrances to the base as well as other areas. Subsequent to closure of the base, security guards were posted at the two entrances to the “new base”, which contains all of the airport operations and nearly all of the IRP sites. Although security guards are no longer present at the base entrances, the entire base is still fenced. Access to IRP sites undergoing investigations and Removal and Remedial Actions is restricted through the use of fencing and appropriate signage.

Drinking Water Supplies

There are currently no drinking water wells located on PAFB as the base is provided with water from the City of Plattsburgh.

As of the date of this Report, no contamination is known to have migrated offbase via surface or groundwater. Groundwater flow across most of the base is from west to east, toward Lake Champlain, with some areas having a more southeasterly flow direction. Nearby off-base water supplies have been identified over the course of several environmental investigations conducted at PAFB. Off-base users were once again identified during mail and house to house surveys conducted during 1997 as part of the FT-002/Industrial Area RI/FS. Some minor contamination (acetone, TCE, and chloroform) has been detected sporadically over time in local off-base drinking water wells located within a few hundred feet of the north central base boundary at Kemp Lane. Studies performed by the Air Force and reviewed by the regulators did not link Air Force activities to the contamination, and repeated retesting of groundwater at an adjacent onbase parcel of land proposed for transfer (Parcel E) ultimately showed no exceedances of drinking water standards. Furthermore, a number of industries are located immediately adjacent to the groundwater users,

and these industries could have contributed to the sporadic acetone and TCE contamination. Migration of the FT-002 groundwater contaminant plume is currently being addressed with respect to a number of groundwater users located downgradient of the plume, southeast of the base on Route 9. A Removal Action consisting of Bioventing, Soil Vapor Extraction (SVE), and free product removal is currently in progress under the FT-002 Source OU. In addition, sentry wells have already been installed to protect those users and additional wells may be installed as part of the FT-002/Industrial Area Remedy. Based on the draft FT-002/IA RI/FS, the leading edge of the FT-002 plume currently only extends to within approximately a mile of these users. A small, third group of groundwater users is located on Runway Drive just west of the western base boundary near the area between landfills LF-022 and LF-023. Although sporadic contamination has been detected over time in some of these wells, the suspected source is a nearby off-base gas station. The Air Force believes that a contaminant plume emanating from the gas station may have migrated onto the base. Groundwater flow at the western base boundary is to the east toward Lake Champlain. Groundwater monitoring data from LF-022 and LF-023 will be examined in conjunction with any studies to be conducted should the contamination impact these off-base wells.

Community Concerns

EPA is not aware of any concerns expressed by the public regarding the eight OUs discussed in this Report. Appropriate public comment periods and meetings were held for presentation of and comment on the Proposed Plans for the eight OUs. Public comment periods and meetings have also been held for all of the Removal Actions conducted thus far by the Air Force at PAFB.

A Restoration Advisory Board (RAB) was established for PAFB and the surrounding community in 1994 to provide a forum for interested stakeholders to express concerns regarding cleanup of the base and to obtain information regarding the cleanup. The RAB is composed of representatives of environmental groups, a nearby housing development, local utilities, local officials, PARC, concerned citizens, EPA, NYSDEC, and the New York State Department of Health (NYSDOH), and meets on a quarterly basis (or more frequently if needed). The RAB has 2 co-chairs, one from the Air Force (the BRAC Environmental Coordinator) and one from the community. A BRAC Community Relations Plan was submitted by the Air Force in August 1995, supplementing the original PAFB Community Relations Plan. The RAB replaced the former Technical Review Committee (TRC), which fulfilled a similar function at PAFB prior to formation of the RAB.

