



THUNDERBIRDS IN THE SOUTH WEST DESERT

by Charles R. Hyer

Before beginning research on this story I went over to the former site of Thunderbird Field No. 2, which is only a 10-minute drive from my home. I wanted to see if I could recapture some of the feeling of those days when Stearman biplanes filled the skies over the Phoenix Valley of the Sun. The big tan hangars sat in the oppressive heat, their paint oxidized and peeling. They looked old and tired. Insects droned and an occasional dust devil swirled by. Overhead, a Cessna 150 let down on final at nearby Scottsdale Airport. Looking around, there was no way to tell that at one time this had been a bustling wartime training center. The whine of inertia starters and the bark of radial engines had long since died away. Forty years had gone by quickly. —Author

Northrop A-17 and Vultee BT-13.

(Southwest Airways Photo)

Everything must have a starting point and the beginning of the Southwest operation was the night in August 1940 that John H. "Jack" Connelly and Leland Hayward had dinner in a posh Beverly Hills restaurant. Both men were fliers. Connelly had been an Army Air Service pilot in the early twenties and later an engineering test pilot for the CAA. He had been involved in aircraft sales and flight training in and around Roosevelt Field, N.Y., in the thirties¹ and, so the story goes, became acquainted with Hayward when he talked him out of buying an airplane that he, Connelly, was selling.²

Hayward carried a private pilot's license and had been on the board of TWA. Though involved in many diversified endeavors, he was deeply interested in aviation and its future.

The talk turned to the war in Europe and the possibility of the U.S. being drawn into the conflict. Both men agreed that





Leland Hayward was a Hollywood producer and agent when he joined John Connelly to start the Southwest Airways training operation. He was agent to over 150 stars including Fred Astaire, Gene Kelly, Henry Fonda, Greta Garbo, Ginger Rogers, Judy Garland and Gregory Peck. (Author's Collection)



John H. "Jack" Connelly, former Air Corps pilot and CAA engineering test pilot. After the war, Connelly formed the scheduled local service airline "Southwest Airways" from experience gained in the operation of the training fields and the cargo line. (Southwest Airways Photo)

the army was going to need thousands of pilots. "We ought to start a training school," Hayward offered. Connelly replied that he knew of a likely place for such a school.

Two months passed. One day Leland Hayward's telephone rang. "Leland? Jack Connelly. I just bought that school of ours."³

Connelly and Hayward were to forge an association, called Southwest Airways, that was to last through the war years and well into the postwar era of the new feeder airlines. In a way, it is strange that it worked as well as it did. They were quite different—Hayward, the urbane confidant to movie stars, authors and playwrights, and Connelly, the sarcastic street-wise banty rooster from New York. However, they were alike in other important ways. They both loved flying and were hard working. They were patriotic and fiercely dedicated to the project. Hayward, due to his diversified interests, did not become as completely enmeshed in Thunderbird operations as did Connelly. But, when the hard decisions had to be made, he was there.

Hayward, a producer and agent, was well known in Hollywood and New York. When Southwest was formed, many celebrities were induced by Hayward to invest in the new company. Among the first to do so were James Stewart, Robert Taylor, Henry Fonda and Cary Grant.⁴

During the war years, Hayward managed to balance his career in the entertainment world with the responsibility of helping to run a vast training complex, which he shared with Jack Connelly. Taught to fly by his first wife, Lola Gibbs, Hayward was to marry four more times. His wife during the Thunderbird days was acclaimed Hollywood star Margaret Sullivan. During the late forties and fifties, Hayward produced a string of blockbusters which stunned Broadway and

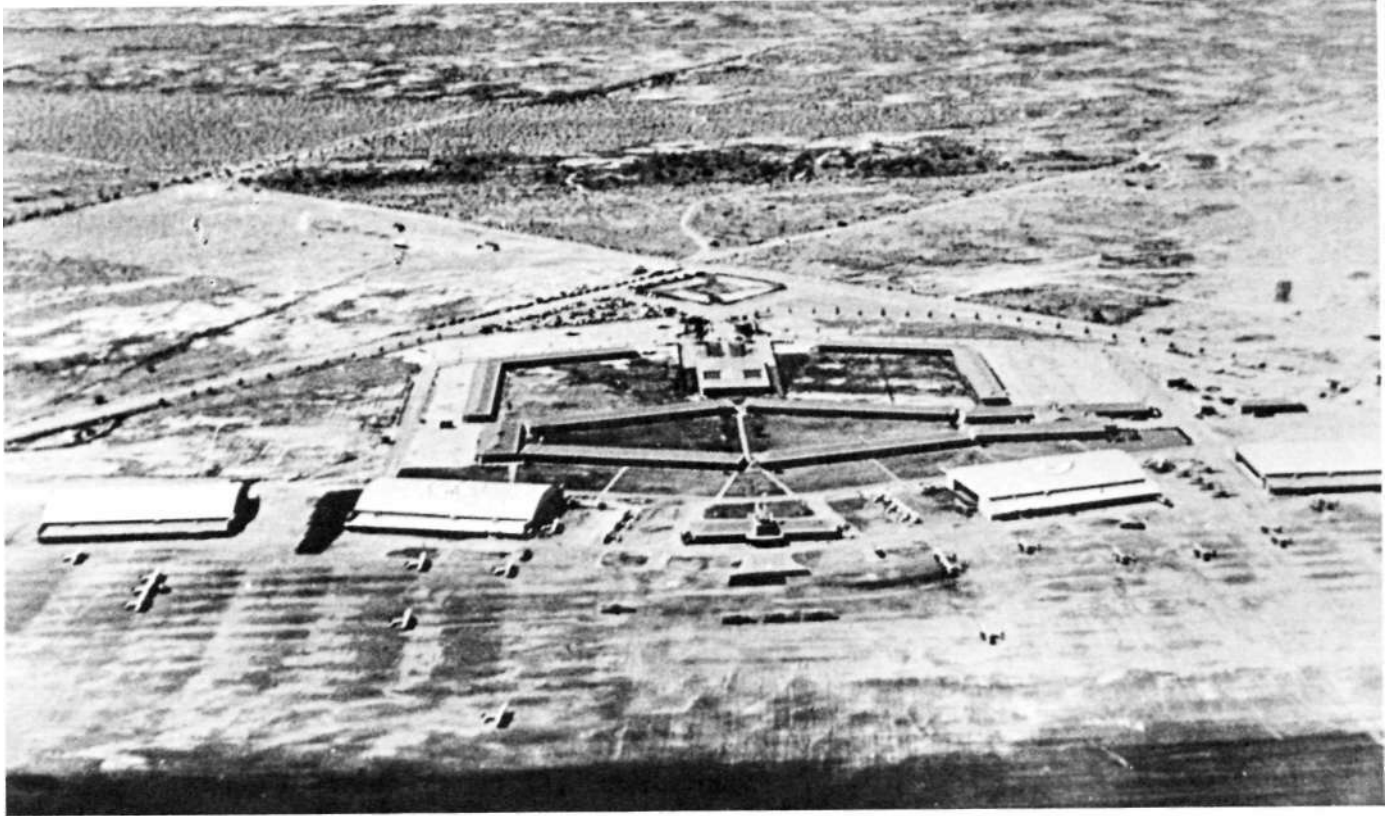
Hollywood. The list included *Mr. Roberts*, *State of the Union*, *Bell for Adano*, *South Pacific*, *Call Me Madam* and the James Stewart classic, *Spirit of St. Louis*.

John Howard Connelly, who was born in New York City in 1900, joined the Army Air Service in 1918. He attended the air service school at the University of Texas. During the twenties he was in the securities business. In the thirties he returned to aviation. Connelly was self-employed at Roosevelt Field, New York, where he was engaged in flight training and the sale of used aircraft. He went to work for the CAA (later FAA) at Santa Monica in 1937 as an aeronautical engineering inspector. During his two-year tenure with that organization he checked out and qualified in just about every new aircraft being built on the West Coast.⁶

The third man involved in the early beginnings of the company was John Swope. He was secretary-treasurer and later became field manager at Thunderbird II. Well known as a photographer, Swope photographed the book *Bombs Away* in collaboration with author John Steinbeck. Swope held a commercial license and had experience as a flight instructor. During the war, he married film star Dorothy McGuire, well known at the time for the play and movie *Claudia*.⁷

In 1940 the purchase of Carl "Pappy" Kniers' civilian pilot training school at Phoenix Sky Harbor launched the Southwest Airways venture. The important thing was that having the CPT certification made SWA eligible to apply for a contract to train Army pilots.

The government had earlier set up the CPT program to get the ball rolling with regard to building a reserve of trained pilots in case they were needed in a national emergency. Air Corps General Hap Arnold went even further and proposed establishment of civilian operated training schools to train Air



Corps cadets. The idea was scoffed at and ridiculed in some quarters but was ultimately adopted. It was to prove eminently successful.

