

Appendix One

- Historical Register Nomination Update



STATE OF WASHINGTON

Department of Archaeology and Historic Preservation

1063 S. Capitol Way, Suite 106 • PO Box 48343 •
Olympia, Washington 98504-8343
360) 586-3065 • Fax Number (360) 586-3067

April 17, 2012

Rob Putnam
Arlington Municipal Airport
18204 59th Dr NE
Arlington, WA 98223

Dear Mr. Putnam:

It gives me great pleasure to inform you that the following property;

Naval Auxiliary Air Station
18204 59th Dr., NE in Arlington

has been re-listed in the National Register of Historic Places, where it joins other properties which contribute to the rich cultural heritage of Washington State. The Air Station was originally listed in 1995, and the new nomination serves as a wholesale replacement of the former document. Changes include slight boundary adjustments, better descriptions of individual resources, current images and a revised context statement that brings the nomination up to today's listing standards.

The National Register records the tangible reminders of the history of the United States and is the official repository for documentation of cultural resources worthy of preservation.

I am pleased to provide you with this honor, and to commend your continued support and stewardship of this significant property. Please do not hesitate to contact Michael Houser, our National Register Coordinator at (360) 586-3076 if you have any questions or comments regarding these National Register listings.

Sincerely,

Allyson Brooks, Ph.D.
State Historic Preservation Officer

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

Historic name Naval Auxiliary Air Station, Arlington

Other names/site number NAAS, Arlington; Arlington Municipal Airport

2. Location

street & number 18204 59th Dr. NE _____ not for publication

city or town Arlington _____ vicinity

State Washington code WA county Snohomish code 061 zip code 98223

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _____ meets _____ does not meet the National Register criteria. I recommend that this property be considered significant _____ nationally _____ statewide _____ locally. (_____ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

In my opinion, the property _____ meets _____ does not meet the National Register criteria. (_____ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby, certify that this property is:

_____ entered in the National Register.

_____ See continuation sheet

_____ determined eligible for the
National Register.

_____ See continuation sheet

_____ determined not eligible for the
National Register.

_____ removed from the
National Register.

_____ other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification**Ownership of Property**

(Check as many boxes as apply)

☐ private
☒ public-local
☐ public-State
☐ public-Federal

Category of Property

(Check only one box)

☐ building(s)
☒ district
☐ site
☐ structure
☐ object

Number of Resources within Property

(Do not incl. previously listed resources in the count.)

Contributing	Non-Contributing	
2		buildings
		sites
8	2	structures
		objects
10	2	Total

Name of related multiple property listing:

(Enter "N/A" if property is not part of a multiple property listing.)

Number of contributing resources previously listed in the National Register

N/A

6. Functions or Use**Historic Functions**

(Enter categories from instructions)

DEFENSE/air base
TRANSPORTATION/airport

Current Functions

(Enter categories from instructions)

TRANSPORTATION/airport

7. Description**Architectural Classification**

(Enter categories from instructions)

NO STYLE

Materials

(Enter categories from instructions)

foundation CONCRETE

walls WOOD/Weatherboard

ASBESTOS

roof ASPHALT

other CONCRETE, ASPHALT, EARTH

Narrative Description

(Describe the historic and current condition of the property.)

SEE CONTINUATION SHEET

8. Statement of Significance**Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☒ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ **B** Property is associated with the lives of persons significant in our past.
- ☒ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☐ **B** removed from its original location.
- ☐ **C** a birthplace or grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☐ **G** less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

MILITARY

ARCHITECTURE

TRANSPORTATION

POLITICS/GOVERNMENT

Period of Significance

1942-1946

Significant Dates

1942-1945

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation**Architect/Builder**

The Austin Company (Engineer, Builder)

Gaasland Construction Company (Builder)

Parker and Hill Associates (Architect)

Stoddard, George W. & Associates (Architect)

Narrative Statement of Significance

(Explain the significance of the property.)

SEE CONTINUATION SHEET

9. Major Bibliographical References**Bibliography**

(Cite the books, articles, and other sources used in preparing this form.)

SEE CONTINUATION SHEET

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☒ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- # _____
- ☐ recorded by Historic American Engineering
- Record# _____

Primary location of additional data:

- ☐ State Historic Preservation Office
- ☐ Other State agency
- ☒ Federal agency
- ☒ Local government
- ☐ University
- ☐ Other

Name of repository:

National Archives and Records

Administration, Pacific Alaska Region

Arlington Municipal Airport

10. Geographical Data

Acreage of Property 405**UTM References (NAD 27)**

(Place additional UTM References on a continuation sheet.)

1	<u>10</u> Zone	<u>562215</u> Easting	<u>5335444</u> Northing	3	<u>10</u> Zone	<u>563014</u> Easting	<u>5333683</u> Northing
2	<u>10</u> Zone	<u>563079</u> Easting	<u>5335363</u> Northing	4	<u>10</u> Zone	<u>561656</u> Easting	<u>5334551</u> Northing

Verbal Boundary Description

(Describe the boundaries of the property.)

See continuation sheet.

Boundary Justification

(Explain why the boundaries were selected.)

See continuation sheet.

11. Form Prepared By

name/title Sharon Boswell, Historian; Eileen Heideman, Architectural Historian
organization Northwest Archaeological Associates / SWCA date November 16, 2011
street & number 5418 20th Avenue NW, Suite 200 telephone 206-781-1909
city or town Seattle state WA zip code 98107

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets**Maps**A **USGS map** (7.5 or 15 minute series) indicating the property's location.A **Sketch map** for historic districts and properties having large acreage or numerous resources.**Photographs**Representative **black and white photographs** of the property.**Additional items**

(Check with the SHPO or FPO for any additional items.)

Property Owner (Complete this item at the request of the SHPO or FPO.)

name Arlington Municipal Airport, City of Arlington, Washington
street & number 18204 59th Dr NE telephone (360) 403-3470
city or town Arlington state WA zip code 98223

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 7 Page 1 of 5

Narrative Description

Naval Auxiliary Air Station (NAAS), Arlington, is located in Arlington, Snohomish County, Washington. The airport is owned and administered by the City of Arlington as the municipal airport and is located in the Stillaguamish River valley, approximately two miles southwest of Arlington's downtown business district in Sections 15, 16, 21 and 22, Township 31 North, Range 5 East, Willamette Meridian. The official airport entrance is accessed from 59th Avenue NE, on the east side of the main airport grounds. The airport has two active runways with north-south (16/34) and northwest-southeast (11/29) alignments. A third runway, which connects 16/34 and 11/29 on a northeast-southwest alignment, is no longer in use, but was the original runway constructed at the site. Several taxiways connect the runways, the warm-up apron, and various hardstands and service areas throughout the airport. A boresighting range, unused since the end of World War II, is located on the northwest edge of the airport grounds. Six hardstands, some of which are currently used for materials storage, are located northwest of the abandoned runway. Two historic buildings stand within the district: an airplane hangar and an overhaul building. Both of these buildings are located near the airport entrance and stand adjacent to the warm-up apron on the east side of the airport.

Resource Table

The following table lists contributing and non-contributing resources within district boundaries. Similar resources such as the hardstands are grouped and described as a single resource but are individually numbered and labeled on the accompanying district map.

IDENTIFICATION NUMBER	RESOURCE NAME	ALTERNATIVE NAME	DATE OF CONSTRUCTION	STATUS
1	Hangar		1943	Historic Contributing
2	Overhaul Building	Class C Overhaul Building #1, Engine Repair Building	1944-1945	Historic Contributing
3	Boresighting Range and Bullet Stop		1944-1945	Historic Contributing
4	NE-SW Runway	Runway No. 1, NW-SW Runway 1, Runway 2, Runway 3/21	1942	Historic Contributing
5	N-S Runway	N-S Runway 2, Runway No. 2, Runway 1, Runway 15/33, Runway 16/34	1942	Historic Contributing
6	NW-SE Runway	Runway 3	1945	Historic Contributing
7	Warm-Up Apron	Warming Apron, Parking Apron	1943	Historic Contributing
8	Fueling area		1942	Historic Contributing
9.1	Hardstand 10		1942	Historic Contributing
9.2	Hardstand 11		1942	Historic Contributing
9.3	Hardstand 12		1942	Historic Contributing
9.4	Hardstand 14		1942	Historic Contributing
9.5	Hardstand 15		1942	Historic Contributing
9.6	Hardstand 16		1942	Historic Contributing
10.1	Taxiway A	Taxiway No. 3, Taxiway No. 1	1942	Historic Contributing

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation Sheet -NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTONSection number 7

Page 2 of 5

IDENTIFICATION NUMBER	RESOURCE NAME	ALTERNATIVE NAME	DATE OF CONSTRUCTION	STATUS
10.2	Taxiway No. 2		1942	Historic Contributing
10.3	Taxiways D & B2		1945	Historic Contributing
10.4	Taxiway A1		1942	Historic Contributing
10.5	Taxiway A2		1945	Historic Contributing
10.6	Taxiway A3		1945	Historic Contributing
10.7	Taxiway D3		1945	Historic Contributing
10.8	Taxiway No. 4		1942	Historic Contributing
10.9	Taxiways surrounding fueling area		1942	Historic Contributing
10.11	Taxiway (E-W) connecting Hardstands 10-12		1942	Historic Contributing
10.12	Taxiway (N-S) connecting Hardstands 10-12 to Taxiway No. 2		1942	Historic Contributing
10.13	Taxiway at northwest end of NW-SE Runway		1945	Historic Contributing
10.14	Taxiway connecting NE-SW Runway and Taxiway D to Hardstands 14-16		1945	Historic Contributing
10.15	Taxiway (NW-SE) connecting N-S Runway to NE-SW Runway (truncated at Taxiway B)		1945	Historic Contributing
11.1	Taxiway B		post-1946	Non-Contributing
11.2	Taxiway D2		post-1946	Non-Contributing
11.3	Taxiway E		post-1946	Non-Contributing
11.4	Taxiway B3		post-1946	Non-Contributing
11.5	Taxiway B4		post-1946	Non-Contributing
12	Communications and Lighting Systems		Post-1946	Non-Contributing

Resource Descriptions**1. Hangar, 1943, Contributing**

The hangar constructed at NAAS Arlington follows a standard design drawn by the Austin Company for all auxiliary air stations affiliated with Naval Air Station (NAS), Seattle. The Arlington hangar follows these plans closely, with the exception of a control tower that was not constructed. A tower built by the Army already existed at the base. The wood-frame hangar stands on a poured concrete foundation and has a rectangular footprint measuring 164 feet by 124 feet. The hangar stands approximately 33 feet high at the center of the bowstring truss roof. The main body of the hangar is flanked by narrow, two-story wings that extend the length of the building on the east and west sides. The east wing is one bay in width and the first story of the west wing is two bays wide with a single-bay-wide second story. A single-room, second-story addition was constructed prior to the end of the war on the northwest corner of the west wing, where the control tower was located on standard plans. The main hangar bay is accessed on the north and south ends by paired, four-part sliding doors that roll open on exterior tracks. Two smaller, hinged doors are set within the hangar doors on the north and south sides to provide pedestrian access to the interior when the hangar doors are shut. Six additional pedestrian doors provide access to the east and west wings on all four sides of the building. These wings are lit with horizontal pane, two-over-two, double-hung sash windows. The hangar is clad in wooden

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 7 Page 3 of 5

drop siding, and the hangar doors are clad in tongue-and-groove siding set at a 45 degree angle. The obstruction light masts that originally stood near each corner of the roof have been removed, but the wind sock hoop at the south end of the roof is extant. Three of the original floodlights specified in building plans still hang over the hangar doors on the south side, but the floodlights on the north side have been removed.

The main hangar floor consists of large, poured concrete panels with expansion joints at the hangar doors. The hangar bay contains no windows; instead, the open hangar doors on the north and south sides provide natural light, and electrical lights are strung from the exposed trusses to provide illumination at night or when the doors are closed. The hangar bay is constructed with a series of seven bents. The north and south end trusses are reinforced with tie rods for additional stability. The second floors of the east and west wings are accessed by stairs located on the north and south ends of the building. These stairwells are constructed with laminated stud walls, an unusual form of firewall construction that consists of wooden studs placed adjacent to one another, forming a solid wall. Building plans indicate that the wings were designed to contain offices, storage space, conference rooms, lockers, and other specialty use spaces. These rooms were accessed via corridors running the length of the wings (The Austin Company 1943 [b]). Some of the interior partitions in these wings have since been removed or otherwise altered.

2. Overhaul Building, 1944-1945, Contributing

The "Class C" overhaul building (also referred to as the engine repair building) is located directly south of the hangar on the east side of the warm-up apron. This rectangular, 80 foot by 88 foot building was designed by Parker and Hill Associates of Seattle, Washington, in 1944 as a standard design for auxiliary air stations affiliated with NAS Seattle. This building was designed as part of a group of "Class C" overhaul buildings that included an overhaul or engine repair building, an armory and instrument building, a radio and radar building, and two paint shops. The overhaul buildings at NAAS Arlington were built by the Gaasland Construction Company of Bellingham, Washington. All but the main overhaul building have been demolished. This building has a low-pitched monitor roof with a north-south ridge and a tall, narrow parachute tower at the south end of the building. The building is constructed on a slightly raised poured-concrete foundation and poured-concrete footings on which the interior posts stand. The building was designed for airplane parts and engine repair, and has a single rail track with a hoist directly under the ridge for moving engines and other heavy airplane parts. Two large sliding doors centered on the north side of the building provide access to the main repair bay. This opening is just large enough to provide access for one folding wing airplane. A small, single-room shed addition with an exterior entrance was added to the south side of the parachute loft. The entire building, including the addition, is clad in large, eight-foot-wide asbestos cement shingles with a 22-inch reveal. The roofing material is not visible from the ground, but building plans indicate that the roof, which has a very slight pitch of one-quarter inch every twelve inches, was originally covered with built-up composition roofing. The building was designed to take full advantage of natural lighting and has large banks of windows on all four sides of the building, the only exception being the parachute loft, which has no windows. The majority of the panes are translucent figured glass to diffuse the light and reduce sharp shadows and contrasts in the interior lighting, a potential hazard in an area where heavy machinery was frequently used. The bottom rows of panes on all sides of the building are clear glass to provide exterior views at eye level. The windows are arranged in large blocks comprised of four rows with two or three panes per row. The upper and lower rows open inward as hopper windows, and the remaining panes are fixed. The clerestory windows, also translucent figured glass, extend the length of the monitor, and three of the five sections of lower panes open as hopper windows. The main repair bay doors, which run on exterior tracks, are vertically arranged, narrow tongue-and-groove boards set in a welded steel frame with large, fixed-pane steel sash (*Arlington Times*, September 28, 1944).

The interior of the overhaul building is mostly open workspace with a poured concrete floor. The primary space is an open center bay directly under the monitor. The east bay is an extension of this workspace: no division other than vertical posts exists between the bays. The northern two-thirds of the west side contain a mezzanine level with rooms designated on plans as an office, a tool room, and a restroom. Building plans also indicate that the mezzanine level was designed as an open space, but this area was partially enclosed with an exterior, railed walkway at an early date. Behind these walled interior spaces and along

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 7 Page 4 of 5

two-thirds of the back (south) wall is an L-shaped sewing alcove and parachute shop, which originally contained a long table for parachute inspection. Behind this room, located slightly west of center bay, is the parachute loft, which is entirely enclosed and accessible by a single door from the parachute shop. The tall, narrow loft rises approximately ten feet above the monitor and originally contained several pulleys suspended from the roof to hold parachute ropes (Parker and Hill Associates 1944).

3. Boresighting Range and Bullet Stop, 1944-1945, Contributing

The boresighting range is located at the northern edge of the airport and consists of a 1000-foot-long corridor with a concrete boresighting platform at the south end, and a large earthen bullet stop at the north end of the range. Plans called for the boresighting range corridor to be fifty feet wide with a slight downhill grade (five feet over the full length of the corridor) to help prevent bullets from ricocheting off the ground. The boresight platform is a fifty foot by fifty foot square concrete pad with tie downs for planes. The bullet stop is a large, earth mound that was designed to stand approximately 83 feet wide, 75 feet long, and 24 feet in height with a 35-foot-wide peak. This structure consists primarily of compacted earth fill. Plans from 1944 call for the front (south) side of the bullet stop to be covered with sand to help prevent ricochet, and the back (north) side of the structure to be either seeded or covered with riprap to prevent erosion. Guns were fired from the planes at a target that stood approximately ten feet from the base of the bullet stop and centered in front of the midpoint of the slope. This target has since been removed. A concrete pad topped with a wooden ricochet box filled with sand was constructed on top of the mound. The ricochet box has been removed, but several threaded bolts extend from the top of the mound, marking its location. Some of the original form of the bullet stop is obscured due to settling, erosion, and vegetation overgrowth. In addition to these alterations, a large mound of soil has been placed on the boresighting corridor in front of the bullet stop (George W. Stoddard and Associates 1944[b]).

4. NE-SW Runway, 1942, Contributing

Three runways were constructed during the period of significance. The first runway was built in 1942 to replace a 1934 landing strip constructed with funding from the Civil Works Administration and the Washington Emergency Relief Agency. This runway measured 5100 feet long and 150 feet wide and followed a northeast-southwest alignment. By the end of the war, the northeast-southwest runway was rarely used, and by the early 1960s it was abandoned in favor of the other two runways. The northeast-southwest runway retains its original surface, although a portion of the northeast end has been removed. (*Arlington Times*, March 1, 1934; March 8, 1934; May 17, 1934; August 13, 1942; October 1, 1942; Thirteenth Naval District n.d.[a]: 3).

5. N-S Runway, 1942, Contributing

Pilots soon realized that the orientation of the first runway was problematic due to frequent crosswinds. After the Army took over management of the airfield, they designed a second, north-south runway (now identified as Runway 16/34), contracting with Axel Osberg of Snohomish County for construction of a 5200-foot-long runway as well as improvements to the original runway. This runway has been repaved and slightly lengthened (*Arlington Times*, August 13, 1942; October 1, 1942; Thirteenth Naval District n.d.[a]).

6. NW-SE Runway, 1945, Contributing

Crosswinds continued to be a problem, so following the airfield's transfer to the Navy, the Northwest Construction Company built a third runway over an existing northwest-southeast taxiway. This runway was also 150 feet wide and approximately 5000 feet long, and is currently identified as 11/29. The other two runways have also been slightly altered. The northeast side of this runway has been repaved for use as a narrower, shorter runway (Thirteenth Naval District n.d.[a]: 6-7; n.d.[b]: 2; n.d.[c]: 1; Thirteenth Naval District 1945).

7. Warm-Up Apron, 1943, Contributing

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 7 Page 5 of 5

The warm-up apron, located directly west of the hangar, is a large, concrete-paved area constructed as an easily accessible parking area for a large number of planes. The main apron measures 1200 feet by 400 feet and consists of more than 2400 concrete panels. Most of these panels measure 15 feet by 12 feet, six inches, and are connected with a carefully planned pattern of different types of joints. These include weakened plane joints, tongue-and-groove construction joints, and transverse and longitudinal expansion joints arranged 125 and 150 feet apart. A smaller number of these panels surround the hangar (72 on either side). The apron was constructed with a very slight grade (0.5 percent) from the hangar down to a drainage trench covered with concrete grating that runs between the edge of the apron and a taxiway that runs parallel to the primary north-south runway. Six inch tie-downs (mooring eyes) are regularly spaced across the apron (The Austin Company 1943[a]).

8. Fueling Area, 1942, Contributing

The main fueling area was located immediately north of the warm-up apron and east of Runway 16/34 and consisted of a large underground tank and a network of taxiways with rectangular grassy mounds between. Smaller tanks were located near groups of hardstands. The design of the fueling area is intact, but all fuel tanks have been removed. However, several of the valve pits and steel pit covers still exist (Alexander 2008; Putnam 2008; Stoddard, George W., Griffin and Lowe and Associates 1943).

9. Hardstands, 1942, Contributing

Thirteen hardstands are noted on maps created at the end of the war (hardstand numbers 1, 2, 5 through 12, and 14 through 16 on plans). Several others were constructed earlier in the war and removed as improvements were made to the air station throughout the war. Six of these hardstands exist in recognizable form today, but have not been used for their intended purpose since the close of the war. These are Hardstands 10 (9.1), 11 (9.2), 12 (9.3), 14 (9.4), 15 (9.5), and 16 (9.6). These hardstands are circular, paved areas with tie-downs for airplanes and short taxiways that connect to peripheral taxiways. The hardstands were located in forested areas around the edges of the air station to spread out the airplanes and provide camouflage. Most of the hardstands were also used as fueling areas with underground gasoline tanks and fuel lines, which have since been removed. Some of the steel valve pit covers from the fueling system are extant (U.S. Army Corps of Engineers 1942; U.S. Navy District Public Works 1943).

10. Taxiways and Taxiway Connectors, 1942, 1945, Contributing

Several taxiways are located throughout the field. Two main taxiways and several shorter taxiways and connectors date to the period of significance. The main taxiways are labeled No. 1 and No. 2 on maps created at the end of the war. Taxiway No. 1 is now known as Taxiway A (10.1), and Taxiway No. 2 (10.2) has been abandoned. One of the shorter taxiways is also unused and has been partially removed, and the others are currently or formerly known as Taxiways A1 (10.4) A2 (10.5), A3 (10.6), D and B2 (10.3), D3 (10.7), and Taxiway No. 4 (10.8). Other unnamed connecting taxiways are located throughout the airport (10.9 through 10.15) (Thirteenth Naval District 1945; U.S. Army Corps of Engineers 1942; U.S. Navy District Public Works 1943; 1946).

11. Modern Taxiways and Taxiway Connectors, post-1946, Non-Contributing

Several additional taxiways and connectors have been constructed since the end of the war. The non-contributing taxiways are B (11.1), B3 (11.4), B4 (11.5) D2 (11.2), and E (11.3) (Anderson, Bjornstad, Kane, Consulting Engineers 1961; Thirteenth Naval District 1945; U.S. Army Corps of Engineers 1942; U.S. Navy District Public Works 1943; 1946).

12. Communications and Lighting Systems, Post-1946, Non-Contributing

Modern airport communications and lighting systems are scattered throughout the district. These were constructed after the period of significance and do not contribute to the district.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8 Page 1 of 9

Statement of Significance

Naval Auxiliary Air Station, Arlington, is an example of the small air stations developed during World War II to provide flight training for naval aviators. The first landing strip at the site was built in 1934 as a federal public works project to employ local workers during the New Deal era and was primarily used for commercial aviation and pilot training in these early years. As World War II approached, a New Deal-era airport at Arlington was taken over by the Navy and the Army and was rebuilt as a military air field to become one of 48 auxiliary air stations developed around the country. The Arlington air base represents the evolution of air power for military purposes and the impact of wartime needs on the economy and growth patterns of smaller, rural communities in the region. Some of the first World War II additions to the base were engineered and built by the Austin Company, one of the premier military design and construction firms during the era, and despite changes in the surrounding area and removal of many of the wartime buildings and structures, enough remain for the complex to retain its setting, feeling and association with World War II air-base design between 1942 and 1946.

Historical Background:

The area's rich timber resources originally drew settlers to the shores of northern Puget Sound, and lumber and shingle mills dominated the early economy. The heavily forested lands along the Snohomish and Stillaguamish rivers were among the first to be logged in Snohomish County. Some were cut by property owners or small, independent logging companies, while many tracts were resold to large sawmills operating around the Sound. Among the most dominant in the early years were companies in Seattle, Tacoma and Bellingham, as well as the Port Blakely Mill, built by Canadian William Renton on Bainbridge Island, and the Puget Mill Company at Port Gamble, launched by former Maine lumbermen Andrew Pope and William Talbot. Many of these companies purchased land and logs in Snohomish County, and for a short time in the 1880s, Port Blakely claimed to be the largest sawmill in the world (Price 1989:116, 118; Whitfield 1926:I-678; Interstate Publishing 1906: 256, 258, 259).

Matthew Birckenmeier, a Chicago native who had come west to Washington in 1883, filed for a homestead on 160 acres of heavily forested land in Section 14, Township 30 North, Range 5 East of Snohomish County in 1885. Birckenmeier did some of the cutting and clearing on his own land and sold the rest of the timber on this parcel to a local logging outfit owned by O.P. Cummings. In subsequent years Birckenmeier bought additional tracts adjoining his original property, including logged-off lands owned by the Port Blakely Mill Company, until his holdings totalled over 1200 acres (Bureau of Land Management, General Land Office n.d.).

Both logging and processing had first begun along waterways, which provided easiest access, but then moved inland as new roads and ultimately rail lines provided a means to transport logs as well as finished products. The growth of towns was also linked primarily to railroad construction and brought competition from communities hoping to benefit from the access to markets that the new transportation systems provided. When the Seattle, Lakeshore and Eastern Railroad chose Arlington as the site of its depot, residents believed that the town's future was secured. Arlington was platted in 1890, and the rail line reached the community later in that same year (Cameron et al. 2005:106).

In addition to the main rail lines, smaller logging railroads were also built, providing access to more distant inland forests. Among the companies that developed their own rail facilities in Snohomish County was the Stimson Mill Company of Seattle. Members of the Stimson family came from Michigan to the Northwest in the late 1880s and soon thereafter built their mill, supplying it with logs from around the region. Their innovative steam-powered logging facilities in Marysville, begun in 1894, were the first in both Oregon and Washington. To push their operations further into the forests of Snohomish County, the company in 1905 also established the Marysville and Northern Railway Company, which built a 26-mile logging line. This railroad ran from Marysville northward through Bryant into unexploited timber lands, crossing the portion of the Birckenmeier property that later became part of the Arlington air station (Bagley 1929: III-309, 311; Robertson 1995: III-286, 287; Cameron et al. 2005:143).

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8 Page 2 of 9

Much of the forested land in western Snohomish County that was cut by the early 20th century was taken over by small farmers, who planted a few crops but primarily raised livestock and poultry. Logging began to decline, but shingle making was still important in the area, although between 1900 and the 1930s, dairying became the leading industry around Arlington. Access to rail lines continued to encourage the growth of towns in the early part of the century, but after World War I, population leveled off or declined. The new focus of transportation became gasoline-powered vehicles and throughout Snohomish County new businesses developed around automobiles, and local governments worked to build and pave roads and open new stretches of highway (Cameron et al. 2005: 130, 161, 184, 206).

Early Development of Aviation

The post-World War I era also saw the development of the aviation industry, both nationally and in the Pacific Northwest. World War I had proved the importance of air power in military operations, and after the war, various branches of the armed services continued to enhance their flight capabilities. The state of Washington included an aeronautical section when it developed its Naval Militia in 1915, and Army, Navy and Marine fliers as well as members of the public petitioned King County, which included the city of Seattle, to develop its own airfield. Beginning in June 1920, the county purchased acreage on a peninsula extending into Lake Washington that was known locally as Sand Point. The site was offered to both the Army and the Navy as an airfield, but it was not until July 1922 that the Navy agreed to lease the property and build a naval air station. The air field, which was later deeded to the Navy, first housed a Naval Reserve aviation unit, but as its functions expanded, became known as Naval Air Station, Seattle (Stuhaug 1992: 3-13, 18).

Seattle's Boeing Company had established itself making training planes for the Navy during World War I, and had survived after the war by building bombers and other military aircraft for the Army Air Service. The development of a sturdy plane for postal delivery launched Boeing into a whole new arena—commercial aviation. Boeing used Naval Air Station, Seattle, for assembly of some of its planes in the mid-1920s and helped to establish the Puget Sound region as an important aviation center (Serling 1992: 3, 5-9; Stuhaug 1992: 23-23).

Charles Lindbergh's solo trans-Atlantic flight in 1927 popularized flight among the public, and this enthusiasm quickly translated into a movement to construct new airfields in small communities throughout the country. Commercial air transport grew considerably during the Depression era, and passenger traffic also expanded six-fold in the decade after 1926. An important factor in the development of aviation during these years of financial downturn was the availability of federal funds to help with the construction of airports. Under Franklin Roosevelt's New Deal, the government appropriated \$1.5 million to encourage communities to build landing strips or improve facilities (Cameron et al. 2005: 211, 253; *Arlington Times*, October 1, 1936).

New Deal Era Airfield Construction at Arlington

The mayor of Arlington, Washington, and a number of businessmen, primarily members of the Commercial Club, took an interest in promoting their town as the potential location of an air field. The current site of the airport was first used as a landing strip as early as 1934, when the Arlington City Council authorized the lease of the land for the construction of a runway of 4000 feet in length and 400 feet in width. The council hoped to take advantage of the availability of federal public works funds allotted for the construction of airports nationwide. Local newspaper articles suggest that several Arlington community groups, including the Lions Club and the Commercial Club helped to secure the site, which was approved by the state airport supervisor and submitted for funding in February 1934 (*Arlington Times*, February 15, 1934[a]; February 15, 1934[b]; February 22, 1934[a]; February 22, 1934[b]).

The city took a five-year lease on approximately 200 acres owned by Mathew Birckenmeier to be used for the air strip, and the first year's rent was guaranteed by the Commercial Club to ensure that the project could go forward. Birckenmeier had homesteaded in the Arlington area, and the original land for the air strip was in sections 15 and 16 of Township 31 N, Range 5 E., adjacent to Birckenmeier's homestead property. The site had been logged and a portion of the Marysville and Northern

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8 Page 3 of 9

logging railroad, built by the Stimson Timber Company, crossed through the tract, although the line had ceased operation in approximately 1926 (*Arlington Times*, February 15, 1934; Whitfield 1926:720-721; Robertson 1995:III-286, 287).

The majority of the construction was originally funded under the Civil Works Administration, a New Deal agency, but when that program ended, additional money came from a state-run relief program, the Washington Emergency Relief Agency (WERA). Approximately 80 percent of the funds appropriated were allotted to labor costs, and at its peak, more than 80 men were employed in two shifts to build the air field, which was completed by June of 1934. Much of the early work on the site involved pulling and blasting out stumps and filling the area where the old Stimson logging railroad grade crossed the runway. Once these tasks were completed the area was leveled and the strip was oiled and prepared. A proposed second phase of the project included the construction of a 2000-foot cross-runway. Local newspapers initially reported that the Works Progress Administration had approved funding for this addition in December 1935, but evidently the application was later denied (*Arlington Times*, March 1, 1934; March 8, 1934, March 29, 1934; May 17, 1934; December 26, 1935; March 28, 1979).

As soon as the strip had opened, the city began to debate its future use. Conversion to a military field was among the first suggestions, but discussion also focused on its potential for commercial traffic and pilot training and as an emergency landing field for the Department of Commerce. During its first years of operation, the field was primarily used for flight lessons and public events like parachute jumping and a visiting "Flying Circus" with exhibits and stunt planes (*Arlington Times*, April 15, 1937; July 15, 1937). The field was also considered as a supplemental postal service landing strip, but perhaps its most important use was by the U.S. Forest Service as a supply point for firefighters who were battling blazes in the Mount Baker and Snoqualmie Forests (*Arlington Times*, October 6, 1938; July 20[a], 1939; July 20[b], 1939).

Despite all these activities, the city never seemed to have sufficient funds for upkeep, and a 1939 newspaper editorial described Arlington air field's "orphan status" (*Arlington Times*, August 17, 1939). Continuing maintenance of the strip primarily included the removal of brush as well as snags and bushes that could impede visibility. At least one small building with a paper roof was built on the property by the WPA for use as a tool shed, likely well before 1938, but the structure had lost its roof by 1939 and little other development occurred at the site (*Arlington Times*, August 17, 1939; May 8, 1941).

The city's five-year lease of the property was due to expire in 1939, and the Commercial Club spearheaded efforts to secure title before expiration. The property owner refused to negotiate before the deadline, but eventually gave the city a lease of an additional two years (*Arlington Times*, October 13, 1938; October 27, 1938; April 13, 1939). The amount of land included in the airport grounds was reduced during this period to less than 100 acres from the original 200-acre parcel (*Arlington Times*, February 16, 1940).

