

*The* **AIRWAY PIONEER**



Society of Airway Pioneers

COMMEMORATING THE "GOLDEN ANNIVERSARY" OF AIR MAIL RADIO SERVICE

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Sentinel at the Crest DONNER SUMMIT, CALIFORNIA

STORY - PAGE - 14

*"The First Fifty Years"*

**Air Mail & Airways Radio Stations**

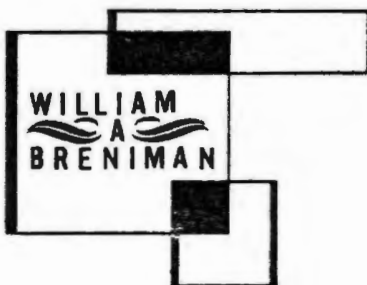


1920 - 1970

# THE AIRWAY RADIO STORY

*The First Fifty Years*

==== BY ====



AIRWAY PIONEER

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**A** HIS book has been authored/edited by William A. Breniman and published by the Society of Airway Pioneers to commemorate the “Golden Anniversary” of the Air Mail Radio Service which began operations August 20, 1920. The Service was started by the Post Office Department; followed by the Civil Aeronautics Authority/Administration (Independent Agencies) and is now a function of the Federal Aviation Administration in the Department of Transportation.

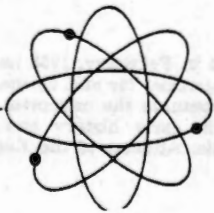
**A** HE Society of Airway Pioneers was established in February, 1958 and enfranchised by the State of California as a “non-profit” organization. It was organized for and by members or former members of the (now) F. A. A. and the U. S. Weather Bureau, to perpetuate the memories of the Pioneers who helped to develop the Federal Airway System and to preserve its early history and memorabilia. The Society is entirely patriotic, non-sectarian and has no commercial interests. Address of the Executive Director is P. O. Box 530, Santa Rosa, California 95402.

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★ ★ Voice of the Veterans who helped Pioneer the Airways in the U.S.A. ★ ★





ELMO N. PICKERILL

HE PROVED IT WOULD WORK

1920 - 1970

# THE AIRWAY RADIO STORY

THE GOLDEN ANNIVERSARY

HE BUILT THE SYSTEM



EUGENE SIBLEY



"PORTS O' CALL"

# FEDERAL AVIATION ADMINISTRATION

## GREAT COMMUNICATIONS SYSTEMS OF THE WORLD

### SAGA OF THE AIRWAY RADIO

BY WILLIAM A. BRENNAN

**H**istorians of the Federal Aviation Administration (FAA) remind us that August 20th 1970 marks the **FIFTIETH YEAR** their Flight Service Stations (called "FSS" facilities) have been in operation.

I sometimes think of this epical date as one that marks the "GOLDEN ANNIVERSARY" of a marriage between radio and aviation -- the union producing an impact upon civilization that has never had a parallel in the history of the world.

This couple set up house-keeping in asture surroundings and under trying conditions. It is true that the early marriage received due notice by the press but then it was forgotten for many years. The first years were rugged. Many of the homes that housed this couple were cold, small drafty shacks or hangars that leaked and had sod floors. The equipment they had to work with was far from the sophisticated equipment we know today. The arc and spark sets were often very balky and tempermental. The JN4H "Jennies" inherited from the Army plus the "Standards" bought when housekeeping was

established did not furnish the most dependable transportation. Bailing wire was standard equipment on most flights. Later the DH-4 with 400HP Liberty engines received as replacements were to remain as "standard equipment" for some 8 years or until 1926 when they were phased out after the purchase of 50 Douglas M-4 mail planes.

When the first air to ground contact was made in 1910, the terminology "wireless" was still in use. While change in nomenclature from wireless to radio was officially made by the U.S. Navy in 1912, epitah of the "Wireless" did not come until 1920 when the Marconi Wireless Telegraph Company of America died and the RCA was born.

Stations of the FAA were known by many names over the years. First, they were called "AIR MAIL RADIO STATIONS" (AMRS) until 1926 when they were renamed "AIRWAY RADIO STATIONS" (ARS) and the Chief became "Operator-in-Charge" or (OIC's). When the Civil Aeronautics Administration was created in 1938, name was changed to AIRWAY COMMUNICATION STATIONS (ACS) and later they became known as "INSACS" (domestic) while our Overseas facilities became known as "OFACS". The Federal Aviation Agency was created in 1958 and facilities became known as "FLIGHT SERVICE STATIONS". I am personally quite proud of this name as I was informed that it was in honor of the "Flight Assistance Service Program" which I promoted throughout the Service in the late 1940's and early 1950's.

The Oakland Station shown below became the door through which many many operators entered the Service. C. W. Larsen was Chief (Wireless Pioneer #13) for many years. ◊◊



TYPICAL AIRWAY RADIO STATION BUILT CIRCA 1928 & 1929 "BAY FARM ISLAND"

# FIFTY YEARS AGO

## THE EARLY BIRDS OF AVIATION RADIO



The total staffing of the first ten Air Mail Radio Stations established in 1920 numbered slightly more than a dozen men - the real Pioneers of the communication's service in the Airways of the United States. We must record that three of these men are current members of the SOCIETY OF WIRELESS PIONEERS. They include Messrs. Art Johnson - 44P, Raymond J. Green - 395-SGP, and Elmer C. Butler - 46-P. Others whose names are recorded on "PAGE-1" of the Pioneer Ledger include Walter F. Lindsay, Lucian D. Cosman, Samuel P. Mason, Oscar Nausk, Thomas C. Gale, Eugene E. Nichols, Raymond E. Brunner, Eddie Monohan and Ellsworth A. Hosmer PLUS Eugene Sibley who headed up the Service and in recognition became HONORARY MEMBER NO. 1 of the SOCIETY OF AIRWAY PIONEERS.

While the writer did not become associated with the Airways Radio Service until several years after its establishment, he did have the honor of serving as one of the few Deputy Chiefs that Mr. Sibley had assigned his Washington staff. This was somewhat coincidental however as he had been chosen by Messrs. George L. Rand and Administrator Delos W. Rentzel to transfer to Washington as Deputy Chief of the Communications Division. Our staff of Communications Personnel had risen from a total of 45 radio operators on the roster in 1927 to well over 4,000 at the time I reported for duty on my new assignment. From the original ten stations (which grew to 17 by the end of 1921) the total number of stations had increased to 398 by 1950. When I joined the service in 1929 I was told I was #178 in the service but I am sure this did not take into consideration the changes occurring since the service started. TODAY, according to F.A.A. records, a total of 4600 Flight Service Station Specialists staff 340 stations of the F.A.A. system - perhaps one of the largest communications systems in the world, excluding commercial and military units. Most of this growth occurred during the "thirties" when expansion was at its peak.

Proficiency of the early day Airway Operators was recognized as among the best in the world. Indeed entrance requirements until the late "twenties" were equivalent to that of a EXTRA-GRADE (Pink Ticket) operator. Member Art Johnson mentioned that Mr. Bernard Linden (#400-SGP) and head of the F.C.C. in the West for many years, once told him that the AIR MAIL RADIO SERVICE was the "...most efficient communications service he had ever had the privilege of monitoring".

Prevailing salaries in the Airway Service attracted many of those who wanted to leave the sea or military and establish themselves shore-side. Thus it attracted some of the very top code men of the country, such as "Tony" Gearhardt who was the "World's Champion" speed artist, Ray Green who had been selected for duty on some of the heaviest traffic ships on the Atlantic, Samuel Kelly assigned to the Navy Station at NED Bar Harbor which handled traffic from ships returning from WW-1 and recorded the heaviest traffic count in history. There were many others including George Renish, Leland T. Nutterfield, Manuel Gouliart, Red Barclay and others too numerous to mention.

### MY INTRODUCTION TO THE AIRWAYS SERVICE

My own introduction to the Airways Service occurred on a vacation trip which I took after leaving the SS SANTA CRUZ (WED) following a long trip to India and the Orient. I was on my way home to visit parents in Colorado and rode the UNION PACIFIC to Cheyenne where I had to change to the COLORADO & SOUTHERN RR. to take me south. Approaching Cheyenne from the West I noticed a new radio station out the car window. Since I had several hours lay-over, I decided to investigate so walked the distance to the new station. Here the Operator (I think it was Walter F. Lindsay but I could never confirm) told me about the service. He suggested that if I was interested in employment that I write to a Mr. J. Clark Edgerton in Washington, D. C., which I did.

In due time I received a reply. Mr. Edgerton told me that there would be openings in the service and if I was interested, to report to the Army Radio Station (WVY) in the Presidio at San Francisco. However, after reporting upon arrival in S. F., one of the staff at Presidio informed me of an opening for someone who could teach code at the Letterman

Hospital. This was "immediate" and since I wanted to stay around S. F. awhile, I took the job instructing convalescent veterans from WW-1, many of whom were disabled. My tie with the Airways was to be postponed for another eight years at which time I was getting a "work-out" on the heaviest traffic ship on the Pacific at the time, the S.S. CITY OF LOS ANGELES (KOZC).

### FLYING DEPENDS ON RADIO!!

Flying and radio go together like "ham and eggs". Flying might have progressed from the day of the Jennie without radio but the growth that aviation was to achieve would never have been possible had it not been for the WIRELESS! One would have to speculate as to far in the future such titans as the "747" or the "DC-10" would be had it not been for a man by the name of ELMO N. PICKERILL and other legendary pioneers of the early days of wireless who made the dream of flying come true.

### ELMO NEALE PICKERILL

In an age of Moon landings, space shots and solar orbits, the pioneer days of aviation sometimes seem to belong to a past that has little meaning in the present.

It is with a trace of nostalgia that we recall that one of Americas most outstanding "brass-pounders" ... ELMO NEALE PICKERILL, of Mineola New York became the FIRST INDIVIDUAL to communicate from an aircraft to both ship and ground stations using C. W. code.

The date was August 4 1910 when "Pick" (some called him "PK") made his historical flight which took him on a round-trip from Mineola to Manhattan Beach, Brooklyn non-stop in a Model "B" Wright biplane. The flight was made at an altitude of only a thousand feet. During the flight he established contact with a "push button" telegraph key with seven different stations - three of them being wireless stations aboard ships in the New York area, two coastal stations, a portable station at Manhattan Beach and a station in New York City.

The establishment of two-way communications between the sky and the ground was one of the great achievements of science, yet not widely recorded in 1910 when the citizens of the world were not very air minded to say the least. While "Pick" (who became Honorary Member of the Society of Airway Pioneers holding Card No. 1833) was one of the early day "greats" in (Continued to Page 4 Please)



William A. Broniman

Helped build and commission stations at Big Spring, Texas and Denver, Colorado. Operator in charge: Big Spring, San Diego (Acting), Pasco, Wash., Reno, Nev., Denver, Colo. KANSAS CITY REGIONAL OFFICE (V) Helped establish 7-1-38. Maintenance Inspector, Communication Inspector, Assistant Branch Chief, Com. Division. CHICAGO, ILL. (III) Chief Communications Branch/Division Region 3. WASHINGTON, D. C. Deputy Chief Communications Division: Chief ICAO COM. SEC. SEATTLE, WASHN. Chief, Operations Branch, Region VII. LOS ANGELES, CA. Chief, Technical Services & Planning Branch, Region IV. Chairman—Regional NAVAIDS Planning Committee.

in the wireless communications field, having worked with Dr. Lee de Forest, Guglielmo Marconi in establishing wireless stations throughout the country, Nikola Tesla, G. W. Picard, Professors Reginald Fessenden and John Stone. He was not a pilot, that is he was not until the obsession of experimenting to find out if wireless in an aircraft would work left no alternative but to learn to fly and learn to fly he did in a short two months prior to his historic "first".

"Pick" had met Orville Wright in 1909 and ask if he could rent one of his machines and a pilot so he could go afloat to make experiments with his wireless apparatus. Wright scoffed at the idea, telling Pick there was no airplane with sufficient power to fly with two men plus a load of wireless equipment... it just couldn't get off the ground! Pick, then and there decided to learn to fly. He made arrangements for lessons with the Brothers Wright. He decided that the weight of the second man displaced would enable him to carry his wireless gear ... and so it worked out.

While some experimentation went on with air/ground communication for the next decade, it was not until the establishment of the AIR MAIL SERVICE that wireless (now called radio) came into its own in aviation.

Elmo Neale Pickerill was born in 1885 and died 1968. At the beginning of the Century "Pick" was working the hot wires of Associated Press, United Press and Hearst newspapers. He was one of the outstanding men in communications when he met Dr. DeForest at the St. Louis World's Fair in 1904. Later he became identified as the Chief Radio Officer of the world's largest and most famous ship, the S.S. LEVIATHAN.

The writer feels singularly honored in receiving a letter from Pick shortly before his death on stationery of the "Early Birds" (those who flew BEFORE Dec. 17 1916) expressing his appreciation to the Society for its fine accomplishments. He was also a brother member of the OX-5 Club - the writer having received his training from Jack Frye at Burdette Airport, Western Avenue, L.A. circa 1923-24. Jack later became President of TWA.

During my career and tenure with the C.A.A., and its predecessor organizations, I had the extreme good fortune of meeting and knowing many of these who founded the organization and its services. We should all have the greatest of admiration for these men as they engineered a system from scratch without the benefit of plans or blue-prints. They had to use native judgement and ability to solve great problems thrown at them sans the tools we now take for granted.



**ELMO N. PICKERILL**

Employed as operator for the American de Forest Station at Colorado Springs, Colorado. Installation of the 2KW wireless telegraph station was on the campus of Colorado College from 1905 to 1907. Later, Pickerill was to become the first man to send code from an airplane in flight. He also was issued the first "Extra Class" radio-telegraph license by the government.

A dozen or so years ago I was honored when called upon to head up an organization now called... The National Association of Air Traffic Specialists, Inc. This was a consolidation of two organizations. At the time, I had only recently founded the SOCIETY OF AIRWAY PIONEERS, hence did not feel I could accept the Directorship in their new Association. I did suggest Russell M. Woodson as their man and he took the assignment, serving for several years until relieved by George L. Rand who was formerly Chief of the Communications Division. These two men plus the dedicated services of Francis M. "Sandy" Eastman should be enshrined in the hearts of all P.A.A. Communications men as the ones who perhaps have done more than any others for the welfare of this fine organization. I was glad to hear from President Joseph Feldman that NAATS will put together a Journal depicting the early start of the Light-house Service and its Airway Radio Stations. Mr. Feldman states ... "I know of no better place to start than with you and your back ground". Thanks, Mr. Feldman and NAATS.

I have furnished Mr. Feldman with many pictures and historic material. While this issue may duplicate some of the material used, it will be read by many who do not receive the NAATS JOURNAL. I would like to take this occasion to honor the officers and members of NAATS for their great contribution to those working in the communications field and for their continuing propagation on my program on Flight Assistance Service.

#### THE FIVE DECADES OF FLIGHT

It has been a fascinating experience to watch the changes in the five decades of flight.

First, the airplanes themselves. The first I recall was the FORD TRI-MOTOR of the Pacific Air Transport. That was in the late twenties. Then came the Boeing Monomails and the 247's. About 1936 the DC-3 started flying the airways at a speed of 185 MPH carrying 28 passengers. This was followed in 1946 by the DC-6 which added nearly a hundred miles per hour to the speed and nearly doubled the passenger capacity. These became the "standard" for nearly twelve years, until the "707" and the DC-8 replaced them in 1958. Now the era of the Jumbo 747 has arrived with slight increase in speed but again doubling the passenger capacity (342-490) which will cause many headaches at terminal points.

Secondly - the personnel. We have watched the communications service grow from a dozen and a half men to a recorded staffing of 4600. Stations also grew from the original ten to about 396 in 1930. Increased coverage has allowed some reduction in total facilities while staffing has only increased by a couple hundred during the past twenty years. The pay back in the early 20's when the Air Mail Radio Stations first started, according to Elmer Butler was \$166.66 per month. Pilots received \$280.00 per month and good mechanics received \$125.00. When I entered the service in 1929 the entrance pay was \$2000 per annum. Chiefs received \$2300 with increments of \$100 every 6 months until top pay \$2900 was reached - a princely sum in those days. You can match these figures with todays pay scale to note the changes over the years. There were no such thing as "overtime" and we seldom had a vacation. Hours? Sometimes we worked 64-hours per week. Did we enjoy our work? Yes!

