Environmental Baseline Survey
For the Mile-Long Building Property Transfer Between NASA and the U.S. Air Force Air Combat Command

Prepared for
Langley Air Force Base

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1. Purpose of the Environmental Baseline Survey

The purpose of this Environmental Baseline Study is to evaluate the current condition of a long, narrow building on a thin parcel of property located within Langley Air Force Base (AFB). This unique structure currently houses two long salt water test tanks, maintenance shop rooms, and several office areas. The National Aeronautics and Space Administration (NASA) proposes to transfer that parcel of property, identified in this report as Building 720, to the U.S. Air Force Air Combat Command (ACC). Building 720, also known as the Mile Long Building, is located at the extreme eastern end of the base, at the confluence of the Northwest and Southwest Branches of the Back River.

To facilitate the property transfer, Langley AFB has prepared this Environmental Baseline Survey (EBS) prior to the transfer, in order to: 1) document the nature and extent of any environmental contamination of the property; 2) define potential environmental contamination liabilities; 3) develop sufficient information to assess potential health and safety risks and to ensure adequate protection of human health and the environment related to the subject property transaction; 4) determine possible effects on property valuation from any contamination discovered; and, 5) provide notice to Langley AFB when required under Section 120(h)(1) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC 967-20(h)(1), of type, quantity, and time frame of any storage, release, or disposal of a hazardous substance on the property.

This EBS has been prepared using guidelines published in Air Force Instruction (AFI) 32-7066. The American Society for Testing and Materials (ASTM) Standard E 1527-93, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," and ASTM Standard E 1528-93, "Standard Practice for Environmental Site Assessments: Transaction Screen Process" were also used as guidance to prepare this document. The results of the EBS are presented below.
2. Background

2.1 Overview of Langley AFB

The Langley AFB site was established by the United States military in 1917 as an experimental air field and proving ground. It is located within the City of Hampton in the Tidewater region of southeastern Virginia, approximately 8 miles north of Norfolk (Figure 1). The Base itself covers approximately 2,880 acres. Langley AFB was originally known as Langley Field, and was under the regulation of the National Advisory Committee for Aeronautics (NACA). Langley AFB is currently part of the United States Air Force’s Air Combat Command. The base maintains a population of approximately 8,500 military workers and 1,900 civilians, making it one of the larger employers in southeastern Virginia. Langley AFB is divided into two main areas: the main base, including the airfield and housing areas, and the NASA Research Center, which occupies the western portion of the property.

2.2 Boundaries of the Property and Survey Area

The southwest corner of Building 720 is located just east of the intersection of Andrews Street and Hunting Avenue (Figure 2). The designation of the building is actually divided into three addresses: Building 720, which includes Tank No. 1, its support areas, and a two-story office section unrelated to the tank; Building 720A, which includes several contiguous large test and laboratory rooms parallel to Tank No. 1; and Building 720B, which includes Tank No. 2 and an adjacent office area which is now used for test model construction. In the text of this report, “Building 720” and “the property” will, except where otherwise noted, refer to the three sections collectively as one unit. The property consists of an extremely long, thin parcel which is greater than one-half mile in length but only about 100 feet wide. The building itself is 3003.5 feet long and occupies 180,549.3 square feet.

The northern two-thirds of the property is located within an Accident Potential Zone (APZ). U.S. Air Force policies presented in Air Force Manual (AFM) 91-201 and Department of Defense (DOD) 6055.9-STD require that land extending 3,000 feet from both ends of a runway be designated as a Clear Zone. The northern portion of Building 720’s Tank No. 1 intersects the flight line from the northeast end of the Northeast-Southwest Runway at a distance of approximately 1,900 feet. The Air Force has adopted a policy of acquiring property rights to areas designated as Clear Zones because of the high accident potential associated with them. Allowable uses in the Clear Zone include limited transportation, communications, utilities, and agriculture. New development within a Clear Zone is prohibited, but since Building 720 was constructed in early 1930, the site’s use was already established before the implementation of these policies and before the 1939 reconfiguration of the runways brought the site into a primary landing path. The Clear Zones for the Northeast-Southwest Runway are shown in relation to the property on Figure 3.
2.3 Environmental Setting

2.3.1 Regional Physiography

The project site is situated in the Tidewater region of Virginia’s Coastal Plain Physiographic Province. Langley AFB is located near the southeastern end of the Virginia Peninsula between the York and James Rivers in a generally flat-lying area which ranges in elevation from 5 to 20 feet above mean sea level (msl).

The project site, located at the easternmost part of the base, is surrounded by the Northwest Branch of the Back River to the north; by vacant land, two small office buildings, and the Southwest Branch of the Back River to the east; by Buildings 643, 644, and 646 (a large wind tunnel complex) to the south; and by the former coal storage pads and the bulk fuel storage tank farm to the west.

The project site, identified in Figure 2, is situated on generally flat-lying terrain, ranging in elevation from approximately 5 feet above msl to approximately 10 feet above msl. Runoff from the site drains in an easterly and northeasterly direction into the nearby Back River. There are no perennial streams on the project site.

The climate of the Tidewater area is somewhat influenced by the Atlantic Ocean and the Chesapeake Bay and is characterized by fairly abundant sunshine, mild winters, and warm to hot summers. Northwest winds are common in the winter with a mean January maximum temperature of 48°F. Freezing weather occurs frequently, but extremes of cold are rare. Average annual snowfall is less than ten inches in the Tidewater region. In the summer, a moderating easterly seabreeze frequently occurs during the mid-day. The mean July maximum temperature is 87°F. With annual precipitation averaging just under 45 inches, rainfall ordinarily is sufficient for agricultural crops. Much of the rain occurs in the form of late spring and summer thundershowers. Winds of high velocity occur infrequently, usually during severe thunderstorms. The prevailing winds are from the southwest in spring and summer.