World War II Military Development

As the world moved toward war, the potential military uses of the landing strip became paramount. The suggestion that the field could become a military base was made as early as June 1934 by the Arlington City Council, but the first such use was in 1938 when naval training squadrons were at the airfield for six weeks while runways at Naval Air Station, Seattle, were being regraded (*Arlington Times*, July 28, 1938). Washington Congressman Mon Wallgren evidently continued to push the military use of the Arlington airfield in connection with the nation's rearmament program by 1940. Both the Army and Navy were apprised of the availability of the landing strip for expansion of their regional facilities, but it was the initially the Navy that decided to incorporate the field in September 1940 as an auxiliary base for the Thirteenth Naval District, based at Naval Air Station, Seattle. The city assigned its lease to the Navy and an additional 100 acres from the property owner was added back into the airport land. Eventually the Navy also condemned land to the south of the field, adding an additional 78 acres to the facility (*Arlington Times*, June 6, 1940; September 5, 1940; April 10, 1941). As an editorial in the *Arlington Times* suggested:

After seven years of ups and downs, doubts and discouragements, the once shady, stump-infested flat out south of town, known as the Arlington Airport, is at last being fitted onto the program of national defense. This fine and partly improved site, on which the city had paid rent for seven years in the hope that it ultimately would be utilized as a military unit, is now in course of actual development by our

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8

Page 4 of 9

energetic and progressive Navy establishment as a factor in the bulwark of defense being provided for the Puget Sound region—all of which is very pleasing to those who originated and have preserved this field on sheer faith and a little prophetic peep into the future (*Arlington Times*, May 8, 1941).

The Navy immediately developed plans to expand the Arlington field for student training activities, and the Austin Construction Company, which was under contract to provide much of the airport development at Naval Air Station, Seattle, carried out the new construction at Arlington (*Arlington Times*, May 8, 1941). The original work included extensive clearing and the construction of a new surfaced cross-runway of approximately 4000 feet by 400 feet as well as a 1200-foot landing area and a small building with an office and adjacent hangar for emergency plane repair on the south end of the field. The whole tract was also fenced and guarded at this time by two reservists (*Arlington Times*, June 26, 1941; July 24, 1941; November 27, 1941).

Some landing training was conducted at the field, but by the spring of 1942, soon after the Japanese had invaded the Aleutians, the Army also had need of airfields in the region. Evidently obtaining Navy assent to develop the field for a potential bomber base, the Army began surveying for their own flight operations at the site and purchased additional acreage (History of the Station, Period to 31 December, 1944, in NARA, Seattle WA, RG 181, 13th Naval District, Wartime Histories of Units, Box 3, Folder Naval Auxiliary Air Station, Arlington, WA: 3; *Arlington Times*, April 30, 1942). Arlington was to become a satellite of Paine Field, operated by the Interceptor command, and the Army let the contract to the construction firm of Allen and Rudd for graveling at the site and then to Axel Osberg of Snohomish County for building truck roads as well as runways and taxiways beginning in late September 1942 (*Arlington Times*, August 13, 1942; October 1, 1942). Local men were hired to help with the installation of a sewer system at the facility (*Arlington Times*, September 17, 1942). According to later Navy accounts, the Army built two 5000-feet by 150-feet runways and adjacent taxiways as well as a “a small shop and operations buildings, a 50-foot control tower, a well and water storage tank, and living and messing facilities for 450 officers and men. All were Theater-of-Operations buildings” (Thirteenth Naval District n.d.[a]:3).

Changes in strategy on the Pacific front, including the expansion of the Navy’s carrier system in that arena, led to a renewed need for naval training fields just as construction of the Army facilities at Arlington was nearing completion. The Navy negotiated to purchase all of the buildings constructed for the Army as well as new parcels of land, auxiliary structures and runways. The Army retained rights only to joint use in case of the future need for a strategic base. Personnel at Naval Air Station, Seattle, oversaw planning for more facilities at Arlington, including “eight enlisted barracks, two BOQ’s, a dispensary, theater-recreation building, ship’s service, mess hall, central heating plant, supply warehouse and hangar. A transmitter building and magazines were later included” (Thirteenth Naval District n.d.[a]:4).

Two major contractors were used for airport development during 1943. The Washington Asphalt Company handled much of the paving at the field, including sealing the runways and taxiways with an oil coating. A plant for mixing and heating asphalt was added to the site and paving began in January 1943. Gravel for the base was initially taken from the old Ebey pit, but later a new four-acre source was opened along the Cemetery Road, with water for washing the material pumped from Portage (also known as Kroger) Creek and flumes used to move the gravel into bunkers for storage (*Arlington Times*, January 7, 1943; March 25, 1943).

The Austin Company, which had been involved in very early construction work for the Navy at the site, was in charge of the new naval aviation expansion beginning at Arlington in March of 1943. From the Northern Pacific’s main line, a 1000-foot railroad siding was built, allowing the company to transport lumber and other materials for the airport projects (*Arlington Times*, April 1, 1943). Much of the construction in this phase was on the east side of the field north of McCleary Road and consisted of new barracks and additions to the infrastructure, including both water and sewer lines (*Arlington Times*, May 6, 1943). The work progressed quickly, with 50 percent of the construction accomplished by the end of June and final completion by mid-September of 1943. Even before work was finished, the formal ceremony to establish the field as Naval Auxiliary Air Station, Arlington, took place on June 26, 1943, with Lieutenant Leland Wilder installed as the new station commander (Thirteenth Naval District n.d.[d]:2).

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8

Page 5 of 9

The Navy established the station's headquarters in the first facility it had constructed when the original airstrip was built, although the building had been moved and renovated for base telephone, post office and administrative functions. Housing for several hundred naval personnel was built as well as a mess, hospital and recreational facilities and a number of other amenities for soldiers stationed there, including a lunch counter, tailor and barber shops and a ship's service store (*Arlington Times*, June 24, 1943; Thirteenth Naval District n.d.[d]: 4-6).

Construction of the large concrete warm-up apron for planes was completed by mid-July 1943, and macadam roads of rolled crushed rock were built throughout the air base. Newspapers indicated that the Austin Company, in addition to barracks, constructed a mess hall, ship service building, heating plant, hangar and other administrative and service facilities during this period (*Arlington Times*, July 22, 1943; July 29, 1943).

Within a few weeks of completion, the first naval bombing squadron, VB 139, began use of the station with 75 men as well as officers. After their departure the Navy assigned primarily small-carrier squadrons to Arlington, and intensive operations were conducted day and night (Thirteenth Naval District n.d.[a]: 5-6).

Air Station Expansion in 1944

During the fall and winter of 1943-1944, the Arlington station was an operational base with an average of two VC squadrons on site at any time. Additional construction conducted by the Atherton Construction Company during this period included the completion of "fuse locker, two high-explosive magazines, an inert storehouse, a small arms magazine, and a pyrotechnic locker" on the southwest portion of the field as well as a ready ammunition locker at the main hangar (Thirteenth Naval District n.d.[a]:7).

Funding for the improvement of the gatehouse, the transportation building and the public works shop was announced in late May 1944. New construction at that time included a paint shop and lumber storage shed as well as a firehouse for storage and maintenance of firefighting equipment. The firehouse was constructed by the Vickers Construction Company of Seattle, whose owner had previously managed Austin Company construction at the station. Work on the firehouse was completed in November of 1944 (*Arlington Times*, May 25, 1944; February 28, 2007). Additional funds were allotted in June for a "synthetic" Gunnery Training building, an aviation utility shop, access roads and parking mats (*Arlington Times*, June 1, 1944).

During this period the Navy also sold many of the original structures that remained on portions of the air station that had been purchased by the military. Offered in the sale were 31 frame structures and buildings including a number of barns, chicken houses, garages, sheds, a former grocery store and a number of homes. Those that were purchased were moved from the site (*Arlington Times*, June 8, 1944).

A restricted directory of naval functions in the Thirteenth Naval District, issued on September 18, 1944, provides an overview of facilities and improvements at the Arlington base in place by the fall of that year:

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8

Page 6 of 9

“Area: 1,162 acres with 33 buildings having a total floor area of 130, 680 square feet
Improvements and Facilities:

Barracks:	850 enlisted men (mess facilities for 800)
BOQ:	116 officers (mess facilities for 110)
Shops:	proposed Assembly and Repair facilities: Class “C”
Hangar:	12,100 square feet
Runways:	2 – 150 feet by 5000 feet; under construction – to be completed in 1944: 1 – 200 feet by 5000 feet
Parking:	666,000 square feet
Storehouse:	8,470 square feet
Crash rescue/salvage equipment:	2 crash cranes; 5 motor vehicles
Dispensary:	10 beds
Recreational:	auditorium, theater, athletic field.”

(Mullen1997:149)

Gaasland Construction of Bellingham received a \$200,000 contract and began work by October 1, 1944, on more improvements at the air station. These additions included enlarged aircraft repair facilities and new buildings for ground training of air combat crews. The public works and transportation shops were rebuilt and enlarged. The gatehouse, which was originally constructed as an office for contractors, was remodeled as was a portion of the administration building (*Arlington Times*, September 28, 1944). More funds were appropriated the following month for a new runway as well as taxiways, grading and paving (*Arlington Times*, October 12, 1944).

Air Station Expansion in 1945

Several more construction projects begun in 1944 were completed in 1945. Among the major upgrades to the airfield was the addition of five buildings to support Class “C” repair facility status. According to the Navy, these buildings were “designed to take care of all but major overhaul” and were “equipped to service engines, airframes, propellers, instruments and electronic equipment, and parachutes.” The five buildings included “the Overhaul Building, an Armory, a Radio and Radar Building, and two portable paint shops” and were designed by Parker and Hill of Seattle (History of the Station, Period 1 January through 28 February, 1945, NARA, RG 181, Box 3, Folder Naval Auxiliary Station, Arlington: 1). The new installations required “a considerable increase in personnel to be further augmented by the addition of another squadron of planes.” Most of the maintenance work at the facilities was handled by the Navy’s Carrier Aircraft Service Unit 7 (known as CASU-7), which at its peak brought 500 enlisted men and 12 officers to the Arlington facility. According to the local newspaper, this expansion raised the number stationed at the base to nearly 1000, including 250 officers, and also led to the need for additional housing on the base and in the community (*Arlington Times*, February 15, 1945; Thirteenth Naval District n.d.[d]:4).

Another project completed in 1945 included facilities to improve gunnery training. A 50-man gunnery training building was erected that provided space for free- and fixed-gunnery practice as well as communications, recognition and navigation instruction for pilots and air crew. A 1000-foot standard boresight and malfunction range was completed in April 1945 on the northwest side of the station, while skeet and trap-shooting ranges were also added on its southwest corner. George Stoddard and Company, a full-service design and engineering firm, was in charge of design, but construction was under the supervision of Gaasland Construction Company (*Arlington Times*, September 28, 1944; George W. Stoddard and Assoc 1944[a]:2; Thirteenth Naval District n.d.[a]:7-8; *Welfare and Recreation Bulletin* 1944). The boresighting range was used “primarily for test firing of

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8 Page 7 of 9

fixed guns in planes, but used also as a rifle, pistol, and advanced malfunction range.” An airplane sighting range was also added at the station to allow gunners to learn range estimation on planes landing at the airfield (Thirteenth Naval District n.d.[b]:1-2).

One major problem that Navy fliers had found at Arlington was the persistent strong northwest cross wind that made landing on both the major runways (north-south Runway 1, 16/34 and northeast-southwest Runway 2) very difficult. These winds created problems especially for smaller planes with narrow-gauge landing gear, including the F4F fighters that were primarily flying from the station. Several accidents occurred, but although requests for construction of a third runway in the northwest-southeast direction were made as early as 1943, construction did not actually begin until February 1945. The new runway, which was 5000 feet in length and 150 feet in width, was built by the Northwest Construction Company and included stabilized shoulders and a 5000-foot taxiway. A new field lighting system was also installed by the Electric Construction Company of Tacoma at this time (Thirteenth Naval District n.d.[a]:6-7; n.d.[b]:2; n.d.[c]:1).

Other improvements at the air station in 1945 included the development of a new well and pump house north of the hangar to provide additional water for firefighting needs and the upgrade of communication facilities. Armco storage huts were also installed near the public works building and the magazine area. These steel buildings, manufactured by the Armco Steel Company in Middletown, Ohio, were made of heavy-gauge iron. They were modeled on culverts or storm sewers and were curved and ribbed like Quonset huts. Most often used for ammunition storage as well as bunkers and shelters, these buildings were strong enough to be buried in as much as six feet of earth (Decker and Chiei 2005: 149; Thirteenth Naval District n.d.[c]:1).

Social and Economic Impact on the Community

A number of groups made efforts to integrate military personnel stationed at the Arlington air base into the local community. Entertainment was planned and furniture donated to fix up a lounge room in barracks built at the site. Men were also invited to nearby church services and to the high school prom and other community events. As the number of men stationed at the Arlington field increased, the Commercial Club and other local groups also took steps to provide off-duty soldiers with a Service Men’s Club in town for entertainment and recreational activities. As part of this program, Arlington citizens fixed up the Robertson Building in the center of Arlington for the servicemen to use as a lounge and dance hall. The Service Men’s Club opened with a reception on September 1943 (*Arlington Times*, June 4, 1942; April 15, May 6, 1943; June 17, 1943; September 16, 1943). The community also worked jointly with the air station to hold war bond sales in commemoration of Pearl Harbor (*Arlington Times*, December 9, 1943). Men stationed at Arlington helped with the harvest on local farms during their free time (*Arlington Times*, July 6, 13, 1944).

The presence of the air station in the community brought substantial economic and employment benefits but also put a strain on some resources. With so many men in the service, labor shortages guaranteed that those remaining in the area could have jobs if they wanted them, and ongoing building projects at the air base kept many busy in the construction industry as well as in maintenance, firefighting and other support jobs. An increasing number of women in the Arlington area also were employed in a variety of jobs connected with the military. At the peak of employment, 139 civil service employees worked at the air station as well as 20 others outside of the civil-service system (*Arlington Times*, September 6, 1945). Wages increased from Depression levels, but rationing and shortages of food and raw materials needed for the war effort limited the types of goods that were available to buy. Housing was also at a premium locally because of the increasing numbers of military personnel being brought to the air station at Arlington (Cameron et al. 2005: 275, 280, 283, 285).

Architecture, Engineering and Design

Much of the early core of World War II construction at Naval Auxiliary Air Station, Arlington, was under contract to the Austin Company, whose main headquarters were in Cleveland, Ohio. By the 1940s the company had become one of the country’s foremost designers and builders of military airfields as well as a variety of industrial plants. Founded as a carpentry-contracting business by Samuel Austin in 1878, the Austin Company grew because of its linkage to new technologies and engineering innovations. When Samuel Austin’s son, who was trained as an engineer, joined the firm, he and his father diversified into design and engineering and developed what became known as the “Austin method” based on the principle of

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8 Page 8 of 9

“undivided responsibility” (Shirk 1978:8). The Austin Company handled all phases of projects from design and engineering to construction and was able to offer customers building on a “square-deal basis...The owner guaranteed the builder fair pay for services, and the builder guaranteed the owner a fair return on his money” (Greif 1978:37).

By the First World War they had pioneered the idea of a series of standard factory buildings to make construction faster and less expensive. The Austin Company designed a series of interchangeable units that when combined, addressed a variety of needs and anticipated what would later be known as modular construction. Standardization also made them more efficient, and as the company historian noted: “The Austin standard building was the Model T of the construction world. Both were inexpensive. Both were built in record time. Both were exceptionally long lived conceptions” (Greif 1978:58).

Austin developed a national reputation for this concept and its prominence was further enhanced by the government’s need to build industrial buildings rapidly during the First World War. Perhaps, the company’s most famous project was the Curtiss Aircraft plant in Buffalo, New York. This plant ultimately became the country’s largest factory building—28 acres under one roof and built in only 90 working days (Greif 1978: 61).

World War II further cemented the Austin Company’s reputation for innovation and speed in its building projects, especially in the aviation field. The company had been a leader in the design of windowless, climate-controlled plants that were ideal for blackout conditions needed for aircraft production during wartime. In addition, since World War I, the company had also developed innovative designs for complete airports as well as hangars, wind tunnels and other features of the new air industry (Greif 1978:130). In the Pacific Northwest, Austin received a huge Navy contract for engineering and construction work that included: “four air stations, two air domes, two radio stations, a fuel depot, a supply depot, an ammunition depot, a hospital, a number of complete section bases, air fields and schools—plus a number of other structures for the Army and the Coast Guard” (Greif 1978:132). As a result of their work on this contract, which likely included some of the construction at the Arlington station, the company received the Army-Navy “E” award. The commendation read, in part: “Your company has always enjoyed a reputation for fast construction. Under this navy contract, that reputation has been even more firmly established” (Greif 1978:132).

Much of the company’s reputation for speed was built on its use of structural steel, but during the war years the need to conserve this commodity for military purposes led the company to return to all-timber construction. The hangar built by the Austin Company at the Arlington station reflects the design of other timber wide-span buildings, including an Army aircraft plant in Chicago that was constructed for the production of transport planes (Greif 1978:131-132,140). Austin also became one of the primary builders for the Boeing Company, designing everything from wind tunnels to assembly plants during the war years and for decades thereafter (Shirk 1978:22).

In addition to the main hangar at the Arlington station, built in 1943, the Austin Company also designed and constructed a number of other facilities including the transmitter building, the pump house, the water tank tower and the sewage system. Austin also built the warm-up apron, designed of concrete with expansion joints and installed in 1944 (*Arlington Times*, July 22, 1943; July 29, 1943).

In later expansions of the air station, other firms were used to design and build new facilities and some plans were also developed by the public works department at the station. Parker and Hill of Seattle designed the Class “C” Overhaul buildings in 1944, while George Stoddard and Company, also of Seattle, was the designer for the bore-sighting range. Gaasland Construction of Seattle won the contract for construction of all of these facilities (*Arlington Times*, September 28, 1944; *Welfare and Recreation Bulletin*, Naval Air Station Arlington, November 10, 1944; George W. Stoddard and Assoc. 1944[a]:2; Parker and Hill Associates 1944: 2).

Transfer of the Field to the City of Arlington

With the surrender of the Japanese government in August 1945, the war began to wind down and with it naval operations at NAAS Arlington. The Commercial Club and other community groups had already been discussing the future of the airfield before hostilities ended, but initially believed that the Navy planned to retain the station as a permanent training facility (*Arlington Times*, August 30, 1945). In October 1945, however, the Navy announced that the station would be placed on

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 8

Page 9 of 9

caretaker status with minimum of personnel, although the government would retain control of the property. The station was officially deactivated on July 1, 1946, which meant that the facility would no longer be used by naval personnel and could be leased by any municipality (*Arlington Times*, October 11, 1945; June 13, 1946). Finally, however, the Navy agreed to sell the air station to the city of Arlington, and a formal contract was signed that went into effect on February 25, 1959. The terms of the agreement allowed the city to develop the site in whatever way they chose as long as the field remained public and at least one runway was maintained (*Arlington Times*, March 12, 1959).

The City of Arlington has retained ownership of the airport since 1959. During this time, the original northeast-southwest runway has been abandoned, as have its adjacent taxiways and the hardstands to the northeast. Within the past 30 years, a large number of T-hangers and light industrial buildings have been constructed around the edges of the airport grounds, and particularly east of Runway 16/34. Over 160 businesses are located at the airport, and future plans call for the development of additional business parks (City of Arlington 2008).

Similar Resources in the Region

NAAS, Arlington was one of five auxiliary air stations managed by the Thirteenth Naval District. These stations were located at Shelton, and Quillayute, Washington, as well as North Bend and Lakeview, Oregon. These auxiliary stations supported the larger Naval Air Stations at Seattle, Whidbey Island, and Pasco, Washington, and Astoria, Tillamook, and Klamath Falls, Oregon. Several smaller outlying fields were located at Coupeville, Mount Vernon, Hoquiam (Moon Island), Kennewick (Vista), Bremerton, and Port Angeles, Washington (Howard et al. 2009; U.S. Navy District Public Works 1944). A portion of all of these naval air facilities exist today. Taxiways and runways still exist at all locations except NAS, Seattle, and many of these locations retain some of the buildings and structures constructed during World War II.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 1 of 7

Major Bibliographic References

- Abrahams, Robin and Anne Van Dyne
1995 Naval Auxiliary Air Station, Arlington. National Register of Historic Places Registration Form. Abrahams Architects and Tangent, Seattle, Washington. Document on file at Washington State Department of Archaeology and Historic Preservation, Olympia, Washington.
- Alexander, Joe
2008 Airport Coordinator, Arlington Municipal Airport, Arlington, Washington. Personal communication, July 9 and October 23.
- Arlington, City of
2008 City Information, Arlington, Washington. www.ci.arlington.wa.us/index.asp?NID=25, accessed November 13.
- Bagley, Clarence
1929 *The History of King County, Washington*, Vol. III. S.J. Clarke Publishing Company, Chicago, IL., and Seattle, Washington.
- Bureau of Land Management, General Land Office
n.d. Tract Book, Washington. Document on file at National Archives and Records Administration (NARA), Seattle, Washington.
- Burgess, Richard R., editor
1996 *The Naval Aviation Guide*. Naval Institute Press, Annapolis, Maryland.
- Cameron, David, Charles leWarne, M. Allan May, Jack O'Donnell and Lawrence O'Donnell
2005 *Snohomish County: An Illustrated History*. Kelcema Books, Index, Washington.
- Decker, Julie and Chris Chiei
2005 *Quonset Hut: Metal Living for a Modern Age*. Princeton Architectural Press, New York, New York.
- Greif, Martin
1978 *The New Industrial Landscape. The Story of the Austin Company*. Main Street Press, Clinton, New Jersey.
- Howard, Spencer, Eugenia Woo, and Susan Johnson
2009 Naval Air Station (NAS) Seattle. National Register of Historic Places Registration Form. September 21. On file at the Department of Archaeology and Historic Preservation, Olympia, Washington.
- Interstate Publishing
1906 *An Illustrated History of Skagit and Snohomish Counties*. Interstate Publishing, Chicago, Illinois.
- McVarish, Douglas C.
2008 *American Industrial Archaeology: A Field Guide*. Left Coast Press, Walnut Creek, California.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 2 of 7

Major Bibliographic References (continued)

Mullen, Neil, editor

1997 *Arlington Municipal Airport 1934-1946. The Formative Years: An Historic Scrapbook.* Neil Mullen, Arlington, Washington.

Price, Andrew

1989 *Port Blakely: The Community Captain Renton Built.* Port Blakely, Seattle, Washington.

Putnam, Rob

2008 Airport Manager, Arlington Municipal Airport, Arlington, Washington. Personal communication, July 9 and October 23.

Robertson, Donald

1995 *Encyclopedia of Western Railroad History*, Vol. III, Oregon-Washington. Caxton Printers, Caldwell, Idaho.

Serling, Robert

1992 *Legends and Legacy: The Story of Boeing and Its People.* St. Martin's Press, New York, New York.

Shirk, Charles

1978 *The Austin Company: A Century of Results.* Newcomen Society, New York, New York.

Stuhaug, Dennis

1992 *Naval Station Puget Sound at Sand Point.* United States Department of Navy, NAVSTA Puget Sound, Seattle, Washington.

Thirteenth Naval District

n.d. (a) History of the Station, Period to 31 December, 1944. Thirteenth Naval District, Wartime Histories of Units. Document on file at NARA, RG 181, Box 3, Folder Naval Auxiliary Station, Arlington.

n.d. (b) History of the Station, Period 1 January, 1945, to 28 February, 1945. Thirteenth Naval District, Wartime Histories of Units. Document on file at NARA, RG 181, Box 3, Folder Naval Auxiliary Station, Arlington.

n.d. (c) History of the Station, Period 1 March to 31 May, 1945. Thirteenth Naval District, Wartime Histories of Units. Document on file at NARA, RG 181, Box 3, Folder Naval Auxiliary Station, Arlington.

n.d. (d) History of the Station, Period to 1 December, 1945. Thirteenth Naval District, Wartime Histories of Units. Document on file at NARA, RG 181, Box 3, Folder Naval Auxiliary Station, Arlington.

Whitfield, William

1929 *History of Snohomish County, Washington.* Vol. 1. Pioneer Publishing Company, Chicago, Illinois.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 3 of 7

Major Bibliographic References (continued)

Maps, Plans and Drawings

Anderson, Bjornstad, Kane, Consulting Engineers

- 1961 Airport Layout Plan, Arlington, Airport. Anderson, Bjornstad, Kane, Consulting Engineers, December 18. Map on file at Arlington Municipal Airport, Arlington, Washington.

Austin Company, The

- 1943 (a) Warm Up Apron Plans. Naval Air Center, Seattle, Washington, Auxiliary Air Station, Arlington, Washington, Sheets 1-2. The Austin Company, April 9. Drawings on file at Arlington Municipal Airport, Arlington, Washington.

- 1943 (b) Standard Hangar Plans. Naval Air Center, Seattle, Washington, Auxiliary Air Station. The Austin Company, May 5. Drawing on file at Arlington Municipal Airport, Arlington, Washington.

Parker and Hill Associates

- 1944 Class "C" Overhaul Bldgs, N.A.A.S. Arlington, Wash., Plot Plan and Foundation Plans, Buildings 1, 2, and 3, Drawing No. 343-182. Parker and Hill Associates, July 22. Drawings on file at Arlington Municipal Airport, Arlington, Washington.

Stoddard, George W. and Associates

- 1944 (a) Boresighting Range. Drawing No. 343-304. George W. Stoddard and Associates, August 11. Drawing on file at Arlington Municipal Airport, Arlington, Washington

- 1944 (b) Boresighting Range, Shotgun Sighting Training Tower, Shotgun Sighting Range: Site Plan, U.S. Naval Auxiliary Air Station, Arlington, Washington, Sheets 1-2. George W. Stoddard and Associates, October 13. Drawings on file at Arlington Municipal Airport, Arlington, Washington.

Stoddard, George W. and Griffin and Lowe and Associates

- 1943 A.C. Gasoline System, Location Plans and Schematic Wiring Diagrams, Arlington Airdrome, Arlington, Washington, Sheet 1. George W. Stoddard and Griffin and Lowe and Associates, February 3. Drawing on file at Arlington Municipal Airport, Arlington, Washington.

Thirteenth Naval District

- 1945 Additional Runway & Taxiways and Permanent Airport Field Lighting, Additional Runways & Taxiways Typical Layout and Clearings, Naval Auxiliary Air Station, Arlington, Washington. Sheet 1, Drawing Number D.P.W 44-1337. Thirteenth Naval District, Seattle, Washington, January 24. Drawing on file at Arlington Municipal Airport, Arlington, Washington.

U.S. Army Corps of Engineers

- 1942 Grading & Surfacing General Layout, Arlington Airport, Snohomish County, Wash. Sheet No. 1, File No. N-29-11. U.S. Engineer Office, Seattle, August 26. Drawing on file at Arlington Municipal Airport, Arlington, Washington.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 4 of 7

Major Bibliographic References (continued)

- 1944 (a) General Site Plan: Airfield, Arlington Airdrome, Snohomish County, Wash. Sheet No. 1, File No. N-29-44. U.S. Engineer Office, Seattle, September 12. Drawing on file at Arlington Municipal Airport, Arlington, Washington.
- 1944 (b) General Utilities Map – Airfield A.C. Gasoline System, Arlington Airdrome, Snohomish County, Wash. Sheet No. 3, File No. N-29-44. U.S. Engineer Office, Seattle, September 12. Drawing on file at Arlington Municipal Airport, Arlington, Washington.
- 1944 (c) General Utilities Map – Airfield Electrical Distribution and Storm Drainage, Arlington Airdrome, Snohomish County, Wash. Sheet No. 4, File No. N-29-44. U.S. Engineer Office, Seattle, September 12. Drawing on file at Arlington Municipal Airport, Arlington, Washington.

U.S. Navy District Public Works

- 1943 Map of Naval Auxiliary Air Station Arlington, Wash., Showing Conditions on June 30, 1943. D.P.W. Drawing No. 43-840. Map on file at Arlington Municipal Airport, Arlington, Washington.
- 1944 Thirteenth Naval District Map of Naval Activities. D.P.W. Drawing No. 44-950. Map on file at Arlington Municipal Airport, Arlington, Washington.
- 1945 Map of Naval Auxiliary Air Station Arlington, Wash., Showing Conditions on June 30, 1945. D.P.W. Drawing No. 44-1033. Map on file at Arlington Municipal Airport, Arlington, Washington.
- 1946 Map of Naval Auxiliary Air Station Arlington, Wash., Showing Conditions on June 30, 1946. D.P.W. Drawing No. 44-1033. Map on file at Arlington Municipal Airport, Arlington, Washington.

Newspapers

Arlington Times [Arlington, Washington]

- 1934 “Airport Project Submitted; Location Highly Praised.” February 15 (a). Arlington, Washington.
- 1934 “Council Accepts Airport Lease.” February 15 (b). Arlington, Washington.
- 1934 “Airport Approved.” February 22 (a). Arlington, Washington.
- 1934 “Supervisor Approves Airport Project.” February 22 (b). Arlington, Washington.
- 1934 “Airport Gets Final Okeh.” March 1. Arlington, Washington.
- 1934 “Work on Airport Progressing Nicely.” March 8. Arlington, Washington.
- 1934 “River Work to Continue.” March 29. Arlington, Washington.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 5 of 7

Major Bibliographic References (continued)

- 1934 "30 Men Working on Local Airport." May 17. Arlington, Washington.
- 1935 "Cross-Runway for Arlington Airport." December 26. Arlington, Washington.
- 1936 "Cabin Ship Here October 3 and 4." October 1. Arlington, Washington.
- 1937 "Giant Tri-Motored Boeing Coming to Airport April 22." April 15. Arlington, Washington.
- 1937 "Flying Circus Saturday." July 15. Arlington, Washington.
- 1938 "Airport an Asset." July 28. Arlington, Washington.
- 1938 "Planes Carry 38,000 Lbs. Provisions to Fire Fighters from Local Airport." October 6. Arlington, Washington.
- 1938 "Is \$33,000 Worth \$4,000? Aviation Committee Thinks So." October 13. Arlington, Washington.
- 1938 "Airport Matter in Abeyance." October 27. Arlington, Washington.
- 1939 "City Council Authorizes Lease of Airport for Two More Years." April 13. Arlington, Washington.
- 1939 "Value of Airport Demonstrated." July 20 (a). Arlington, Washington.
- 1939 "Forest Fire Crews Supplied by Plane from Local Airport." July 20 (b). Arlington, Washington.
- 1939 "Airport Leased—Its Needs." August 17. Arlington, Washington.
- 1940 "Commercial-Civic Clubs Mingle" February 16. Arlington, Washington.
- 1940 "Wallgren Watches Local Airport in Defense Program." June 6. Arlington, Washington.
- 1940 "Airport Objective Won." September 5. Arlington, Washington.
- 1941 "Airport Work Due Soon." April 10. Arlington, Washington.
- 1941 "Airport Work Now in Progress." May 8. Arlington, Washington.
- 1941 "Airport Clearing Completed." June 26. Arlington, Washington.
- 1941 " 'Paine Field' Dedication Planned." July 24. Arlington, Washington.
- 1941 " Lt. Paull [sic] Discusses Local Airport." November 27. Arlington, Washington.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet –

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 6 of 7

Major Bibliographic References (continued)

- 1942 "Airport May Be Training Base." April 30. Arlington, Washington.
- 1942 "Work Begins on Local Army Airport." June 4. Arlington, Washington.
- 1942 "Final Airport Survey in Progress." August 13. Arlington, Washington.
- 1942 "Sewer Work at Local Airport." September 17. Arlington, Washington.
- 1942 "Airport Contract Let By War Dept." October 1. Arlington, Washington.
- 1943 "Paving at Airport." January 7. Arlington, Washington.
- 1943 "Opening New Pit for Airport Work." March 25. Arlington, Washington.
- 1943 "1,000-Foot Siding for Airport Use." April 1. Arlington, Washington.
- 1943 "Club to Furnish Lounging Room for Airfield Soldiers." April 15. Arlington, Washington.
- 1943 "Capt. Cady Praises Community Spirit." May 6. Arlington, Washington.
- 1943 "Steps Taken to Provide Local Recreation Center." June 17. Arlington, Washington.
- 1943 "Dedication of Navy Airfield Saturday – 1:30." June 24. Arlington, Washington.
- 1943 "Installations at Auxiliary Airfield Nearing Completion; Streets Constructed." July 22. Arlington, Washington.
- 1943 "Austin Co. Folding Tents at Airport." July 29. Arlington, Washington.
- 1943 "Service Men's Club Ready." September 16. Arlington, Washington.
- 1943 "Air Station 'Bombs Tokyo' With Bond Sale." December 9. Arlington, Washington.
- 1944 "Improvements at Naval Air Station." May 25. Arlington, Washington.
- 1944 "111,000 Allotted for Air Station Improvements." June 1. Arlington, Washington.
- 1944 "31 Structures on Airport to be Sold." June 8. Arlington, Washington.
- 1944 "Air Station Going Strong in 'Derby.'" July 6. Arlington, Washington.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 9 Page 7 of 7

Major Bibliographic References (continued)

- 1944 "Local People Get Airport Structures." July 13. Arlington, Washington.
- 1944 "\$200,000 Construction Job is Let for Improvements at Naval Air Station." September 28. Arlington, Washington.
- 1944 "\$612,500 Allotted to Local Air Station Work." October 12. Arlington, Washington.
- 1945 "Lieutenant Wilder Says Navy Housing Acute: Larger Personnel Requires Early Solution." February 15, 1945. Arlington, Washington.
- 1945 "Local Naval Auxiliary Air Station May Be Permanent." August 30. Arlington, Washington.
- 1945 "NAAS Employees [sic] Many Civilians." September 6. Arlington, Washington.
- 1945 "Naval Air Station to Close Dec. 1." October 11. Arlington, Washington.
- 1946 "N.A.A.S. Not to be Sold by Navy." June 13. Arlington, Washington.
- 1959 "Airport Now Owned By Town." March 12. Arlington, Washington.
- 1979 "Arlington Municipal Airport: History of Progress." March 28. Arlington, Washington.
- 2007 "Decommissioning the ol Firehouse – Arlington Airport Firehouse Scheduled for Demolition" February 29. Arlington, Washington.