Although few, if any, concerns were expressed by the public or members of the RAB prior to 1999, RAB members consistently expressed concerns regarding the draft FT-002 /Industrial Area Groundwater RI/FS during 1999. A sub or working group of the RAB was formed to discuss concerns related to the FT-002 RI/FS in January 1999, and the group, which consists of representatives from EPA, the Air Force, NYSDEC, the Lake Champlain Committee, and other members of the RAB, has met monthly since that time. The majority of concerns expressed have been related to the preliminary preference expressed by the Air Force of monitored natural attenuation (MNA) as the remedial alternative for the FT-002 Groundwater OU, and the institutional controls that would be part of the MNA remedy (or any other

remedy selected). The FT-002 plume is composed largely of TCE and other chlorinated hydrocarbons, as well as their breakdown products, and extends across the base over a half mile, from the FT-002 source to the flightline. The MNA alternative is based largely on modelling which predicts that contaminants from the plume are not expected to migrate offbase. A major assumption of the model is that leaking drains located near the runway and flightline ramp intercept most of the contaminated groundwater, directing it to onbase streams. The RI concludes that there is currently no significant impact from contaminant loading to the ecosystem of the Golf Course or Weapons Storage Area streams, which drain the flightline. The Golf Course stream was sampled at several locations during 1990 and 1991, and TCE was only detected sporadically. Additional onbase stream sampling was conducted during 1998 and the results show that some loading to both streams is occurring. Letters commenting on the FT-002 RI/FS were submitted to the Air Force by EPA, NYSDEC, the Lake Champlain Committee and the Town of Plattsburgh during 1999, and the Air Force provided response letters to the comment letters. Additional groundwater sampling to fill data gaps in the FT-002 RI in the industrial area of the base was conducted during 1999 at the request of EPA, and the results of this sampling are scheduled to be submitted to EPA in the fall of 1999. EPA has also requested revisions to the MNA Alternative and proposed three additional remedial alternatives, with very rough initial estimates of the costs, for inclusion in the revised FS. These included air sparging and an integrated alternative which includes air sparging, pump and treat, and passive treatment wall components. NYSDEC requested that similar technologies be evaluated. The Air Force has indicated that it will include the additional technologies proposed by EPA and NYSDEC in the alternatives evaluated in the revised RI/FS.

III. Recommendations.

SS-011:

The Risk Assessment conducted for the site states that the Removal Action conducted in 1991 was fully effective in achieving protection of human health and the environment. Furthermore, cleanup levels for DDT have not changed sufficiently to necessitate changes in the agreed-upon target cleanup level for DDT in soils at this site. The target cleanup levels set in the ROD for site SS-011 soils are still considered to be protective of human health and the environment. It is recommended, therefore, that five-year reviews for the SS-011 Soil OU be discontinued until such time as all remedial construction is completed at PAFB and the final Type I Five-Year Review is conducted for the entire base. It must be noted, however, that groundwater contamination at the site still needs to be addressed. As of the date of this report, this issue is under discussion by the BCT. It should also be noted that any future leases, FOSLs, deeds for transfer, and FOSTs that include real property located at this site will need to include the same restrictions found in the Railroad Spurs, Industrial Area, and Vacant Land FOSL.

LF-021

Although deed restrictions are specified in the Proposed Plan and ROD, lease restrictions are not. All

future leases (as well as FOSLs, deeds for transfer, and FOSTs) that will include real property located at this site will need to include all of the restrictions specified in the ROD (see Section I, Site Cleanup/Characteristics, of this Report). Also, the results of groundwater monitoring conducted at this site will need to be reviewed as they are received, as well as during the next five-year review.

LF-024

All future leases, FOSLs, deeds for transfer, and FOSTs that will include real property located at this site will need to include all of the restrictions specified in the ROD (see Section I, Site Cleanup/Characteristics, of this Report). Also, the results of groundwater monitoring conducted at this site will need to be reviewed as they are received, as well as during the next five-year review.

