AN ENVIRONMENTAL REVIEW OF THE PROPOSED RETURN OF U.S. AIR FORCE LEASED PROPERTY, ASCENSION AUXILIARY AIRFIELD TO THE BRITISH GOVERNMENT



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March 26, 2004

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EXECUTIVE SUMMARY

The scope of this Environmental Review included all USAF-leased lands and USAF facilities in and around the airfield, as well as all USAF facilities outside the bounds of the airfield that are associated with aircraft operations, such as the Airfield Beacon and the Maritime Homing Beacon.

The Environmental Review concludes that there are no major environmental concerns associated with either the lands or the facilities that would prevent their return or transfer to the British Government. There are no known imminent substantial dangers to human health and safety.

The following recommendations are made to address the minor issues noted in the Environmental Review:

- 1. Solid Waste. It is recommended that the debris (rusted drums, tires, machinery, etc.), among the volcanic rocks along the runway remain where it is and that the British Government be advised as to its location and condition. The USAF may consider, simply for aesthetic reasons, removing the tires from the center of the High Speed Turn-around.
- 2. Asbestos and Lead-based Paint. It is recommended that the asbestos and lead-based paint in the facilities noted be left unabated and that the British Government be advised of the location and condition of these substances should the facilities be turned over to them.
- 3. Hazardous Waste. Because runway inspectors or security and maintenance personnel would not normally be anywhere near the telephone poles or the aircraft wreck located among the volcanic rocks along the runway, and because of the lack of any fauna in this inhospitable area, it is highly unlikely that the hazardous substances (the creosote in the pole and the asbestos in the aircraft wreck) would cause harm to human or animal life; consequently, it is recommended that they remain in situ. However the aircraft wreck, being classified as an historical site which may prompt the curious to examine it, should

be appropriately marked as containing asbestos materials to warn the visitors of this hazard.

- 4. Historical. It is recommended that it be noted that there are two historical structures classified as Significant (the airfield and the runway extension) and a possibly Significant one, the dry stone walls, and that the British Government be so informed. Attempts to determine the history of the dry stone walls should be made. If it turns out that the walled structure is of historic value, as expected, it should be included in the next revision to the Cultural Resources Management Plan; in the meantime, it should be preserved in accordance with paragraph A3.3.1.2.2, Historic Preservation Guide, in the Plan.
- 5. Endangered Species. It is recommended that, in order to protect the endangered Ascension Spurge plant on Round Hill, invasive alien plants be removed and controlled. The alien plants include the Heliotropium and the Mexican thorn (Prosopis juliflora). These should be dug up, removed, and the area monitored to prevent their reoccurrence. In addition, so that PCS and TDY personnel may be made aware of their responsibility to protect the Spurge plant, a sign should be placed near one of the plants that identifies it as being endangered and to treat the plant accordingly.

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Section 1.0 Purpose of the Environmental Review

The purpose of the Environmental Review is outlined in paragraphs 1 and 2 of the 24 February, 2004 Memorandum for Computer Sciences Raytheon from Clay Gordin, GM-13, Chief, Environmental Conservation, Subject: Range Technical Services (RTS) Contract F08650-00-C-0005, Ascension Auxiliary Airfield, Environmental Review of the Proposed Return of Airfield Leased Property to the British Government, which states,

- 1. The 45th Space Wing of the United States Air Force is considering returning the leased land of the Ascension Airfield to the British Government.
- 2. To facilitate the proposed transfer, we request an Environmental Review of the affected tracts of land. (Appendix A, tab A)

This Environmental Review responds to that request, addressing the property noted on the map, "Land Associated with Wideawake Airfield Transfer," and designated "Land Area to be Returned." (Appendix B, tab A)

Section 1.1 Boundaries of the Property and Survey Area

Ascension is a 34 square mile island located in the South Atlantic Ocean, approximately 4,400 nautical miles southeast of Cape Canaveral, Florida, and about mid-way between the east coast of South America and the west coast of Africa, at 7° 57' S and 14° 24' W. Ascension AAF (Auxiliary Air Field), consisting of approximately 3,406 acres in 13 tracts and 12 easements, is located on the western side of the island. The Main Base consisting of 170 contiguous acres is approximately two miles south-southeast of Georgetown, the largest community on the island. Wideawake Airfield, named in honor of the Sooty terns which nest in the area, is located approximately one mile south of the Main Base; its runway is 10,000 feet long. The remaining 11 tracts are outlying instrumentation and communication sites.

Section 1.1.1 The Airfield



The Airfield was initially established in the early years of World War II. As early as the late 1930s, British and American planners began considering using the island for an airfield to transport Lend Lease aircraft from the U.S. to British forces in Africa. An area just above South West Bay was identified as flat enough for a 2,000-yard strip, which lay along the direction of the prevailing southeast Trade Wind. By October 1941 plans were underway for a base with a contingent of 100 men to operate the airfield. After the U.S. entered the war in December 1941, a survey crew was dispatched to Ascension, arriving on Christmas Day. Within a month, the plans included establishing a base to support U.S. Navy anti-submarine patrols. The U.S. also offered to take over defense of the island in order to better protect what was perceived as a strategic facility.



The U.S. Army Corps of Engineers (COE) under the command of Col. Robert E. Coughlin undertook actual construction of the airfield. Coughlin and a force of 1500 officers and men arrived on March 30, 1942. The initial task was to construct a two-mile road from the port at Georgetown to the proposed airfield site. By mid-April, the COE had moved to their permanent campsite, Camp Casey, near the runway, and defense of the island had been turned over to the U.S. forces. Within a month, Col. Coughlin reported that Wideawake Field's runway was 75% complete. Ultimately, approximately 380,000 cubic yards of rock was removed for its construction, most of it by dynamite. Unfortunately, construction left a slight hump in midrunway, which remains today. The construction involved exposing the bedrock and then paving with a combination of compacted ash and asphalt.



Initially the runway was 6,000 feet long and 150 feet wide, but by February 1943, it had been extended another 700 feet. On June 15, 1942, the first plane landed on the new airfield, a British biplane piloted by Lt. E. Dixon-Child. The first American plane to land on the airfield was a B-24 arriving from Africa on July 10, 1942. In August, the COE was replaced with Army Air Force and Army Artillery and Infantry Forces to serve as the permanent staff and defenses for Wideawake Field. This led to construction of several outlying defense posts along with new access roads to these posts. In the fall of 1943, Navy submarine patrol bombers supplemented these forces.