In the meantime, civilian pilot training operations were started at Sky Harbor with three instructors, a capital of \$15,000 and about 50 students. Aviation up to that point had been in a 10-year doldrums. Pilots, mechanics and manufacturers had been practically starving, but they all sensed that big things were imminent.⁸

In late 1940 Southwest was informed that they had been chosen as one of the civilian contractors to train Army pilots. They were to provide the airfield, hangars, living and eating facilities for the cadets and maintenance for the aircraft. They even had to provide fire truck and ambulance crews for the ramp (though this was later taken over by Air Corps personnel). The Army was to provide the airplanes and the fuel to power them.

On January 2, 1941, ground was broken for Thunderbird Field. The facility, consisting of 640 acres (over 1,000 with auxiliary fields) was carved out of the desert a few miles north and west of Phoenix in the town of Glendale, Arizona. Designed by architect Millard Sheets, the field was laid out to resemble a Thunderbird. Incredibly, it was constructed in about three months.⁹ The cost of the field and training facilities was initially estimated at \$300,000 but because of expanded programs by the Army, the end result would be four times that amount.

Connelly knew many people in aviation circles as did Hayward. Soon a nucleus of 14 flight instructors was hired with more and more signing up. Aircraft maintenance crews were recruited by newspaper ads from all over the country. And soon they began arriving by bus, car and train from all points of the compass. Locals, mostly Pima Indians, were hired to work the line. It took a special person to crank an inertia starter under a brutal 114° sun, though not much mechanical ability. Cooks, bakers, messmen, groundskeepers,

Thunderbird Field 1 was constructed in three months. Designed by architect Millard Sheets, it was laid out to resemble its thunderbird namesake. Over 10,000 cadets received training here. (Southwest Airways Photo)

clerks, typists, welders, machinists, parachute riggers, mechanics, photographers, maintenance men, supply clerks, truck drivers, electricians and all manner of miscellaneous jobs were filled. In the Salt River Valley the Great Depression was drawing to a close.

Typical of those to reply to a newspaper ad was Marvin Meier who was to work for the company and its successors for a total of 40 years! He answered an ad in a Pontiac, Mich., newspaper and was surprised to get a letter in reply a few days later. He was hired and instructed to proceed to Phoenix, Arizona, forthwith. The wage was 75 cents per hour.¹⁰

Meier, whose total aircraft experience consisted of a home study course in aviation, boarded a bus with \$40 in his pocket. On his arrival, he was put to work maintaining Stearmans on swing shift, the shift when most of the daily maintenance



Chinese, British and American fliers line up for a scene in the movie, *The Thunderbirds*, which was filmed at Thunderbird Field. It starred Preston Foster, Jack Holt, Gene Tierney and Reginald Denny. BP on aircraft relates to "British Program." (Southwest Airways Photo)



work was done. His first job, as he recalls, was repacking tail wheel bearings.¹¹

"Every night we jacked up the rear of each Stearman, pulled the tail wheel and cleaned out the sand and old grease and repacked the tail wheel bearings." This was done to every aircraft each night. In addition all the engine valves were reset. This was usually done with a team of one man and two women. They would go down the line, the women with speed wrenches, pulling the rocker box covers and the man setting the rocker arm clearance.¹² Other typical maintenance functions which were performed were checking brakes and tires (the results of heavy-footed cadets) repairing dragged wing-tips, oil changes and changing spark plugs. A small shop was available for some work, though most was done on the ramp.

Flight operations began on March 22, 1941, under extremely difficult conditions. The field was still in an unfinished condition. It would be many months before the lawns, trees and swimming pools would be in place. In the beginning, the cadets had a very primitive existence at Thunderbird. It was a long time before black top was laid down and morning takeoffs were something to see with the lead plane taxiing in clear air while all the others took off in a blinding man-made dust storm.¹³

As mentioned, the field and facilities were in very rough condition when operations started. Cadets helped out in their spare time by assisting the carpenters and plumbers when not occupied by their studies. Thunderbird Field was to go on to become a beautiful training facility. Eventually over 400 shade trees were planted and the grounds were landscaped with over a thousand flowering plants, vines and shrubs.¹⁴ In addition, two swimming pools would be constructed for the use of flying personnel. Within a few months the desert had been tamed and Southwest Airways was busy turning out pilots.

The first class consisted of 59 cadets. Later classes would be as large as 150. In the first ground schools, students sat on boxes, barrels or boards while construction went on around them. Flying started with 15 spanking new Stearman PT-17s. This compared to over 100 in use during mid-1943.¹⁵

The rugged Stearman biplane was perfectly suited for its role as trainer in the desert operations. The 220-hp Continental was a good reliable engine and the pilots felt confident

Operations building at Thunderbird I.

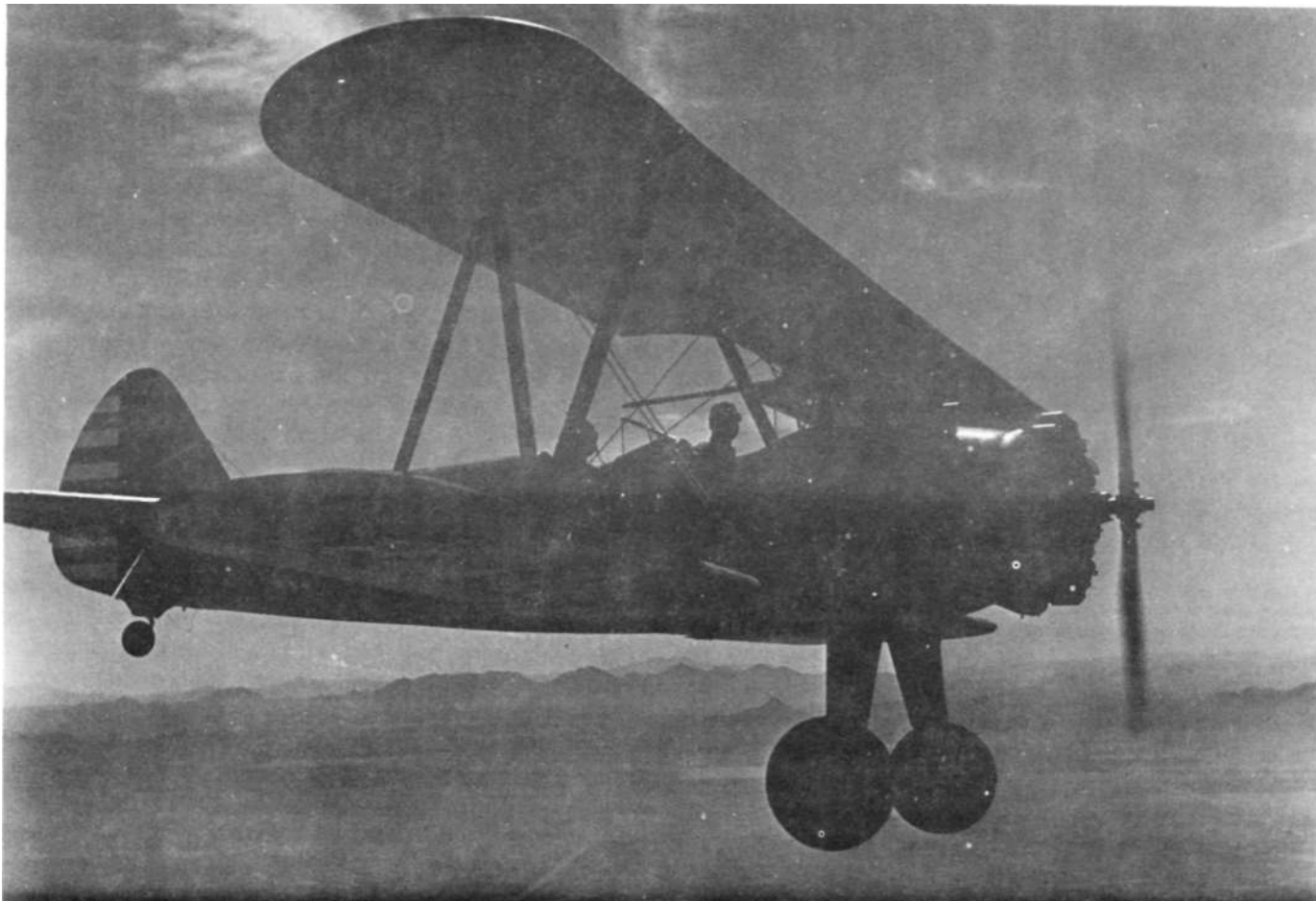
(John Swope Photo)

with it. It was not unusual for an instructor to plead with the maintenance department not to change an engine even though it was out of time.¹⁶ A new engine always had a few bugs to be worked out, while a well broken-in engine which was still performing smoothly and up to standards was much preferable. Pilots liked and trusted the PT-17. The only bad habit it possessed was its tendency to ground loop, due to the close coupled landing gear. It should be noted that some PT-13s were used in limited quantities. The PT-13 used the Lycoming R-680, rather than the Continental R-670. Both versions were good but the Lycoming was somewhat sloppier than the Continental, though some preferred the smoother running Lycoming.¹⁷

After several months the "monsoon" season arrived and to add to the teething problems, Thunderbird was beset by torrential rains. The combination of rain and fine powdery dust resulted in a 1000-acre quagmire. The dampness caused bed slats to warp and it was common for a cadet to lay back in his bed and fall through to the floor. Everyone used two pairs of shoes. One pair for inside and a mud pair for outside.¹⁸ Operations ground to a halt as everyone waited for the storms to move on and the desert to dry out. But the desert recovers fast and soon flight operations were proceeding at an accelerated pace.

