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ENVIRONMENTAL ASSESSMENT INSTALLATION RESTORATION FOR WASTE BURIAL  
AREA NAS FORT WORTH TX  
4/1/1991  
HEADQUARTERS STRATEGIC AIR COMMAND

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A.F.

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**NAVAL AIR STATION  
FORT WORTH JRB  
CARSWELL FIELD  
TEXAS**

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**ADMINISTRATIVE RECORD  
COVER SHEET**

AR File Number 71

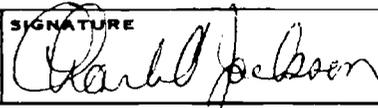
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ENVIRONMENTAL ASSESSMENT  
INSTALLATION RESTORATION PROGRAM (IRP)/WASTE BURIAL AREA  
AT  
CARSWELL AIR FORCE BASE, TEXAS

APRIL 1991

DEPARTMENT OF THE AIR FORCE  
STRATEGIC AIR COMMAND

100 11100

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		FOR ENVIRONMENTAL PLANNING USE ONLY
I REQUEST		71 2
1. TO: (Environmental Planning Function) 7 CSG/DEEV	2. FROM: (Organization and Office Symbol) 7CSG/DEEV	3. CONTROL NUMBER
5. REQUESTOR (Name, Office Symbol and Phone No.) Mr Frank Grey, GS-11, Environmental Engineer		4. ESTIMATED COMP DATE
6. TYPE OF ANALYSIS NEEDED		
<input type="checkbox"/> CATEX DETERMINATION	<input type="checkbox"/> PRELIMINARY ENVIRONMENTAL SURVEY	<input checked="" type="checkbox"/> ENVIRONMENTAL ASSESSMENT
7. TITLE OF PROPOSED ACTION IRP/Waste (Drums) Burial Area Project 91-4014		
II PROPOSED ACTION AND ALTERNATIVES		
8. PURPOSE OF AND NEED FOR ACTION (Continued on Sheets)		
<p>Conduct survey to determine number of 55-gallon drums buried in Installation Restoration Program (IRP) area. Remove the drums and dispose of off-base. These drums contain hazardous chemicals which are known to cause cancer.</p>		
9. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Continued on Sheets)		
<p><b>Proposed Action:</b> Conduct survey of IRP area for buried 55-gallon drums and remove these drums off-base and dispose properly.</p> <p><b>Alternative:</b> No action. This alternative would not show proper concern of such a potential serious problem. These barrels contain TCE, a known carcinogen. The TCE will migrate to the groundwater unless the drums are removed.</p>		
10. ORGANIZATIONAL APPROVAL (Name and Grade of Commander) CHARLES A. JACKSON, Colonel, USAF	SIGNATURE 	DATE 6 MAY 91
III ENVIRONMENTAL PLANNING RESPONSE		
11. RESPONSES ATTACHED		
<input checked="" type="checkbox"/> Preliminary Environmental survey (AF Form 814) attached		
<input type="checkbox"/> Proposed action qualified for Catex (Appropriate Documentation attached)		
<input type="checkbox"/> Proposed action does not qualify for Catex, assessment required		
12. REMARKS		
13. ENVIRONMENTAL PLANNER CERTIFICATION (Name and Grade) BRIAN J. ALTSMAN, Capt, USAF	SIGNATURE 	DATE 6 MAY 91
14. ENVIRONMENTAL PROTECTION COMMITTEE APPROVAL (Name and Grade)	SIGNATURE 	DATE 21 MAY 91

# PRELIMINARY ENVIRONMENTAL SURVEY

71 3

*(CAUTION: This environmental survey is a preliminary document prepared to aid in the early development of your proposal. IT IS NOT AN ENVIRONMENTAL ASSESSMENT.)*

1. TITLE OF PROPOSED ACTION <i>IRP / Waste (Drums) Burial Area</i>	2. CONTROL NUMBER <i>91-4074</i>
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## WORKSHEET

3. INSTRUCTIONS. Indicate the effect either on or of each appropriate attribute listed below. Additional attributes may be listed in the "other" section. + = Positive Effect; 0 = No Effect; - = Adverse Effect; U = Effect Unknown.

