Form No. 10-300 10-300 10-300 10-300 Senators: Ted Stevens, Mike Gravel; Congressman Don Young UNITED STATES DEPARTMENT OF THE INTERIOR FOR NPS USE ONLY NATIONAL PARK SERVICE APR 2 6 1978 RECEIVED NATIONAL REGISTER OF HISTORIC PLACES QE 1773 **INVENTORY -- NOMINATION FORM DATE ENTERED** SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS NAME HISTORIC Cunningham-Hall PT-6, NC-692W (serial #2962) (AHRS Site No. ANC-131) AND/OR COMMON 2 LOCATION 5 of Participant of Mile 40, Glenn Highway STREET & NUMBER NOT FOR PUBLICATION CITY, TOWN CONGRESSIONAL DISTRICT Alaska, at large Palmer . VICINITY OF COUNTY Matanuska-Susitna Division STATE CODE 170 -Alaska CLASSIFICATION **CATEGORY OWNERSHIP PRESENT USE STATUS** \_\_DISTRICT X<sub>PUBLIC</sub> XMUSEUM \_OCCUPIED \_\_AGRICULTURE \_\_BUILDING(S) \_\_PRIVATE \_XUNOCCUPIED \_COMMERCIAL \_PARK \_\_STRUCTURE BOTH \_WORK IN PROGRESS \_\_EDUCATIONAL \_\_PRIVATE RESIDENCE \_\_SITE PUBLIC ACQUISITION **ACCESSIBLE** \_\_ENTERTAINMENT \_\_RELIGIOUS X\_OBJECT IN PROCESS \_YES: RESTRICTED \_\_GOVERNMENT \_\_SCIENTIFIC \_\_BEING CONSIDERED \_\_YES: UNRESTRICTED \_INDUSTRIAL \_TRANSPORTATION NO \_\_MILITARY \_\_OTHER: OWNER OF PROPERTY NAME Transportation Museum of Alaska STREET & NUMBER (907) 745-4493 SR Box S-875 STATE Alaska 99645 CITY, TOWN . Palmer LOCATION OF LEGAL DESCRIPTION COURTHOUSE. None REGISTRY OF DEEDS, ETC. STREET & NUMBER CITY, TOWN STATE REPRESENTATION IN EXISTING SURVEYS TITLE Alaska Heritage Resource Survey (AHRS) DATE September 30, 1977 \_\_FEDERAL \_XSTATE \_\_COUNTY DEPOSITORY FOR Office of History & Archaeology, 619 Warehouse, #210 **SURVEY RECORDS** STATE CITY, TOWN Anchorage Alaska



#### CONDITION

**CHECK ONE** 

**CHECK ONE** 

X\_EXCELLENT

\_\_GOOD

\_\_FAIR

\_\_DETERIORATED

\_\_UNEXPOSED

\_\_RUINS

\_UNALTERED

\_ORIGINAL SITE

\_\_MOVED DATE\_\_\_\_

#### DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The PT-6 (also designated CHPT-6) was designed as a personal transport and has been described as "a fairly large and rather buxom cabin biplane of handsome and generous proportions, with comfortable seating for six; though labelled as an 'all-metal airplane,' it was not in the true sense. The PT-6 was of all-metal framework but fabric covering was used for most of the airframe."

NC-692W, serial #2962, was the second aircraft of the type built, being constructed in 1930. Specifications: length overall 29'8"; height overall 9'7"; upper wing span 44'8"; lower wing span 33'8"; chord upper 78"; chrod lower 54"; wing area upper 239 sq. ft.; wing area lower 131 sq. ft.; total wing area 370 sq. ft.; airfoil "Clark Y"; weight empty 2670; useful load 1680; payload 910; gross weight 4350 lbs.; maximum speed 136; cruising speed 115; landing speed 45; climb rate 900 ft. first minute, at sea level; service ceiling 17,500 ft.; gas capacity 90 gal.; oil capacity 6 gal.; normal range at 15. gal per hour was 6 hours or 690 miles; price at the factory was \$13,900. Wright J6 engine.

"The fuselage framework was built up of welded chrome-moly steel tubing and quite unusual is the fact that the longeron tubes were squared at all of the joint intersections to eliminate the curved bevel ends that would be necessary with the joining of round tubes; the structure was then faired to shape and the cabin portion was covered with corrugated 'dural' sheet. The balance of the fuselage aft, was fabric covered. The cabin walls were sound-proofed and insulated against temperature changes, noise, and vibration, with thick blankets of Balsam-wood; a large baggage compartment was located to the rear of the main cabin section. The upper wing framework was built up of two spar-beams that were fabricated of chrome-moly steel tubing in girder form, bolted together; the spars in the lower wing panels were single, large diameter, chrome-moly steel tubes. The wing ribs for both panels were built up of riveted duralumin tubes in truss-type form and the leading edges of all panels were covered with dural sheet to preserve airfoil form; all completed panels were then fabric covered. Two fuel tanks of 45 gallon capacity each, were placed in the root end of each upper wing panel. Ailerons of construction similar to the wings, were of the Freise offset hinge type and were in the upper wing panels only. The fabric covered tail-group was built up of welded steel tubing frame members, with sheet steel formers and ribs; the fin was ground adjustable and the horizontal stabilizer was adjustable in flight. The rudder was aerodynamically balanced, but it was somewhat unusual in that it used the offsethinge type that was similar to that used on the ailerons; this type of control surface balance was used quite frequently, later on, but was still quite rare at this time. The split-axle landing gear was of the outri-ger type and was fastened at one point to the spare of the lower wings; shock absorbers were 'Aerol' struts, wheels were 32X6, and Bendix brakes were standard equipment. A normal type, shock-cord sprung tail skid was used.... A metal propeller, inertia-type engine starter, exhaust collector-ring, and wings wired for lights were also standard equipment."