An occasional monsoon to the contrary, it was soon realized that, for the most part, Arizona weather was ideal for flight training. When the flying field got into full swing, the average flight hours per day was 850, with a record high of 1136 hours for one day. Later a record of 673 consecutive flying days would be set!¹⁹

Training started at Thunderbird Field with 14 flight instructors. Instructors, like maintenance personnel and other employees, came from all over, though many were locals. Some instructors received their training at the Sky Harbor facility and many were supplied to the various fields from that source. Some had 130 to 150 hours in Cubs when hired to train cadets.²⁰ At least one was as young as 18 and another was old enough to have been a fighter pilot in World War I. He was Jerry Bacon, who had been in the 84th Squadron of the Royal Flying Corps. The average age of instructors, how-



PT-17 flying in the dusty skies over Thunderbird Field. Some PT-13s were also used. The PT-13 used the Lycoming engine. Most were converted to -17s at overhaul. (Bob Markow Photo)



The Stearman PT-27 shown here at Thunderbird differed little from the other models of the Kaydet. More PT-17s were used than the other models with fewer PT-13s. (Bob Markow Photo)



Stearman PT-13D used the Lycoming R-680 engine. Some pilots preferred the somewhat smoother Lycoming to the Continental. (Bob Markow Photo)



Cadets practice formation flying. These airplanes appear to be yellow and carry no national insignia on the fuselage. (Bob Markow Photo)



Instructor Leonard Pemberton and Chinese cadet prepare for flight. The Chinese came in groups of 50 from Chunking and Kunming to India via the Burma Road and then by ship to the U.S. Fifteen classes of Chinese trained at Thunderbird. (Southwest Airways Photo)

ever, was around 29.²¹

The cadet's life at Thunderbird Field was a busy one. In the nine weeks it took to complete primary training, he spent 45 hours on engine and propellers, 20 hours on theory of flight, construction and care of aircraft, 25 hours on navigation and cross-country, 14 hours on aircraft identification and six hours on code.²² When not engaged in ground school or flying, the cadet engaged in sports, physical education and military drill. Much of his spare time was taken up with studies.

The cadet's daily flying progress was carefully charted and recorded by his instructor. Judgments were made and grades were given as to his aptitude with regard to the type of aircraft he would fly later, a fighter or bomber, or in fact, whether he would continue to fly at all. Other factors used to determine his ability were grades in temperament, judgment, personality and ability to perform aerobatics.

On the first day of training, the cadet and the instructor went over the airplane. Together they checked out such things as use of the parachute, using the instruments, the purpose of the flight controls and local flight regulations. He was shown how to start and stop the engine, check magnetos, check the gas gauge and how to fill out flight forms.²³

The instructor kept careful records on "grade slips" of the student's daily progress on the following subjects: effect of control, straight and level flight, turns, coordination, climbs and climbing turns, glides and gliding turns, esses, rectangular course, taxiing, takeoffs and landings, stalls, spins, spirals, simulated forced landings, steep turns, eights, lazy eights, chandelles and judgment. The grading was as follows: "A" superior, "B" excellent, "C" very satisfactory, "D" satisfactory, "E" unsatisfactory and "F" failing.²⁴

Every day that he flew (and it was six days a week) he was graded on the above criteria. The instructor entered any pertinent comments on the weekly "elementary phase report" so that any failings could be spotted early. The student was never permitted to know his grades. He received five check

rides during his primary flight training. After two weeks of dual, the student was usually ready to solo. He had, by that time, received nine hours of dual instructions, which included 40 landings and 15 spins. However, before the student did solo, he was given a final pre-solo check flight by his instructor or by the flight commander to assure his proficiency.²⁵

After soloing, the cadet was kept busy with both solo and dual flights. His progress was carefully checked and graded to turn up any weak points. If he incurred a failing grade in any segment of training a pink slip was issued. The next day the student was checked out on the particular phase in which he was deficient. If the error was cleared up, the "Pinkie" was lifted. If not, another pink slip was issued. Three pink slips resulted in a check ride with Army or civilian supervisory personnel. If the student performed well, his record was again cleared.²⁶

The next major hurdle was the solo cross-country and after that dual or solo crosswind. After his final check the cadet was through with primary and ready to leave for another field and basic training. Most cadets from Thunderbird went to Marana in southern Arizona for basic, then back to Luke Field for advanced training and their wings. All his grade slips and flight history became a permanent part of his military record.

Southwest Airways trained pilots from over 30 countries. Besides the United Kingdom, Canada and most of the countries of Central and South America, also included were Finland, India, Syria, Belgium and many others. Thunderbird 1 was the only field in the U.S. or elsewhere to train Chinese cadets. They were the cream of the crop and most were the sons of wealthy Chinese families. They made the long journey from Chunking over the Burma Road to India and then the long sea voyage to the United States. The average age was between 18 and 21 years. There are many stories of the strict discipline to which the Chinese were subjected. If a cadet was found guilty of a serious transgression he would very likely be sent home in disgrace. Many dark, unfounded rumors of what happened to those unfortunates who were shipped back to China were circulated.²⁷ Most of the whispered allegations suggested death before a firing squad. None of these stories was ever proven true.

The Chinese were good students and took to the training quite well despite the language barrier. One out of 10 was supposed to speak and understand English but, in some cases, the ability was quite primitive.

Training continued at a frenetic pace and the young company was learning much about teaching the art of flying to young men from vastly different backgrounds. It wasn't long until Connelly and Hayward began thinking of expanding the operation to other flying fields.

THUNDERBIRD FIELD II

On June 22, 1942, due to the expanded needs of the Army Air Force, Thunderbird II was opened for flight training. John Swope was field manager, Ernest Pelton chief pilot and Mike Des Marais director of training. Located in the town of Scottsdale, Arizona, flight operations started with 28 flight instructors. This would grow to over one hundred.²⁸

Similar to the other fields of Southwest Airways, Thunderbird II was hacked out of the desert and was plagued with all the teething problems common to Thunderbird I and Falcon



Field. Mike Des Marais remembers those early days. Many buildings were incomplete. Everything was ankle deep in yellow dust. There was no cooling in the barracks or mess hall. Electrical installations were primitive. Water was available in GI cans and cold lunches were the order of the day. Everyone competed with carpenters, electricians, bricklayers and truck drivers to perform their daily tasks.

Des Marais had been an instructor at Thunderbird I before being tagged as director of training at the new field. One of the original three pilots hired by Southwest, he learned to fly at Brooks Field, Texas, in PT-3s. Des Marais had been working in the Ryan Aviation Primary Training Program at San Diego before going to Arizona.²⁹ He still operates a maintenance shop at Phoenix Sky Harbor Airport.

Thunderbird II was to be in operation for two years, three months and 24 days. During that time more than 5,500

Thunderbird Field No. 2 was located in north Scottsdale and is now surrounded by homes and light industry. More than 5500 students were graduated from this facility. McDowell Mountains are in the background. (Southwest Airways Photo)

students were graduated and over 26,500,000 miles had been flown in the primary training operation. The peak month was November 1943 when more than 600 cadets were in training. A sign of the times was the size of the payroll in 1944. The monthly payroll was around \$115,000 which works out to an average monthly salary of around \$225. Instructors received about \$350.³⁰

Instructors at Thunderbird II had formerly been everything from musicians and paperhangers to lumber workers, druggists and bulldozer operators. They came from 30 different states and *four foreign countries* and their ages ranged from 21 to 44 years. The "cranking operations" on the line were run by 30 Pima Indians.