LF-022

The institutional controls specified in the ROD for this site (notification of future owners regarding the landfill's location and protection of the containment/monitoring system) will need to be included in all future leases, FOSLs, deeds for transfer, and FOSTs for real property located at this site. It is suggested that the restrictions go beyond protection of the cap to specifically include the same restrictions as LF-021 and LF-024, i.e.,

- Limit development of any structure on the landfill site which would adversely affect human health and safety;
- Prevent any adverse action leading to the deterioration of the cap;
- Prohibit the installation of any wells which could result in use of the underlying groundwater at the site;
- Prohibit any excavation of the landfill cap without prior approval of NYSDEC.

Also, groundwater monitoring needs to be continued until the thirty year period specified in the ROD has been completed.

LF-023 Source Control:

The institutional controls specified in the ROD for this OU (notification of future owners regarding the landfill's location and protection of the containment/monitoring system) will need to be included in all future leases, FOSLs, deeds for transfer, and FOSTs for real property located at the site. It is suggested that the restrictions go beyond protection of the cap to specifically include the same restrictions as LF-021 and LF-024, i.e.,

- Limit development of any structure on the landfill site which would adversely affect human health

- and safety;
- Prevent any adverse action leading to the deterioration of the cap;
 - Prohibit the installation of any wells which could result in use of the underlying groundwater at the site;
 - Prohibit any excavation of the landfill cap without prior approval of NYSDEC.

LF-023 Groundwater, Surface Water, and Sediment:

Although the ROD for this OU called for deed restrictions prohibiting withdrawal of groundwater for potable use in the area, lease restrictions were not specified. Any future leases (as well as all FOSLs, deeds for transfer, and FOSTs) for real property located at this site will need to include this restriction and the other restrictions specified in the ROD (see Section I, Site Cleanup/Characteristics, of this Report). Also, groundwater monitoring needs to be continued until the thirty year period specified in the ROD has been completed

SS-005 Soil

The restriction required by the ROD for this site, that future use of the site be limited to non-residential uses, needs to be added to the Flightline, Industrial, and Administrative Building lease. Also, all future leases, FOSLs, deeds for transfer, and FOSTs that will include real property located at this site will need to include all of the restrictions specified in the ROD (see Section I, Site Cleanup/Characteristics, of this Report).

SS-006 Soil

The restriction required by the ROD for this site, that future use of the site be limited to non-residential uses, needs to be added to the Building 2815 lease. Also, all future leases, FOSLs, deeds for transfer, and FOSTs that will include real property located at this site will need to include all of the restrictions specified in the ROD (see Section I, Site Cleanup/Characteristics, of this Report).

Reuse Recommendations

EPA concerns with the Capehart FOST related to lead-based paint and the BX Gas Station plume need to be addressed by the BRAC Cleanup Team. Also, EPA will need to see copies of the deeds for any parcels transferred in the future, to verify that the appropriate notifications, restrictions and covenants are present.

IV. Statement on Protectiveness.

Based upon the review of this site conducted by Robert Morse, and information provided by the Air Force, it has been determined that the remedies selected for this site remain protective of human health and the environment.