4. ATTRIBUTE		+	0	-	U			+	0	-	U	
EARTH	EROSION (WIND/WATER)		✓			ACTIVITY SYSTEMS	TRANSPORTATION SUPPLY/DEMAND				✓	
	SURFACE STABILITY		✓				WATER				✓	
WATER	AQUATIC LIFE			✓		LAND USE	POWER/HEATING				✓	
	FLOW VARIATION			✓			SOLID WASTE				✓	
	AESTHETIC PROPERTIES AND POTENTIAL USE OF WATER			✓			SEWER/STORM DRAINAGE				✓	
	AQUIFER YIELD			✓			FLOOD PLAINS/WETLANDS				✓	
	CHEMICAL QUALITY (DO, PH, DISSOLVED SOLIDS, NUTRIENTS, TOXICS)		✓				OFF-BASE LAND USE				✓	
	PHYSICAL QUALITY (SUSPENDED SOLIDS, OIL, TEMPERATURE)		✓				ON-BASE LAND USE				✓	
							HISTORY/ARCHEOLOGICAL AREAS				✓	
AIR	ODORS			✓		SOCIO ECONOMICS	AESTHETICS				✓	
	TOXIC SUBSTANCES		✓				ACCESS TO MINERALS				✓	
	PARTICULATES		✓				POPULATION				✓	
	AIR MOVEMENT			✓			HOUSING SUPPLY/DEMAND				✓	
	OTHER (SULFUR OXIDES, HYDROCARBONS, NITROGEN OXIDES, CARBON MONOXIDE, PHOTOCHEMICAL OXIDANTS)			✓			EMPLOYMENT				✓	
BIOTIC	UNDISTURBED "NATURAL" AREAS			✓		NOISE	COMMERCIAL ACTIVITIES				✓	
	GAME ANIMALS AND FISH			✓			INDUSTRIAL ACTIVITIES				✓	
	THREATENED AND ENDANGERED SPECIES			✓			CULTURAL PATTERNS				✓	
	SPECIES BALANCE			✓			ON-BASE LEVELS (AIRCRAFT AND GROUND)				✓	
RESOURCES	FUEL RESOURCE CONSUMPTION/ CONSERVATION			✓		OTHER	HEALTH SAFETY				✓	
	NON-FUEL RESOURCE CONSUMPTION/ CONSERVATION			✓								
SPEC HAZARD	RADIOACTIVITY			✓								
	ELECTROMAGNETIC			✓								

## REMARKS

5. CONTINUE ON \_\_\_\_\_ SHEETS

6. NAME AND GRADE OF ENVIRONMENTAL PLANNER <i>Capt Brian Fuhsman</i>	7. SIGNATURE 	DATE <i>17 Feb 91</i>
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LIST OF ACRONYMS AND ABBREVIATIONS

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AFB AIR FORCE BASE  
AFR AIR FORCE REGULATION  
CAFB CARSWELL AIR FORCE BASE  
CEQ COUNCIL ON ENVIRONMENTAL QUALITY  
EA ENVIRONMENTAL ASSESSMENT  
EIS ENVIRONMENTAL IMPACT STATEMENT  
EPA ENVIRONMENTAL PROTECTION AGENCY  
FONSI FINDING OF NO SIGNIFICANT IMPACT  
IRP INSTALLATION RESTORATION PROGRAM  
NCTCOG NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS  
NEPA NATIONAL ENVIRONMENTAL POLICY ACT  
NPDES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
SIP STATE IMPLEMENTATION PLAN  
TX TEXAS  
USDA UNITED STATES DEPARTMENT OF AGRICULTURE

1.0 INTRODUCTION

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This EA examines the surveying and removal of 55-gallon drums buried in the IRP site per project 90-4014 and the potential consequences of this action on the physical, natural, and socioeconomic environments. The EA was prepared in compliance with AFR 19-2, NEPA, and CEQ regulations. Conclusions drawn from this EA shall result in either a FONSI, an EIS, or a decision to take no further action.