One of the few interruptions in training operations occurred on August 3, 1943, when torrential rains washed out Scottsdale Road and flooded the runways. Some employees were marooned at the field but cadets celebrated a most welcome holiday. Flying was resumed on the following day.³¹

Most of the Stearmans operated were painted all silver, rather than the old-style Army blue and yellow. Tail stripes were eliminated. Maintenance was performed at night so that the trainers were ready for the morning flights. Mike Des Marais' practice was to jump on his motorcycle about dawn and ride through the hangars counting the airplanes that weren't ready for flight. Then he would "raise hell with the maintenance people."³²

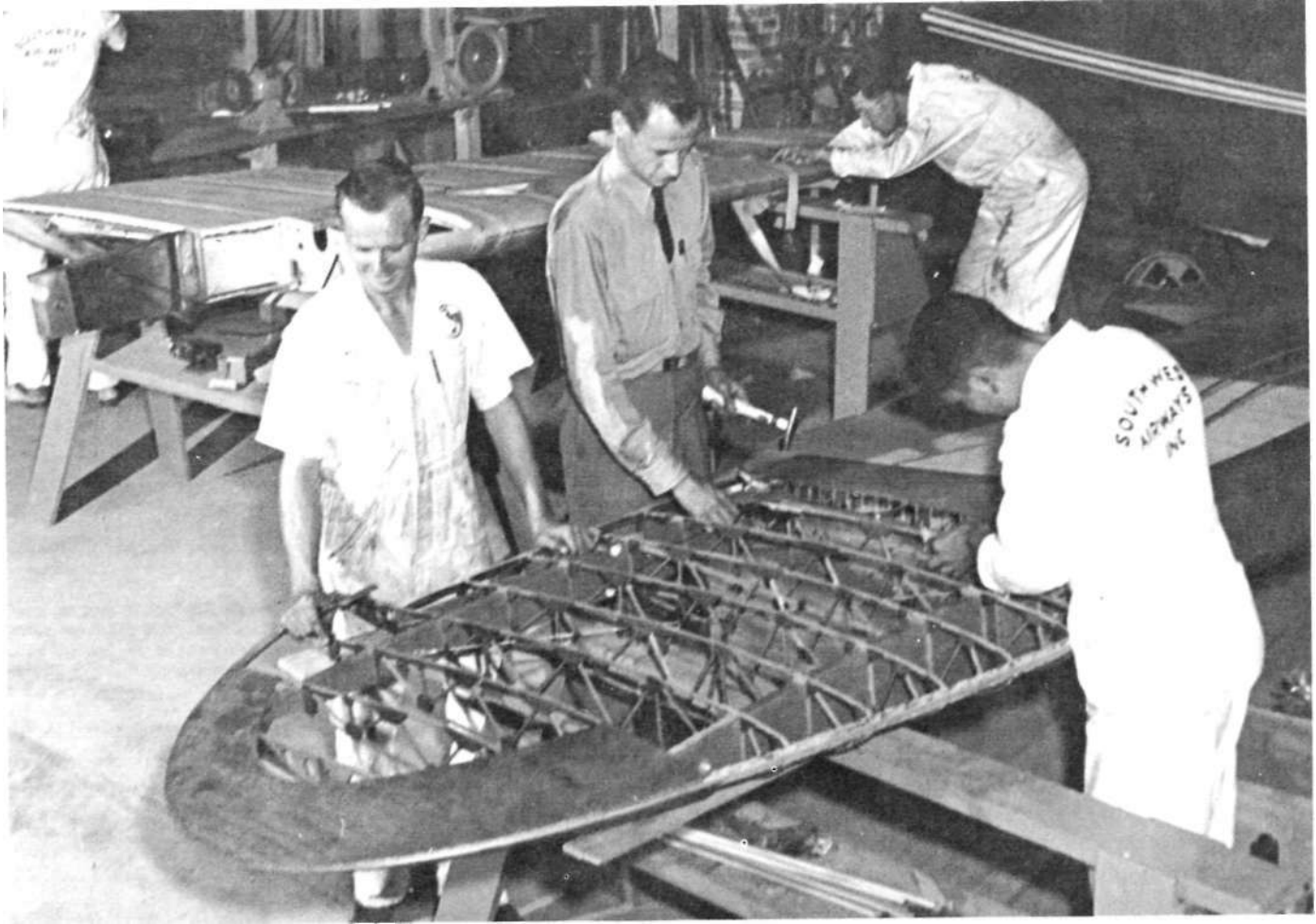
Despite the accelerated training program and the frantic schedules to produce more and more pilots, Thunderbird II enjoyed a fine reputation for the high caliber of the cadets it turned out. By the time the field closed in late 1944 the great surge for pilots had finally slowed down. Of the 64 Army primary schools throughout the country, only 15 were still in operation. They had truly done their job well.³³



Mike Des Marais directs traffic from the "Stage House" at Thunderbird Field with light gun. Airplanes had eight directions to take off in and both left and right patterns were used. Des Marais was later director of training at Thunderbird II. (John Swope Photo)

OVERHAUL DIVISION

By the end of 1941, Thunderbird Field was in full operation and nearing the saturation point. It became obvious that



the demands for replacement engines and airframes would seriously hamper the operation unless steps were taken to provide those replacements. On July 1, 1942, contracts were signed with the Air Force to overhaul aircraft and engines for the vast training program which was taking shape in the Phoenix Valley of the Sun. The Overhaul Division was established at Thunderbird Field and after several months of tooling up, production got underway in November 1942.

Only Stearmans were overhauled and though occasionally other engine types were overhauled, for the most part only Continental R-670s were rebuilt. When in full operation, one PT-17 and three Continentals a day were turned out. Over 1000 of these engines plus several hundred others for War Training Service, Air Transport Command and commercial aviation were produced before the Air Force contract ended.³⁴

The Overhaul Division ultimately took over hangars 2 and 3 at Thunderbird plus other newly constructed buildings, including a test cell. The airplanes, which were completely stripped down to the steel tubing, were totally rebuilt. The end result, with all the latest service bulletins and mods complied with, was actually a better product than the original airplane. Aircraft were overhauled when they either had 1500 hours' flight time or were crash victims.³⁵

Many women were employed in the Overhaul Division, as could be expected. They were used, not only in the dope and fabric shop, but in all phases of the operation. Some had even earned their A and E licenses, which even by today's standards is rare. Other shops which were utilized were welding, rigging and propeller overhaul.³⁶

Mechanics working on what appears to be a Waco wing in the maintenance shop. Waco C-72s were used in the cargo operation. (Southwest Airways Photo)



Line maintenance being performed on aircraft BP 15. The "BP" stood for British Program and was displayed on all aircraft used by the British. This photo was taken on April 29, 1942, at Thunderbird before Falcon Field had opened. (John Swope Photo)



CARGO DIVISION

Some time in 1942 the Air Force realized there was a need for a small airplane cargo operation to deliver light cargo to the various Air Force bases in Arizona and California. In late 1942 the company won a contract from the Air Transport Command to set up a cargo airline to deliver high-priority aircraft parts between the Army Air Corps Overhaul Center, located at Norton AFB in San Bernardino, California, to all of the air bases on the West Coast.³⁷

On November 9, 1942, operations started from Tri-City Airport in San Bernardino, California, with a fleet of Waco C-72s. These aircraft had been specially modified by Southwest to perform the task required by the ATC. Prop cuffs and heavy-duty oil coolers were installed. Beefed-up wheels, tires and brakes were installed to take the unusual wear and tear. Only the pilot's seat was retained, allowing a cargo space of 72 cubic feet. Cargo retaining bars were installed behind the pilot to protect him in case of a crash and large cargo and entry doors were installed on the left side of the airplane.³⁸ Later all aircraft were re-engined with Wright R-975s to provide greater power. The Waco proved to be a good airplane even though used in a role for which it had not been designed.

Pilots for the cargo line were chosen from among the instructors at the four fields being operated by Southwest. Heading the operation was Ted R. Mitchell, former assistant chief pilot at Falcon Field. Ed Rein was in charge of communications and heading up maintenance was John "Jocko" Kevari.³⁹

In the first six months over 100,000,000-pound miles were flown without a loss. Most of the cargo flown was high-priority APOC (airplane out of commission—now called AOG) items. Cargo was carried to bases as far away as McClellan Field in Sacramento with stops varying from 16 to 149 miles. Before it was over, the Cargo Division would have carried more than 87,500 pieces of freight totaling over 2,000,000 pounds in the dependable little Waco biplanes. No serious accidents occurred and not an ounce of cargo was

The Cargo Division which was set up to deliver high-priority cargo to the Army Air Fields on the West Coast used modified Waco C-72s. Shown here are the pilot's door and cargo hatch cut in the left side of the fuselage. (Southwest Airways Photo)



Cargo restraining bars installed in the Waco cargo planes to protect the pilot in case of a crash. (Southwest Airways Photo)