Welfare and Recreation Bulletin [Naval Auxiliary Air Station, Arlington, Washington]

- 1944 November 10. Naval Auxiliary Air Station. Arlington, Washington.

Archival Facilities

Arlington Municipal Airport, Arlington, Washington

Everett Public Library, Everett, Washington

King County Library System

National Archives and Records Administration, Pacific Alaska Region, Seattle, Washington

Seattle Public Library, Seattle, Washington

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 10

Page 1 of 1

Verbal Boundary Description

The boundary for the Naval Auxiliary Air Station, Arlington Historic District, has a roughly triangular-shaped border that follows the outline of the runways and adjacent service areas. The boundary is delineated on the attached site map.

Verbal Boundary Justification

The resources contained within the district represent the core of Naval Auxiliary Air Station, Arlington. With the exception of the addition of a few taxiways, the design of this area has remained unaltered since the end of World War II. Resources in the district include the runways and taxiways, the boresighting range, six intact hardstands, the main refueling area, the warm-up apron, and the hangar and overhaul building, which are arguably the two most important buildings constructed at the air station. A large number of hangars and other support buildings have been constructed within the last forty years around the edge of the airport. These were not considered contributing buildings due to out-of-period construction dates and are therefore excluded from the district boundary.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 11

Page 1 of 6

Photo Log

Name of Property: Hangar, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Lorelea Hudson
Date of Photograph: July 9, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Hangar from warm-up apron; facing northeast.
Photograph 1 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_Hangar_001

Name of Property: Hangar, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Northeast corner of hangar; facing southwest.
Photograph 2 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_Hangar_002

Name of Property: Overhaul Building, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Northeast corner of overhaul building with warm-up apron in background; view to the southwest.
Photograph 3 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_OverhaulBuilding_003

Name of Property: Overhaul Building, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Southeast corner of overhaul building with parachute loft on south side of building; view to the northwest.
Photograph 4 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_OverhaulBuilding_004

Name of Property: Boresighting Range, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Lorelea Hudson
Date of Photograph: July 9, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Bullet stop (center of photo with figure on top) as seen from boresighting range; view to the north-northwest.
Photograph 5 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_BoresightingRange_005

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 11

Page 2 of 6

Photo Log (continued)

Name of Property: Boresighting Range, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Boresighting range from center of range, looking south-southeast toward boresight platform at end of trees.
Photograph 6 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_BoresightingRange_006

Name of Property: Northeast-Southwest Runway, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Northeast-southwest runway from northeast end; view to the southwest.
Photograph 7 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_NESWRunway_007

Name of Property: Taxiway, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Taxiway northwest of northeast-southwest runway, boresighting range behind trees in the distance; view to the southwest.
Photograph 8 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_Taxiway_008

Name of Property: Warm-Up Apron, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Warm-up apron, showing concrete panels and tie-down (mooring eye) in foreground; view to the west.
Photograph 9 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_WarmUpApron_009

Name of Property: Hardstand Number 11, Naval Auxiliary Air Station, Arlington
County, State: Snohomish County, Washington
Photographer: Eileen Heideman
Date of Photograph: October 23, 2008
Location of Original Digital Files: 5418 20th Ave. NW, Suite 200, Seattle, WA
View: Hardstand Number 11 with fuel valve pit covers in foreground; view to the north-northeast.
Photograph 10 of 11: WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_Hardstand_010

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 11

Page 3 of 6

Photo Log (continued)

Name of Property:	Fueling Area, Naval Auxiliary Air Station, Arlington
County, State:	Snohomish County, Washington
Photographer:	Eileen Heideman
Date of Photograph:	October 23, 2008
Location of Original Digital Files:	5418 20 th Ave. NW, Suite 200, Seattle, WA
View:	Fueling area with taxiways; view to the northeast.
Photograph 11 of 11:	WA_SnohomishCounty_NavalAuxiliaryAirStationArlington_FuelingArea_011

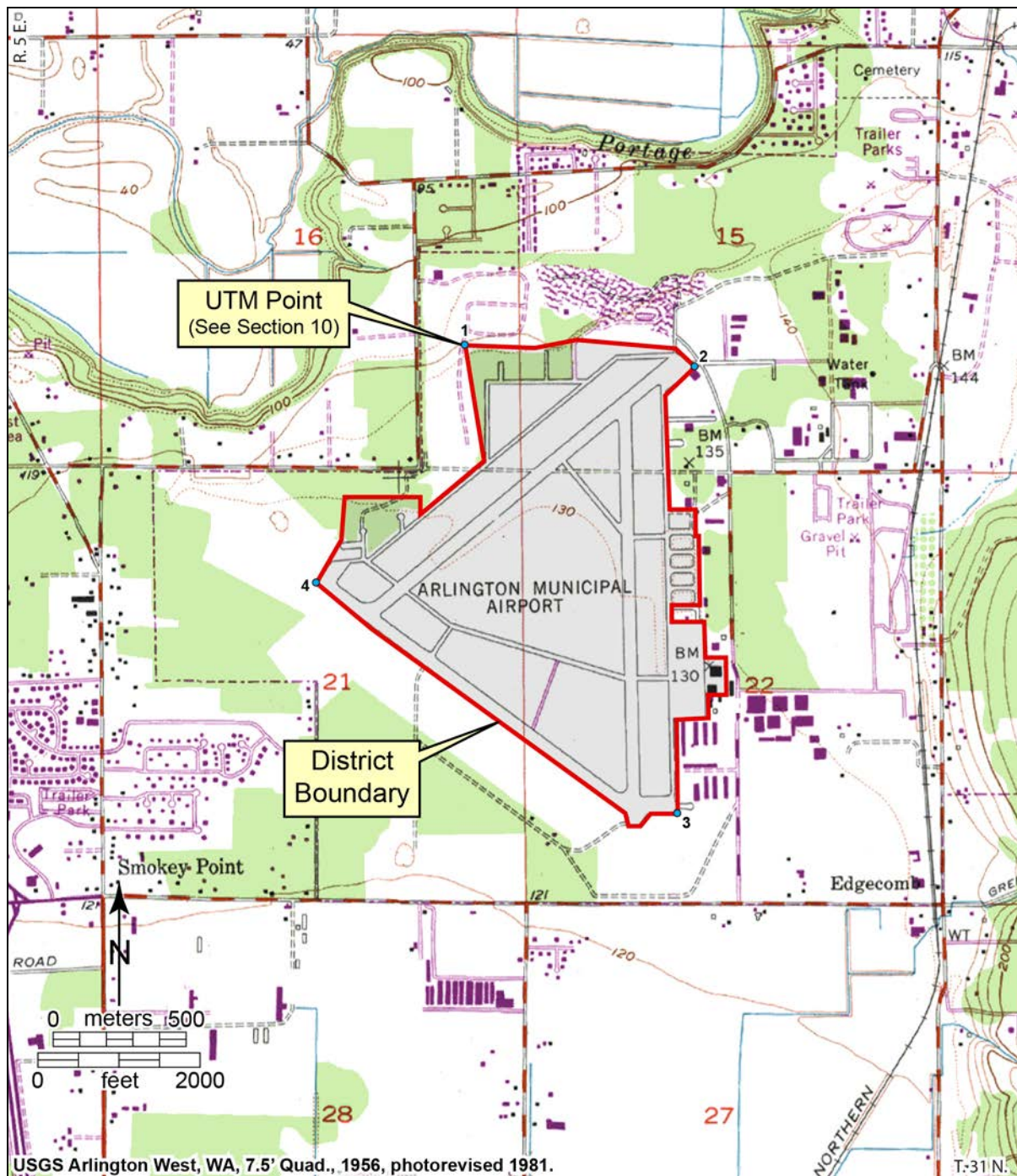
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 11

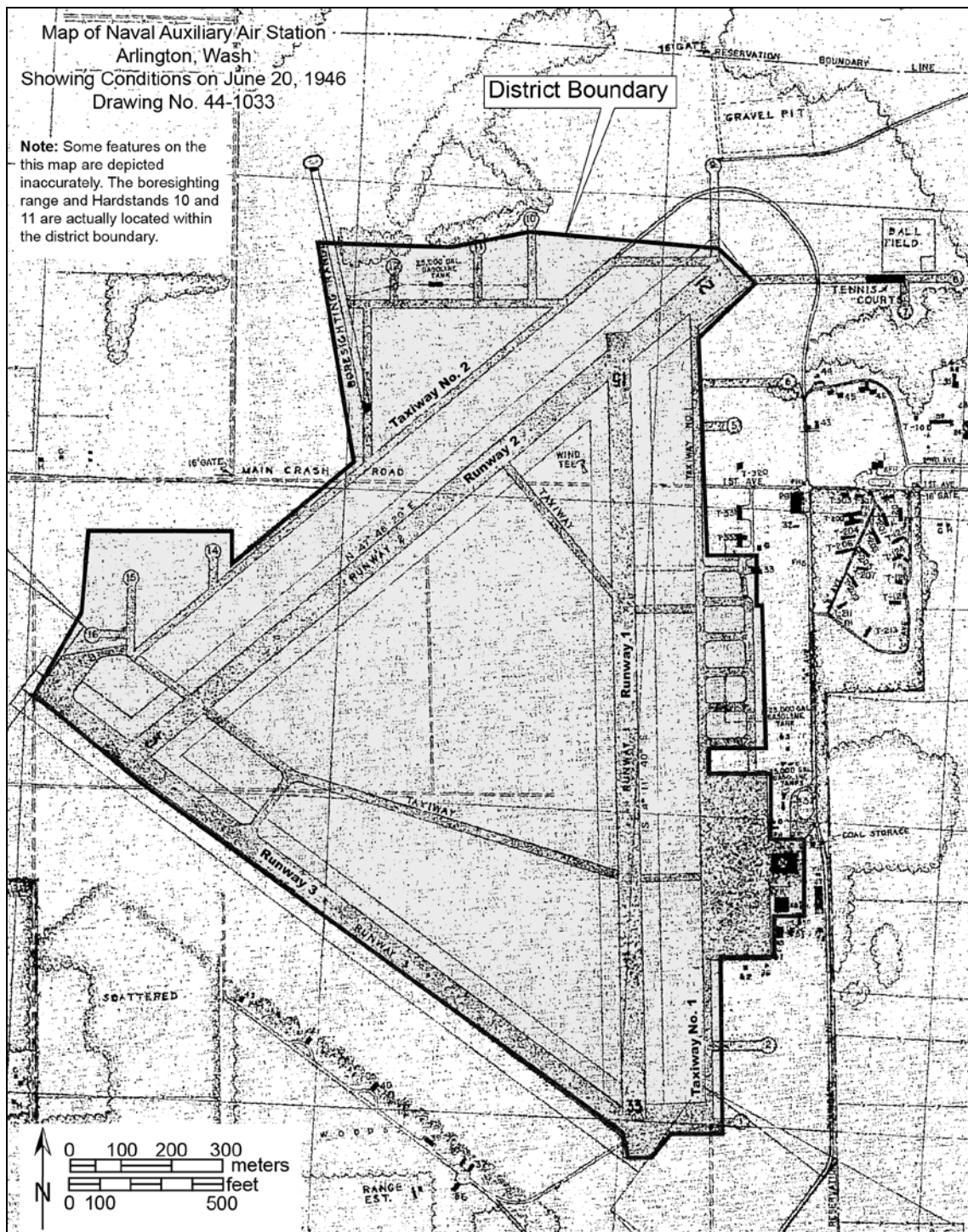
Page 4 of 6



National Register of Historic Places

Continuation Sheet -

Section number 11 Page 5 of 6



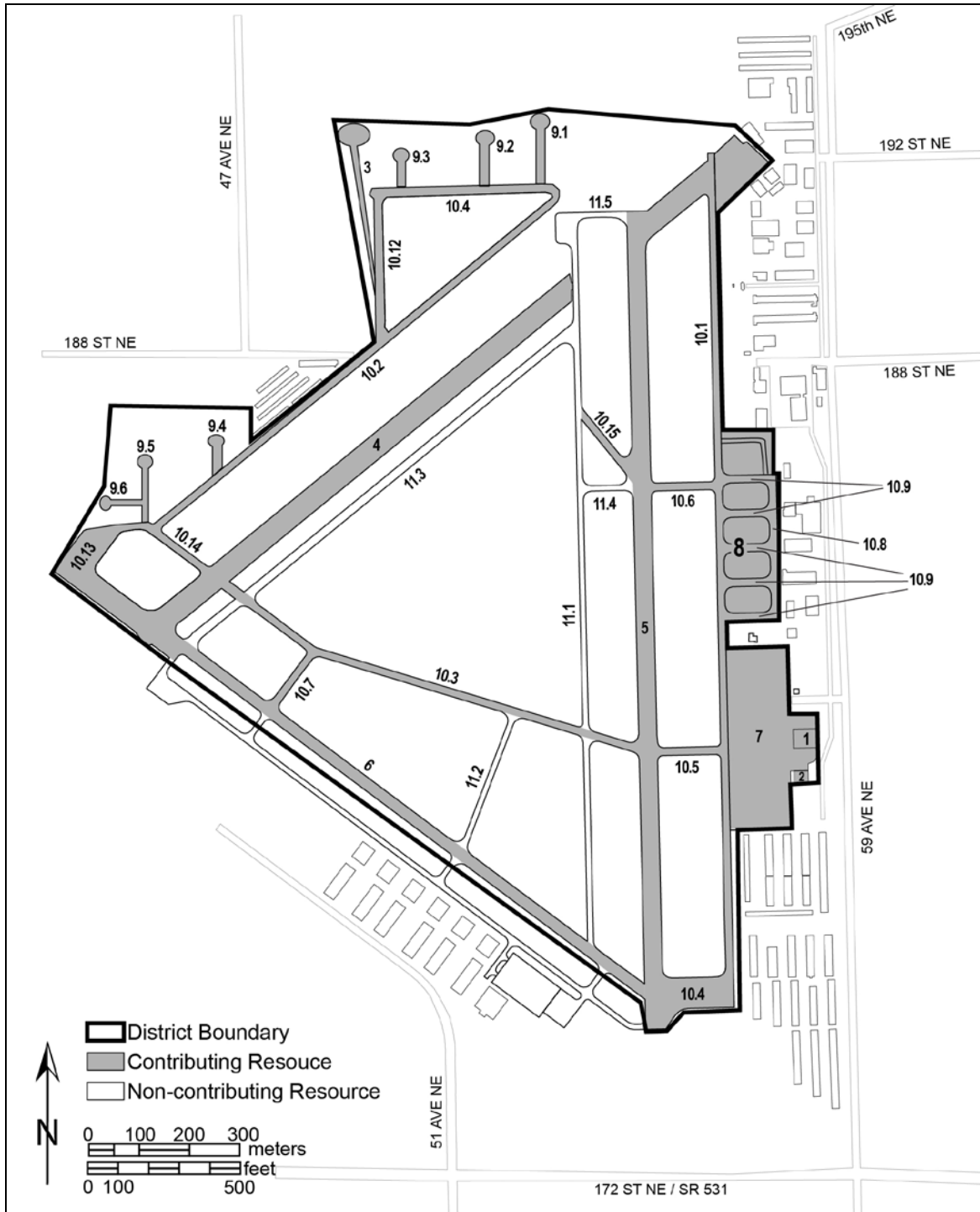
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet -

NAVAL AUXILIARY AIR STATION, ARLINGTON
SNOHOMISH COUNTY, WASHINGTON

Section number 11

Page 6 of 6

























Appendix Two

- Arlington Municipal Airport Aircraft Situation Display to Industry (ASDI) 2007
Aircraft Operations Data Feed

Sum of Ops	
Aircraft	Total
	1 0
AERO COMMANDER 500-B Class PISTON	15
AERO COMMANDER 690A Class TURBO	4
AERO VODOCHODY L-39 Class JET	1
AERO VODOCHODY L-39MS Class JET	2
Aircraft - N1065Y Class PISTON Piper PA46-500TP (SE Turbo Prop)	2
Aircraft - N339HP Class JET Cessna 501	1
Aircraft - N525OT Class PISTON	1
Aircraft - N610AS Class TURBO Falcon 2000	1
Aircraft - N6818R Class PISTON PC 12/47 (SE Turbo Prop)	1
Aircraft - N81XA Class JET Dornier GMBH Alpha-Jet (Mili)	1
Aircraft - N935YM Class JET Diamond DA 42 (ME Piston)	15
AMERICAN AA-5 Class PISTON	2
AMERICAN CHAMPION AIRCRAFT 7GCBC Class PISTON	1
BEECH 200 Class TURBO	10
BEECH 300 Class TURBO	2
BEECH 65 Class PISTON	1
BEECH 76 Class PISTON	6
BEECH 95 Class PISTON	6
BEECH 95-B55 (T42A) Class PISTON	2
BEECH 95-B55 Class PISTON	2
BEECH A36 Class TURBO	2
BEECH A45 Class PISTON	2
BEECH B200 Class TURBO	4
BEECH B24R Class PISTON	2
BEECH B36TC Class PISTON	2
BEECH B-55 Class PISTON	2
BEECH C23 Class PISTON	1
BEECH C24R Class PISTON	15
BEECH C90 Class TURBO	4
BEECH D55 Class PISTON	1
BEECH E-90 Class TURBO	1
BEECH F33A Class PISTON	8
BEECH F35 Class PISTON	3
BEECH F90 Class TURBO	3
BEECH G18S Class PISTON	1
BEECH K35 Class PISTON	2
BEECH P35 Class PISTON	6
BEECH S35 Class PISTON	9
BEECH V35 Class PISTON	1
BEECH V35B Class PISTON	1
BENUA DANIEL R VANS RV-6A Class PISTON	1
CESSNA 150H Class PISTON	2
CESSNA 172 Class PISTON	5
CESSNA 172A Class PISTON	1
CESSNA 172C Class PISTON	1
CESSNA 172H Class PISTON	1
CESSNA 172K Class PISTON	13

CESSNA 172L	Class PISTON	21
CESSNA 172M	Class PISTON	45
CESSNA 172N	Class PISTON	179
CESSNA 172P	Class PISTON	40
CESSNA 172R	Class PISTON	44
CESSNA 172RG	Class PISTON	4
CESSNA 172S	Class PISTON	66
CESSNA 175A	Class PISTON	2
CESSNA 177	Class PISTON	1
CESSNA 177B	Class PISTON	2
CESSNA 177RG	Class PISTON	6
CESSNA 180A	Class PISTON	3
CESSNA 180J	Class PISTON	1
CESSNA 180K	Class PISTON	2
CESSNA 182E	Class PISTON	4
CESSNA 182G	Class PISTON	2
CESSNA 182H	Class PISTON	5
CESSNA 182K	Class PISTON	6
CESSNA 182L	Class PISTON	1
CESSNA 182N	Class PISTON	2
CESSNA 182P	Class PISTON	41
CESSNA 182Q	Class PISTON	8
CESSNA 182R	Class PISTON	1
CESSNA 182S	Class PISTON	4
CESSNA 182T	Class PISTON	34
CESSNA 195B	Class PISTON	2
CESSNA 206H	Class PISTON	5
CESSNA 210-5	Class PISTON	2
CESSNA 210-5(205)	Class PISTON	20
CESSNA 210L	Class PISTON	1
CESSNA 310	Class PISTON	1
CESSNA 310H	Class PISTON	1
CESSNA 340	Class PISTON	1
CESSNA 340A	Class PISTON	1
CESSNA 414A	Class PISTON	5
CESSNA 421	Class PISTON	1
CESSNA 501	Class JET	4
CESSNA 525	Class JET	2
CESSNA 525A	Class JET	3
CESSNA 525B	Class JET	6
CESSNA 650	Class JET	2
CESSNA A150L	Class PISTON	3
CESSNA P210N	Class PISTON	26
CESSNA R172K	Class PISTON	3
CESSNA R182	Class PISTON	18
CESSNA T182	Class PISTON	1
CESSNA T182T	Class PISTON	5
CESSNA T206H	Class PISTON	3
CESSNA T210L	Class PISTON	3
CESSNA T210N	Class PISTON	14
CESSNA T337G	Class PISTON	1
CESSNA TR182	Class PISTON	3

CIRRUS DESIGN CORP SR20 Class PISTON	9
CIRRUS DESIGN CORP SR22 Class PISTON	7
DASSAULT FALCON 900 EX Class JET	38
DASSAULT-BREGUET MYSTERE FALCON 20-F5 Class JET	8
DEHAVEN J E/DEHAVEN C R LANCAIR 360 DEHAVEN Class PISTON	1
DIAMOND AIRCRAFT IND INC DA 40 Class PISTON	12
DIAMOND AIRCRAFT IND INC DA 42 Class JET	5
DONAHOO STANLEY E RV-4 Class PISTON	1
DORNIER GMBH ALPHA-JET Class JET	25
FISH/COOPER/MITCHELL BUSH MASTER JJC Class JET	2
GATES LEARJET CORP. 35A Class JET	1
GAVLICK JOHN R SR RV-6A Class PISTON	2
GONZALEZ MANUEL A RV-7A Class PISTON	3
GRUMMAN AMERICAN AVN. CORP. AA-5 Class PISTON	1
GRUMMAN AMERICAN AVN. CORP. AA-5A Class PISTON	1
GRUMMAN AMERICAN AVN. CORP. AA-5B Class PISTON	1
GULFSTREAM AEROSPACE 695B Class PISTON	6
GULFSTREAM AEROSPACE G-V Class JET	1
GULFSTREAM AM CORP COMM DIV 695A Class PISTON	1
HAWKER BEECHCRAFT CORP B200 Class TURBO	3
HELIO H-295 Class PISTON	3
HINDE FRANK GEORGE RV-7A Class PISTON	1
JONES GARY GLASAIR SUPER 2 FT Class PISTON	1
KIBLER CARLTON R LONG-EZ INVICTUS Class PISTON	5
KING ALAN O GS-2 SPORTSMAN Class JET	1
LEARJET INC 31A Class JET	2
LEARJET INC 35A Class JET	1
MAULE M-7-235 Class PISTON	5
MOONEY AIRCRAFT CORP. M20K Class PISTON	6
MOONEY M20C Class PISTON	4
MOONEY M20F Class JET	1
MOONEY M20F Class PISTON	1
MOONEY M20J Class PISTON	5
MOONEY M20M Class PISTON	3
MOONEY M20R Class PISTON	1
MORRIS LLOYD C VANS RV-6 Class PISTON	3
NEGRIN ALAN GS-2 SPORTSMAN Class JET	7
NEW PIPER PA-28-161 Class PISTON	1
NORTH AMERICAN SNJ-5 Class PISTON	1
NORTH AMERICAN/AERO CLASSICS P-51D Class PISTON	2
PILATUS AIRCRAFT LTD PC-12/45 Class PISTON	1
PILATUS AIRCRAFT LTD PC-12/47 Class PISTON	1
PILATUS PC-12/45 Class PISTON	2
PIPER AEROSTAR 601P Class PISTON	50
PIPER PA 46-350P Class PISTON	5
PIPER PA-23-160 Class PISTON	9
PIPER PA-23-250 Class PISTON	1
PIPER PA-24-250 Class PISTON	1
PIPER PA-28-140 Class PISTON	9
PIPER PA28-151 Class PISTON	10
PIPER PA-28-161 Class PISTON	39
PIPER PA-28-180 Class PISTON	4

PIPER PA-28-181 Class PISTON	16
PIPER PA-28-235 Class PISTON	3
PIPER PA-28-236 Class PISTON	4
PIPER PA-28R-200 Class PISTON	3
PIPER PA-28R-201 Class PISTON	4
PIPER PA-28RT-201T Class PISTON	1
PIPER PA-30 Class PISTON	2
PIPER PA-31T Class TURBO	7
PIPER PA-31T1 Class TURBO	1
PIPER PA-32R-300 Class PISTON	1
PIPER PA-32R-301T Class PISTON	2
PIPER PA-34-200 Class PISTON	8
PIPER PA-34-200T Class PISTON	1
PIPER PA-34-220T Class PISTON	1
PIPER PA-44-180 Class PISTON	3
PIPER PA-46-310P Class PISTON	1
PIPER PA46-500TP Class PISTON	19
QUEST AIRCRAFT COMPANY LLC QUEST KODIAK 100 Class JET	1
RAINEY NORMAN W RV-6A Class PISTON	1
RAYTHEON AIRCRAFT COMPANY A36 Class PISTON	2
RAYTHEON AIRCRAFT COMPANY B200 Class TURBO	4
RAYTHEON AIRCRAFT COMPANY C90A Class TURBO	15
RAYTHEON AIRCRAFT COMPANY G36 Class PISTON	1
RAYTHEON CORPORATE JETS INC HAWKER 800XP Class JET	8
ROBBINS MICHAEL J RV-8 Class PISTON	3
ROCKWELL INTERNATIONAL 690B Class JET	2
SOCATA TB 10 Class PISTON	2
SOCATA TBM 700 Class TURBO	2
WEBB THOMAS B GLASTAR Class PISTON	3
Grand Total	1266

Appendix Three

- Template for Summarizing and Documenting Airport Planning Forecasts
- Template for Comparing Airport Planning and TAF Forecasts
- Table 1 Estimated Operations Breakdown by Aircraft Type, 2008-2028

Template for Summarizing and Documenting Airport Planning Forecasts
(Sample data shown - replace with actuals)

A. Forecast Levels and Growth Rates									
Specify base year:						Average Annual Compound Growth Rates			
2008									
	<u>Base Yr. Level</u>	<u>Base Yr. + 1yr.</u>	<u>Base Yr. + 5yrs.</u>	<u>Base Yr. + 10yrs.</u>	<u>Base Yr. + 15yrs.</u>	<u>Base yr. to +1</u>	<u>Base yr. to +5</u>	<u>Base yr. to +10</u>	<u>Base yr. to +15</u>
AIRPORT NAME: Arlington Municipal Airport									
Passenger Enplanements									
Air Carrier						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Commuter						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
TOTAL	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Operations									
<u>Itinerant</u>									
Air carrier						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Commuter/air taxi						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Commercial Operations	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
General aviation	56,778	58,993	62,358	65,785	69,200	3.9%	1.9%	1.5%	1.3%
Military	20	20	20	20	20	0.0%	0.0%	0.0%	0.0%
<u>Local</u>									
General aviation	76,694	78,227	83,848	89,001	92,526	2.0%	1.8%	1.5%	1.3%
Military						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
TOTAL OPERATIONS	133,492	137,240	146,226	154,806	161,746	2.8%	1.8%	1.5%	1.3%
Instrument Operations	150	176	280	400	650	17.3%	13.3%	10.3%	10.3%
Peak Hour Operations	43	44	47	50	52	2.3%	1.8%	1.5%	1.3%
Cargo/mail (enplaned+deplaned tons)						#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Based Aircraft									
Single Engine (Nonjet)	447	455	488	507	526	1.8%	1.8%	1.3%	1.1%
Multi Engine (Nonjet)	7	7	8	9	12	0.0%	2.7%	2.5%	3.7%
Jet Engine	10	10	10	11	11	0.0%	0.0%	1.0%	0.6%
Helicopter	13	13	15	16	17	0.0%	2.9%	2.1%	1.8%
Other	105	107	115	120	126	0.0%	0.0%	0.0%	0.0%
TOTAL	582	592	636	663	692	1.7%	1.8%	1.3%	1.2%
B. Operational Factors									
	<u>Base Yr. Level</u>	<u>Base Yr. + 1yr.</u>	<u>Base Yr. + 5yrs.</u>	<u>Base Yr. + 10yrs.</u>	<u>Base Yr. + 15yrs.</u>				
Average aircraft size (seats)						Note: Show base plus one year if forecast was done. If planning effort did not include all forecast years shown interpolate years as needed, using average annual compound growth rates.			
Air carrier									
Commuter									
Average enplaning load factor									
Air carrier									
Commuter									
GA operations per based aircraft	229	232	230	233	234				

NOTE: Right hand side of worksheet has embedded formulas for average annual compound growth rate calculations.

Template for Comparing Airport Planning and TAF Forecasts

(Sample data shown - replace with actuals)

AIRPORT NAME: Arlington Municipal Airport

	<u>Year</u>	<u>Airport Forecast</u>	<u>TAF</u>	<u>AF/TAF (% Difference)</u>
Passenger Enplanements				
Base yr.	2008	0	0	#DIV/0!
Base yr. + 5yrs.	2013	0	0	#DIV/0!
Base yr. + 10yrs.	2018	0	0	#DIV/0!
Base yr. + 15yrs.	2023	0	0	#DIV/0!
Commercial Operations				
Base yr.	2008	0	0	#DIV/0!
Base yr. + 5yrs.	2013	0	0	#DIV/0!
Base yr. + 10yrs.	2018	0	0	#DIV/0!
Base yr. + 15yrs.	2023	0	0	#DIV/0!
Total Operations				
Base yr.	2008	133,492	144,934	-7.9%
Base yr. + 5yrs.	2013	146,226	151,230	-3.3%
Base yr. + 10yrs.	2018	154,806	157,809	-1.9%
Base yr. + 15yrs.	2023	161,746	164,746	-1.8%

NOTES: TAF data is on a U.S. Government fiscal year basis (October through September).
AF/TAF (% Difference) column has embedded formulas.