2.0 PURPOSE AND NEED

To conduct a survey to determine the number of 55-gallon drums buried in the IRP area and remove the carcinogenic barrels and dispose of them off-base.

3.0 PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION - Conduct survey of buried 55-gallon drums located in the IRP area and dispose of them off-base.

ALTERNATIVE - No action. This option would not show proper concern of such a potential serious problem. These barrels contain TCE, a known carcinogen. The TCE will migrate to the groundwater unless the drums are removed.

CONCLUSION - As stated above, the best action is the proposed action.

4.1 Mission

The mission of the 7th Bombardment Wing (7 BMW) assigned at CAFB is to: (1) maintain assigned units in a state of readiness permitting immediate operations against adversaries of the United States; (2) train bombardment, air refueling crews, and support units to perform global bombardment operations; (3) be prepared to perform tasks assigned in current war orders and related operations orders; (4) implement maintenance and logistic procedures according to higher headquarters plans ensuring combat readiness of assigned units; (5) train and administer assigned reserve personnel and units; (6) participate in disaster relief and other domestic emergencies as required; and (7) perform special missions as directed.

4.2 History

The history of CAFB and the growth of Fort Worth as a national center for the aerospace industry have a mutual beginning dating back to the spring of 1940. At that time the Chamber of Commerce and other civic groups of Fort Worth contacted various aircraft companies, advising them of available sites in the area.

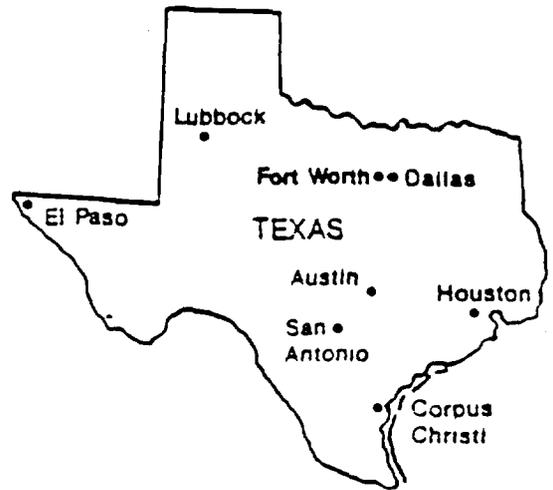
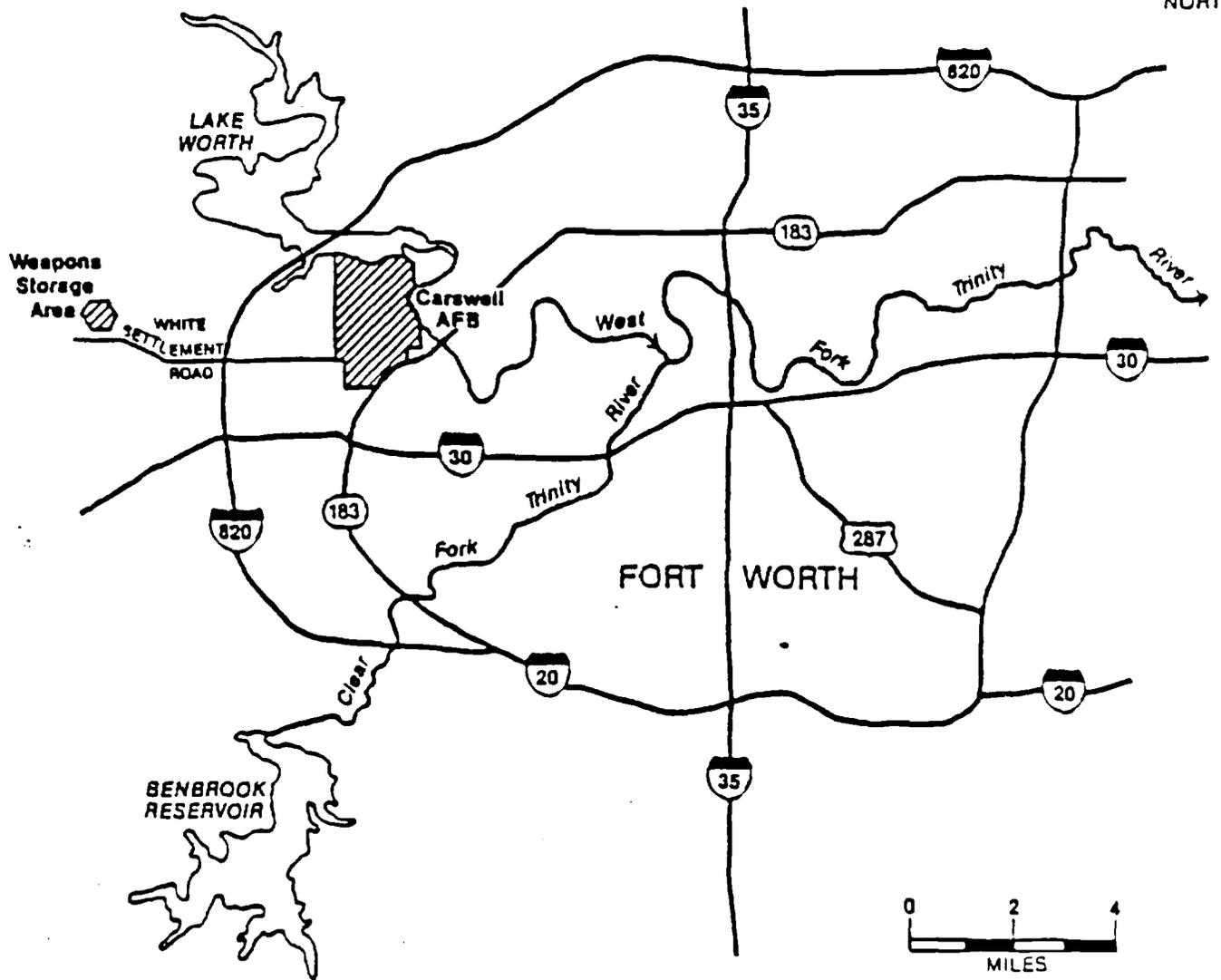
One of the first to reply was the Consolidated Vultee Aircraft Corporation which was interested in an inland site. Six months later, the War Department authorized the company to build a plant for manufacturing B-24 bombers. From a bomber assembly plant with a modest dirt runway, the area has grown into a venerable air power complex. It became the livelihood of thousands of Fort Worth residents as bigger bombers and more sophisticated designs and systems followed. Today it is known as General Dynamics/Fort Worth Division, builders of the swept-wing F-111 and F-16 aircraft.

