EIAP FOR FORCE STRUCTURE CHANGE

for

FAIRCHILD AFB, WASHINGTON

3 October 1989

Air Force
Environmental Planning Division
(HQ USAF/CEVP)

Room 5B269
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1.0 INTRODUCTION

This environmental assessment (FA) examines the potential environmental impacts of the proposed reduction of 20 KC-135A aircraft, the subsequent gain of 26 KC-135R aircraft and an additional 135 maintenance and operations personnel.

This document was prepared in accordance with the National Environmental Policy Act (NEPA) as implemented by the President's Council on Environmental Quality (CEQ) regulations and Air Force Regulation 19-2. The CEQ requires that the environmental significance of a proposed action be assessed and documented in terms of the context of the action and its intensity. In considering the context of the proposed action, analysis must focus on the potential long and short-term impacts on three entities: (1) society as a whole, (2) the affected region and interests, and (3) the locality.

The purpose of this EA is to determine the environmental impacts of the Proposed action. If such impacts are judged to be not significant, a finding of no significant impact (FONSI) will be issued and the proposed action may proceed. If the environmental impacts are found to be significant according to CEQ's criteria, an environmental impact statement (EIS) must be prepared before reaching a decision regarding the proposed action.

1.1 Purpose and Need

The KC-135 Stratotanker is the primary aircraft used for high speed aerial refueling of long range strategic bombers. The KC-135A stratotankers support U.S. Air Force, U.S. Navy, and our allies aircraft with extended range and mobility. The reengining of the KC-135A aircraft will increase tanker offload capability by 50 percent while improving fuel efficiency by 27 percent, (Ref 6.0 (d)). This proposal will require reengining KC-135A aircraft with new CFM-56 turbofan engines, and an additional 135 operational and maintenance personnel above the current staffing levels will be required for the conversion.

On 3 May 1988, the Defense Secretary chartered a special commission tasked with evaluating military installations and recommending changes to increase efficiency and reduce overall cost. The Congress subsequently endorsed this action with the passage of Public Law 100-526 in October 1988. The Commission completed their task in December 1988 and published their findings and recommendations in the Report to the Defense Secretary's Commission on Base Closure and Realignment. Realignment of the Fairchild Air Force Base (FAFB) was part of the Commission's recommendations

1.2 Setting and Site

Fairchild AFB, Washington encompasses approximately 4,500 acres on relatively flat plain in the northeast margin of the Columbia River basin. This basin is completely surrounded by mountains. The landscape of the base and surrounding area is typically agricultural with grasses covering the rolling Palouse Hills. The Spokane Valley, east of the base, is a lowland plain that extends almost to the Washington-Idaho border. The city of Spokane is approximately nine miles east of the base (Figure 1-1).

The host organization at this Strategic Air Command base is the 92d Bombardment Wing with B-52H bomber and KC-135A tanker aircraft. Major tenants at Fairchild AFB include the Air Training Command 3636th Combat Crew Training Wing and the Washington Air National Guard 141st Air Refueling Wing.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES.

2.1 Proposed Action

The KC-135 Stratotanker is the primary aircraft used for high speed aerial refueling of long range strategic bombers. The tankers support US Air Force, US Navy, and our allies' aircraft with extended range and mobility. The proposed action is to transfer six KC-135A aircraft from Pease AFB, which was recommended for closure. These six aircraft, along with twenty other tankers, will be reengined to the R model beginning in the second quarter of fiscal year 1990. This section will require 135 additional operational and maintenance personnel. No new construction is proposed to accommodate the increase in aircraft and personnel.

2.2 Alternatives

Public Law 100-526 exempts the actions of the Commission on Base Closure and Realignment from alternative analyses under the provisions of NEPA.

3.0 EXISTING ENVIRONMENT

Relevant aspects of the base's environmental setting and the relationship between the proposed action and specific resources are presented in this section. Each resource is described as it currently exists, prior to the implementation of the proposed force structure change.