Table 1 ESTIMATED OPERATIONS BREAKDOWN BY AIRCRAFT TYPE, 2008-2028

General Aviation (GA) & Mil.	2008 Operations		2013 Operations		2018 Operations		2023 Operations		2028 Operations		ARC	weight (lbs.)	wingspan (ft.)
Cessna 172 (SE)	32,038	24.00%	35,094	24.00%	37,153	24.00%	38,819	24.00%	40,367	24.00%	A-I	2,658	35.8
Cessna 182 (SE)	33,373	25.00%	36,557	25.00%	38,702	25.00%	40,437	25.00%	42,049	25.00%	A-I	3,100	35.8
Beech Bonanza 35 (SE)	4,005	3.00%	4,387	3.00%	4,644	3.00%	4,852	3.00%	5,046	3.00%	A-I	3,400	33.5
Mooney M20 (SE)	1,990	1.49%	2,011	1.38%	1,827	1.18%	1,425	0.88%	1,146	0.68%	A-I	2,575	35.0
Piper PA-28 (SE)	26,698	20.00%	29,245	20.00%	30,961	20.00%	32,349	20.00%	33,639	20.00%	A-I	2,325	35.0
Ultralight (SE)	7,676	5.75%	8,408	5.75%	8,901	5.75%	9,300	5.75%	9,671	5.75%	A-I	2,325	35.0
Beech 55 (ME)	1,335	1.00%	1,462	1.00%	1,548	1.00%	1,617	1.00%	1,682	1.00%	A-I	5,100	37.8
Beech 95 (ME)	1,415	1.06%	1,550	1.06%	1,641	1.06%	1,715	1.06%	1,783	1.06%	A-I	4,200	37.8
Piper PA-23 (ME)	8,010	6.00%	8,774	6.00%	9,288	6.00%	9,705	6.00%	10,092	6.00%	B-II	5,200	37.2
Beech King Air B200 (TP)	53	0.04%	58	0.04%	62	0.04%	65	0.04%	67	0.04%	B-II	12,500	54.5
Pilatus PC-12 (TP)	4	0.00%	4	0.00%	5	0.00%	5	0.00%	5	0.00%	B-II	9,039	52.7
Piper PA-31 (TP)	8	0.01%	9	0.01%	9	0.01%	10	0.01%	10	0.01%	B-II	7,000	40.6
Cessna Citation 500 & 525 (BJ)	24	0.02%	57	0.04%	115	0.07%	239	0.15%	417	0.25%	B-II	13,500	51.6
Dassault Falcon 20 (BJ)	8	0.01%	9	0.01%	31	0.02%	162	0.10%	168	0.10%	B-II	28,660	54
Dassault Falcon 900 EX (BJ)	40	0.03%	50	0.03%	108	0.07%	186	0.12%	193	0.12%	B-II	45,000	63
Dornier Alpha-Jet	29	0.02%	32	0.02%	46	0.03%	49	0.03%	50	0.03%	C-I	11,000	29.9
Learjet 31 & 35 (BJ)	3	0.00%	3	0.00%	3	0.00%	3	0.00%	3	0.00%	C-I	18,000	39.5
Cessna Citation 650 (BJ)	2	0.00%	2	0.00%	6	0.00%	6	0.00%	7	0.00%	C-II	22,000	53.5
Gulfstream V (BJ)	1	0.00%	1	0.00%	2	0.00%	2	0.00%	2	0.00%	D-III	90,500	93.5
Glider (Typ.)	3,004	2.25%	3,290	2.25%	3,483	2.25%	3,639	2.25%	3,784	2.25%	A-II	1,340	65.6
Helicopter (Typ.)	13,776	10.32%	15,222	10.41%	16,270	10.51%	17,161	10.61%	18,014	10.71%	NA	6,300	NA
Total	133,492	100.00%	146,226	100.00%	154,806	100.00%	161,746	100.00%	168,194	100.00%			

Source: BARNARD DUNKELBERG & COMPANY estimates using extrapolation of Aircraft Situation Display to Industry (ASDI) data for 2007.

Note: NA - Not Applicable

Appendix Four

- FAA Planning Memorandum



Federal Aviation Administration

Memorandum

Date: April 22, 2010

To: The Arlington Municipal Airport Management Site File

From: Carol Suomi, Manager
Seattle Airports District Office, SEA-600

Jim Phoenix, Manager
Seattle Flight Standards District Office, FSDO-01

Prepared by: Deepa Parashar, Airport Planner, WA, SEA-637
Karen Miles, Airport Engineer, WA, SEA-635

Subject: Proposal for Arlington Municipal Airport Glider Operations

Purpose:

We have worked closely with Flight Standards to modify the existing glider operations at Arlington Municipal Airport for the purpose of increased safety. Both the Seattle Airports District Office (ADO) and Flight Standards (FS) support this proposal (attachment 1- FS concurrence). This memo is to document our rationale for our support and makes recommendation for improved safety. We have coordinated this effort with the Regional Office. Per our conversation with Paul Johnson on April 22, 2010, no further coordination is necessary.

History:

Glider operations have been operating safely at Arlington Municipal Airport for nearly 30 years. When these operations began the airport met all design standards. With change over time in aircraft type, separation standards, and increased activity, the airport continued on with the glider operation that had already been taking place. The airport has sustained a long safety record due to education and incorporating Glider Operating Procedures that lay out requirements that must be followed for safe operations.

The proposal that the Seattle ADO developed (dated February 26, 2010) took into account many other alternatives, which were identified and evaluated by the ADO, FS, and the local glider club as not being feasible or safe. These alternatives include:

1. **Moving the Glider Operations Area (GOA) to another site on the airfield**→ This would require significant change in air traffic patterns, and increases the risk of mid-air collision. The glider traffic currently operates to the east of the runway (16/34) and the powered traffic operates towards the west, this traffic pattern minimizes the likelihood of

a collision both on the ground and in the air. Gliders have been operating safely in this manner for nearly 30 years (attachment 2- Glider Community Response).

2. **Putting an airport traffic control tower at the airport**→ This would alleviate a great deal of concern with the mix of air traffic at Arlington. However, the level of activity that could be helped by a tower is intermittent (due to weather and daylight). Therefore, staffing a tower could be inefficient, and therefore costly.
3. **Moving TW A 63 feet to the east to meet Airport Design Group (ADG) II RW to TW (240 ft) separation standard**→ This is a substantially large undertaking which would require significant T-hangar relocation, loss of needed apron area, and possible terminal relocation.

Proposed Action:

Our proposal below demonstrates what the ADO and FS feel is a safe operation. While it may require 2 potential MODs (hold lines and RW/TW separation), we feel that these would provide an acceptable level of safety for the airport, considering the history of glider operations at this airport.

1. The runway (16/34) will consist of both pavement and turf surfaces but will operate as a one-runway system. No simultaneous operations (takeoffs and landings) will occur. Ground staging of gliders in GOA is allowed during operations on paved RW surface.
2. Premise for allowing the ground staging of gliders during operations on the paved RW surface, is that staging for gliders is considered similar to the activity of a plane taxiing on a taxiway, and the center line of the GOA is further away from the paved RW centerline (323 ft) than taxiway separation requirements (240 ft).

Design Standard	16/34 (Existing ARC B-II)	16/34 (Future ARC C-II)	TW ADG-II
Safety Area (SA) Width	150 ft	500 ft	79 ft
Object Free Area (OFA) Width	500 ft	800 ft	131 ft
RW/ TW Separation	240 ft	300 ft	--

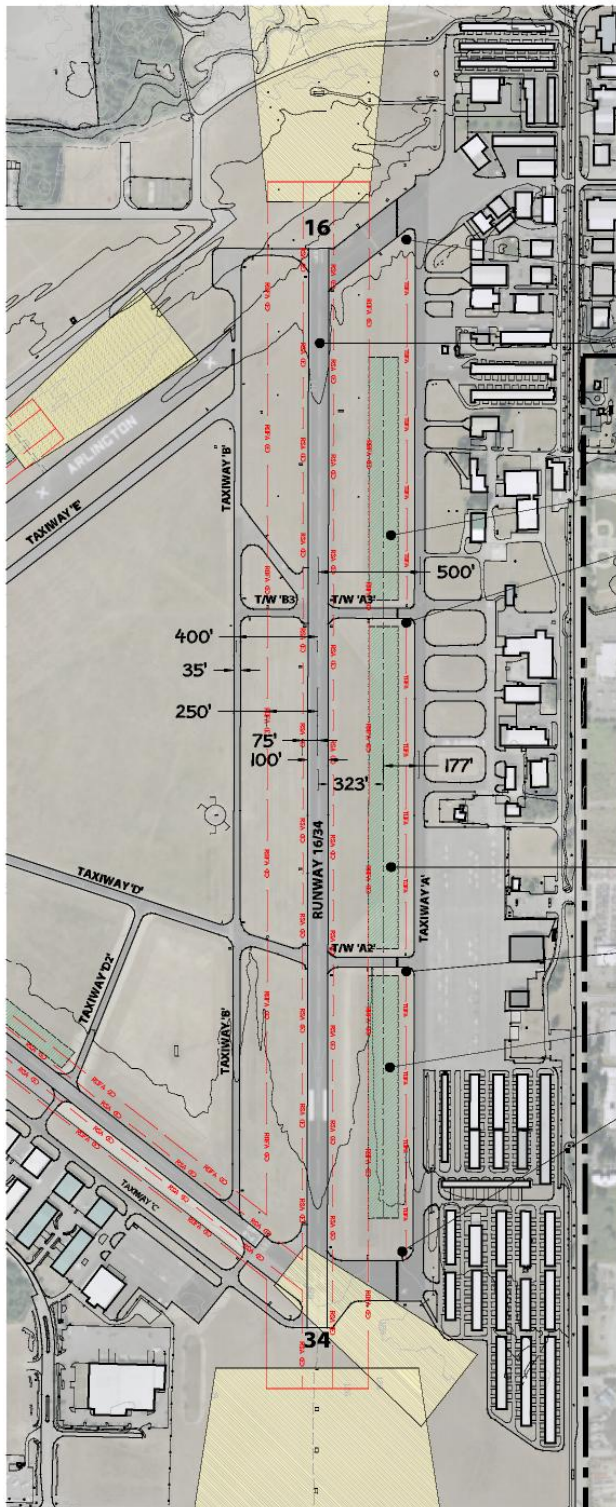
Glider Operations- Visual Flight Rules (VFR) only:

- a. As an added level of safety, the GOA is outside the safety areas of both Runway 16/34 and TW A, since maneuvering gliders prior to launch and after landing requires personnel in the GOA. The GOA is also outside the TW A OFA. The GOA is outside the OFA for RW 16/34 under ARC B-II status, but within RW 16/34 OFA under ARC C-II status (as would be a taxiway using our design standards).
- b. Only those persons that are needed for staging the glider operation and flight will be permitted past the hold lines to the GOA.
- c. Most staging of gliders will be on a nearby apron and will only move to the GOA once they are ready to hookup the towrope and launch.
- d. Runway hold lines and signs on connecting taxiways will be pushed back to the outside edge of the GOA which is 395 feet from the centerline of RW 16/34. Currently the holdlines are at 250ft. This will increase safety in that aircraft are not obstructing approaches and departures from GOA.
- e. All glider operators will be required to operate a radio on board.
- f. Existing RW-TW separation is 500 ft, which exceeds that which is required.

- g. The GOA will only be used in VFR conditions, closed in IFR.
- h. No vehicles, carts or 4-wheelers allowed in GOA unless they are absolutely necessary for ground staging.
- i. Airport will ensure that training is available for all airport users on operations and safety measures.
- j. Add a note on the pilot information brochure, airport website, facility directory, AirNav, and Aircraft Owners and Pilots Association (AOPA) that there are to be no simultaneous operations and that gliders have the right of way.
- k. Update airport pilot information brochure, airport website, facility directory, AirNav, and AOPA to reflect glider requirements.
- l. Update Glider Operational Procedures, including minimum requirements for operating, to include:

Class E Airspace to Ground:

- 3. It is proposed that we lower the Class E airspace to ground level. Per 14 CFR Part 1 Paragraph 91.155, no person may operate an aircraft under VFR when the flight visibility is less, or at a distance from clouds that is less, than that prescribed for the corresponding altitude and class of airspace. The airspace around the airport will lower to the ground as Class E (less than 10,000 feet MSL). This will ensure a greater margin of safety for glider operations.
 - a. Flight visibility= 3 statute miles
 - b. Distance from clouds= 500 feet below, 1,000 feet above, 2,000 feet horizontal.



Modified Existing Condition – Reposition Glider Runway & Existing Holdlines

- In consideration of existing airfield dimensional criteria, the glider launch and recovery personnel are positioned outside of the existing Runway 16/34 RSA & ROFA, including Taxiway A safety area and object free area.
- Would maintain existing airport traffic patterns.
- Glider operations (Visual Flight Rules only)

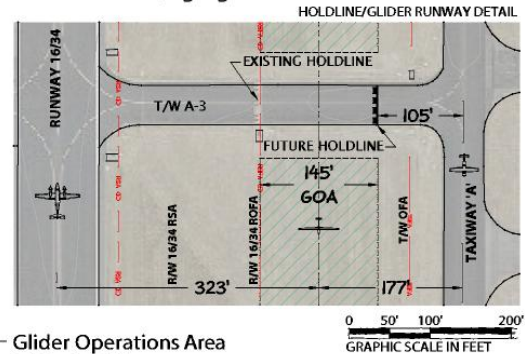
Future Holdline/Signage

Runway 16/34

- 100' x 5,333'
- ARC B-II Dimensional Criteria
- Not Lower Than 3/4-mile Visibility Minimums

Glider Operations Area 145' x 1200'

Future Holdline/Signage



Glider Operations Area
145' x 1,600'

Future Holdline/Signage

Glider Operations Area 145' x 1200'

Future Holdline/Signage

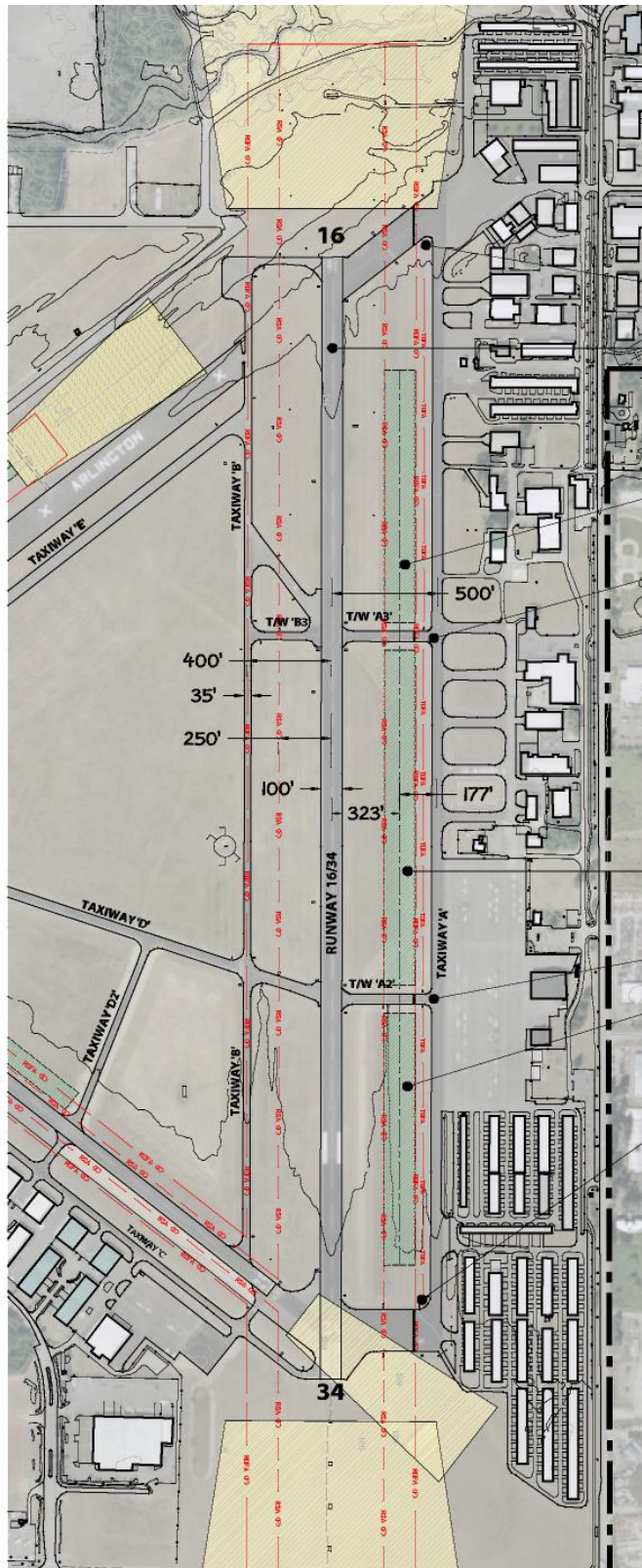
Note:

Smaller aircraft use connecting taxiways A2 and A3.
Maximum aircraft length estimated at 40'.
TW centerline to object (aircraft tail holding at A2) = $0.70 \times \text{wingspan} + 10'$
ADG-II maximum wingspan = 78'. $78' \times 0.70 + 10' = 65'$
 $65' + 40' = 105'$

FIGURE x
Modified Existing Condition Layout



Source: Aerial photography by Aero-Metric, Inc. September 2008, Airport Layout Plan by Barnard Dunkelberg & Company, December 2003.



Future Condition – Upgrade RW 16/34 Dimensional Criteria

● In consideration of future Runway 16/34 airfield dimensional criteria, the glider launch and recovery personnel would be positioned outside of the future Runway 16/34 RSA, including Taxiway A safety area and object free area, but within the future ROFA.

- Would maintain existing airport traffic patterns.
- Glider operations (Visual Flight Rules only)

Future Holdline/Signage

Runway 16/34

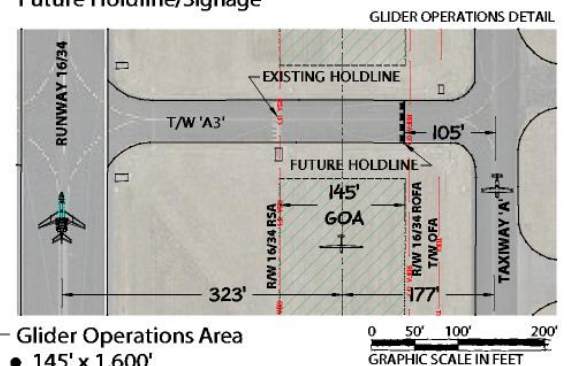
- 100' x 5,333'
- ARC C-II Dimensional Criteria
- 1/2-mile Visibility Minimums (R/W 34)

Glider Operations Area

- 145' x 1,200'

Future Holdline/Signage

**PRELIMINARY
ONLY**



Glider Operations Area

- 145' x 1,600'

Future Holdline/Signage

Glider Operations Area

- 145' x 1,200'

Future Holdline/Signage

Note:

Smaller aircraft use connecting taxiways A2 and A3.

Maximum aircraft length estimated at 40'.

TW centerline to object (aircraft tail holding at A2) = $0.70 \times \text{wingspan} + 10'$

ADG-II maximum wingspan = 78'. $78' \times 0.70 + 10' = 65'$

$65' + 40' = 105'$

FIGURE x
Future Condition Layout



Source: Aerial photography by Aero-Metric, Inc. September 2008, Airport Layout Plan by Barnard Dunkelberg & Company, December 2003.

Response to Region (ANM-615) Comments:

1. Although shown on the ALP as an existing glider landing area, the Google Earth image (2006) does not indicate that the area beside Runway 16-34 is actually being used for that (at least the grass/mowing pattern does not show wear). How much is it really used?

With around 3,500- 4,000 annual operations and 50 based gliders, Arlington is one of the largest glider operations in the country.

2. Although indicated on the ALP as an existing glider landing area, is there any file evidence that any of the GOA's on this airport were ever formally airspaced, i.e., either through a Form 7480-1 aeronautical study or as a specific evaluation item in a draft ALP review/coordination? If not, they may have just "slipped through" and attained their legitimacy in FAA ALP approvals (this would not look good in court, in case there were an accident).

Yes, the existing glider landing area was evaluated as part of the last master plan, and it is shown on the approved airport layout plan (ALP) which was coordinated with all the other divisions in a NRA aeronautical review. All other LOB's were aware of this operation, and FS still believes that it is a safe and legitimate operation. We have always allowed for this area to be used as an alternate landing area as part of a one runway system, with no simultaneous operations. In the past the ADO has been very clear about the expectation that this area is to be operated in a safe manner (attachment 3- Karen's letters during previous master plan).

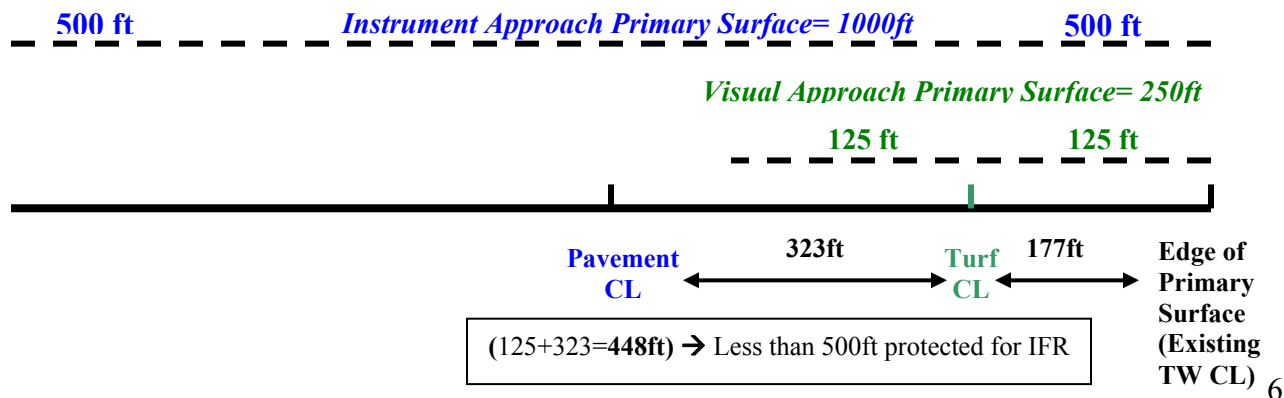
3. The drawings show that there are three distinct "operations areas", suggesting that this is not one continuous landing area ("runway"), but that they are separated by Taxiways A2 and A3.

The center turf area is used predominately. The north and south GOA's are only used when a group of gliders needs to land in a short period of time due to loss of lift. FS believes this offers an increased safety margin for the gliders.

Although Runway 16-34 and the turf strip(s) operate as a single landing area (due to <700' separation), they do not have a common centerline, the C/L's being 323' apart. Since Part 77 surfaces are based in part on C/L and "runway" ends, the airspace protected for/by Runway 16-34 does not fully protect the turf strip(s), its users, or areas/users adjacent to the strips.

The pavement has instrument operations, with future visibility minimums at ½ mile, therefore the airspace protected for RW 16/34 does fully protect the GOA's and users in the area (see drawing below). The turf will only be used in VFR conditions, and we propose that the airspace around the airport lower to the ground as Class E.

Primary Surfaces for Both Landing Areas



4. What are the typical wingspans of the gliders? Assuming the gliders land on the unmarked "centerline" of the 145'-wide turf strip, the wingtips could be close to the TOFA for Taxiway 'A'. In any event, the "runway"-Taxiway 'A' separation would be only 177'. This meets only A/B-I (small) design standards. Should aircraft larger than ADG-I (small) not operate on Taxiway 'A' when the turf runway is in operation? If so, at a non-towered airport, how would that be controlled?

The typical wingspan for gliders that operate at Arlington is about 70 feet and the largest wingspan for group II aircraft is 78 feet (Gulfstream I).

GOA to Taxiway Clearance:

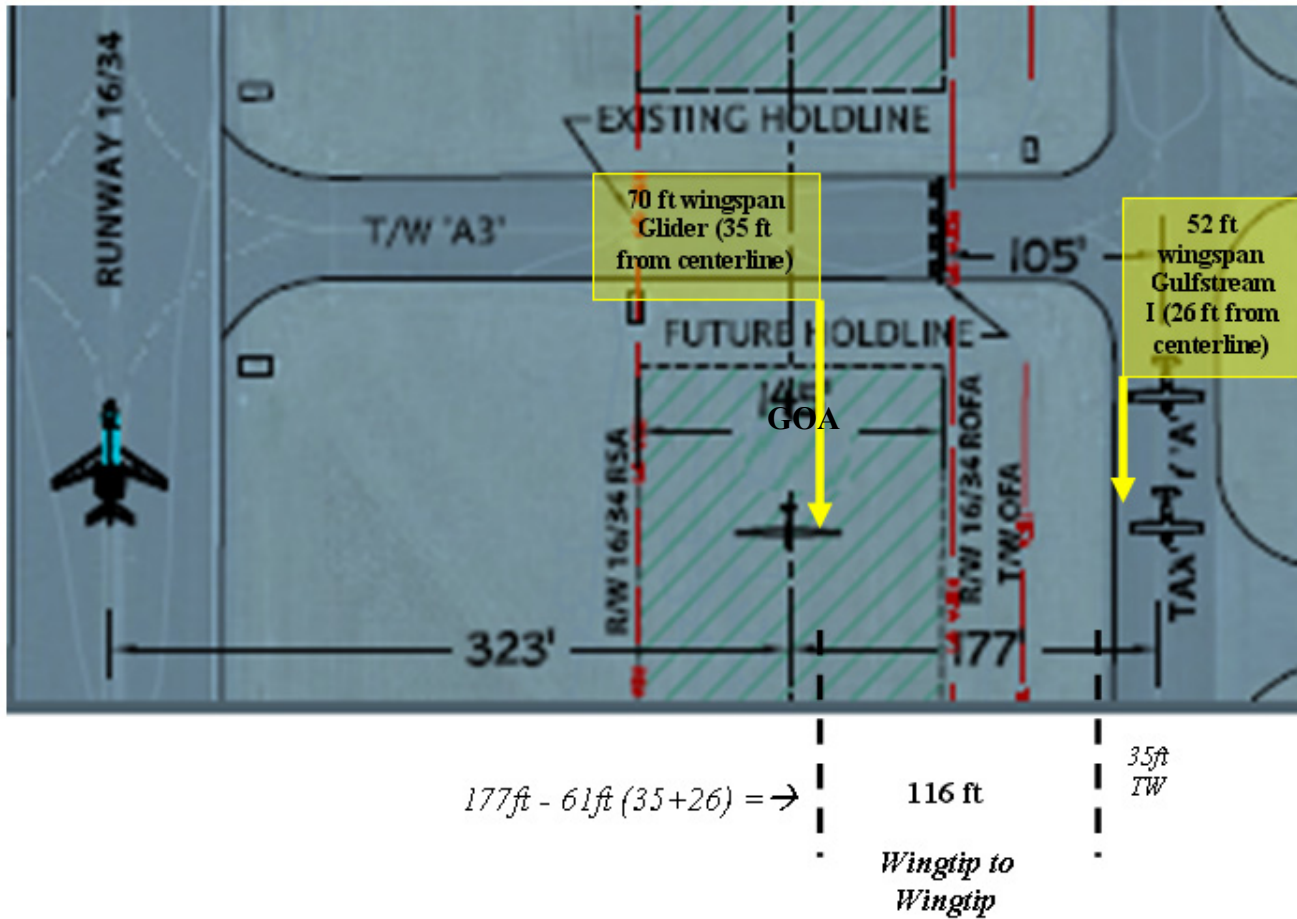
*The runway/ taxiway separation standard per AC 150/5300-13, Appendix 8 paragraph B: Runway to parallel taxiway/ taxilane separation is determined by the landing and takeoff flight path profiles and physical characteristics of airplanes. The runway to parallel taxiway/ taxilane standard precludes any part of an airplane (tail, wingtip, nose, etc.) on a parallel taxiway/ taxilane centerline from being within the runway safety area or penetrating the OFZ. **This proposal meets these requirements.***

Wingtip Clearance:

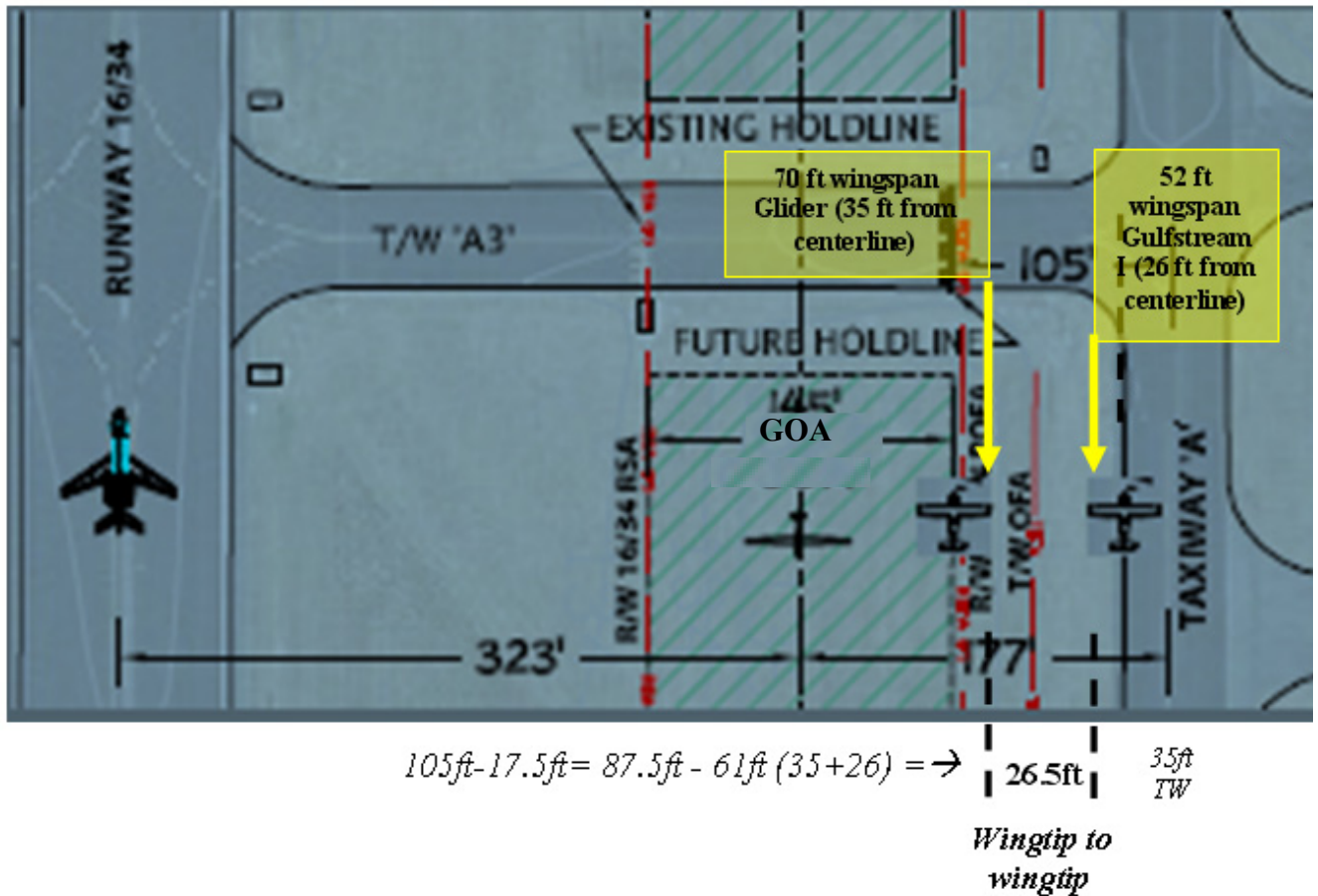
The images below demonstrate two cases for wingtip clearance in a 1) worst case, if both aircraft and glider operate on the edge of their surfaces, and 2) shows a typical case when the aircraft and glider operate on the centerlines.

As a reference, minimum wingtip clearance for ADG II taxiway to taxiway is 26 feet (per AC 150/5300-13, pg. 40 Table 4-3, Wingtip Clearance Standards).

“Typical Case” → Aircraft on centerline of TW pavement and glider at centerline of turf landing are. This results in a wingtip clearance of 116 feet at Arlington.



“Worst Case” → Aircraft on edge of TW pavement and glider at edge of turf landing are. This results in a wingtip clearance of 26.5 feet at Arlington.