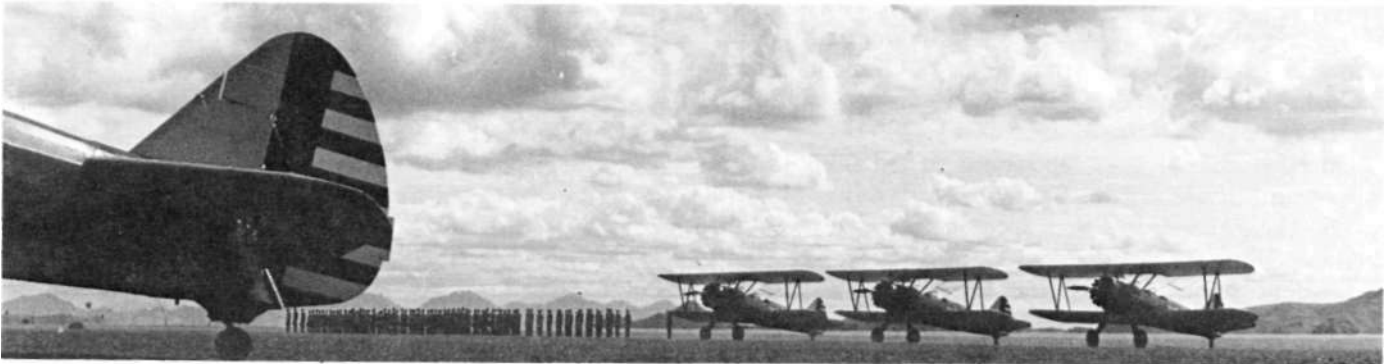
ever lost! The operation was taken over by Army personnel of the ATC on July 15, 1944, but not before valuable lessons had been learned in running a feeder line operation which would prove to be a great help to the company in its postwar operations.



A mechanic checks on a propeller problem while the flight crew waits prior to a training flight.
(John Swope Photo)



Cranking up a Continental R-670. Cranking operations were usually handled by a line crew of Pima Indians. It took brawn to start engines under the hot Arizona sun.
(Southwest Airways Photo)



At the end of the day, cadets stand retreat under a picturesque Arizona sky.

(John Swope Photo)



The day's flying over, Stearmans are pulled up to the hangar for their nightly maintenance.

(John Swope Photo)



Silver-painted Northrop A-17 parked near the Operations building at Thunderbird. It was probably a squadron hack or visiting aircraft. (Southwest Airways Photo)



Pretty lineup of Stearmans bask in the noon sun. These aircraft are in Army blue and yellow. Later airplanes were all silver, though due to the needs of the service, mixed colors were sometimes used. (Southwest Airways Photo)



Assistant Chief Pilot Gene Gates demonstrates a maneuver to a group of cadets. Each instructor usually had five students.

(John Swope Photo)



Bleak-looking parade grounds at Thunderbird before the landscaping was put in. (Southwest Airways Photo)



Grounds of Thunderbird were landscaped with shade trees, plants and climbing vines. (John Swope Photo)



FALCON FIELD BEGINNINGS

In 1940 the British were in serious trouble with regard to training new pilots. They didn't have enough fields which were suitable, enough airplanes or enough fuel to mount the huge training program necessary to maintain the continued strength of the RAF. In addition to this, English weather was definitely not conducive to an efficient training program.

In order to solve this dilemma, the "Empire Air Training Scheme" was devised. This was a plan whereby young Britons were sent overseas to receive their primary and advance flight training. Originally it was to have included Canada, South Africa and Rhodesia. After negotiations with the American government, the plan was then expanded to include the United States.

Squadron Leader Stuart Mills was chosen to come to the United States and help set up fields for the projected training program. The U.S. was to have six fields, one of which was tentatively planned to be in Mesa, Arizona.

Mills had just returned from the disastrous Battle of Norway. His squadron of Gloster *Gladiators* had been operating from a frozen lake, and he had been wounded. All aircraft of the squadron had been left behind.⁴⁰ Mills did not know at the time why he was being sent to the U.S. or why he had been chosen. All he knew was to report to the British Embassy in Washington, D.C.

He boarded the troop ship *EMPRESS OF BRITAIN* of the Canadian-Pacific Steamship Line late in 1940. Once aboard ship, he was assigned to the honeymoon suite, which he shared with a British radar expert. Their quarters were cramped and on top of that, the room was filled with crates that ultimately ended up on a mountain top in Hawaii (Radar).

The trip was uneventful and Mills was still mystified about his assignment when he arrived in Washington, D.C., from Halifax, Nova Scotia. He was even more perplexed when he was invited to the White House for tea with the Roosevelts. They questioned him closely about the war in Europe and

Falcon Field, Mesa, Arizona, was constructed in 1941 and trained over 2000 British fliers. The field closed in 1945 and was turned over to the city of Mesa. (Southwest Airways Photo)

especially his experiences in Norway.⁴¹

A short time later he was apprised of the purpose of his posting to Washington. He was to help pick fields and supervise the training of British airmen in the United States. Mills headed for the West Coast. Fields were to be established in Lancaster, Calif; Los Angeles; Mesa, Arizona; Texas; Oklahoma; and Florida. Mills' primary responsibility was to be the establishment and operation of a field in Arizona.

On his arrival at Phoenix Sky Harbor Airport he was met by Jack Connelly, Leland Hayward and Al Storrs (later to be director of training at Falcon Field). They immediately headed out for the proposed location of the field. They drove for miles down a long dusty road. En route to the site, Mills was surprised to see an Indian on a horse pulling a baby on two poles that dragged along behind. Running alongside was his squaw.

"My God," gulped Mills, "a red Indian!" The others looked at him amusedly. It was a common sight to them.

They finally arrived at the site of the field. It was just desert. To the west was a huge orange grove and there was a rise in the ground level on that side. North of the field was a huge flat-topped mountain.

"The orange grove will have to be moved back," Mills remarked, "and that high ground will have to be leveled."⁴² The others looked at him aghast. Southwest was really hard-pressed for money at the time and Mills' suggestions sounded like more money than they had available.

Mills smiled at them and said with a twinkle in his eye, "I don't think we'll have to move the mountain, though." As things turned out, the grove wasn't moved (it is still there today), the high ground wasn't leveled and the mountain wasn't moved. Mainly, the aforementioned improvements were not accomplished, probably due to the company's difficult financial posture at that time.

Mills was quite doubtful of Southwest's ability to deliver. He felt they had no experience operating "Harvards," not much background in running a big training base (Thunderbird was still new) and not enough money to back up the operation. Despite these shortcomings, Mills agreed, due, among other things, to the Arizona weather and the shortness of time. The weather, which was ideal for flying, was to be a very important factor in the success of the Arizona training operation.

Jack Connelly planned to name the new airfield "Thunderbird II" but the British balked. They didn't know what the strange sounding "Thunderbird" was, and furthermore, wanted something more familiar. The falcon was an English bird and they insisted on using it. Connelly acquiesced reluctantly and thus Falcon Field was born.

Construction was started soon after and flying operations began among much confusion and disarray on September 14, 1941. The airfield, barracks and all facilities were in very primitive shape, as Thunderbird had been earlier in the year when operations began.

H. Dean Page, a navigation instructor, remembers what those first difficult days were like in an article he wrote for the *Thunderbird* house organ: "We all developed into habitual milk drinkers . . . with good reason. It was the only thing we could get. The plumbers were continually testing the water mains. At the most, you could expect a light orange dribble out of the faucets, and ordinarily all you could get would be a momentary gurgle, followed by a dry discouraging hiss."⁴³

The British cadets operated under extremely rough condi-

tions, holding classes in the barracks, sitting on barrels and boxes or on the floor as carpenters and electricians worked around them. On the flight line man-made dust storms were again the order of the day with the flight dispatcher sitting on a keg or box with a clipboard in his lap and eating dust all day, while airplanes competed with graders and steam rollers.⁴⁴

Marvin Meier remembers those first days well. As previously mentioned, he had started at Thunderbird I as a novice mechanic and then had been transferred with the maintenance cadre to the new field. "We moved in as the carpenters were moving out. Scrap lumber piles were everywhere and then there were the crickets. . . ." Meier's voice still has a note of disbelief as he recalls those days. "I didn't believe there could be so many crickets. We worked at night with the hangar doors open and the lights could be seen for miles. It drew them in from the desert for miles around. They piled up in the corners of the hangar four or five inches deep. We were continually sweeping or shoveling them out."⁴⁵

He also saw the biggest rattler he'd ever seen just 200 feet from the hangar. The desert was reluctant to give up what it considered to be its own. The following year things were quite different. No snakes and very few crickets.

Most of the maintenance was performed at night, with swing shift starting around 5:00 p.m. A good part of the maintenance crews were women, about 60 percent. The same endless chores of valve adjusting, plug changing, oil, brakes, tires and repairing damage took place night after night.