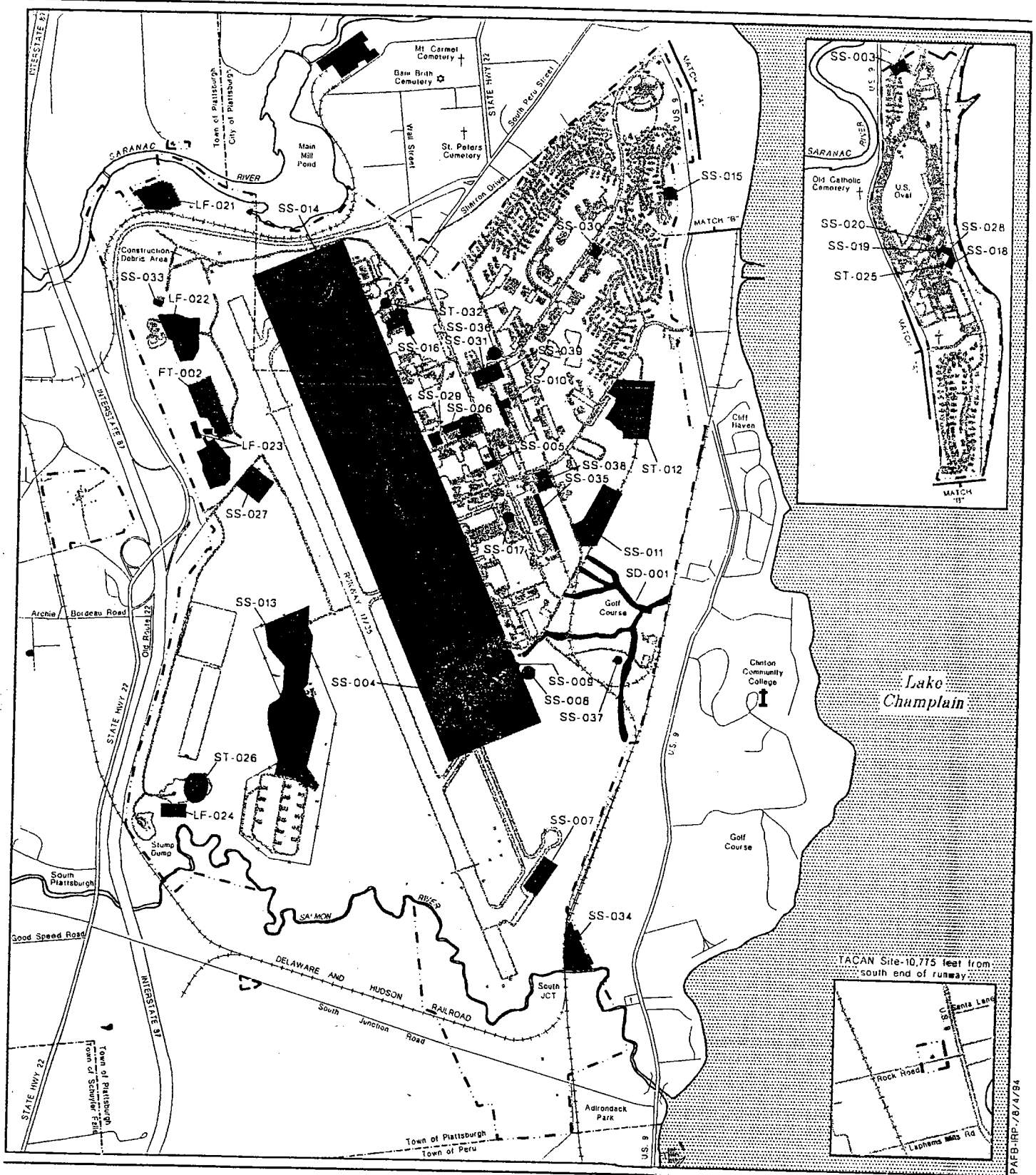
V. Next Five-Year Review

The next five-year review will be conducted prior to September 30, 2004.




ATTACHMENT I

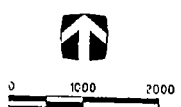
PLATTSBURGH AFB LOCATION OF IRP SITES

(Taken from Figure 3-7 of the PAFB Basewide Environmental Baseline Survey, May 1997)



LEGEND

-  Base Boundary
-  IRP Site
-  Overlapping IRP Sites



**Plattsburgh AFB
Location of IRP Sites**

Figure 3-7

PAFB-IRP-78/7/84

ATTACHMENT II

SCHEDULE OF REMAINING IRP WORK

(Taken from Air Force Submission of Current Milestones to EPA, August 1999)

FT-002 (S)

POC: Dave Famsworth

Status: Draft Final Proposed Plan submitted March 1998, regulatory comments have been received, BCT discussion/resolution of issues is in progress (to include limited sampling of Bio-Venting Area).