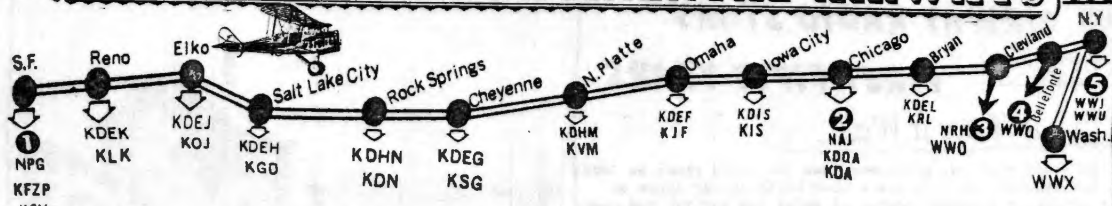
EFFICIENCY. I recall that about 1936 instructions were issued from Washington to discard all old messages, documents, papers, etc., dated prior to 1930 as the attic of most stations were full of "paper" and it had become quite a fire hazard. We were instructed to scan ALL MATERIAL prior to discarding to make sure there was nothing destroyed of any importance.

I was Chief of the Reno Station at the time (KIK). I recall finding a message from Washington which informed one of the early operators at Reno that an error had been found in one of the messages handled (he had transposed two figures in an operations report). The message reprimanded the operator responsible and stated in effect that should it occur again ... you will be dismissed. I often thought in later years that you had to be good to survive in those days.

I think the level of efficiency was sustained at a very high level until perhaps the start of WW-2 when we lost many of our men to the military. It became necessary to train female communications personnel to keep the facilities operating. Many of these girls turned in a wonderful performance and were a real credit to the Service. By this time radio (C.W. was on its way out except Alaska) and our OFACS Stations.



# ORIGINAL TRANCONTINENTAL AIRWAYS



NOTES 1-5 on next page

SUGGESTED BY HAROLD J. BURHOP

## WIRELESS & THE AIR MAIL - 1920. . Ray Green

SAGA OF THE BEGINNING OF THE AIR MAIL RADIO SERVICE AS RECALLED BY RAYMOND J. "SPARKIE" (THE DUKE) GREEN.

### Editors Note:

Raymond J. Green, Spark-Gapper #395 of the Society of Wireless Pioneers and the holder of SIX coveted EXTRA-CLASS (Pink Ticket) LICENSES is also the possessor of another outstanding distinction. He was one of the VERY FIRST radio operators among the group of historical men who helped to establish and operate stations of the AIR MAIL RADIO SERVICE.

Records show that Raymond J. Green reported for duty on June 3 1920. Only three other men had preceded him. They included Mr. Eugene Sibley who was to head up the Service, plus operators T. C. "Tommy" GALE and RAYMOND E. BRUNNER who came in only a few weeks ahead. Records indicate that "TOMMY" GALE came in about six months AFTER Ray Green reported for duty. However, Ray says that ... Tommy was there when I reported. (Perhaps he was not on permanent assignment).

When Ray first arrived in Washington he reported to the "head-man" himself, Mr. Otto PRAEGER (Second Postmaster General) who called in Mr. James Clark Edgerton who greeted him and promptly introduced him to Eugene Sibley. They then went out to College Park to become acquainted with the other two operators and his assignment.

Ray Green and Ye Ed are old friends and we have spent many an hour talking about the early days of the mail service and about our "sea-going" experiences as "brass-pounders". Ray returned to the C. A. A. after a lapse of many years during which time he had served on the S.S. LEVIATHAN — The Largest Ship the United States ever operated, where he served with the legendary Elmo Pickerrill who was the first man to signal from the air on the new medium of the "WIRELESS". Later Ray served with Tropical Radio Telegraph Company on the "banana-boats" of the United Fruit Company - considered the "elite" assignments of the East Coast.

The memorabilia furnished by Ray Green on the early days of the AIR MAIL RADIO SERVICE have been pieced together as accurately as possible from voluminous notes and diary records plus abstracts or copies of correspondence from Mr. Otto Prager, James C. Edgerton, Eugene Sibley and others. I consider it a great honor to be able to include these nostalgic and historical memoirs of the early days, before they become lost to posterity and for its use in commemorating the GOLDEN ANNIVERSARY of the Communications Services of the (now) F.A.A. where my services also covered a span of nearly four decades.

### AS TOLD BY RAYMOND J. GREEN

"Many years ago, after serving at the Montauk Naval Air Station and after shuttling the "Rainbow Division" round-trip across the Atlantic, then a spell of "pounding-brass" at the New York Harbor Station of the Fall River Line, I went to work for AT&T on their testboard/repeater station at 24 Walker Street in New York City.

This was in the early Spring of 1920. One morning when the panel light flashed brightly on the private postal wire from

the Washington D. C. Post Office connecting with the N.Y. Post Office, I opened the circuit to check and see what was wanted at Station "Z" ? "Hey Z, watch this wire for a hit and swing - we're being broken up". Checking the sounder after the wire was returned to normal I noted a message going through to the Brooklyn Navy Yard wanting to know where the Navy Standard radio Xmters and the IP 75 receivers were that had been ordered for the Air Mail Service ? Ray reported that he took this all in with interest and when he had an opportunity, he broke in and "chewed the fat" with the Washington Postal Operator who told him that as far as he knew, a fellow named James C. Edgerton and Eugene Sibley in the Office of the Second Postmaster General Otto Prager, were starting a radio circuit along side the then pioneer AIR MAIL SERVICE being developed. He got Mr. Sibley's address and wrote for a job stating his license and experience.

Returning home from a weary night watch a few days later, Ray's mother met him at the door with a telegram which read. ... "Will you accept, if selected, position with the United States Air Mail ? If so report to Post Office Building, Washington D. C. The Salary ? It was \$2000 per annum. That was a princely sum in those days.

The next day, Ray reports he found himself standing before Mr. Otto Praeger, Second PM General who called in Mr. James Edgerton who in turn introduced him to Eugene Sibley. His credentials seemed to satisfy them because he was hired on the spot. Mr. Sibley then took him out to College Park where he met two other operators - Tommy Gale and Ray Brunner who had already been on the job a few weeks. The date of Ray's EOD was June 3 1920. He was the THIRD MAN TO BE EMPLOYED as an operator in the Air Mail Service.

Ray spent several weeks at College Park helping to equip the DeHaviland planes with special radio gear. A loop with a few turns of wire was wound around the leading end of the struts - pasted with airplane dope along the wings so as to form a rectangle that ran along the wing section at right angles to the fuselage. Similar wiring was done to form a loop of the fuselage. Leads from both loops were matched for inductance and then brought into the cockpit of the plane and under the pilot's seat a six stage NF Navy amplifier equipped with 6 Western Electric "J" tubes (which drew 1 amp each) was installed. The storage batteries and suitable "B" Batteries set behind it and on top of this amplifier was a Clapp Eastman variable condenser and a DP-DT switch, the center of which went to the amplifier and the outside terminals connecting to the respective loops, thus you could tune to the loop desired.

The wavelength used was 1050 meters. Once the pilot was in the air, the theory was, that the pilot would throw the switch from one side to the other and observe which gave him the loudest radio signal.

If the signal transmitted by the 2KW Navy Spark set installed at College Park could not be heard on one loop, the pilot would switch to the other loop until he heard it, then switch to the fore/aft loop, then change heading until he received the best signal. He was then reasonably sure he was heading for his homing beacon and it was surprising how well it worked.

Ray reports that he had not been in Washington long until he received instructions to proceed to HELLER FIELD just outside of Newark N.J. where the Air Mail was using a few vacant lots along the railroad tracks for their early mail stop. Ray recalls that there was a thirty foot brick chimney on the approach leg (Tiffany Factory which caught Pilot Harry Sherlock's plane March 3 1920 and killed him). The factory was on the east bank of the Morris Canal. Ray says he called at the Field Manager's Office for the keys (Next page please)

# THE AIRWAY RADIO STORY

## FIRST FIFTY YEARS

Telling it 'Like it Was'...

to the radio station, proceeded down the field where he located the station (?) It was a shed built out of three or four discarded shipping crates in which the English had packed DeHavillands for shipment. A few old crates that boxed Liberty Motors were also in evidence.

**Ye Ed's Note:** About a quarter century later, I walked into an Airway Station at Rockford Illinois which was a "converted" chicken house and not overly suited for same. Also in Region III, at Fargo, N.D. a discarded box car from the Great Northern Railroad housed the ARS for many years!

Ray said he opened the door ... and believe it or not...there sat a nifty new Navy Standard 2KW Spark Transmitter and an IP-75 receiver plus a little Sterling four cylinder gas engine to run the M/G. Aerials and masts were standard Army Signal Corps 57' masts with four-wire antennas. WHAT A DEAL! After clearing the few bugs, the Xatr was set up and operating on exactly 1050 meters (not KCS). Now to go along with this, a Morse land-wire was there with its relay and sounder w/key. This connected with WWX at College Park, with a leg to "NAI" Philadelphia Navy Yard.

The theory of operation which Mr. Sibley had worked out was that when the mail plane left College Park, the operator at WWX would notify Green of departure and Ray would call NAI Philadelphia by landwire advising departure. NAI would then turn on his transmitter and send the letter "N" (dash-det). The NAI set was also tuned to 1050 meters. When sufficient time had elapsed and the plane was estimated to have passed over Philadelphia - bound for Heller Field, Green at Station WWJ would send the letter "M" (dash-dash) so the pilot could pick up the identifying code and know he was homing on Heller field station.

Ray says that as soon as he heard the plane and watched it land, he would lock up the shack, run up to the field office and ask the pilot if he heard his signal? Ray reports he received all kinds of encouragement but he also let himself in for a lot of kidding and practical jokes. The pilots would often reply in the negative... "No they had not heard Ray's station... Gee ... No Ray, I didn't know I had a radio aboard. Why doesn't some one tell me about these things (or I saw that pencil mark at 30 on the dial and sure heard some fine music - believe it was WOR Bambergers and I enjoyed the program... didn't know I was supposed to listen to the signals you were talking about unless I couldn't see where I was going. They sure gave "Sparkie" Green the grand run-around but it always turned out after the kidding, that they



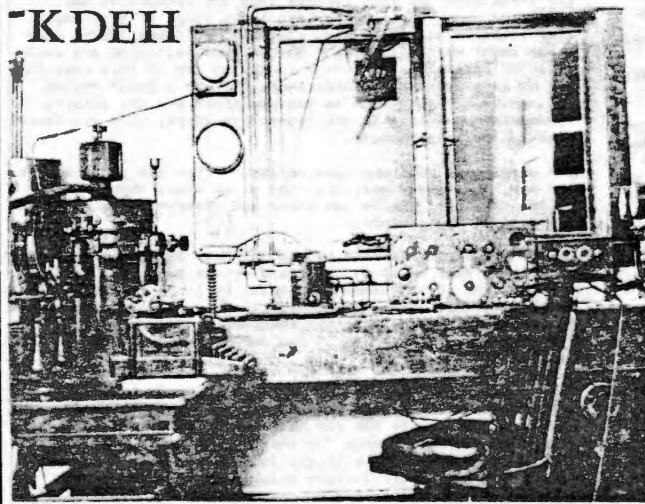
**WWQ**

BELLEFONTE, PA. PIX ORIGINAL STATION 1919-1920. RAY GREEN STANDING NEAR DOOR. NOTE 1000' FURROWS FOR COUNTERPOISE/GROUND.

were in dead earnest and very interested in what we were trying to do. Ray would tell them that if they took the heavy storage battery and radio gear out he could guarantee them an added hundred miles of flying distance. No one wanted to take him up on it!

Many reports of this operation were furnished to Mr. Sibley and the pilots themselves were interviewed in Washington. Not too much later, Ray Green received a telegram from J. C. Edgerton instructing him to proceed to Bellefonte, Pa., and to get that station in operation. Ray reports he soon found himself reporting in at Station "WWQ" with its brand new E.J. Simon Spark Transmitter and IP-75 receiver. The field manager was a Mr. Kelley who was the Morse Operator. The station was across the road on the farm of Tom Bevers who had formerly been the Governor of Pennsylvania.

Ray reports the first problem was NO RADIATION. He worked on his equipment for some time. The field manager was somewhat resentful of the "radio" intrusion on his field as he had always controlled communications via his Morse wire. However in due time he tacitly accepted the inevitable. To correct the radiation problem, Mr. Sibley authorized Ray to put in a decent ground. He hired one of Tom Bevers men to plow ten furrows 18" inches deep and a thousand feet long and buried bronze antenna wire in each connecting them to the shack... still no radiation. Then he got permission to build two 150' laminated plank masts between which he installed a ten-wire cage antenna. The cage was made from hoops from a wagon factory in Bellefonte. The new system worked! Ray pressed the key and presto ... 15 amps in the antenna. NAJ and NRH both came back and ask Ray ... "what have you done?" From that point on, good dependable communications were established with NAJ, NRH, WWU and especially WWX.



6 Salt Lake City Air Mail Radio Station, typical of the early stations, as it looked in March 1925.

**REFERENCE NOTES -- SEE TOP PAGE 5**

**GENERAL:** Call listed at top was first call used by AMRS. Changed to 3-letter call about 1927 when arc transmitters phased out.

- SAN FRANCISCO AREA:** Communications first handled through NPS (Navy) then WVY Army Presidio Station, then leased wire to Rems, then KWH Concord (1925) When leased wire discontinued, KPZF established at S.F.
- CHICAGO** Navy Station NAJ handled first communications until KDQA established which later became KDA. (Station WWG)-call originally assigned but never used).
- CLEVELAND** Navy station NRH first used to handle communications, then AMRS Station WWO commissioned.
- BELLEFONTE** Original installation of one of the 5KW Spark-beacon transmitters. Station call was WWQ.
- NEW YORK** Station WWU first installed at HELLER FIELD Newark, Call WWU. It was later moved to HAZELHURST FIELD near Garden City, Long Island. Then to HADLEY FIELD near Dumellin New Jersey and later to the NEWARK AIRPORT.

# "KDN"

(LEFT TO RIGHT)

**GARLAND B. (BEN) ASHLOCK**

AIRWAYS MECHANICIAN (D)  
Headquartered Rock Springs  
1929. Relieved Jed Giles  
who transferred Salt Lake.

**SAMUEL PATRICK KELLY**

Operator in Charge (OIC)  
for many years. Later  
transferred Idaho Falls,  
Alaska and died at HILO  
HAWAII about 1956.

**WILLIAM A. BRENNAN**

Fresh from MM/Service on  
Pacific Ships. Then OIC  
Big Spring Texas, Pasco  
Wash., Reno Nev. Denver  
Colo. plus San Diego.

Later Inspector/Supvr.  
Regions V & III, Deputy  
Chief Communications Div.  
Wash. D.C. etc.

## RAY GREEN

RAY GREEN received letters of appreciation for his fine work from OTTO PRAEGER, JAMES C. EDGERTON and EUGENE SIBLEY. He was ordered to proceed to St. Louis where he was to pick out a site for a new station for the "ST. LOUIS - MILWAUKEE" Airway route. Due to political opposition to the Postmaster in St. Louis, a suitable site could not be immediately found so Ray ended up "borrowing" the amateur station belonging to the UNIVERSITY OF ST. LOUIS. This he changed to a frequency of 1050 meters and in no time, was working NAJ, Chicago. Thus started communications on this Airways.

Not long after, a station was built on the grounds of the St. Louis Mounted Police in Forrest Park and operations transferred to the new station. During his stay here, Ray met CHARLES LINDBERG, CARL F. EGGE and many other men of prominence.