Many women were utilized as specialists in the nightly maintenance program. It was found that a woman who had never seen an airplane before could be trained to perform one specific job on the airplane. For instance, one would clean and grease all the tail wheel bearings and tail gear throw-out clutches. Another would go from one aircraft to the next removing the "air maze" filter, cleaning, oiling, then re-installing it. Still another removed the plates, cleaned and oiled the landing gear down-lock latches on the AT-6. It was no real problem to take a woman out of the cotton fields or kitchen and teach her to do one specific thing . . . every night. That's all she did and all it required was someone to come along behind to check the safetying, etc.⁴⁶ It really worked quite efficiently. By morning all the aircraft were repaired, washed, oiled, fueled and ready for another day of flying.

Maintenance boss at Falcon was Joseph Wischler who is still involved in Phoenix aviation. He had been hired out of Chicago and was one of the few licensed mechanics the company had in the beginning. After a few months he found himself as Supervisor of Maintenance at Falcon Field. Things in aviation had been tough in Chicago and Wischler was glad to be a part of an expanding organization.

"Those were hectic times. Lots of overtime was being worked as Falcon's complement of 40 PT-17s, 40 BT-13s and 40 AT-6s were made ready. Everyone believed war was coming. The British appreciated good maintenance and we worked hard to give them a good, clean airplane."⁴⁷

However, the British were not happy with the American system of primary, basic and advanced flight training. They did not believe that the basic segment was really necessary and they did not like the Vultee BT-13 aircraft very much.



Wing Cdr. J.F. McKenna was CO. of Falcon Field from July 1942 to July 1944. He was also a medical doctor and after the war returned to Arizona and practiced medicine in Scottsdale until his death. (Southwest Airways Photo)



Somewhat less than sensational landing by aircraft No. 148. The washout rate at Thunderbird, in the beginning, was high due to the Air Force's urgent need for competent pilots. Later, cadets were given more of an opportunity to qualify. (Bob Markow Photo)

Among other things, they thought it was hard to maintain and had some structural flaws which had to be corrected. In the few courses (classes) in which the Vultees were used, half the fleet was grounded with stabilizer cracks and much time was used in complying with modifications to the structure. After several classes, the basic training segment was eliminated and British cadets went directly from PTs to ATs.

Other important things differed in the British syllabus from that of the Army Air Force curriculum. One was night flying operations. They were a part of the primary flight segment. Solo night landings by the light of a 450-by-100-yard flarepath was required at the halfway point in primary. Night flying operations were started at Thunderbird Field which the British used for the first three or four courses until Falcon was completed. The runway chosen would be watered down by trucks to settle the dust and then the flare pots were set in place. As the dust dried out it would have to be re-watered. At Thunderbird all night flying was dual and consisted of circuits and landings only. Three-hundred-mile cross-country night flights were required in advanced training.

Practice in many flying maneuvers which were required by the Army Air Force was eliminated as superfluous by the British. Among these were chandelles, lazy 8s, pylon 8s and others. Instrument flying, formation flying and night navigation, which was not part of the AAF primary program, were part of British primary training. The Air Force was impressed with the British system and philosophy of flight training, so much so that several classes of American cadets were sent to Falcon to receive training along with the Britons. The experiment worked out quite well with the Americans. Upon graduation they received not only AAF but RAF wings as well. The dual program was operated from courses 13 through 19.

The British students had gone through a lot and come a long way to be where they were . . . taking flight training in Arizona. It all started in England where about 1500 potential cadets were being called up weekly. Those who were chosen would be trained in Canada, South Africa, Rhodesia or one of six different fields in the United States as previously mentioned. After physicals and inoculations, the men were sent to Basic Ground School and had to successfully complete 12

hours' instruction in Tiger Moths to qualify for flight training in one of the overseas schools.⁴⁸

To an English, Scottish or Welsh youth who had been selected for flight training in a flying school in far-off Arizona, this was high adventure. After an ocean voyage to Canada, five or six days on a train got the group of cadets to the Arizona desert, which to them must have seemed like the end of the world. The time away from England and back usually took about nine months. Operational training was usually taken on return to the British Isles.

When the first cadets came to Arizona, the United States was, of course, still technically neutral. It was still prior to the Pearl Harbor attack. At first the Americans insisted that the British all had to wear civilian clothes. But Stuart Mills, who was busily setting up the Falcon Field operation for the British, realized that discipline would be almost impossible unless British personnel were required to wear their uniforms. His pleas were heeded finally by the American authorities, despite the fact that many Americans at that time were isolationist and anti-uniform.

Mills looked over the town of Mesa which at the time was quite small. It had a bar, a furniture store, food store and a couple of service stations and not much more. He contacted the mayors and chiefs of police of not only Mesa but Phoenix and the other cities in the area. He wanted to be sure that when his fliers got into trouble the British would be allowed to discipline their own people. He also contacted the local newspapers asking them to print nothing about the training of British fliers until the first contingent had actually arrived. "I wanted no brass bands or dancing girls meeting the train when they pulled in," Mills said.⁴⁹

The British boys took well to the Southwest style of living. They loved the unaccustomed abundance of food which was available to them. Ice cream, malts and cokes (many preferred to drink them warm, much to the disgust of the Americans) were consumed in huge quantities. In Britain, one egg a week was the norm, with six days taken to decide whether to fry, boil, scramble or poach it. In the States there was no rationing of any kind. They also learned to drink American beer and even bourbon whisky.

The families of Mesa, Tempe, Scottsdale and Phoenix took the British to their hearts. They took them into their homes and treated them like family. Organized by the squadron adjutant, the individual members of each class were "adopted" by Arizona families during their stay. When they went back to England, the next class was likewise distributed among willing Arizona families. Every boy was assured of a place to have Sunday dinner and a source of clean laundry. When, four years later, it was all over, the British Embassy made a special point to express their gratitude to the people of Arizona.

Not all cadets were without problems of morale and not all stories had happy endings. Stuart Mills remembers one in particular. His name was John and he was in one of the earlier courses. His father was in the Merchant Navy and his ship had been torpedoed in the South Atlantic. The boy was worried about his father and it affected his flying. The instructors, knowing his situation, tried their best and finally got him to his final check flight. He passed it with their help.

Two families had adopted John and alternated having him

to their homes. He stayed weekends with them, played baseball and went horseback riding with them and wanted to come back to Phoenix after the war to marry a local girl. He even borrowed money for an engagement ring.

After graduation he went into fighters and was recommended for a commission. His first posting was to the Middle East where his *Tomahawk* was shot down by an Me 109 and he was killed.⁵⁰ It was a sad end to his Arizona odyssey. It was not the only tragic end to a Falcon Field flier.

There were fatal accidents at Falcon. Twenty-three cadets are buried in Mesa Cemetery testifying to the ultimate sacrifice some were called upon to make.⁵¹ One of the first was caused in a "go around" when the student raised the flaps instead of the gear. That was when American ground crews found out that the big fur collar on the RAF flight jacket burned like a torch.

Joe Wischler recalls one crash in particular. It was during the period when American and British cadets were training together. Two students were on a cross-country flight in an AT-6, one British and one American. They usually flew a triangular course and the practice was for the students to alternate the flying . . . one flying a leg, then the other.

The airplane was somewhere beyond the small town of Apache Junction (which is five to 10 miles east of the field) when they decided to see if they could get the T-6 to fly inverted. The craft wouldn't fly upside down for very long . . . the engine tended to quit, so they used the wobble pump to keep it going. To keep the nose up when inverted they cranked in full nose-down trim. It was surmised that after trying this (plus what was heard in the radio room) they gave up the effort.

It was deduced that instead of rolling out, they tried to split S out of inverted, but because of the trim, the airplane only did half of the split S. Wischler says no force in the world is going to pull out an AT-6 with full nose-down trim. If they had remembered to re-trim it would have been okay, but they didn't. The airplane went straight in.⁵²

' 'We searched for them for a week with no success. We flew grids over the desert every day but no luck. Finally, one day a shepherd called us. He had seen the crash. He was out in the desert with the flock with no way to contact us. When he was finally picked up and brought back in—he usually stayed

out with the flock for a week at a time—he called us.

"Mike Foydl [Falcon chief pilot] and I jumped into a Stearman and flew out to the area described and started flying grids. The Stearman was good in searches because it could fly well at low speeds."

Finally Wischler noticed an area where the flat gray brown of the desert was a little darker brown in one spot. He wiggled the stick to get Foydl's attention and Mike banked the airplane and they circled the spot. The sun reflected off of metal and they knew they had found the plane.

They flew back to Falcon and a search party was sent out to the area. The aircraft had flown straight in . . . probably at about 300 mph. They separated everything that was in khaki from that which was in RAF blue and put them in two rubber bags. Then the wreckage was covered over with dirt.

Many of the accidents were the result of night-flying operations. The desert at night, with no moon, is just about as black as anything can get. Many fliers simply became disoriented and flew into the ground.