Milestones:

Limited Sampling of FT-002 Bio-Venting Area	August 20-26, 1999
Sampling Results	September 24, 1999
(Revised) Draft Final Proposed Plan	October 28, 1999
Regulatory Comment/Review	November 30, 1999
Final Proposed Plan/Draft ROD	December 15, 1999
Public Meeting	January 6, 2000
Public C o m m e n t	January 22, 2000
Regulatory Comment/Review	January 31, 2000
Draft Final ROD	February 15, 2000
Regulatory Review/Comment	March 15, 2000
Final ROD	March 22, 2000
ROD Signing	March 31, 2000

FT-002 (GW)

POC: Dave Farnsworth

Status: Draft RI/FS submitted April 1998, regulatory comments and community comments have been received. Response to USEPA comments were provided March 1999, response to NYSDEC comments (received May 1999) are in progress. Additional Field Work and Draft Final RI/FS are in Progress. Follow-up/additional USEPA comments were provided July 1999 and are under review.

Milestones:

Response to NYSDEC Comments	August 20,1999"
Additional Groundwater Sampling	August 6, 1999*
Groundwater Sampling Results	August 20,1999*
Review/Evaluate/Provide Sample Results	September 16, 1999*
Draft/Final RI/FS Report	October 20, 1999
Regulatory Review/Comment	December 20,1999
Review of Regulatory Comments	January 14,2000
Begin Proposed Plan/Record of Decision	January 17,2000
Final RI/FS Report & Draft Proposed Plan	March 31, 2000
Sign ROD	September 29,2000
Implementation of Remedy (LRIP)	September 30,2001

*changes/inserts made since presentation to June 1999 RAB meeting

note: Impact of July 29, 1999 USEPA letter have not been determined (response to USEPA letter to be done by mid Sep.).

SS-004

POC: Dave Farnsworth

Status: Regulatory comments to the Draft RI/FS have been submitted, response to comments will be done after finalization of the Aircraft Refueling System Closure Report.

Milestones:

Finalize Aircraft Refueling System Report	October 15, 1999
Submit Response to Comments	December 15, 1999
Regulatory Review	February 15, 2000
Proposed Plan/Record of Decision	September 29, 2000

note: Groundwater portion of this site is being addressed under FT-002 (GW); impact of July 29, 1999 USEPA letter (regards FT-002) have not been determined (response to USEPA letter to be done by mid Sep.).

SS-010

POC: Steve Gagnier

Status: Supplemental RI is being performed (Workplan has been submitted and regulatory comments have been received) to evaluate the groundwater (groundwater component was previously part of FT-002 (GW)).

Milestones:

Revised Workplan	August 13, 1999
Install New Monitoring Wells	August 20, 1999
Sampling	September 3, 1999
Sampling Results	October 8, 1999
Draft Supplemental RI	October 29, 1999
Regulatory Review/Comment	December 31, 1999
Draft Final Supplemental RI	January 28, 2000
Regulatory Review/Comment	March 31, 2000
Proposed Plan/Record of Decision	September 29, 2000

Note: Milestone could be expedited depending on the sampling results.

SS-013

POC: Steve Gagnier

Status: Supplemental RI is needed to pull together previous (multiple) actions and fill data gaps.

Milestones:

Project Funding/Contract Award	September 30, 1999
Supplemental RI Workplan	October 29, 1999
Regulatory Review/Comment	November 30, 1999
Revised Workplan	January 15, 2000
Field Work	April 1-15, 2000
Results	May 15, 2000
Draft Supplemental RI	July 15, 2000
Regulatory Review/Comment	September 15, 2000
Draft Final Supplemental RI	November 15, 2000
Regulatory Comment	February 15, 2001
Proposed Plan/Record of Decision	September 30, 2001

SS-016

POC: Steve Gagnier

Status: Regulatory Comments to the EE/CA, Treatability Study, and ITIR have been received.

