

389/D-92

Historical Overview of Pearson Airfield

A Report Prepared by

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Submitted To

National Park Service
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Date: March 15, 1992

SCANNED

5/7/01

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I. STATEMENT OF PURPOSE

The following Report, "Historical Overview of Pearson Airpark," has been prepared for the Vancouver Historical Study Commission, the National Park Service.

The objectives for the Report are as follows:

- A. Provide an independent overview of Pearson Airpark with reference to relevant materials located in the National Archives, the Library of Congress, the Smithsonian Institution, and the Military History Institute at Carlisle, Pennsylvania.
- B. Assess the national significance of Pearson Airpark with reference to Pearson's historic role in aviation, civil and military.
- C. Evaluate existing histories materials on Pearson Airpark.
- D. Comment on the eligibility of Pearson Airpark (historic core) for the National Historical Register with reference to established criteria.

II. SCOPE OF INQUIRY

The primary focus of the report, "Historical Overview of Pearson Airpark," is the historic period, i.e. the years 1905-1941. This time frame covers nearly four decades from the flight by Lincoln Beachey in 1905 to the closing of the reserve training program in 1941.

During World War II the site was not used as an operational airfield or air reserve training facility. The Army Air Forces never reactivated Pearson as a military airfield. The year 1941 then is a logical dividing line between the historic and contemporary periods. In 1949, the War Assets Administration transferred the Pearson airfield to the city of Vancouver. At the time, the city merged the military airfield with the existing municipal airfield, creating Pearson Airpark. Since that time Pearson Airpark has operated as a municipal airport.

In recent decades, the City of Vancouver and the National Park Service have advanced alternative plans for the development of all or part of the historic core of the airfield (adjacent to Fort Vancouver). An analysis of this controversy over land use and historic preservation is not within the scope of this report.

III. SOURCES AND METHODOLOGY

Selected archival repositories and libraries have been consulted: the National Archives; the National Air and Space Museum Library and Archive; the Library of Congress; the Center for Air Force History (formerly Office of Air Force History) at Bolling Air Force Base; the Center for Military History, U.S. Army, Washington, D.C.; and the Military History Institute (Archives and Library) at Carlisle Barracks, Carlisle, Pennsylvania. These repositories contain primary materials and aeronautical collections on the history of flight, covering both civilian and military spheres.

For this report, the National Park Service submitted a packet of materials for review. Jon Walker's history of Pearson Airpark, prepared for the Pearson Airpark Historical Society (PAHS) in 1990, provided a useful point of departure. Other relevant documents included in the packet: 1) "Pearson Airpark and its Relationship to Fort Vancouver National Historical Site"; 2) Roberta Wright, "National Park Service and Pearson Airpark"; 3) Registration Form, submitted to the National Register of Historic Places (1990 application); and 4) **Flight Plan**, Washington State Department of Transportation, Aeronautics Division, Volume 14, No. 1 (Spring 1991). These documents represent local and regional studies on important aspects of the history of Pearson Airpark.

Newspapers and aeronautical magazines provide important coverage: The New York Herald Tribune, The New York Times, the Oregonian (Portland) and the Columbian (Vancouver). Aeronautical periodicals were surveyed for aviation reporting from the early period to World War II: Aero and Hydro (ca. 1912); Aero Club of America Bulletin (for pre-World War I era), later Aerial Age; Aviation (ca. 1920s-1930s); Air Service Newsletter (after 1926, Air Corps Newsletter); and The Aircraft Year Book (ca. 1921-1941).

Pearson Airpark is associated with the Soviet transpolar flight of Valery Chkalov (1937). Russian language materials on this flight are extensive, including both periodicals and books. The bibliography (see below) contains a selected list of Russian language materials consulted for this report.

IV. PEARSON AIRPARK IN HISTORICAL PERSPECTIVE

The Vancouver Barracks, Fort Vancouver, and the Pearson Airpark share a common territory, one linked intimately with the heritage of the Pacific Northwest. These three historic sites do not operate under a single jurisdiction, despite a shared history and overlapping boundaries.

Pearson Airpark (hereafter Pearson Airfield for purposes of historical analysis) is the newest constituent part of this multi-layered historic area. The 1990 PAHS study on the history of the airfield (hereafter PAHS History) provides the first systematic attempt to collect relevant materials on Pearson's history. This PAHS History follows a chronological approach and contains important historical data drawn largely from local and regional sources. Critics of the PAHS History find aspects of the reconstructed history of Pearson Airfield false or, at a minimum, lacking documentation. Some have challenged the assumption that Pearson Airfield has operated continuously as an aeronautical center since the first flights at the Vancouver Barracks. A related question: Was or is Pearson the oldest operating airfield in America? If not true, does this fact undermine Pearson Airfield's claim to historical significance?

To evaluate these issues (and others), this overview of the history of Pearson Airfield has been divided into the following

historical periods: 1) Early Flight; 2) World War I; 3) The Golden Age of Flight; 4) the U.S. Army Air Corps; 5) the International flights; and 5) World War II to Present. Each historical period in turn includes a brief historical summary (based in part on the PAHS History) and commentary section.

The goal of this report is not to write a comprehensive history of Pearson, but to analyze important historical themes that measure the national significance of Pearson Airpark.

A. EARLY FLIGHT

Historical Summary

The first recorded aeronautical event on the territory of Vancouver Barracks was Lincoln Beachey's dirigible flight in 1905. Beachey made 23 flights in and around Portland, Oregon that year, as part of the Lewis and Clark Centennial Exposition. One flight by the young aeronaut involved a short hop over the Columbia River (a first) to the Vancouver Barracks, landing on the polo grounds (adjacent to the present-day airstrip).¹

Five years passed before the first heavier-than-air flight took place in the Portland area. In 1910 Charles Hamilton flew a Curtiss aircraft at Portland.² The following year Charles Walsh and Silas Christofferson, two local aviators, began flying on the polo grounds at the Vancouver Barracks.³ Local promoters of

flying, e.g. Fred Bennett, were active as patrons and their enthusiasm suggests a growing airmindedness in the Vancouver community. Louis T. Barin is noted in the PAHS History as the last pioneer aviator actively flying out at the Vancouver Barracks prior to World War I. These isolated flights mark the genesis of aviation in the Portland-Vancouver region.

Commentary

Lincoln Beachey's flight to Vancouver Barracks in 1905 established an aviation milestone for the Pacific Northwest, the first man to fly across the Columbia River. Beachey, an associate of Thomas Baldwin and Roy Knabenshue, eventually abandoned dirigibles for airplanes. Beachey ranks as one of the most talented early aviators. He would die in 1915 when his airplane crashed in San Francisco Bay.

The dirigible flights of 1905 at Portland took place at a time when balloons and dirigibles, part of a lighter-than-air technology that first arose in the eighteenth century, dominated aeronautics. The airplane, already a reality in 1905, would quickly gained ascendancy over its lighter-than-air rivals. Beachey's defection to airplanes mirrored this important shift.

In retrospect, Lincoln Beachey's trek over the Columbia was an isolated flight, an event more linked to the past than the future. Five years lapsed before flying resumed in the Portland-

Vancouver area. Charles Hamilton's appearance at Portland, as with Beachey's visit five years before, involved an outsider coming to the region to perform a demonstration flight. The Hamilton flight was a benchmark, i.e. the first recorded airplane flight in the region, and the event generated public interest. Within a short period of time local aviators appeared.

Air enthusiasts took up flying at Vancouver, not Portland. One reason for the shift to the Vancouver Barracks was obvious: the Army installation provided an expansive open field, the polo grounds, where Lincoln Beachey has first landed in 1905. The large polo field was ideal for flying. Charles Walsh and Silas Christofferson are cited as first pioneers to begin flying at Vancouver. The character of their flying was typical for the era of early flight. They performed aerial stunts and showcased the new heavier-than-air flying machines. Flying at Vancouver in 1911-1912 follows the script of flying elsewhere at the time: Isolated, highly motivated air enthusiasts building and flying their own airplanes.

Flying machines, mostly biplane types, were constructed of bicycle parts, piano wire, wood, and fabric. Craftsmanship varied. Most designers, often with only a rudimentary grasp of aerodynamics, modeled their handcrafted airplanes on successful Wright and Curtiss machines. Typically, the pilot sat in the leading edge of the lower wing of these fragile machines,

surrounded by a tangle of wires and braces. There were few instruments. Engines, by necessity, had to be lightweight, which meant small powerplants rarely exceeding 100 horsepower. Cruising speeds averaged between 30-40 miles per hour. Twenty minutes of flying time, on the average, lapsed between engine shutdowns. Only the brave ventured aloft in such flying machines. A clear indicator of airplane performance was Glenn Curtiss's speed record of 1910 of 50 mph. By comparison, Barney Oldfield racing a Benz automobile that same year set a record of over 131 mph; an airplane equalled this record only in 1919.

There was no effective government regulation or safety rules. Training was haphazard. Pilots were often self-taught or took flying lessons from experienced aviators. Sportsmen, many already involved in automobile racing, were drawn to aviation. Slowly, the military displayed an interest in aviation, beginning in 1909 when the U. S. Army purchased its first airplane for testing.⁴

Caution should be exercised when using the term "airfield" or "airport" for Vancouver [Pearson] during these formative years. Because airplanes were lightweight they required only minimal space for take-offs and landings. This meant that pilots could operate out of pastures and open fields, as the Wrights had done in 1905 and 1909 at Huffman prairie near Dayton.⁵ Parade grounds at military installations were also favorite locales for

flying.

These primitive "airfields" were not viewed necessarily as dedicated spaces for flying. The airplane, not the field selected for take-offs and landings, was central factor. These improvised "aerodromes" often lacked any permanent structures. Sometimes a pilot co-opted a nearby barn or woodshed to serve as a "hangar." For more remote fields, pilots erected tents for shelter and storage. Because flying was occasional, there was no need for elaborate facilities. In time, of course, the situation changed. As the aeronautical community grew and flying became more commonplace, there was a move to erect permanent hangars and to establish real aerodromes. It is interesting to note that the first regular use of the word "airport" (a term suggesting permanence and sophistication) occurred in Atlantic City, New Jersey in 1919.⁶

One flight in 1911 embodies the character of early aviation in a dramatic way - the transcontinental flight of Cal Rogers. Flying the Vin Fiz, a Wright-designed biplane, Cal Rogers made the journey in 49 days from New York to Southern California. The Vin Fiz was highly unreliable with Rogers surviving 12 major crashes and countless emergency landings. The indomitable Rogers had to select open fields as landing sites frequently, often with minimal time to find the optimal "airstrip." Repair of his airplane was usually simple, if time consuming.

Aviation at Vancouver (later Pearson Airfield) cannot be understood apart from this historical context. Flights from the polo grounds and adjacent fields at Vancouver appear to have been sporadic and sustained by a small cadre of local air enthusiasts. One can assume from the material collected for the PAHS History that Vancouver became a typical center for aviation, not an "airfield" in the modern sense.

The fact that flying preceded "airfields" (as understood today) draws into question the claim made on behalf of Pearson that it is "the oldest operating airfield in the United States . . ."⁷ Given the occasional nature of flying at the Vancouver Barracks before World War I, such a claim lacks validity. The airfield at College Park, Maryland, many aviation historians would argue, has the best claim for operating continuously over the longest time span.⁸ College Park became the site for U.S. Army testing of the 1909 Wright Flyer (after its initial test flight at Fort Myer).

B. WORLD WAR I

Historical Summary

The decision of the U. S. Army Signal Corps to purchase a Wright airplane in 1909 marked the beginning of military aviation. Testing and flying the Wright airplane set the stage

for the development of an "air force," which took shape in the years before America entered World War I in 1917. Flying exhibitions at military bases, the Vancouver Barracks being no exception, were common. Air enthusiasts promoted the airplane as the technological marvel of the age. But military planners did not create a distinct air force (U.S. Army Air Service) until World War I, at a time airplanes were performing important operational tasks such as ground attack, air observation and photography.

World War I became the crucible for many technological breakthroughs. The airplane quickly evolved from the slow, fragile machines of the pre-war years into fast, reliable, and powerfully armed pursuit and bomber aircraft. Military flyers such as Eddie Rickenbacker and Billy Mitchell emerged as popular heroes and outspoken proponents of aviation. Many theorists, civilian and military, argued that the airplane would play a decisive role in the next war.

Commentary

The Vancouver Barracks played an important role in the development air power during World War I, but in a way unrelated to actual combat flying. The Vancouver Barracks did not house a major air base or train pilots for the war. By contrast, Vancouver became the locale for one of the major experiments in

wartime mobilization: the construction of the spruce mill by the U.S. Army Signal Corps (Spruce Production Division) for the massed production wood components for the manufacture of aircraft. Along with the nearby Standifer Shipyards, the Spruce Production Division facility made an enormous contribution to the war effort. Constructed in 90 days, the spruce mill would eventually employ 30,000 workers. It is estimated that the U.S. manufactured over 14,000 aircraft between 1917 and 1918. The spruce mill's lumber production sustained this manufacturing enterprise. It is interesting to note that only one-third of the mill's production was assigned to American aircraft plants, the other two-thirds being shipped to the Allies.⁹

The spruce mill, except for one surviving building moved to Pearson Airfield, has passed into history. The story of the mill is important to the historic site (considered here in the larger sense) and the history of the Pacific Northwest. World War I saw the transition of aircraft manufacturing from small workshops, operated by one or a few craftsmen, to large aircraft plants. For example, Tom Sopwith, the famed English designer/pilot, hired six people to build airplanes on the eve of World War I. By the end of the war, Sopwith employed 3,500 workers (1,000 women). The wartime emphasis on the massed production of airplanes dictated labor specialization and ready access to raw materials. The spruce mill played a crucial role in this expansion and modernization of American's aircraft production.