Ray then returned to Bellefonte and shortly after moved the station down the lane and across the road on Bovers farm due to the "tower hazard" of the old station to the approaches to the Bellefonte runways. A 2-KW arc was installed at the same time with better initial results, however, summer static became almost intolerable so Ray, assisted by BILL

DRUMMEY who by that time has been assigned to assist Ray at WWQ installed a "Rogers Ground Wire Antenna". This consisted of a thousand foot insulated cable installed underground. This allowed them to work at times "ORN" would blank out the regular antennas. However it did have its drawback -- the cows and horses seemed to enjoy making the new watch-house their home base. Sticks and stones were ready for use at all times - however, they would drift back in short order.

Ray reports that about this time the station at HELLER FIELD in Newark had been closed and the site/station relocated at HAZLEHURST FIELD on Long Island. Eddie Monahan, an old friend from the Fall River Line (days) got the job at WWU.

Other road trips took Ray to Omaha and other Western Stations to tune up their equipment. Ray reported that he was the "custodian" of the Service's ONLY Kolster decremeter. We tuned the 2KW Federal arcs to a calling frequency of 3600 meters and when stations would answer they would do so on their assigned working frequency. This left the calling frequency clear. A clever switching arrangement was worked up with contacts as large as quarters, fixed so the knife switch slid across them and made contact with the next tap before leaving the previous one so the arc would not snuff out if the antenna was disconnected.

## KDHN

### ROCK SPRINGS, WYOMING

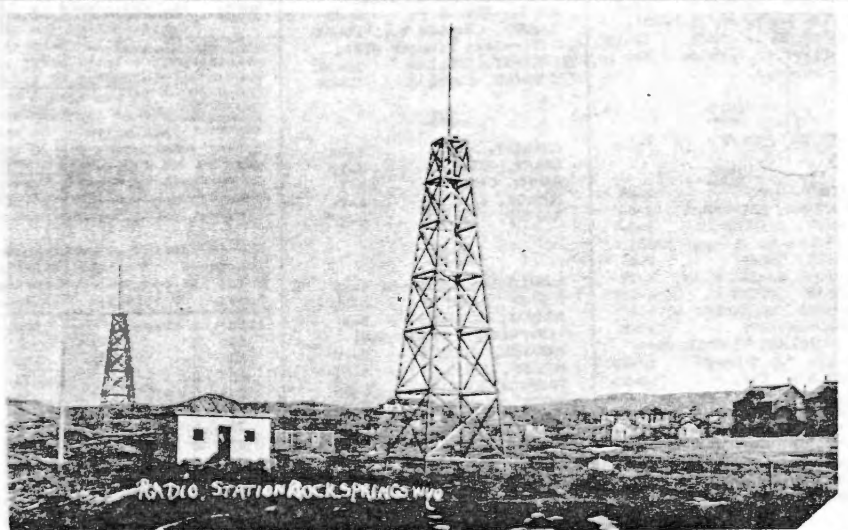
Established (about) Feb.1 1921. Installation made by JOHN L. WILLOUGHBY and HAROLD L. RODMAN (Mt. Rodman on "loan" from Federal Telegraph Co.

First call was "KDHN", used till about 1927 when the call "KDN" was assigned.

ORIGINAL STATION was located in town - later moved about 4 miles North to location of the field.

Assigned personnel included (1) L.D. BATES, (2) LUCIEN D. COMAN, (3) ELMER C. BUTLER, (4) JULIUS PETERSON, (5) SAMUEL P. KELLEY (OIC's) to 1929.

2KW GENERAL ELECTRIC TBA VOICE-TELEGRAPH IF XMTX Installed by Art Johnson early 1929



Picture - Courtesy Art Johnson.

# 'AVANT-GARDE'

It is believed that the following list includes all of the AIR MAIL RADIO OPERATORS that were employed by the POST OFFICE DEPARTMENT between the years 1918 and 1927. Many of the "early day" pioneers have furnished or assisted with the records. The author is also indebted to Philip L. Conland (now deceased) who was "Keeper of the Records" for the Air Mail Pioneers, for his assistance in furnishing me such of the documented information found in this listing. Special thanks is also extended to Art Johnson, Elmer Butler, Bill Larsen, Raymond Green, Harold J. Burhop, Henry W. Brendel, Irving J. Revang, Ross Montle, Len Ballard, Dexter S. Bartlett and others for their kind assistance.

I recognize that there is a potential of omission and I will regret it very much if any who deserve to be listed are inadvertently left out. However, in the interest of preserving for posterity, some record of the "EARLY BIRDS" who did not fly, but who were so necessary for those who did, I present this list. It may be noted that by recent check, only 17 of these pioneer operators are still living - hence the urgency for speed. Also, it may be noted, the list does not include the Engineers. Much of the early installation work was actually done by operating personnel (that was one of the original requirements). Engineers were recruited in some numbers about 1927 to expand the Airways Stations and facilities. The Operators in Charge continued to do most of the maintenance work at all stations until about 1935 when maintenance personnel were recruited from operators to handle this type of duty.



**1918**  
LINDSAY, WALTER R. 12-4  
(Re-employed 11-1-30)  
EDGERTON J. CLARK 12-10  
Chief of Service / Net an operator.

**1919**  
SIBLEY, EUGENE 7-15

**1920**  
BATES, L.O. 2-23  
BRUNNER, RAYMOND E. 4-5  
GREEN, RAYMOND J. 6-3  
(Wireless Pioneer #385)  
NAUCK, OSCAR 7-2  
MASON, SAMUEL F. JR 8-27  
COMAN, LUCIEN D. 8-27  
HOSMER, ELLSWORTH A. 9-8  
JOHNSON, ART 10-5  
(WIRELESS PIONEER #44)  
GALE, T.C. "TOMMY" 10-12  
MONAHAN, EDW. 10-25  
BARNHILL, FRANK W. 11-16  
BAKER, RALPH W. 11-18  
(Became Opr. 1925)  
TICKNOR, REGINALD 12-8  
HAMILTON, CARL H. 12-8  
BUTLER, ELMER C. 12-11  
JOHNSON, THEODORE K. 12-15

**1921**  
MITCHELL, O.D. 1-18  
McEVROY, PAUL T. 1-19  
BEEDLE, HADLEY S. 1-19  
NICHOLS, EUGENE E. 2-19  
GIVENS, DANIEL L. 2-21  
CUTTING, WARD A. 2-21  
CURTIS, SAM 2-23  
DODSON, WILFRED G. 4-8  
SCHWARZMANN, T.K. 4-11  
BANTA, ROYAL W. 4-18  
COUPLAND, PHILIP L. 6-18  
BAUER, CARL A. 7-1  
SIMSON, LLOYD H. 8-8  
(In Service 3 days)  
BLISS, NORMAN W. 8-15  
DAVIDSON, HARRY C. 8-23  
(Re-employed 12-9-24)  
WHITE, EDWARD P. 9-28  
LARSEN, CHARLES W. 10-12  
(Wireless Pioneer #13)  
DRUMMEY, WILLIAM 10-19  
CORDANO, DANTE H. 12-18

**1922**  
GERHART, A.E. 5-15  
SWART, HARRY L. 5-15  
HEMFL, CARL 6-1  
WOMACK, CARL F. 6-7  
WRIGHT, IRA P. 8-7

**1923**  
DONALDSON, ROBERT O. 1-27  
DUDLEY, HARRY M. 1-27  
BURROP, HAROLD J. 5-9  
(Wireless Pioneer #99)  
BRENDL, HENRY W. 5-17  
MULLEN, JOE G. 5-31  
FRIDGEN, EDW. N. 6-5  
SMITH, CLAUDE M. 6-7  
LARSEN, DANIEL A. 6-23  
BASH, LEO K. 7-2  
CRAWFORD, WM A. 8-20  
NEWMAN, EVERETT O. 10-1

## 1924

PRENZEL, ELMER W. 2-19  
POHL, Maxwell A. Sr. 5-16  
(Wireless Pioneer #320)  
DICKENS, RAYMOND E. 6-2  
ROVANG, IRVING J. 6-16  
CAREY, WILLIAM H. 6-16  
JENNINGS, RALPH J. 6-16  
WHITNEY, GEORGE M. 6-16  
SIMONSON, WALLACE A. 7-16  
KELLEY, SAMUEL P. 8-20  
DAVIDSON, HARRY C. 8-23  
Re-employed 12-9-24  
ROBINSON, FRED R. 8-23  
PULSCHER, JNO. D. 9-1-24

## 1925

WEINBERG, BEN L. 4-9  
MONTLE, ROME 4-23  
(Wireless Pioneer #12)  
WALLACE, WELLINGTON V. 5-13  
PETRISSON, JULIUS G. 5-25  
BAKER, RALPH (EOD 1920 but did not operate until 1923)  
GUTTMAN, ERNEST H. 5-27  
HELA, HERB 6-3

## 1925

MARTIN, RUNA A. 6-7  
MASHBURN, FRANK E. 7-31  
GARRISON, ARTHUR L. 8-23

## 1926

ELLISON, MELVIN E. 3-29  
(Wireless Pioneer # 125)  
HAINES, STEPHEN B. 4-21  
MELVILLE, J. G. 6-11  
(Wireless Pioneer #325)  
McTIGHE, HAROLD L. 7-3

## 1927

LINVILLE, FRANK M. 1-26  
PURSLEY, FIMLEY 6-1  
CLARK, SILAS F. 6-21  
SIMONSON, REX A. 6-21

U.S. AIR MAIL SERVICE, POST OFFICE DEPARTMENT EXISTED FROM AUGUST 12 1918 UNTIL AUG. 31 1927 WHEN IT RELINQUISHED THE SERVICE TO THE DEPT. OF COMMERCE. (Air Commerce Act '26)

### RAYMOND J. GREEN (CONCLUDES - FROM PAGE 7)

We all remember the "explosions" we used to have when we struck the arc after a long rest and the anode was cold. TRAFFIC? Daily the District Managers at Sacramento, Rome, Omaha, Chicago etc., would make up a long flight operations message (a "letter" would have been a better word). This included name of pilot, number of ship, number of pouches of mail on and off, weight and trip and if "completed" plus other details. These went to "WX" ASSAP. Wee to the operator who might garble them... he didn't last long! Sometimes WX would be free of the NSS arc "mush" but not often. That is the reason WWQ at Bellfonte had to relay most of the "WX" (That stood for Washington and not weather in those days traffic. **THOSE WERE THE DAYS !!!**

I recall when the station (KDEL) at Bryan was fired up with a real "hot shot" at the key... he was a "whirl-wind" traffic mover - static or no. Others I recall include "Bob" Donaldson and Woodson (Navy Station "RH" - or NRH as we used to call. Harold Burhop came to Bellfonte to relieve we.

Spartie Green got lonesome for the sea so after a very auspicious start in a historic service that grew to be a giant in the communications field, Ray packed up his trusty old vibroplex and answered the call of the Deep. - 30 -

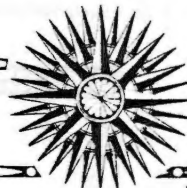
**NOTE:** The DEPARTMENT OF COMMERCE took over the active operations of the AIR MAIL RADIO STATIONS etc., on **SEPTEMBER 1 1927**. There were 17 stations in actual commission with a total staff of 44 operators that were transferred to the BUREAU OF LIGHTHOUSES IN THE DEPARTMENT OF COMMERCE. It was headed by CAPTAIN FREDERICK CHARLES HINGSBURG who at the time was Commander U.S. Coast Guard Seattle, Washington. He was a highly capable man and did a very outstanding job in building the Airways as the mandate of the 1926 - AIR COMMERCE ACT required. He was the Chief Engineer for the Airways Division from 1927 to 1934 during which time over 19,000 miles of airways was established. Mr. Hingsburg died March 26 1959.

The following may be of interest to those statistically inclined. The tabulation lists the number of stations built and commissioned during three decades - from 1920 to 1949. (1919 - 2 stations completed)

1920	9 Stns.	1930	- 6 stns.	1940	- 25 Stns
21	5	31	10	41	- 22
22	0	32	9	42	- 18
23	0	33	6	43	- 12
24	0	34	7	44	- 9
25	3	35	7	45	- 6
26	1	36	7	46	- 4
27	3	37	7	47	- 8
28	6	38	19	48	- 20
29	9	39	18	49	- 25
37		96		158	

TOTAL TO 1950 - 291 AIRWAY COMMUNICATION STNS.

# Echoes From Pages Past



George D. Barr

ECHOES FROM PAGES PAST

George D. Barr

The first field assignment that Joe LaBaie sent me on in 1928 was working between Cleveland and Buffalo with Jack Beardslee, Charlie Langhammer and George Hammond. Out of the Buffalo Lighthouse office there was Clete Estep and Harry Howard. Frank Towers was somewhere around, and a few others. I flew up and down the New York Central tracks along Lake Erie with an Airmail Pilot Bernt Bachlan, famous for Arctic Flying.

Then I was called into the office and Capt. Hingsburg swept his right arm across a map and said the Airways was to be expended all the way from here, Newark, N. J. to Oakland, California, at the other end of the map. I was to report to the Salt Lake office and take charge of the construction of Radio Station, starting here, indicating Rock Springs, Wyoming, then one at Salt Lake, one at Elko, then Reno and finish up one at Oakland, already started. I was instructed to see Tommy Gale and Bill McBride who would give me details, arrange travel orders and all that. I would be working under Mr. LaBaie and George Stratton. Charlie Stanton gave me a nice send off, and pronto I reported to Jack Worthington, Al Priel and Ed. Kline in the Post Office Building at Salt Lake. Art and Ted Johnson were there among others.

Incidentally, this job had the big title of "Inspector of Airways Construction," \$2,300.00 per annum and \$4.00 per diem.

Sam Kelly was O.L.C. at Rock Springs, the construction was already underway, but we never did find Frank Beer, who was leaving all this to yours truly, Finley Pursley was there. At Salt Lake, also just started, I seem to recall Ralph Baker but perhaps it was "Pete" Petrison who was OIC. A very fine foreman by the name of Richard Kingston who was working on some other stations in the area was also there. I think Dick Kingston hailed from Ogden.

Ralph Jennings was holding forth at Reno and at Oakland we found Danny Cordano and a station that was being built off the leased plot at BAY FARM ISLAND. That really was a headache!

Runa Martin was in charge at Medford, a place I really fell in love with and Ward Cutting at Portland with Herb Hela at Seattle. I am not forgetting Norman W. Bliss who came along right after me, and along with him also was a radio-electrician (Jim Bennett?) never a better man. Delbert K. Gifford was OIC at Fresno, right out in the middle of a sea of grapes -- as far as the eye could see.

At Glendale we received special order -- EXPEDITE! Charles Lindberg wants this station on the air ... YESTERDAY!! (This to start his TWA Transcontinental flights). With the help of Elmer C. Butler the OIC, Norman Bliss, Richard Kingston and Bill Pitman, working around the clock, we sent a telegram to Washington 9 days after breaking ground -- "CONSTRUCTION COMPLETED" !!

Then on instructions, sites were picked, surveyed and leased for later construction at San Diego, Yuma, Tucson, Lordsburg and El Paso. El Paso was a real "toughy". The site had to be on a "pin-point" by direct verbal orders of Capt. Hingsburg who put it on the line when I met him and Bill Miller somewhere along there. Then on to Wink and Sweetwater, Texas (both stations canceled in favor of Big Spring where Bill Breniman chose the site, etc.). Then Texarkana, Little Rock, Memphis and finally, Nashville.

In the office they handed me another batch of sites to pick which included Columbus, Ohio, Terra Haute, Indianapolis, Indiana and Cincinnati, Ohio. Then back to Washington again where Bill McBride told me to get down to Richmond and start construction - then work your way South.

I found Everett Newman in charge at Richmond, Greensboro had Hilliard Kline as OIC (later Len Ballard and Vernon Goldsmith who died in Oakland a few years back). Smith Burfton was at Spartanburg. In Atlanta, Benny Weiberg, one of the best, was there along with Dick Manhart and Clint Hawkins. Benny and Clint were killed in a plane crash some years later. Two very fine people.