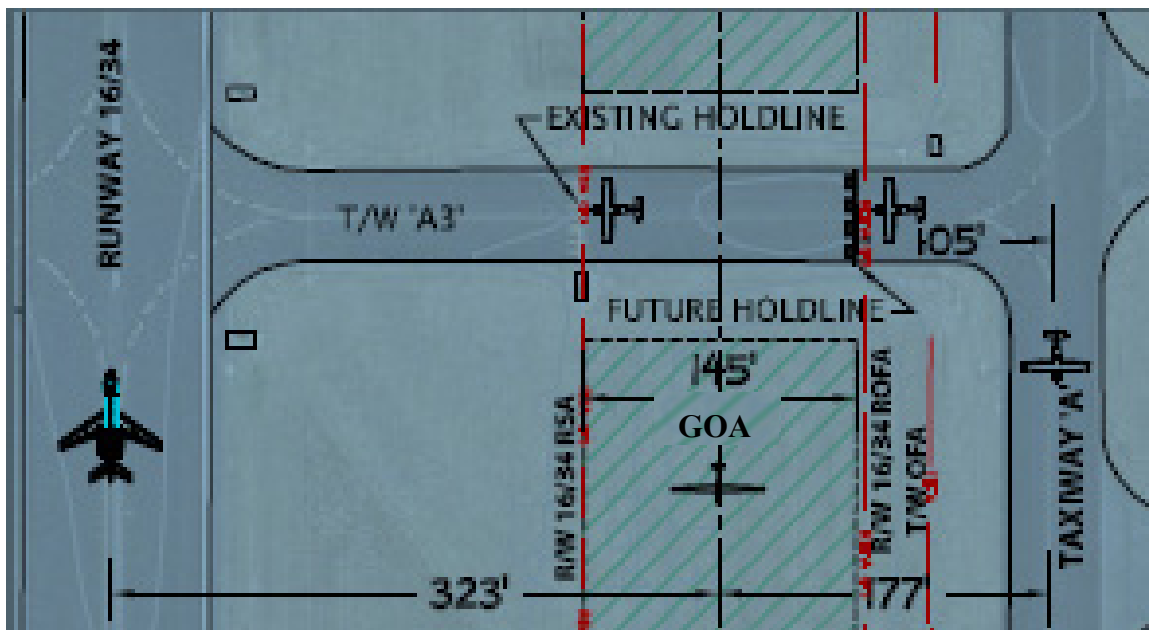


5. The draft memo states:

"Runway hold lines and signs on connecting taxiways will be pushed back to the outside edge of the GOA which is 395 feet from the centerline of RW 16/34. This will ensure that aircraft are not obstructing approaches and departures from GOA."

If this would "ensure" that other aircraft would not obstruct glider approaches and departures, then we would have no need for RPZ's, RSA's or holding areas to be wider than a runway beyond its end. This would be positioning hold lines/signage based on something that is not a design standard. Technically, positioning hold lines/signage should be based on the turf strip's C/L, i.e., 175' from C/L (AC 150/5300-13, table 2-1, ADG-1 small). The proposal to place the hold lines at the edge of the strip's extended width would place them at only 72.5' from the C/L. At a minimum, the proposal would require a mod to standards. Does an aircraft holding at the very edge of a runway's extended width provide an "acceptable level of safety"?

Per AC 150/5300-13, table 2-1, ADG II small, visual runways and runways with not lower than $\frac{3}{4}$ mile statute mile approach visibility minimums, hold lines should be placed 200 feet from runway centerline. Current position of signs and hold lines are 250 feet from paved RW 16/34 centerline (meets B-II not lower than $\frac{3}{4}$ mile standards). Under future conditions (C-II mile visibility) signs and hold lines would be at 250 feet. Aircraft are currently holding at 250 feet which potentially places them under GOA approaches. Pulling hold lines back stops this from happening, therefore increasing the level of safety, this was recommended and supported by FS during a meeting. The graphic below demonstrates the existing and proposed hold line positions. It is our recommendation that the holdlines be pushed east towards Taxiway A to avoid holding powered aircraft on the connecting taxiways at each end of the center GOA.





Re: Arlington Proposal 
Jim Phoenix to: Deepeka Parashar

03/05/2010 01:06 PM

Cc: Timothy D Miller

History: This message has been replied to.

Deepa,

The Seattle FSDO concurs with the proposed operation plan as detailed in the attached document. I coordinated with ANM-220 (Dennis Franks) as well. We believe this plan will provide an enhanced level of safety for the glider and powered aircraft operations at Arlington.

Sincerely,

Jim Phoenix
Seattle FSDO NM01
(425) 227-2872
(253) 720-6233 cell

Deepeka Parashar/ANM/FAA



Deepeka Parashar/ANM/FAA
ANM-610, Planning,
Environmental & Financial

To Jim Phoenix/ANM/FAA@FAA

cc

03/04/2010 12:49 PM

Subject Arlington Proposal

Hi Jim-

Attached is the proposal for Arlington Municipal Airport. Thanks!



Arlington Proposal Internal 2-26-10.doc

Thank you!

Deepa Parashar

Airport Planner, Washington

Seattle Airports District Office

Federal Aviation Administration

(Ph) 425-227-1654 ~ (F) 425-227-1650

December 11, 2010⁰⁹

**RESPONSE TO ARLINGTON AIRPORT
ON ALTERNATIVES FOR RE-LOCATING
GLIDER OPERATIONS**

Submitted By: Evergreen Soaring, Inc.
PMB #165
6947 Coal Creek Parkway SE
Newcastle, WA 98059-3159

Introduction

The Arlington Municipal Airport (KAWO) is the best general aviation airport in Washington State and as such is a valuable aviation resource. In addition to hosting the EAA Fly In July of each year KAWO is home to Evergreen Soaring Inc. (ESI) which is the fourth largest glider operation in the United States. The Arlington aviation community is a healthy blend of recreational aircraft, corporate aircraft, gliders, helicopters and light sport aircraft that have co-existed with an exceptional safety record for the past 30 years.

Background

The KAWO five- year master plan includes upgrading the instrument approaches to paved runway 16/34. A consequence of this is the need to provide 700 feet lateral runway separation between the power traffic and the glider operations which are conducted on the grass area between runway 16/34 and the east taxiway. KAWO airport management and their consultants have proposed five alternatives for relocating the glider runway to meet the FAA requirement for no simultaneous take-offs and/or landing on parallel runways with less than 700 feet lateral separation. ESI has reviewed and studied these proposed options using the following criteria:

- Safe pattern separation for all categories of aircraft to avoid conflict and risk of mid-air collision.
- Consideration of unique features and capability for glider operations.
- Adequate infrastructure for the storage and operation of gliders and towplanes.
- Flight path provisions for the efficient launching, landing and retrieval of gliders and towplanes.

Glider Runway Alternatives

KAWO consultants proposed five alternatives for evaluation that would allow airport management to meet the FAA standard of a 700' runway separation. These alternatives are:

1. Require gliders to use runway 16/34. Gliders would operate using runway 16/34 along with the powered aircraft.
2. Construct new glider runway 700' west of runway 16/34. This would have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34.
3. Relocate glider runway and ultralight runway. This would relocate the existing ultralight runway and have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34.
4. Construct new glider runway 700' west of runway 16/34 and new ultralight runway 700' west of the New Glider Runway. This would have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34. Ultralights would operate parallel to runway 16/34 on a third area further west from the glider operation.
5. Co-locate glider runway and ultralight runway. Under this option the gliders and ultralights would share the area currently open for runway 03/21.

As part of the evaluation process, Evergreen Soaring identified two additional alternatives:

6. Move runway 16/34 at least 300' west and allow the gliders to continue operation as usual.
7. Construct new glider runway 700' west of runway 16/34 and move the power traffic pattern from the west side of the airport to the east.

Evaluation

ESI selected a group of experienced members to review and evaluate the various options.

This group took scale drawings of the airport, laid out the existing glider patterns and variations and then transposed these to the proposed options for preliminary evaluation. Pattern modifications were proposed and discussed that would improve safety by increased separation from power, helicopter and ultralight traffic. The proposed areas to the west of the tetrahedron were walked and surveyed. The two-place towplane was flown with two towpilots and instructors simulating the glider patterns and towplane tow-out procedures for safety and as a first cut at developing effective operating procedures. Finally a glider was launched and a glider landing made on the proposed option 4 runway after making a midfield crosswind entry to the proposed glider landing pattern. Further analysis and discussion ensued. The consolidated ESI position on all of the proposed options is presented below:

1. **Require Gliders to use Runway 16/34. Gliders would operate off of runway 16/34 along with the powered aircraft.**

Option 1 is high risk for low altitude mid air collision. Using the same runway as the power traffic with glider patterns to the east and power to the west would result in head to head approaches on base leg with very little chance of the power traffic seeing the glider (gliders have very little frontal area and are not very visible head on). Towplanes stopping for glider hookup would block the runway – forcing other traffic to go around. Also, personnel pushing around gliders, managing towropes, and hooking up glider on or near the runway would be hazardous. ESI considers option 1 unacceptable.

2. **Construct new Glider Runway 700' West of Runway 16/34. This would have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34.**
3. **Relocate Glider Runway and Ultralight Runway. This would relocate the existing ultralight runway and have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34.**

Options 2 and 3 are similar to option 4 but have the ultralights operating at an angle to the gliders – making these options less safe than option 4.

4. **Construct New Glider Runway 700' West of Runway 16/34 and New Ultralight Runway 700' West of the New Glider Runway. This would have the gliders operating from a grassy area toward the middle of the airport property and inside the landing pattern of powered aircraft. Gliders would be taking off and landing parallel to runway 16/34. Ultralights would operate parallel to runway 16/34 on a third area further west from the glider operation.**

Option 4 is manageable with additional provisions to those proposed. It has the gliders operating parallel to the power traffic on 16/34 in and has the possibility of providing an acceptable level of safety and practicality. Separation from the helicopter and ultralight traffic needs further discussion in addition to having the glider traffic join the pattern on a mid-field crosswind from the east. Considerable further discussion is needed to meet all of the concerns and issues inherent in using this option.

5. **Co-locate Glider Runway and Ultralight Runway. Under this option the gliders and ultralights would share the area currently open (not blocked off) for runway 03/21.**

Option 5 is hazardous for the towplane glider combination in terms of conflict with departing power traffic on runway 34. Additionally departures on runway 21 fly out over extensive built up areas that provide no safe options in the event of loss of towplane power. The glider traffic pattern interacts with the power traffic twice and has a high potential for midair collision. Option 5 is considered unsafe and impractical.

Option 6 is safe and practical for aircraft operations – allowing gliders to continue to operate safely outside the traffic pattern for powered aircraft. Unfortunately, the Arlington Airport may find it cost prohibitive to move the main runway and the runway protection areas would probably not allow a runway extension on the north end of 16/34. Option 6 is not considered practical or cost effective.

Option 7 is conditionally safe and practical for aircraft operations – provided the gliders are operated to the west of the airport. However, this would put the gliders in conflict with the I5 corridor power traffic and result in more noise in already noise sensitive areas to the east of the airport and the city of Arlington. Moving the power traffic to the east and having gliders continue to operate in their preferred area to the east would result in having the glider traffic having to cross the power traffic twice. Option 7 is not considered safe or practical.

Next Steps

In summary there appears to be only one reasonable option (option #4) for relocating the glider operations on the KAWO airport. Considerable further work is required to develop safe, effective and efficient glider operating procedures that are compatible with other airport users and local residents. Below (not in any particular order) is a “shopping list” of some of those issues. It is not by any means a complete or exhaustive list.

- The departure of each glider on tow (e.g. glider and towplane) will need to cross the power traffic pattern as some point to get out of the airport. Procedures need to be developed to allow safe transition through the power traffic pattern.
- The traffic patterns for every landing glider will need to cross the main power runway or the power traffic pattern to enter the glider landing pattern. Procedures need to be developed for safely joining the pattern and completing the landing. The evaluation flight undertaken in an L-23 Blanik showed that a pattern can be made inside the power traffic pattern and provides some options for alternate landing areas. Further evaluation needs to be done to develop safe glider pattern procedures.
- Landing patterns for the gliders will need to be tighter giving the pilot less time to react in making a safe landing. This in itself is not hazardous, but will take some adjustment from the longer landing patterns we have come to enjoy.
- Towplanes are proposed to land on the glider grass runway to minimize turnaround launch time.
- New radio procedures need to be established to provide improved safety for the departing towplane and glider combination.
- Gliders need an operating area that is large enough to accommodate multiple gliders returning to land at the same times. This is necessary when conditions deteriorate on a soarable day.
- Gliders, helicopters, ultralights and powered aircraft must remain in their assigned patterns.
- The trees at the north end of the new glider runway would have to be cleared to allow for safe towing operations. The area to the north with the gravel pit would need to be filled and graded.
- The gliders will need a wide area for landing; the primary area needs to be highlighted and have the additional area available for contingencies.
- The glider runway should extend to the maximum length available (2300 feet) allowed by the runway protection areas and runway crossing markers erected on the taxiways affected.
- Permanent glider staging will need to be moved to the west with (preferably) a paved rigging pad.
- Ultralight operations and patterns need to be discussed and agreed.
- Helicopter operation in close proximity to the glider operation has been a concern in the recent past – an opportunity exists to move the helicopter operations back to east side of runway 16/34 and increase the separation with the glider operations.
- The residential housing to the north and west of the proposed glider runway will be exposed to frequent low altitude towplane /glider combination noise. Towplanes could be proactively fitted with noise

reduction propellers (4 bladed Hoffman propellers that have been used effectively at other gliding sites) if funding were available.

- Additionally the issue of slower power aircraft that fly tight patterns in order to avoid being over run by faster aircraft will have to find other solutions.

Conclusion

ESI has evaluated all of the options proposed by the airport's consultants plus additional options that presented themselves during research. ESI concludes that only Option 4 is feasible. Further, it found that from a ground handling standpoint, moving the glider operation to the west of 16/34 offers many attractive benefits. However, from a flight safety view no combination of patterns or locations were found that did not increase the risk of midair interaction between gliders and other aircraft. This reduction of overall safety, while manageable, should be evaluated when considering changes to the existing glider operation.

APPENDICES:

Appendix A: Simulated Modified KAWO Glider Traffic Patterns (Landing to South)
Data from SuperCub 74D on Saturday, 2 Jan 2010

Appendix B: An extract from the GPS file recorded during the L-23 approach and landing

Appendix C: A view, looking south, of the consultants proposed new glider runway area

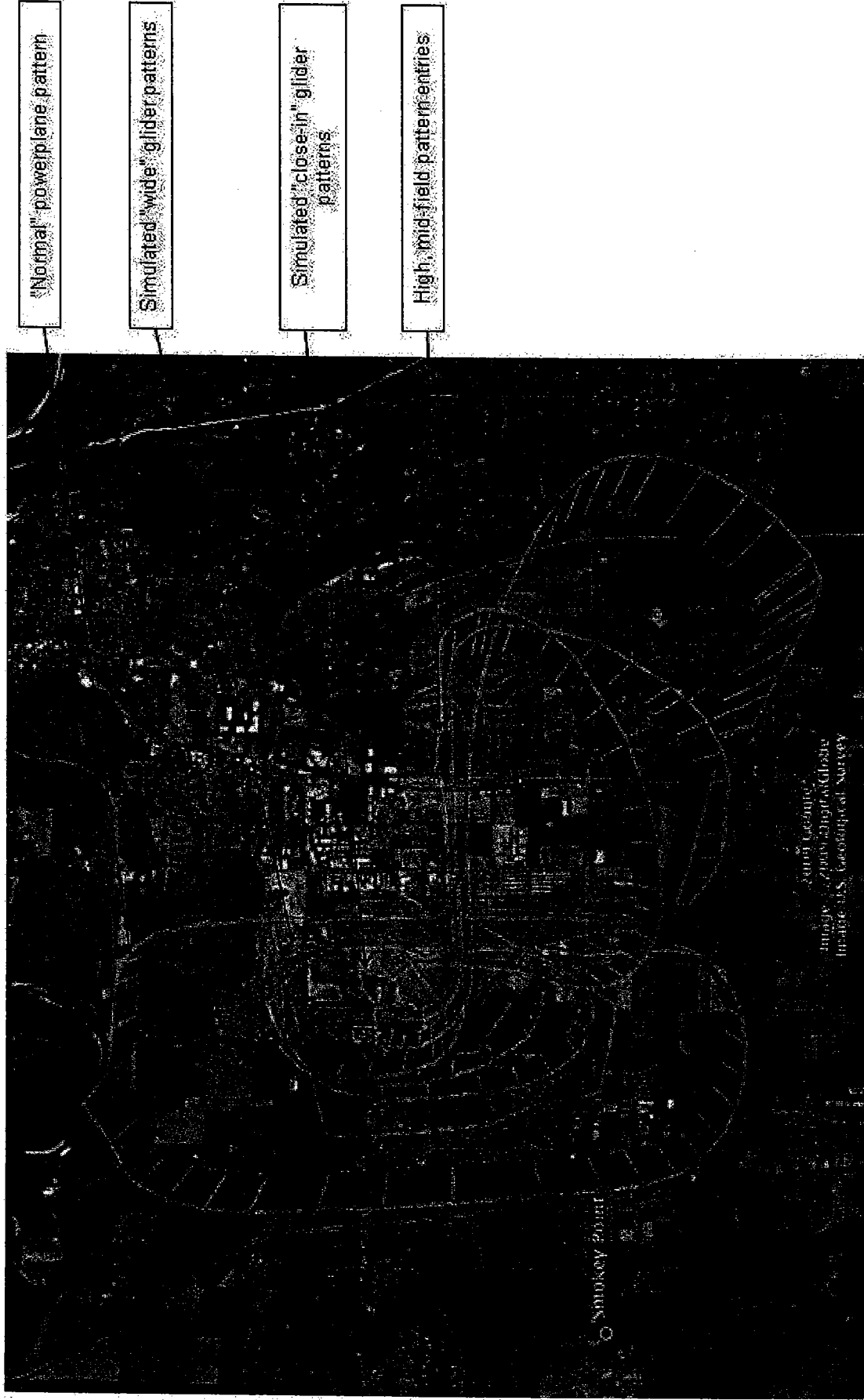
Appendix D: A view from base leg in the L-23 while landing on the 34 proposed glider runway area

Appendix E: A list of unique requirements and constraints faced by glider operations

The entire flight and IGC file are on the OLC at:

<http://www.onlinecontest.org/olc-2.0/gliding/flightinfo.html?flightId=-152265230>

Appendix A Simulated Modified KAWO Glider Traffic Patterns (Landing to South) Data from SuperCub 74D on Saturday, 2 Jan 2010



Appendix A (continued)

Positives:

- Simulated glider patterns were all well inside "normal" power pattern
- Available landing distance seemed to be adequate
- There is space in the in-field for parallel glider landing strips: if a glider is on final close behind another glider, there is space for landing to one side of the preceding glider (see observation about radio use)

Negatives:

- High midfield entry results in hurried downwind - must descend and position for landing within a relatively short time. (An entry nearer the power pattern crosswind would give more time and distance to set-up for landing)
- Trees to North of proposed glider runway are a distraction and a hazard
- Pattern entry crosses over power runway - high performance power airplanes or airplanes on go-around or missed approach could present hazard
- Tow plane/glider combination takeoff path crosses power traffic crosswind leg. Power traffic will be converging from behind the combination
- If a glider gets low on downwind, there are very few options for alternate landing sites

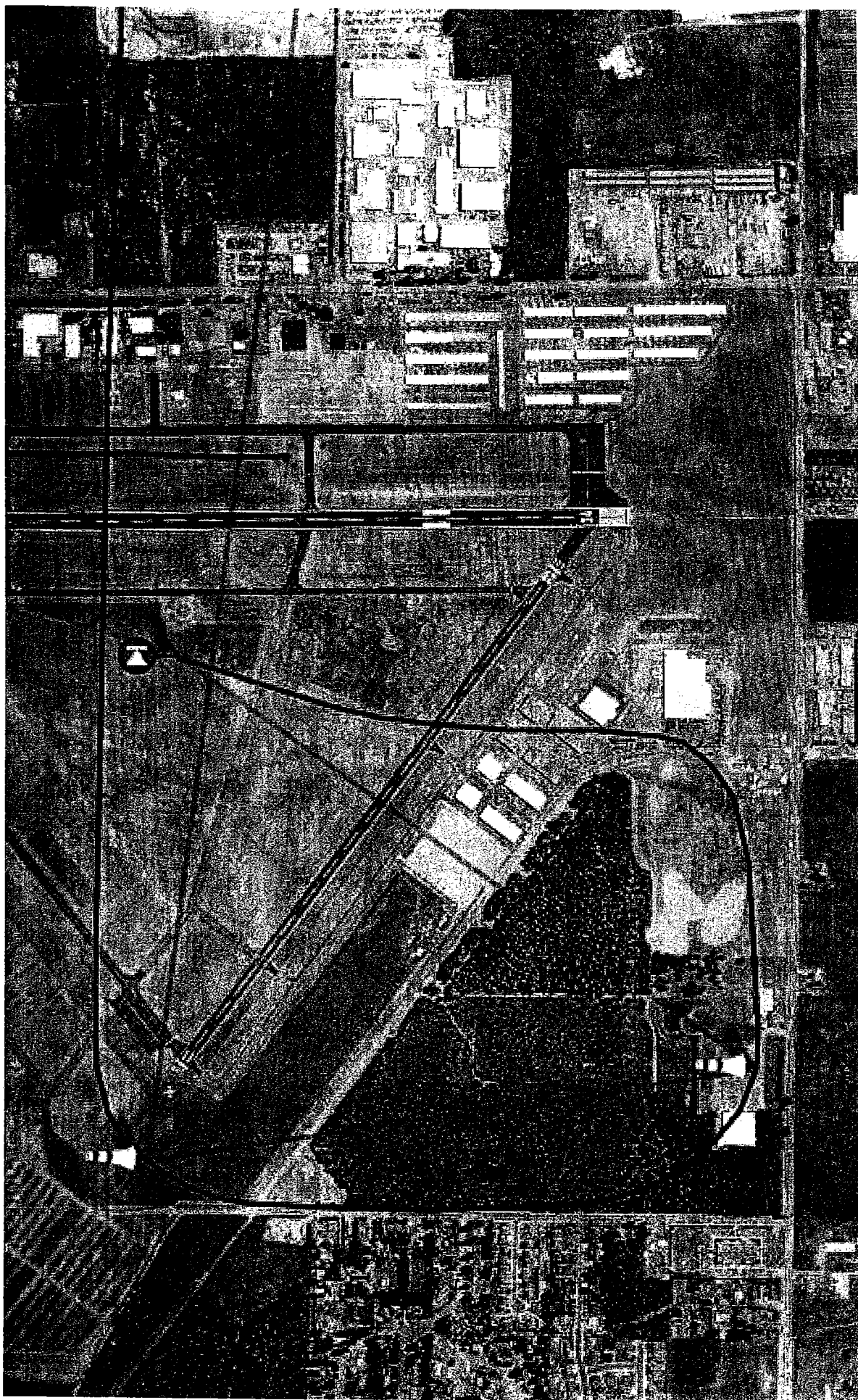
General Observations:

- Glider pilots must use radio to announce their intentions in a way that is understandable to most power pilots and other gliders in pattern
- Solo students will have to demonstrate high level of competence in traffic pattern planning and radio communication procedures
- Moving gliders into launch position will require use of golf carts/vehicles. (Perhaps we can propose a driver training program and minimum vehicle equipment, including roof light and radio)
- This operation is not compatible with the present ultra-light operation
- Recommend that the trees on the North perimeter in line with the proposed glider runway be cut down

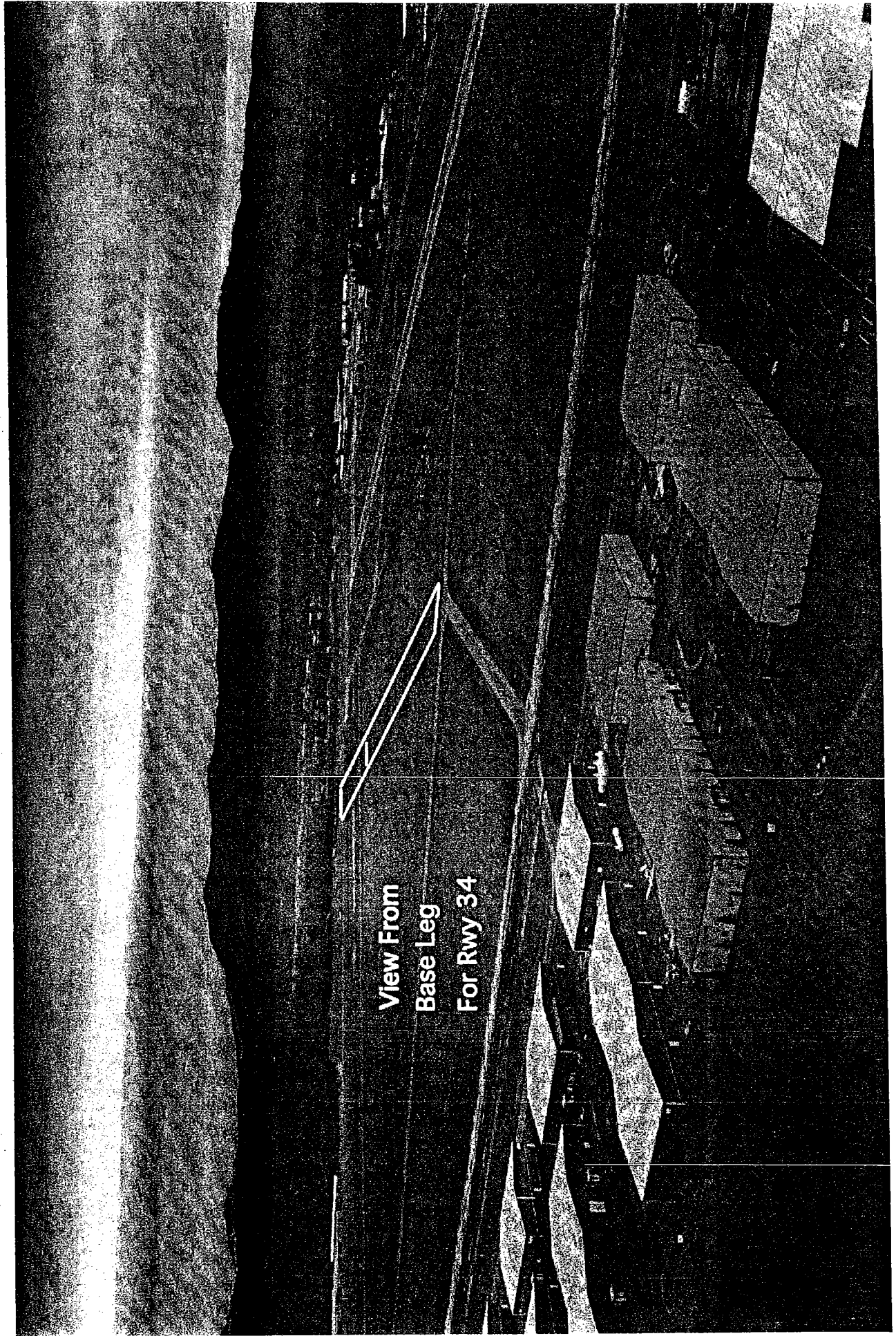
From Howard Glover

Appendix B

Actual Landing Pattern with Turnpoints

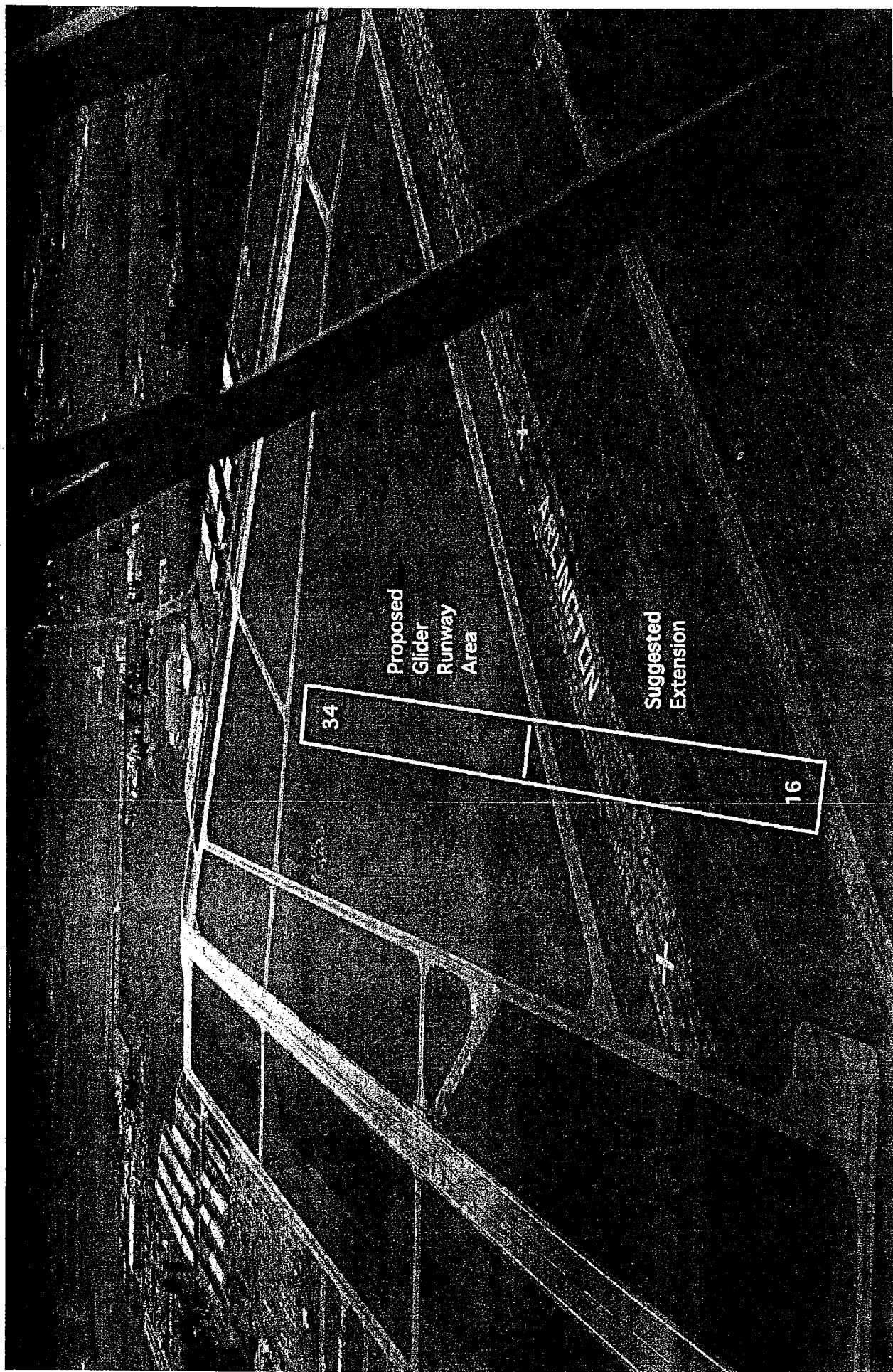


Appendix C
View of Proposed Glider Operating Area from Base Leg for Runway 34



**View From
Base Leg
For Rwy 34**

Appendix D
View of Proposed Glider Operating Area from Final Approach for Runway 34



Appendix E

Gliding Operations - Constraints

The following are constraints specific to non powered or non self launching glider operations:

- 1 Ground handling - Norman operation is to tow gliders to the launch point with a golf cart or powered vehicle or push the glider with a minimum of two (usually three) people. The usual procedure is to line gliders into a launch line at the take-off area and have the towplane taxi into position, hook up the towrope and then proceed to launch. Ground personnel are required to hook up the towrope, hold the glider wing and signal the launch to the towplane. The Field Operations Manager controls the whole operation. This requires a number of ground personnel to be in the launching area/takeoff area.
- 2 Landing glider traffic has no capability for a go-around so the landing is final and inevitable. The glider pilot is trained to always have an alternate landing area in mind in case of the primary area being unavailable due to other landing traffic or other obstructions.
- 3 Glider have excellent pilot visibility in the forward and side direction but very limited to no visibility to the rearward direction therefore because they fly slower than the vast majority of powered traffic are vulnerable to being run into from behind if they are in the power traffic pattern.
- 4 The towplane and glider combination have limited maneuverability during the tow procedure. The combination is climbing fast but flying slower than the vast majority of powered traffic. With very limited visibility to the rearward direction the combination is vulnerable to climbing up into faster departing power traffic that is in a nose high attitude with very limited forward and downward visibility.
- 5 Glider soaring operations are conducted to the East of KAWO due to the better soaring conditions at the foothills of the Cascade Mountains and due to the reduced risk of interacting with power traffic flying the I-5 corridor.