The spruce mill has received only modest coverage in the histories of aviation at Vancouver. Any detailed history of Pearson Airfield should approach this topic as something more than a footnote. The spruce mill was an early experiment in a government-run factory. The economic impact of the mill on the region and the social dimensions of the wartime facility (e.g. I.W.W. in conflict with the plant-sponsored labor unions) are compelling topics and part of any complete history of aviation in the Pacific Northwest. This same experiment gives the Vancouver Barracks historical importance as part of the wartime mobilization. There is more to the story of aviation at Vancouver than pilots and record-breaking flights.

The spruce mill is not tied organically to the history of the airfield; in fact, the facility was located outside the territory of the airfield and existed outside the is to be considered. While the spruce mill evolved as a distinct facility, it was part of the U. S. Army. The post-war years saw the development of an army air base at Pearson. For this reason, the spruce mill and Pearson Airfield share a common institutional affiliation. Seeing the spruce mill episode as part of a larger history of aviation at Vancouver is legitimate.

The war demonstrated the usefulness of the airplane in manifold ways, allowing military aviation to play an important, but not decisive role in the conflict. The airplane improved

dramatically in terms of durability and performance. The DH-4s and JN-4 Jennies at Vancouver in the post-war years represented a quantum leap in technology. Engines were more powerful and reliable. Airplanes could be flown to high altitudes and across vast distances. While most airplanes remained biplanes with external bracing and open cockpits, they were relatively fast by the standards of the day; for example the T-2, piloted by Oakley Kelly, made a trans-continental flight in less than 27 hours.

The U.S. Army Air Service emerged in World War I as important new military branch. The Vancouver Barracks, as with many other army facilities, would welcome the assignment of an aviation to the base in the post-war years. Vancouver's involvement in aviation had been episodic. In the 1920s, however, aviation - civilian and military - would soon acquire a firm footing.

C. GOLDEN AGE OF FLIGHT

Historical Summary

Once World War I ended, the United States Army quickly demobilized. The spruce mill closed, having made an enormous contribution to the Allied war effort. The U.S. Air Service, as with other branches of the military, entered the 1920s reduced in strength and seeking to define its place in the peacetime

military.

The next two decades are commonly viewed as the "Golden Age" of flight: it would be a period of rapid growth for aviation, a time of record breaking flights, air races, and the development of commercial aviation.

One consequence of the peace was the sudden glut of surplus military aircraft and parts. Late model DH-4s and JN-4s suddenly became available for purchase at minimal cost. Surplus military aircraft soon found their way into traveling air shows, giving rise to the era of the barnstormer. Recreational flying became a reality for many Americans. At the same time, techniques were perfected for aerial photography and mapping, crop dusting, and forest patrols.

The National Defense Act of 1920 shaped the course of Army Aviation in the 1920s. U.S. Army Air Service statutory definition, as part of a larger scheme to establish a peacetime military structure. At the height of the Great War over 190,000 men had been assigned to aviation duty. A year after the Armistice the force level had been reduced to 1,200 officers and 22,000 enlisted personnel.

The Vancouver Barracks, one of the U.S. Army's oldest bases, became a part of the Air Service program in 1923. That year the

Army established new airfields at Fort Benjamin Harrison (Indiana), Fort Douglas (Utah), and Vancouver Barracks. The purpose of the airfields was to expand air reserve training. The so-called Organized Reserves supplemented operations by the regular Air Service at established bases such as Bolling, Kelly, Langley, Carlston, March, Mitchel and Post airfields.¹⁰ The Organized Reserves with the National Guard provided an additional pool of trained personnel for the Air Service in case of a national emergency.

The Air Service assigned the 321st Observation Squadron to the Vancouver Barracks in 1923. Lt. Oakley Kelly led the squadron. The arrival of the 321st signalled a new phase in military aviation for Pearson. The 321st, a reserve unit, would remain at Pearson to 1941, when the squadron was activated by the U.S. Army Air Corps. During this time period Pearson operated as an intermediate field within the larger framework of Air Corps bases.¹¹

Lt. Oakley Kelly's years at Pearson Airfield (1924-1928), attracted national attention and his energetic leadership style made an impact on the region. At the time, Kelly was a major figure in the U.S. Army Air Service, one of the best-known military pilots in the pre-Lindbergh era. His enduring contribution was the first successful non-stop trans-continental flight. Kelly argued that such a flight was possible as early as

1921 when he was stationed at McCook field in Ohio (the Air Service's technical and engineering center). Joined by Lt. John A. Macready, Kelly made the epic flight in April 1923, flying a Fokker transport (T-2). Kelly set several records, including distance (2,516.55 miles) and endurance (36 hours, 4 minutes, 34 seconds).

During Kelly's assignment at Vancouver the Army modernized the field, building of a new hangar and making other improvements. Kelly actively promoted record-breaking flights and the expansion of civilian involvement in aviation at Vancouver. Also, Kelly moved to rename the airfield after Alexander Pearson in 1925. Lt. Pearson had grown up in Vancouver. His career as an Army aviator was exemplary, if brief; he died an untimely death in 1924.¹² Kelly's presence at Pearson focused public attention (local and national) on aviation in the Pacific Northwest.

Lt. Oakley Kelly, as noted in the PAHS History, actively promoted aviation in the Pacific Northwest. Some of his promotional work revealed a keen sense of history: He invited 94-year-old Ezra Meeker (a veteran of the overland trail) to join him for a flight to the East Coast in 1924, a flight that made a powerful impression on the local community. Kelly also mobilized his squadron for crop dusting duty in Oregon when apple orchards were faced with an infestation of scab and codling moths.¹³

The U.S. Army Air Service sponsored an around-the-world flight in 1924. For the flight, the Army flyers used four single-engine Douglas aircraft, named Douglas World Cruisers (DWC). While this flight is dimly remembered today, it captivated public attention in 1924. Three years later, of course, Charles Lindbergh made his epic flight across the Atlantic, and this feat quickly overshadowed the achievement of the Douglas World Cruisers. The DWC team took 175 days to fly around the world, an aerial trek that included one dramatic stop at Vancouver (see appendix).

The flight of the Douglas World Cruisers (two out of the four made the complete flight) represented an important milestone for military aviation. The flight demonstrated the range of military aircraft. By implication, bombers fly across vast distances and, in the course of a future war, bomb major urban centers. The 1920s and 1930s saw a vigorous debate on the nature of air power, and the world flight of 1924 allowed advocates of air power to promote Army aviation. Long distance flights, along with air races and other aerial spectacles, gave military pilots heroic stature. For the small military airfield at Vancouver, participation in the 1924 DWC flight brought publicity and prestige.

The PAHS History also covers the theme of commercial aviation at Pearson. Civil and military aviation were

intertwined in many ways. The Vancouver Chamber of Commerce worked with Kelly to establish a commercial flying field in 1925. This expansion allowed a home for general aviation, for Pearson to bid for an airmail route, and for embryonic airlines to make use of the airfield. Local businessmen such as Vernon C. Gorst did much to promote airline development by organizing Pacific Air Transport.

As airlines took shape in the 1930s, there was a need for larger aircraft, capable of accommodating 10-14 passengers. Fokker and Ford tri-motors first dominated the market, but proved to be slow, noisy and inefficient. The Boeing 247, a sleek twin-engine monoplane, appeared, only to be replaced by the Douglas DC-3 as the modern airliner. The DC-3 of the mid-1930s could carry up to 21 passengers. For the first time, airlines could operate profitably without airmail subsidies.

Commentary

Lt. Oakley Kelly left Pearson Airfield in 1928. During his four years had left an enduring legacy. His leadership gave Pearson identity (with national recognition) as an Army airfield. While Pearson could not compare in size with major Air Corps bases such as Bolling, McCook, or Langley, it possessed a solid reputation as reserve field with an enviable record of public service. Pearson's active involvement in the Golden Age only

added to its earlier accomplishments in aviation.

Pearson Airfield, if relatively small, had played a significant role in Army aviation. The flights of Kelly, outlined in some detail in the PAHS History, did much to promote military aviation on a regional and national level. It is worthy of note that the Smithsonian Institution's National Air and Space Museum exhibits Oakley Kelly's Fokker T-2 aircraft and the Douglas World Cruiser (the Chicago) in the Pioneers of Flight Gallery.

The establishment of civilian field at Pearson in 1925 inaugurated a basis for general aviation which endures to the present. The existence of the civilian field incorporated the City of Vancouver into ^{the} life of the airfield in a formal way. General aviation is an important aspect of Pearson's history, not just for the historic period, but in the contemporary period as well.

Varney and Pacific Air Transport airlines used the Pearson Airfield in the 1920s. For a brief interlude, Pearson was linked with these two embryonic airlines. The rapid advance in the design of airliners, however, necessitated larger fields and, for obvious reasons, Pearson lacked the size to operate as a modern municipal airport. Lindbergh's 1927 flight to Paris prompted a dramatic and sustained interest in aviation. During the so-

called "Lindbergh Boom" cities, large and small, built new airports. This sudden development in large municipal airports expressed the near universal enthusiasm for aviation and, correspondingly, a growing confidence in commercial aviation. Portland's interest in developing its own airport (Swan Island) mirrored the times.¹⁴ In this context, Pearson lacked the size, facilities, and proximity to Portland, the region's major urban center, to sustain commercial airline operations.

E. U.S. ARMY AIR CORPS

Historical Summary

The Air Corps Act of 1926 marked a new era for the Army aviation. The legislation provided for a new Assistant Secretary of War for Air (F. Trubee Davison) and a five year plan for expansion. The mission of the Air Corps was now more offensive, as opposed to the Air Service days when air reconnaissance and support activities were the primary tasks of Army aviators. For the next fifteen years Pearson Airfield would be an vital part of this new structure.

The Air Corps faced many problems in the 1930s. Congress displayed conducted numerous hearings on the military, but displayed minimal financial largess to support the armed forces.

Air Corps budgets were relatively small, even with the initial expansion program, a financial base that barely sustained the minuscule air arm authorized by the National Defense Act of 1920.¹⁶

Reserve training operated on a skeletal budget and in a general context of neglect. There were shortages in officers, morale problems, and confusion over doctrine. In 1937, Oscar Westover, Chief of the U.S. Army Air Corps, reported a total authorized strength of 1,650 officers. This figure is only slightly larger than the figures for 1926, when the Air Corps was reorganized.¹⁶

In 1935, there were Congressional hearings on air defense matters. Congressman Wesley Brown of Washington testified about the vulnerability of the Pacific Northwest. He feared an enemy air force could set forest fires in the region. Echoing the views of other congressmen concerned about coastal defense on the Atlantic and Pacific, Wesley Brown noted that his region was without "protection" except for two torpedo bases in Puget Sound (the logical entry point for the unnamed enemy air force). He wanted a "suitable and sufficient airplane base." These hearings say nothing directly about Pearson, at the time one of the Air Corps' reserve training facilities, but the testimony revealed the plight of military aviation in the 1930s.¹⁷

Budgetary constraints made an impact on Pearson Airfield. In 1925, there were a total of 12 pilots stationed at Vancouver (9 regular, 3 organized reserves).¹⁸ In the 1930s the figures would fluctuate, but still remain small. As in the previous decade Pearson was the locale for summer maneuvers. During the Air Mail Crisis of 1934 (a time when Army pilots were mobilized to fly the mails) Pearson played only a peripheral role providing support for the air mail center at nearby Swan Island Airport.

Commentary

Pearson Airfield operated as an intermediate field with an air reserve squadron during the period 1923-1941.¹⁹ Pearson was not as large as March Field or central to the mission of the Air Corps as Bolling or McCook fields, but it was a representative Army installation with small reserve training program. In many respects it was typical for the time.

Pearson Airfield's association with the U.S. Army Air Corps, 1923-1941, constitutes a distinct and historically significant period. No other time frame possesses the same unity of purpose and identity. Even today Pearson still possesses much of the ambience of those years. The original grass field, the surviving military structures, and the restored backdrop of Officers Row provide a unique setting, one which preserves much of the interwar context. No other dimension of Pearson's past equals

the Air Corps phase in importance.

F. INTERNATIONAL FLIGHTS

Historical Summary

In 1929, S.A. Shestakov, lead pilot for the "Land of the Soviets," made a brief stop at Pearson Airfield on his way to New York. The Soviet flyers had flown from Siberia, across the North Pacific, to Seattle. The Shestakov flight, as it turned out, became a harbinger for several more spectacular flights by the Soviets in the 1930s. Pearson would play a major role in one of these epic flights.

When Shestakov made his long-distance flight to North America, the Soviet Union had already committed itself to become a first rank air power. By the mid-1930s, Stalin decided to compete for international records, in particular in the long-distance categories. The Soviet Union's talented aircraft designer Andrei N. Tupolev produced a series of long-range aircraft, including the ANT-25 which had established a number of benchmarks in long duration flights within the Soviet Union. Parallel to these breakthroughs in aircraft technology the Soviets began a systematic exploration of the Arctic with the goal of establishing a permanent scientific station at the North

Pole.²⁰

There was a logical desire to adapt aviation for the Soviet Union's exploration of the Arctic. Soviet techniques for cold weather flying had been pioneered in the 1920s, which allowed year-round air operations. By 1934, Soviet aircraft had landed on ice floes in the Arctic Ocean to rescue the crew of an ice-bound ship. Two years later, Stalin ordered aircraft, equipped with skis, to land at the North Pole where Soviet scientists had established an outpost. Having landed at North Pole, the Soviet media hinted in 1936 of an even more dramatic aerial trek--a non-stop flight from Moscow to North America over the North Pole.

The Soviet transpolar flights, three in number, followed in the summer of 1937. The first flight by Valery Chkalov (pilot), Georgiy Baidukov (co-pilot), and Alexander Belyakov (navigator) took place in June 1937.²¹ Flying an ANT-25 Stalinskii marshrut ("Stalin Route"), Chkalov successfully flew over the North Pole. He landed at Pearson Airfield after a 62-hour flight. Chkalov fell short of the existing long-distance record by 350 miles (Codos and Rossi, 5,657 mile record). The first transpolar flight prompted intense public interest. Radio stations and newspapers monitored Chkalov's flight closely, despite Soviet secrecy and sporadic radio contact with the Soviet airmen. Two additional Soviet transpolar flights followed: M. M. Gromov broke the world record in July by making a non-stop flight to San

Jacinto, California; and Sigismund Levanevsky attempted a third flight in August, only to disappear without a trace.²²

Valery Chkalov received a hero's welcome at Pearson and during his post-flight tour of the United States. Both Chkalov and Gromov met President Franklin D. Roosevelt on their visits to Washington, D.C. It is interesting to note that the Soviet transpolar flights took place at the same time Amelia Earhart made her ill-fated attempt to fly across the Pacific. American press and radio coverage of the Soviets rivaled stories on Amelia Earhart.