H. G. Nelson held forth at Birmingham, with Claude Gardner at Shreveport and A. V. Carroll at Little Rock. One day at Memphis I saw Jimmy Doolittle, an old Army Squadron mate from WWI days at Lake Charles, La., come slipping into the new airport there, upside down, hell bent for election. Fast and thrilling! That was Jimmy. Tommy Perkins was at Chattanooga and Tom Wollen at Nashville. Lee Bennett from Burley, Idaho, had transferred to Mobile, then Jackson, Miss. Vic Brussard was Chief at New Orleans.

All this had to end somewhere. Things were getting a little thick with too many "kin folk" showing up, writing in, getting orders direct, etc. The next assignment took me back to the Southwest. About this time a vacancy was reported in the Second District Lighthouse Office in Charleston, S. C., and I was selected. This was in early 1930 or close to it. A fine gentleman of the old school, Captain Henry Beck was the Lighthouse Supt. His claim to fame was that he had helped survey the Aleutian Islands. I went into the Airways organization as Asst. Airways Engineer with Earl Polk, Airways Engineer and Mead Hammond Associate. After those first very active years, the rest of it (and I made it until 1953), has always seemed on the "mild and easy" side. Except possibly in 1943-44, building a string of Adcock Stations from Dutch Harbor to Attu in the Westward Aleutians during WW-2. I guess it was J. Shirley who said ... "There is no armour against fate".

George Barr

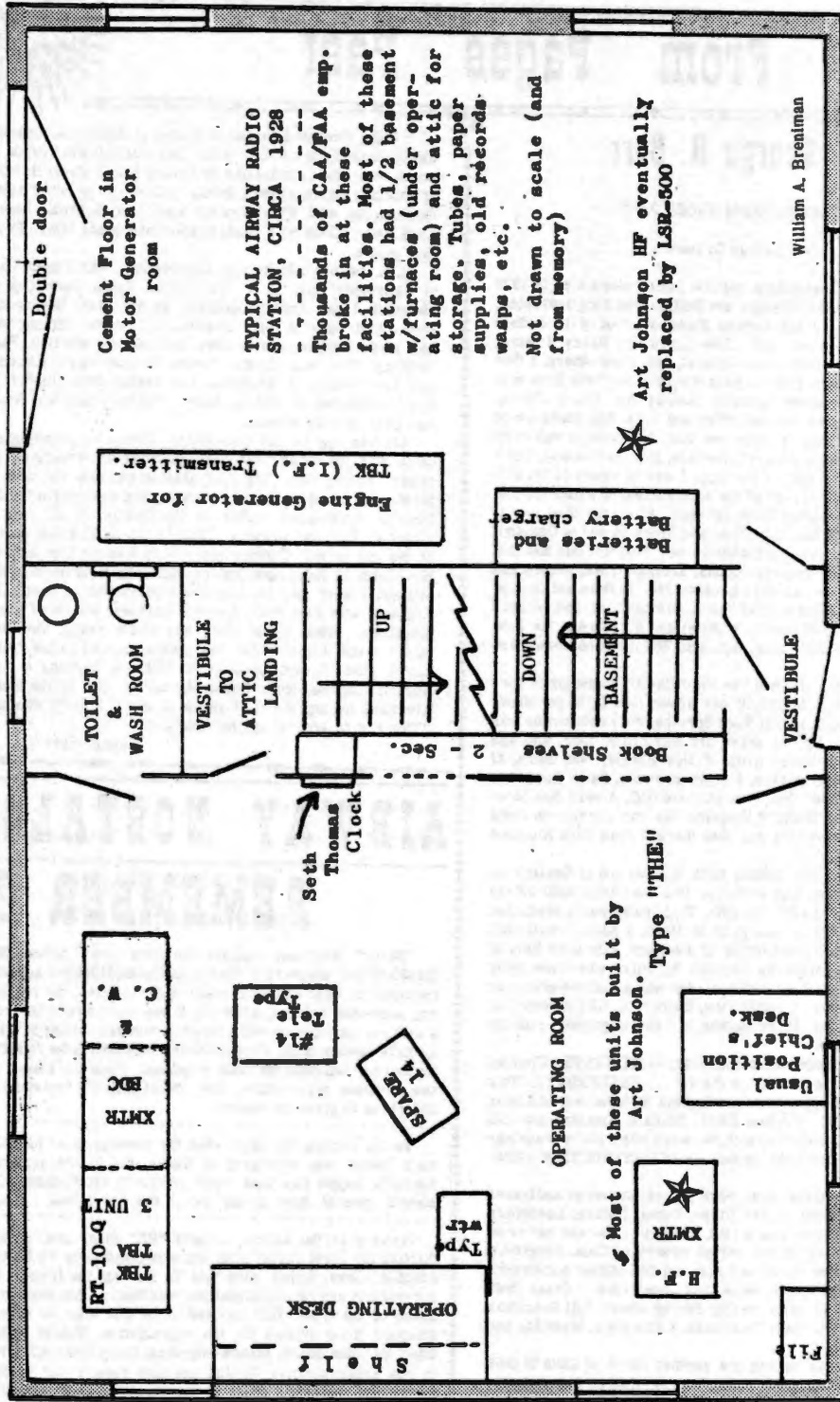
## AIRWAY NOSTALGIA REMEMBER ???

"Jerry" Whittaker recalls the days when Airway Keepers (\$1420.00 per annum) and their Assistants (\$1200 per annum) were required to wear uniforms while on duty. Later, the requirement was somewhat relaxed, however, it was always necessary to wear a uniform cap when meeting pilots or visitors calling at the intermediate landing field. This ultimately resulted in the "staff" keeping one hat available for such occasions. When the keeper on duty saw someone approaching, they would grab the "community" hat and go out to greet the visitor.

Ye Ed recalls the days when the prestige of a Chief Clerk of each region was measured in Washington by the amount of the Region's budget that they could return to the Treasury Department's general fund at the end of the fiscal year...unsent!!!

Remember the salmon colored "PX" form used in the mid-thirties for flight plans? This was a suggestion by Ye Ed that was adopted. Gene Sibley once told Ye Ed that the trouble with his suggestions and recommendations was that...they were ten years ahead of the time. This seemed to be true when he worked up a standard filing system for the organization. Nearly eight years after its submission, acknowledgement came from Mr. Crowlaite in the Administrative Section advising receipt and thanking Ye Ed for the material, which he said would be used in establishing a uniform system. Of course in those days there were no monetary incentive awards. I think we must have been a real dedicated lot!

# Airway Radio Station Layout : 1928



# D.F.

## CAA Direction Finders

BY - BILL BRENNAN

### DIRECTION FINDERS OF THE C.A.A.

The need and use for direction finders (DF) to locate lost aircraft and assist pilots to safe landings has long been recognized by personnel of the C.A.A.

Direction finding equipment installed and used by ships at sea in both the Navy and merchant marine, long ago became a very indispensable aid to safety in navigation. Many countries of the world adapted D.F. to their flying operations as an expedient since this equipment had been perfected and was available for use. I can recall that a Kolster type DF (L.F.) was installed at the old Los Angeles Station (KCT) about 1929. I was particularly interested in this installation and equipment since I had assisted in the installation of a similar unit on the S.S. Yukon at Seattle (1927).

The KCT D.F. was never used except experimentally because the station was built on the side of Verdugo Hills between Burbank and Glendale and due to location of the station, operation and bearings taken proved erratic. This of course was due to terrain problems that Norman Bliss and others had tried in vain to point out and correct before the station was built.

Following WW-2 three direction finders (L.F.) were transferred to the C.A.A. from the Navy. One of these was installed at Pittsburgh and was operated for several years by the staff of the Airways Radio Station. The second unit was installed briefly at Washington and it was planned to install unit No. 3 at New York. Since no spare parts were available it became necessary in time to "cannibalize" the Washington and New York sets to keep the Pittsburgh unit operative.

Many saves were effected by the Pittsburgh direction finder and a great many lives and equipment were saved by this single piece of equipment. R.O. "Bob" Donaldson who was Chief of the First Region's Communication's Branch, on several occasions gave me a run-down on the "saves" this facility was responsible for. The impressive good this equipment was doing in saving lives was responsible for my growing interest in the procurement and installation of direction finders for standard installation throughout the service.

During a trip East in 1947 I investigated VHF direction finding units that were being manufactured by Bendix and Federal. As I recall, the "off the shelf" price on the Bendix sets was approximately \$3200 while Federal with a more elaborate component was immediately available @ \$4400.00.

I recall that in 1948 I talked the matter over with Carl McClure, Supt. of Airways in Region III and he agreed to allow the Communication Branch to include 47 units (VHF-DT) in its budget submission. Homer Cole, Division Chief concurred in the submission except that he modified our request to include "slave" units that could be operated by tower controllers at points where both INSAC and tower facilities existed.

Regretfully, our recommendations and budget request were blue penciled in Washington and we were never successful in obtaining even a single unit by the time that I transferred to Washington in 1950 as Deputy Chief of the Communication's Division. During 1950 we included 122 units in the Division's budget at a cost of approximately \$625,000 which allowed for equipment cost at "off the shelf" rate from Bendix and Federal and also for installation expenses.

During this period, the C.A.A. was having problems in securing appropriations from the Congress and so most of the program was cancelled out. We were, however, able to salvage three units which were subsequently purchased and installed at Red Bluff, California and Goshen, Indiana. The third unit was to be installed at Front Royal or Lynchburg but was never installed (later it was installed on Martha's Vinyard). Many saves were recorded from both the Goshen and Red Bluff stations and it was evident that this equipment had a terrific potential in vectoring pilots to safety.

The Division resubmitted its request the following year, however by that time, it seemed that everybody wanted to get into the act. First, the Engineering Division, instead of going along with procurement with Bendix and Federal equipment which was already available and tested, decided that they should assign some of their engineers to design equipment for the C.A.A. and write up specifications to cover. When they finished, they estimated the cost per installation at approximately \$25,000 per unit which was five-times the cost of those readily available at the time. It did provide some extra jobs for engineers but to the writer, it is doubtful that the new "specs" provided equipment that was in any way superior to that available.

There were other entities who sensed the potential of this equipment and made serious efforts to control its installation and operation where they could obtain credit for fine service it was found capable of furnishing. They were quite successful in delaying procurement of equipment for use in the "Flight Assistance Service" program that the Communications Division was promoting. About this time the Communications Division and Air Traffic Control Division were consolidated so the writer left Washington to become Chief of Operations Branch in Region VII and no longer identified with the program.

To many of us, the saving of lives was sort of a "religion" and we went to great lengths to practice our philosophy in our daily work on the airways to make this a living thing and it becomes somewhat painful to watch the machinations of various individuals and groups who are interested more in what benefit a certain piece of equipment or service will do them personally and it will do for the user and the public. Of course they will deny this allegation—it was ever thus.

We understand in late years that DF equipment has been purchased in quantities but that most of the equipment is sitting on shelves in warehouses because of indecisions on programs so until and unless it is installed, it can be of no service to anyone.



## Kitty Hawk

*For I dip't into the future, far as  
human eye could see,*

*Saw the vision of the world, and all  
the wonders that would be;*

*Saw the heavens filled with commerce,  
argosies of magic sails,*

*Pilots of the purple twilight, dropping  
down with costly bales,*

*Heard the heavens filled with shouting,  
and there rain'd a ghastly dew*

*From the nations' airy navies grappling  
in the central blue*

TENNYSON - 1842



AMERICAN AIRLINES



TASMAN AUSTRALIAN AIRLINES



B.O.A.C. BRITISH OVERSEAS AIRWAYS CORPORATION



Society of Airway Pioneers

BWIA BRITISH WEST INDIAN AIRWAYS



SABENA BELGIAN WORLD AIRLINES



PIA PAKISTAN INTERNATIONAL AIRLINES



WESTERN AIRLINES



# PIONEER DAYS : ELMER C. BUTLER

The following interesting account about early day AATS (Assistant Airway Traffic Supervisors), their assignment etc., plus data on the operation of early OFACS facilities, their staffing and an account of the "hurry-up" demand from "Foggy Bottoms" on commissioning of the Los Angeles Airway Communications Station-KCT on the hill above Burbank is recounted by Elmer C. Butler—one of the early day pioneers of the Airways. We appreciate him taking time out to write up this account which we think will be very interesting to many of our members. WAB.

Dear Bill,

I'll do the best my memory will permit in answering your request. Regarding KSF—the station was commissioned April 1, 1942 with the following personnel—Chief, E.C. Butler; Asst. Chief, Geo. Hall; Supervisors, D.H. Cordano, H.T. Timmons, R.L. Clarke; Operators, A.K. Frazier, Leo Rozalski, L.H. Hoppick. The staff escalated rapidly after that (due to the war effort), until it numbered almost 100 during peak operations when we operated as many as nine air/ground CW circuits simultaneously with as many as 90 aircraft in flight simultaneously between West Coast and Hawaii.

KVM had the same activity and escalation. Deziel was the first KVM Chief; Jack Hoyt followed him as Chief, moving up from Supervisor. The only other Supervisor I remember was Picard. Dan Givens headed up Communication Operations in the Honolulu Regional Office during and after the War.

Some of the operation highlights at KSF: We averaged 10 million words per month in traffic handled—intercepted millions of words of weather per month (by agreement) from Russian Stations at Khabarovsk and Komsomolsk, which was glommed on by USWB and Military Met. people in their maps and forecast work. We could even get repeats on missed portions by broadcast requests on agreed upon frequencies! We handled millions of words of classified traffic for the Air Force (none of it readable by us due to scrambling). Most gibberish I ever saw on a teletype machine!

Regarding the years after 1927 when the Air Mail Service was discontinued—Sibley's first AATS appointment was E.A. Hosmer who had been Chief at North Platte and had been transferred to Washington, D.C. Later, those you mentioned were appointed as AATS.

Later, Larsen went to Seattle as AATS and T.K. Johnson took over at Oakland. Bliss and I were appointed in 1929 as AATS. He originally was at El Paso and I at Amarillo. In 1930 he moved to Albuquerque and I to Fort Worth. Rand took over when I went to San Diego in 1935.

I can't give you any definite information on the others since I had little contact with them. Those days I worked a 16 hour day every day; driving at night (on inspections) to save time. Those days we did everything—picked range sites—supervised all construction—directed operations and maintenance—made inspections—drafted operating instructions. HAYSOOS! I get tired thinkin' about it now!

Re Glendale Station—(Had a note from Geo. Barr in September suggesting I write something about the hectic days during its construction. I started but never got very far. I'm still going to do it if I can get over my lazy streak!) Some highlights anyway if you want to use 'em—That station was built in 9 days after the steam shovel broke ground for the basement. Prior to that the steam shovel had cut a road up the hill in about 3 days.

The deadline for commencement of operation was July 1, 1928, and we made it! Geo. Barr was the driving force and did he drive! Kingston was the carpenter foreman, and Norman Bliss was the electronics engineer.

I remember Bliss bet George that we would have no rain during the period. (Bliss had lived in LA for many years.) But he lost the bet—we got about .02 of rain one night. You had the KCT gang names in the last issue. I correspond erratically with Plagge and King. Have lost track of Perrine. That site was beautiful; but it was a poor radio site because of the high terrain behind the station. Bliss had originally recommended the station be located in the vicinity of "Mines Field" (present LA Int'l Airport); and his judgment was confirmed later.



COLOMBIAN NATIONAL AIRWAYS



ELAL ISRAEL AIRLINES



QANTAS BRITISH AIRWAYS



UNITED AIR LINES



NYA NEW YORK AIRWAYS & C.





# A. A. T. S.

SIBLEY WAS THE "CHIEF"



## THE ASSISTANT AIRWAY TRAFFIC SUPERVISORS



The mark of a good administrator, in "Ye Ed's" opinion, is the ability to select "top" men and then delegate authority. This was perhaps EUGENE SIBLEY'S most outstanding faculty or talent, and perhaps responsible for his long tenure as the "top man" in the Communications and Operations field from his EOD in 1919 to retirement in 1950, some 31 years later.