During the course of the war approximately 20,000 planes passed through Wideawake Field enroute from Natal, Brazil to Liberia or Sierra Leone in Africa. As flights through Ascension dwindled in the fall of 1945, the U.S. force was reduced from the wartime high of 2,000 men, and attempts were made to dump surplus equipment, primarily in large pits near the Base, and remove all tents, prefabricated buildings and wooden structures. Ultimately the lack of manpower resulted in some of these structures being abandoned in place. By June of 1946, there were only 82 officers and men remaining at the Base. The Base was deactivated on May 31, 1947. Remaining structures included the Command Hill headquarters, radio buildings near the Base, the nose hangars, two quartermaster's storage huts and the HF direction finding station behind Long Beach.

Section 1.1.2 The Eastern Range

In 1949, the U.S. began to express an interest in reactivating the facilities on Ascension. During that year, the U.S. queried the U.K concerning ownership of the top of Green Mountain and whether it could be flattened and made accessible to large trucks; it was thought that the U.S. was considering some form of tracking station on the mountain. Nothing further was done until 1954, by which time the test range for U.S. rockets had been extended into the South Atlantic. In

1956, an agreement was signed between the U.S. and U.K. governments concerning reactivation of the airfield and construction of new facilities.

A survey party arrived in late 1956. Subsequently the runway at Wideawake Field was repaired and a new Base was constructed closer to the sea and Georgetown. Radar stations were constructed on Cross Hill, Cat Hill and South Gannet Hill. New fuel tanks were added south of Georgetown at Catherine Point, and the pier in Georgetown was widened to facilitate fuel deliveries. Station 12 of the Eastern Test Range was officially opened in 1957 to track missiles from Cape Canaveral, and monitor the final stages of their flights.

The Apollo program of the mid-1960s led to further expansion of the Ascension AAF facilities. A NASA tracking station was built in 1966 at Devil's Ashpit, and a British Cable & Wireless Earth Station was built at NASA's request at Donkey Plain.

The Space Shuttle program brought further changes to Ascension AAF, including lengthening of the runway to 10,000 feet to accommodate emergency Shuttle landings. The NASA tracking station closed in 1990, and an Ariane rocket station opened the same year. Air Force Space Command assumed responsibility for USAF launch operations during 1990. The following year, the Eastern Test Range was inactivated and replaced with the Eastern Range, currently overseen by the 45th Space Wing of the 14th Air Force headquartered at Vandenberg Air Force Base, California.

Section 1.1.3 Agreements

As noted above, in 1949 the U.S. expressed to the U.K. an interest in reactivating the facilities on Ascension as the flight capabilities of the missiles launched from Cape Canaveral increased. Discussions between the two governments culminated on June 25, 1956 in an Agreement that extended the 1950 Bahamas Long Range Proving Ground Agreement by establishing an additional site on Ascension Island.

Since the reason for this Environmental Review is to inspect leased lands (the airfield) for the ultimate purpose of returning them to the U.K. it would be instructive to review this Agreement and subsequent ones for conditions that might have a bearing on the Recommendations in this Environmental Review.

In the 1956 Agreement, there are some references concerning the return of lands and the removal of facilities. In Article II, General Description of Rights, while it provides for the establishment of "an instrumentation and communications system including Radar, land lines, and submarine cables," it is only the latter that it addresses as far as removal of U.S. equipment is concerned.

"When submarine cables established in accordance with paragraph (1) of this Article are no longer required for the purpose of this Agreement, their disposal or further use shall be subject to consultation between the Contracting Governments and, in the absence of agreement, they shall be removed by and at the expense of the Government of the United States of America."

Later, in Article IV, Provision of Sites, the Agreement makes the following general statement, applicable to all sites -

"The Government of the United Kingdom shall after consultation with the Government of Saint Helena, provide so long as the Agreement remains in force such Sites for the purpose of the operation of the Long Range Proving Ground as may be agreed between the Contracting Governments to be necessary for that purpose. When it is agreed between the Contracting Governments that any Site provided under this Article is no longer necessary for the purpose of the operation of the Long Range Proving Ground, the Government of the United Kingdom shall be entitled to cease to provide the Site for that purpose."

And finally, in Article XVIII, Removal of Property, the Agreement, while addressing mostly moveable property, does, in paragraph (3) discuss the restoration of land.

- (1) The title to any property placed on the Sites (including property affixed to the realty) and provided by the Government of the United States of America for the purposes of this Agreement shall remain in the Government of the United States of America.
- (2) At any time before the termination of this Agreement or within a reasonable time, thereafter, such property may, at the discretion of the Government of the United States of America, be
 - (a) relocated within the Sites, or
 - (b) removed therefrom, or
 - (c) disposed of while on a Site on the condition (unless otherwise agreed between the Government of Saint Helena and the United States authorities) that it shall forthwith be removed therefrom.
- (3) Any ground from which such property is so removed shall, if the Government of Saint Helena so require, be restored as far as possible to its present condition by the Government of the United States of America.
- (4) The Government of the United States of America will not, in Ascension Island dispose of any such property
 - (a) without the consent of the Government of Saint Helena, or
 - (b) without offering the property for sale to that Government if such offer is consistent with laws of the United States of America that in effect, or
 - (c) before the expiration of such periods, not being less than 120 days after the date of such offer, as may be reasonable in the circumstances.

- (5) Such property may be exported by the United States authorities free from any license, export tax, duty or impost.
- (6) Any such property not removed or disposed of as aforesaid within a reasonable time after the termination of this Agreement, shall become the property of the Government of Saint Helena.

Almost 30 years later, the two governments met again and on 25 March 1985, they signed a Memorandum of Understanding on the "Use of Facilities at Ascension Island." Essentially, it addressed the use by U.K. Forces of the U.S. military facilities on the island. It does not address the disposal of U.S. property, the return of leased lands, etc or anything of any relevance to this Survey.

Section 1.1.4 Survey Area

The Survey area is that land shown on the map, "Land Associated with Wideawake Airfield Transfer." (Appendix B, tab A) as amended by the inclusion of additional facilities as noted in the Memorandum for the Record, 16 March, 2004 (Appendix A, tab B)

Section 2.0 Survey Methodology

The methodology used is discussed in the following subsections.

Section 2.1 Approach and Rationale

After a careful review of the 24 February 2004 Memorandum requesting an Environmental Review (Appendix A, tab A), the referenced AFI's, and the attached map of the proposed leased land return, it became apparent that clarification would be needed to define exactly what lands and facilities were to be included before proceeding. For example, some of the USAF facilities within the drawn boundary on the map had no relevance to airfield operations, (i.e., the Sandblast/Paint facility, the Welding Shop, the Photovoltaic Panel Farm, and the Rawinsonde Building). On the other hand, many that did are located external to the boundary of the land being proposed to be returned, (i.e., the HF antennas and Command Control building on Cross Hill, the Airfield Beacon on Command Hill, the Maritime Homing Beacon Antenna, the approach lights and numerous obstruction lights on the hills surrounding the airfield).