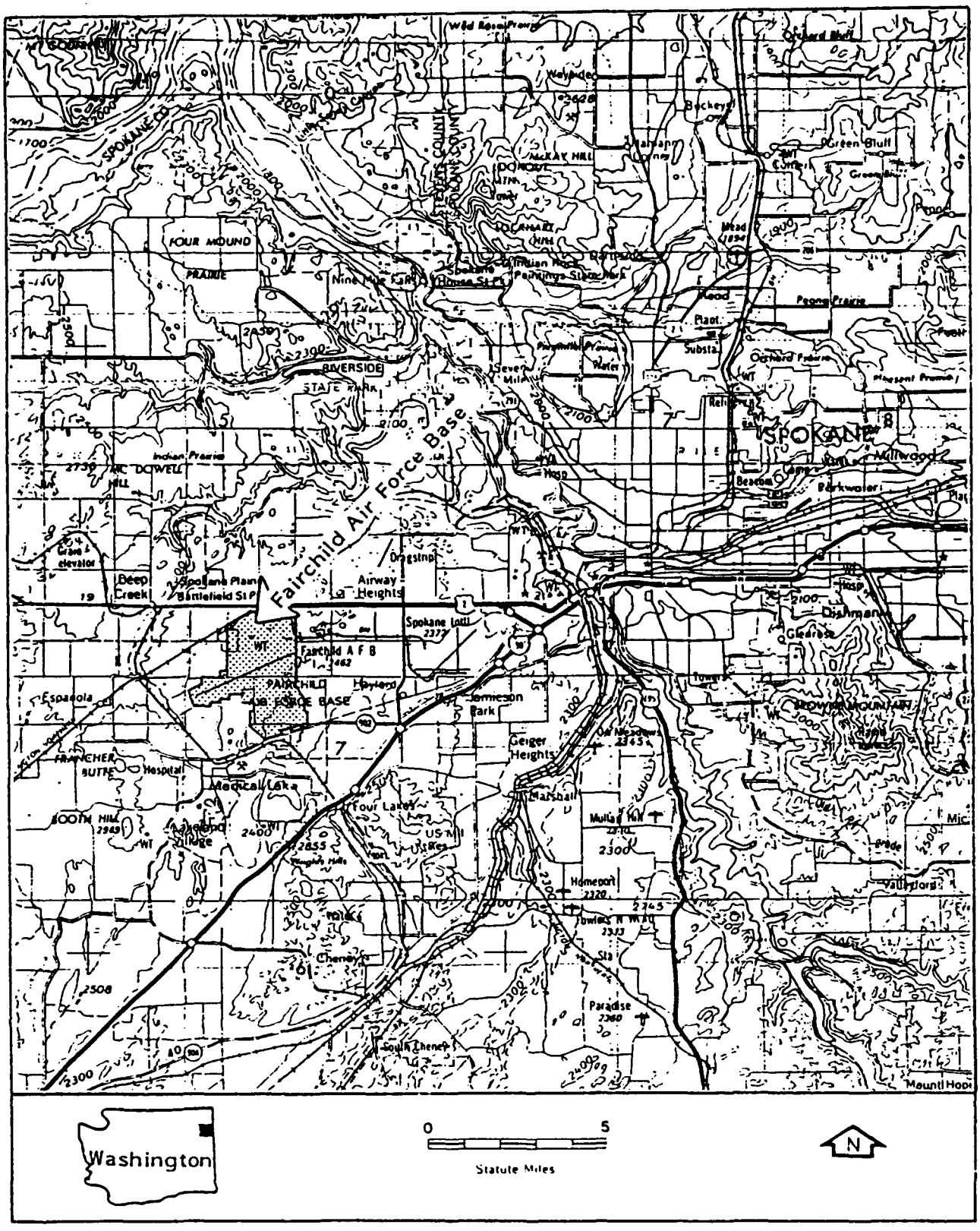

FIGURE 1-1
LOCATION MAP OF FAIRCHILD AIR FORCE BASE
AND SPOKANE, WASHINGTON

3.1 Geology and Soils

The U.S. Soil Conservation Service (SCS) has mapped eight soil types in the area of FAFB, they occur on level to steep slopes. The soils have a loamy texture and range from poorly to well drained. Geological deposits on base are Miocene to Plicene age glaciofluvial and glaciolacustrine sand and gravel deposits of the Latah Formation covered by extensive basalt flows of the Columbia River Group. Floodwaters from glacial Lake Missoula effectively stripped the glacial loess deposits from this area and created the channeled scablands in the basalts. Fossils are not found in basalt, but a varied assemblage of plant fossils have been identified in the Latah Formation. The Latah usually does not form outcrops because it is buried under the basalt flows and is usually found in man made excavations.