The early days of wireless and radio produced some very highly skilled men of great competence, hence he was favored in his selection by the superior quality of men to choose from and he did the job well.

It is sometimes difficult to select a man who has the qualifications of a radio engineer or expert technician plus the added requirement of an expert operator who could handle the Continental Code at 30-50 WPM (sometimes Morse Code thrown in for good measure) plus ability to supervise and get along with people. Considering the small budgets available and the need to innovate and build or maintain equipment on a pittance, it is indeed remarkable that the Service was carried on with such a high degree of efficiency and with an esprit de corps that perhaps has never been equaled.

I have had the pleasure and good fortune to know all of the Assistant Airways Traffic Supervisors... the men who were Mr. Sibley's front line lieutenants and I can say without question, they were in my opinion (a conclusion shared by those who knew) ... the most intelligent, dedicated and efficient group of individuals I have ever known. Paraphrasing "Sir Winston", I often think "...Never among government agencies and workers - have so few ever done so much for so many!"

Some of these men in their lifetime have probably produced as much work as three ordinary men. The job had to be done and they not only had to do it but also they were mindful of setting an example for their own subordinates who in the early days also came from the same mold. Perhaps it was the aura and challenge of this new service which fired them with such enthusiasm and interest. Be that as it may, the HERITAGE of the F.A.A. is one that is marked by the early tenure of many who should be permanently enshrined in their historical records. It was an exciting period of my life and I can look back with great satisfaction, that at least I had the opportunity of being connected with this great era of American and world-wide achievement and played a small part, be it ever so humble.

I have recorded chronologically, as accurately as records permit the names of the A.A.T.S., and those who followed. I believe the following assignment to be correct:

ELLSWORTH A. HOSMER

Assigned as Western Supervisor (This may have been in an "acting" capacity).

ROBERT O. DONALDSON

He is the FIRST A.A.T.S. of record. Assigned to Cleveland Ohio.

IRVING J. ROVANG (Assigned Omaha July 1, 1929)

ART JOHNSON (Assigned Salt Lake City 7-1/29)

These were the next assigned.

THEODORE K. JOHNSON

Assigned A.A.T.S. Oakland, Calif. 1930

1931 -

CHARLES W. "BILL" LARSEN - Assigned Portland.

BEN L. WEINBERG - Assigned Atlanta

PERCY EDW. "ED" WHITE - Assigned St. Louis.

HENRY W. BRENDEL - Assigned Newark

ELMER C. BUTLER - Assigned first to Amarillo then moved to Fort Worth.

NORMAN W. BLISE - Assigned First El Paso, then moved to Albuquerque

THEODORE K. JOHNSON transferred to Los Angeles vice new position, ART JOHNSON moved to OAKLAND (Oct. 24, 1931) and LLOYD E. SIMSON assigned Salt Lake vice A.J.

1934

JACK TEUNISSON ASSIGNED TO CHICAGO.

1935

HENRY W. BRENDEL resigned. ROBERT O. DONALDSON moved to NEW YORK. JACK TEUNISSON assigned Cleveland and CLAUDE SMITH assigned CHICAGO.

ELMER C. BUTLER returned to California, demoting to Chief due family illness. GEORGE L. RAND - assigned Fort Worth.

C.W. LARSEN transferred to Salt Lake City vice LLOYD SIMSON who transferred Washington. The PORTLAND office was closed.

1938 - THE NEW REGIONS (ASSIGNMENTS)

REGION - 1. NEW YORK

Robert O. Donaldson, Sydney Doroff, Everett Newman

2. ATLANTA

Ben. L. Weinberg, Fred R. Robinson, Alick B. Currie,

3. CHICAGO

Claude M. Smith, Harold Burhop, Culver Gorsuch

4. FORT WORTH

George L. Rand, Franklin T. Uaruh

5. KANSAS CITY

P.E.White, William A. Breniman, P.E. Riney

6. LOS ANGELES

Art Johnson, T.K.Johnson, Herb Hela

7. SEATTLE

C.W."Bill" Larsen, A. D. Hulén,

8. ANCHORAGE

Allen D. Hulén, Joe Tierney, G.A."Jerry" Whittaker.

(Note: Alaska was under supervision of REGION VII until Jan. 1 1940 when Region established. It took over facilities of the Territory of Alaska Aeronautics and Communication Commission including personnel (Messrs. Glen Goudie, Wilke E. Cruise, Grant McMurtry and several others). After Region Established, G.A. Whittaker became Chief of Communications Division with A.V. Carroll assisting. Carl Bassler Chief "Fixed" & Geo. Trudeau, Chief Mobile Sections.

9. HONOLULU

Claude M. Smith, Daniel Givens.

1944 - Claude M. Smith transferred to Honolulu vice new position and William A. Breniman to Chicago vice CMS

1950 - Claude M. Smith (Honolulu) and Theodore K. Johnson (LAX) exchanged positions.

WASHINGTON D.C.

SOME OF THE "PASSING PARADE" in the COMMUNICATIONS DIVISION.

EUGENE SIBLEY - CHIEF 1919-50

Geo. L. Rand - CHIEF 1950-52\*

(\*Consolidation of A.T.C. and COMMUNICATIONS DIVISION) Mr. Clifford W. Burton became Chief and Geo. L. Rand, Deputy)

James H. Nicholson (Ass't. Chief)	Harland E. Hall
Ralph H. McRoberts (Ass't. Chief)	R.T. Manhardt
William A. Breniman (Deputy Chief)	Harold J. Carrick
A.V. Carroll	Fred R. Robinson
Herbert Moran	Gordon C. Pearson
R.A. Mattmealer	E.E. Estes
L. Ross Hayes	Frank C. Mashburn
Frank M. Pearson	B. E. Cooper
D. K. Gifford	A.G. Delatte
Allan Barnabei	F.M. Eastman
Carl J. Bassler	James R. Scott
Robert C. Stevens	G. Dyke
Paul Kugler	Joseph J. Greiner
E.V. Shores	James B. Thorne
Tom Dodson	Robert B. Workman
Allan L.R. Snyder	Frank E. Shivers
Emadeo A. Iodice	Albert W. Whitaker
	Aubrey E. Cole

-CIRCA 1950-



# Donner Summit

## THE ELEMENTS RAGE

**T**HE cover picture of the Airways Keeper Station at the very top of DONNER SUMMIT illustrates "Man's battle against Nature". During the winter, precipitation in the form of snow often measures 700 inches in depth. That is SIXTY FEET OF SNOW PACK! Of course, come of it would melt and run off. However, drifts 30-40' deep were the rule and not the exception. Operators at the "Summit" would be isolated for days and weeks at a time, so it took a tolerance for isolation plus a high degree of ingenuity and at times the agility of a mountain goat to keep the facility ... "on the air".

The station was anchored in solid granite to resist winds of hurricane force, as they crested the Sierras at 7,135 feet. The station was built and equipped by a hardy and rugged crew of engineers including George Barr and Norman W. Elias.

Early facility chiefs included Claude F. Herrold and "Andy" Anderson who were called "Airway Keepers" in these days.

The station was commissioned in 1929 and it continued operation for nearly a quarter century (1952). Two buildings were built at the Summit. One on the west-side housed the teletype and was the "control" station while the other housed loop-range equipment. A fire, circa 1930, did some damage to the building's roof but fortunately did not burn equipment.

A survey party (see picture on this page) including JACK WORTHINGTON, A.P. TALIAFERRE, GEORGE (JACK) MILLER, WILLIAM (BILL) MILLER and THOMAS H. CHAPMAN made the original check of these sites (Nov. 1927). They also included BLUE CANYON a few miles West at which an emergency field was provided. William "Bill" Gettlieb, former Director of the Society of Airway Pioneers was assigned during Ye Ed's tenure at Reno.

While Donner Summit was considered the epitome of all that was rugged, we had other facilities which would challenge even Donner Summit in both isolation and weather.

Examples include the station at MULLEN PASS on the Idaho/Montana line where "Cougar Jim" Darton commissioned same about 1934. Jim would shoot cougars (mountain lions) out the window of the upper floors in winter when the snow was even with the upper deck. Snow depth at Mullen exceeded that of Donner, as officially recorded and in addition it was a considerable distance to the highway.

(Continued on Page - 16)



## SURVEY TEAM

Part of the Survey Party that selected sites at DONNER SUMMIT, BLUE CANYON and other facility locations on Western Section of the Transcontinental Airway. Picture taken Nov. 1927. (Furnished courtesy Thomas H. Chapman)

Standing - L/R.

Jack Worthington

A.P. Taliaferre

Squatting

George (Jack) Miller

Willis (Bill) Miller

Thomas H. (Tom) Chapman

100 MILES FROM ●●●●● NOWHERE!



QUADALUPE PASS TEXAS

## "Cougar Jim" Country



MULLAN PASS IDAHO NOTE—W.B. ANEMOMETER ON UPPER DECK

Photo Credit - 16TH DAVISSON

# THE FIRST A.M.R.S.

## LISTED IN SEQUENCE OF COMMISSIONING DATES

SEQUENCE OF COMMISSIONING	DATE OF COMMISSIONING	LOCATION OF A.M.R.S.	FIRST CALL	1926 CALL	FIRST OPERATOR ASSIGNED.	
	▽ (NOTE/S)					
1.	1-A	9-15-1919	WASHINGTON, D.C.	WWX	WWX	Oscar Nauck
2.	A	11-15-1919	BELLEFONTE, PA.	WWQ	WWQ	Raymond F. Green
3.	2-A	July 1920	NEW YORK (Heller Field)	WWJ	...	Raymond F. Green
		1921	" " (Haselhurst Field)	WWU	WWU	Edw. Monahan
4.	3	1920	CLEVELAND, OHIO	NRL	...	Woodson (USN)
		1920	" "	...	WVO	R.O. DONALDSON
5.	4	1920	CHICAGO, ILL.	NAJ	...	U.S.N. Station
		1920	" " (Maywood)	KDQA	KDA	Harry Dudley
6.		Sept. 1920	OMAHA, NEBR.	KDEF	KJF	FRANK BARNHILL
7.		Sept. 1920	CHEYENNE, WYO.	KDEG	KSG	WALTER LINDSAY
8.		Oct. 1920	ST. LOUIS, MO.	....	...	THOMAS L. GALE
9.		Oct. 12 1920	SALT LAKE CITY	KDEH	KGD	ART JOHNSON
10.		Nov. 1920	RENO, NEVADA	KDEK	KLK	LUCIAN D. COMAN
11.	5	Nov. 1920	SAN FRANCISCO, CALIF.	NPG/WWY	...	USN/USA
12.		Dec. 1920	ELKO, NEVADA.	KDEJ	KOJ	SAMUEL F. MASON, JR.
13.		Jan. 1921	ROCK SPRINGS, WYOMING	KDHN	KDN	L.O. BATES
14.		Jan. 1921	NORTH PLATTE, NEBR.	KDHM	KVM	Ellsworth Hoamer
15.		1921	IOWA CITY, IOWA	KDIS	KIS	(P.E. WHITE ?)
16.		1921	BRYAN, OHIO	KDEL	KZL	U.
17.	6	1921	CINCINNATI, OHIO	KDOC	...	WILFRED C. DODSON
18.		1925	SACRAMENTO, CALIF.	KOC		U.
19.		1925	CONCORD, CALIF.	KWH		U.
20.		1925	SAN FRANCISCO, CA.	KFZP	KEP*	DANTE CORDANO
21.		1928	OAKLAND, CA. (BAY FARM ISLAND)	KCV		C.W. LARSEN
22.		"	LOS ANGELES (GLENDALE)	KCT		ELMER C. BUTLER
23.		"	FRESNO, CALIF	KCU		D.K. GIFFORD
24.		"	MEDFORD, OREGON	KCX		RUNA A. MARTIN
25.		"	PORTLAND, OREGON	KCY		WARD A. CUTTING
26.		"	SEATTLE, WASHINGTON	KCZ		HERBERT HELA
			REDDING, CALIF.	KCW		(NEVER ESTABLISHED)
26		Dec. 1929	LaCROSSE, WISC.	WSG		HAROLD BURHOP
27.		Dec. 1929	MINNEAPOLIS, MINN.	KDPB		McTigh

### NOTES

"A"

The equipment in these three stations was originally intended to test beacon (homing) equipment and use. Converted to R/T Service later.

#### 1. WASHINGTON D.C. AREA.

Service first Est. Colledge Park, then moved 1920 to the Old P.O. Bldg., on Pennsylvania Ave. 1927 - Moved to top floor Hurley-Wright Bldg. 1932 - Moved to Hoover-Washn. Airport. 1941 - Moved to Adm. Bldg. WNA. 1953 - Moved to H-8 WNA. 1958 - Moved to South End Gen. Av. Term. 1964 - Moved to N. End GAT, WNA.

#### 2. NEW YORK AREA.

Service first established at HELLER FIELD, then moved to HAZELHURST FIELD (1920) near Hempstead. Eddie Monahan, Chief. Moved to Hadley Field 1925 (near Dunellen and finally to Newark N.J. 1927.

#### 3. CLEVELAND, OHIO AREA

Navy Station "NRL" first utilized to handle communications, then A.M.R.S. "WVO" commissioned.

#### 4. CHICAGO AREA

Station NAJ (USN) Handled first communications at Chicago until KDQA was established at Maywood (call later changed to KDA). Call WWG originally assigned but never used.

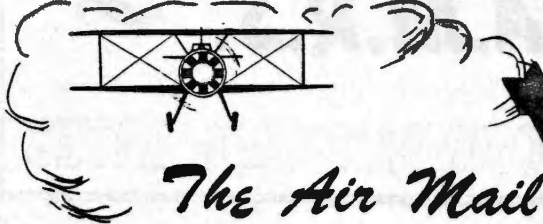
#### 5. SAN FRANCISCO AREA

Communications first handled through USN Station NPG then by wire to Reno. Later the Army Station at the Presidio WWY served, taking over from the Navy. When Station KWH was established at Concord the leased wire service was discontinued. Later Concord was phased out and Station KFZP established at Crissy Field, S.F. Call "KEP" was assigned but not used.

#### 6. CINCINNATI. Station KDOC was established to relay traffic. It was not served by Air Mail Flights.

(Compiled through checking of voluminous records and the information furnished by those who served in the early 1920's.) Respectfully submitted by Wm A. Breniman

# Genesis of a new Era



## The Air Mail



While wars rain destruction upon the world, they sometimes compress into a few short years the development that might take decades during normal times to achieve. Thus, World War One was to catalyze the airplane from an instrument of crude experiment to an engine of devastating destruction.

Men of vision conceived that ... while it could destroy, it also might be made the servant of mankind. Fortunately, the idea germinated in the minds of important leaders of our country and thus it was that President Wilson, along with Post Master General Albert S. Burleson, encouraged the idea of flying the mail. Not only did they encourage the Air-Mail but they were to attend the first inauguration of such Service when it began on May 15 1918.

This milestone was not without precedent. During 1911, Pilot Earle L. Ovington, flying a "Queen" monoplane, flew some 37,500 pieces of mail from a temporary post office on Long Island to Mineola, N.Y. The flight was a success but considered by many those days in the nature of a "stunt".

It was not until June 30 1918 that the Congress was to appropriate the first funds (\$100,000) for the establishment of an experimental route between Washington and New York with a stop at Philadelphia. The route was 218 miles long and scheduled to be flown daily except Sundays. The War Department assisted during this period with both planes and pilots. The Post Office Department took over the entire operation on Aug. 12 1918. It was at this time that plans were laid for the TRANSCONTINENTAL AIRWAY. This was developed in four stages: (1) 1918 - 1919 NEW YORK-CLEVELAND and (2) CLEVELAND-CHICAGO. (3) 1920 - May 15th CHICAGO-OMAHA and (4) 1920 Sept. 8th OMAHA-SAN FRANCISCO.

The CHICAGO-ST. LOUIS route was inaugurated Aug. 26 1920 and the route CHICAGO-MINNEAPOLIS Dec. 1 1920. Both were discontinued (temporarily) June 30 1921 due to lack of funds.