This concern was raised with the Base Commander, Major John Lansberry, and Mr. Dale Hawkins, the 45th Space Wing's Point of Contact for this Review. They discussed it and the latter forwarded, by phone, clarification to this issue: All facilities and property associated with airfield operations outside the boundary line drawn on the map and all facilities and property inside the boundary line are to be included. (See Memo for the Record, Appendix A, tab B)

After receiving this clarification, there followed a comprehensive inspection of all lands, buildings, other facilities on the lands, and utility lines entering and leaving them. Of particularly invaluable assistance in this inspection was Mr. Donald Coffey, who began his

career on Ascension in 1962, spent 12 years as the Base Operations Manager in the 70's and 80's, and has returned many times since then on special assignments.

Ascension AAF's records of facilities containing asbestos and lead-based paint were reviewed, as were the records of spills of hazardous products. For historical background, Ascension AAF records and the Archives in the Museum in Georgetown were reviewed (see Appendix C) and discussions held with managers and technicians (see Appendix D).

An initial In-Briefing was given to the Base Commander, Station Manager and Chief of Maintenance; also an Out-Briefing was presented at the conclusion of the Survey, again to the same managers.

Section 2.1.1 Descriptions of Documents Reviewed

A listing and description of the documents examined during the course of conducting this Environmental Review is found in Appendix C, References.

Section 2.1.2 Property Inspections

All buildings and other facilities on the subject tracts were entered and inspected. To the extent practical, all the lands were inspected. While all the land to the northeast of the runway up to the fence line were inspected, the lands to the southwest of the runway and the flared (overflight) area at the end of the runway were not fully inspected.



Several forays were made into this extremely inhospitable terrain. Occasionally, a sighting from the side of the runway would prompt a scramble into the rocks and other volcanic debris; other times, a walk to a high point among the debris for further observation would occur. It is prudent to conclude that because of the nature of the terrain, wastes, either hazardous or non-hazardous, could not have been deposited more than a couple of hundred feet beyond the runway.

Section 2.1.3 Personal Interviews

Personal interviews were conducted throughout the preparation of this Environmental Review; while most were Ascension AAF employees, others were residents of the island working in Georgetown. A listing of the persons with whom significant interviews were conducted is found in Appendix D, Interviews.

Section 2.1.4 Sampling

No sampling was conducted during the Environmental Review. If any environmentally questionable areas/items is discovered that were not already listed in the documents noted in Section 2.1.1 above, a suggestion that they be sampled is included in Section 7.0, Recommendations.

Section 3.0 Findings

Findings are discussed and summarized below:

Section 3.1 History and Current Use

Facility Number History and Current Use



Runway 01432

Built in 1942 and modified with a paved overrun (01435) in 1957, a Taxiway (20600), an Apron (20602), and a High Speed Turn-around (no #), this runway and the associated facilities are used for conducting aircraft operations. A history of the runway has been discussed in Section 1.1.1.



Fire Station 24224

Built in 1985, it houses the fire trucks and ancillary equipment to provide fire protection services for both aircraft operations and all Ascension AAF facilities.



Aircraft AGE Support Bldg 24230

Built in 1968, it houses the equipment to provide ground support to aircraft.



Airfield AGE (LOX) Storage

24232

Built in 1971, it houses fire protection equipment, i.e., carts, and supplies.



Rawinsonde Building 12040

Built in 1958, it houses the equipment and supplies for launching the daily weather balloon and for reading the various weather recording and measuring instruments located on and adjacent to the building.



Photovoltaic Panel Farm 20612

Built in 1998, this array of photovoltaic panels generates 100 KW that is fed into the power grid. The building associated with the panels houses a backup generator, an inverter, storage for ancilliary supplies, and controls for the airfield lights.



Sandblast/Paint Facility

20606

Built in 1987, this facility houses shops, work areas, supplies, and materials for conducting sandblasting and painting operations.



Welding Shop

20607

Built in 1993 and located adjacent to the Sandblast/ Paint Facility, the Welding Shop houses a work area, supplies, and materials for conducting welding operations.



VORTAC Station 35401

Built in 1986, this facility contains the VORTAC aircraft navigation system.



Aircraft Control
Tower

24227

Built in 1986; this tower houses the communication systems for conducting airfield operations.



Back-up Power Generator

35051

Built in 1997, it houses the generator to provide back-up power to the Fire Station and Aircraft AGE Support Building.



Command Control Building 12225

Located at Cross Hill and built in 1958, it houses a back-up generator and supplies for operating and maintaining the two HF antennas located adjacent to the building.



Maritime Homing Beacon Antenna 12140

Built in 1958, this 300' tower and its associated Homing Beacon Equipment Building (12335) built in 1995 serve as a navigational aid for ships and aircraft.



Airfield Beacon

30106

Built in 1980, this 1000 watt rotating beacon serves as a navigational aid for ships and aircraft. It is functional during night time aircraft operations and as otherwise directed.



Obstruction Lights No Fac

Number

These red navigational hazard warning lights (estimated about 60) are located on the sides and tops of the hills on either side of the runway.



Approach Lights

No Fac

Six towers on the north end (approach) of the

Number

runway house the landing navigational lights.

Section 3.2 Environmental Setting

Those facilities outside the area marked by the boundary line on the map of the proposed property to be returned (HF antennas, Homing Beacon, and Rotating Beacon, etc) are towers and associated buildings set on concrete pillars or pads, surrounded by manicured, ground ash. They are devoid of any significant environmental setting.



On the other hand, the area inside the boundary line, the largest area of relatively level ground on the island, is a remarkable setting. The predominant feature is the land itself, formed with lava type combinations of basaltic cinders and block basalt, silica, and quartz; these rock foundations, especially towards the departure end of the runway lend a "moonscape" appearance to the land. There's little vegetation; wildlife is scarce. It is an extremely harsh and forbidding environment. The discussions in the succeeding 3.2 Sections relate to this area.

Section 3.2.1 Flora

There are some native grasses, mainly the common grass (Eragrostis tenalla) on the lands on either side of the runway, which grow during the infrequent rainfalls.





The predominant flora are the cassi (Acacia albida), the Mexican Thorn (Prosopis juliflora), and the prickly pear cactus (Opuntia vulgaris).

Section 3.2.2 Fauna



As already noted, there are few varieties of wildlife in this area. During the time of this Survey (March, 2004), the Sooty terns (Sterna fuscata), locally called the Wideawake terns due to the fact that they never appear to sleep, were returning to their annual nesting sites near the departure end of the runway. Their numbers were in the hundreds, if not thousands, and expected to grow in the months ahead. A few Mynah birds (Acridotheres tristis) were also seen.