The Chkalov flight made a profound impression on the Vancouver-Portland area. Many residents followed the spotty radio coverage, and a huge crowd had gathered at Portland's Swan Island Airport in anticipation of the Soviets landing on Sunday morning, June 19, 1937. For reasons that became apparent later, Chkalov only buzzed Swan Island, and then landed at Pearson Army Airfield. At Pearson, he was greeted by Brig. General George Marshall, then post commander.

Chkalov and his crew were joined by Soviet diplomats and a large contingent of reporters. The whole event attracted national attention. The City of Portland feted the Soviet airmen with a parade. Before Chkalov departed for San Francisco and his American goodwill tour he received greetings from Joseph Stalin,

who quickly ordered Soviet propaganda organs to portray the flight as a triumph of socialism.

The U.S. Army Air Corps cooperated with the Soviets during all three flights. When Levanevsky disappeared, the Air Corps deployed numerous aircraft to search for the lost Soviet aircraft. While cordial outwardly, the Air Corps harbored many suspicions about the Soviets and their motives. General Westover took a keen interest in the ANT-25 aircraft, ordering Army technicians at Pearson provide information on Soviet long-distance aircraft.

For the city of Vancouver, the military personnel at the Vancouver Barracks, and Army aviators at Pearson there was real excitement over the unexpected visit by Valery Chkalov. For the Columbian the Chkalov flight provided an occasion for civic pride. Initially, at least, Portland took second place to the smaller city across the Columbia River. Vancouver's pride in the Chkalov flight endured over the decades, prompting a group of citizens to build a monument to Chkalov in 1977.

Commentary

Valery Chkalov, by virtue of this 1937 transpolar flight, became the Soviet equivalent of Charles Lindbergh. Chkalov's exalted status in Soviet public life was only enhanced by his

untimely death in December 1938. Chkalov's life became the subject of countless films, book, and memorials. His birthplace, not to mention numerous streets, was renamed in his honor. Even today, Chkalov remains a main figure--perhaps symbol--of Soviet aviation.

By contrast, Chkalov's fame was intense, but shortlived in the United States, except perhaps for the Pacific Northwest. This fact does not diminish the significance of Chkalov's flight in the history of aviation. Many other aviators--even Americans--from the Golden Age of flight have suffered the same fate with the passing of time; we remember Charles Lindbergh and Amelia Earhart, but not necessarily Jimmie Mattern, Wiley Post, Roscoe Turner, or Pearson's own Oakley Kelly. Time has nearly erased in the public consciousness the names of early astronauts and cosmonauts.

Did the Soviets land at Pearson by accident? It is true that Pearson was not their scheduled destination, and when they reached the Columbia River they considered landing at Eugene or Swan Island, rejecting both. Why, then, Pearson Airfield? It would not be accurate to say the landing at Pearson was accidental; non-scheduled, for certain, but not accidental. Chkalov's decision to land at Pearson was not necessarily impulsive, a sudden move which unwittingly gave Vancouver a publicity windfall. The Soviets had landed at Pearson in 1929.

Chkalov and his crew knew about Pearson Airfield in advance and, as an Army installation, considered it a preferred landing spot in an emergency. Being military flyers, Chkalov and his crew naturally chose the secure environs of Pearson over Swan Island with its milling crowds.²³

The Chkalov transpolar flight of 1937 remains today as an important milestone in aviation. For Pearson Airfield, the landing of Valery Chkalov in 1937 is one of the most important events associated with the history of the airfield. The national and international importance of this event is apparent, even with our fading collective memory of the Golden Age of flight.

7. World War II to Present

Historical Summary

When the 321st Observation Squadron was activated in 1941, Pearson ceased to be an active Army Air Corps base. During World War II, of course, there was some military flying in and out of the airfield. But 1941 did mark the end of an era. Few airfields of Pearson's size during the interwar years could boast such a diverse involvement in aviation. Since the 1940s, of course, general aviation became the arena for flying at Pearson. General aviation has garnered considerable local support.

Pearson Airfield was declared surplus in the late 1940s and the City of Vancouver assumed responsibility for Pearson. Over the next four decades the relationship of Pearson to the City and to the National Park Service has been complex, involving a shifting pattern of land use agreements.

The work of the National Park Service to replicate old Fort Vancouver (completed in 1972) brought the development of the Fort into conflict with the local initiative to preserve Pearson Airpark (now understood to combine the historic core of the old Army airfield and the commercial airfield). At the heart of the debate is a 30 acre parcel of land scheduled to be returned to the National Park Service in 2002.

This brief summary admittedly does not cover fully the history of Pearson Airpark in the post-war years or the complicated issues behind the current debate over the future of Pearson.

Commentary

The scope of this report precludes any recommendations on how to resolve the controversy over Pearson. The summary statement (see below) addresses certain historical aspects of Pearson. While this commentary is focused narrowly on the

historical significance of Pearson Airpark, it may shape and condition the on-going debate.

V. SUMMARY STATEMENT

The year 2003 will mark the centennial of the first flight of the Wright brothers. The next century will allow us to evaluate more clearly the impact of aviation on the twentieth century. The passage of 100 years will also allow us to see with greater clarity how airfields such as Pearson contributed to the development of aviation. For those who debate the merits of Pearson Airfield's legacy - local and national - it is important to remember 2003 as much as 2002, the date the Western parcel reverts to the National Park Service. Since 2002 arrives first, there is an urgency to make some preliminary judgement now on Pearson's national significance; the summary statement which follows endeavors to contribute toward that end.

1. The genesis of aviation in the Vancouver-Portland area, and, in particular Pearson airfield, is subject to debate. The 1905 Lincoln Beachey flight (Portland to Vancouver Barracks) is an important antecedent to the story, but not a convincing point of departure. Charles Hamilton's 1910 flight is arguably the inaugural flight for the region (a flight that took place in

Portland, not Vancouver!) because Hamilton's aerial demonstration had an impact on both cities. Subsequent history, of course, unfolded in a way that linked the two cities, e.g. air mail flights and early commercial airlines. Yet, it is important to answer this question in a more precise fashion, to pinpoint as best we can, when the first flight took place at the Vancouver Barracks (a further iteration would be to narrow the first flight to the existing Pearson field and exclude flights from the old polo grounds). Here there is ample evidence that the first flight probably took place in June 1911 on the old polo grounds.²⁴

2. A related problem is how to fit Pearson's early flights into the chronology of aviation. Is Pearson the oldest airfield in the United States? In the West? Claims such as these are perceived by some as essential to any argument on historical merit. Most historians, however, would define such questions as essentially peripheral, and in no way a key criterion for the measurement of Pearson's historical legacy. Most aviation historians, including specialists on early flight, would nominate College Park, Maryland as the oldest operating field in the United States. Much of Pearson's early flying was improvised and intermittent, typical for the era. As noted above, most "aerodromes" and "airfields" in this formative period had an indeterminate character. If the question is restated to ask if Pearson has a long tradition of flying, civil and military, the

answer is in the affirmative.

3. What is the national significance of Pearson Airfield? U. S. Army Air Service (after 1926, the Army Air Corps) involvement at Pearson, from 1923-1941, constitutes a distinct and significant period, one that in many ways gave Pearson Airfield a national identity. Many events, personalities, and programs at Pearson in the interwar years were tied to the larger national aeronautical community. Personalities such as Oakley Kelly, Valery Chkalov, and George Marshall, to name a few, played diverse roles in the life of Pearson Airfield. Douglas World Cruisers and the Soviet ANT-25 transpolar airplane landed at Pearson. For its size, Pearson played an impressive role in aviation during those years.

Any future reconstruction of Pearson should aim to recreate the historical setting and ambience of Army Air Corps aviation, circa 1930. Pearson still has many of its old buildings and much of the original aspect of the airfield could be reconstructed. It is worth noting that Bolling Field (Washington, D.C.) could not be reconstructed today; the old runways are gone and the base is now a crowded support facility.

Possible aircraft loans from the Smithsonian and the Museum of Flight in Seattle could provide artifacts for any future restoration. The Pearson Airpark Historical Society has made a

concerted drive to establish a museum at the field. This idea is advanced as a logical way to clarify and preserve Pearson's identity.

4. Pearson Airfield has an important connection to international aviation. The Chkalov monument of 1977 was an important local initiative to build ties with the aeronautical community of the then Soviet Union. Valery Chkalov remains a national hero in Russia. Chkalov is also a major figure in the history of flight. This connection with Russia and the international aviation community is an important link to the outside for Pearson. Few aviation centers or museums in the United States possess such a valued connection.

VI ELIGIBILITY OF PEARSON FOR NATIONAL HISTORICAL REGISTER

A review of the Registration Form, National Historical Register, for Pearson Airfield prompts several brief remarks on the question of eligibility.

The nomination form proposes the historic core of the field for the National Register (this would exclude the civilian field at the eastern edge of the site). A cluster of original buildings survive and would be part of the historic complex: 1) the 1921 hangar (Building # 189, on accompanying map); 2) the

Pearson Office Building (Building #194, once part of the Spruce Production Division); and 3) Air Corps Storehouse (Building # 102, built in 1904 and moved to the field in 1925 according to the form). There would be the option as well of moving the Chkalov Monument to the proposed site.

The justification for the nomination includes a comprehensive essay on the history of Pearson. This overview provides considerable information on the Army Air Corps period, ca. 1923-1941. The association of Pearson with the Air Corps is strong and this theme could be the core identity for the historic site.

As suggested above, no Army Air Corps field survives today in its near original aspect. Most Army airfields of the interwar years have disappeared or have been so radically altered that old ambience could not be recovered. March Field, for example, began as Pearson, but quickly expanded into a large air base. Bolling, Wright, Kelly and other airfields have gone through similar transformations. Pearson Airfield, in fact, may be the last opportunity to preserve an Army airfield of the pre-World War II period. An expanded museum with artifacts and antique aircraft (as part of a collection or on loan) could create enhance the historic site.

Pearson has a strong case for inclusion in the National Register, based on the setting, structures, and historical character. Any review of Pearson's future must await a resolution of the land use controversy with the City of Vancouver and coordination of local and national jurisdictions.

8. Consultation with several aviation historians at the National Air and Space Museum during March 1992 confirmed this fact. No one, to date, has made this question a matter of serious historical inquiry, i.e. examining carefully extant records for all the major fields. Early flight has many obscure aspects. In the 1980s, an effort was made to substantiate Gustav Whitehead as the first inventor of the airplane. No compelling evidence, however, was advanced. Pearson Airfield's pioneer involvement in aviation is fully recorded.

9. United States Spruce Production Corporation, A History of the Spruce Production Division, the United States Army and United States Spruce Production Corporation, Portland, Oregon, n.d., and Report on Audit of the United States Spruce Production Corporation, H. Doc. 235, 80th Congress, 1st Session, 1947, as quoted in Maurer Maurer, p.535.

10. These airfields were established in 1920. See also Louis H. Bash, "Happy Landings: The Development of Army Flying Fields," Quartermaster Review, January/February, 1933.

11. National Archives , Record Group 18, .686, Landing Fields, General, 1913-1938, Boxes 1211-1215, contain the surviving records on Pearson Army Air Corps Field. A related archival holding in Record Group 18 is Project Files, Series 2, Pearson Field (1923-1938), Boxes 2317-2319. The National Archive also has holdings dealing with the U. S. Army, Record Group 393, which covers the larger history of Vancouver Barracks. The specific Pearson Field archives are cited here for the first time. They are crucial for any future history of the Pearson Field.

12. Maurer Maurer, Aviation in the U. S. Army 1919-1939, Washington, D.C.: Office of Air Force, 1987, pp. 32, 34, 172, 177 covers aspects of Lt. Alexander Pearson's career.

13. Maurer Maurer, p. 142.

14. John W. Andrews, "Portland's Island Airport," Aviation, Volume XXIV, No. 12, March 19, 1928, p.709. Andrews wrote about the newly opened Swan Island Airport. One reference to Pearson mentioned that the airmail service would be transferred to Portland, p. 720.

15. The War Department gave periodic reports on the state of the military. One representative example showing an overview of military aviation by the War Department is Final Report of the

1. For a definitive history of ballooning, see Tom D. Crouch, Eagle Aloft, Washington, D.C.: Smithsonian Institution Press, 1983. See also, Richard Harris, "The Coming of the Birdman: The Aviator's Image in Oregon, 1905-1915, Masters Degree thesis, Portland State University, 1981, as Quoted in Jon Walker, PAHS History, 1990.
2. Charles Hamilton flew with the Curtiss demonstration team which made frequent flights to promote aviation.
3. Charles Walsh and Silas Christofferson are cited by the PAHS History, based on information found in the Columbian, June 1911.
4. Louis Casey, Curtiss: The Hammondsport Era, 1907-1915, New York: Crown Publishers, 1981 provides an interesting portrait of early aviation. See also James Fahey, U. S. Army Aircraft, 1908-1946, New York: Ships and Aircraft, 1946. One of the most readable and authoritative new books is Tom D. Crouch's The Bishops Boys, A life of Wilbur and Orville Wright, New York: W. W. Norton and Company, 1989. Crouch's biography recreates the context of the early years in a dramatic fashion.
5. See Crouch, The Bishops Boys, A life of Wilbur and Orville Wright, pp. 280-286 for a discussion of Huffman Praire. Jerold E. Brown, Where Eagles Land, Planning and Development of U. S. Army Airfields 1910-1941, New York: Greenwood Press, 1990, p.2 states that early airfields were makeshift, typically pasture lands, polo fields, and parade grounds. Brown clearly indicates that the size of airports changed slowly with the increasing size and speed of aircraft: for example, a military airfield in the 1920s required around 200 acres; by the 1940s a modern airfield necessitated 3,000-4,000 acres.
6. Interview with Deborah Douglas, Guggenheim Fellow, National Air and Space Museum, March 1992. Douglas is conducting research on early airport development.
7. See "Pearson Airpark: A Brief History," Flight Plan, Washington State Department of Transportation, Volume 14, No.1 (Spring 1991), p. 3. Region newspaper articles echoing this claim are cited in Roberta Wright, "National Park Service and Pearson Airpark," (unpublished), 1990, p.3.