U.S. Department
of Transportation
Federal Aviation
Administration

Seattle Airports District Office
1601 Lind Avenue, S.W., Suite 250
Renton, Washington 98055-4056

January 5, 2001

Mr. Rob Putnam
Airport Manager
Arlington Municipal Airport
18204 59th Drive NE
Arlington, WA 98223

Dear Mr. Putnam:

**Arlington Municipal Airport, Arlington, Washington
Glider/Ultralight Operations and Precision Approach**

This is in response to your consultant inquiry to our office regarding concerns with future glider and ultralight operations if a precision approach with less-than-3/4-mile minima is implemented on Runway 34. Currently, Runway 16/34 has an Airport Reference Code of B-I with a non-precision approach (greater-than-3/4-mile minima) to Runway 34, a visual approach to Runway 16, and glider activity occurring outside the Runway Object Free Area (ROFA) but parallel to the runway. Existing ultralight activity is concentrated on the northwest side of the airport near the closed runway. The existing airport airspace classification is Class G uncontrolled below 700 feet, and Class E controlled airspace above 700 feet.

There are two main concerns that have been raised over what a future implementation of a less-than-3/4-mile precision approach on Runway 34 means. The first concern is that the ROFA for Runway 34 would increase from 400 feet wide to 800 feet wide, therefore the turf glider runway would be within the ROFA and may be a violation of Federal Aviation Administration (FAA) safety standards. The other concern is that the Class E controlled airspace would drop to ground level, which means that all ultralights must have prior authorization to operate from the Air Traffic Control facility having jurisdiction over that airspace. Currently ultralights do not require this clearance in the existing Class G uncontrolled airspace.

The following are FAA responses that address the issues mentioned in the December 8, 1999 planning memorandum by your consultant, Cody Fussell of Barnard Dunkelberg & Company.

Glider Operations with a Precision Approach to Runway 34

The initial part of the answer to this concern lies in the FAA definition of a landing area. The Seattle Airports District Office (ADO) and the Flight Standards District Office (FSDO) of the FAA make no distinction between a 'turf operating area' or a 'turf runway'. Both of these are considered a landing area, just as a paved runway is a landing area. FAA standards apply to all landing areas, i.e. if simultaneous landing operations are allowed, then two or more runways are used at the same time, and runway separation standards need to be met. If only alternating landing operations are allowed, then only one aircraft at a time is allowed to land and the landing surface is either the turf or paved runway, i.e. adjacent turf and paved surfaces are considered as only one runway, therefore runway separation standards do not have to be met. All other FAA standards need to be met for each runway during an aircraft operation on that runway. For example, during an aircraft operation on Runway 16/34 at Arlington, the ROFA standard for Runway 16/34 must be met. During an alternating aircraft

operation on the turf glider runway, the glider ROFA standard must be met. FAA standards may overlap under alternating operations, as only one of the landing areas can be used at a time.

Having the turf runway adjacent to the paved Runway 16/34 at Arlington means the approach surfaces are the same and traffic patterns do not conflict. This was the reasoning behind the March 27, 1980 letter from the FAA to the City of Arlington suggesting the turf glider runway be placed where it exists today. This letter also states this location is "*another acceptable method for accommodating gliders in addition to the method of operation we had proposed in previous correspondence*". To clarify, the letters from the FAA at that time were suggestions for glider activity locations, and while the FAA felt strongly that there was ample room on the airport for glider operations, we did not dictate it had to be in any one location.

In conclusion, as long as Arlington operates Runway 16/34 and the turf glider area as one runway, i.e. do not allow simultaneous operations, then there would be no change to turf glider operations if a less-than-3/4-mile precision approach is implemented for Runway 34. The ROFA for Runway 16/34 would increase to 800 feet wide and would encompass the turf glider landing area, but under alternating operations, the ROFA standard for Runway 16/34 is met.

Ultralight Operations with a Precision Approach to Runway 34

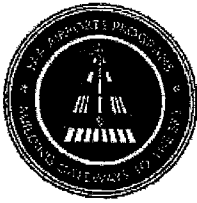
The concern raised over ultralight operations is due to Federal Aviation Regulation (FAR) Part 103 requirements with airspace classification. Paragraph 103.17 says "*No person may operate an ultralight vehicle within Class A, B, C, or D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport unless that person has prior authorization from the ATC facility having jurisdiction over that airspace*". Implementation of a less-than-3/4-mile-minima precision approach would require airspace surrounding the airport to change to Class E airspace to the ground (currently this doesn't start until 700 feet in elevation), therefore the Air Traffic Control (ATC) authorization becomes a requirement for an ultralight to operate at Arlington. Currently ultralights are not required to have authorization from ATC when they operate in Class G airspace.

The usual conclusion to ATC authorization is that a pilot is required to have a radio and remain in radio contact with ATC. However, in conversations with FSDO, ADO, and Air Traffic personnel, it is believed that an airspace arrangement at Arlington Airport could be worked out to meet the FAR requirements for ultralights. Air Traffic has offered that if a Class E Surface Area is established at Arlington, it could be designed to exclude the ultralight area if a written Letter of Agreement (LOA) between ATC and ultralight pilots for efficient operations at Arlington Airport is established. The LOA would outline the airspace issues at the airport, and each pilot operating an ultralight at Arlington would be required to sign and operate under the LOA. Adherence to the LOA would mean an ultralight pilot is not required to contact ATC. Without this airspace exclusion and LOA, ultralight pilots at Arlington would be required to have radios and ATC contact just like any other type of aircraft.

If you have any further questions, please call me at (425) 227-2661.

Sincerely,

Karen J. Miles, PE
Civil Engineer
cc: Barbara Lawrence-Tolbert, Arlington Fly-In



U.S. Department
of Transportation
Federal Aviation
Administration

Seattle Airports District Office
1601 Lind Avenue, S.W., Suite 250
Renton, Washington 98055-4056

January 19, 2001

Mr. Rob Putnam
Airport Manager
Arlington Municipal Airport
18204 59th Drive NE
Arlington, WA 98223

Dear Mr. Putnam:

**Arlington Municipal Airport, Arlington, Washington
Glider/Ultralight Operations and Precision Approach
*Correction***

This is in response to phone calls the Federal Aviation Administration (FAA) has received from pilots operating at Arlington Municipal Airport regarding the January 5, 2001 FAA letter which addressed glider and ultralight issues at the airport. We have reviewed the last sentence in the last paragraph of the letter and found it to be in error. There is no requirement that pilots have radios under Class E airspace. The sentence should read as follows:

"Without this airspace exclusion and LOA, ultralight pilots at Arlington would be required to have ATC authorization just like any other type of aircraft."

We apologize for the confusion which has occurred due to this error. If you have any further questions, please call me at (425) 227-2661.

Sincerely,

Karen J. Miles, PE
Civil Engineer, Washington Section

cc: Barbara Lawrence-Tolbert, Arlington Fly-In

Appendix Five

- Northwest EAA Fly-In Long Range Land Use Plan



Northwest Experimental Aircraft Association Fly-In and Sport Aviation Convention

4/00 - 188th St. NE • Arlington, WA 98223 • 360-435-5857 • FAX 360-435-6480 • www.nwaa.org

Rob Putnam
Arlington Airport
18204 59th Ave NE
Arlington, Wa 98223

June 12, 2002

Dear Rob,

Since 1969 the Arlington EAA Fly-In has grown from a one-day event, to a three-day event to its present five-day event. With a mission to: "promote aviation by sponsoring an annual aviation convention and other activities that will provide aviation education to the people in the Pacific Northwest."

The general aviation community has responded to this offering. In the last 10 years the event has experienced a roughly 12 to 15% per year growth rate. This has moved our organization into an active role of utilizing resources and managing the growth to ensure long-term success.

This past July, The 2001 Arlington EAA Fly-In hosted 54,000 people and recorded over 6,430 aircraft movements. We registered 1317 aircraft at the event and presented over 140 educational forums on a wide range of topics that include aviation safety, heritage programs, technology and future programs to benefit general and recreational aviation.

The Snohomish County Tourism Bureau has recognized the significant economic impact of the Arlington EAA Fly-In crediting Fly-In attendees with a \$2 million direct spending impact. The indirect spending impact is measurably higher.

While the City, County and State benefit from the tax revenue and the businesses benefit from sales of products and services, one of the most important benefits is to the community based non-profit organizations who have received over \$100,000 in donations in the last six years as a result of this event.

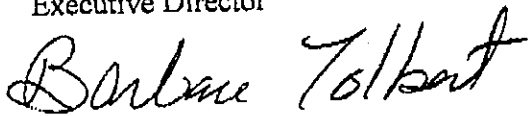
What began as a few pilots getting together before their annual trek to the Abbotsford Air Fair has through evolution and organization become the third largest recreation aviation event in the U.S. Which for one week every July becomes the center of aviation activity in the Northwest.

The future of the Arlington EAA Fly-In and it's ability to fulfill it's educational based mission is dependent on our relationship with the Arlington Airport and the assurances

that the area needed to host this worthwhile activity is available. The current revision to the Arlington Airport Master Plans shows the Fly-In use areas and includes areas for future growth. The Board of the NW EAA Fly-In reviewed the maps at it's annual meeting in October, and feels encouraged the Master Plan Updates take into consideration the future growth and potential of the event and organization.

The Fly-In Board of Directors is focusing energy on managing growth and planning the future potential for the event, based on the growth factors of the past 10 years, the support of the local community and the regional agencies, general aviation in the Northwest will be well served.

Barbara Tolbert
Executive Director

A handwritten signature in cursive script that reads "Barbara Tolbert".

NORTHWEST EXPERIMENTAL AIRCRAFT ASSOCIATION ARLINGTON FLY-IN

NOV 9 2001



**LONG RANGE LAND USE PLAN
MAY 2000**

MISSION STATEMENT

The mission of the Northwest Experimental Aircraft Association (EAA)
Fly-In is to promote aviation by sponsoring an annual aviation
convention and other activities that will provide aviation
education to people in the Pacific Northwest.

**NORTHWEST EAA FLY-IN
BOARD OF DIRECTORS**

Al Burgemeister	President
Kevin Stoltz	Vice-President
MaryAnn Thompson	Secretary
Barbara Tolbert	Treasurer-Executive Director
Jim Scott	Fly-In Manager

Sue Burgemeister
Brian Greene
Ken Miller
Jay Tolbert
Walt Van Zanten

TABLE OF CONTENTS

MISSION STATEMENT	2
SECTION I ARLINGTON FLY-IN/EAA.....	4
About the Arlington Fly-In	4
About EAA	6
EAA Aviation Foundation	7
A Typical Day at Arlington.....	9
SECTION II ECONOMIC AND COMMUNITY IMPACT	13
Tourism Enhances Economy	13
Building Bonds for Our Future	14
SECTION III LONG RANGE LAND USE PLAN	15
Aerobatics Box.....	16
Aircraft Operations and Parking	17
Auto Parking	18
Camping	19
Exhibits	20
Youth Activities	21
Education	21
Entertainment.....	21
Services.....	22
Airport Aerial Photo Map.....	23

ABOUT THE ARLINGTON FLY-IN

Arlington's biggest event



*Growth of the
Arlington Fly-In
has been dramatic
during the past
10 years.*

Since its modest beginning in 1969, the fly-in has grown from a one-day to a three-day to its present five-day event. The event is structured to include all of the EAA's individual and collective educational efforts. Drawing aviation enthusiasts from all over the world, anyone with real or passive interest in aviation is encouraged to attend.

The EAA is dedicated to serving all aviation by fostering and encouraging individual participation, high standards, and access to the world of flight in an environment that promotes freedom, safety, family and personal fulfillment.

Each year the Fly-In is reviewed in numerous aviation magazines. These articles routinely cite the quality of the event, the friendliness of the Arlington community, and the beauty of the region.

Growth of the Arlington Fly-In has been dramatic during the past 10 years. The Fly-In has experienced an annual attendance growth of roughly 12-15% per year.

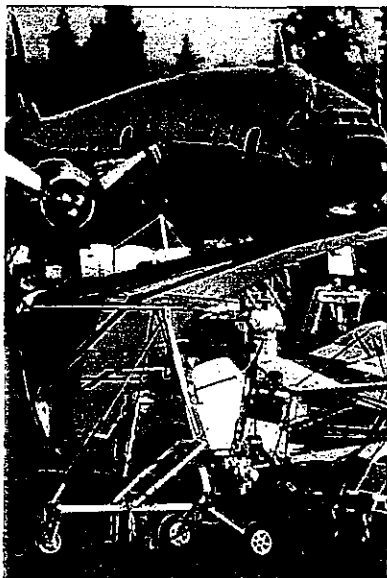
The Fly-In
Board of

Directors is focusing energy on managing growth and planning for future potential for the event. Supported by hundreds of dedicated volunteers, the Board and Fly-In Managers are committed to utilize its resources and personnel to ensure the long-term success of the event.



ABOUT THE ARLINGTON FLY-IN

Decades of aviation tradition



*The Arlington Fly-In
is an exciting
celebration of
aviation history,
achievement
and learning.*

The Arlington Fly-In, now in its 31st year, has been hosted since 1980 by the Northwest EAA Fly-In. The Northwest EAA Fly-In is a nonprofit 501(c)3 corporation which, through the Arlington EAA Fly-In annual event, provides aviation education to the people of the Pacific Northwest. The Arlington Fly-In links the community to the airport and provides an understanding of how aviation positively impacts all our lives.

For one week every July, the Arlington Airport becomes the center of aviation activity for the whole family. With over 50,000 people and 1600 airplanes participating, it is the third largest recreational aviation event in the US.

The Arlington Fly-In is an exciting celebration of aviation history, achievement and learning. From beautifully restored vintage craft to ex-military machines, from the delicate grace of Ultralights to a wide array of handcrafted homebuilts, you will find it all on the convention grounds. Combine that with a breathtaking daily airshow, fascinating exhibits and authoritative workshops—it adds up to an unforgettable experience for the entire family.

EAA is an international membership organization focusing on aviation and the broad range of activities it offers. Areas of interest within EAA's growing membership include: designing, building, restoring, maintaining, flying and simply enjoying airplanes and the people who fly them.

EAA is an activity-oriented association whose membership has grown to more than 170,000.

ABOUT EAA

170,000 strong and growing.



*Promotes a sense
of fellowship and
camaraderie.*

EAA Headquarters in Oshkosh, WI, coordinates and implements programs at the state, regional, national and international levels. A strong Chapter network, which forms the backbone of EAA's membership, offers participation at the local "grass roots" level.

EAA also promotes a sense of fellowship and camaraderie that are important elements of all EAA activities. Known throughout the aviation community for its positive, "can-do" spirit, EAA promotes sport aviation, assists amateur aircraft builders and represents its constituency in our nation's capital on aviation issues.

In addition to the strong Chapter program and representation in Washington, D.C., EAA members share in a comprehensive package of membership benefits that enhance the safety, affordability and enjoyment of personal flight.

The annual EAA AirVenture "Oshkosh" Convention is known as the world's premier sport



aviation event. Each summer more than 800,000 people and 12,000 airplanes attend the weeklong celebration of flight at Wittman Regional Airport in Oshkosh, WI. AirVenture EAA's very active network of more than 900 Chapters located worldwide also sponsor Fly-Ins, workshops, airport days and other events. EAA Chapters alone account for nearly 12,000 aviation activities each year.

EAA AVIATION FOUNDATION

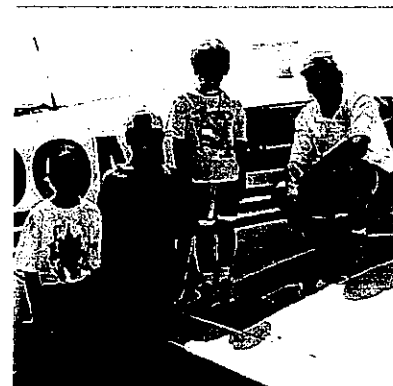
Dedicated to youth...



Giving children the vision to dream is our investment in the future

The EAA Aviation Foundation was established in 1962 and is dedicated to the education, history and development of sport aviation. The Foundation has assembled one of the world's largest and most impressive private collections of aircraft. A portion of this collection is on display in the EAA Air Adventure Museum, which is part of the EAA Aviation Center in Oshkosh, WI. Open to the public year-round, the Aviation Center also houses the international headquarters of EAA and the EAA Aviation Foundation.

Young Eagles Program. One of the Foundation's most important efforts is the Young Eagles Program, created to give a free flight experience to young people, primarily between ages 8-17. The Foundation and EAA volunteer pilots hope to give one million young people a demonstration airplane ride by the year 2003 - the 100th anniversary of powered flight and the 50th anniversary of EAA. Through these flights, the Foundation hopes a new generation of young people discovers more about aviation and the freedom of flight.



Youth Education. The Foundation, which co-sponsors EAA AirVenture "Oshkosh" administers an extensive scholarship program for young people interested in aviation-related careers. The Foundation also coordinates a growing number of youth education programs. Its commitment to aviation education is growing through the "Vision of Eagles" initiative introduced in 1997.

EAA AVIATION FOUNDATION

...and education.

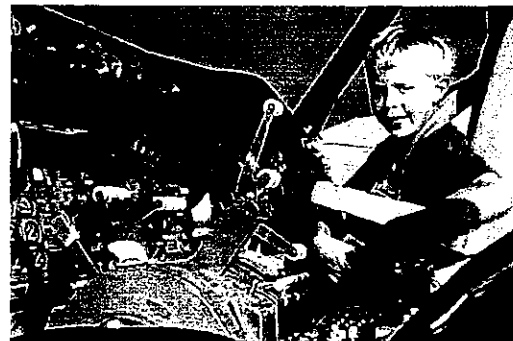


*Education and
research benefiting
all facets of sport
aviation.*

Other youth outreach efforts are now getting off the ground. As part of the ongoing Vision of Eagles program, the Foundation is bringing aviation into the classroom with the Science, Math and Technology. Other facets of the Vision of Eagles Program include development of educational CD-ROMs, mentorships and museum-based activities at locations across the U.S.

The Foundation administers an extensive scholarship program for students pursuing aviation-related careers. The EAA Air Academy offers young and old total immersion classes and workshops that bring the aviation experience alive. Since 1998, many of these activities have been based out of its showcase building, the Air Academy Lodge.

At the heart of the EAA Aviation Center is the Boeing Aeronautical Library, featuring thousands of priceless books, magazines,



photographs, manuscripts and papers dating back to the earliest days of aviation. EAA Television also produces aviation programming for a number of networks and cable channels.

In addition, the Foundation's alternative fuels program is expanding its research that led to the approved use of automobile fuels in certain aircraft engine and airframe combinations. FAA approval of auto fuels for small aircraft in 1984 was directly as a result of EAA's pioneering research.



The Leader in Recreational Aviation

April 26, 2000

Arlington Airport Commission
18204 59th Ave NE
Arlington WA 98223

Dear Airport Commissioners:

We are pleased to learn of the progress being made by the Commission to update the Arlington, Washington, Airport Master Plan and the airport land-use plans. Master planning is an essential opportunity to involve all parties that can contribute to the safe and appropriate development of public airport facilities. The integration of planning efforts for the airport and the Northwest EAA Fly-In will support this goal.

The Northwest EAA Fly-In has, over the past 20 years, grown to be one of the most significant events within our organization. In fact, it is the third largest by measures of attendees, volunteer core, aircraft operations, and EAA members served. The local economic impact of such an event is unquestionable. The cooperation/coordination with local civic and airport leadership is essential for the event to maintain the safety, quality and family orientation that are the hallmark of such EAA events.

EAA (Experimental Aircraft Association) is the world leader in recreational aviation. With an international membership of 170,000, EAA brings together aviation enthusiasts, pilots and aircraft owners who are dedicated to the continued growth of aviation, the preservation of its history and a commitment to aviation's future. EAA programs, activities and events are known throughout the world for supporting aviation safety and promoting personal enjoyment and responsibility within an aviation lifestyle. These efforts are made possible through massive volunteer involvement in support of the organization, as well as EAA's special interest Divisions, and a global network of more than 1,000 local Chapters and the affiliated National Association of Flight Instructors (NAFI). The key to the success of our organization has been our field events. These events, such as the Northwest Fly-In, are accomplished by competent volunteer leadership and EAA volunteers that focus on aviation gatherings that highlight safety, education youth outreach, the sharing of aviation knowledge and experience, and socialization.

April 26, 2000

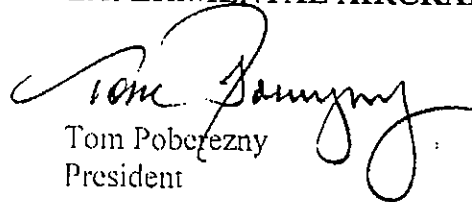
Page 2

The "Arlington" EAA leadership has developed over the years and these individuals are valued members of our national leadership. For this reason, they are helping to develop the "next generation" of EAA organizational structure for all major events. One of the benefits of this leadership "connection" with EAA Headquarters is the sharing of experiences of our larger events, such as EAA AirVenture Oshkosh and the Sun 'n Fun EAA Fly-In at Lakeland, Florida. This "experience transfer" flows to the Northwest Fly-In in all planning efforts from volunteer recognition to event insurance to airport master planning to land lease and vendor agreements. We look forward to providing continuing assistance to the Northwest Fly-In development efforts.

Best of luck with your airport master plan and land use planning efforts. If there is any further assistance we can provide to your efforts, please contact us directly or through Barbara Lawrence-Tolbert, the Northwest EAA Fly-In Executive Director.

Very truly yours,

EXPERIMENTAL AIRCRAFT ASSOCIATION


Tom Poberezny
President

TP:pah

A TYPICAL DAY AT ARLINGTON

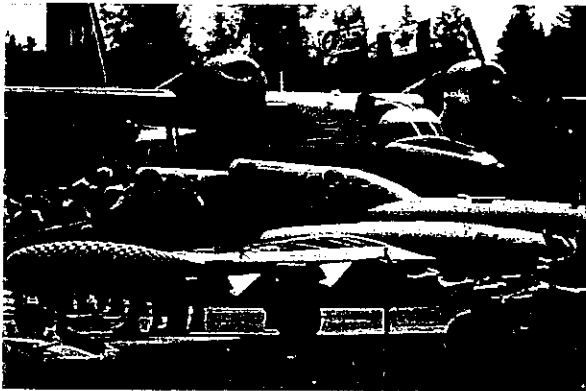
Get your walking shoes on!



It's not unusual for the day to start with the sound of hot air balloons inflating, and lifting off to enjoy a peaceful early morning flight. The colorful and graceful ultralights also enjoy the smooth morning air to start the aerial activity each day.



The convention gates open to the general public at 8 AM. As you arrive you will be greeted by the colorful array of ultralight aircraft in many fanciful shapes. Visiting the exhibition booths in the Ultralight area you will learn many things about ultralight aircraft, from where to get instruction to how to construct one yourself.

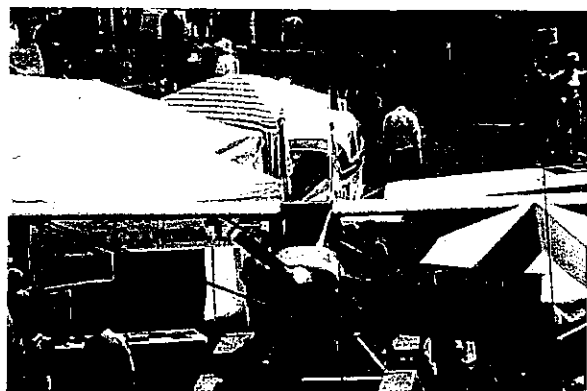
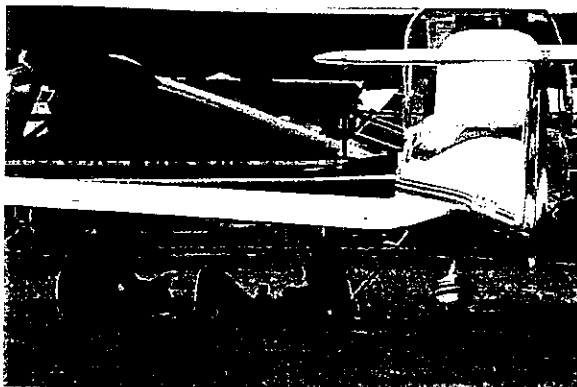


Continuing up the walkway, the sheer size and power of the warbirds will amaze everyone. Current and ex-military aircraft are displayed with antique military vehicles that are the pride of collectors. This year's South Pacific Theme is sure to please the most avid warbird enthusiast, with displays of aircraft such as a Zero, Corsair and a B-25. A full size radial engine display and entertaining forums by veterans such as former Tuskegee Airmen, to Women Air Force Service Pilots will be found throughout the week.

Continue up the flight line and view hundreds of display-worthy aircraft, view firsthand the craftsmanship and design advancements that come from the hands and minds of EAA members. From beautifully restored rare aircraft to the sleek modern ones, you'll see many of the things that make the world of aviation so exciting.



Information is available in many places, sometimes in the shade of an airplane wing...



Stop in at the kids' activity tent and drop the kids off for a few hours of activities aimed at capturing their imagination, then head on to the Exhibit area. Just about everything available in aviation is there, instruments, avionics, insurance, aircraft parts, even propeller head hats...the list goes on and on. Over 150 exhibitors participate at the Arlington EAA Fly-In.

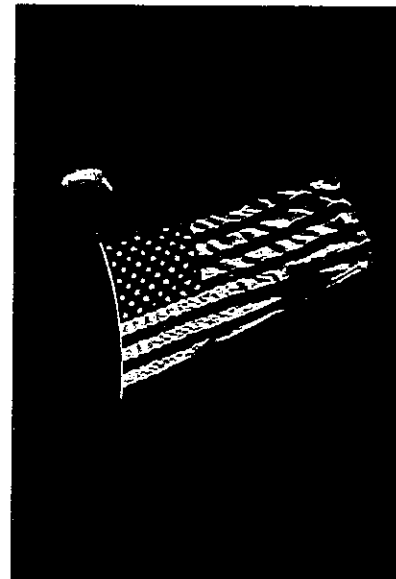


After finding your goodies in the Exhibit area its over to the Forums/Workshop area. During the week over 140 forums are conducted by aviation leaders, along with FAA personnel, aircraft designers and a host of others.

From the Forums area head over to the Food Court, where a down-to-earth country fair atmosphere is the flavor of the day. Feast on a variety of items, from Northwest Salmon to Florida Alligator on a stick. Sitting under the shaded canopies while enjoying your lunch, you can view the beehive of activities at the Women's tent. Participation in the array of activities in this area is always popular. Last year over three hundred visitors took parts in craft demonstrations, fashion shows or just a fresh cup of coffee and conversation.



Now it's time to get your spot staked out for one of the most eagerly anticipated highlights of the Arlington EAA Fly-In..the Afternoon Airshow...It typically starts off with an aerial display of the American Flag accompanied by the National anthem.

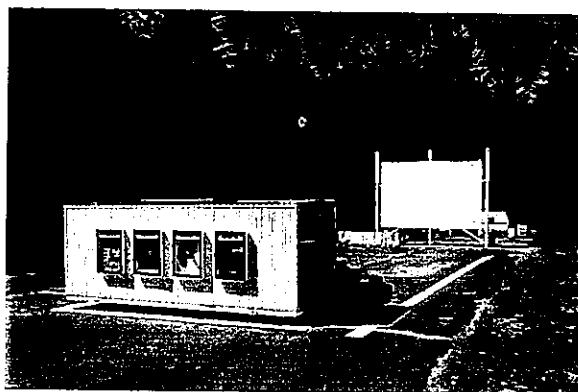


Picking up the kids and heading down the walkway towards the EAA Store where all kinds of Arlington items will provide the perfect souvenir...

it's nearly time to visit the Runway theater. Just after dusk every night feature length family-rated movies are shown on the outdoor screen in one of the most unique settings ever. Majestic mountain caps in the background and a large outdoor theater in the foreground, hundreds of visitors set out lawn chairs or spread a blanket in the grass to enjoy the entertainment.



Then world-class aerobatic performers such as Bob Hoover, Patty Wagstaff, Delmar Benjamin and others take part in a two and half hour spectacular. At the end of the airshow you will see showcase flying. Many unique aircraft from one-of-a-kind to historical airplanes participate.



The Arlington Fly-In is a 24-hour event. Over 1200 RVs and tents camp on sight and take advantage of the shower facilities, food service, transportation and a country store.



**Washington State
Department of Transportation**

Sid Morrison
Secretary of Transportation

Aviation Division

King County Int'l Airport / Boeing Field
8900 East Marginal Way South
Seattle, WA 98108-4024

(206) 764-4131 / 1-800-552-0666
Fax (206) 764-4001

April 2000

Dear Arlington Airport Commission;

To tell you that the EAA Fly-In held at the Arlington Airport each year is a great family value...that for those of us in the aviation business it is among aviation's yearly highlights...that it's exciting, fun and entertaining, would be begging the issue. You know all that.

What may not be obvious however is that the EAA Fly-In at Arlington is one of the most important venues in the nation for the General Aviation community. The Fly-In offers the opportunity for pilots, aircraft owners, builders and enthusiasts to attend educational seminars, see and experience the latest GA technology and meet, up close and personal, some very important folks.

The Fly-In is also the largest EAA gathering in the Western United States and continues to bring the community of Arlington the national recognition it deserves for hosting this great event.

Keep up the good work.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bill Brubaker'.

Bill Brubaker
Director For Aviation

BB:cl

ECONOMIC IMPACTS

Tourism enhances economy



*Arlington EAA Fly-In
plays a leadership
role in County
Tourism.*



Among the 50,000 festivals and events in the U.S. every year, the Arlington Fly-In is near the front of the pack. Many of these festivals and events bring significant economic benefit to its community. Arlington EAA Fly-In is no exception.

Event tourism is emerging as a large and growing market for the travel industry. In 1998 special events accounted for a slightly higher percentage of U.S. roomnights than business conventions. Bringing in more than \$5.5 billion in accommodation revenue alone.*

With 50,000 people visiting the Arlington Fly-In, \$2 million** is generated in direct spending. The taxes and revenue from this spending benefit the City of Arlington and Snohomish County with monies spent on roads, schools and improvements all enjoyed by local residents long after the visitors have gone home.

In 1997 Snohomish County contracted Dean Runyan and Associates to conduct a study on visitor spending in Snohomish County. The Arlington Fly-In was one of the sites where information was gathered. Results showed guests who stay in commercial lodging spend \$209 per day, per traveling party. Day visitors and campers spend \$77 per day, per traveling party.

This money is spent in restaurants, retail stores, on transportation, recreation and accommodations. Last year \$474.5 million*** was spent by visitors in Snohomish County.

The Arlington Fly-In ensures that the City of Arlington retains a leadership role in the County in event tourism.

* Source Travel Institute of America ** 5,600 guests in commercial lodging establishments and 44,000 day visitors and campers, figures from Dean Runyan Report. ***Source Washington State Department of Community Trade and Economic Development.

IT'S ABOUT COMMUNITY

Building bonds for our future



Giving children the vision to dream is our investment in the future.

It also affords the Arlington business community the opportunity to sell its products and services to the Fly-In visitors.

The City benefits from tax revenue, the business benefit from direct sales of products and services. But perhaps the best benefit is to the community itself from direct donations by the Northwest EAA Fly-In. In the past five years more than \$88,000 has been donated to organizations in the Arlington Community by the Northwest EAA Fly-In.

Nearly \$20,000 was provided to the Arlington Chamber of Commerce, helping support their annual budget as well as development costs of the Chamber's Internet project. The Arlington School District was able to implement a safety program for the School Transportation department, in part due to the donations of over \$7,000 from the Arlington Fly-In. This safety program provided education to the employees charged with the safe transport of hundreds of Arlington youths.

The Northwest EAA Fly-In also regularly "funds" aviation oriented field trips for Arlington and other Snohomish County elementary and middle schools. Contributions have been made to aviation career scholarship funds at both the EAA Foundation and the Civil Air Patrol.

The Knights of Columbus, Arlington Chapter, has been a strong supporter and contributor of volunteers to the Fly-In for many years. This relationship has resulted in direct donations to the KOC of over \$50,000. These funds have been used to build wheelchair ramps, donate to the local food bank and contribute to an emergency fund for those in our community in need.

The Arlington EAA Fly-In provided opportunity for the Stilliquamish Senior Center to raise funds to help build the new kitchen facility at the Senior Center. In the past many organizations have teamed up with the Arlington EAA Fly-In to raise funds for worthy causes, organizations like "Old Bags of Arlington", the Lions Club, the Boys and Girls Club and the Arlington Rotary.