Other than these birds, the only other wildlife observed were a few rabbits (Oryctolagus cuniculus). The native donkeys and sheep are restrained from entering this area by a fence that parallels the north side of the runway and extends from the approach end shoreline to the departure end shoreline; there are none of these animals on the south side of the fence.

Though not encountered during the survey of the lands, centipedes (Scolopendra morsitans) and scorpions (Isometrus maculatus) do inhabit the dry, barren rock areas.

Section 3.2.3 Threatened and Endangered Species



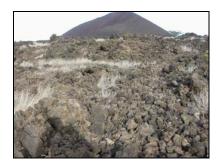
The only threatened and endangered fauna or flora in the area surveyed is the Ascension Spurge plant (Euphorbia origanoides). Initially listed as Rare in the IUCN (translated: International Conservation Union) list of threatened plants published in 1998, it is now considered to be Critically Endangered with threats to its survival being brought on by introduced plant species, animals (donkies, sheep, and possibly rabbits), and Man.

One of the few remaining sites where the Spurge plant can be found is on Round Hill, the site of the VORTAC Station and the Airfield Control Tower. An inspection of this area revealed that there are several small plants growing, especially on the downwind side of the VORTAC.

Section 3.2.4 Terrain

Formed from violent volcanic eruptions and explosions that hurled lava fragments and molten droplets into the air for tens of thousands of years, Ascension is now dormant, the last eruption having taken place in the last 500 - 700 years (J.E. Packer)





These volcanic events produced a wide variety of rock types, as found in the area surveyed. Towards the departure end of the runway, jagged lava rocks predominate, though stones and ash were brought in to build up the valleys to construct a flat runway surface. Round Hill, the site of the VORTAC Station and at its base, the Fire Station, is predominately reddish ash, formed from successive outpourings of fairly mobile liquid lava.

Section 3.2.5 Historical and Archeological

The history of Man on Ascension is very short; it was just over 500 years ago, that Juan da Nova discovered this uninhabited, barren island. Consequently, there are no old archeological remains to be found, yet there are several historical structures, "historical" being defined as over 50 years old.

SouthArc,Inc. recently completed a Cultural Resources Management Plan which includes an extensive survey of the historical structures on the Air Force leased lands. The Plan reported that in the area encompassed by this Survey, the following structures qualify as historical -







- Wideawake Airfield
- Runway Extension
- Rawinsonde Building

Of these, the first two were classified as "Significant"; the third, as "Possible historic interest, altered."

The historic significance of the runway, although it has been resurfaced and extended, is that it was the entire reason for the existence of Ascension AAF and represents historic activities tied to World War II, the Cold War, the Space Program, and the Falkland Islands Conflict.



Of the facilities outside the boundary line, only the Command Control Building associated with the HF antennas on Cross Hill was mentioned; it was classified as "Not significant".

In the SouthArc, Inc. Plan, it is noted that plane wrecks are classified as sites for cultural resources management purposes. There is a plane wreck in the area surveyed.





Approximately 200' beyond the end of the runway at 7° 58.593' S, 14° 22.869' W, there are parts of a plane. Though several small pieces of aluminum framing and structure are scattered about, the larger remains consist of two aircraft engines, one with part of its propeller attached. The propellers are four-bladed. The aircraft type is not known, though it is suspected to be of World War II vintage.





Not mentioned in the SouthArc, Inc, Report are the very old, dry stone walls located about 300 yards behind the Sandblast Facility, inside the fence line. Set among volcanic rocks, these intricately formed walls of lava stone define several large rooms/areas with walled walkways connecting them. It is suspected that this was David Gills original base camp when he came to measure the September opposition of Mars in 1877; this would classify the site as "Significant".



Two sentry posts are located on Round Hill, one on the north side overlooking the runway, and the other on the south. These were constructed and used during the Falklands War and though they do not now meet the qualifications for being listed as "Historical", they should be preserved.

Section 3.3 Hazardous Substances

Hazardous substances are discussed in the following sections.

Section 3.3.1 Hazardous Materials and Petroleum Products

No hazardous materials are stored in the facilities included in this Survey; however, petroleum products are.



In addition to JP-8 fuel stored in tanks at the facilities to supply the stand-by generators, petroleum products are kept in the Airfield AGE (LOX) storage building. The following products, each contained in a 55-gallon drum, are stored at this site.

- Grease
- Transmission Fluid
- Gear Lube
- JP-8 (Note that diesel fuel is not used in the diesel generators or diesel engines on Ascension AAF. JP-8, to which motor oil is added, is used instead).

Section 3.3.2 Hazardous and Petroleum Waste

Two hazardous materials were located among some of the debris located in the volcanic rocks near the runway.



Strips of material, which definitely appear to contain asbestos, were noted on the cowlings of one of the two engines from the aircraft wreck, discussed in Section 3.2.5, Historical and Archeological above.



Three abandoned telephone poles, one on the north side of the runway in a gully at approximately the 8,500-foot point, along with several rusted drums, and two poles on the opposite side in a ravine at approximately the 9,500 foot point, have been impregnated with creosote.

Spills of hazardous materials and petroleum products have occurred and have been cleaned up. A few of the spill locations listed below were checked; there was no indication of any mishap.

The Ascension Spill History indicates the following events occurred in the areas surveyed –

<u>Date</u>	Est Qty	<u>Product</u>	<u>Location</u>	<u>Cause</u>
08-03-03	10 gallons	Blue Water from aircraft	Airport	Overflowed tanks during servicing
07-06-03	3 gallons	JP-8	Airport	Overflowed tanks during refueling
07-04-03	10 gallons	JP-8	Airport	Overflowed tanks during refueling

<u>Date</u>	Est Qty	<u>Product</u>	Location	<u>Cause</u>
04-24-03	½ cup	JP-8	Airport	Overflowed tanks during refueling
03-11-03	1 gallon	Acid	Homing Beacon	Battery exploded inside generator
01-29-03	15 gallons	JP-8	Airport	Overflowed tanks during refueling
02-28-00	3 gallons	JP-8	Rawinsonde building	Corroded pipeline

Section 3.4 Installation Restoration Program Contamination None

Section 3.5 Storage Tanks

Section 3.5.1 Above Ground Storage Tanks



The following buildings in this Survey have back-up generators and, consequently, above ground storage tanks for the JP-8 fuel to run them -

- Command Control Building, Cross Hill
- Homing Beacon Equipment Building
- Back-up Power Generator (for the Airfield Lighting Control Building)
- Back-up Power Generator (for the Fire Station/Airfield AGE (LOX) Storage Building)

The outside of these tanks were inspected and noted as being sound, free from any leaks. The containment areas were clean and the outflow gates locked.



The following building has an above ground portable water storage tank –

• Command Control Building, Cross Hill

This tank was inspected and noted as being sound, free from any leaks.