3.2 Vegetation

Prior to base construction, the 4,550 acres of land occupied by Fairchild AFB was originally agricultural. Approximately 2,200 acres have been developed for administrative purposes. The developed area is planted in low fruit-bearing shrubs, ornamental softwoods, hardwoods, and evergreen trees. The undeveloped land on Fairchild AFB supports mixed bunchgrasses, shrubs, sedges, and a variety of forbs. Pockets of giant hyssop and ponderosa pine also occur within drainages on base. Eighty acres of land in the northeastern corner of the base are cultivated and support a mixture of native grasses and alfalfa which are used for hay production. Marshes near the Weapons Storage Area contain redtop, onions, cattails, rushes, sedges, clover and a variety of grasses.

3.3 Wildlife

The undeveloped areas occupied by bunchgrasses and shrubs provide the best terrestrial habitats for wildlife on base. Pockets of wetland marshes and pine provide habitat diversity for a variety of animal species. Birds on Fairchild AFB include swans, geese, ducks, hawks, quail, pheasant, owls, falcons, and a number of songbirds. Reptiles on base include salamanders, toads, frogs, turtles, lizards, and snakes. Large and small mammals, including deer, bobcats, badgers, raccoons, coyotes, skunk, weasels, porcupines, squirrels, chipmunks, bats, rabbits, and several rodents, have also been sighted on base. There are no permanent bodies of water on Fairchild AFB to support fisheries.

One state-listed endangered species, one federal candidate species, and five state-recognized special species (which are not federally listed or federal candidates) are likely to occur on Fairchild AFB (Table 3-3). In addition, the federally threatened bald eagle and endangered peregrine falcon are likely to occur within a 50-mile radius of the base.

Federally Listed, Federal-Candidate, and State-Sensitive Species
Fairchild AFB, Washington and Vicinity

Common Name	Scientific Name	Federal Status	State Status	Distribution
Bald eagle	Haliaeetus leucocephalus	T	T	May occur in region
Burrowing owl	Athene cunicularia	—	Sp	May occur onbase
Ferruginous hawk	Buteo regalis	2	T	May occur onbase
Grasshopper sparrow	Ammodramus savannarum	-	Sp	May occur onbase
Great blue heron	Ardea herodias	-	Sp	Occurs onbase
Long-billed curlew	Numenius americanus	2	Sp	Occurs in region
Peregrine falcon	Falco peregrinus	E	E	May occur onbase as migrant
Prairie falcon	Falco mexicanus	-	Sp	May occur onbase
Sandhill crane	Grus canadensis	-	E	May occur in region
Swainson's hawk	Buteo swainsoni	2	Sp	Occur onbase

Notes: E = Endangered
T = Threatened
2 = Federal candidate, Category 2
Sp = Sensitive species

Sources: Washington Department of Wildlife 1987a; U.S. Air Force 1986e.

TABLE 3-3

3.4 Water Resources

The dominant surface water feature in the region is the Spokane River which drains most of the area with the exception of the Silver Lake which drains the area south of the base. The northern half of Fairchild AFB drains into Deep Creek, a tributary of the Spokane River, which flows 12 miles downstream before discharging into the Spokane River. Deep Creek has a relatively small drainage and is perennial only in its middle reach, near the base. Both the Spokane River and Deep Creek are designated as Class A (excellent quality) streams suitable for municipal supply, primary contact recreation, and cold water fishery. No portion of the base is within a designated floodplain.

The Spokane Valley Rathdrum Aquifer, underlying Spokane Valley, is one of the most prolific aquifers in the country. This sand and gravel aquifer is a federally designated sole-source aquifer and it supplies nearly all of the water requirements of Spokane, Fairchild AFB, and many surrounding communities. Hydraulically, the aquifer is closely linked with the Spokane River and increased pumpage has been shown to result in decreased river flow. To the west of the valley, around Fairchild AFB, a soil mantle of varying thickness overlies several thick sequences of basalt.