2.3.2 Soils and Geology

Atlantic Coastal Plain sediments in the southeast Virginia region consist of a series of marine and non-marine terrace deposits which step up in elevation from sea level in the Tidewater area to about 300 feet in the vicinity of the eastern Piedmont. The Langley AFB area is situated on a terrace plain of Quaternary alluvium composed of unconsolidated sands, silt, clay, and gravel which can range regionally up to about 2,500 feet in thickness. Specifically, the base is underlain by the Pleistocene Age Talbot Formation, which consists of layers of sand, clay, and silt with occasional interbeds of coquina and marine organic layers. The thickness of the Talbot is locally estimated to range from 40 to 50 feet.

The United States Department of Agriculture has mapped soils in the site vicinity. The Tomotley soil series occurs extensively through the Langley properties and throughout the area north of the base. The Altavista series is found in areas along the York River shoreline.
The Tomotley soil series consists of moderate to poorly-drained, dark gray fine sandy loam soils that formed in alluvium derived from limestone and sandstone. The Altavista series consists of an olive-brown fine sandy loam which is moderately well-drained and which generally has a higher permeability than those of the Tomotley Group. Loam deposits throughout the base average from 2 to 6 feet in depth and contain varying amounts of clay.
3. Survey Methodology

3.1 Approach and Rationale

The methods used to gather site-specific information, including document reviews, site inspections, interviews, and sampling are described below. The results of the data gathering activities are presented in Section 4.

3.1.1 Description of Documents Reviewed

Document review began with a site assessment report that was compiled by Environmental Data Resources, Inc. (EDR), a company that searches government databases to identify potential environmental risks (e.g., spills, underground storage tanks) that have been reported on the subject and adjacent property. The EDR record searches are conducted in compliance with ASTM Standards E 1527-93 and E 1528-93. The databases that were reviewed included but were not limited to:

- Resource Conservation and Recovery Act (RCRA) hazardous waste generators
- National Priority List (NPL) sites
- State Superfund Sites
- Underground storage tanks (registered and leaking sites)
- RCRA storage, treatment, and disposal facilities
- Sites with permitted landfills, incinerators, or transfer stations

The databases were searched for sites located within a one-mile radius of the property. The search results were reviewed to determine if contamination had been documented for the subject property, or if uses of the adjacent properties could potentially impact the subject parcel. The results of this review are presented in Section 5.2.

Documents obtained from Langley AFB files were also reviewed. Information regarding historic and current land uses in the area, maps, aerial photographs and other documents were reviewed to determine what impacts the historical or current activities could have on the subject property. The results of the document reviews are presented in Sections 4 and 5.

Title information and permit documents were also prepared for Building 720 by Ms. Lorie Caison, Real Estate Officer, ICES/DEEPR, in order to identify deeds, easements, leases, restrictions, or covenants that may be associated with the subject property.

3.1.2 Property Inspections

On September 18, 1997, CH2M HILL conducted a site reconnaissance of Building 720 to evaluate the current condition of the building's interior and exterior. Adjacent properties also were observed to evaluate whether any activities occurring on them could impact the subject property. The property was inspected by walking the perimeter of Building 720 and then by examining the interior and observing the contents and activities in each room of the building. Visual inspection of the property was conducted on foot, notes of observations were made in a field notebook, and the parcels were photographed. A log of the
photographs was maintained and is presented in Appendix C. During the visual inspection, the following land uses and property conditions were evaluated:

- Utilities, including water, fiber-optic cable, gas, electric, and sewer
- Signs of chemical usage, storage, or spills including discolored soil, stressed vegetation, or containers
- General site uses
- Site access
- Presence of groundwater wells
- Drainage patterns
- Type of vegetation
- General appearance and upkeep of the property
- Areas of disturbed soil
- Surrounding land uses

Results of the property inspections are presented in Section 4.1.1

3.1.3 Personal Interviews

CH2M HILL interviewed Langley AFB personnel and local agencies by telephone to identify past and current uses of the property and any known or suspected chemical usage or releases on the property. Prior to each phone conversation, a list of questions was developed and documented in a phone log. Interviews also were conducted with Air Force, Navy, and NASA personnel at the base during the Langley site visit.

3.1.4 Sampling

Sampling was not conducted as part of this EBS.
4. Findings for Subject Property

4.1 Current Land Use for Subject Property

Building 720 is divided into three sections: Building 720, Building 720A, and Building 720B. The Building 720 area includes a two-story brick office area at the south end of the structure, all of Tank No. 1, and the maintenance and support areas for Tank No. 1. Building 720A is made up of several large rooms between the Tank No. 1 shop area and Building 720B. The largest of these rooms formerly held a test wind tunnel, which has been removed. Most of Building 720A is currently unoccupied. Building 720B includes Tank No. 2, support areas for Tank No. 2, and a brick office area which is now occupied by the Drop Model airplane construction and maintenance offices. Tank No. 2 has been abandoned since 1987.

4.1.1 Results of Property Inspection

This section describes the results of the visual inspection of all three sections of Building 720. A description of observed land uses on adjacent property is provided in Section 5.1. Photographs of the property taken and logged during the site inspection are provided in Appendix C.

The site reconnaissance was conducted by walking around the perimeter of the property and then entering each room, hallway, and utility space in Building 720 to observe the contents and uses for each parcel and section of the structure.

The exterior of Building 720 and the grounds surrounding the building appeared to be in good shape and were reasonably well maintained. The structure is surrounded by a mowed grass lawn which slopes slightly away from the building and was neatly trimmed. No staining or significant areas of stressed vegetation were noted. One discolored area of grass was observed against the wall on the west side of Tank No. 1, about 1,000 feet from the north end. This spot appeared to be due to excessive drainage and water ponding from one of the building's roof downspouts. The exterior walls and roofs of both Tank No. 1 and Tank No. 2 are constructed from semi-brittle curry-stone corrugated panels which are known to contain asbestos. A complete discussion of asbestos-containing materials on the property can be found in Section 4.13.2. A few small broken pieces of the curry-stone siding were observed on the ground against the west wall of Tank No. 1. Some small cracks and breaks in the panels were seen in several places along the exterior length of Tank No. 1 and Tank No. 2. Approximately 75 feet from the north end of Tank No. 1, a six to eight-foot section of the original siding is missing from the east side of the tank. That section has been paneled with plywood which has been painted on the exterior side. The entire non-brick exterior of Building 720 appears to have been painted several times in recent years, slowing the deterioration of the curry-stone panels and providing some limited protection against cracking.