Section 3.5.2 Underground Storage Tanks

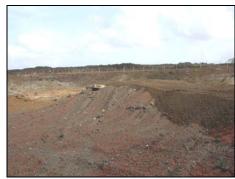


The following buildings have underground septic tanks –

- Command Control Building, Cross Hill
- Homing Beacon Equipment Building
- Rawinsonde Building
- Aircraft AGE Support Building
- Fire Station

A review of the record of the PMs (Preventive Maintenance) on these tanks revealed that they are in good working order. They are inspected on a semi-annual basis and pumped out by a local contractor as required.

In addition to the septic tanks, there are four abandoned tanks buried in the area surveyed, all generally in the area between the Sandblast/Welding Shop and the beginning of the runway, directly opposite the turnaround apron and very near the fenceline.



There are two 25,000 gallon and one 10,000 gallon asphalt-filled tanks buried at 7° 57.775' S, 14° 24. 206' W. These were buried in 1997 because the asphalt had hardened, making it unusable and the tanks too heavy to lift to transport.



There are also two abandoned 10,000 gallon tanks from World War II buried at 7° 57.765' S, 14° 24. 276' W; they were partially filled with asphalt when they were buried.

Section 3.5.3 Pipelines, Hydrant Fueling, Transfer Systems
Other than the small lines connecting the diesel storage tanks to a stand-by generators, there are no petroleum pipelines, etc in the areas surveyed.

Section 3.6. Oil/Water Separators
None

Section 3.7. Pesticides
Cans of spray (PT-565, active ingredient d-trans-allethrin) and rodent traps.

Section 3.8. Medical and Bio-hazardous Waste None

Section 3.9. Ordnance None

Section 3.10. Radioactive Wastes
None

Section 3.11. Solid Wastes

There is no solid waste in the areas surveyed outside the boundary of the airfield land to be returned. Within it, there are a few areas where waste has been improperly dumped.



a. At the base of the small hill near the 6,500 foot point on the north side of the runway are several very large concrete blocks, possibly bases for antennas.





- b. In the center of the High Speed Turn-around, there is a dump that contains:
 - several large tires
 - parts of motors and vehicles
 - crushed drums



c. Near the 7,800 foot point and at the base of South Gannet Hill, there is a medium-sized cable reel with several feet of electrical cable on it. Because the reel is in poor condition, it is suspected that it may have rolled down the hill during construction of the Telemetry Site.



d. At approximately the 8,000 foot marker on the south side of the runway, there is a large flat metal base and assorted machinery parts. They are well-rusted and have been there for some time.



e. Also near the 8,000 foot marker but on the north side of the runway and close to the fence, are a few very rusted drums (some crushed) and numerous parts of motors and machinery. They appear to have been at one time a part of a large dump located just outside the fenceline. This

larger dump, the South Africa Dump, is discussed further in Section 4.0, Findings for Adjacent Properties, page 35





f. In a ravine at the 8,500 foot point on the north side of the runway is a large creosoted telephone pole and half a dozen rusted, empty 55 gallon drums.









- g. At approximately the 9,500 foot point on the south side of the runway, there are two ravines, one downstream from the culvert and the other about 200 feet to the west of it, that contain:
 - approximately 100 55-gallon drums

 These drums are empty and very rusted. Some appear to have contained asphalt while others are so rusted it is impossible to ascertain what they may have held. Though it is suspected they may have been left over from the World War II construction of the runway, there was one drum that indicated it was filled in 1956 with aircraft fuel for a reciprocating engine.
 - a few tires
 - two gas cylinder tanks
 - some aluminum aircraft parts
 - telephone poles, noted in Section 3.3.2, page 23
- h. Approximately 200 feet beyond the end of the runway is an aircraft wreck, previously discussed in Section 3.2.5, page 21

Section 3.12

Ground Water

There is no groundwater. What little rain falls is rapidly absorbed into this highly porous land.

Section 3.13

Wastewater Treatment, Collection and Discharge

There are five septic tanks located in the areas surveyed. (see Section 3.5.2 Underground Storage Tanks, page 25).

Section 3.14 Drinking Water Quality

The drinking water at the manned facilities is provided from the Water Distillation Plant and the Base's Potable Water Supply System. Water fountains and other outlets for tap water are checked monthly for chlorine, pH, and coliforms There have been few problems with this system, except occasionally the chlorine residual at the more distant sites is below potable water limits.

Section 3.15

Asbestos



A review of the Ascension Asbestos Record indicates that the following facilities in the areas of this survey contain asbestos -

<u>Facility</u>	<u>Location</u>	<u>Asbestos</u>	<u>Remarks</u>
Rawinsonde Bldg	Sub-ceiling	35%	
Homing Beacon	Roofing Material	20% Chrysotile	New Structure
Command Control	Vinyl Floor Tile, black	20% Chrysotile	
Command Control	Wall panels, grey	40% Chrysotile	
Command Control	Ceiling Tile, grey	1% Chrysotile	No hazard
Command Control	Ceiling Tile, grey	5% Chrysotile	
Command Control	Thermal Insulation	85% Chrysotile	
Control Tower	Vinyl Floor, 9x9	Assume Asbestos	
Control Tower	Roofing green	Assume Asbestos	

Section 3.16

Polychlorinated Byphenols (PCB's)

None

Section 3.17

Radon

A radon survey was performed during the 1980s. This survey found no detectable levels of radon in any USAF facility. Furthermore, the probability of radon pooling in any of the facilities surveyed is remote since none of them contain basements or underground enclosures.

Section 3.18 Lead-based Paint



A review of the Ascension Lead-based Paint Report indicates that the following facilities in the areas surveyed contain lead-based paint -

<u>Facility</u>	Lead Content	Color	Int/Ext	Location
Airfield Runway	1.7mg/cm	Yellow	Exterior	Striping
Paved Overrun	1.1mg/cm	Yellow	Exterior	Striping
Taxiway	1.1mg/cm	Yellow	Exterior	Striping
Apron	2.5mg/cm	Orange	Exterior	Striping
Rawinsonde Bldg	9.2mg/cm	Brown	Exterior	Support poles
Command Ctrl Bldg	1.5mg/cm	Tan	Exterior	Walls
Command Ctrl Bldg	2.0mg/cm	Green	Interior	Walls
Command Ctrl Bldg	1.0mg/cm	Tan	Both	Door
Control Tower	2.9mg/cm	Red	Exterior	Walls

The paint is not peeling in these facilities; consequently, it is not hazardous if left

undisturbed.

Section 4.0

Findings for Adjacent Properties

The areas adjacent to the facilities located outside the boundary line of the airfield property (Homing Beacon, Rotating Beacon, etc) are all USAF-leased, well-maintained, lands.