Sometimes aircraft, because of mechanical problems, made forced landings far from the base. One in particular was an AT-6 that had run out of fuel and bellied into a dry riverbed some miles from the field. A crew was sent out to recover the aircraft along with one of the instructors who had volunteered to fly it out if possible. They took along a set of tires, a prop and fuel with them to service the airplane. A portable "A" frame called "The Gallows" was used to raise the aircraft. The flaps were wired in the up position and the gear locked in the down position. Many hours were spent chopping willows to provide a takeoff path. Some distance from the airplane the river curved and at that point there was a partially buried log. Finally the engine was started and the pilot signaled that he was ready.

With the engine roaring many hands combined to get the T-6 rolling and in a blinding sandstorm the aircraft started down the cleared riverbed. Finally the crew fell away and the airplane rocketed toward the point of no return. Everyone knew it was never going to make it. The soft sand was too much for it. Finally at the critical moment the airplane hit the half-buried log and lurched into the air. By some miracle the pilot kept it airborne and the airplane climbed out. Marvin Meier and Joe Wischler were in the maintenance crew and they remember the "damnedest buzz job" they had ever seen. "He was so happy that he wasn't dead that he just couldn't contain himself."⁵³

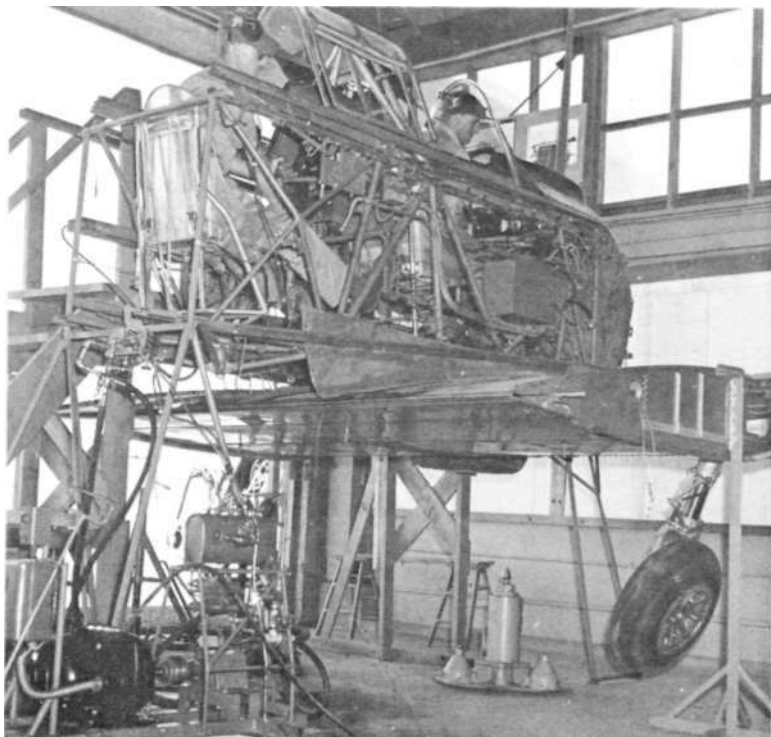
Retrieving downed aircraft and scraping up wrecks were just part of the job for flight and maintenance crews at Falcon Field. They were also required to go on cross-country flights, sometimes as far away as Texas. This would be done at the end of an advanced class when a group of students would fly their AT-6s, taking off two minutes apart to a common destination. Maintenance crews with toolboxes, sets of spark plugs and other parts would follow along, doctoring sick engines, changing flat tires and repairing bent wingtips.

Working at Thunderbird or Falcon usually meant a draft deferment. Maintenance people were warned not to quit if they wished to retain their deferment and many fretted under the veiled threat because, as jobs for skilled people were plentiful, they could probably have made more money on the West Coast working in shipyards or aircraft factories. Mechan -



The battered hulk of an AT-6 being brought in from the "boonies" on the back of a truck. In four years of training at Falcon Field one American and 23 British cadets were killed. (Southwest Airways Photo)

ics for Southwest were paid \$1 to \$1.25 per hour. Instructors, who made around \$500 per month,⁵⁴ were likewise warned about changing jobs and if one was fired for cause, other training fields were notified and he would be blackballed for 90 days. During this time there was a good chance he would be drafted as he was not employed in an essential industry. Ironically, many flight and maintenance people who faithfully stuck it out, were later drafted when, towards the end of the war, the fields closed. Many of them served in the armies of occupation in Germany and Japan.



Belly landings were just about eliminated after this AT-6 cockpit familiarizer was constructed from wrecked airplane parts. Cadets at Falcon Field received three hours' training and a blindfold test on this device.
(Southwest Airways Photo)

An instructor might be fired for a serious breach of conduct or even a sophomoric prank. One case of the latter happened like this: One day, just to relieve the monotony of training or just out of pure devilment, two instructors in Stearmans, with students, decided to have a dogfight (which they were not supposed to be doing at that stage of training). Along came an AT-6 that started to circle the mock battle. As the T-6 made a lazy pass, the pilots of the Stearmans waved . . . inviting him to join the fun. Then (and this was probably what really did it) the student in one Stearman unhooked his safety belt, stood up in the rear cockpit and as the AT-6 passed by, pointed his two forefingers at it and went "Tic, tic, tic, tic." Flying the AT-6 was the commanding officer! They still didn't know who it was until they got back to the field. The CO was standing there waiting for them. The students were reprimanded and the instructors fired on the spot . . . and then blackballed from other training fields.⁵⁵ It tended to make people stay where they were.

In addition to staying where they were, mechanics had to join the Air Corps Enlisted Reserve and pilots were also members of the Army Air Corps Reserve as second lieutenants. At one point, pilots were issued quasi-military uniforms and

wings, and for a while were required to learn the manual of arms and spent some of their spare time learning to march under the watchful eye of an Army drill instructor. When a near mutiny erupted, the program was dropped by the AAF. This and other training fields were essential to the war effort and the government did not choose to tamper with success.

James Mitchell is a kindly, soft-spoken man who today is in his mid-70s. Known as Jimmy to his friends, Mitchell was both a mechanic and flight instructor at Falcon Field. He soloed in a Curtiss *Jenny* in 1927 and was awarded his A&P



Page Duell, ground school instructor, conducts a class on aircraft instruments.
(Southwest Airways Photo)

mechanic's license (then called A&E) in 1930. He and his brother Ted knocked around in aviation, working in the Midwest and finally California where Jimmy worked at Cal-Aero on BT-13s and AT-6s. In October of 1941 he came to Arizona to work for Southwest Airways as a mechanic.

His background in aviation became known and Mitchell was urged by the company to put aside his beloved toolbox and become a flight instructor. Pilots were hard to come by, so, with reservations, Jimmy made the switch. "They really didn't like the way I flew or the way I taught, but they agreed to take me on as an instructor."⁵⁶ Jimmie's approach to instruction was not always the accepted way but it usually brought the desired results. He instructed three or four classes, then asked to be put back in maintenance where he was made foreman.

While he was instructor he had a chance to evaluate the British student pilots. "Those kids had guts, especially in the formation and night-flying requirements in primary. It took skill and courage." Mitchell especially remembers one student. He was making his nighttime solo circuit of the field and was to land by the light of the flare path. It was a dark, moonless night and the student lined up his approach to a

"glide instructor" which was on the ground. If he was too high he saw an amber light, if too low, a red, and if just right he saw a green light.

"The kid came in, getting lower and lower, seemingly ignoring the glide indicator," Mitchell remembers. "Everybody was pointing red lights at him but he landed about a hundred feet outside of the field anyway. It was a nice landing but there was a concrete irrigation ditch which he hit and the Stearman did a somersault, ending on its back with the student hanging upside down by his seat belt."



PT-17 at the hangar for maintenance. Tail of BT-13 is in the foreground. (John Swope Photo)

When they got to the airplane he was lowered to the ground, dusted off and asked if he was hurt. His eyes were big and round as he said, "No, sir, but I wouldn't recommend anyone else doing that." The ground crew and pilots that were gathered around tried to hide their smiles from the shaken cadet.

"But he wasn't washed out for that crash," Mitchell recalls. "I never did wash out a cadet. They had come so far and tried so damned hard that we did everything to avoid it. If a kid didn't seem to be progressing or had a personality clash with the instructor he would be changed to another one. Usually he improved and things worked out."⁵⁷

Sometimes serious accidents were the result of poor flying, but sometimes they were a result of a very small mistake. One cadet was on a solo night cross-country in an AT-6. Usually the altimeter was set at zero for Falcon Field's elevation, but when on a cross-country it was set for sea level. On his way in he called the tower and said he was at the three-mile limit and was starting to let down to 1000 feet. When he got to 1000 indicated he hit the ground. The airplane hit about 100 feet from a farmhouse, tearing off both wings and ripping up the fuselage. Incredibly, though people were awake in the

house . . . playing cards, in fact . . . no one heard the crash.

A search was initiated immediately. Some flying around was done, but it was dark and the plane was not found. The next morning one of the search planes flew over and spotted the cadet, lying on his parachute waving at them. He died that day, a victim of his injuries and exposure. It was winter and the desert was freezing cold that night.