A utility pole with three pole-mounted transformers is located along the west side of the building, approximately 550 feet from the south end. No staining or discoloration was observed at the base of the pole. There are two transformer areas on the east side of the property, against the Tank No. 2 east wall. The largest of the areas consists of two
transformer groups on fenced-in elevated concrete pads near Exit 4, at the north end of Tank No. 2. The other area consists of one large transformer on an elevated, fenced-in metal frame pad at Exit 2. No visible staining or vegetation discoloration was observed beneath either of these transformer areas. Additional information concerning transformers on the property is discussed in Section 4.13.3.

The exterior of Building 720 and 720A shop and maintenance rooms appeared to be in reasonably good condition, but above-average damage to roofing panels above Rooms 120 and 121 was observed. Along the exterior of the maintenance areas, there is a neatly mowed lawn which includes a picnic table and three small parking lots adjoining the paved access road which surrounds the entire property. Five compressed air tanks are located just outside the garage door to Room 118. A trash dumpster is located near the southernmost parking area. Other than the observations discussed in the above paragraphs, the exterior walls of Tank No. 1 and Tank No. 2 were very uniform with no other notable features or structures.

From the fuel off-loading dock just east of the property, two jet fuel lines run along a pier, up over Building 720, and down into the fuel storage tank farm southwest of the site. These lines cross over the roof of the building at a point approximately 600 feet from the south end of the property. No staining or discoloration was visible below the elevated portion of the fuel line.

A reconnaissance of the interior of Building 720 was conducted by walking through and observing the contents of Building 720, 720A, and 720B.

In the two-story brick office section of Building 720, there were 12 active offices, two conference areas, a computer room, and a restroom on each floor. Environmental concerns in office areas are generally low, but steam lines with possible asbestos-containing insulation (see Sec. 4.13.2) were found in some rooms, and it is possible that asbestos-containing floor tiles might be present under carpeted areas. In the shop/maintenance area, floor tiles were also observed in Rooms 114, 116, and the Room 125 office. The Tank No. 1 area is generally clean and orderly. There is a storage area with equipment and supplies for tank tests located at the south end of the tank. A tow carriage is mounted with rubber tires on a track which runs the length of the tank. No significant environmental hazards were observed in Tank No. 1, but there is a motor generator room at the far north end which contains transite wall board, and there is some deterioration of the curry-stone transite siding in a few places along the east interior wall of the room. Several rooms in the Building 720 section contained insulated steam lines, most notably the Room 112 mechanical room and the Room 120 air compressor room. Room 116 is a former classroom and laboratory which is now vacant. Room 117 is a bulk storage area which contains several model torpedoes to be used in the test tank, a few nitrogen bottles, a several flocculent polymer drums. Room 118 has an clear garage area for off-loading of supplies and equipment. It also contains the filtration system for Tank No. 1. Room 120 contains two Worthington air compressor systems and the controls for the building’s sprinkler system. An oily stain was seen below one of the compressors (see photographs). Five compressed air storage canisters are located on the exterior of the building just outside Room 120 and are connected to the compressor system. Room 119 is the pump room for Tank No. 1, and the adjacent areas contain two large DC motor/generators and a switch gear control room. There is a sump at the northwest corner of the pump room. No significant stains or spills were observed in these areas. The motor generator room at the far north end of Tank No. 1 also contains a DC motor and a Westinghouse switch/control panel. Two 5-gallon cans of lubricating oil were
on the floor of this room, and an unidentified, partially filled 55-gallon drum was located just outside the room, on the tank platform. Room 123 is a large shop/work area to support Tank No. 1. It contains a floor air conditioner unit, a refrigerator, a lathe & sander, a radial drill, a 1930’s era cutoff saw, and a contour saw. There is a slight oily stain at the base of the old cutoff saw. There are several car batteries used for tank equipment in a caged area at the south wall. Near the door between Room 123 and the tank, there is a Westinghouse Type CDP 800 amp, 120 V electrical control panel. There are two drums of sodium hypochlorite at the south end of a hallway which leads from Room 123 to the filter system in Room 118. A small metal cabinet also is located in that hallway, just outside the door to Room 118, which contains several small gasoline containers. No significant stains or spillage was observed in these areas. An inventory list of substances used and stored in the Building 720 work areas, shown in Appendix D, was provided by Mr. Gene Nuttall.

The Building 720A section is mostly vacant. Room 101 is a large open area, which previously contained a test wind tunnel. That assembly has been removed and the room contains only various small trash and debris. There are insulated steam lines and transite wall board in the Room 107 mechanical area, and a steam line runs through the adjoining Room 105.

Building 720B includes Tank No. 2, maintenance support areas for the tank, and a one-story brick office section adjacent to the south end of Tank No. 2. The office and support areas currently are occupied by the Drop Model testing group. Fully functioning scale models of military aircraft are constructed, serviced, and repaired in these workshop areas. The models are dropped from high altitudes and by remote control are subjected to simulated actual aircraft maneuvers. The workshop rooms contain a large drill, cutting tools, paints, polymers, and other chemicals in small quantities. Mr. Richard Wheeler provided an inventory record of each substance used or stored in the Building 720B work areas. That list is shown in Appendix D. The tank itself was operated by NASA (originally NACA) as a basin for hydrodynamics testing until 1987 when it was completely abandoned. The tank has been drained and has not been utilized since that date. The interior of the tank room is dusty and damp with some areas of trash and bird droppings on the concrete tank bottom. There is a badly rusted wave-making machine at the north end of the tank. The mid portion of the tank contains a secondary enclosure which was once used for smoke tests. A 30 kVA transformer is located behind that enclosure, near Post 48. The south end of the tank and the enclosed rooms adjacent to the south end currently are used as storage space for the Drop Model group. A metal, flammable liquid cabinet in Room 210 contains several small cans of paint, oil, and solvents. An air compressor and outboard motor are also stored in this room. At the extreme southwest end of Tank No. 2, there is an electrical complex in Room 109 which contains switching panels, two DC motors, and two small transformers. Further information concerning transformers observed in all parts of Building 720 can be found in Section 4.13.3.