Orders were issued on Aug. 20 1920 by the Post Office Dept., to establish necessary Air Mail Radio Stations along the transcontinental route. Ten were established by Nov. 1st making a total of 17 by the end of the year 1921.

During 1921, the first transcontinental flight was completed. It started from San Francisco at 4.30AM, Feb. 22nd and arrived at Hazelhurst Field, N.Y. at 4.50PM Feb. 23rd. The actual flying time was 25-H, 16-M at an average speed of 104 MPH over a distance of 2630 miles. Eight hours five minutes were required for ground service so the total over-all time was 33-H 21-M. Pilot James H. Knight immortalized his self as well as the "Air Mail" by his epic flight over the CHEYENNE-CHICAGO Section of the airways through darkness and visibility which at times was zero. W.A.B. -30-

## Donner Summit

(Continued from Page - 14.)

The stations at Siakiyou Summitt and Mount Laguna (East of San Diego) while located only a short distance in miles from a large population center, due to fierce winds and the elements a real challenge to those who built the stations as well as those who maintained and operated them.

Stations where "isolation" carried a real meaning (and where Rx for "Cabin-Fever" often prescribed) included facilities at GUADELUPE PASS in West Texas (where you could see forever); King Hill, Idaho; Strevelle, Locomotive Springs (Utah) Buffalo Valley and Beowave Nevada. There were, in addition to the 17 AIR MAIL RADIO STATIONS quite a number of "KEEPER" Stations (18) AIRWAY PIONEERS

along the airways which were really "remots". Everything is RELATIVE. The personnel at any of these facilities would mortgage their future to have the chance of moving to ELKO NEVADA where a record book has been maintained over the years of all the personnel assigned the station. The title of the book is... "MARCH OF THE IDIOTS". It was so named because Elko at one time was considered the LEAST DESIRABLE of ANY assignment in the Service and as soon as the new arrival had the least bit of seniority, he would bid out and another neophyte would take his place. Yes, to some, Elko would be "paradise" ! -30-

# The 'Wireless Pioneers



Invitation from

... Bill Breniman

At one time, radio operators of the (new) F.A.A. were considered the "cream of the crop" in the operating profession. Many of our men were "top operators" from the U.S. Navy, Signal Corps and many other Government Agencies that operated extensive C-W systems. Many commercial operators who served aboard ships or at land stations also joined the new Service as it provided the opportunity to live "shore-side".

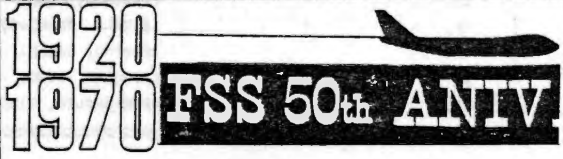
There is a "PROFESSIONAL" organization which all "brass-pounders" should join so they can keep in contact with their former shipmates and associates. The name of this organization is... THE SOCIETY OF WIRELESS PIONEERS. It is now the largest organization of its kind in the world with nearly 700 professional "brass-pounders" on its membership roll. Many are from the F.A.A.

As the Executive Director of the Wireless Pioneer Society, I would like to extend an invitation to all of my former friends and associates to join with us if they qualify. I will not use space here telling about the Society. Just send me a card or letter and I'll gladly mail full details with a full resume of its activities. Address me c/o P.O. Box 530 Santa Rosa, Calif. 95402.

73 de Bill Breniman



PS: NOTE There are many "brass-pounders" among our members who were or are still employees of the F.A.A. at FSS facilities. I believe many will be interested in the Society of Wireless Pioneers, hence, for information, I am including news about the organization in this issue of A.P. Cost of this space has been paid for by personal check from me to the Society of Airway Pioneers as a donation.



Thursday, 20 August 1920 marked a "golden milestone" in the history of aeronautical communications, and the establishment in 1920 of the Air Mail Radio Stations. In honor of the occasion, a celebration was held in Washington D. C. to observe the Five Decades of Service by what is considered by many, the "backbone" of the F.A.A. Service/s.

The incumbent chiefs of what the FAA has decided are the only remaining stations to provide continuous service over the fifty-years were among those attending the fete. They are:

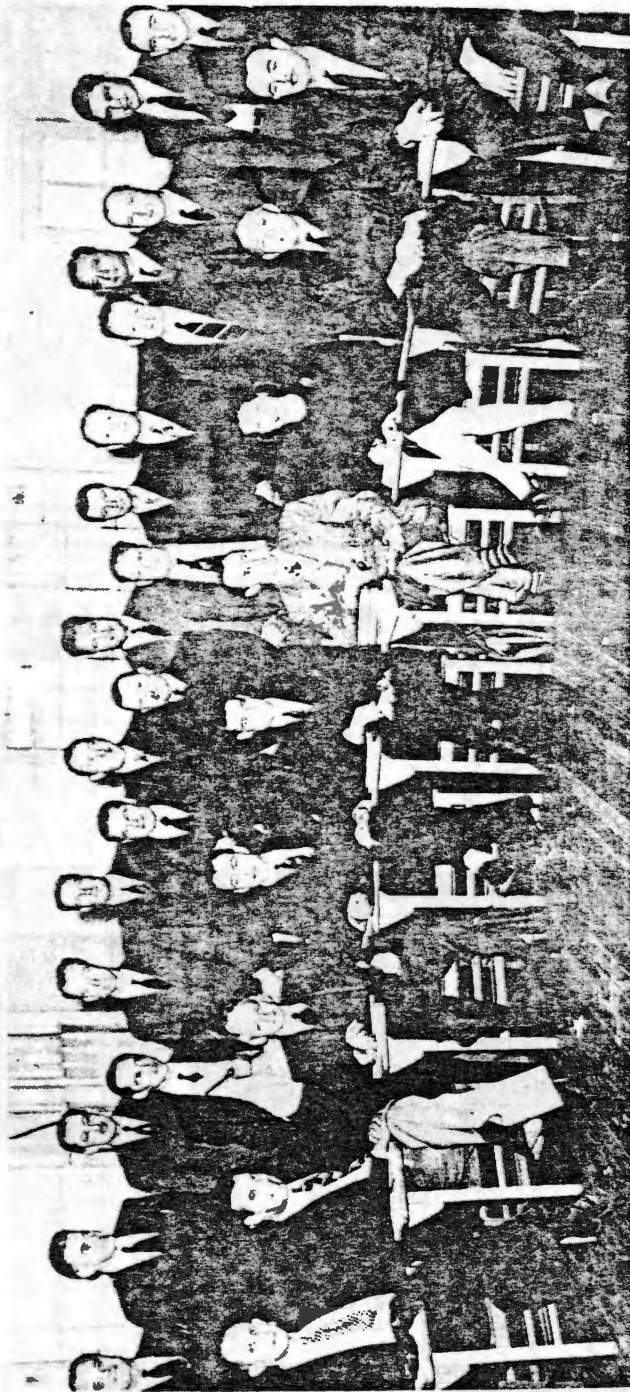
- Joseph J. Greten - Washn.D.C.
- Harold Griffith - Elko
- C.W. Wheeler - Rock Spring
- Albert S. Hall - Salt Lake City, Utah.

(We wonder what happened to Cheyenne, North Platte and a few other facilities that, in our opinion, should have also been so honored ?)

Additional FAA "guests" included Mr. Stanley Beaver of Youngstown FSS who is the senior male FSS employee and Miss Elig. DeCremer, Eau Claire FSS, the senior female employee of the Service. (Continued on Page 32)

**AIRWAYS COMMUNICATION OPERATIONS CONFERENCE OKLAHOMA CITY MARCH 26-29, 1947**

AIRWAY PIONEER



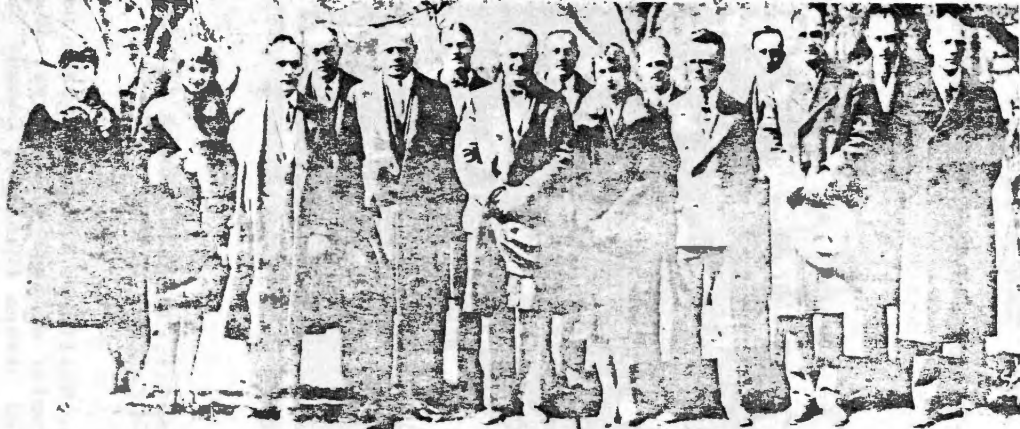
**COMMUNICATION CHIEFS ( Left to Right)**

**SEATED**

**William A. Breniman (Chicago); Richard Roose (ATC); Fred Robinson (Atlanta); Allen D. Hulen (Alaska)  
Ralph H. McRoberts (Washn.); Harold Carrick (Washn); Miss Reeder, (Tech Center) EUGENE  
SIBLEY (Chief of Service - Washington); William A. LaRue (New York)**

**TOP ROW: Claude M. Smith (Hawaii); Cecil S. Fuller (Seattle); Gerald A. Whittaker (Alaska); John Huber  
(ATC); C. W. Larsen (Seattle); Craig Timmerman (ATC); W.E.Kline - Director of Federal Airways, (Washn)  
Ken. Matucha (ATC) P.E. White (K.C.); George L. Rand (Ft. Worth); Daniel Givens (Hawaii), Claude Spencer  
(Ft. Worth); T.K. Johnson (Hawaii); Art Johnson (L.A.); Frank Unruh (Ft. Worth); Robert O. Donaldson  
(N.Y.); C.A. Merritt (Washn.); R.T. Manhardt (Washn).**

# Ye Olde "Lighthouse" Gang



Walls Waite Jones Leland Hingsburg Sibley G. Stanton Chapman Straffen

**YE OLDE "LIGHTHOUSE" GANG**  
 Early day picture of Captain F. C. Hingsburg (now deceased) and his staff who "pioneered" the Airways in the old "Lighthouse" Service.

Personal identification is shown directly under each individual. Much is owed by the Aviation Industry to these pioneers who were collectively responsible for initiating the Airways System in the U.S.A.

## Airway Division Chiefs - - 1928

- AL. WAITE
- FRANK TOWERS
- H.J. WALLS
- W.E. KLINE
- E.J. JONES
- AL. SMITH
- A.P. TALIARRO
- G.E. STRATTON
- E.S. SIBLEY
- BILL KENTON
- TED HAIGHT
- G.I. STANTON
- J.R. FITZGERALD
- TOM CHAPMAN
- I.D. MARSHALL
- W.P. AVERY
- AL. CURTIS



- J.B. BONFORTE
- A.J. LA BAIE
- W.T. MILLER
- JACK SOMERS
- WM. SNYDER
- G.C. MILLER
- W.E. JACKSON
- DR. LOUIS A. BAUER
- DAN SCARRITT
- W.P. MACCRACKEN
- F.C. HINGSBURG
- HERMAN LUCAS
- STAN BOGGS
- BILL CENTER
- BERT CREIGHTON
- JACK WORTHINGTON
- TOM BOURNE

This picture of Hon. Wm. P. MacCracken, first Ass't Secretary of Commerce for Aeronautics (1926) flanked by Airway Chief, Captain Fred C. Hingsburg on the right and surrounded by most of the important figures who have played such an important part in the development of the

Federal Airways by what is known now as the Federal Aviation Agency, is a rare picture of the late '20's and taken just after the Post Office Department turned its Operations over to the Department of Commerce.

THE SOCIETY OF AIRWAY PIONEERS

# EYES FOR BLIND FLYING

By K. T. Road

Long Lines Dept., American Telephone and Telegraph Co.

WITH the development of highly sensitive and accurate navigational instruments, the practice of 'blind flying' has become a more feasible even than it is under ordinary conditions. Other conditions, based up in his cockpit by some way, than to show the pilot can keep his course and locate himself with a surprising degree of accuracy at any point in his flight. For commercial flying, however, such a practice has decided limitations, and anything that can reduce the amount of blind flying or make it safer and surer is of tremendous advantage to the aviator.

When the Post Office Department inaugurated air mail service between New York and Chicago, radio stations were established along the route. These stations, using arc transmitters, communicated with each other by radiotelegraph, exchanging weather data and other information useful to those concerned in the operation of the service. The channel thus provided was of tremendous advantage to the ship throughout its entire flight.

As the route became an established airway with a rapidly growing traffic, other facilities were added which improved the means by which pilots obtained the information they needed. Today a communication system is in operation which guides them along the route and at frequent intervals, provides them with up-to-the-minute and accurate information on conditions at every point along the course.

An important link in this chain of communications is the point-to-point telephone typewriter service recently



Telephone typewriters and radio apparatus at Hadley Field.

installed for the Department of Commerce by the American Telephone and Telegraph Company. This supplements the radiotelegraph system, furnishing to each station quickly and in convenient form, complete meteorological data on conditions at every other point, as well as data collected at Washington on weather conditions throughout the country.

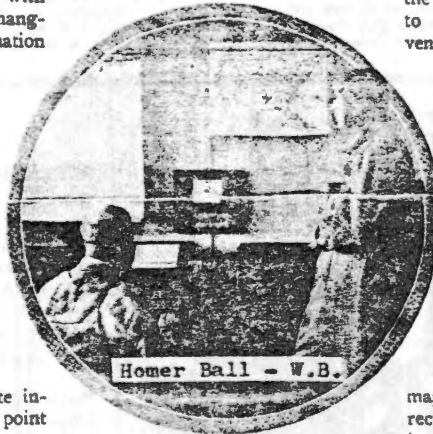
The telephone typewriter is a device which typewrites by wire. It is, in effect, a vehicle for typewriting a conversation, just as the telephone conveys it by sound. Words typed on a machine at one station are reproduced instantaneously on machines at the other stations which may be next door or hundreds of miles away. Messages

may be sent in either direction and reception is automatic. The machine is similar to the ordinary typewriter.

This device has for many years been used by the press of the country as the principal channel for collecting and distributing news stories of national importance. It has recently come into extensive use among commercial and industrial organizations of all kinds. Because of the speed and simplicity of operation and the flexibility, which approaches that of actual conversation, it was adopted by the Department of Commerce as the main channel of communication along the New York-Chicago airway.

Its application to the problem of communication along this route may well be illustrated by an exposition of its use at Hadley Field in Stelton, N. J.

Reprinted from AERO DIGEST, July 1929 (40-years ago) Copy supplied by Henry W. Brendel who is on duty in top picture. Airway Pioneer Member C. George Andrus shown in bottom picture was Chief of the Weather Bureau Station at Hadley. Actually teletypewriter equipmt. was installed at Hadley in 1927 (free rent from AT&T to experiment with use of equipment in Airway Service. Homer Ball (W.B.) center picture.



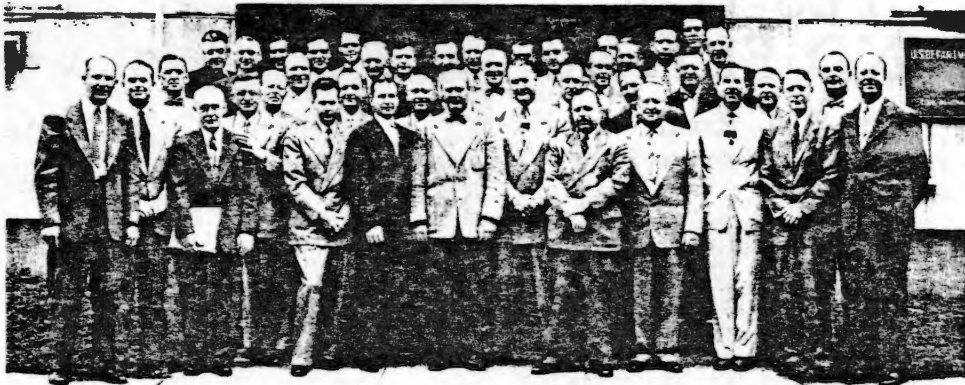
Homer Ball - W.B.