Wells located in the upland basalt yield widely varying amounts of generally good quality water and supply the water needs of the City of Medical Lake and communities not located within the Spokane Aquifer. No substantial long-term declines in groundwater levels have occurred in the region.

One thousand acre-feet/yr (0.9 MGD) of treated wastewater effluent from the base is discharged to the groundwater via a drainfield lagoon located 0.8 miles east of the base.

3.5 Cultural Resources

Previously recorded prehistoric sites in the area include lithic scatters, stone alignments, petroglyphs and pictographs, rock shelters, villages, fishing sites and burials. Very few cultural resource surveys have been conducted in the vicinity of the base and none have been conducted on base.

A monument, listed on the Washington State Registed, across from the base marks the location of a battle between the 9th Infantry and the local Indians. Although part of the battle may have occured on base, archeological evidence is not likely to have been preserved because of the type of battle and customs of the Indians.

The Coeur D'Alene Reservation is approximately 30 miles east of the base. Consultation has been initiated with the Spokane and Colville Confederated tribal representatives regarding sacred areas or cultural resources important to them in the area, but none have yet been identified on base.

3.6 Land Use

Land uses at and near Fairchild AFB are primarily military and agricultural. Additional land uses include industrial, commercial and residential. Agricultural land uses consist of cattle grazing, cultivation of wheat and hay. Industrial and commercial land uses are light manufacturing and service oriented industries located north of the base along State Highway 2. Residential uses are predominantly located on base.

3.7 Air Quality

Fairchild is located in an attainment zone for air quality and meets both state and federal standards for air emissions. Air quality on base is influenced by stationary and mobile sources of pollutants, including fuel combustion and evaporation, construction activities, vehicles, and aircraft. The closest non-attainment area from Fairchild AFB is the city of Spokane. A portion of the city of Spokane exceeded the 8-hour carbon monoxide (CO) standard. Vehicle CO emissions are a major source of air pollution in Spokane.

3.8 Noise

The Air Installation Compatible Use Zone (AICUZ) develops a system of noise contours using day/night average sound level (Ldn) methodology. The contours are produced through an analysis of aircraft operations, including both flying and maintenance activities These contours assist in the planning for compatible land uses according to computed noise levels. Noise assessments and contour maps were developed for Fairchild AFB in 1974 and the AICUZ Handbook is available for review through the Environmental Planning Section. However, since 1974, a number of aircraft and engines programmed for Fairchild have changed.

3.9 Socioeconomics

The major employers in the Spokane and Fairchild AFB vicinity include services, retail trade, government, and manufacturing. The services and retail trade account for over half of the total employment in 1984 with farming accounting for only 2 percent of the total. The population of Spokane County in 1990 is expected to show a 7 percent increase from the 1980 census. Military personnel and their dependents account for 5 percent of the total population.

Military family housing consist of Wherry and Capehart units on base and appropriated funds units in the surrounding community. Currently, the enlisted quarters have a 14 percent vacancy and the officer quarters are 100 percent occupied.

The Medical Lake School District operates two elementary schools, one middle and one high school. The enrollment of each school is well below the total capacity.

The current active duty population is approximately 4,400 with another 800 civilian employee working on base. The total economic impact of the base is $237 million.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Geology and Soils

Soils in the area are susceptible to wind and sheet erosion when unvegetated or disturbed. No surface disturbance is expected to occur as part of this proposed action, therefore, no soil loss or erosion is expected.

No hydrocarbon energy sources have been identified or leased in the area. No leaseable or locatable minerals have been identified in the area with the exception of isolated sand and gravel operations.

No impact to mineral production or soils are expected to occur as a result of the proposed action.

4.2 Vegetation

The proposed action will be limited to the flightline area, no vegetation will be impacted as part of this action.

4.3 Wildlife (including threatened and endangered species)

Federally listed, Federal-Candidate, and State-Sensitive Species have been sighted within the Fairchild AFB vicinity and habitat zones (Table 3.3). No loss of habitat is to occur as a result of the proposed action. No impact to listed, candidate, or sensitive species are expected to occur.