23. This attitude on the part of Chkalov and his crew is evident in the various writings on the transpolar flights.

24. See PAHS History; and Carl Landerholm, Vancouver Area Chronology, 1784-1958, published by the Fort Vancouver Historical Society, 1959 and Roy F. Jones, Editor, Clark Count History, published by the Fort Vancouver Historical Society, as quoted in Roberta Wright, "National Park Service and Pearson Airpark" (unpublished).

War Department Special Committee on Army Air Corps, July 18, 1934, Washington, D.C.: Government Printing Office, 1934.

16. See Annual Report of Chief of the Air Corps, 1937.

17. See Hearings, Committee on Military Affairs, House of Representatives, 74th Congress, First Session, on H.R. 6621 and H.R. 4130, February 11-13, 1935, p. 24.

18. Brown, Where Eagles Land, p. 67.

19. See Maurer Maurer, p. 87f.

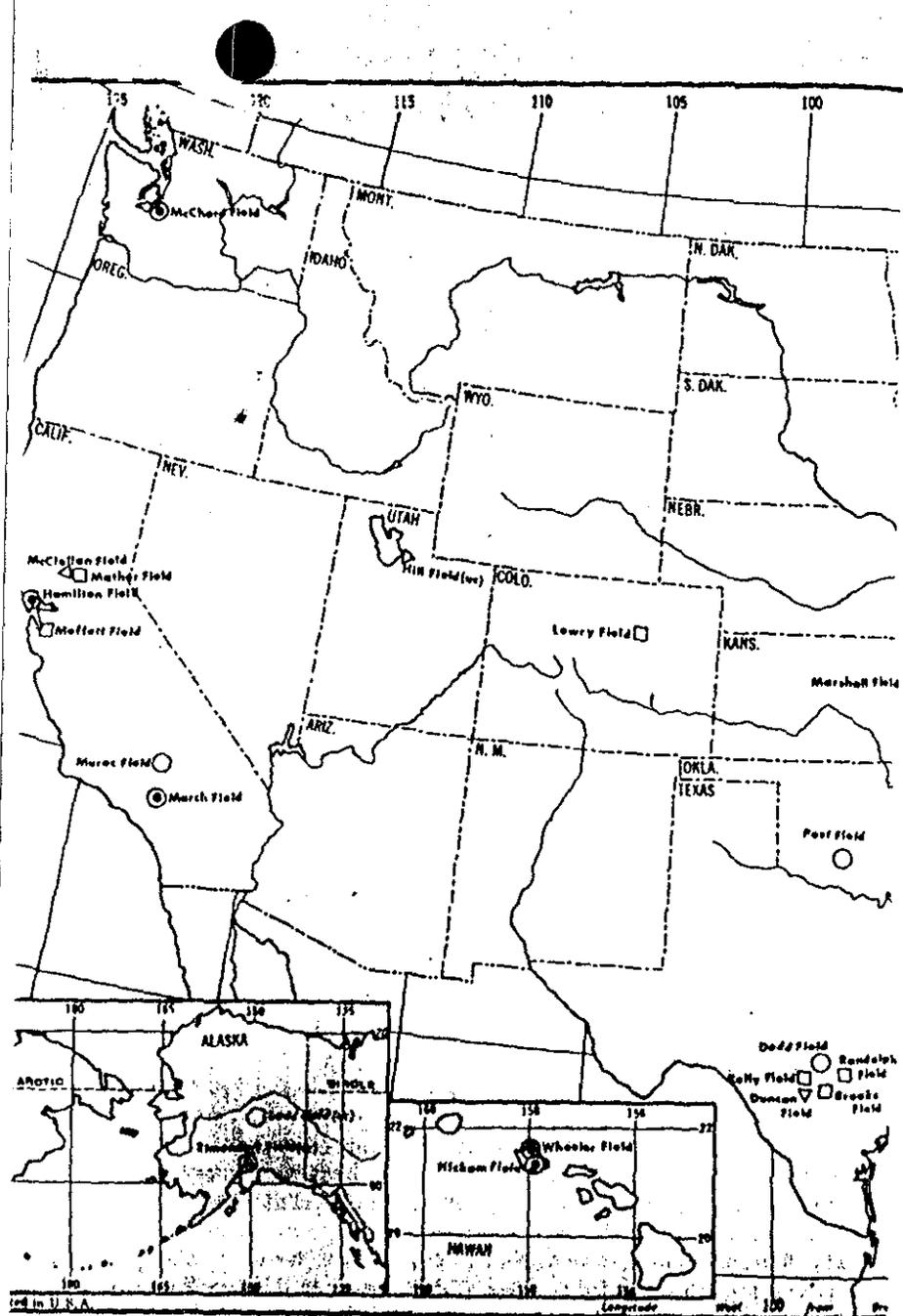
20. Shestakov flew an ANT-4, an early model long distance aircraft. For an excellent review of the Soviet Union's record-breaking flights, see K. E. Bailes, "Technological and Legitimacy: Soviet Aviation and Stalinism in the 1930s," Technology and Culture, Volume 17, No. 2, (April 1976), pp. 55-81.

21. Georgiy Baidukov, Chkalov's co-pilot, has written a biography of Valery Chkalov and numerous articles on other aspects of polar flying. His Russian language biography, Chkalov, appeared in 1975. The most recent English translation of this biography is Russian Lindbergh, The life of Valery Chkalov, translated by Peter Belov and edited by Von Hardesty, Washington, D. C.: Smithsonian Institution Press, 1991. See also the recent article by Baidukov on the transpolar flight "Nash polet v Ameriku cherez Severnyy polyus" [Our Flight to America through the North Pole], Nauka v SSSR, 1987, No. 3, pp. 116-127. The Russian language literature on Chkalov and the transpolar flight is enormous and cannot be summarized here. Nikolai Bobrov's Chkalov was translated into English by Cynthia Rosenberger and published by Raduza, Moscow 1987.

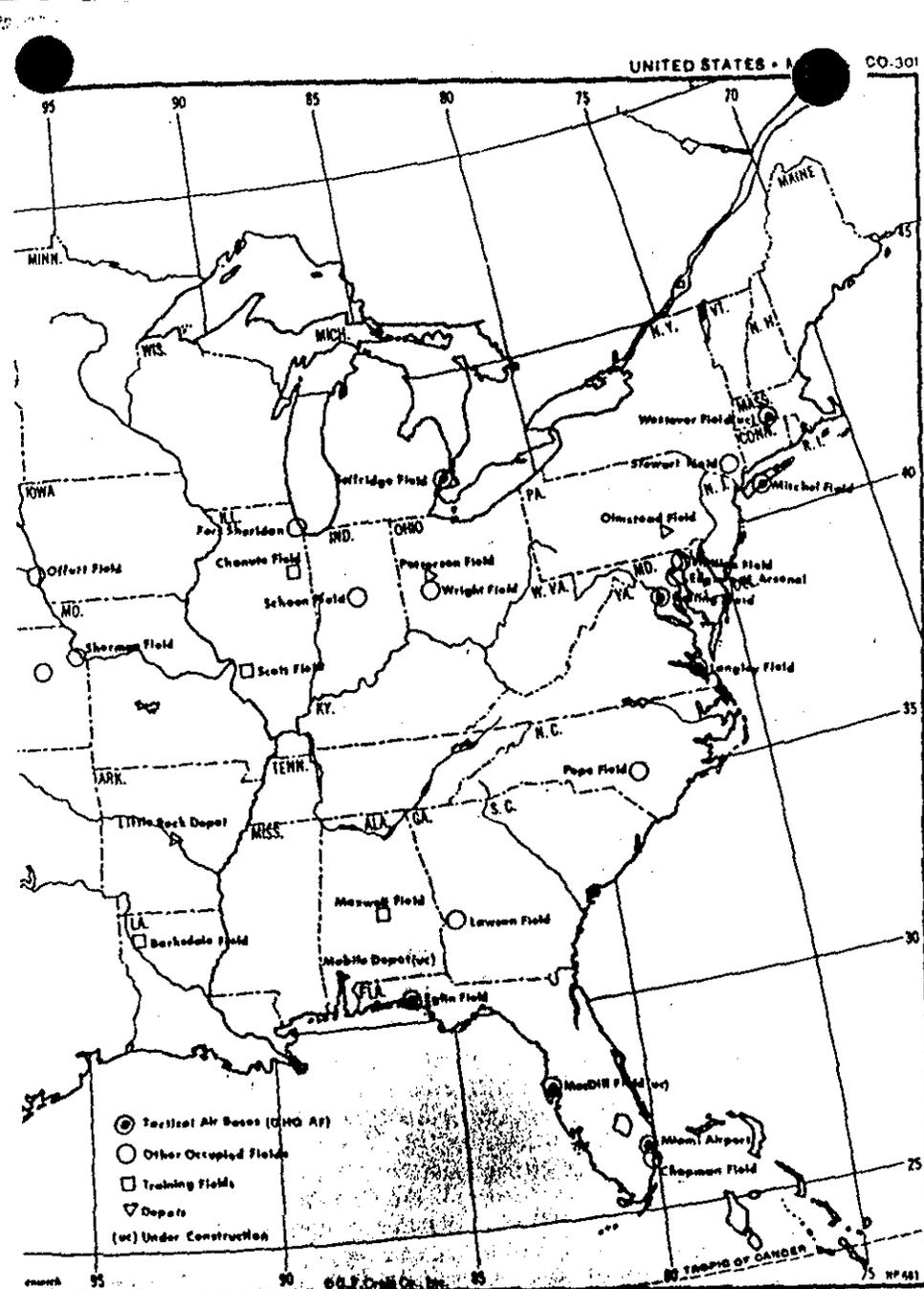
22. See U. S. Army Air Corps Newsletter, Volume XX, No. 15 (August 1, 1937), p. 3, and Volume XX, No. 15 (September 1, 1937), pp. 14-15. The Newsletter gave random coverage to the Soviet flights, covering the M. M. Gromov landing near March Field and some analysis of the ANT-25 aircraft. This minimal coverage contrasted with the sustained news reporting by the New York Times and many other newspapers on Chkalov and Gromov. The disappearance of Levanevsky prompted widespread public interest, at a time when the nation was concerned over the fate of Amelia Earhart. See also, Von Hardesty, "Soviets Blaze Sky Trial Over Top of the World," Air and Space Magazine/Smithsonian, December 1987-January 1988, pp. 48-54.

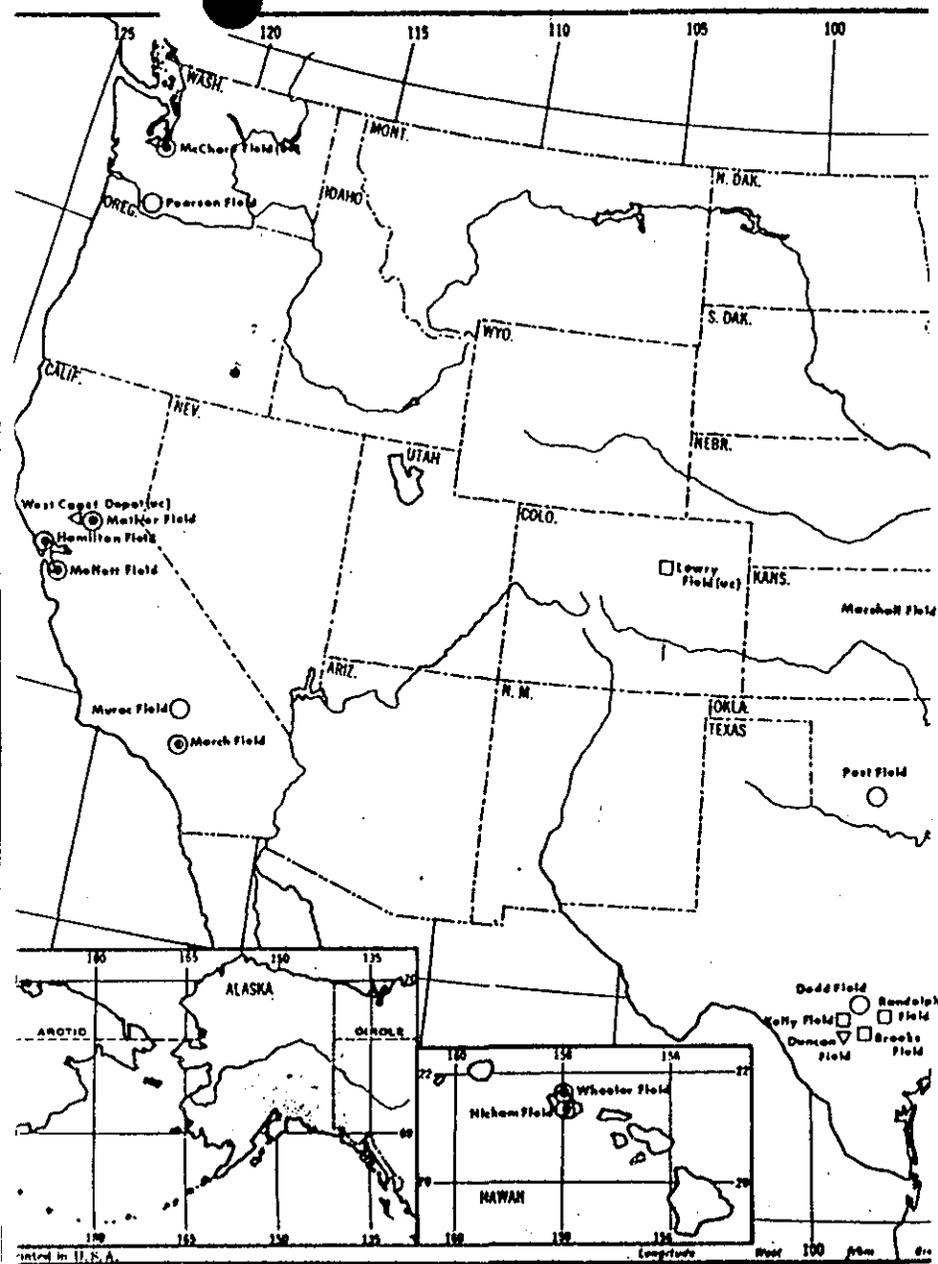
BIBLIOGRAPHY

There are extensive archival and bibliographic holdings available on historical themes related to the history of Pearson Airfield. For this report, a number of relevant archival repositories were consulted. The Military History Institute at Carlisle, Pennsylvania, contains a number of important primary and secondary sources on the U.S. Army Air Corps. One finding aid at Carlisle, a large card file on periodical literature before World War II, was particularly useful for identifying articles on aviation in the interwar years. The National Archives, the Center for Air Force History, and the National Air and Space Museum (NASM)--all located in Washington, D.C.--contain many extensive materials on the institutional history of the U.S. Army. The NASM Library, a branch of the Smithsonian Libraries, houses one of the most extensive collections of aeronautical periodicals, many dating back to the pre-World War I period. Technical and historical materials on specific aircraft (e.g., Oakley Kelly's T-2, the Douglas World Cruisers, and Valery Chkalov's ANT-25) are also available in this same Museum.