C. George Andrus (Wea Buo.)

Weather conditions on the airway are tabulated at each station.

# C.A.A. Operations --1950



Picture taken June 12th, 1950, in Washington show most of the Chiefs of the Operations Division — both field and the Washington Office and principal line and staff members who have been largely responsible for the development of the Airways System, including Communications, Traffic Control and the use of all Navigational Aids including techniques and procedures which make our airways the most efficient in the world

Members of this group (reading from left to right include the following: W. A. "Bill" Breniman (Deputy Chief Communications), C. M. Smith, C. J. Stock, P. L. Smith (deceased), C. S.

Fuller, H. F. Cole, C. C. Gorsuch, Art Johnson, A. W. Whitaker, R. J. Peitto, R. H. McRoberts, Tom Dodson, P. E. Riney, F. "Ed" Shivers, F. R. Robinson (deceased), A. C. Leathers, M. J. Burhop, R. O. Donaldson, R. T. Manhardt, Cliff P. Burton (Chief ATC Div.), G. C. Pearson, Ed A. Westlake, Geo. L. Rand (Chief Communications Div.), R. S. Reese, C. C. Wencycott, G. A. Whitaker, P. E. White, D. R. Whitney, Vic J. Keyne (Deputy Chief ATC Div.), S. B. Smith, H. H. McFarlane, D. L. Givens, F. T. Unruh, Bernard Suverkrup (deceased), J. B. Watson, H. S. Chandler, A. C. Blomgren, J. D. Saunders, R. A. Mattmuller, W. A. LaRue, T. K. Johnson



Art Johnson photo.

## CHICAGO 1933

### SUPERVISORS ATTEND SCHOOL.

L to R.

Elmer C. Butler (Dallas); Norman W. Bliss (Albuquerque); Chas. W. "Bill" Larsen (Portland); Mr. Carpenter (Fort Worth); Dewey W. Perrine (KCT); Peter W. Peterson (Cleveland); Benj. L. Weinberg (Atlanta); Harry Swart, Art Johnson (Oakland).

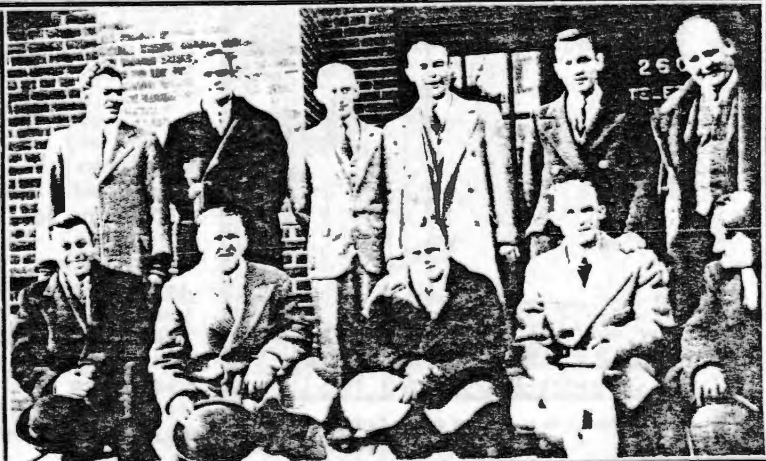
Picture taken in February 1933 at Teletype Corporation School. Ben. Weinberg has since been killed in an airplane crash enroute Atlanta from Washington D.C.—

## RADIO MEN BECOME

### TELETYPE EXPERTS

L to R: (Sitting)

Al Brendel (Newark), Jack Bourke (El Paso), Geo. A. Hall (Burbank), W. A. Breniman (Pasco Wash.), Omar Young (Omaha — deceased), Standing: A. D. Madala (Salt Lake City), W. A. Walker (Cleveland), Mr. Culhnan (Teletype Corp.), W. A. LaRue (Cincinnati), P. E. Riney (Evansville), Wm. Crawford (Cleveland — deceased). Madala from Port Columbus took picture.







**L**ike the celebrated daring young man on the flying trapeze, the airplane pilot appears to fly through the air with the greatest of ease, unfettered by earthly ties. It is not so. Successful flight has always depended heavily on people on the ground who provide vital weather information and navigational guidance.

Today's pilot has access to an extensive range of weather data as well as electronic "sign posts" which help guide him safely toward his destination. Help, in any emergency, is rarely farther away than the microphone at his hand. Even if it is only to learn the wind direction on the airport, the active runway, or the availability of repairs and fuel, most pilots regularly seek help from someone on the ground. Today, this assistance may often be more a matter of convenience than necessity. But in the early days of cross country flight it was often a matter of life and death.

Long distance air transportation began more than 50 years ago in the United States, when the Post Office Department opened the Transcontinental Airway between New York to San Francisco. The aircraft, open cockpit biplanes, were primitive by today's standards; instrument navigation was crude or non-existent; and the com-

pensation was as meager as the risks were great—31 out of the first 40 airmail pilots were killed between 1920 and 1926.

From the very beginning it was apparent that if the pilots—and transcontinental air service—were to survive, some form of ground based assistance must be provided to assemble weather data for pilots prior to take off, and to guide them safely down to the airfield on arrival. Accordingly, each of the 17 airfields linking up the Transcontinental Airway was provided with a radio station and an operator/caretaker. This was the foundation of the modern flight service station, whose 50th anniversary is being celebrated on August 20, 1970. This article is an historical salute to the heroes of aviation who manned these stations over the past half century.

The Post Office Department had been working on the idea of an air mail service since May 15, 1918 when the first trial route was opened along a 218-mile-long path linking Washington, D. C., Philadelphia, and New York. The War Department supplied planes, pilots, maintenance crews and facilities for the route, and flew one round trip a day except Sunday. Despite the sketchy communication system and the

primitive state of aircraft development, the Washington-Philadelphia-New York line built up a reputation for dependability, often flying in weather that would be below safe minimums by modern standards.

On July 1, 1918, the Post Office established a combination rail/air mail route between New York and Chicago. Mail destined for the Middle West and the West Coast would be loaded aboard an early morning flight out of New York. The aircraft would arrive at Cleveland at nightfall, whereupon the mail would be swiftly transferred to a Chicago-bound train that had left New York the night before, thus saving about 16 hours to the Middle West. On eastbound trips mail was flown from Chicago at dawn to overtake the night mail train at Cleveland, which reached New York at 9:40 the following morning.

Encouraged by the time saving, on August 12, 1918, the Post Office went into the air mail business in earnest. The Army turned over its mail-carrying aircraft to the Post Office and pilots and mechanics became postal employees.

The transcontinental route was extended westward to Iowa City, Omaha, and North Platte; to Cheyenne and across Wyoming via Rawlins and Rock Springs to Salt Lake

City; to Elko (Nevada) and Reno; and on to Oakland and the pearl of the Golden Gate—San Francisco. The Chicago to New York segment included field stations at New Brunswick, N. J.; Bellefonte, Pa.; Cleveland and Bryan, Ohio; and Washington, D. C. Four of these original stations (Washington, Salt Lake, Elko and Rock Springs) have been in continuous operation ever since.

By August 20, 1920 a string of 17 airway radio stations were authorized. In a few weeks the air mail was flowing across the continent. The nation soon had a workable and, surprisingly, dependable cross country air mail route. The press also had a new national hero-type; the air mail pilot, a swashbuckling, booted, helmeted daredevil with wings.

**Ground Radio Only**

Life support for this winged daredevil was provided by the airway radio station, staffed by a lone operator who worked seven days a week and stood split shifts to accommodate the dawn departure-dusk arrival schedule of the mail planes. The typical operator rose at 4:30 a.m. and began preparations for the morning flight by radioing checkpoints along the route for weather reports. At the same time he would report his local conditions to other callers up and down the line.

Radio telegraphy was used exclusively, being cheaper than leased wire telegraphy and more dependable than voice radio. Except for experimental work, no radio communications in the early Twenties were air to ground. The earliest equipment consisted of spark transmitters, later replaced by 2KW arc transmitters, operating on wave lengths between 2,500 and 4,000 meters. During "heavy" atmospheric conditions signals sometimes failed to get through, and ingenious operators modified the equipment to increase the power and range. More ambitious operators experimented with vacuum

tube transmitters on short wave. The modifications were generally made with materials scrounged locally from junked aircraft by the station operator and the work was done in his spare time, without remuneration. The driving force was the operator's concern for getting the information needed to protect his pilots.

Acceptable transmission speed for the "CW" Morse code was 30 words per minute, but 40 to 45 words was not uncommon and some operators were so nimble with the key that their transmission speed was limited only by the ability of the receiver to copy wordage gushing out of the instrument. Additional intelligence was crammed into the message by use of Philips code abbreviations.

The station operator made his own weather observations and forecasts, including estimated cloud ceiling, temperature, visibility, windspeed and direction, and field conditions. Additional nearby weather observations were phoned in to him by part-time weather observers. At best, the weather "map" so produced consisted of a narrow swath from one station to the next, with little information on adjacent storm systems. The pilots, after landing, would pass on to the station operator their inflight weather observations (forerunner of the modern PIREP).

When the radio was not transmitting aeronautical information the lines were open for other government business. Department of Agriculture reports showed market conditions in Cincinnati, Chicago, Kansas City and Omaha. Party-line gossip and neighborly messages also found their way into the system, linking all participants into a kind of family relationship.

By 8:30 in the morning the station operator would usually have completed all his calls and gotten his pilot off the ground, shooing stray cattle off of the airstrip when necessary, helping sort and stow the mail and seeing to supplies. He was then free until about 4:30 in the afternoon, when he

stood a second four hour shift, servicing the arriving daylight flight, and the departing night flight (day/night flights were inaugurated on February 22, 1921).

If a landing in darkness or poor visibility was anticipated he prepared to light the airfield with the best means at hand—automobile headlights, oil drums, flares, etc. Snow drifts often had to be cleared from the runway and runway edges frequently needed delineation in the form of lighted markers. If field conditions were too poor for a safe landing, the station operator had to warn the pilot, using pre-arranged field or hand signals. Many long and lonely hours of the night were spent sitting around waiting anxiously for the husky roar of a Liberty engine . . . that sometimes never came.

**All Work and Little Pay**

The typical starting salary for an early day station attendant was \$1,200 a year, with modest raises and plenty of overtime—unpaid. (By comparison, the pilots earned a base pay of \$2,000 a year, plus a 5-6-7 cent-a-mile bonus, depending on the difficulty of the route. Bonuses were doubled at night, when the hazards increased several-fold).

The typical air mail plane in the pioneer stage was an open cockpit deHavilland biplane, with an unreliable compass and little else in the way of navigation instruments. The pilots relied on their instincts, and counted heavily on the airfield attendant when the chips were down.

On July 1, 1927, after seven years of regular air mail service, the Post Office turned over the job of maintaining ground support for the planes to the Department of Commerce. At the time of transfer, more than two-thirds of the 2,665-mile Transcontinental Airway was lighted. The lights consisted of 5,000 candlepower acetylene gas beacons or blinkers spaced three miles



**H. J. WALLS**

H. J. WALLS, airways radio engineer in charge of the airways radio section, Aeronautics Branch, Department of Commerce received his B.S. degree in electrical engineering from the West Virginia University in 1920 and shortly thereafter joined up with the Western Electric Company. From 1921 to 1922 he was instructing in electrical engineering in his Alma Mater and taught trigonometry, algebra, telephone engineering and electrical engineering laboratory. In 1922 he joined the radio section of the Bureau of Standards. His work there was in connection with the development and testing of receiving and transmitting equipment and electrical radio measurements. In 1925 he joined the Bureau of Lighthouses of the Department of Commerce. His

work with this bureau was in connection with the installation of marine radio-beacons, designing of stations and equipment, and field work in relation to the installation and testing of this equipment. When the Airways Division was formed in the Bureau of Lighthouses, as part of the newly formed Aeronautics Branch, Mr. Walls was placed in charge of the airways radio section and is at present the airways radio engineer in charge of the airways radio section. Mr. Walls was in the Naval reserve during the War and was a member of the First National Radio Conference in 1923 and technical advisor for the International Radio Telegraph Commission in 1927. Both of these conferences convened in Washington, D. C.

X 1942

apart. Most of these beacons had course lights—green denoting that an airfield was nearby, red indicating no field. The course lights were also coded in dots and dashes, so that a pilot could tell how far he was from the nearest terminal.

Emergency airfields were located about every 25 miles. A rotating 18" or 24" beacon, mounted on a 50 foot tower, flashed its welcome signal over the darkness, easing the burden of night-flying the mail.

Ground personnel of the system in 1927 consisted of 45 radio operators, 14 maintenance mechanics and 84 caretakers. An "airway radio station" was located at each of the 17 terminals, and there were also a number of intermediate "airway keeper stations" with low-power radio marker beacons. The entire operation was administered by the Lighthouse Service of the Department of Commerce.

Many of the airway keeper stations west of Omaha were located in desolate wilderness country or on high mountain passes accessible only by mule train. Bitter Creek and Cherokee, in Wyoming; Locomotive Springs, in Utah; Beowawe and Buffalo Valley, in Nevada, and Donner Summit in California were typical station sites. At Donner Summit (alt. 7,100 feet) the tower and radio shack had to be anchored to solid rock in order to keep them from being blown away by fierce winds of the high Sierras; often the station keepers were snow-bound for months.

Maintaining a remote station called for a high degree of ingenuity, a tolerance for isolation—and at times the agility of a mountain goat. Skis, sleds and snowshoes were standard operating equipment during the long winter seasons. Shelter consisted of a prefabricated wooden hut, drab and drafty and furnished strictly for utility, housing one to four men at a maximum annual outlay of about \$12,000—which included salaries and supplies. A good huntsman was always a welcome addition to the complement.

#### Improving Safety Record

Lighting the airway and extending the radio capability had a favorable effect on flight safety from the very beginning. The 1919 fatality ratio of one pilot killed for every 114,324 miles of airmail flight was reduced to one fatality per 2.5 million miles by 1926. The accident rate continued to decline, as the ground support system was extended, until the calamitous year of 1934, when accidents temporarily increased as inexperienced military pilots were abruptly called upon to fly the mail.

In 1938 the airway radio station was redesignated as "airway communication station", under the newly created Civil Aeronautics Authority (later the Civil Aeronautics Administration of the Department of Commerce). By this time, thanks to air-to-ground radio capability, station operators could actively participate in the control of



Airways maintenance technician "Dusty" Rhodes takes a break alongside his sector truck in the late '30s. Unlike their modern counterparts, the airway station keepers of 40 years ago were required to wear distinctive uniforms on the job.

a flight in progress, giving the latest weather reports and helping lost pilots identify local landmarks and find their bearings.

The term "flight service station" came into use after the creation of the Federal Aviation Agency in 1958, and has continued to the present day, when FAA is the Federal Aviation Administration of the Department of Transportation.

Today, the flight service station network covers all of the fifty states and reaches out to Pago Pago, Wake Island and Guam in the Pacific, to Panama and to the Caribbean. There are 340 stations, including nine international stations, staffed by about 4,600 flight service station specialists. All stations are closely linked to FAA's nationwide air traffic control system by radio and teletype and many are equipped with direction finding equipment that enables them to steer lost aircraft home by means of signals from the aircraft's radio. The stations also serve as the nucleus for an air-to-ground communications and electronic navigation system that extends for several hundred miles in all directions. They are staffed by as many as 110 persons, although some (primarily in Alaska) have less than half a dozen men.