The initial mission of the base was to provide transition training for the B-24 heavy bombers and it has served as a heavy bomber base ever since. CAFB's current host unit is a descendant of one of 45 bomb groups equipped with the B-24 Liberator. The 7th Bomb Group flew legions of the four-engined bombers throughout the China-Burma-India theater in World War II. When the Strategic Air Command (SAC) assumed control of the installation on 21 March 1946, the first assigned aircraft was the B-29. In June 1948, the first B-36 arrived, and ten years later CAFB became home base for the B-52s and KC-135s which are still assigned. In 1958 it became the test base for the B-58, then the FB-111 in 1968.

In January 1985, CAFB received its first Air Launched Cruise Missile and then in July 1985, the wing received its first Cruise Missile Integration B-52H bomber as part of the B-52 conversion program.

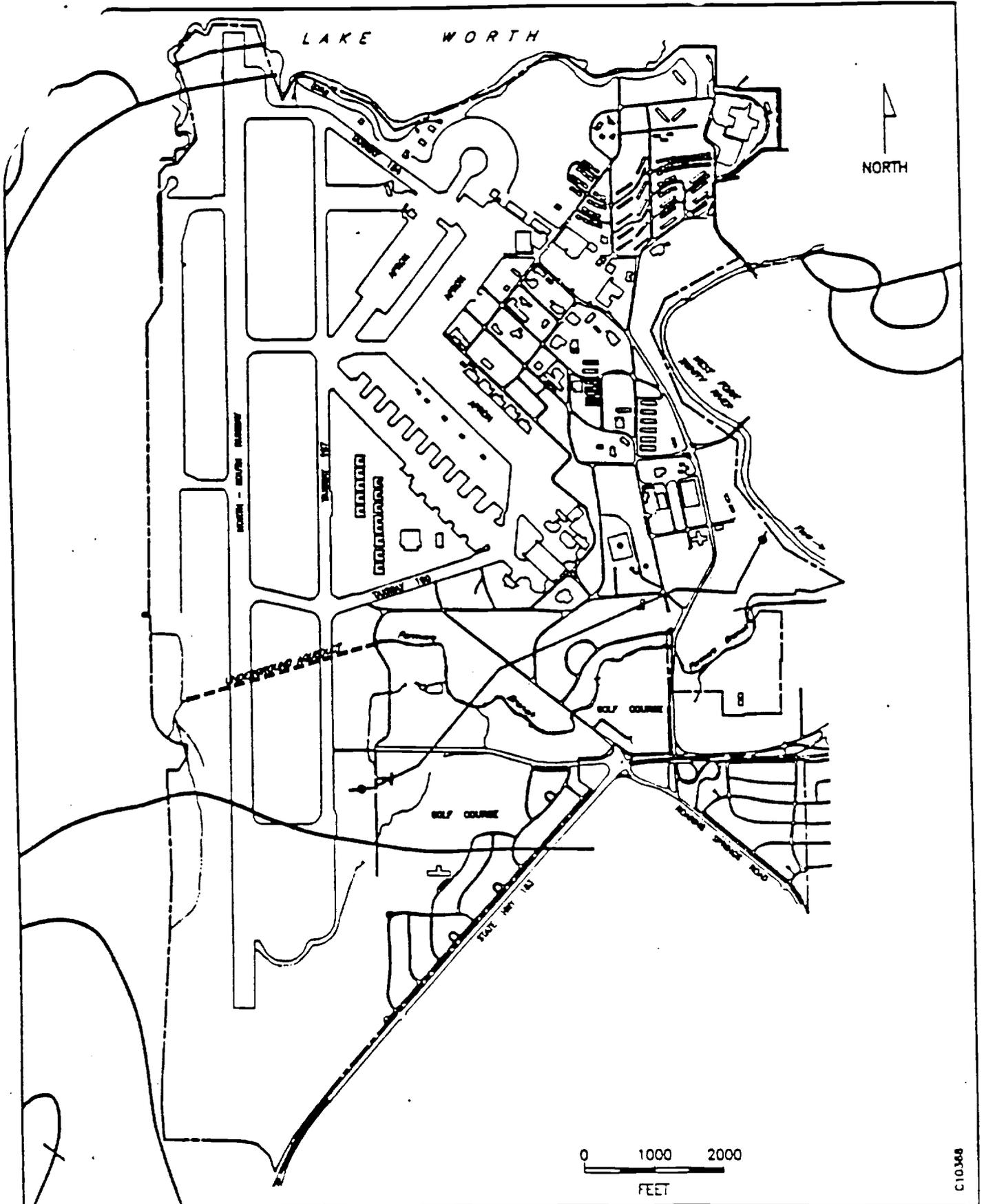
#### 4.3 Physical Setting

CAFB is located in north-central Texas in Tarrant County, six miles west of downtown Fort Worth. The base is bordered by Lake Worth to the north, the West Fork of the Trinity River and the community of Westworth Village to the east and southeast, the community of White Settlement to the south and southwest, and Air Force Plant 4 to the west. The majority of Carswell AFB is located within the Grand Prairie section of the Central Lowlands Physiographic Province. This area is characterized by broad terrace surfaces sloping gently eastward, interrupted by westward-facing escarpments. The topography of the base is fairly flat except for areas near Farmers Branch Creek and the Trinity River. The land is typically grass covered and treeless, except for isolated stands of upland timber. The northwestern part of CAFB is within the Western Cross Timbers Physiographic Province that is characterized by rolling topography and a heavy growth of post and blackjack oaks. See the regional map at page 4 and the base map at page 5.