4.1.2 Zoning

According to Ms. Suzanne Allan of the CES Planning Office, the area which includes Building 720 is zoned as “industrial” on the base’s land use maps. Limited commercial use is allowed in the industrial areas, but there is no commercial activity in the vicinity of the project site.
4.2 Historic Land Use for Subject Property

The property on which Building 720 was built is a part of the original acreage included during the creation of Langley Field in 1917. According to Paul McAlister of the Command Historian’s office, that section of the base had apparently been occupied by at least one private family farm just prior to the acquisition of the land by the U.S. military. According to information found in an archeological survey report prepared for the ACC in 1990, the total land purchased by the U.S. Government in 1916 was comprised of six parcels: the Lamington Plantation, the Pools tract, the Sherwood Farm, the Canebrake Farm, the Bloomfield estate, and the Moorefield Farm. Building 720 stands on a portion of the property that was originally the Sherwood Farm. Historical records show small structures on the Sherwood Farm as early as 1854, and it is believed that the area has been farmed for over 200 years. A deed from Ms. Lorie Caison of the CES Real Estate Office lists a “Sherwood dwelling and farm house” as one of the features that conveyed to military ownership. It is not known how close the dwelling was to the actual subject property.

In 1919, the U.S. Secretary of War granted the subject parcel to NACA, and in 1929 a permit was granted for the construction of the salt water tank. Construction of the primary section of Building 720 was completed in late 1930. That building included the two-story brick office area at the parcel’s south end, the original 2,260-foot tank, and the shop and maintenance rooms which support the tank. The tank was extended by about 700 feet in 1936 to bring the total length of the tank area enclosure to 2,962 feet. At that time the north end of the tank building actually extended a few feet out into the Back River; later a berm was built around that end of the structure so that the access road could loop around the entire building.

In 1942, Tank No. 2 was constructed parallel to the middle section of the east side of Tank No. 1, and it included a connecting brick office area at its south end. When this new portion of the building (now called Building 720B) was added, it was built so that it shared a common inner wall with Tank No. 1 (the exterior east wall of Tank No. 1 became the interior wall of Tank No. 2). The section of rooms now called Building 720A was added shortly after completion of Tank No. 2. Both of the tanks and their associated shop areas are of steel frame construction with curvy-stone transite outer siding and roof panels.

Building 720 was originally under the control of NACA as a testing facility. According to Mr. Gene Nuttall of the U.S. Navy, the facility was used during that period for hydrodynamic studies on seaplanes. A 1995 book, Spaceflight Revolution—NASA Langley Research Center, by James Hansen, discusses a series of historic aircraft that have been tested in the tanks: the Sikorsky twin-float “Amphibian” in the 1930’s; the Convair “Sea Dart” fighter, the only supersonic seaplane; the Navy’s Martin YP6M-1 “Seamaster” jet-propelled flying boat; and Mercury astronauts completed hydrodynamics tests. In 1959, the newly renamed “NASA” leased Tank No. 1 to the Navy for test studies, but retained control of Tank No. 2. NASA continued to utilize the Tank No. 2 facility until 1987, when its use was discontinued. However, the shop areas and brick office section connected to Tank No. 2 are now occupied by a research team, which constructs and tests functional scale models of military jet aircraft. The tank is currently unoccupied. Tank No. 1, still active, contains a large, high speed, hydrodynamic tow tank that is used for naval undersea research such as underwater missile and torpedo studies and countermeasures. It is believed to be the only such tank facility in the United States capable of conducting studies in both fresh and salt water environments.
4.2.1 Title Search

Title, deed, and land permit documents for the property were prepared by Ms. Lorie Casion, CES Real Estate Officer, and are provided in Appendix A.

A legal document compiled by representatives of the parcel landowners was addressed to Captain T. T. Milling of the War Department and proposed to furnish an approximately 1,200-acre body of land to the United States Government. Deeds dated December 30, 1916 convey ownership of the original tracts of land from the six families listed in Section 4.2 to the United States of America. The master deed was verified and entered into record in the County of Elizabeth City, Virginia on February 23, 1917.

A Land Use Permit dated July 24, 1929 granted permission from Assistant Secretary of War Patrick J. Hurley for construction by NACA of facilities which included a 2,500-foot long “seaplane canal”. The permit has been amended several times during the last 68 years for the construction of various utilities and improvements, most notably in 1942 for the construction of Building 720’s Tank No. 2.

4.2.2 Historic Aerial Photo Review

Historic aerial photographs were reviewed as a tool to identify historic land use of the project site and adjacent properties. Results of the historic aerial photo review of adjacent properties is presented in Section 5.3.

Early photographic illustrations, which depict the subject property, were found in a 1977 book, Langley Field—The Early Years, by Curtis, Mitchell, and Copp. The earliest photograph is a June 11, 1921 image showing hydrogen-filled airships above the airfield and clearly shows the future Building 720 site. The site appears to be mostly covered with scrubby, wet-weather vegetation with one building visible near the present north end of Tank No. 2. In a 1924 photo, a complex of seaplane hangars has been built just south of the site (on the present Building 643 site). A 1926 aerial image from the book shows the property to be mostly unoccupied, with only a dirt road or path at the south end of the site.