The areas adjacent to and outside of the boundary line of the airfield property are owned by the British Government, except for South Gannet, Round, and COTAR Hills atop which sit USAF instrumentation sites. These are discussed below.

Section 4.1

Land Uses

The area to the north of the boundary line is undeveloped, unused land covered with volcanic rocks.









Outside the fence line near the end of the runway, there is an extensive dump containing an old rock-crusher, vehicles, equipment, antenna towers, etc. It is known as the South Africa Dump.



On the same side, at the 4,000 foot marker, is the RAF Burn Pit. Formerly the USAF Burn Pit, it has been expanded for training of the RAF and its contractor in fire suppression. It appears to be in good order.

The area to the south of the runway and outside an imaginary line running 1000' parallel to it, is undeveloped, unused land covered with volcanic rock. About mid-point along the runway, before Round Hill, there's an ash mining pit belonging to the British Government.



The area directly at the end of the runway and extending and flaring to the ocean, (the departure overfly area) is undeveloped, unused land covered with volcanic rock and bordering on the Sooty tern fairs, or nesting areas.

The three hills mentioned above are USAF leased lands. There is no environmental concern with these volcanic hills.

Surrounding the parking apron are Royal Air Force Facilities.

Section 4.2

Surveyed Properties

No formal survey of the above properties was conducted. A visual inspection from the boundary line was made and if there was an area that warranted inspection (e.g., the dump noted above) a walk-through of it was conducted.

Section 5.0

Applicable Regulatory Compliance Issues

Section 5.1

List of Compliance Issues

- a. Asbestos-containing material (see Section 3.15, Asbestos)
- b. Lead-based paint (see Section 3.18, Lead-based Paint)

Section 5.2

Description of Corrective Actions

In both of these compliance issues, the corrective action has been to leave the hazardous material in place. In their present condition, the asbestos is non-friable and the paint is not peeling; consequently, they do not pose any hazards to human or plant and animal life.

Section 5.3

Estimate of Various Alternatives

The alternative to leaving the asbestos and paint in place is to remove these substances. While this would be an expensive and time-consuming process, it is also unnecessary; they do not create a hazard if left undisturbed and, therefore, there is no need to abate them.

Section 6.0

Conclusions

There are no major environmental concerns associated with either the lands or the facilities surveyed for this report.

The facilities that contain asbestos pose no threat to humans or plant and animal life; the asbestos is non-friable and is stable. The fact that the existence of this hazard is well documented and procedures in place to alert workmen who may need to disturb it is commendable.

The same can be said of the facilities containing lead-based paint. The Environmental Technician has determined that the paint does not create a hazard

if left undisturbed and, therefore, there is no need to abate it. ECAMP findings support this.

Section 7.0

Recommendations

From an environmental perspective, there are no major issues that would prevent the return of the USAF-leased property discussed in this Environmental Review to the British Government.

There are a few minor concerns for which recommendations will be made in the following categories -

- Solid Waste
- Hazardous Substances
- Historical
- Endangered Species

1. Solid Waste

It is almost certain that the waste identified in this Environmental Review (the rusted drums, tires, machinery etc.) has not only been there for many, many years, but was also dumped there by those whose identity (even country) has long since been forgotten. Nevertheless, the fact remains that it is on USAF-leased property and the Agreement between the U.S. and the U.K. over this property states that, "Any ground from which such property is so removed shall, if the Government of Saint Helena so require, be restored as far as possible to its present condition by the Government of the United States of America".

It certainly could be argued that the "present condition" in 1956 when the Agreement was signed included most, if not all, of the debris; consequently, the USAF would be under no obligation to clean it up.

"The Final Governing Standards for Environmental Protection" in Chapter 7, Solid Wastes, does not offer any guidance for the restoration of property; it addresses only the identification, classification, collection, transportation, storage, treatment, and disposal of solid wastes.

More instructive is AFI 32-7006, "Environmental Program in Foreign Countries". The standard to follow as stated in Chapter 2, Cleanup, is to "execute cleanup projects to the point that contamination no longer poses an imminent and substantial danger to human health and safety and as needed to sustain current operations unless the Air Force is bound by international agreement to do more".

It is with this in mind that the following Recommendation is made:-

Recommendation 1:

That the debris (rusted drums, tires, machinery, etc.) remain where it is and that the British Government be advised as to its location and condition. The USAF may consider, simply for aesthetic reasons, removing the tires from the center of the High Speed Turn-around.

2. Hazardous Substances

As noted in the Environmental Review, there is asbestos and lead-based paint in some of the facilities surveyed. In the case of the former, it is non-friable and stable; and in the latter, it is not peeling.

Recommendation 2:

That the asbestos and lead-based paint be left unabated and that the British Government be advised as to the location and condition of these substances should the facilities be turned over to them.

Also as noted, there are three creosoted telephone poles in the volcanic fields adjacent to the runway and a small amount of asbestos on the aircraft wreck. Because runway inspectors or security and maintenance personnel would not normally be anywhere near the poles or the wreck and because of the lack of any fauna in this inhospitable area, it is highly unlikely that these hazardous substances would cause harm to human or animal life.

Recommendation 3:

That the poles and wreck remain in situ. However the aircraft wreck, being classified as an historical site, which may prompt the curious to examine it, should be appropriately marked as containing asbestos material to warn the visitors of this hazard.

3. Historical

The Environmental Review notes that there are two "Significant" historical structures in the areas surveyed, the airfield itself and the runway extension, and one that could possibly be "Significant", the dry-stone walls.

Recommendation 4:

That it be noted that there are two historical structures, and the British Government so informed; and that attempts to try to identify the possibly "Significant" one be made. If it turns out that the walled structure is of historic value, as expected, it should be included in the next revision to the Cultural Resources Management Plan, and in the meantime, preserved in accordance with paragraph A3.3.1.2.2, Historic Preservation Goals, in the Plan.

4. Endangered Species

There is only one Endangered Species in the areas surveyed – the Ascension Spurge Plant (Euphorbia origanoides), located on Round Hill. It is not growing in profusion there or anywhere else on the island; in fact, it is more likely to grow on Round Hill than in some of the other locations, since the donkeys and sheep are prevented from roaming in that area.

Recommendation 5:

(The following is extracted from Alan Gray's Report, "Ascension Spurge Study Recommendations") That invasive alien plants be removed and controlled. On Round Hill, the alien plants include the Heliotropium and the Mexican Thorn (Prosopis juliflora). These should be dug up, removed, and the area monitored to prevent their recurrence.

Though not a part of Gray's Report, it is suggested that personnel need to be made aware of their responsibility to protect the Spurge plant.

Recommendation 6:

That a sign be placed near one of the plants that identifies it as being endangered and to treat the plants accordingly.