Regional Setting of Carswell AFB, Texas

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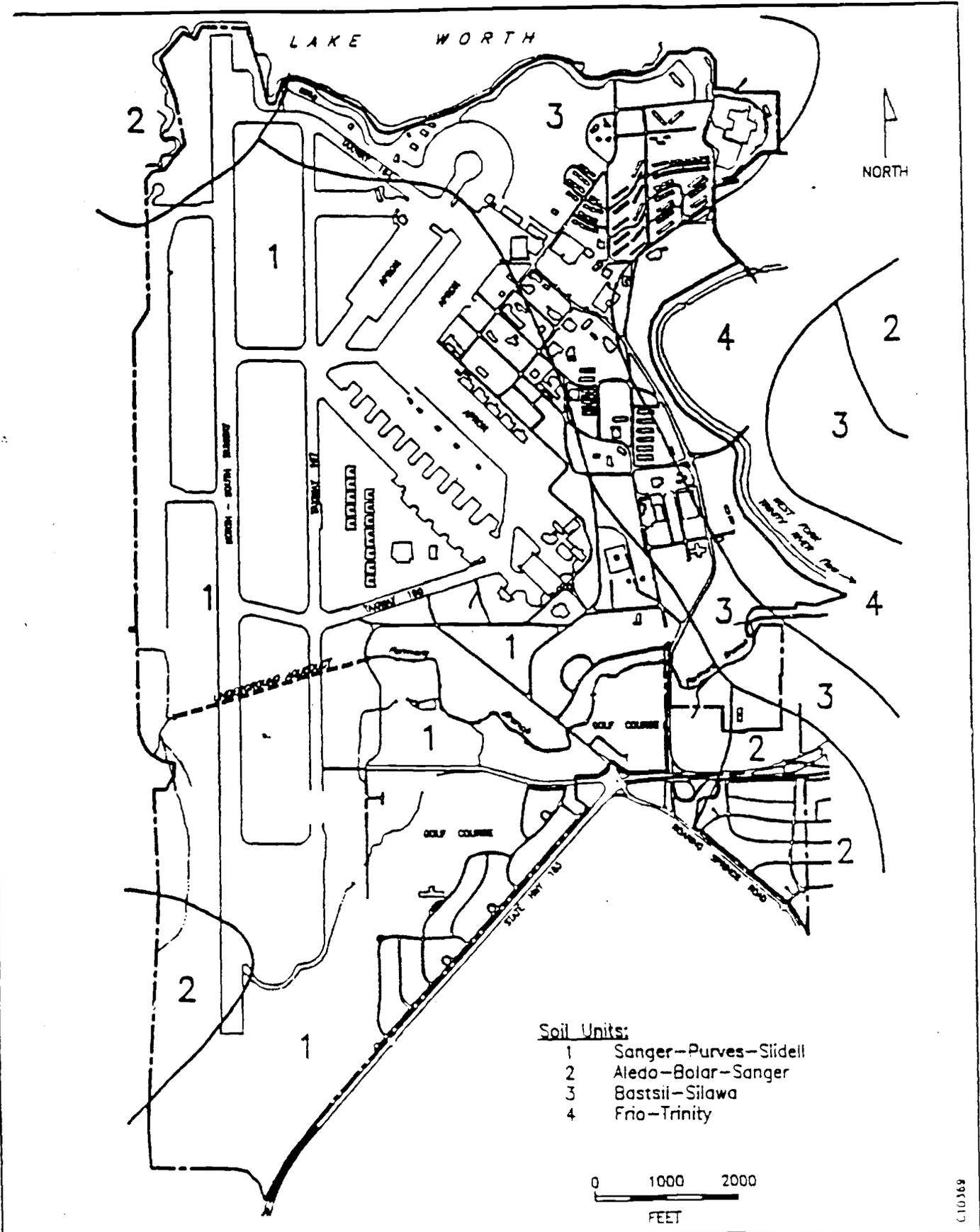


Map of Carswell AFB, Texas

#### 4.4 Soils

The USDA Soil Conservation Service has identified four soil associations at CAFB. The soils range in thickness from 8-80 inches and are predominantly composed of clay loam. The surficial soils of the installation are nearly level to gently sloping clay soils of the Sanger-Purves-Slidell and Aledo-Bolar-Sanger Associations. In addition to the above, the clay soil of the Frio-Trinity Association and the loamy soil of the Bastzil-Silawa Association occur on the floodplain and stream terraces of the West Fork of the Trinity River. See the soils association map at page 7.