Other representative black-and-white and color aerial photographs of Langley AFB and its surroundings were obtained through Mr. Paul McAlister of the Command Historian’s Office for early 1930, October 20, 1930, June 1932, early 1935, October 10, 1935, September 29, 1939, July 9, 1941, March 12, 1942, December 1944, and March, 1992. Mr. Gene Nuttall provided a 1981 site aerial photo as well as several Building 720 interior photographs.

The subject property was under development in the early 1930 image with a clear view of the open concrete encasement for the original Tank No. 1. Most of the vegetation outside of the immediate construction zone appears to be undisturbed, but the trace of a possible former east-west road or driveway is visible on the west side of the site. The late 1930 photo shows the building’s walls and roof to be in place, but the property is not yet landscaped.

In the 1932 image, Building 720 is completely finished and landscaped. A large triangular parcel of land just west of the subject property has been clearly disturbed and graded between the late 1930 and the 1932 photograph. The reason is unknown.

By 1935, the large disturbed area appears to be partially revegetated, but a coal storage pad has appeared just west of Building 720. Another small structure is visible just east of the center portion of the tank.
In the 1939 photos, the extension to Tank No. 1 should be complete, but these angles do not show that end of the site. A railroad track which runs from the coal storage pads down along the southwest border of the property is visible in these photos.

In the 1941 image, the Tank No. 1 extension can be clearly seen. At least three other structures have been built near the southwest side of Building 720.

The 1942 photo shows some new excavation along the east side of the property. Tank No. 2 is under construction.

In the 1944 photo, Tank No. 2 has been completed, and there is additional activity in the excavation area just east of the middle portion of Tank No. 2.

Review of the 1981 image showed that the former barracks buildings were gone and the area was now occupied by a complex of six large fuel storage tanks. The supply lines between the dock and the tank farm rise over Building 720. The coal storage area and its railroad track are gone, but the concrete pads remain and are used as a parking lot. Various small structures have appeared just east of the property.

In the 1992 photo, a structure just east of the north end of Tank No. 2 has disappeared, but a new brick building has been erected east of the middle portion of Tank No. 2. The former coal storage pads appear to have been completely abandoned. A shallow drainage ditch, not clearly visible in the other photographs, is filled with water parallel to the original section of Tank No. 1. No other significant areas of standing water are visible on the property.

4.2.3 Environmental Data Resources

The report compiled by Environmental Data Resources, Inc. (EDR), a service that conducts public record searches of environmental databases, did not identify any records indicating the presence of chemical usage, storage, spills, underground or aboveground storage tanks, landfill operations, ongoing remediation, or related activities on the subject property. Of the databases that were included in the search, no permits, violations, notices, or other information related to chemical usage, storage, or releases were found to exist on public record for this property and its surroundings. The EDR report is provided in Appendix B.

4.3 Hazardous Substances

As mentioned above, the EDR report indicated that there was no public record of large scale hazardous substance usage or storage onsite. However, as described in Section 4.1.1, chemical inventory lists were obtained during the site inspection for substances used and stored at the site. The inventory list for the Building 720 shop area (Tank No. 1) includes small quantities of toluene, methyl ethyl ketone, propane, acetone, and acetylene. The list for Building 720B (the model aircraft workshop) includes acrylic lacquer, various colored lacquers, lubricating oils, thinner, and epoxy. The complete listing, with exact volumes stored, is presented in Appendix D.

The Hampton Roads Health District, Environmental Health Division was interviewed to determine if any spills associated with the project site had been reported to the County. There were no such records filed for Langley sites, and no spills associated with the subject property have been reported to the Hampton Fire Department.
The facility manager for Tank No. 1, Mr. Gene Nuttall, is unaware of any documented historical spills in Building 720 or its surrounding parcels.

4.4 Storage Tanks

Storage tanks were not observed and available records did not indicate the presence of storage tanks on the property. See Section 5.1 for a discussion of storage tanks on adjacent parcels.

4.4.1 Aboveground Storage Tanks

Aboveground storage tanks were not observed and available records did not indicate the presence of above-ground storage tanks on the property.

4.4.2 Underground Storage Tanks

Underground storage tanks, or evidence of underground storage vaults, were not observed and available records did not indicate the presence of underground storage tanks on the property.

4.4.3 Pipelines, Hydrant Fueling, and Transfer Systems

A parallel set of two 10-inch jet fuel pipelines rises over Building 720 on steel frame supports as part of a transfer system to carry fuel from an off-loading dock in the Southwest Branch of the Back River to large storage tanks on the west side of the property. The pipeline system is not part of Building 720 and does not appear to have had any environmental effect on the property.

4.5 Oil/Water Separators

Evidence of oil/water separators was not observed and available records did not indicate the presence of oil/water separators on the property.

4.6 Pesticides/Herbicides

No evidence of pesticides and/or herbicides use on the property was found. The exterior of Building 720 is surrounded by mowed lawn-type grass, which is kept neatly trimmed. No high weeds or brushy areas exist on the property.

4.7 Medical or Biohazardous Waste

Medical and/or biohazardous waste were not observed and available records did not indicate that these types of wastes have been used or disposed of on the property.

4.8 Ordnance

Evidence of ordnance use or storage was not observed and available records did not indicate the presence of ordnance on the property.
4.9 Radioactive Wastes

Visible evidence of radioactive waste was not observed and available records did not indicate the presence of radioactive wastes on the property.

4.10 Solid Waste

Available records did not indicate the presence of solid waste disposal at the property. Restrooms, shop sinks, and drains are connected to the base’s sanitary sewer system. One trash dumpster was observed on the property during the site reconnaissance.

4.11 Groundwater

Site-specific groundwater information was unavailable for the subject property. At the Langley AFB tank farm site, located approximately 0.1 miles west of the property, depth to groundwater is approximately 5 feet below ground surface (bgs) and is flowing in a generally easterly direction. Similar conditions can be expected at the property.