Section 8.0

Certification

Tim T deGavre, the Preparer, conducted this Environmental Review on behalf of Computer Sciences Raytheon. He reviewed all appropriate records made available, and conducted visual site inspections of the selected facilities following an analysis of information during the record search. The information contained within this Survey report is based on records made available and, to the best of the Preparer's knowledge, is correct and current as of March 26, 2004.

APPENDIX A: TERMS

		Tab	
1.	Memorandum for Computer Sciences Raytheon, dated		
	February, 2004. "Ascension Auxiliary Air Field Environmental		
	Review of the Proposed Return of Airfield Leased Property to		
	The British Government", Clay Gordin, GM-13, Chief		
	Environmental Conservation, 45 th Space Wing	A	
2.	Memorandum for the Record, "Request for Clarification" to Distribution,		
	dated 16 March 2004, Tim deGavre, CSR	B	



DEPARTMENT OF THE AIR FORCE 45TH SPACE WING (AFSPC)

MEMORANDUM FOR COMPUTER SCIENCES RAYTHEON 24 February 2004 ATTN: GARY MINE

FROM: 45 CESICEVP 1224 Jupiter Street Patrick AFB FL 32925-3343

SUBJECT: RANGE TECHNICAL SERVICES (RTS) CONTRACT F08650-00-C-0005, ASCENSION AUXILIARY AIRFIELD, ENVIRONMENTAL REVIEW OF THE PROPOSED RETURN OF AIRFIELD LEASED PROPERW TO THE BRITISH GOVERNMENT

- 1. The 45th Space Wing of the United States Air Force is considering returning the leased land of the Ascension Airfield to the British Government (see attachment 1).
- 2. To facilitate the proposed property transfer we request an Environmental Review (see reference 2) of the affected tracts of land. As a point of clarification an Environmental Review should address the items specified in reference 3 below.
- 3. The Environmental Review is due no later than 28 May 2004. My POC for this Environmental Review is Mr. Dale Hawkins at 494-9259, or E-mail him at dale.hawkins@patrick. af. mil.

Clay Gordin, GM-13

Chief, Environmental Conservation

Attachment:

1. Map of the proposed leased land return.

Reference:

- 1. Range Technical Services Contract Statement of Work Paragraph 1.10.1.6.3, CDRL A548.
- 2. Air Force Instruction 32-7061 The Environmental impact Analysis Process, Paragraph 5.2.3.
- 3. Air Force Instruction 32-7066 Environmental Baseline Surveys in Real Estate Transactions, Paragraphs 2.1.1.1, 2.1.1.4, 2.1.1.5, 2.1.1.6, 2.1.1.7, and 2.1.1.8.

Tab A

MEMORANDUM FOR THE RECORD

TO: See Distribution

FROM: Tim deGavre

DATE: 16 March 2004

SUBJECT: CLARIFICATION OF INSTRUCTIONS FOR ENVIRONMENTAL REVIEW OF PROPOSED RETURN OF U.S. AIR FORCE LEASED PROPERTY, ASCENSION AAF

Because my instructions included only an Environmental Review of the affected tracts of land and a request for a map of the proposed leased land return, I had several concerns about which specific facilities were to be included in this review.

For example, was everything associated with aircraft/airfield operations to be included, even though they were outside the boundary line drawn on the map -as some had suggested to me -or were only the facilities inside the boundary line to be included, even though they had nothing to do with aircraft/airfield operations?

The former category would include:

- The HF antennas and Command Control building on Cross Hill
- The Airfield Beacon on Command Hill
- The Maritime Homing Beacon Antenna to the north of the Main Base
- The approach lights
- The numerous obstruction lights on the hills surrounding the airfield
- The flared, over flight area at the end of the runway extending to the sea and bounded by easements

The latter category (facilities not associated with airfield operations inside the boundary line)

would include:

- The Sandblast plaint Facility
- The Welding Shop
- The Photovoltaic Panel Farm
- The Rawinsonde Building

Today I contacted Major John Lansberry (the Base Commander), Jack Whitaker (the Station Manager), and Dale Hawkins (the 45th Space Wing POC for this review) for clarification. The Major and Mr. Hawkins agreed to discuss it at today's CE meeting.

Mr. Hawkins called me back after the meeting and reported that it was agreed that all facilities, regardless of function, inside the boundary line should be included as well as all ones associated with operations outside the boundary line (as noted above). I understand this clarification and will proceed accordingly.

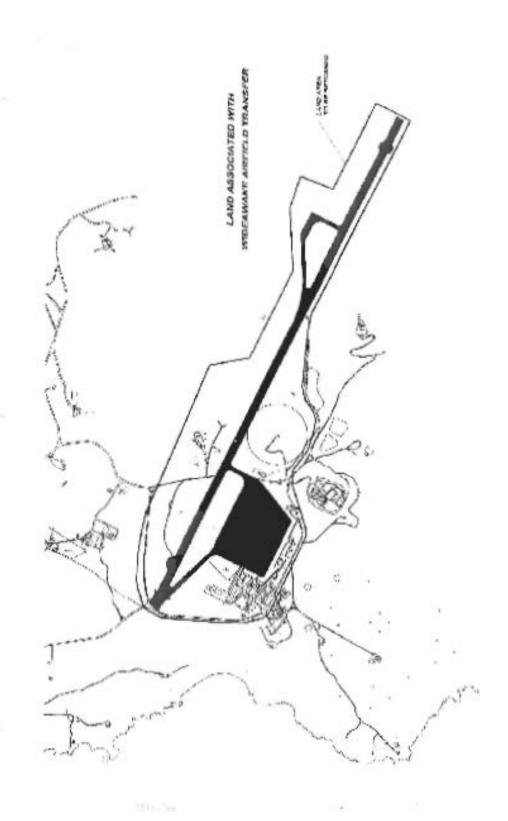
Tim deGavre

Distribution:

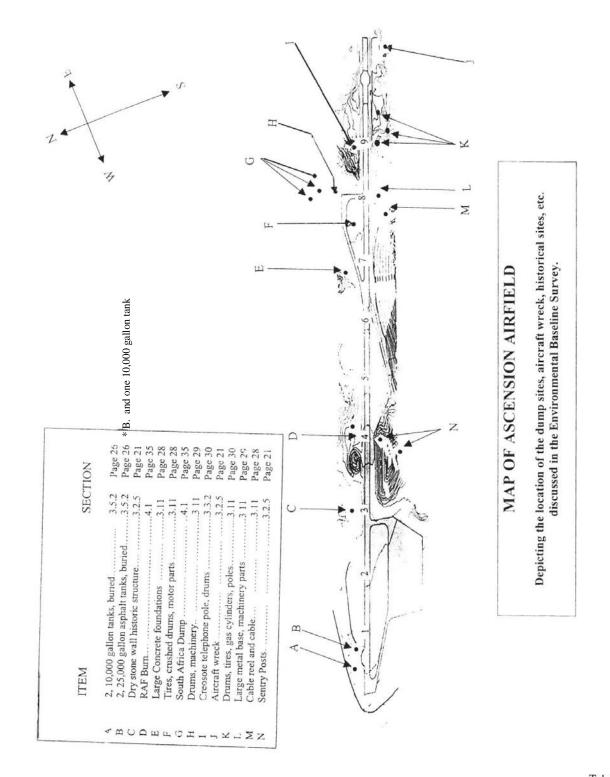
Major John Lansberry Dale Hawkins Jack Whitaker James Hobin Don Coffey M. "Mac" McDowell