Jimmy Mitchell's voice is still bitter as he recalls the episode. "The kid had lain on his parachute all busted up the whole night. He would have survived if he'd been picked up.

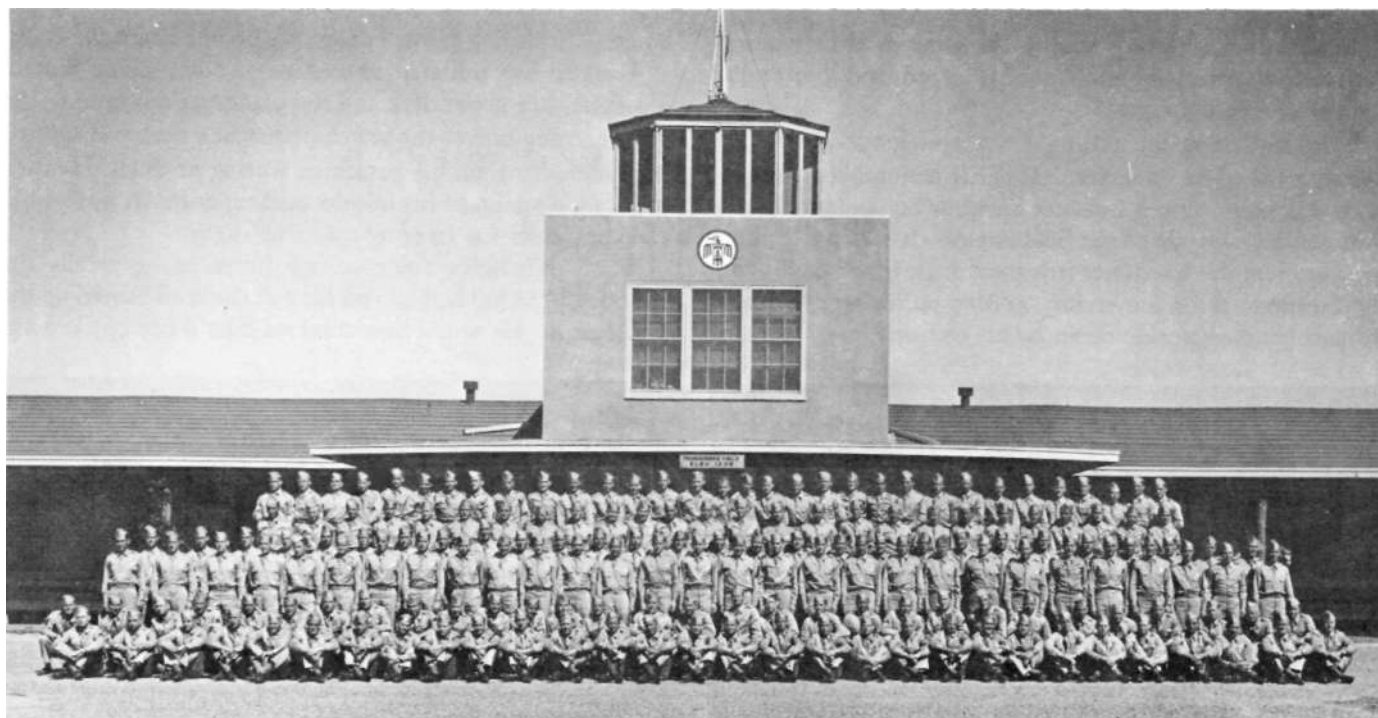


Ground loops were not uncommon to primary cadets, especially with the Stearmans close coupled landing gear. Aircraft No. 169 does not appear to have suffered much from the experience. (John Swope Photo)

Those people playing cards in that house didn't hear that airplane tearing itself to pieces. They went to bed and the next morning there it was . . . a hundred feet from the back of the house."⁵⁸ From then on all altimeters (both Stearman and AT-6) were set at sea level, not zeroed out at field altitude.

One of the requirements in the primary segment of instruction was an air start of a dead engine in a Stearman. This was usually done near an emergency strip northwest of the field. The cadets got a kick out of doing it, according to Jim Mitchell. The aircraft was usually taken to about 5000 or 6000 feet where the fuel and ignition were turned off. (The mixture controls were blocked.) If the engine had good compression the prop would stop reasonably quickly. If not, you might hit rough air and it would start spinning again. Sometimes it could take 2000 or 3000 feet stopping the prop. Then a clearing turn was made, the fuel and ignition turned on and the nose was pointed straight down until the prop started to windmill and the engine, hopefully, started.

You were supposed to plan it so that if, for some reason, the engine didn't restart the aircraft could be landed on the auxiliary strip. The engine almost always restarted in the air.



One exception was an instructor who landed in the desert a half mile short of the strip. He restarted the engine on the ground and taxied the airplane across the rough terrain to the strip and calmly took off for Falcon, the fabric on the undersides of the wings in tatters. Landing at Falcon with torn fabric and broken wing ribs, he was asked to explain why he had done it. "If you think I'm going to walk a half a mile in that hot desert to get to an auxiliary field . . . you're wrong. I rode."⁹ Needless to say, he didn't fly at Falcon again.

It goes without saying the adventures and misadventures in the training of thousands of cadets are myriad. Falcon Field had its share, but the operation as a whole worked remarkably well. From September 1941 until November 1945 many hundreds of RAF and American cadets received their wings at Falcon.

Fate had one trick to play on flight and maintenance crews yet. In August 1945 a destructive windstorm descended on the field and destroyed or damaged every Stearman on the field. Within two months every airplane had been replaced with a new aircraft. A month later the field closed.⁶⁰

The last classes were finished and the cadets, now pilots, along with their officers started the long trip back to England. Eighteen courses had gone through Falcon. Ironically, some of the later British pilots, because of the diminishing needs of the RAF toward the end of the war, were assigned as glider pilots in the operation "Crossing of the Rhine." Several were killed in their first effort against the enemy.⁶¹

CONCLUSION

Falcon Field closed in November 1945. The field was turned over to the city of Mesa for one dollar. Thunderbird II had closed earlier in October 1944 and Thunderbird I had closed in June 1945. Southwest Airways had embarked upon a mighty effort and it had been an unqualified success. From a small training operation at a sleepy little airport, it had grown to a vast training complex with four fields. Records indicate that over 20,000 fliers had been graduated from the

Graduation picture of a class of cadets at Thunderbird Field. One hundred and seventy-five men are in this group which was typical of the later classes. (John Swope Photo)

fields and they had flown over a million-and-a-quarter training hours. In addition, the engine and airframe overhaul facility also had been extremely successful, making the whole operation work by providing the hardware where and when it was needed. It took a lot of effort to provide backup for almost 500 aircraft.

Statistics really only tell part of the story . . . over a million flight hours, almost five million landings and takeoffs, twenty million gallons of gas burned and all those cadets trained to be pilots. The whole thing had been accomplished with flair, style and imagination. Morale, efficiency and motivation had never been found wanting. The results achieved were far and away in excess of anything the Air Force had originally envisioned.

When the last field closed there was a vacuum . . . a terrible letdown. But then the word came out. Southwest Airways had applied for a permit to operate a local service airline on the West Coast. Pilots and maintenance crews would be needed. The war was over and there was a new challenge. Everyone looked forward to the postwar era of prosperity and the good life. Move on and don't look back.

SOUTHWEST AIRWAYS CHRONOLOGY

10-1-40	Operations begin at Sky Harbor Airport on a CPT Program.
3-22-41	Thunderbird Field No. 1, north of Glendale, AZ. opened as an Army Primary Training School.
9-14-41	Falcon Field, NE of Mesa, AZ, began training RAF cadets (No. 4 BFTS).
6-22-42	Thunderbird Field No. 2, north of Scottsdale, AZ, activated an Army Primary School.
7-1-42	Operations began in the Overhaul Division—an Army contracted aircraft and engine overhaul depot.
11-9-42	The Cargo Division started at Tri-City Airport, San Bernardino County, Calif., as a military cargo airline operated for the Army Air Force on the West Coast.
7-15-44	Cargo Division closed.
10-16-44	Thunderbird II closed.
6-27-45	Thunderbird I closed.
11-6-45	Falcon Field closed.



John Swope (in civilian clothes) was field manager at Thunderbird II and secretary-treasurer of Southwest Airways Co. He held a commercial pilot's license and instructed cadets for a year. (Bob Markow Photo)



The King sisters gather around instructor D.T. Thompson during their visit with Phil Harris and the Kay Kayser band in 1944. (Bob Markow Photo)

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He is a member of AAHS and has done several drawings of Air Corps pursuit group color schemes for the *Journal*. At the present time he is doing research on the Curtiss P-36 in the Air Corps service and would appreciate correspondence from Society members who have information on the subject.