4.12 Wastewater Treatment, Collection and Discharge

Wastewater discharge from Building 720 is collected through the Langley AFB sanitary system which is handled by the Hampton Roads Sewage District (HRSD). The effluent from the HRSD is processed through the Fort Monroe Water Treatment Plant.

4.13 Disclosure Items

4.13.1 Drinking Water Quality

Drinking water for water fountains and rest rooms inside Building 720 is supplied by the City of Hampton, and its quality control is regulated by state and federal standards.

4.13.2 Asbestos

During the site reconnaissance, potential asbestos-containing materials (ACM) were observed in interior steam lines in Rooms 105, 107, 109, 112, 118, and 120; in floor tiles in Rooms 105, 114, 116, and the Room 125 office; and in the large exterior curry-stone transite panels, which cover Tanks No. 1 & 2 and the maintenance shop areas. Between 1989 and 1991, Langley AFB contracted a center-wide asbestos study for base structures. The TC Consultants report for the three sections of Building 720 concluded that “conditions were not found to pose a significant health hazard or violate a regulatory requirement, but additional action is required”. The survey’s analysis of suspicious materials in the building revealed the following ACM substances:

- In Building 720—transite interior walls in Rooms 119 and 124 totaling 1100 ft²; steam lines in Rooms 120, 118, 123, 112, and 109; and floor tiles in Rooms 114, 116, and 125.
- In Building 720A—steam pipes, ceiling tiles, and insulation in Room 107; steam line in Room 105; and a heater in Room 101.
• In Building 720B—floor tiles in Room 105; and (suspected) thermal insulation along a portion of Tank No. 2.

In addition, the survey estimated that there is approximately 180,000 ft² of ACM curvy-stone transite siding on the exterior walls and roof of the three sections of Building 720.

4.13.3 Polychlorinated Biphenyls

Overhead power lines are present in a portion of the southern end of the property. A pole containing three pole-mounted transformers is located near the west side of the property, about 550 feet from the southwest corner. There are two transformer areas on the east side of Building 720, just outside the Tank No. 2 east wall. The largest of the areas consists of two transformer groups on fenced-in, elevated concrete pads near Exit 4, at the north end of Tank No. 2. One of these groups contains three small units which appear to be much older than the other stations. The other area consists of one large transformer on an elevated, fenced-in metal frame pad at Exit 2. No visible staining or vegetation discoloration was observed beneath either of these transformer areas. According to Mr. Alan Henderson of the Langley Facilities Support Systems, the unit at Exit 2 is a 150 kVA, 3-phase substation, and the units near Exit 4 consist of one oil-filled 3-phase substation and three older 37.5 kVA single phase transformers. There is an interior 30 kVA, 3-phase substation along the west wall of the middle portion of Tank No. 2. Room 108 contains a 25 kVA, single phase transformer and a small 15 kVA, 3-phase transformer. Mr. Henderson stated that all of the older transformers at Building 720 have been retrofitted with materials which do not contain polychlorinated biphenyls (PCBs), but an April 1997 base transformer list obtained from Mr. Jan Benson shows that the older transformers are still listed as containing a small amount of PCBs, ranging from 2.0 to 12.5 ppm. According to Mr. Thomas Wittkamp of the ACC CES Group, base transformers with PCB levels below 50.0 ppm can be considered “non-PCB” units. There was no evidence of leakage underneath or around the older transformer enclosures.

4.13.4 Lead-Based Paint

Information concerning lead-based paint was not available, but it is possible that many of the painted surfaces in Building 720 may contain lead-based paint underneath the existing layers of paint.
5. Findings for Adjacent Properties

5.1 Observed Land Uses

This section describes the results of the visual inspection of the parcels adjacent to the property. A description of visual observations for the property is provided in Section 4.1.1. Photographs taken of the property and logged during the site inspection are provided in Appendix C.

The site reconnaissance was conducted by walking through and along each of the parcels adjacent to Building 720 and by driving through other neighborhoods at a greater distance from the property.

Much of the land east of the subject property is a mowed grass lawn between Building 720 and the Southwest Branch of the Back River. There are several small structures in the vicinity of the former engine test cell sites and at the former sewage treatment plant. These buildings appear to be used for storage, equipment repair, or office space. Three pole-mounted transformers are located at the equipment repair shop. The occupied structure at the treatment plant location is currently used to store liquid oxygen. A single pole-mounted transformer is located at the front of that building. An enclosed area near the north end of Tank No. 2 contains two abandoned above-ground JP-4 jet fuel tanks, a large concrete pad, and a foundation from a building that was removed in recent years. The concrete pad is currently used to store transformer units. There are three active transformers mounted a few feet above the ground at the southwest corner of the pad. A single small pole-mounted transformer is located just south of the pad. There are four groundwater monitoring wells near the former treatment plant, and one near the north end of the peninsula. Two piers extend out into the Southwest Branch: one for the off-loading of jet fuel into the supply lines which pass over Building 720 into the tank farm, and the other containing the a cast iron intake and outflow pipe for filling and evacuation of Tank No. 1.

The north side of the property juts out of a slight peninsula known as Willoughby Point. It is the confluence of the Northwest and Southwest Branches of the Back River. Thus, there is no adjoining land directly north of the property.