Tab B

ΑP	PENDIX B: MAPS	Tab
1.	Lands Associated with Wideawake Airfield Transfe	⁻ A
2.	Map depicting approximate location of buried tanks	, aircraft wreck, and debris
	(discarded, drums, telephone poles, etc.)	B



Tab A



Tab B

APPENDIX C: REFERENCES

The following documents were examined during the course of this EBS –

1 Air Force documents relating to the preparation of an EBS, overseas bases, and the environment.

a. AF1 10-504, Overseas Basing Realignments, 18 January 1994

Provides guidance to Major commands and field operating agencies on returning Overseas bases to host nations.

b. AF1 32-7006, Environmental Program in Foreign Countries, 29 April 1994

Details the objectives, background, and standards unique to environmental activities in foreign countries

c. AF1 32-7061, The Environmental Impact Analysis Process, 24 January 1995

Describes specific tasks and procedures for the Air Force Environmental Impact Analysis Process.

d. AF1 32-7066, Environmental Baseline Real Estate, 25 April 1994

Spells out the responsibilities and procedures for an Environmental Baseline Survey.

e. Overseas Environmental Baseline Guidance Document; October 1992

Though 12 years old and replaced by reference f, it is a good reference document for background purposes

f. Final Governing Standards for Environmental Protection by United States Forces
On Ascension Island; 20 May 2002

A large document of 19 chapters, each of which repeats the first 8 pages of the basic document. It is not very Ascension-specific (i.e. under Threatened and Endangered, there are 5 pages of tables, listing among others, the Hairy-nosed Wombat. The one small chart on Ascension Protected Species, is incorrect; it lists goats, while there are none, and omits sheep, of which there are many. And it is seriously flawed; it omits the Ascension Spurge plant, listed as Critically Endangered).

g. How to Write Quality E I's and EA's; 1998

An excellent guide to help professionals effectively interpret and skillfully

communicate legally essential environmental information.

- 2. Documents relating to USAF-leased lands, properties, and facilities.
 - a. Bahamas Long Range Proving Ground, Establishment of Additional Sites on Ascension Island; Agreement Between the United States of America and the United Kingdom of Great Britain and Northern Ireland; June 25, 1956

Defines rights, jurisdiction, taxation, etc.

b. Memorandum of Understanding Between the United States of America and the United Kingdom of Great Britain and Northern Ireland on the Use of Facilities at Ascension Island; March 25, 1985.

Addresses the use by U.K. forces of U.S. military facilities on Ascension Island.

c. <u>Basic Information Guide: Ascension</u>; 1 Oct 2002

The definitive listing of AAAF's facilities, utilities, instrumentation, and communication systems.

- 3. Documents relating to Ascension's environmental records
 - a. Ascension Lead-Based Paint Record; CSR; 03/17/04

A listing of all known locations of lead-based paint by facility number, lead content, color, etc.

b. Ascension Asbestos Record; CSR; 03/17/04

A listing of all known asbestos by facility number, amount, etc

c. Ascension Auxiliary Airfield Spill History; CSR; November 2002 (as recommended by fax detailing spills through March 2004).

A record of the date, quantity, product, location and cause of spills of hazardous liquids.

d. ECAMP MAP Briefing Summary; Ascension AAF; CSR; 03/17/04

A record of the findings of major and minor environmental concerns, the corrective action required, and the status.

4. Historical Documents

a. Natural and Cultural Resources Management Plan, Ascension Auxiliary Airfield, South Atlantic Ocean; CSR; 06/09/00

A good reference document, superceded by the following Plan.

b. Cultural Resources Management Plan, Ascension AAF, United States Air Force Ascension Island; January, 2004 SouthArc, Inc.

A recent, comprehensive summary and discussion of historical sites (over 50 years old) on Ascension AAF.

c. Ascension at War; the Historical Society; undated

A detailed account of the events leading up to the construction of the airfield, the building of it, its operation, and many instances of U-boat sinkings off the coast of the island; many photographs included.

d. Wideawake Field – the Story of Ascension Island Airstrip in World War II; Jeffery A Cart; 1973.

A short account of the building of the airfield from which much appears to have been taken for the above work.

e. Ascension Island Astronomy; Thomas G.Cave; 2001

An article from Sky and Telescope magazine that discusses the 1877 expedition to Ascension to measure the sun-earth distance.

5. Environmental Documents

a. "Ascension Spurge (Euphorbia origanoides) Study Recommendations", Alan Gray (2003)

An excellent discussion of Ascension's endangered plant, with recommendations to preserve it.

b. "The Wide-awake Fairs of Ascension Island"

A pamphlet prepared by Serco for the UK Overseas Territories Conservation forum and the Royal Society for the Protection of Birds.

c. A Concise Guide to Ascension Island, South Atlantic; J.E. Packer, January 1983

The essential reference document for the concise history of, and descriptions of flora and fauna on, Ascension.

APPENDIX D: INTERVIEWS

The following persons were interviewed during the course of conducting this EBS.

1. Air Force Personnel

Major John Lansberry, Base Commander

2. CSR Personnel

Mr. Jack Whitaker, Station Manager.

Mr. Donald Coffey, former Base Operations Manager, Consultant

Mr. Marion McDowell, Base Maintenance Facilities Manager.

Mr. John White, Facilities Systems Supervisor

Mr. Fred Kenney, Instrumentation Manager.

Mr. Gary Milner, Manager, CSR Environmental Services

Ms. Betty Cuccia, CSR Environmental Services

Mr. Barry Hicks, Environmental Technician, Ascension Island.

Mr. Bobby Crumrine, Construction Engineer.

Mr. William Hunt, Control Tower Operator.

Ms. Shari Park-Hill, Medical Technician.

Mr. Robert Jordan, Safety Inspector

Ms. Frances Dixon, Environmental Technician, Antigua.

3. <u>Islanders</u>

Ms. Tara George, Conservation Officer, Ascension Island Government.

Ms. Susan Carson, Assistant Curator, Museum, Ascension Island