- DRAFT -



Soils Association Map, Carswell AFB, Texas.

#### 4.5 Vegetation

The area is mostly grass covered with a variety of species of trees. Forested areas occur primarily on lower land and along the banks of streams. Common native woody species include Oak, Elm, Pecan, Hackberry, and Sumac. Several non-native species such as catalpa and china-berry are common. High ground is dominated by native and cultivated grasses such as Little Bluestem, Indian Grass, Big Bluestem, Side Oats, Grains, and Buffalo Grass. None of the federally-listed endangered plant species for Texas are known to occur within 100 miles of Tarrant County. CAFB has never been surveyed to identify special interest on animal species.

#### 4.6 Wildlife

Typical wildlife on the base include Black-Tail Jack Rabbits in the grassy areas along the runway. In addition, there are Cotton-Tail Rabbits, Gray Squirrels, and Opossums in the wooded areas. Common birds include Morning Doves, Meadowlarks, Grackels, and Starlings. Reported game fish include Black Bass, Sunfish, and Catfish, all of which can be found in Lake Worth, Farmers Branch, and one small pond at the base golf course. According to the United States Fish and Wildlife Service, there are no threatened or endangered species known to occur on CAFB. Only the Peregrine Falcon, Bald Eagle, and Whooping Crane are known to occasionally migrate through the area. No hunting occurs on or near the base. The installation is located outside the major flyways for migratory birds, therefore, relatively few waterfowl migrate through the area; the more common ducks being Mallard, Pintail, Golden Eyes, and Mergansers. The most common duck living along the lake is the Wood Duck.

#### 4.7 Land Use

CAFB is surrounded by residential areas on the east side, commercial areas to the south, recreational (Lake Worth) on the north, and industrial areas to the west. The most intensive activities are the Air Force Plant Number 4 just west of the base and a regional shopping center just southeast of the runway. The areas impacted by CAFB's noise contours are very intensely developed and have been for years. There are still isolated areas capable of new development which would conform to existing land use activities.

#### 4.8 Air Quality

Tarrant and Dallas Counties have developed a plan known as the "Corrective State Implementation Plan (SIP) Revision" which was submitted to the EPA by the State for the purpose of attainment of all federal air quality standards, including ozone. The Fort Worth-Dallas metroplex has been designated by the EPA as a non-attainment area for ozone. All other criteria pollutants are within established EPA standards, according to the NCTCOG. Based on this, the EPA has rescinded the threat of economic sanctions against Tarrant and Dallas Counties. CAFB is operating under a compliance agreement with the EPA for Volatile Organic Compound (VOC) emission from aircraft refueling operations; we are required under the agreement to submit a monthly emission inventory.

The water-bearing geologic formations located in the CAFB area may be divided into the following five hydrogeologic units, listed from the shallowest to deepest: (1) an upper perched-water zone occurring in the alluvial terrace deposits associated with the Trinity River; (2) an aquitard of predominantly dry limestone of the Goodland and Walnut Formations; (3) an aquifer in the Paluxy Sand; (4) an aquitard of relatively impermeable limestone in the Glen Rose Formation; and (5) an aquifer in the sandstone of the Twin Mountains Formation. Groundwater quality data for the alluvial deposits is not available, but various past and present activities at the base have the potential for affecting groundwater and are being addressed by the IRP now underway. Recharge to the Paluxy Aquifer occurs where the formation outcrops west of CAFB in the Air Force Plant Number 4 area and in the bed of Lake Worth. Regional groundwater flow is southeastward in direction but locally is more southerly. The lake represents a significant recharge point for the aquifer and creates a potentiometric high in its vicinity. The water quality of the Trinity River Basin is satisfactory. There are three stormwater discharge points on base that are subject to NPDES permits and are monitored. Discharge points exceed compliance criteria less than five percent of the time. Surface waters on the base are limited to Farmers Branch Creek in the extreme southern portion of the base and a few ponds on the base golf course. Potable water and sewage treatment are provided by the City of Fort Worth. No water treatment facilities exist on CAFB. All industrial wastewater is channeled through oil/water separators into either the sanitary or storm sewer system.