Properties west of Building 720 include an open mowed grassy area near the north end of Tank No. 1, the former coal storage pads near the middle portion of the tank, and the bulk fuel storage tanks near the southern end of the building. The most significant of all of the site’s surrounding properties is the Bulk Fuel Storage Area. That complex consists of six large, aboveground JP-4 jet fuel storage tanks. Each tank is surrounded by an earthen, asphalt-covered secondary containment berm, which is 21 feet wide at the base and approximately 5 feet high. These steel-welded tanks were constructed in 1953 and were built on concrete piers. Five of the tanks have a capacity of 640,000 gallons; the sixth holds a volume of 420,000 gallons. There are three pole-mounted transformers at the southeast corner of the tank farm, just outside the containment area.
Just south of the subject property is a large test/wind tunnel complex made up of buildings 643, 644, 645, and 646. The largest portion of this complex is Building 643, which contains a 30-x 60-foot wind tunnel known as the “Full Scale Tunnel”. Because of the historic tests conducted in this building since 1930, the structure was designated as a National Historic Landmark in 1985. The north end of the complex, Buildings 644, 645, and 646, comprises the Dynamic Stability Branch, which includes a “spin tunnel” and a large metal sphere. To the southwest of Building 720 is Building 647 and 648, the Transonic Dynamics Tunnel, which contains a separate cooling tower building, just west of the brick office portion of the property. This complex is used for tests of flutter and aeroelasticity. Two large liquid nitrogen tanks are located at the north end of the building.

No other land use information for the adjacent properties, other than those that were visually observed and described above, was identified through interviews with Langley AFB personnel and with local agencies. Documents that were provided by Langley AFB’s Real Estate Office did provide maps and descriptions of the Clear Zone and APZs, which are described in Section 2.2.

5.2 Record Search for Adjacent Properties

A public record search was conducted in accordance with ASTM standards, which includes review of sites within a one mile radius of the subject property.

According to the database search that was conducted by EDR, there were no sites listed within a 1-mile radius of the property where hazardous substances have been used, stored, or released. The nearest site is an unidentified address, “mail code 429”, at the NASA Langley Research Center located approximately 2.5 miles west of the property. This site appears on the following databases:

- Leaking underground storage tank (LUST) list as reported by the Division of Environmental Protection
- Corrective Action Case List as reported by the Department of Conservation and Natural Resources
- Underground storage tanks (UST) and aboveground tanks as reported by the Division of Environmental Protection
- RCRA small quantity generator as reported by the Environmental Protection Agency (EPA)

The only other listed site within the vicinity of the site that was identified in the EDR report was the Sanifill Sanitary Landfill facility on Big Bethel Road in Hampton. However, this site is actually located outside the southwest border of Langely AFB, over 3 miles from the subject property.

The Defense Environmental Restoration Program has identified sites within Langley AFB for inclusion into the Installation Restoration Program (IRP). The purpose of the IRP is to identify and remove contamination from hazardous substances, pollutants, and contaminants; and to correct other environmental damage that creates an imminent and substantial endangerment to the public health or to the environment. The six IRP sites in the vicinity of the subject property are listed below.
• LF-22 Abandoned Landfill, Willoughby Point. This parcel is an abandoned 7.7-acre landfill just east of the north end of Tank No. 1. The landfill was operated during the 1930’s and is believed to have accepted mostly municipal refuse, but possibly also waste oil, paints, thinners, batteries, and construction debris.

• LF-15 Abandoned Landfill, Willoughby Point. This site is a 3.7-acre abandoned landfill west of the north end of Tank No. 1. This site was used between 1937 and 1947 to dispose of old vehicles and construction debris.

• SS-23 Former Coal Storage Area. This site was used as a coal storage area and covers approximately 0.6 acres parallel to the west side of Building 720. Coal was transported by rail into a concrete-walled impoundment. The impoundment has been demolished but the concrete pad remains.

• ST-34 Large Aboveground JP-4 Tanks—Facility 707. This site is the bulk fuel storage facility described in Section 5.1, and it consists of six large aboveground JP-4 jet fuel tanks. Past investigations, including monitoring well installation and groundwater sampling, have indicated little or no fuel contamination of groundwater, and no free fuel was encountered.

• ST-30 Engine Test Cell, Building 737. This facility was a test cell pad which was used to test jet engines until 1989. The site is located just east of the north end of Tank No. 2. An oil/water separator at the site was used to process unburned fuel from the test pad floor and spillage from the nearby fuel feed tank. A site remediation in the late 1980’s and early 1990’s resulted in the removal of significant amounts of free fuel and contaminated groundwater. Subsequent testing indicated low levels of soil and groundwater contamination and no remaining free fuel.

• WP-02 Abandoned Wastewater Treatment Plant, Building 724. This site is the location of a former treatment plant located east of the central portion of Tank No. 2. The plant covered approximately 0.5 acres and operated from 1917 to 1968 as a secondary treatment biological-type facility using trickling filters and discharging to the Back River. Most of the plant was demolished in the 1970’s, but an unoccupied concrete-walled impoundment remains.

A remedial investigation and interim remedial action are planned for the WP-02 site, and long-term monitoring is anticipated for LF-15 and LF-22.

5.3 Historic Aerial Photo Review for Adjacent Properties

Historic aerial photographs were reviewed to evaluate historic land use of the project site and adjacent properties. Discussion of historic aerial photo review of the subject property is presented in Section 4.2.2.

Representative black-and-white aerial photographs of Langley AFB and its surroundings were obtained for early 1930, October 20, 1930, June 1932, early 1935, October 10, 1935, September 29, 1939, July 9, 1941, March 12, 1942, December 1944, and March, 1992 through the Command Historian’s Office.
Review of the early 1930 image showed a significantly less developed Langley AFB with only one primary runway, next to the main hangar area. The northeast corner of the base is completely undeveloped except for the construction in progress on Building 720.

By October 1930, Building 720 appears to be almost finished, and a large wind tunnel/testing building (Buildings 643-646) has been erected just south of the property.

In the 1932 photo, a large previously undeveloped parcel of land west of the property has been cleared. The wastewater treatment plant has been constructed just east of the property, and a large complex of office buildings has appeared about one block southwest of the site.

By 1935, the large disturbed area appears to be partially revegetated, but a coal storage pad has appeared just west of Building 720. Another small structure is visible just east of the center portion of the tank.

In the 1939 photos, four barracks-type buildings have been constructed southwest of the property, and a railroad track is visible from the coal storage pads along the southwest border of the property. The runways parallel to the main hangar area have been improved and widened.