U.S. Department
of Transportation

**Federal Aviation
Administration**

Northwest Mountain Region
Colorado, Idaho, Montana
Oregon, Utah, Washington

1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

APR 26 2000

Arlington EAA Fly-In
Ms. Barbara Lawrence-Tolbert
4700 188th Street NE
Arlington, Washington 98223

Dear Ms. Lawrence-Tolbert:

This is in response to your request of April 21, 2000, regarding the Federal Aviation Administration's (FAA's) participation at the annual EAA Fly-In at Arlington.

The FAA has participated in this worthwhile event since its conception and plans to continue supporting this safety-related Fly-In. The FAA's Seattle Flight Standards District Office (FSDO) plans to provide booths staffed by aviation safety inspectors to share aviation information with airman, and to work with the EAA pilots regarding both pilot and aircraft matters. The Seattle FSDO's aviation safety program manager plans to conduct pilot safety meetings during the Fly-In with industry and other governmental aviation safety speakers providing information on flight and maintenance of aircraft.

Other FAA divisions also regularly contribute to this Fly-In. In the past, The Air Traffic Division has staffed a temporary control tower, a temporary flight service station, and has conducted meetings with pilot groups. The Seattle Aircraft Certification Office (ACO) has had FAA test pilots give presentations on conducting test flights in home-built aircraft, which greatly enhances safety during a first-time flight in a newly built aircraft. The ACO has also given presentations on certifying home built aircraft. The Seattle Aviation Medical Division has also conducted meetings relating to medical standards for pilots and has helped airman with their questions relating to medical certification problems.

We believe that these safety meetings reduce accidents in the experimental aircraft and general aviation community. We thank you for your invitation and plan to participate.

Sincerely

David C. Voxland
Regional, Safety Program Manager
Flight Standards Division



Knights of Columbus

STILLAGUAMISH COUNCIL, NO. 8015 / P.O. BOX 231 / ARLINGTON, WA 98223

TO: THE NORTHWEST EAA FLY-IN

THANK YOU ONCE AGAIN FOR THE PRIVILEGE OF ALLOWING US TO MANAGE THE AUTO PARKING AT THE FLY-IN. THE DOLLAR DONATION WE RECEIVE IS OUR MAIN FUNDRAISING SOURCE AND TRULY APPRECIATED.

A PORTION OF THESE FUNDS ARE RETURNED TO THE COMMUNITY DURING THE FLY-IN. IT IS OUR CUSTOM TO FEED AND EQUIP OUR VOLUNTEERS TO THE BEST OF OUR ABILITY. THE TWO SAFEWAY AND FOOD PAVILION STORES, ARLINGTON HARDWARE, RADIO SHACK, AMONG OTHERS, BENEFIT AT THAT TIME AND THROUGHOUT THE YEAR WITH OUR VARIOUS PROJECTS. ADDITIONAL FUNDS ALLOW US TO BUILD WHEELCHAIR RAMPS FOR THOSE IN NEED, DONATE TO THE FOOD BANK, CONTRIBUTE TO AN EMERGENCY FUND FOR THOSE IN NEED AND HOLD A MAJOR FUNDRAISER FOR INFANT CLOTHING, EQUIPMENT AND DIAPERS WHICH SERVICES THE WHOLE SNOHOMISH COUNTY AREA. WE ARE ABLE TO SPONSOR A SOFTBALL TEAM, A BASKETBALL FREE THROW CONTEST AT THE BOYS AND GIRLS CLUB AND GIVE OUT SCHOLARSHIPS TO GRADUATING AHS SENIORS. WE HOLD VARIOUS SOCIALS FOR CHILDREN, TEENS AND ADULTS. WE BELIEVE WHAT WE DO CONTRIBUTES TO MAKING US ALL A STRONGER MORE POSITIVE COMMUNITY.

WE ARE PROUD TO BE PART OF THE TOTAL FLY-IN TEAM. WE LOOK FORWARD TO JULY 2000.

THE KNIGHTS OF COLUMBUS AND THEIR FAMILIES
STILLAGUAMISH COUNCIL 8015

LONG RANGE LAND USE PLAN

Our long range land use plan has two components:

1. A long-term event lease and land use plan that provides for future growth of the Fly-In.
2. A year-round lease to provide for the permanent buildings and infrastructure to support the Fly-In needs and provide community benefit, as well.

Our goal is to work with the airport through the master plan process to form a working partnership to enhance the airport for Fly-In and community use year-round.

The Event Land Use

Arlington is our home and we have been here for over 30 years. We now have an opportunity to work with the airport to secure our future for the next 30 years and beyond.

Our event is growing 12% to 15% per year. This growth is apparent in our land use increase, especially over the last 10 years. An EAA regional fly-in is made up of several important components that relate to the land use required. These are:

- Aerobatics box
- Aircraft operations and parking
- Auto parking
- Camping
- Exhibits
- Youth activities
- Education
- Services and entertainment

Although the areas for these components will vary, it is important to note that all of these areas and their components are required for a regional EAA fly-in.





Close to everything.
Far from ordinary.™

March 6, 2000

Mr. Rob Putnam, Manager
Arlington Airport
18204 59th Drive NE
Arlington WA

COPY

Dear Mr. Putnam:

Just last week the Snohomish County Tourism Bureau was asked by the State of Washington to pick *one* significant event in the County that was so well recognized that the Travel Industry of America would be willing to put that event on its web site. The State is limited to submitting just 25 events for inclusion on this site.

You have to know that picking just one event was a bit of a challenge. However, when we looked at all events throughout the course of the year, one particular event, the NWEAA Flyin kept floating to the top and here is why:

- It brings 50,000 people to the County each year for wonderful family oriented and educational fun.
- It generates \$2 million¹ in direct spending - this equates to retail sales tax that Arlington and Snohomish County spend on roads, schools, sewers, bridges, parks and museums - all things enjoyed by local residents long after the visitors have gone home.
- The Flyin is nationally and internationally famous, creating great media attention for our County and Arlington - publicity so varied and extensive we could never afford to buy it.
- The Flyin and other aviation related events and facilities have been identified in the County's update of its *Strategic Plan for Tourism Marketing and Development* as parts of an "aviation theme" because of the existing programs with Boeing and the Museum of Flight Restoration Center. This could mean the possibility of future capital investment in related infrastructure.

So, the real purpose of this letter is to say, thank you! Thank you for hosting the NWEAA Fly In at the Arlington Airport. Without your support and commitment an event as significant to our community as the Flyin would not be possible.

Sincerely,

SNOHOMISH COUNTY TOURISM BUREAU

Sandra L. Ward
Executive Director

SCTB Board Member
Barbara Tolbert
360-435-6480

¹ Based on 5,600 guests sleeping in commercial lodging establishments and 44,000 day visitors and campers. Guests in commercial lodging spend \$209 per day, per traveling party. Day visitors and campers spend \$77 per day, per traveling party. Average party size is 2.5 people. (Based on research conducted for Snohomish County by Dean Runyan Associates, 1997)

SNOHOMISH COUNTY TOURISM BUREAU

909 SE Everett Mall Way, C-300 • Everett, Washington 98208
425/348.5802

Fax 425/348.5701 • email visitors@snohomish.org • www.snohomish.org

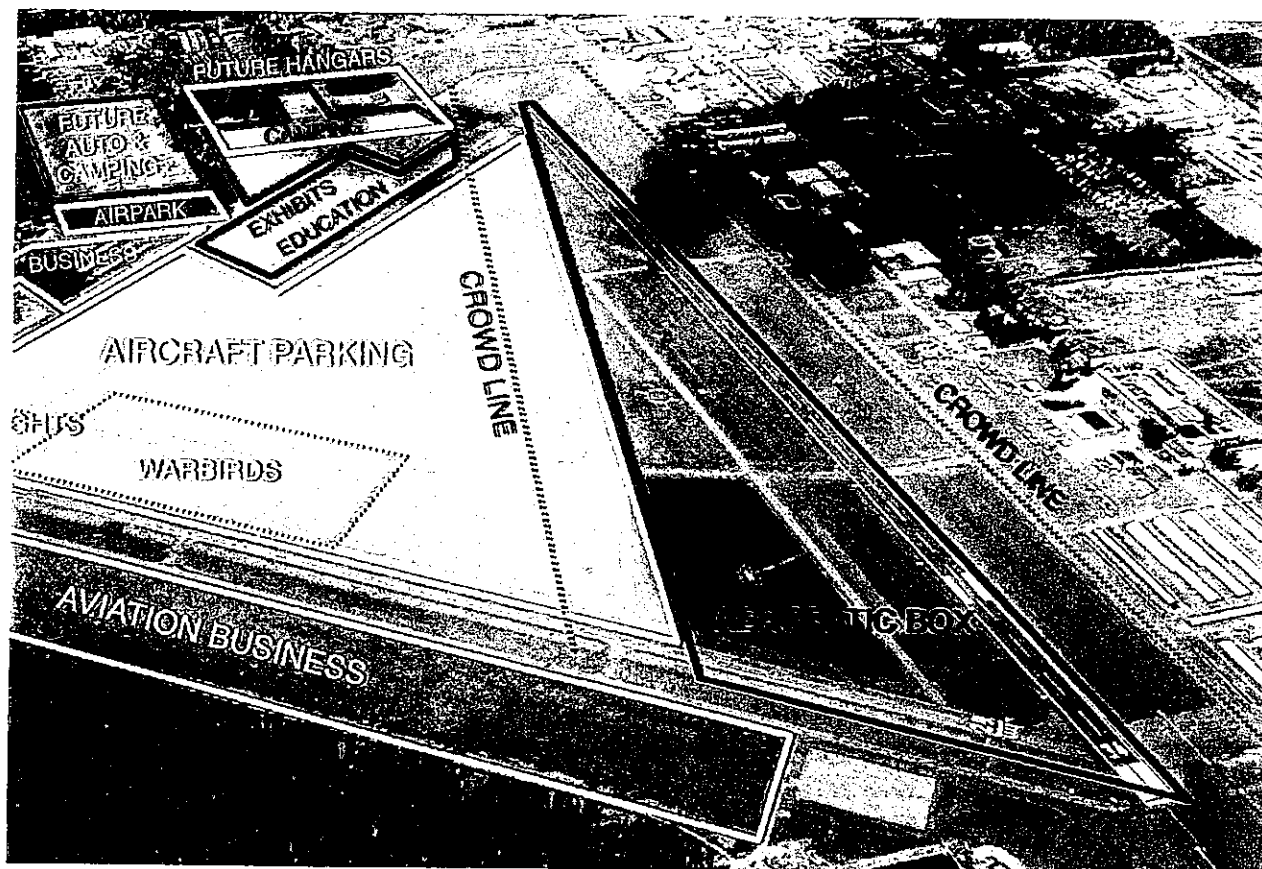
AEROBATICS BOX

The Fly-In Aerobatics Box is an area of sky in which our airshow is performed. The box has a specific size and shape, as shown on the photo map. On each side of the box is a crowd line that specifies the edge of the viewing area. Since Arlington airport can only comfortably accommodate a 500-foot crowd line, we are restricted by FAA standards from having jets and other high-speed airplanes in our show. During the airshow people may not be inside the crowd line or under the box. We may park aircraft and autos inside the crowd line but they must be unoccupied during the airshow.

The FAA, to ensure a safe event for performers and spectators, administers the aerobatics box. Due to the rules and specifications defining our box by the FAA, we must protect its boundaries to provide a safe airspace for our airshow.

As we plan changes or additions to the areas around the aerobatics box it is very important that we clear these actions with the FAA. Failure to do so could result in the loss of our airshow and the demise of our regional event. That is something none of us want to see happen.

As decisions are made regarding airport land use, it is critical that we work together to protect the integrity and safety for aerial activities at the Arlington Airport. With joint planning, we can develop and enhance the Airport and protect the aerobatics box as well.



AIRCRAFT OPERATIONS AND PARKING

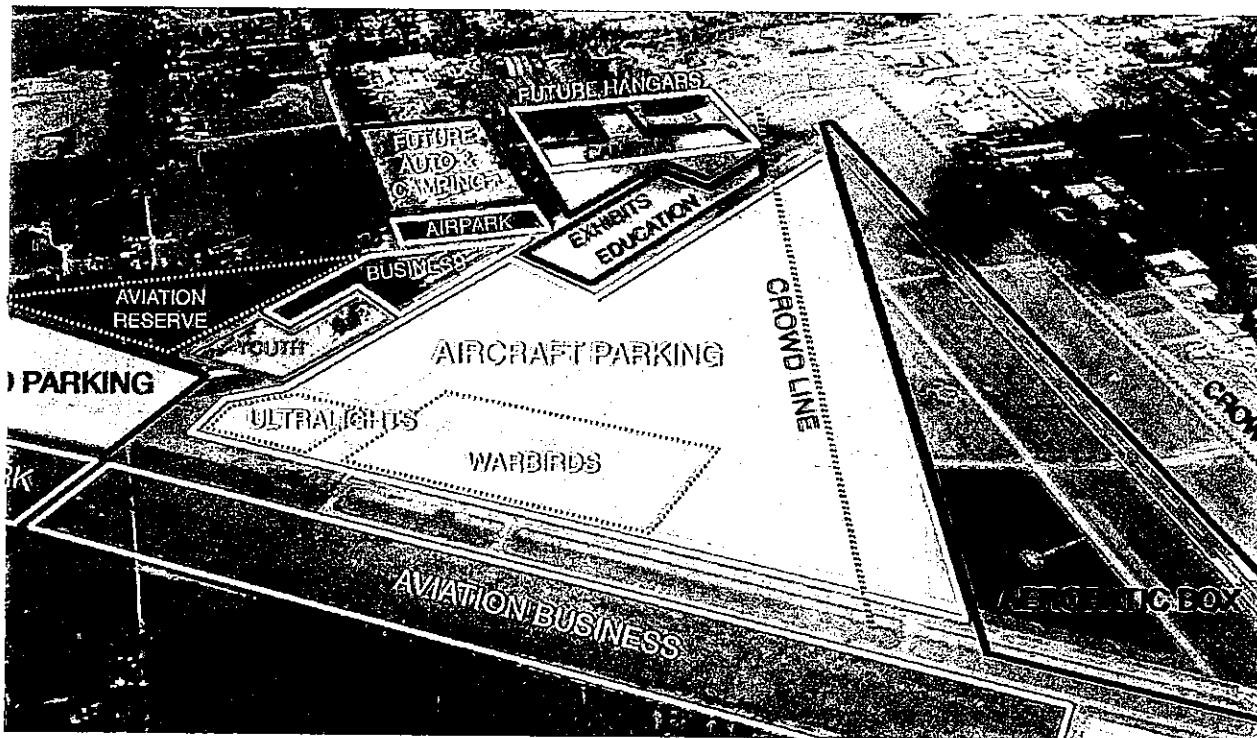
One of our most important responsibilities is to ensure that we have safe aircraft operations on the ground as we taxi and park aircraft. We attend a minimum of nine planning meetings throughout the year to refine and improve our operations.

About 1600 aircraft come to the Fly-In and are parked on our grounds, generating about 8000 movements on the main runway. The ultralights, helicopters and balloons generate additional movements not counted by the FAA tower.

The land we use for this activity totals approximately 75 acres. Our plan, as shown on the photo map, projects a use of an additional 70 plus acres for a total of about 3000 aircraft.

At this higher level of activity we will need to improve the grass taxiways and use Bravo taxiway as an alternate departure runway.

Working with the Airport and the FAA, we are confident that our aircraft operations can grow in a safe and user friendly manner.



AUTO PARKING

The Fly-In now uses 22 acres for auto parking. Our best prediction is that we will need 40 acres in the future. The photo map shows 29 acres off the end of runway 11/29. The other 10 acres would be developed from the mill site (lease unit 201).

It may be that at some time more auto parking will be needed. If so, the overflow area at the northwest end of 16/34 could be developed.

The Northwest EAA and the Airport working together can develop these parking areas into useful grass fields, which would be available year round for other community uses and activities.

The Northwest EAA plans to work with the Airport and take a leadership role in developing and maintaining the areas proposed for future auto parking.

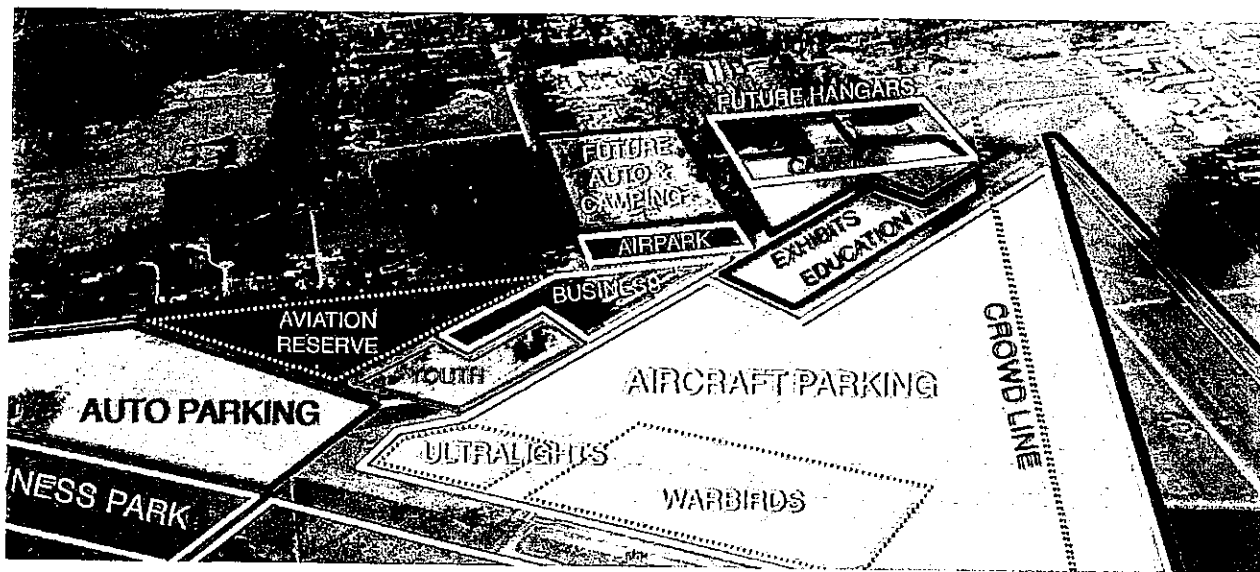


CAMPING

The camping area we now use holds 800 marked camp spaces in about 18 acres. It is difficult to predict camping needs, as we have no other event of our type and size with which to compare. We will assume that camping will grow by 50% to 1200 camp spaces using 26 acres.

As now planned and shown on the map, our camping area will become an aircraft hangar area. The area will help provide for the projected need for new hangars as noted in the future regional studies for aviation growth. The area shown is approximately 20 acres and will provide for 180 to 200 hangars depending on size.

Using this area for hangars forces a relocation of Fly-In campers to the mill site. The remainder of the mill site 18 acres (10 acres used for auto parking already) will only replace current use. For future growth, camping would be relocated to the wooded triangle as shown on the photo map.



EXHIBITS

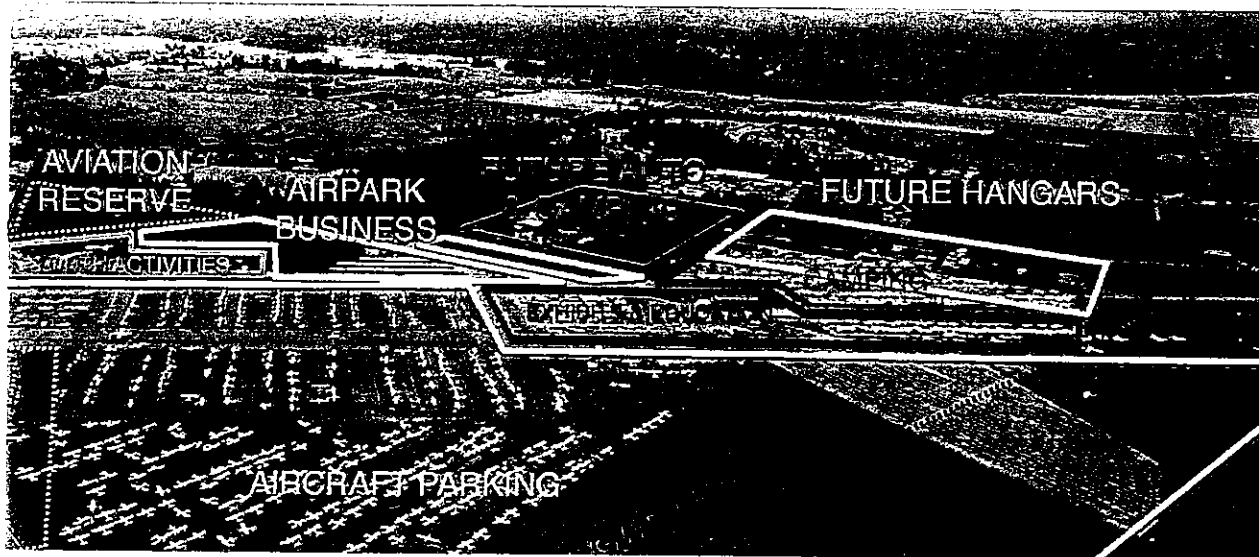
Our exhibit areas bring to our guests and members what is new in recreational aviation. It is one of the most popular and interesting features of our event. New kits, new airplanes, the latest electronics, and homebuilder products of all kinds and much more are displayed in our exhibit areas.

This component of our event is the fastest growing with a 27% increase in the past two years. Exhibit growth prediction is difficult for us at this time because it has been such a dynamic area and shows no sign of leveling off.

The exhibit area is where we plan to start our permanent building investment program. New permanent buildings will increase our growth even more because many vendors do not want to expose their product(s) to a dusty tent and the possibility of rain damage.

Our exhibit area now uses 8 acres and we plan growth to 20 acres as shown on the photo map. Growth along the 'X'd off runway towards the proposed aircraft hangar area, opens up possibilities for future buildings in this area also.

With a new taxiway to the future hangar area, NWEAA could build dual use buildings that would also serve as hangars year round. This would be a benefit for both the Airport and the Fly-In.



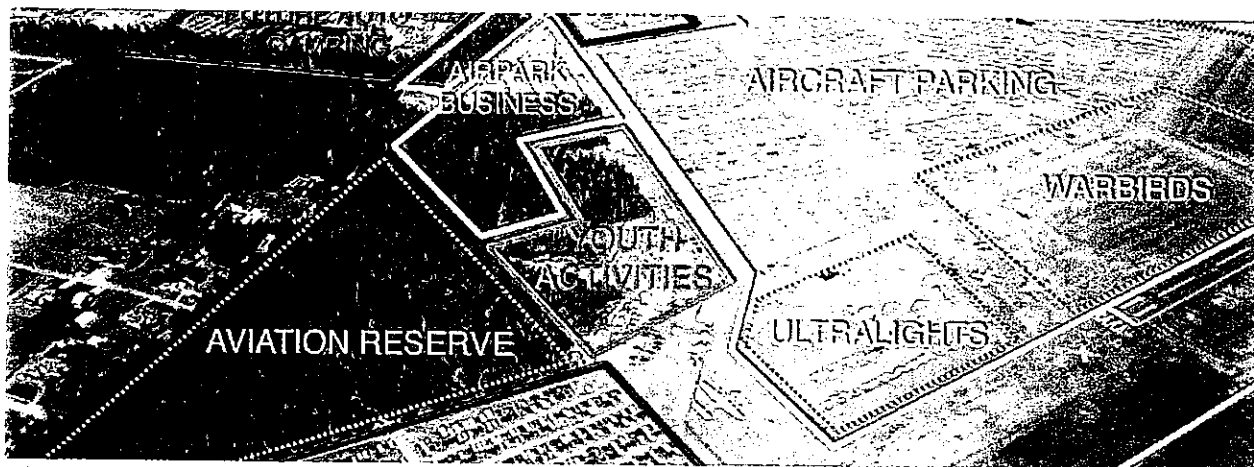
YOUTH ACTIVITIES AND EDUCATION

The EAA is committed to introducing our youth to aviation. Several programs are in operation, most notable of which is Young Eagles. This program introduces youth to aviation through an airplane ride.

We sponsor a Kid's Day each event with simulators, demonstrations, tours and many hands-on activities. Children and their chaperones are not charged admission to our event on Kid's Day to encourage participation in aviation activities.

The Civil Air Patrol (CAP) brings more than 200 cadets to participate in our activities. They are trained to park aircraft and also help in other areas.

We have set aside 2+ acres for a CAP compound as well as areas for a kids activities tent, simulators and other youth educational activities. Approximately 3 acres are being used for these activities and we show this to double in size on the photo map.



ENTERTAINMENT CENTER

There are a variety of types of entertainment that the Arlington EAA Fly-In provides our guests. Main entertainment consists of world renowned aviation speakers, live music in the evenings, and the aircraft judging awards presentation.

All of the above programs take place in our large main entertainment tent, which is also the site for various gatherings and receptions during the week. Due to the 24 hour nature of the event it becomes center stage for the night activities. To ensure we provide entertainment for all our guests we have also add an outdoor theater which shows feature length films each night during the Fly-In. It is not unusual for as many as 500 people to gather in front of our outdoor movie screen to watch a movie at dusk.

The Arlington EAA Fly-In future plans are to expand the entertainment to include historical displays as well as a center for NASA exhibits. Currently we use two acres of land for the entertainment functions and will need to double this area in the future.

SERVICES

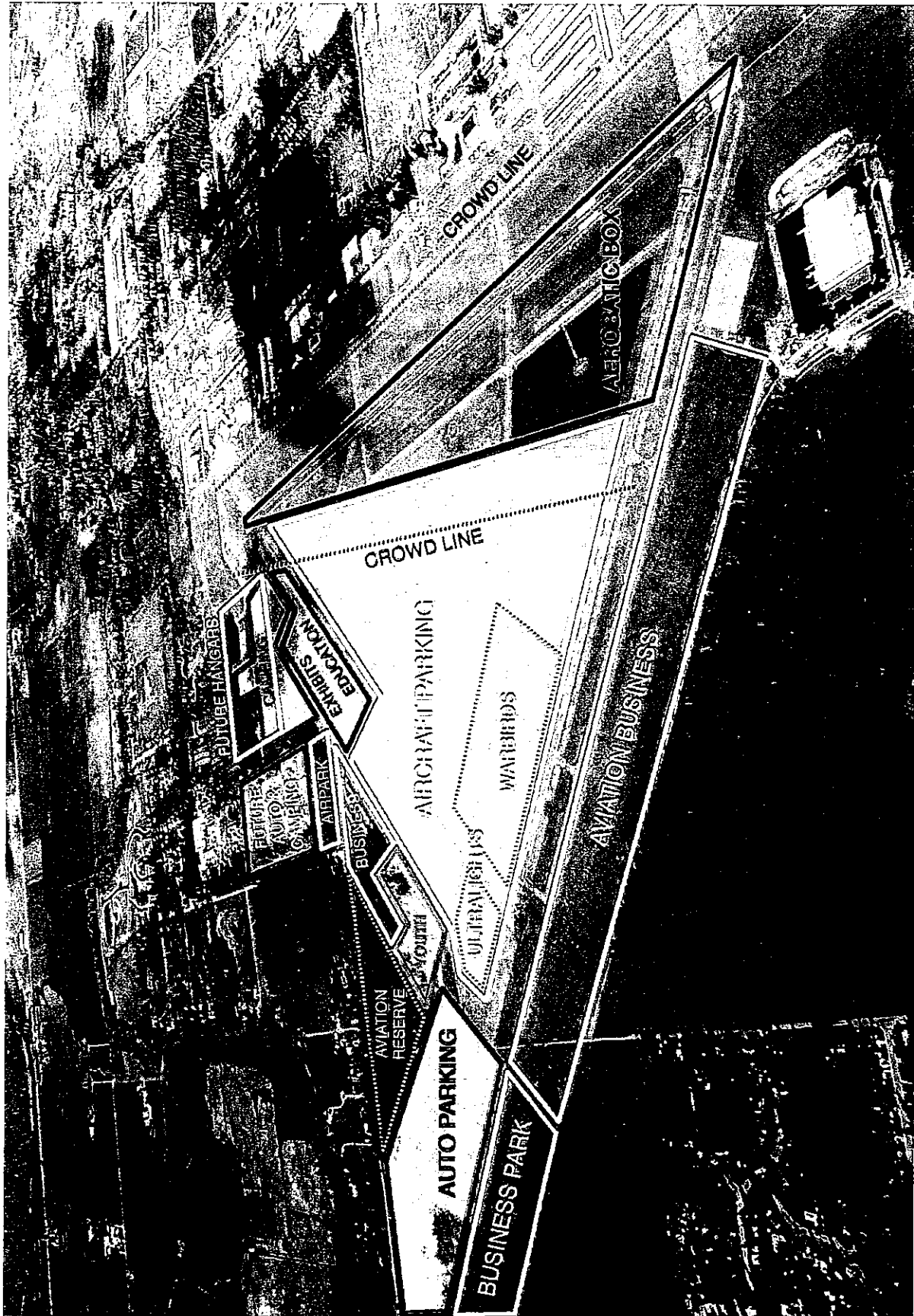
The Fly-In provides essential services to our guests and members which include Food and Drink Vendors, Shuttle Transportation System, Bus Shuttle Service from the East to the West side, First Aid, Fire Protection, Security, Camper Parking, Auto Parking, Garbage Collection, Cleaning the Food Areas, and Camper Support and Emergency Service for our small city of over 2000 residents.

Also provided are rental cars, ATM machine, pay phones, wash sinks, drink stations, four handicap and 80 standard porta-potties, PA system, volunteer supplies and support, Lost and Found, warm showers, FAA Flight Services, main gate ticket entrance, auto parking, thirst aid (sandwiches and drink for volunteers), emergency vehicle repairs (dead batteries, keys locked in cars, and flat tires), and fuel for aircraft and event vehicles.

The nature of our event requires that many of these services operate on a 24-hour daily schedule. This is accomplished by more than 400 dedicated volunteers who share a passion for aviation and commitment to our event. We have what money cannot buy.

The land required for services is now 7 acres. Future growth is predicted to 12 acres. The amount of space this portion of our operation will take in the future could be larger as we continue to improve and offer additional services.