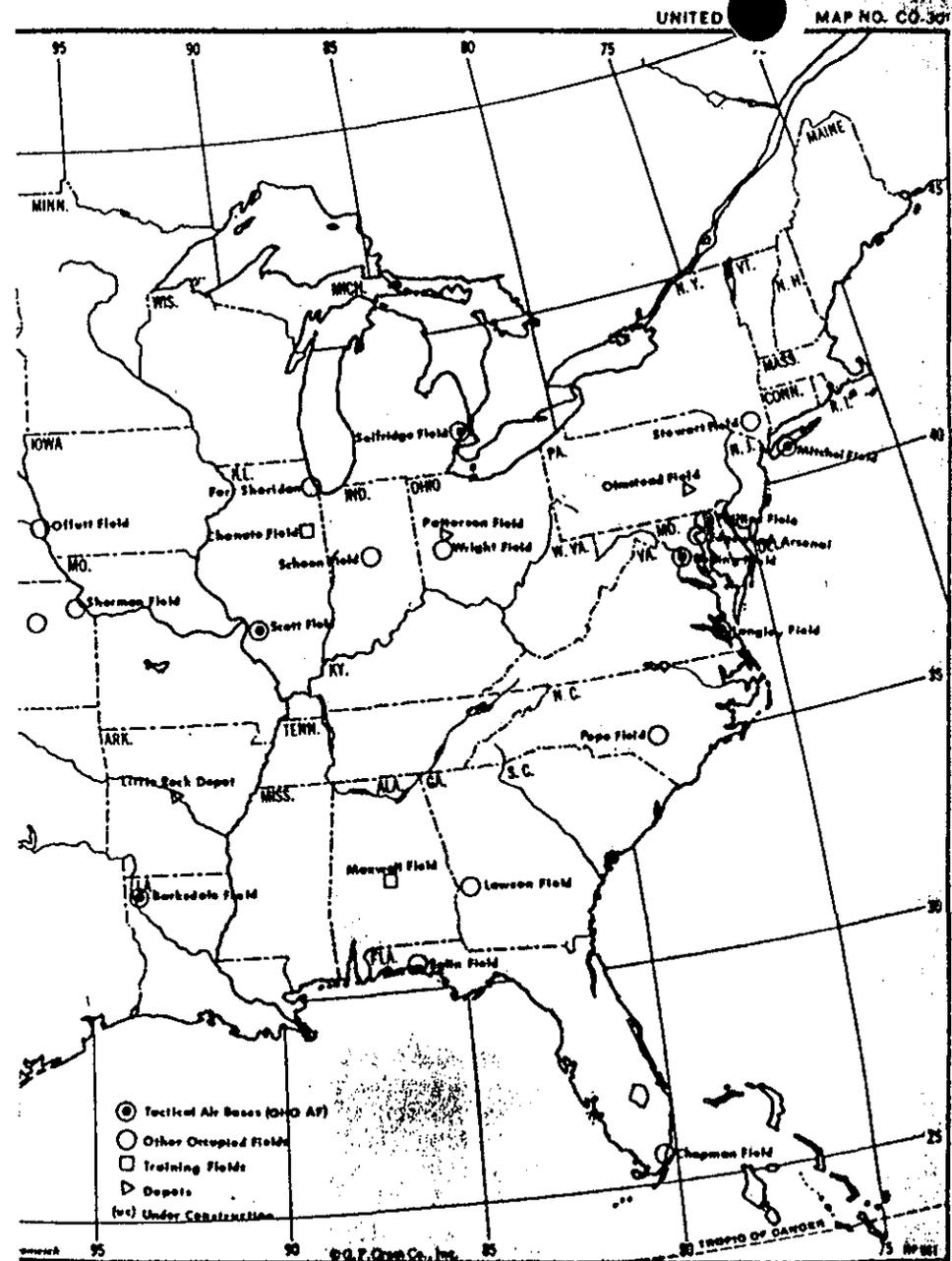


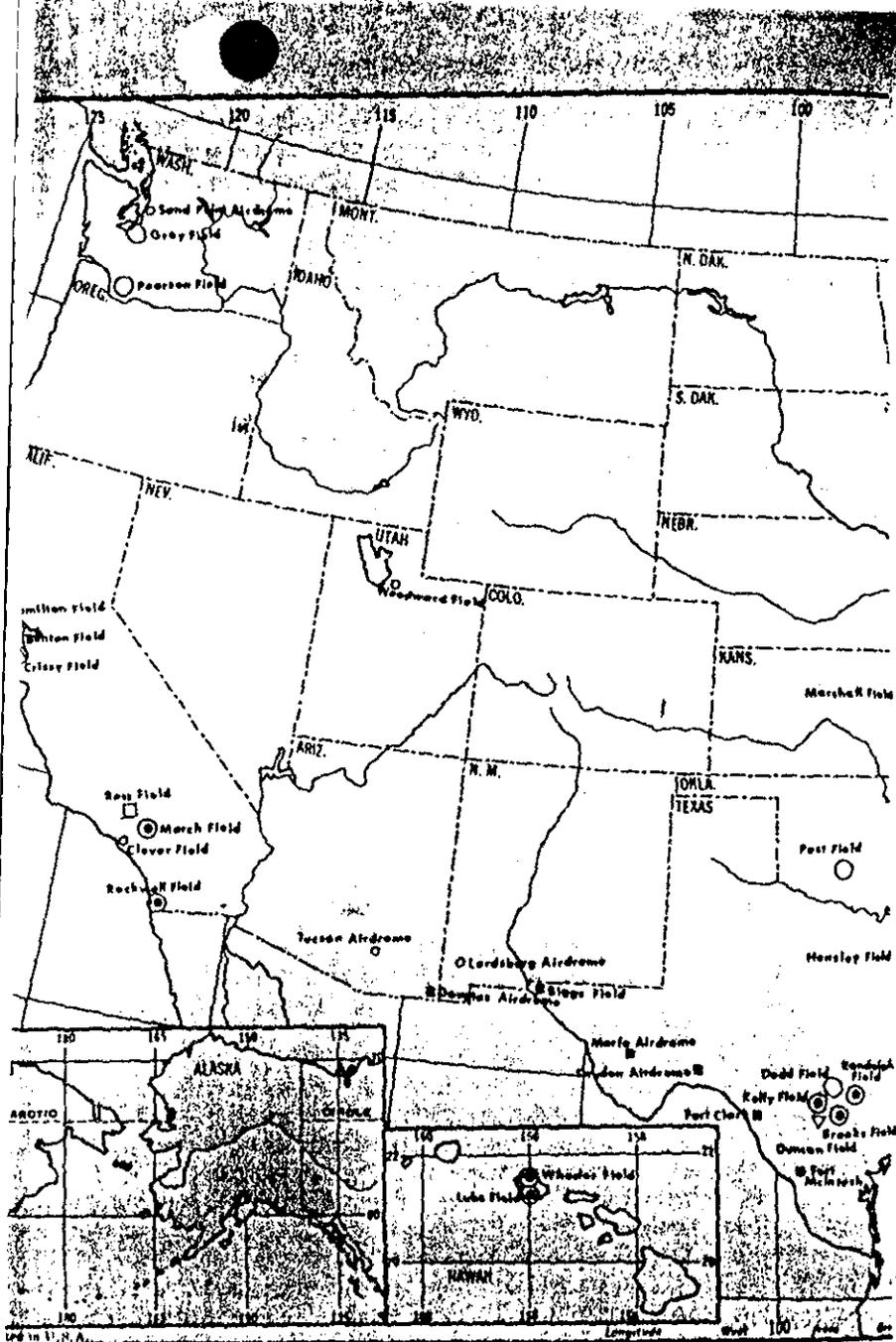
6. Major Air Corps Sites, April 1940



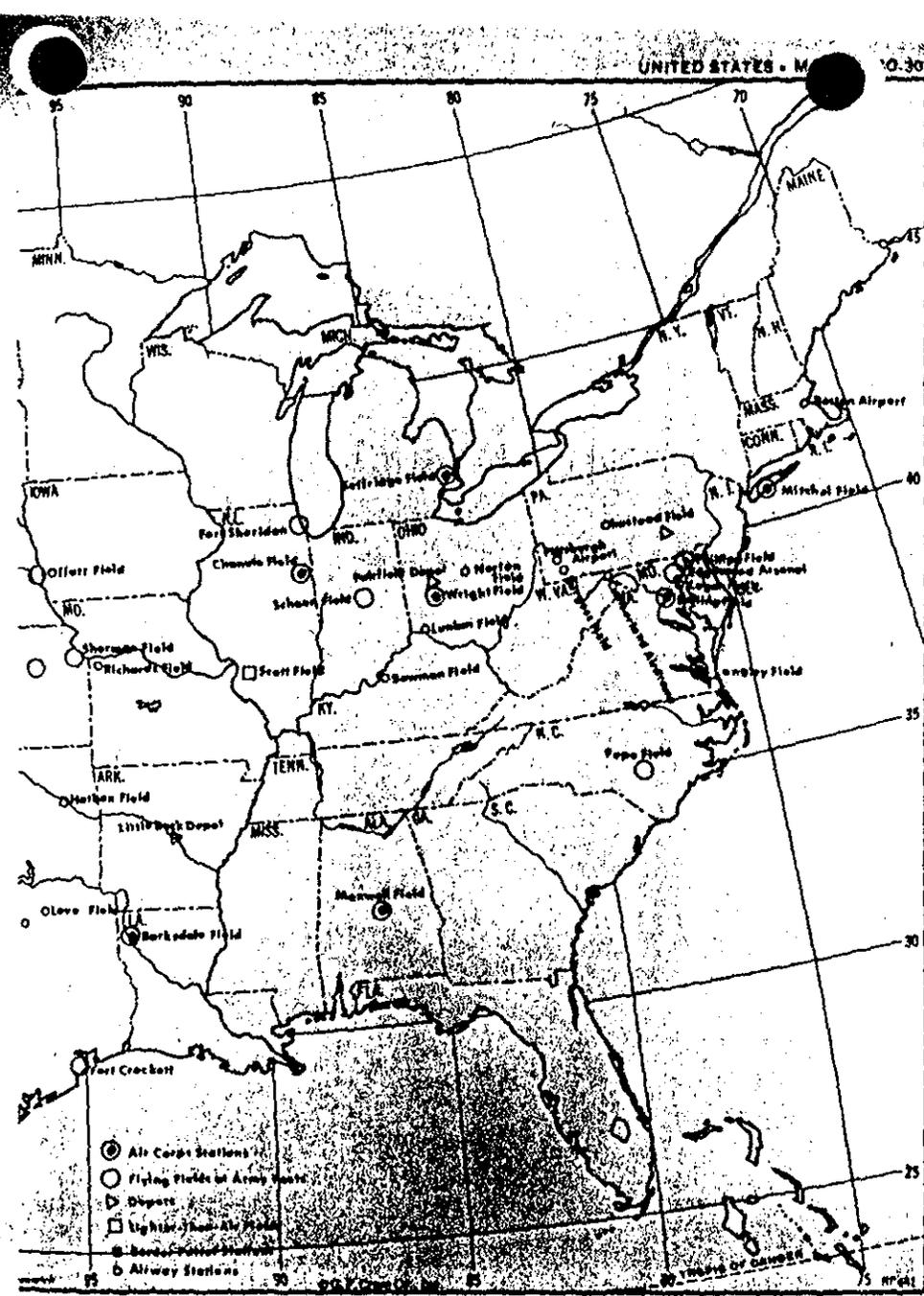


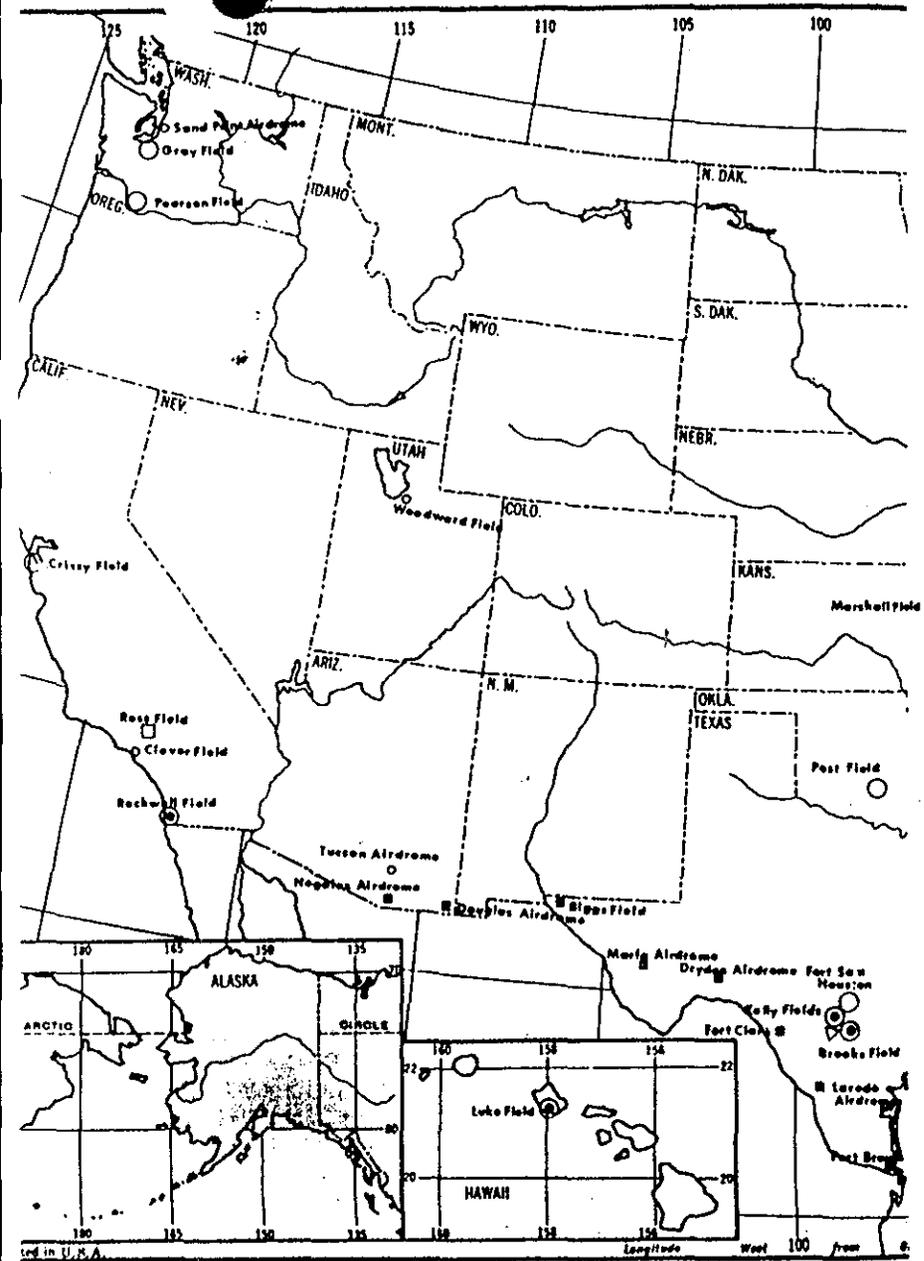