Milestones:

Draft Focused FS (will include revised Treatability Study as an attachment)	November 15, 1999
Regulatory Review/Comment	December 31, 1999
Draft Final FFS	February 28, 2000
Regulatory Review/Comment	April 30, 2000
Proposed Plan/Record of Decision	September 29, 2000

Note: BCT discussion of finalization of the EE/CA – Treatability Study is needed ASAP.

SS-017

POC: Steve Gagnier

Status: Soil Contamination Delineation performed (1996) and SVE system installed (April 1997) subsequent to the RI. Evaluation of work done to date needed prior to doing Proposed Plan/Record of Decision.

Milestones:

Draft Site Progress Evaluation Report	October 29, 1999
Regulatory Review/Comment	December 31, 1999
Draft Final Report	January 31, 2000
Regulatory Review/Comment	March 31, 2000
Proposed Plan/Record of Decision	September 29, 2000

note: Groundwater portion of this site is being addressed under FT-002 (GW); impact of July 29, 1999 USEPA letter (regards FT-002) have not been determined (response to USEPA letter to be done by mid Sep.).

SS-018/028

POC: Dave Farnsworth

Status: Regulatory comments to the SS-018 Revised Draft Final RI Report; however, SS-018 data has been incorporated into ongoing RI for SS-028 which is immediately adjacent. SS-028 soil removal action (150 CY) was performed December 1998 (closure report in progress); Draft Final RI Report has been submitted for regulatory review.

Milestones:

Draft Closure Report	August 27, 1999
Draft Final RI Regulatory Review/Comment	September 30, 1999
Draft Closure Report Regulatory Review/Comment	September 30, 1999
Draft Final Closure Report (if required)	October 29, 1999
Proposed Plan/Record of Decision	March 31, 2000

SS-026

POC: Steve Gagnier

Status: EOD Range Clearing/Safing completed. Supplemental Sampling in progress.

Milestones:

Supplemental Sampling	September 10, 1999
Sampling Results	October 8, 1999
Draft Final SI Report	December 15, 1999
Regulatory Review/Comment	February 15, 2000
Response to Regulatory Comments (and Final SI if needed)	March 31, 2000
No Further Action Decision Document (USAF Requirement)	April 30, 2000

SS-033

POC: Steve Gagnier

Status: Soil Removal action is complete; Draft Final SI Report is in progress.

Milestones:

Draft Final SI Report	December 1, 1999
Regulatory Review/Comment	February 28, 2000
Response to Regulatory Comments (Final SI if needed)	March 31, 2000
Proposed Plan/Record of Decision	September 29, 2000

SS-019

POC: Dave Farnsworth

Status: Regulatory comments to Draft Final SI indicated concurrence with No Further Action Recommendation; however, closeout of site is awaiting completion of RI activities at Site SS-028 which is immediately adjacent.

Milestones:

Completion of SS-028 RI activities	September 30, 1999
No Further Action Decision Document	October 29, 1999

SS-007/029/034

POC: Steve Gagnier

Status: Draft Final SI Report has been completed and regulatory comments received for each site indicating that no further action is necessary. A No Further Action Decision Document (NFA/DD) is required per USAF regulations to close out the site.

Milestones:

SS-034 NFA DD	August 20, 1999
SS-029 NFA DD	September 3, 1999
SS-007 NFA DD	September 17, 1999

SS-027

POC: Steve Gagnier

Status: Draft Final SI Report has been completed and regulatory comment have been received. Response to USEPA comments in progress (NYSDEC comments indicated no further action needed)

Milestones:

Response to USEPA comments	December 15, 1999
USEPA Review/Comment	January 31, 2000
SS-027 NFA/DD	February 28, 2000

ATTACHMENT III

FUTURE LAND USE AT PAFB

(Taken from PAFB Comprehensive Reuse Plan, September 1995)

ATTACHMENT IV

PLATTSBURGH AIR FORCE BASE

FINDINGS OF SUITABILITY TO LEASE (FOSL)

and

FINDINGS OF SUITABILITY TO TRANSFER (FOST)

(Taken from AFBCA Map dated August 1998)