PERIOD	D AREAS OF SIGNIFICANCE CHECK AND JUSTIFY BELOW					
PREHISTORIC	ARCHEOLOGY-PREHISTORIC	COMMUNITY PLANNING	LANDSCAPE ARCHITECTURE	RELIGION		
1400-1499	ARCHEOLOGY-HISTORIC	CONSERVATION	LAW	SCIENCE		
1500-1599	AGRICULTURE	ECONOMICS	LITERATURE	SCULPTURE		
1600-1699	ARCHITECTURE	EDUCATION	MILITARY	_SOCIAL/HUMANITARIAN		
1700-1799	ART	ENGINEERING	MUSIC	THEATER		
1800-1899	COMMERCE	EXPLORATION/SETTLEMENT	PHILOSOPHY	_XTRANSPORTATION		
<u>-X</u> 1900-	COMMUNICATIONS	INDUSTRY	POLITICS/GOVERNMENT	OTHER (SPECIFY)		
		INVENTION				
SPECIFIC DATES 1930		BUILDER/ARCHITECT Cunningham-Hall Aircraft Corp.				

#### STATEMENT OF SIGNIFICANCE

## Significance

This Cunningham-Hall PT-6, NC 692W, serial #2962, is one of two surviving airframes of this type of aircraft. The other is in service with the U.S. Bureau of Land Management in Idaho. As such it embodies distinctive characteristics of a type of construction.

## Historical Background

"The James Cunningham & Sons, Co., founded in 1838, was long famous for high quality horse-drawn carriages and coaches, and also famous for fine custom-made automobiles. Upon study of the trend, they decided that it was perfectly logical and quite reasonable for them to branch out into the manufacture of the latest mode of transportation, the airplane. Formed as a subsidiary unit, with operating space in the factory building of the James Cunningham & Sons, Co., the Cunningham-Hall Aircraft Corp. launched an enthusiastic program to manufacture the Cunningham-Hall PT-6....The Cunningham-Hall PT-6 (CHPT-6) was designed and developed by Randolph F. Hall, who had been active as an aircraft designer, engineer, and stress analyst with various aircraft companies since 1915; his broad experience and practical good sense was well reflected the the handsome lines of the PT-6. The first PT-6...was introduced in the early part of 1929; it was X-161E with serial #2961. The type certificate number for the Cunningham-Hall PT-6 as powered with the Wright J69-3000 was issued in July of 1929 as a dual-controlled airplane, and reissued in September of 1929 with single controls."

Six of the type were built in all at the factory in Rochester, New York. F.E. Cunningham was the president; Randolph F. Hall was Vice President and Chief Engineer; Paul D. Wilson was Chief Pilot, and William T. Thomas was Consulting Engineer. The second aircraft of the type, NC-692 W, serial #2962, was built in 1930.

NC692W, like the other surviving airframe, was used throughout Alaska for many years in bush flying. Little detail is available on the use in those years, except that the aircraft was used principally in the Seward Peninsula region hauling passengers and cargo in and out of Nome. At an undetermined date it was accessioned by the Alaska Transportation Museum and is currently being restored by the Transportation Museum of Alaska.

# 9 MAJOR BIBLIOGRAPHICAL REFERENCES

Transportation Museum of Alaska files, at Mile 40, Glenn Highway, Alaska

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ORGANIZATION Transportation Museum of STREET & NUMBER BOX S-875, SR	Alaska		October 3, 1977  TELEPHONE (907) 745-4493	<del></del>
CITY OR TOWN			STATE	
Palmer	· · · · · · · · · · · · · · · · · · ·	<i>i.</i>	Alaska 99645	
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Form No. 10-300a (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

# NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Cunningham-Hall PT-6, NC692W, serial #2962 (AHRS Site No. ANC-131)

CONTINUATION SHEET | TEM NUMBER

FOR NPS USE ONLY

RECEIVED APR 26 12/8

DATE ENTERED JEG 2 9 1978

7 PAGE

PT-6 NC692W, serial #2962, has been entirely rebuilt as a static display using non-airworthy materials. All surfaces have been covered with dacron fabric and painted with butyrate dope. The fuselage is Dakota Black. Tail surfaces are Tennessee Red; wings are red with black trim. Restoration work is continuing on the engine and airframe.

At present (October 1977) the aircraft is out of doors on the grounds of the Transportation Museum of Alaska.

(quotes from files of Transportation Museum of Alaska)