5. Major Air Corps Installations as of January 1939



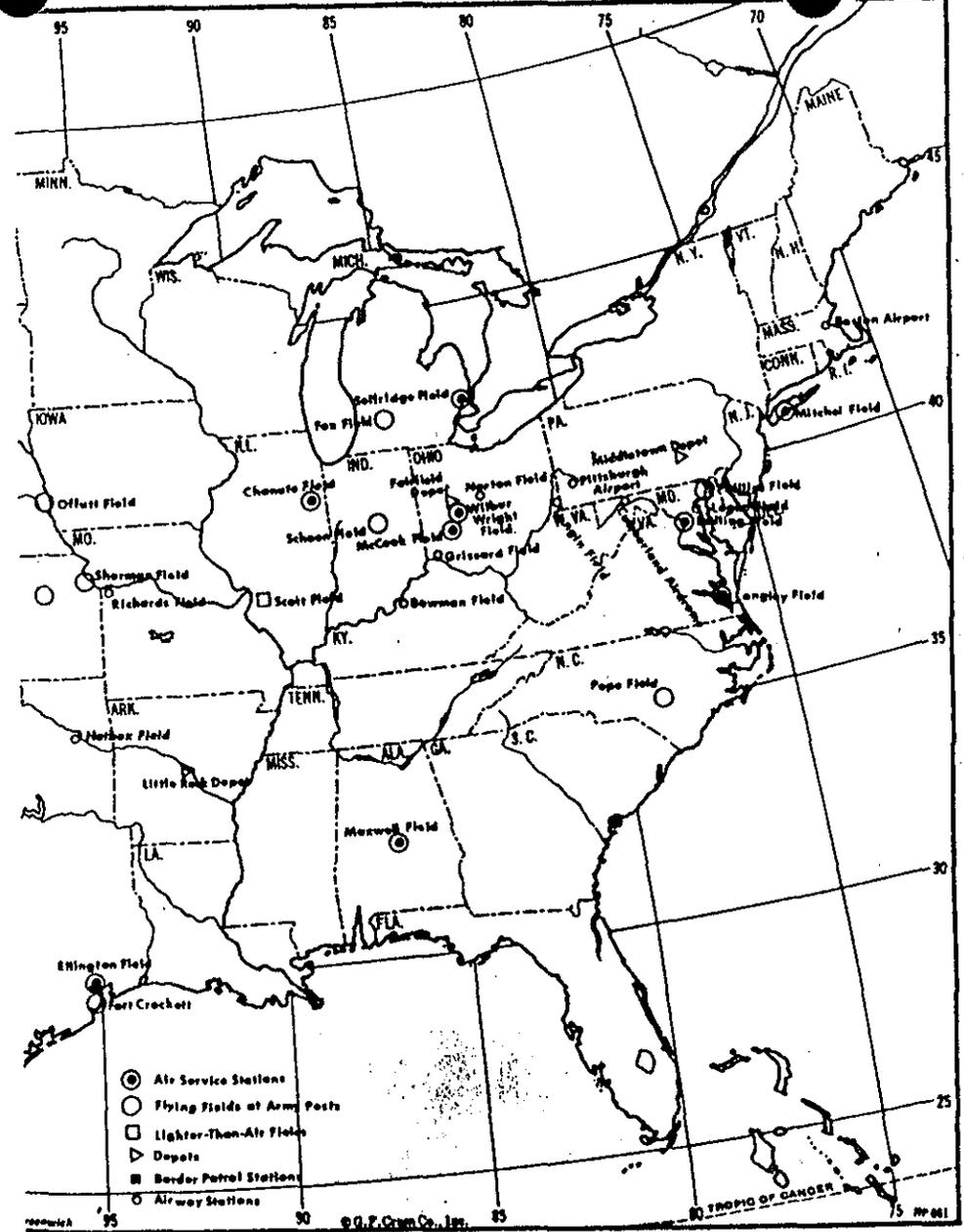


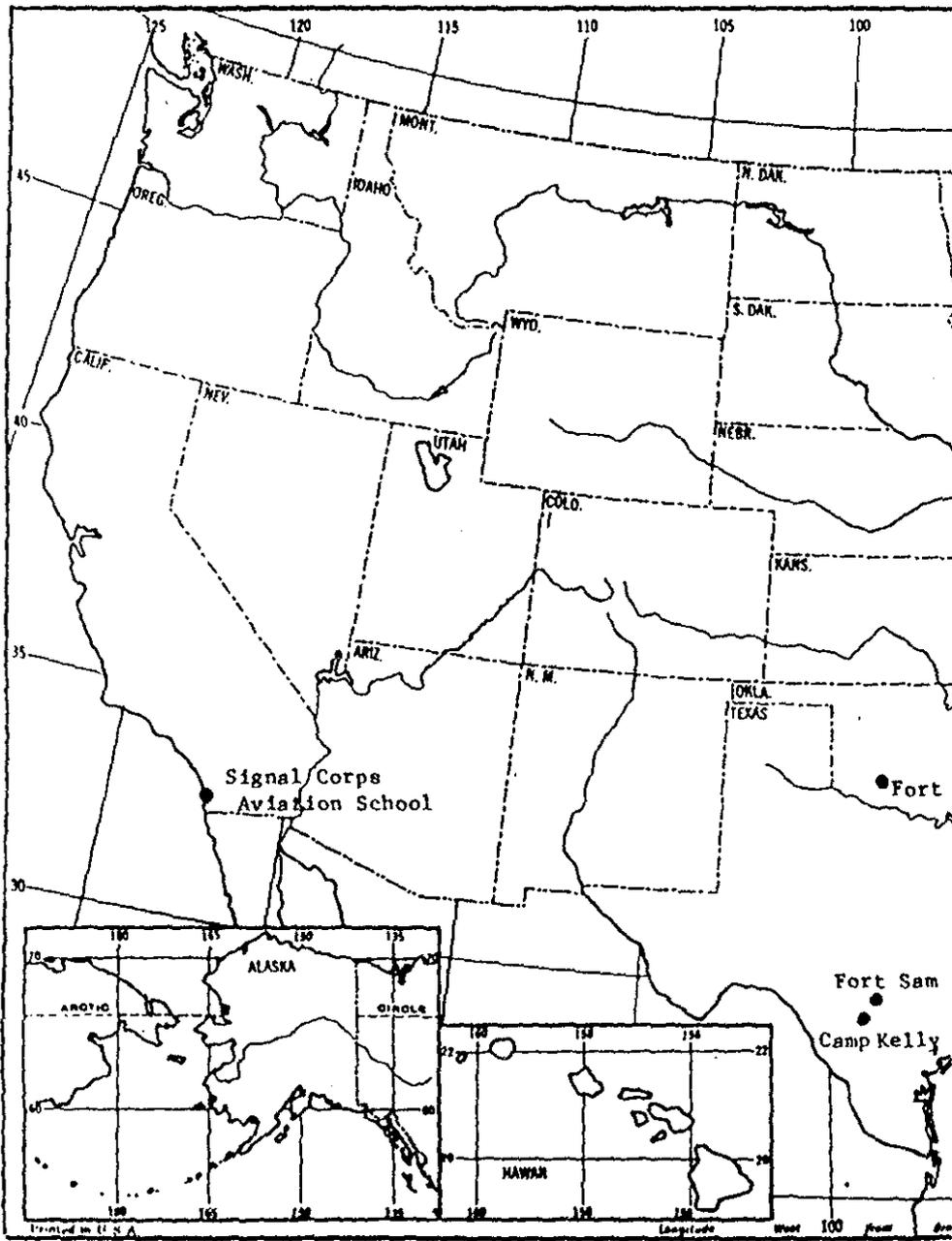
Disposition of Air Corps Stations, in Operation and Building, as of January 1933