#### 4.10 Cultural Resources

The Hospital Commander's house located at the golf course has been placed on the National Register of Historic Places. There are no other known historic or archaeological resources on CAFB. The base has been surveyed for historic properties by the Historic Preservation Council of Tarrant County. No archaeological survey has been conducted, however, a package is being prepared for submittal to the State Historical Preservation Office asking for a determination of archaeological significance.

#### 4.11 Socioeconomics

In 1988, the City of Fort Worth had a population of 446,300 and a population density of 1,743 people per square mile. Tarrant County had a population of approximately 1.1 million. The economy of Fort Worth is highly diversified, being geared primarily toward manufacturing, agribusiness, and wholesale distribution. Total economic impact of CAFB on the local communities is \$722,000,000. On-base housing is inadequate to support authorized personnel; the latest housing survey showing a deficit of 507 units with 518 names on the housing waiting list. Housing space available off-base is adequate to support any projected increase in personnel. Sufficient schools exist within the commuting area to provide educational opportunities at all levels.

## 5.0 ENVIRONMENTAL CONSEQUENCES

### 5.1 Soils

Soils will be positively impacted as a result of the barrels being removed.

### 5.2 Vegetation

Vegetation will be impacted by the excavation equipment used in the removal process. The vegetation will return to normal and will not suffer significant impacts.

### 5.3 Wildlife

Wildlife will not be impacted.

### 5.4 Land Use

The lands use will change as the land will remain a IRP site for many years. No significant impacts are expected.

### 5.5 Air Quality

The air quality will not be impacted.

### 5.6 Water Resources

Water resources will not be impacted as long as proper monitoring continues.

### 5.7 Cultural Resources

No significant impacts to archaeological or historic resources are anticipated since none are known to exist on the site.

### 5.8 Socioeconomics

The proposed site is on Air Force property at CAFB. The project will not impact the regional economy.

## LIST OF PREPARERS

BRIAN J. ALTSMAN, Capt, USAF  
Contract Programmer  
Environmental and Contract Planning Section  
7 CSG/DEEV  
Carswell AFB, TX 76127-5000

FINDING OF NO SIGNIFICANT IMPACT

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FOR

IRP/WASTE BURIAL AREA

This EA is an analysis of the environmental impacts associated with the surveying and removal of buried 55-gallon drums located in the IRP area. The "no action" alternative was rejected because it does not put forth positive action on such a potential serious health problem. The EA found that few impacts are to be expected and that none could be assessed as significant. The following is a list of attributes and findings.

Soils. Soil will be disturbed slightly but no significant impacts are expected.

Vegetation. Vegetation will have minor damages but will return to normal after the excavation. No impacts are expected.

Wildlife. Wildlife will not be impacted.

Endangered Species. No threatened or endangered species (state or federal) are known to inhabit the area.

Land Use. The land use will change as this IRP area will be an IRP area for many years.

Air Quality. Air quality will not be impacted.

Water Resources. Water resources will be positively impacted as the cancer causing chemicals will be removed from the area.

Cultural Resources. There are no known archaeological or historic sites in the vicinity.

Socioeconomics. No significant impacts are anticipated.

An analysis of the alternatives indicated the proposed action is needed and will result in minimal impacts.

The conclusions in the EA were measured against the requirements established by the CEQ, therefore justifying the FONSI. The regional and local impacts were evaluated and found to be negligible. No broad social or environmental impacts were established in the EA. Thus, an EIS is not required.



RICHARD SZAFRANSKI, Colonel, USAF  
Chairman, Environmental Protection Committee

**FINAL PAGE**

**ADMINISTRATIVE RECORD**

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