In the 1941 image, at least three other structures have been built near the southwest side of Building 720, in the vicinity of the barracks area. The long, x-pattern runways have been constructed in the main airfield.

The 1942 photo shows some new excavation along the east side of the property, possibly a part of the engine test cell area (Building 737). Tank No. 2 is under construction. Ward Road has been rerouted to the east to allow for expansion of the Northeast-Southwest runway.

In the 1944 photo, Tank No. 2 is completed, and there is additional activity in the excavation area just east of the middle portion of Tank No. 2.

Review of the 1992 image showed that the former barracks buildings were gone and the area was now occupied by a complex of six large, fuel storage tanks. The supply lines between the dock and the tank farm rise over Building 720. The former coal storage pads appear to have been completely abandoned, and the railroad track is gone. Two small brick buildings have been constructed in the area of the former sewage treatment plant. The airfield runways have been improved, and Ward Road has been widened.
6. Applicable Regulatory Compliance Issues

6.1 List of Compliance Issues for Subject Property

The Hampton Health District is the responsible agency for maintaining permits for pollution control and dust abatement in Hampton County. According to the Health Department, no permits with respect to the subject property are currently on record.

The Hampton Fire & Rescue Department, Hazardous Materials Section is the responsible agency for responding to reported hazardous material spills in the City of Hampton. According to Cpt. Leon Witherspoon, no spills are currently on record for the subject property.

According to Mr. Gene Nuttall, there have been no notices of violation or citations issued on the subject property.

The database search conducted by EDR did not identify any records indicating the presence of large-scale chemical usage or storage, landfill operations, fuel storage tanks, or remedial activities on the subject property. Section 4.3 contains a discussion of small quantities of substances used in Buildings 720 and 720B. Of the databases that were included in the search, no permits, notices, violations, or other information related to chemical usage, storage, or releases were found to exist on public record for the subject property.

6.2 Description of Corrective Actions

According to record reviews and interviews, no citations or corrective actions have been reported on the subject property.
7. Conclusions

7.1 Summary of Findings

According to site observations, personal interviews, and review of available records, maps, and aerial photographs, the subject property has been operated as a hydrodynamics test basin and tow tank from 1930 until the present. During the site visit, Building 720 appeared to have been well maintained, except for age-related weathering of exterior siding, and the property in general was found to be clear of rubbish and debris with the exception of a few areas of scattered trash inside the abandoned Tank No. 2 building.

Chemicals and hazardous fluids used in the work areas of Buildings 720 and 720B are stored in very small quantities and appear to be properly maintained. The inventory lists presented in Appendix D indicate that each substance used on site and its exact volume is clearly documented. There is an unidentified, partially filled 55-gallon drum inside the north end of Tank No. 1, which probably contains waste lubricating oil. Review of available records indicate that there have been no large-scale volumes of hazardous materials used, stored, or released on the property, but the IRP sites identified in Section 5.2 appear to be sources of potential environmental liability because of their proximity to the subject property. The types of contamination that could pose the threat of contamination to the property are: leachate from unknown landfill constituents at sites LF-15 and LF-22, leachate from coal residue at site SS-23, wastewater treatment sludge at site WP-02, and JP-4 fuel at sites ST-30 and ST-34. Because these sites are undergoing active remediation as part of the IRP program, the progress of these remedial actions should, over time, begin to minimize the potential threat to the subject property.

Review of historical information including aerial photographs, topographic maps, and records provided by Langley AFB indicate that the property is located on a parcel of land that was occupied by a family farm for over 100 years before its acquisition by the United States Government. The public record review did not identify historical property uses that involve hazardous substance or petroleum product usage, storage, disposal or other historical operations that could have impacted the property.

According to the Air Force EBS Instruction document, the property should be categorized using the information in this document to identify whether and how hazardous substances or petroleum products were used, stored, and/or released on the property (U.S. Air Force, 1994). All of the subject property can be categorized as a Category 1 property, because no storage, release or disposal has occurred.

7.2 Data Gaps

Currently, the impact that the six nearby IRP sites have had on the property is unknown. It is not known whether the pole-mounted transformers near Building 720 have been certified PCB-free. The contents of the unlabeled 55-gallon drum in the north end of Tank No. 1 are unknown at this time.
8. Recommendations

Prior to the property transfer, it is recommended that the abandoned materials and substances in the unused or little-used areas of Building 720 be removed from the subject property, specifically the unlabeled 55-gallon drum inside the north end of Tank No. 1. Also, the issue of the aging transite siding, which covers most of the exterior walls and roofs, may need further review. Continued weathering and fracturing of these panels may require that further action be taken to slow the rate of deterioration. Wipe samples or surface soil samples should be collected from below the locations of former PCB-containing transformer units.

Since no large volumes of hazardous substances or petroleum products appear to have been used, stored, or disposed of on the subject parcel, the property should be considered Category 1, which, according to Air Force guidance, allows the site to be eligible for transfer by deed or lease.
9. Certifications

According to the Air Force Instruction 32-7066, Environmental Baseline Surveys in Real Estate Transactions, the EBS report must contain a certification regarding the accuracy of the EBS. The Certification of the Environmental Baseline Survey, which has been revised to include more detail on the type and source of records and other information that was reviewed, is provided in Appendix F. Also included with the certification is a description of CH2M HILL’s limitations of liability.
10. References


Caison, Lorie. Chief Real Estate Officer, ICES/DEEPR. Langley AFB. Meeting with T. Lawson Gullette/CH2M HILL on October 1, 1997.


Nuttall, Gene. Supervisor, Tank No. 1, United States Navy Section, Langley AFB. Meeting with T. Lawson Gullette/CH2M HILL on September 18, 1997.


Tice, John. Civil Engineer, CES/CEV, Langley AFB. Meeting with T. Lawson Gullette/CH2M HILL on September 17, 1997.