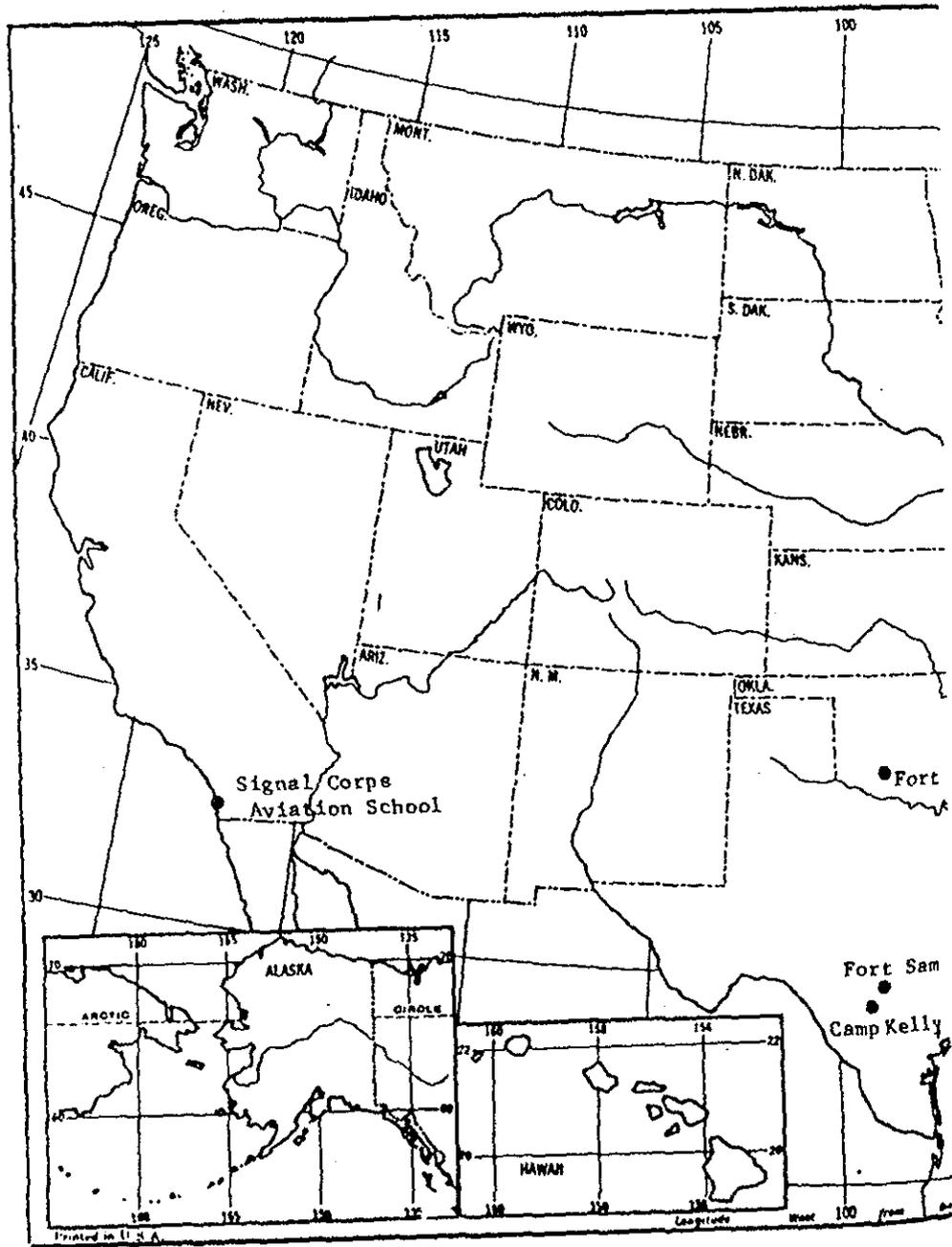


3. Locations of Air Service Activities in the Continental United States in 1925

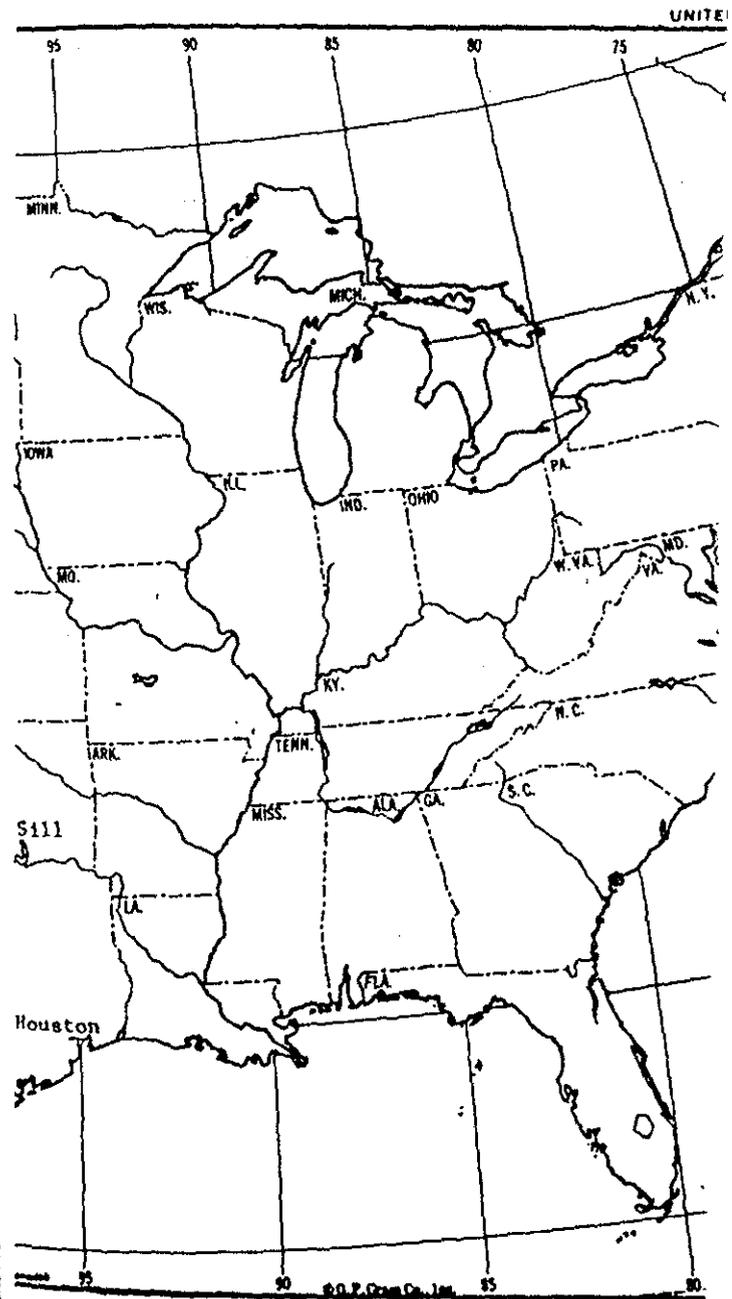


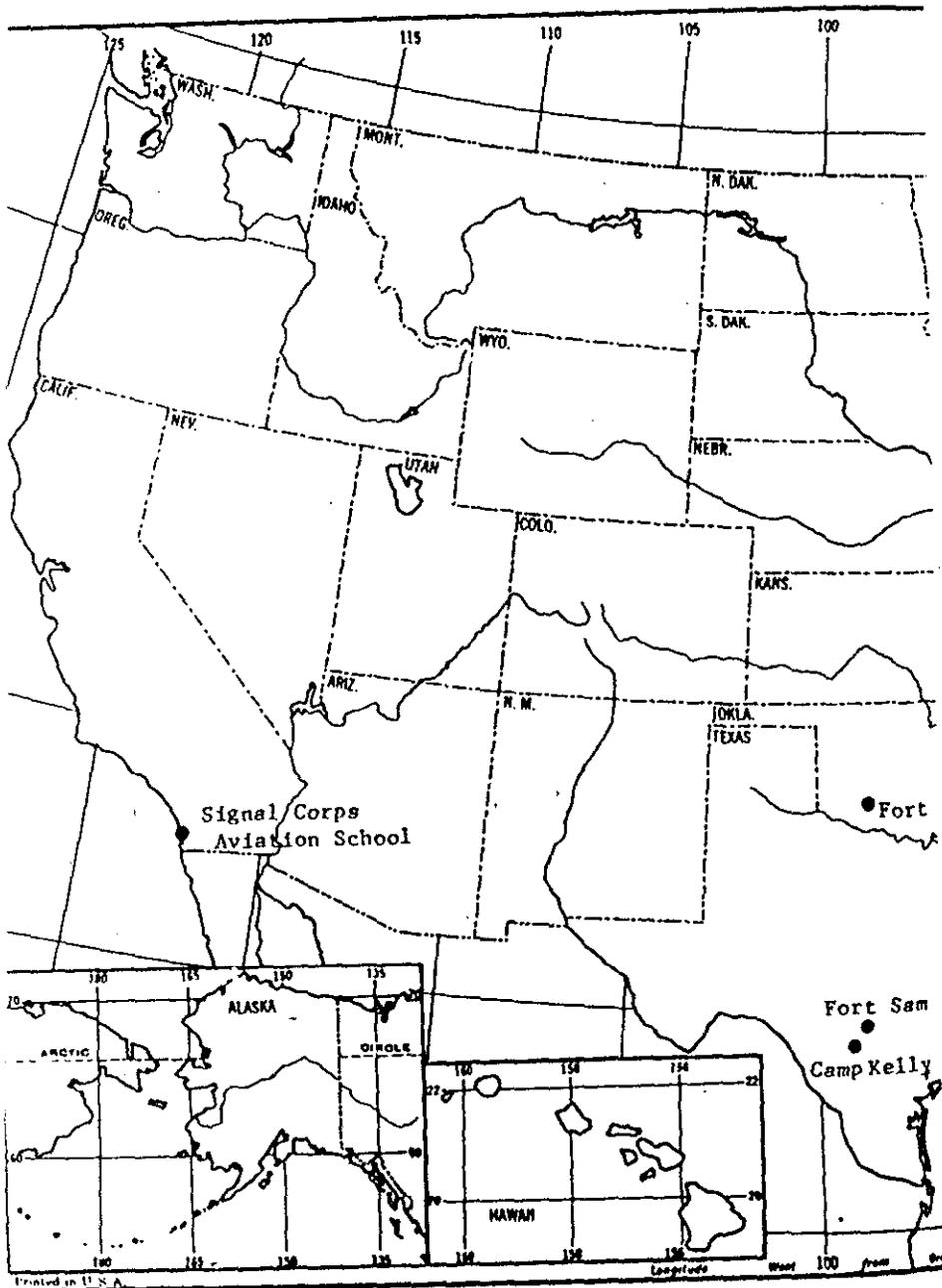


Map Signal Corps Aviation Facilities, 1 April 1917



Map 1. Signal Corps Aviation Facilities, 1 April 1917





ap 1. Signal Corps Aviation Facilities, 1 April 1917

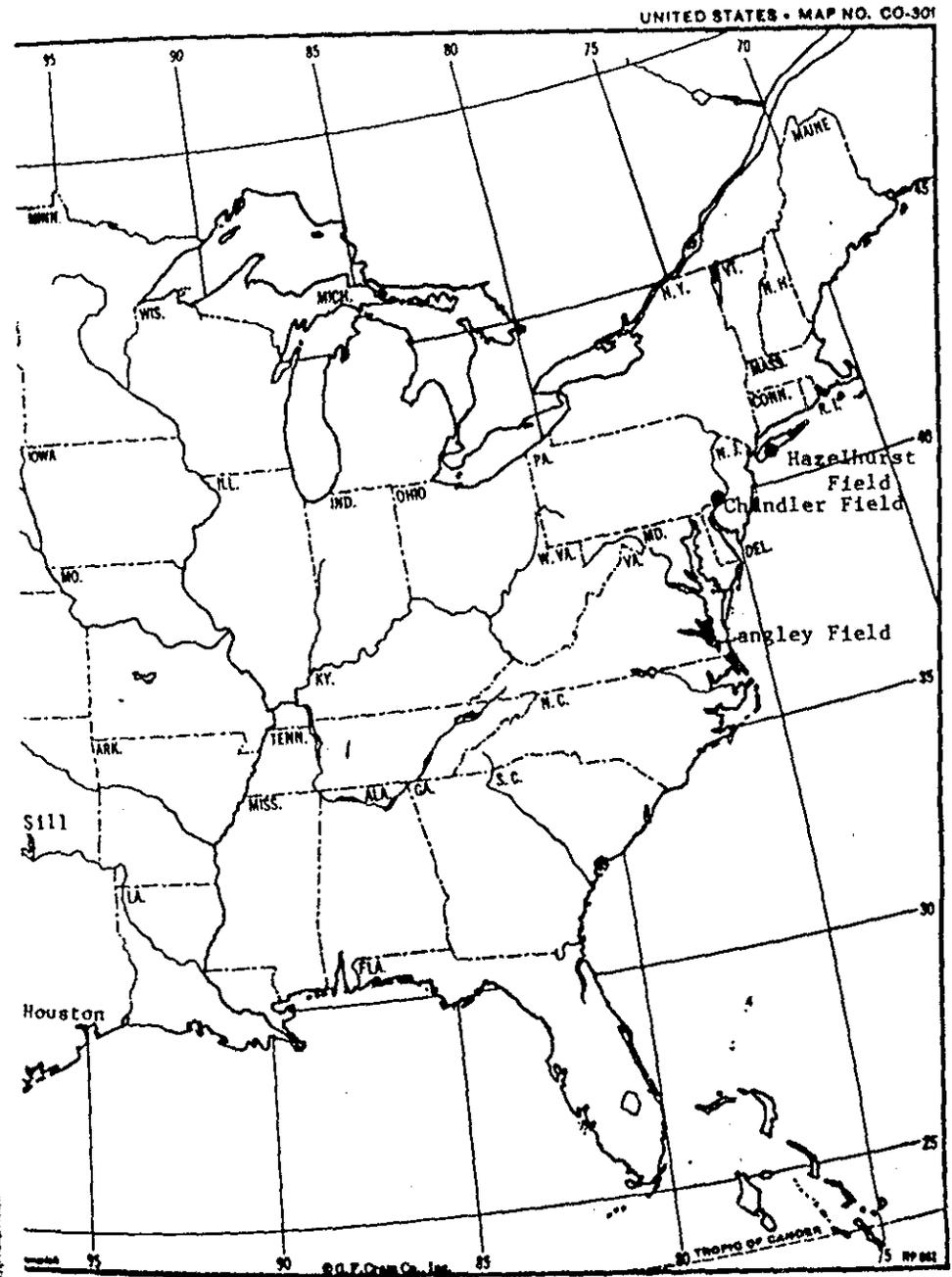
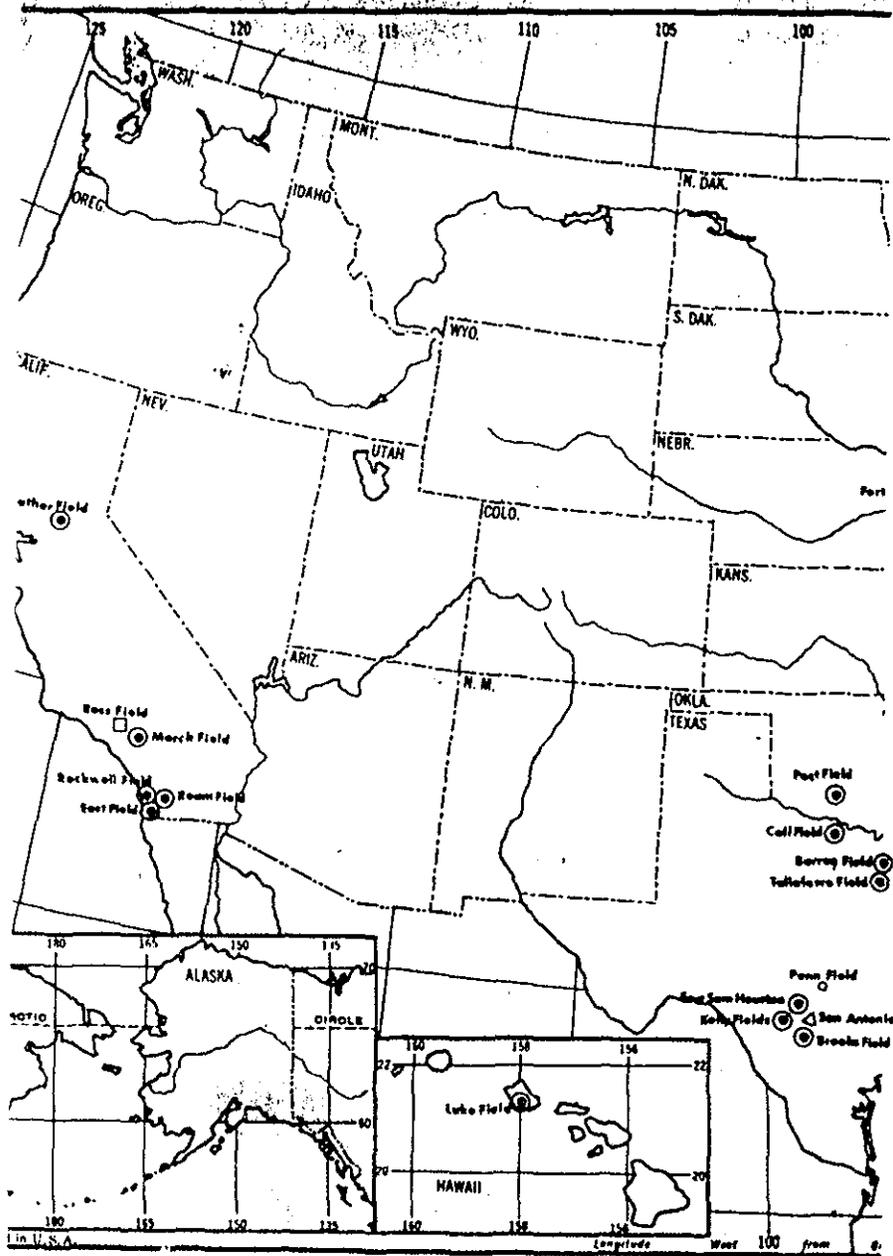