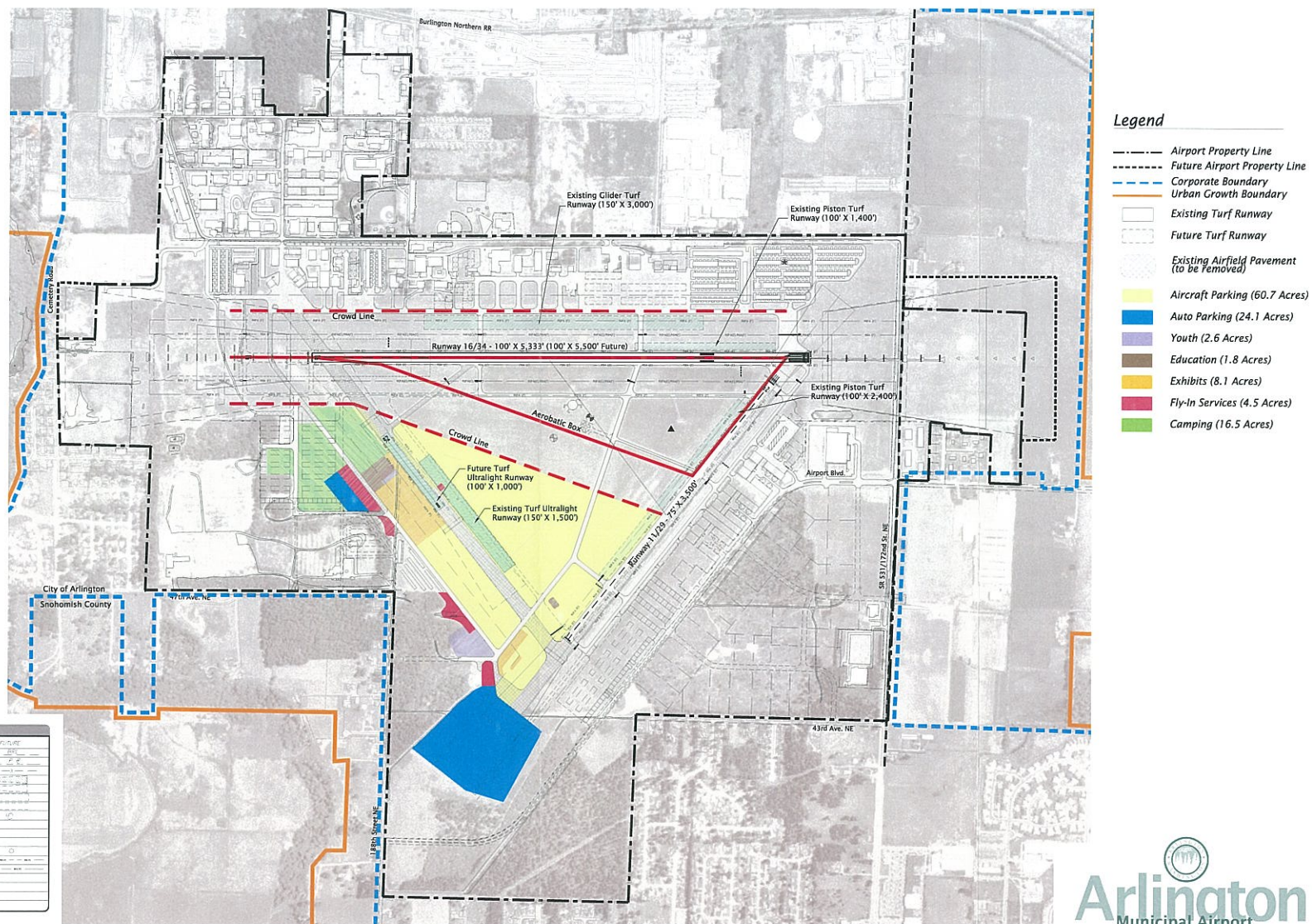


Figure 1 Existing EAA Fly-In Development Area Boundaries

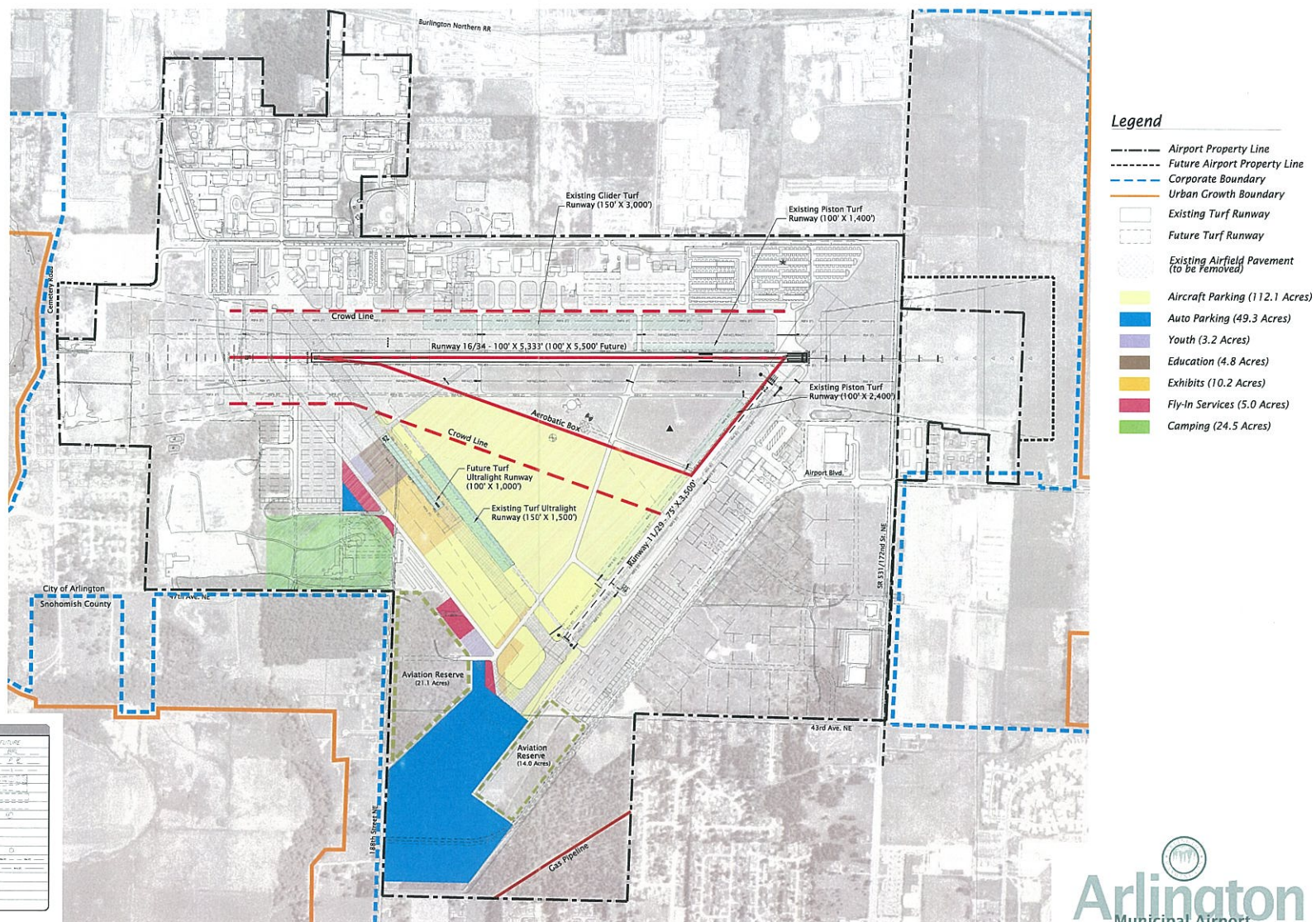
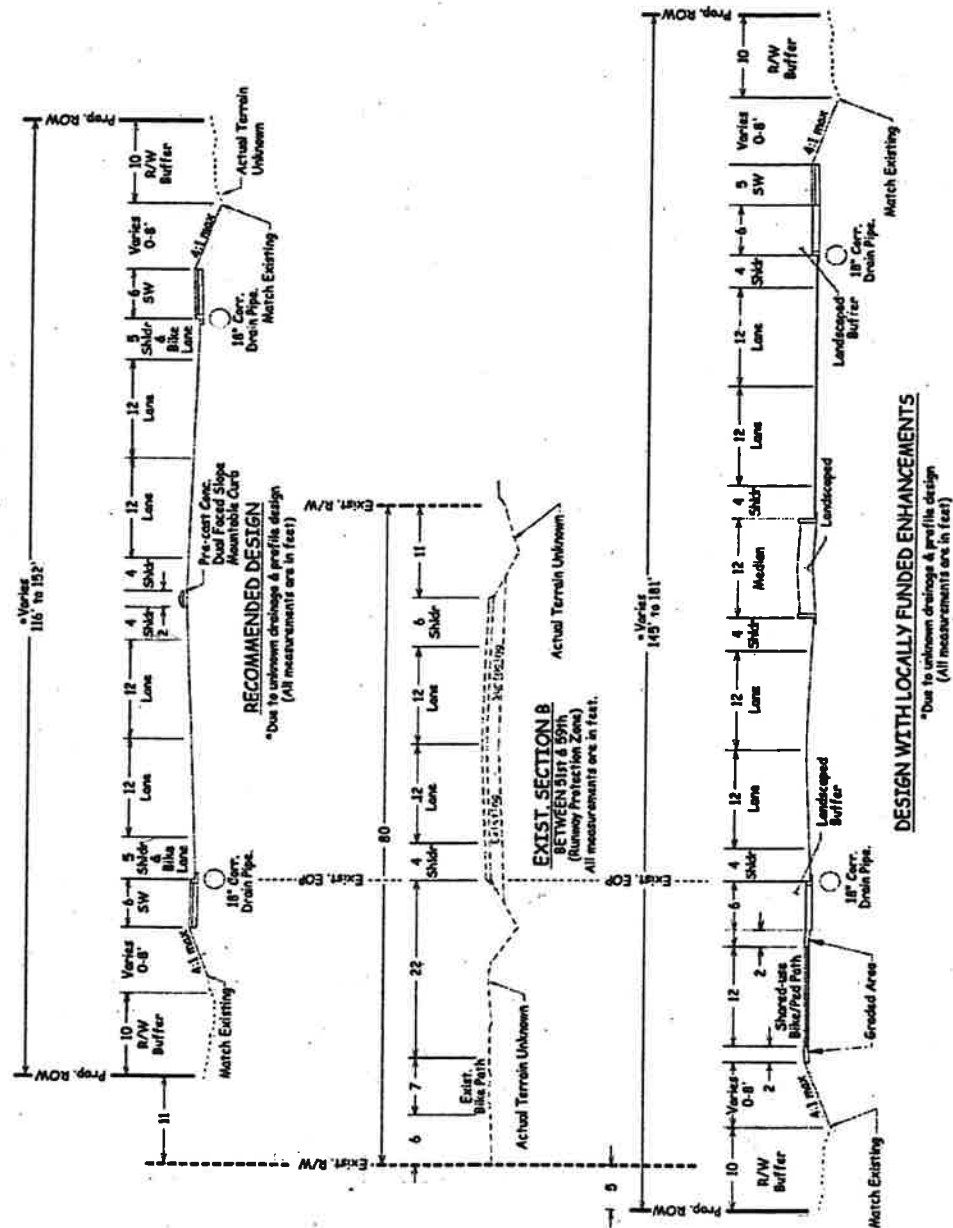


Figure 2 *Future EAA Fly-In Development Area Boundaries*

Appendix Six

- WSDOT Example Roadway Sections

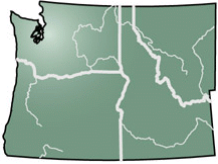
Figure X
Example Roadway Sections for Mainline (not for roundabout intersections)



Note: Roadside drainage requirement requires further design development which may result in right-of-way width greater than shown in Figure X.

Appendix Seven

- National Register Historic District Properties Assessment



Northwest Archaeological Associates, Inc.

Cultural Resources Management Services
5418 20th Avenue NW, Suite 200, Seattle, WA 98107

February 4, 2010

TO: Cody Fussell
Barnard Dunkelberg & Company
Airport and Environmental Consultants
1616 East 15th Street
Tulsa, Oklahoma 74120

RE: Arlington Airport CIP

FROM: Eileen Heideman, Architectural Historian
Lorelea Hudson, Senior Historical Archaeologist/Project Manager

Northwest Archaeological Associates, Inc. (NWAA) was contracted by Barnard Dunkelberg & Company to review 10 proposed Capitol Improvement Projects (CIPs) that are part of the Arlington Municipal Airport Master Plan. Arlington Municipal Airport is listed in the National Register of Historic Places (NRHP) as the Naval Auxiliary Air Station, Arlington historic district. Review of these projects includes an assessment of potential effects on historic resources within the district. Specific recommendations have been provided for each project and general recommendations are provided at the end of the memo. The reviews and assessments of these projects are based on existing designs dated October 2010. If changes are made to any of these project designs, then the potential effects of the projects on the NRHP district should be reexamined.

ARLINGTON MUNICIPAL AIRPORT MASTER PLAN

The Arlington Airport Master Plan calls for a total of 97 CIPs to be completed by 2020. These range from building improvements and taxiway pavement rehabilitation to the construction of new hangars and roads. These projects involve funding and approval from the Federal Aviation Administration (FAA), triggering review under Section 106 of the National Historic Preservation Act of 1966. Ten of these projects were chosen by the Airport for NWAA to review.

NATIONAL REGISTER HISTORIC DISTRICT

The National Register of Historic Places historic district Naval Auxiliary Air Station, Arlington is a 405 acre, roughly triangle-shaped district located approximately two miles southwest of the Arlington, Washington downtown business district (Figure 1). Contributing resources in the district include three runways, several taxiways, a warm-up apron, six hardstands, a boresighting range, an airplane hangar and an overhaul building. Non-contributing features within the district include four taxiways and modern airport communications and lighting systems. A large number of hangars and buildings housing private businesses are located immediately outside the district boundary.

*Tel: (206) 781-1909
Fax: (206) 781-0154
Email: eheideman@northwestarch.com*

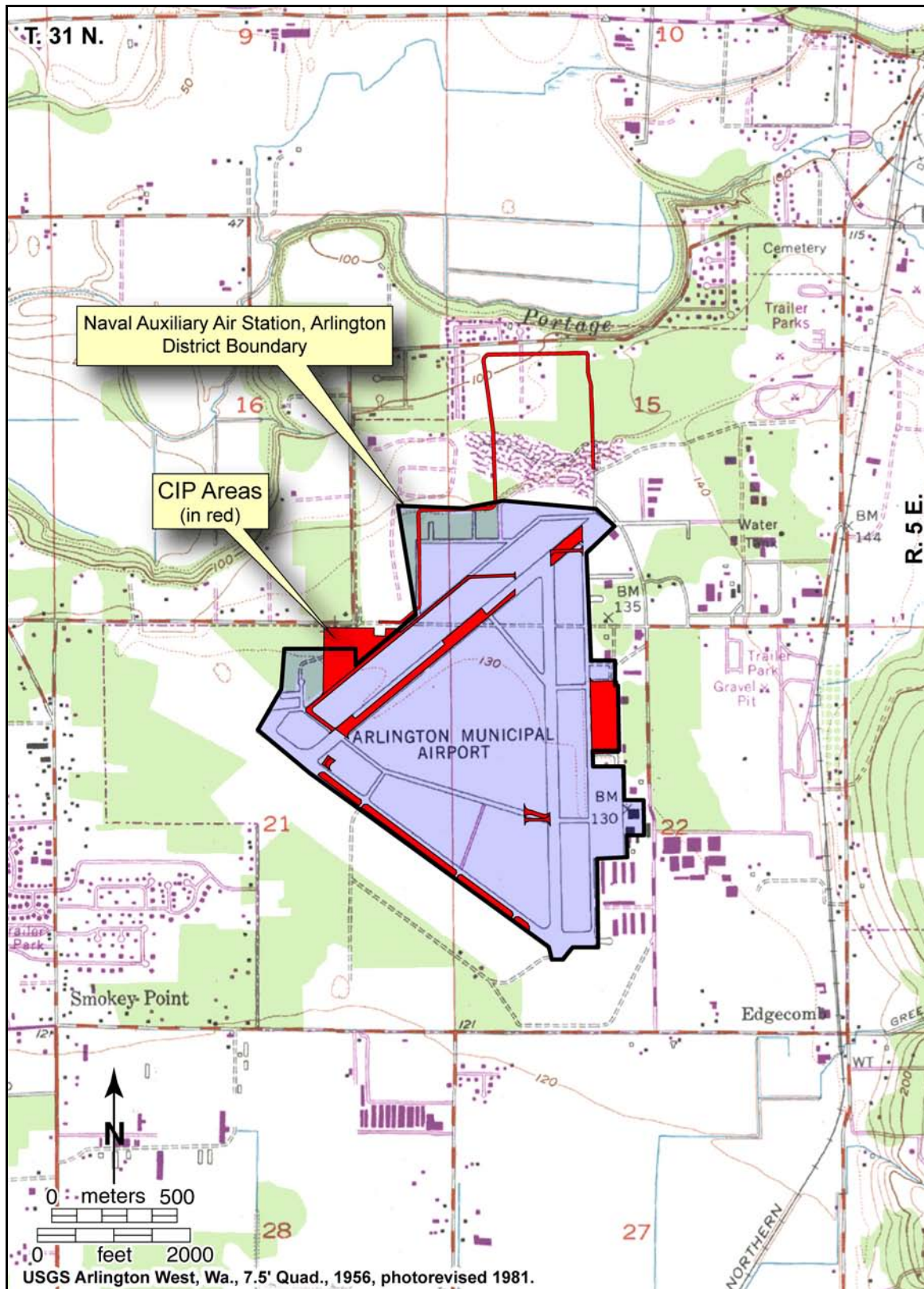


Figure 1. The Naval Auxiliary Air Station, Arlington, NRHP District showing Capital Improvement Project (CIP) areas.

In order for the district to remain eligible for NRHP listing, it needs to retain its integrity of location, design, setting, materials, workmanship, feeling and association. Removal of numerous contributing features in a National Register-listed historic district detracts from its integrity and consequently affects its eligibility.

CAPITOL IMPROVEMENT PROJECTS AND POTENTIAL EFFECTS

The 10 CIPs chosen for review are briefly described below. Nearby resources that contribute to the National Register district are identified (Figure 2) and effects of the project on the district are discussed. Of the 10 reviewed projects, seven will have an adverse effect on the district (A.49, B.3, B.4, B.9, B.10, C.5 and C.9). Three projects will have no adverse effect on the NRHP district provided certain conditions are met (A.28 B.12 and C.8).

A.28 CONSTRUCT AIRPORT PERIMETER ROAD FROM NORTH HANGAR AREA TO 188TH AVENUE

Project Description: This project involves the construction of a perimeter road along the north and northeast portions of the Airport. This road will measure approximately one and one-half miles in length and will skirt the outer extent of areas slated for development within the Airport property. These areas include a future runway protection zone at the north end of Runway 16/34 and an ADG-II development area.

Resource(s): A portion of the proposed road is located within the northwest section of the National Register district boundary. This portion of the road will extend to the north approximately 50 to 75 feet east of the boresighting range, and will turn to the east approximately 50 feet north of the bullet stop. Although CAD drawings indicate that the road extends over the eastern portion of the bullet stop, the Airport intends to keep this feature intact (personal communication, Kelly Maddoux, December 13, 2010). Plans show that the road will be constructed north of hardstands 10, 11, and 12, and will then turn to the north outside the district.

Effect: Provided that the road and related construction activities do not alter the boresighting range (including the tie-downs at its southern end), the bullet stop, or hardstands 10, 11, and 12, Project A.28 will have no effect on the district or its contributing features.

Recommendation: No change is recommended at this time. If project plans are altered, this project should be reassessed for potential effects.

A.49 CONSTRUCT GLIDER TIE-DOWN APRON

Project Description: The Airport is proposing to construct an aircraft parking area measuring approximately 900 feet by 300 feet, and located north of the existing tie-down apron. This location currently contains four grass-covered fueling mounds, which will be graded to the level of the surrounding taxiways and then paved.

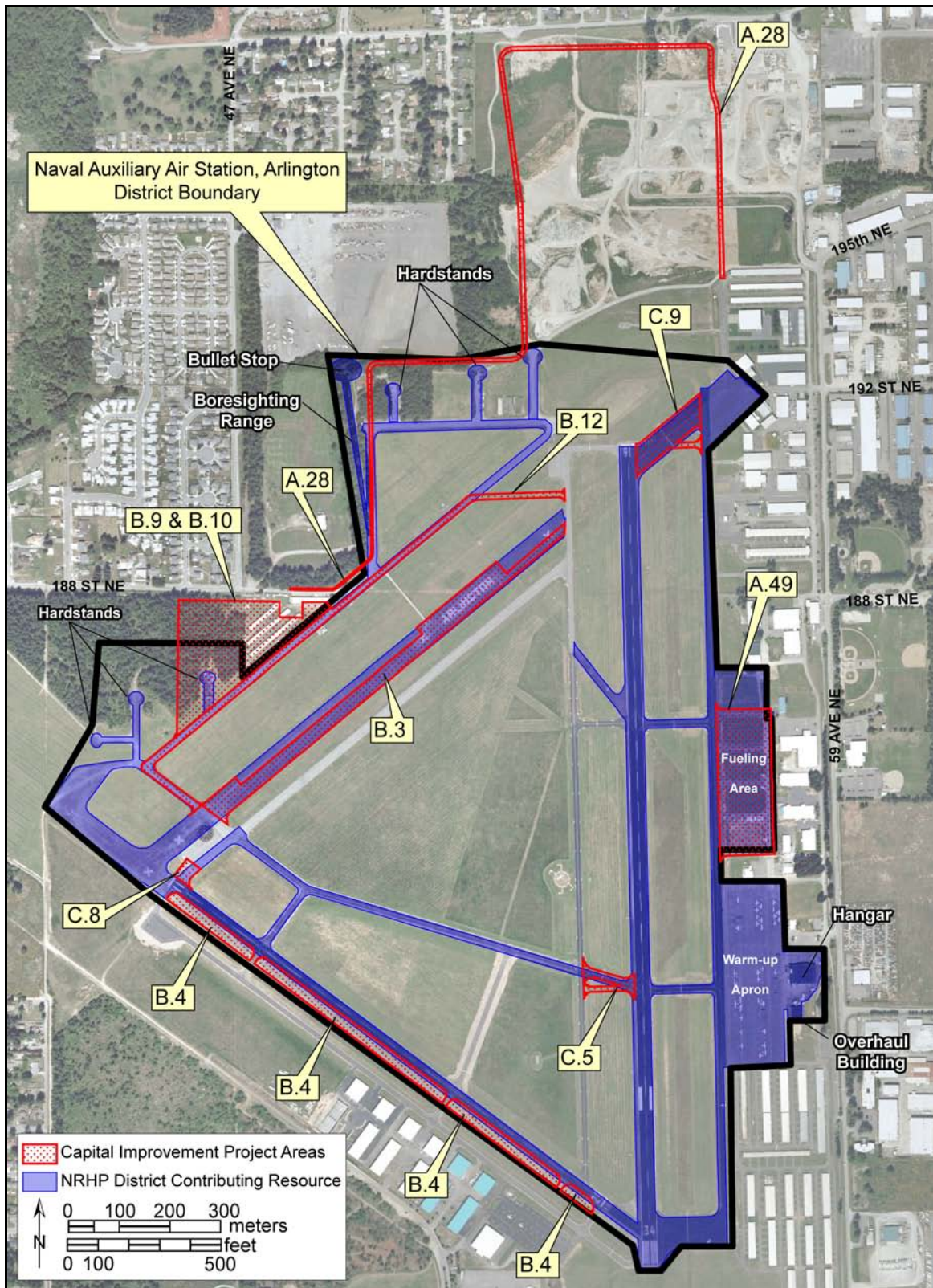


Figure 2. Capital Improvement Project Areas in relation to contributing resources of the Naval Auxiliary Air Station, Arlington NRHP District.

Resource(s): The four fueling mounds are contributing features in the NRHP district, as are the taxiways that divide the mounds. All of these features will be removed in the construction of the new aircraft parking area. Other contributing resources located in the vicinity are separated from the fueling area by enough distance that they will not be affected by this project.

Effect: The removal of the four fueling mounds and surrounding taxiways as part of Project A.49 will cause loss of integrity of design, materials, workmanship, feeling, and association for this feature and will have an adverse effect on the historic district.

Recommendation: Alterations to the fuel mounds and surrounding taxiways should be avoided. Consideration should be given to constructing the proposed glider tie-down apron in an area where removal of contributing resources will not be required. If the project moves forward as planned, mitigation for the loss of this feature should be agreed upon with the Washington State Department of Archaeology and Historic Preservation (DAHP).

B.3 REMOVE CLOSED RUNWAY PAVEMENT

Project Description: This proposed project consists of removing pavement on a portion of the closed northeast-southeast runway as part of a larger effort to reduce impervious material on the Airport. Plans indicate that pavement will be removed between Taxiways B and D. This area comprises the majority of the runway, equaling approximately 450,000 square feet of tarmac.

Resource(s): The northeast-southeast runway is the only contributing feature in the historic district that will be altered by this proposed project. This runway was the first to be constructed at this airport, and is the only one of the three historic runways to have been constructed for non-military purposes (Boswell and Heideman, National Register of Historic Places update, Naval Auxiliary Air Station, Arlington 2008). Although this runway has been closed for many years, it is strongly associated with the district's period of significance (1934-1946) and is one of the most important contributing features in the historic district.

Effect:: Removal of the northeast-southeast runway tarmac for project B.3 will cause loss of integrity of design, materials, workmanship, and feeling for this feature, and it will have an adverse effect on the NRHP district.

Recommendation: Do not remove the runway pavement. If removal of impervious material on the Airport is necessary, then this work should focus on non-NRHP-contributing areas. If the project moves forward as planned, mitigation for the loss of this feature should be agreed upon with DAHP.

B.4 REMOVE RUNWAY 11/29 SHOULDER PAVEMENT

Project Description: This project calls for removing approximately 250,000 square feet of shoulder pavement adjacent to Runway 11/29 as part of a larger effort to decrease impervious material on the Airport. Runway 11/29 consists of the re-paved northeast half of the historic northwest-southeast runway. The area currently categorized as shoulder pavement is the unused portion of the historic runway along the southwest side of Runway 11/29.

Resource(s): Approximately half of the historic northwest-southeast runway will be removed as part of the project. Nearby taxiways that are contributing features in the district will not be altered.

Effect: Removal of a portion of the northwest-southeast runway will cause loss of integrity of design, materials and workmanship for this feature and it will have an adverse effect on the historic district. The length and width of the original runway design is indicative of the type of aircraft the Army used on this runway. Removing a portion of the runway decreases the ability of this feature's physical characteristics to convey its historic purpose.

Recommendation: To avoid an adverse effect, the runway pavement should not be removed. If removal of impervious material is necessary, than this work should focus on non-NRHP-contributing areas. If the project moves forward as planned, mitigation for the loss of this feature should be agreed upon with DAHP.

B.9 RECONSTRUCT LIGHT SPORT AIRCRAFT HANGAR AREA

Project Description: This project involves constructing new light sport aircraft hangars north of the southwest end of the closed runway. Work will involve grading undeveloped portions of this area and constructing the hangars. Paving located around these hangars is part of Project B.10 (see below).

Resource(s): Plans indicate that one hangar will be constructed directly on top of hardstand 14. This is a contributing feature in the National Register district and construction of the hangar will necessitate its removal or alteration. The adjacent unnamed taxiway parallel to the closed runway will not be altered by the construction of the hangars.

Effect: The construction of a hangar on top of hardstand 14 will cause loss of integrity of design, setting, materials, workmanship, feeling, and association for this feature and it will have an adverse effect on the National Register historic district.

Recommendation: Alterations to hardstand 14 should be avoided. Construction of the hangar in a different location should be considered. If the project moves forward as planned, mitigation for the loss of this feature should be agreed upon with DAHP.

B.10 CONSTRUCT LIGHT SPORT AIRCRAFT HANGAR APRON/TAXIWAYS

Project Description: This project involves the construction of an apron and taxiways around the new light sport aircraft hangars to be constructed as part of Project B.9. Work will include grading and removal of existing pavement prior to construction of the new surfaces.

Resource(s): Plans call for the construction of a small hangar and new pavement in the same location as hardstand 14. The unnamed taxiway parallel to the closed northeast-southwest runway is adjacent to this project, but it will not be altered.

Effect: The removal of hardstand 14 will cause loss of integrity of design, materials, workmanship, feeling and association for this feature and will constitute an adverse effect on the historic district.

Recommendation: The removal of hardstand 14 should be avoided, and a redesign or relocation of projects B.9 and B.10 should be considered. If the project moves forward as planned, mitigation for the loss of this feature should be agreed upon with DAHP.

B.12 CONSTRUCT LIGHT SPORT AIRCRAFT APRON/TAXIWAY

Project Description: This project consists of construction of a new light sport aircraft apron and taxiway parallel to the closed northeast-southwest runway. The taxiway parallel to and northwest of this runway will be partially reconstructed, and a section will be added at the north end to connect it to Taxiway B.

Resource(s): The taxiway parallel to the northeast-southwest runway is part of the World War II-era air station design and is a contributing feature in the National Register district. Adjacent features such as hardstands 14, 15, and 16 will not be altered as part of this project.

Effect: The construction of the taxiway and light sport aircraft apron will have no adverse effect on the historic district. The taxiway is being constructed in the same location as the existing parallel taxiway for the closed runway. The apron will be added to an area with existing pavement and will not remove or otherwise alter contributing features.

Recommendation: No action is recommended at this time. If plans are altered, the project should undergo further review for potential effects to the NRHP district.

C.5 RECONSTRUCT TAXIWAY "B2" AND REMOVE OLD PAVEMENT

Project Description: This project calls for the removal of the pavement for Taxiway B2 and the construction of a replacement taxiway. Taxiway B2 currently continues the alignment of Taxiway D, but the reconstruction will place it in alignment with Taxiway A2.

Resource(s): Taxiway B2 is a contributing resource in the National Register historic district, and was originally the eastern end of what is now known as Taxiway D. (Taxiway B was a later addition to the Airport; it cut across the eastern end of Taxiway D and divided that section into the renamed Taxiway B2.) Other nearby resources that contribute to the district will not be altered as part of this project.

Effect: The removal of Taxiway B2 will cause loss of integrity of design, materials, workmanship, feeling, and association for this feature and it will have an adverse effect on the NRHP district.

Recommendation: Taxiway B2 should be retained to avoid an adverse effect. If the realigned taxiway is constructed, then retaining the existing pavement should be considered. If removal of impervious material is necessary, then removing pavement that is not part of a NRHP-contributing feature should be considered. If the project goes ahead as planned with the removal of the pavement, then mitigation for the loss of this feature should be agreed upon with DAHP.

C.8 RECONSTRUCT TAXIWAY "E" AND REMOVE OLD PAVEMENT

Project Description: This project involves modifying Taxiway E by constructing a new connector taxiway at its southwestern end and removing existing pavement at the juncture of Taxiway E and Runway 11/29.

Resource(s): Taxiway E was constructed after the period of significance and is therefore a non-contributing feature in the NRHP district.

Effect: Alterations to this non-contributing feature will have no effect on the district.

Recommendation: No action is recommended at this time. If plans are altered, the project should be re-examined for potential effects to the NRHP district.

C.9 RECONSTRUCT TAXIWAY "A4" AND REMOVE OLD PAVEMENT

Project Description: Approximately 75,000 square feet of pavement will be removed from Taxiway A4, and a replacement taxiway will be rebuilt on a perpendicular alignment with Runway 16/34.

Resource(s): Taxiway A4 is a remnant of the closed northeast-southwest runway, a contributing resource in the NRHP district.

Effect: The removal of this portion of the historic northeast-southwest runway will cause loss of integrity of design, materials, workmanship, feeling, and association, and it will have an adverse effect on the National Register historic district.

Recommendation: To avoid an adverse effect, this remnant of the northeast-southwest runway should be retained. If the realigned taxiway is constructed, then retaining the existing pavement should be considered. If removal of impervious material is necessary, then removing pavement that is not part of an NRHP-contributing feature should be considered. If the project goes ahead as planned with the removal of the pavement, then mitigation for the loss of this feature should be agreed upon with the Washington State Department of Archaeology and Historic Preservation (DAHP).

ASSESSMENT OF EFFECTS

These proposed projects will extensively alter contributing features within the NRHP district, causing loss of integrity to the design, setting, materials, workmanship, feeling and association to the individual features and the district as a whole. Seven of the 10 reviewed projects affect resources that contribute to the NRHP district. These resources include the northeast-southwest runway (including Taxiway A4), Runway 11/29, the fueling mounds, hardstand 14, the unnamed taxiway parallel to the northeast-southwest runway, and Taxiway B2. Current plans for one of the proposed projects (A.28) skirt the edge of the boresighting range, but this contributing resource should not be adversely affected if the tie-downs and bullet stop remain unaltered. Because of the numerous alterations to contributing resources, the overall effect of the proposed projects is adverse.

RECOMMENDATIONS

Projects that adversely affect NRHP district resources should be reexamined and altered if possible. Projects that cannot be altered should be discussed with DAHP to determine appropriate mitigation for the loss of the affected resources. Typical mitigation includes documentation of the affected resources, including photography, archival research and oral history interviews.

If these projects and other CIPs move forward, the eligibility of the NRHP district should be reconsidered, as alterations to contributing features compromise the integrity of the district. A programmatic agreement should also be considered for these projects. If the reviewed CIPs are representative of other projects to be undertaken, then most will have an adverse effect on the district. A programmatic agreement with FAA and DAHP would save considerable time and money in the long run. Both the future eligibility of the district and the potential for a programmatic agreement should be discussed with DAHP.

Please let me know if you have any questions. My contact information is below.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eileen Heideman".

Eileen Heideman
Architectural Historian

email: eheideman@northwestarch.com
phone: 206-781-1909

A handwritten signature in blue ink, appearing to read "Lorelea Hudson".

Lorelea Hudson
Senior Historical Archaeologist/Project Manager

email: lhudson@northwestarch.com
phone: 206-781-1909