4.4 Water Resources

Fairchild AFB currently has the ability to pump and supply 7.5 MGD of potable water, and operates its own 1.5 MGD capacity waste water treatment plant. Wastewater treated in FY87 equaled 0.89 MGD. Water supply and treatment facilities at Fairchild AFB, Spokane and Medical Lake are adequate to meet the increased demands of the proposed action.

The proposed action would result in a slight increase in water use and waste water generation. The additional aircraft will increase the amount of fuel and hazardous materials used to operate and maintain the aircraft.

An increase of fuel spills and hazardous waste generated as a result of additional aircraft should not create a problem because of Fairchild AFB's waste minimization and waste disposal program and policies. All hazardous materials and waste will be handled in accordance with FAFB, Spokane County, Washington State and Federal Regulations concerning hazardous materials/waste handling.

Waste oils and waste fuels will be recyled or sold through established base policy. Fuel spills should not pose any additional risk to groundwater contamination. Water resources would not be significantly impacted as a result of the proposed action.

4.5 Cultural Resources

No surface disturbance activity is planned as part of the proposed action. No impacts are expected to Prehistoric, Historic, Paleontological, or Native American Resources.

4.6 Land Use

Land uses in the surrounding area will not be altered because of the proposed action. No impacts to land uses are expected as a result of the proposed action.

4.7 Air Quality

An additional six tankers will increase the primary assigned aircraft by 30 percent. This may increase the daily flying operations by the same percent. A 30 percent increase of daily operations is expected to occur with the proposed force structure change. The additional operations will increase emissions of oxides of nitrogen and sulfur, carbon monoxides, hydrocarbons, and particulate matter. However, the sharing of rides and base transportation will be encouraged to help minimize the impacts from the increase of personal vehicles. The increase of personal vehicles as a result of the proposed action should not have a significant impact to the air quality. There are no Prevention of Significant Deterioration Class 1 areas within 50 miles of the base. Air quality is not expected to be significantly impacted.

4.8 Noise

A draft AICUZ map for the base was developed with the proposed force structure change. Sorties of the tankers are expected to increase by 30 percent over baseline conditions. Patterns for sorties will not change but the additional sorties will increase the frequency of the noise disturbance. The conversion of the KC-135 engine models from A to R will help minimize the increased noise levels. A revised contour map is available for review in the Environmental Planning Section.

4.9 Socioeconomics

The proposed action would create an additional 135 new positions when fully implemented. The population, housing, education, public services and financial resources of Fairchild AFB, Airway Heights, Medical Lake, Spokane and surrounding communities are sufficient to absorb the influx of people and activities as a result of the proposed action. The long and short term socioeconomic impacts of the proposed action are expected to be insignificant yet beneficial.

5.0 FINDINGS

5.1 Title of Proposed Action

KC-135 Force Structure Change.

5.2 Description of Proposed Action and Alternatives

The proposed will require reengining KC-135A aircraft with new CFM-56 turbofan engines, and an additional 135 operational and maintenance personnel above the current staffing levels will be required for the conversion.

No alternatives or no action alternatives were considered as part of this proposed action in accordance with the provisions as set forth in Public Law 100-526; October 1988

5.3 Summary of Anticipated Environmental Effects and Conclusions.

A review of the findings contained within this environmental assessment document indicates that no significant impacts are expected as a result of the implementation of the proposed action. Geology, soils, and vegetation will not be impacted because no surface disturbance is planned as part of this proposed action. Wildlife and threatened & endangered species habitat will not be impacted because no surface disturbance is planned. Water quality is not expected to be impacted as a result of fuel spills and other hazardous materials migrating to the groundwater. Waste minimization efforts and fuel spill policies on the base are major reasons water quality is not thought to be impacted. Air quality and noise from the new aircraft models are expected to be static as a result of the higher efficiency of the new engines mitigating any additional noise or air pollution produced from the older engines. Socioeconomics will not be impacted, sufficient facilities are in place to accommodate the addition personnel and their dependants. Land uses in the area will not be altered. This proposed action does not have a significant effect on the human environment and thus will not be the subject of an Environmental Impact Statement.

6.0 REFERENCES

a. 40 CFR 1508.08/1508.09/1508.13/1508.22

b. Draft EIS; Peacekeeper Rail Garrison Program; 6/89

c. AFR 19-1 & 19-2

d. USAF Fact Sheet 88-17

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