Table 2

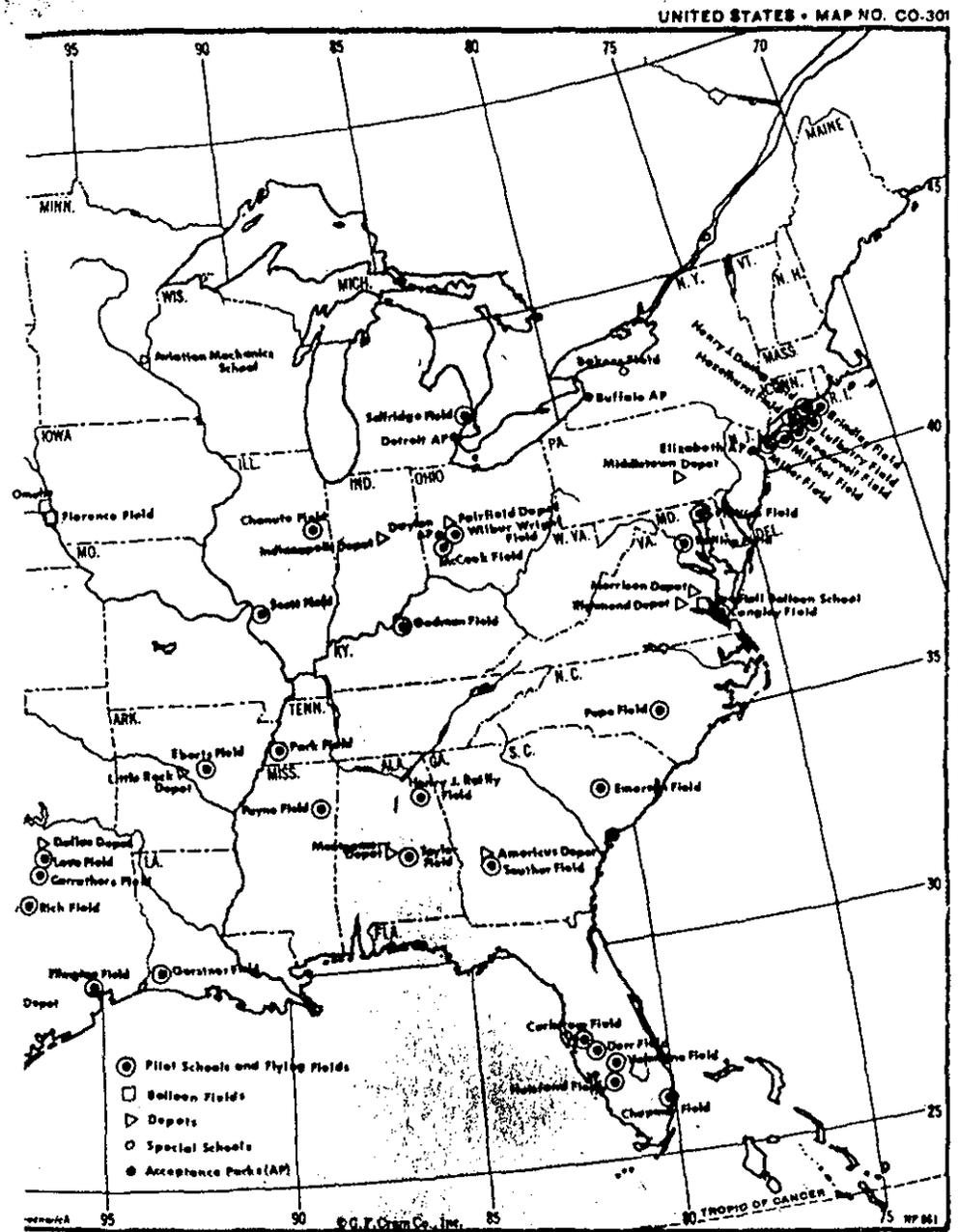
Flight Training of Individuals During Fiscal Year 1925 Excluding Air Service Personnel

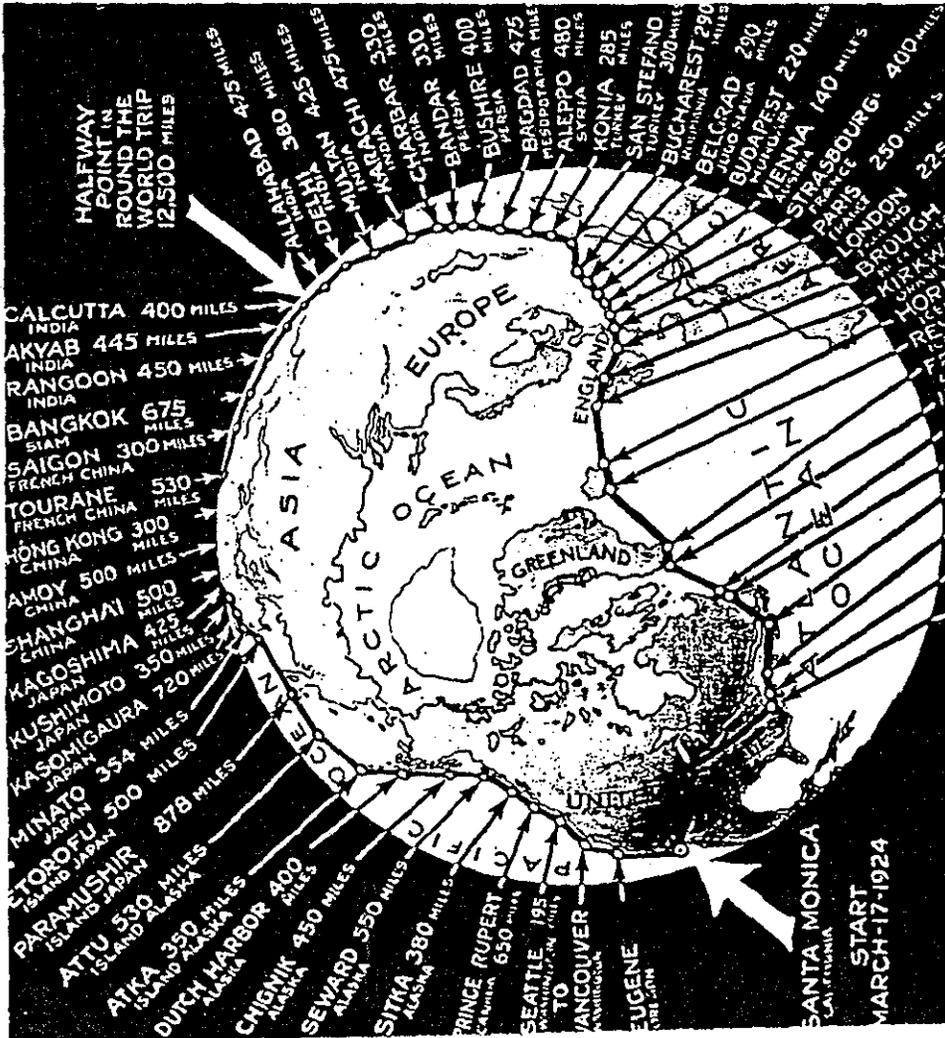
Air Station	A Number individuals in the air						B Average number flights by each individual					C Total number of flights
	Regular Army	National Guard	Organized Reserve	Reserve Officers Training Corps	Citizen Military Training Corps	Total	Regular Army	National Guard	Organized Reserve	Reserve Officers Training Corps	Citizen Military Training Corps	
Hawaiian Department	244		19			263	5		4			1,279
Panama Canal Department	122		4			126	1.41		3.01			184
Philippine Department	165		22			187	2.66		1.5			472
Second Division, Fort Sam Houston, Texas	18		18	2		38	5		1	1		110
AID, Little Rock, Arkansas												
AID, Middletown, Pennsylvania		2	5			7		5	6			40
AID, San Antonio, Texas	5		9			14	17		156			1,480
Biggs Field, Fort Bliss, Texas	45	14	39	30		128	3	2	38	1		1,675
Boling Field, Anacostia, D.C.	57		35			92	5		30			1,221
Brooks Field, Texas	70	11	48	35	143	307	56	120	58	24	1	9,007
Chanute Field, Remont, Illinois	33		88	91		212	7		31	7		3,596
Crazy Field, San Francisco, California	24	1	73	49		147	3	1	1	6		440
Fort Leavenworth, Kansas	20	5	8			31	5	2	9			164
Kelly Field, Texas	135	12	95	27	300	578	8	12	11	1	1	2,896
Langley Field, Moundsville, W. Virginia			1			1			1			1
Langley Field, Hampton, Virginia	153	226	345	128	43	697	5.5	7.1	22.3	4.3	1	10,737
Marshall Field, Fort Riley, Kansas	75		104			179	3		52			5,633
Maxwell Field, Montgomery, Alabama	21	216	51	36		324	2	8	45	12		4,497
McCook Field, Dayton, Ohio	8		33		2	43	100		4		2	936
Michel Field, Long Island, N.Y.	84	24	192			300	10	3	10			2,832
Philips Field, Aberdeen, Maryland	15		70	200		285	7		1	1		375
Post Field, Fort Sill, Oklahoma	85	19	38	11		153	2	1	56	1		2,328
Pope Field, Fort Bragg, N.C.	8	10	18	19		55	2.5	1	2.25	1		85
Rockwell Field, San Diego, California	6		162	14		182	3.66		22.2	28		4,022
Ross Field, Arcadia, California			4			4			1			4
Scott Field, Illinois	5		25			30	1		13			330
Selndge Field, Mt. Clemens, Michigan		2	68			70		2	48			3,268
Wilbur Wright Field, Ohio	45	11	134			190	2	1	19			2,647
Boston Airport, East Boston, Mass.	5	118	69	42		234	19	7.4	30	20		3,878
Bowman Field, Louisville, Kentucky	7	1	10			18	2	10	59			614
Clover Field, Santa Monica, California	2	1	135			138	150	1	84			11,641
Woodward Field, Salt Lake City, Utah	8		98	2		108	2		7	2		706
Norton Field, Columbus, Ohio	6		86			92	9		8			570
Pittsburgh Airport, Pittsburgh, Pa.	1		13			14	1		3			440
Richards Field, Kansas City, Missouri	12		196			208	65		5			1,760
Sand Point Androme, Seattle, Wash.	8	1	75	64		148	4	24	54.6	3		4,313
Schoen Field, Fort Benjamin Harrison, Indiana	1	1	25			27	50	38	30			838
Pearson Field, Vancouver Barracks, Washington	9		3			12	7		2			69
Gnassard Field, Cincinnati, Ohio			60			60			50			3,000
Total	1,502	677	2,474	760	488	5,801						87,437

Source: Hearings, Department of Defense and Unification of Air Service, before the Committee on Military Affairs, House, 69th Cong., 1st sess., 1926, 654-55.



Army Flying Fields and Major Aviation Facilities as of November 1918





IX APPENDIX

The appendix includes two items, an illustration of the 1924 Douglas World Cruisers flight and photocopies of several maps from Jerold Brown's Where Eagles Land. Both items relate to Pearson Army Airfield in the interwar years.

Paszek, Lawrence J. United States Air Force: A Guide to Documental Sources. Washington, D.C.: Office of Air Force History, 1973.

Scott, Catherine D., ed. Aeronautics and Space Flight Collections. New York: Haworth, 1985

Primary Sources

Annual Report of the Director of the Air Service, 1919.

Annual Report of the Chief of the Air Corps, 1927-1937.

Final Report, War Department Special Committee on Army Air Corps, July 18, 1934, published by United States Government Printing Office, Washington, D.C., 1934.

Biographical Files, Library, National Air and Space Museum, Washington, D. C. for Lincoln Beachey (Documents CB 070700-01) and Oakley Kelly (Documents CK 077500).

Secondary Sources

The Aircraft Year Book. New York: Aeronautical Chamber of Commerce of America, 1919-1941.

Bilstein, Roger E. Flight in America, 1900-1983: From the Wrights to the Astronauts. Baltimore, Md.: Johns Hopkins University Press, 1984.

Bilstein, Roger E. Flight Patterns: Trends of Aeronautical Development in the United States, 1918-1929. Athens: University of Georgia Press, 1983.

Casey, Louis S. The First Nonstop Coast-to-Coast Flight and the Historic T-2 Airplane. Smithsonian Annuals of Flight, No. 1. Washington, D.C.: Smithsonian Institution Press, 1964.

Craven, Wesley F. and James L. Cate, eds. The Army Air Force in World War II. 7 vols. Chicago: University of Chicago Press, 1948-1958.

The Epic of Flight. 23 vols. Alexandria, Va.: Time-Life, 1980-1984.

Glines, G. V., ed. Polar Aviation. New York: Franklin Watts, 1964.

Goldberg, Alfred, ed. A History of the United States Air Force, 1907-1957. Princeton, N.J.: 1957.

Leary, William M. Aerial Pioneers, the U.S. Air Mail Service, 1918-1927. Washington, D.C.: Smithsonian Institution Press, 1985.