Flight service stations are no longer remote, as were their predecessors, and they are no longer oriented toward the air mail alone. They are located at selected airports where they contact an average of 30,000 private and business pilots daily, providing them with the latest weather reports and other flight data that help make flight safe and pleasant. They process flight plans

which assure pilots of inflight separation from other aircraft and of prompt follow-up activity in the event of an overdue arrival. They provide periodic weather broadcasts round the clock (most stations remain open 24 hours a day) and keep a watchful eye on their far-ranging communications and navigation network. They respond to inflight emergencies, leading crippled aircraft or lost pilots to safety (1,452 lost "sheep" were assisted by FSS in 1969).

#### Pioneer Days Are Over

Today's flight service station specialist is no longer required to lead the rugged pioneer life of his predecessors in the airway radio stations. He lives in a comfortable home of his own, instead of a mail order prefabricated hut on a mountain top, works varying eight hour shifts and is paid well. He no longer risks his life helping prop balky engines on frozen fields, or riding in the mail compartment of open biplanes, but his dedication to the safety of pilots who seek his assistance is as strong as it was half a century ago, when the age of flight tottered forward in the form of the United States Air Mail Service. His day-to-day work is not as dramatic as it once was, nor as widely appreciated by the public, since he does not direct or regulate air traffic.

But nevertheless he is the person most pilots rely on for flight planning data, for guidance over unfamiliar terrain, for steady reassurance when they get into trouble. No one who has ever been caught in a light plane in a violent thunderstorm, or become disoriented in fog over hazardous terrain, or run out of fuel in pitch darkness, can forget what it is to hear a calm, steadying voice on the radio receiver leading him out of agonizing uncertainty and down to the firm green earth. Airplane "accidents that didn't happen" seldom make headlines or heroes, but the men and women of FAA's flight service stations can live without either. They get a very warm feeling from knowing they have helped someone get home safely, whether he be a friend, a neighbor, or a stranger passing overhead in the night.

Researched, written and illustrated  
by the staff of

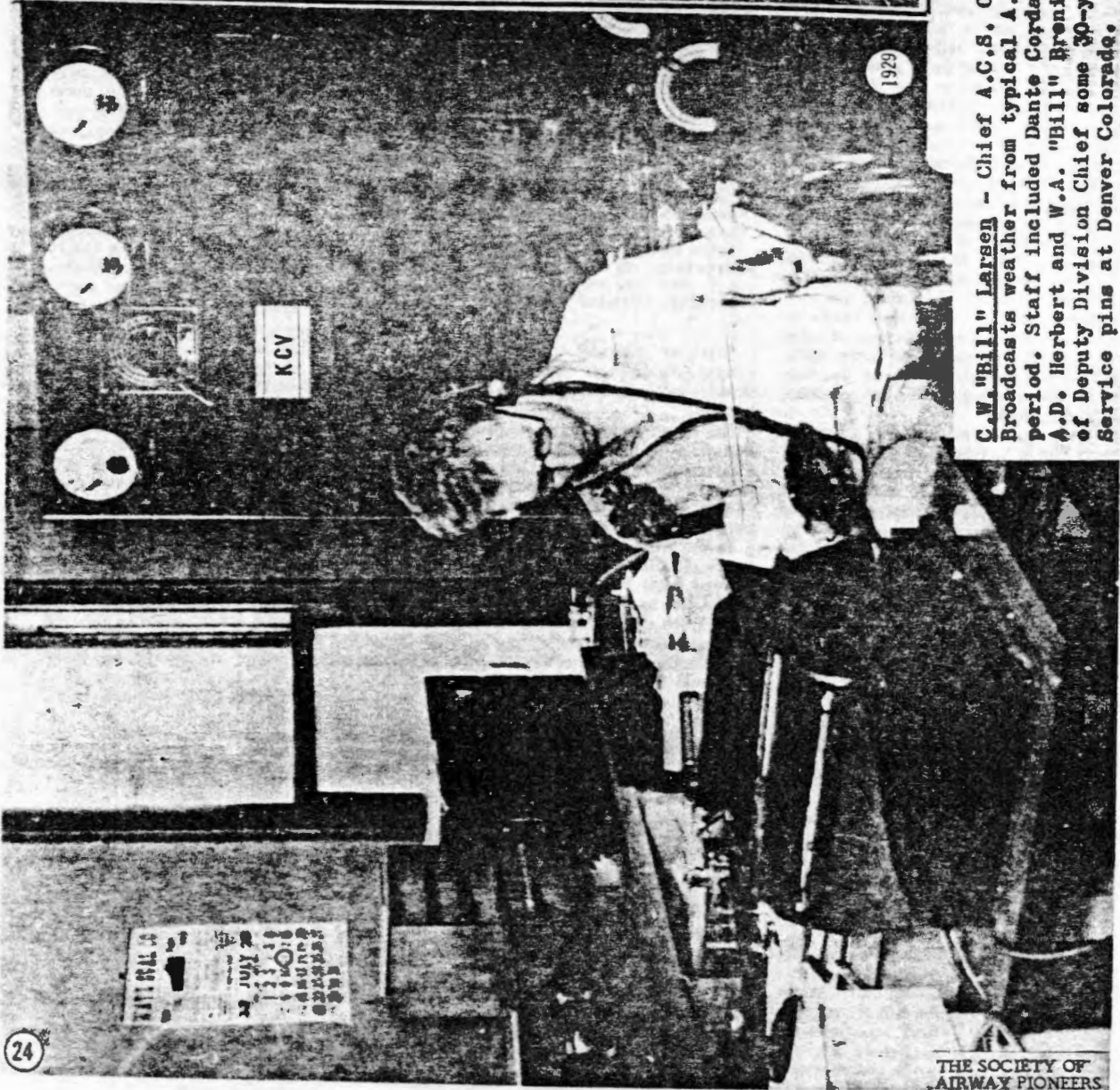
### FAA AVIATION NEWS



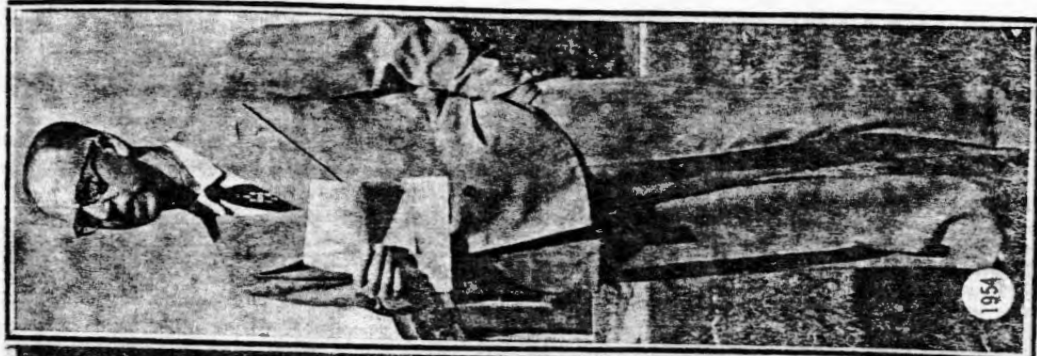
FEDERAL AVIATION ADMINISTRATION

DEPARTMENT OF TRANSPORTATION

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C.W. "Bill" Larsen - Chief A.C.S. Oakland Calif. (KCV) Broadcasts weather from typical A.C.S. Station of the period. Staff included Dante Cordano, Gordon H. Pascoe A.D. Herbert and W.A. "Bill" Broniman, Insert is that of Deputy Division Chief some 30-years later, awarding Service pins at Denver Colorado. **GX**



# Administrators of the F. A. A.

## Historical Profile & Chronology

### ADMINISTRATORS OF FAA, CAA, AND THEIR PREDECESSOR AGENCIES



Agency, Title, and Incumbent	Tenure	
	From	To
<b>AERONAUTICS BRANCH, DEPARTMENT OF COMMERCE</b>		
Assistant Secretary of Commerce for Aeronautics:		
William P. MacCracken, Jr. . . . .	8/11/26	10/1/29
Clarence M. Young . . . . .	10/1/29	3/4/33
Director of Aeronautics:		
Eugene L. Vidal . . . . .	10/1/33	6/30/34
<b>BUREAU OF AIR COMMERCE, DEPARTMENT OF COMMERCE</b>		
Director of Air Commerce:		
Eugene L. Vidal . . . . .	7/1/34	3/1/37
Fred D. Fagg, Jr. . . . .	3/1/37	4/15/38
Denis Mulligan . . . . .	4/16/38	8/8/38
<b>CIVIL AERONAUTICS AUTHORITY</b>		
Chairman:		
Edward J. Noble . . . . .	8/22/38	4/12/39
Robert H. Hinckley . . . . .	4/12/39	7/8/40
Administrator:		
Clinton M. Hester . . . . .	8/22/38	6/30/40
<b>CIVIL AERONAUTICS ADMINISTRATION</b>		
Administrator:		
Donald H. Connolly . . . . .	7/11/40	1/15/42
Charles I. Stanton . . . . .	5/27/42	8/22/44
Theodore P. Wright . . . . .	8/22/44	1/14/48
Delos W. Rentzel . . . . .	4/8/48	9/18/50
Donald W. Nyrop . . . . .	9/19/50	3/18/51
Charles F. Horne . . . . .	3/19/51	3/6/53
Frederick B. Lee . . . . .	3/11/53	12/8/55
Charles J. Lowen . . . . .	12/12/55	9/5/56
James T. Pyle . . . . .	12/20/56	12/30/58
<b>FEDERAL AVIATION AGENCY</b>		
Administrator:		
Elwood R. Quesada . . . . .	11/1/58	1/20/61
Najeeb E. Halaby . . . . .	1/20/61	6/30/65
William F. McKee . . . . .	7/1/65	7/31/68
John H. Shaffer . . . . .	CURRENT	

### DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

OCT. 1966

PREPARED BY W. A. BRENNIMAN

1926  
August 11: William P. MacCracken, Jr., took office as the first Assistant Secretary of Commerce for Aeronautics. He thus became the first head of the Aeronautics Branch, which was created in the Department of Commerce by Secretary Herbert Hoover to carry out the Secretary's responsibilities under the Air Commerce Act of 1926.

MacCracken brought to this position experience as a World War I Army pilot, as chairman of the American Bar Association's committee on aviation law, and as co-general counsel of National Air Transport, a company which he helped organize in 1925 to deliver airmail. MacCracken also assisted with the drafting of the Air Commerce Act of 1926.

1929  
October 1: William P. MacCracken, Jr., resigned as Assistant Secretary of Commerce for Aeronautics and was succeeded by Clarence M. Young. Mr. Young had served as Director of Aeronautics from July 1, 1927, when that position was created.

1933  
June 15: The office of Director of Aeronautics was re-created to take the place of the position of Assistant Secretary of Commerce for Aeronautics. The latter was discontinued following the resignation of Clarence Young when the Roosevelt administration took office. Three Assistant Directors were appointed—for Air Regulation, for Air Navigation, and for Aeronautic Development. The position of Director of Aeronautics, however, was left vacant until October 1, 1933.

October 1: Eugene L. Vidal was appointed head of the Aeronautics Branch with the title of Director of Aeronautics. At the same time the number of Assistant Directors was reduced to two--the Assistant Director for Air Navigation and the Assistant Director for Air Regulation.

Vidal was educated at the University of South Dakota and West Point. Graduating from the latter institution in 1918, he transferred in 1920 to the Army Air Service, in which he became a pilot. In 1926 he resigned from the Air Corps to take a position with a commercial aviation company. He continued in commercial aviation until he joined the Aeronautics Branch as Assistant Director of Aeronautics for Air Regulation on June 15, 1933.

1937  
March 1: Eugene L. Vidal resigned as Director of Air Commerce in order to return to private employment and was succeeded by Fred D. Fagg, Jr.

Fagg came to the Bureau of Air Commerce as an authority on aviation law. In 1929 he had founded the Air Law Institute at Northwestern University, and since then he had been its director in addition to editing or helping to edit its publication, the Journal of Air Law. Before his appointment as Director of Air Commerce, Fagg had served as consulting expert to the Department of Commerce on revision of air commerce regulations, as an adviser to the Copeland Senate committee on aircraft safety, and as one of the advisers to the Federal Aviation Commission. He was a member of the Illinois Aeronautics Commission, secretary of the National Association of State Aviation Officials, and a member of the American Section, International Technical Committee of Aerial Legal Experts.

## F. A. A. Administrators - continued

1938

April 15: Fred D. Fagg, Jr., resigned as Director of Air Commerce to accept appointment as Dean of the School of Commerce at Northwestern University.

April 16: Denis Mulligan became Director of Air Commerce, succeeding Fred D. Fagg, Jr.

Mr. Mulligan brought to this position broad experience in aviation, business, and law. A graduate of West Point in 1924, he subsequently completed primary and advanced aviation training at the Army's flying schools at Brooks and Kelly Fields, San Antonio. Later resigning from the Army Air Corps, he was active in insurance work, commercial aviation, and admiralty law. He first became an official of the U.S. Department of Commerce in 1934, when he was appointed chief of the Enforcement Section of the Bureau of Air Commerce. Transferred to duties for a time in the Solicitor's Office of the Department, he returned to the Bureau in April 1934 as chief of the Regulations and Enforcement Division. In October 1937 he became Assistant Director of the Bureau of Air Commerce.

July 7: The five members of the Civil Aeronautics Authority were named by President Roosevelt. However, the Authority did not enter formally upon its duties until August 22, the effective date of the Civil Aeronautics Act.

Named to be chairman was Edward J. Noble, of Connecticut. Nationally known as an industrialist, Mr. Noble had taken an interest in aviation for some years and was one of the first private owners of an airplane.

July 7: Clinton M. Hester, of Montana, was named by President Roosevelt to be the first Administrator of the Civil Aeronautics Authority. A veteran public servant, Hester was in his 20th year of Federal service in Washington. He had previously served in six different agencies and was, at the time of this appointment, assistant general counsel of the Department of the Treasury. He did not formally begin his new duties until August 22, 1938.

1939

April 12: Robert H. Hinckley, of Utah, was named by President Roosevelt to be Chairman of the Civil Aeronautics Authority. He succeeded Edward J. Noble, who resigned to become Executive Assistant to the Secretary of Commerce. Hinckley was serving as an original member of the Authority at the time of his appointment to the chairmanship. Previously, he had been Assistant Administrator of the Works Progress Administration and had been in charge of WPA activities in the West.

1940

July 11: Colonel Donald H. Connolly, U.S. Army, was confirmed by the Senate as the first Administrator of Civil Aeronautics, following President Roosevelt's reorganization of the Civil Aeronautics Authority. Clinton M. Hester, who had served as the Administrator in the Authority, resigned to re-enter private law practice.

Colonel Connolly was a career Army officer. Educated at the University of California and West Point, from which he graduated in 1910, he had served in the Corps of Engineers since leaving the Military Academy. He had had previous executive experience in civilian government as Director of the Civil Works Administration in Los Angeles in 1934 and as Administrator of the Works

C. A. A.

The CIVIL AERONAUTICS AUTHORITY was established Aug. 22, 1938 with Edw. J. Noble as Chairman. Clinton M. Hester was appointed as Administrator on this same date with jurisdiction over the Bureau of Federal Airways. The two primary branches of the Authority were the Bureau of Federal Airways and the Air Safety Board. These two organizations were divorced when the CIVIL AERONAUTICS ADMINISTRATION was established effective July 11, 1940 with Donald H. Connolly as the first Administrator. Early "firsts" included the following:

### AERONAUTICS BRANCH, DEPT. OF COMMERCE

William P. MacCracken, Jr. Aug. 11, 1928

### BUREAU OF AIR COMMERCE, D.O.C.

Eugene L. Vidal July 1, 1934

### CIVIL AERONAUTICS AUTHORITY

Edw. J. Noble Aug. 22, 1938

### CIVIL AERONAUTICS ADMINISTRATION

Donald H. Connolly July 11, 1940

### FEDERAL AVIATION AGENCY

Elwood R. Quesada Nov. 1, 1958

Progress Administration for Southern California from 1935 to 1939. During the year and a half immediately preceding his assignment to CAA, he had commanded the Second Engineers, U.S. Army.

1942

July 13: Charles I. Stanton was confirmed by the Senate as Administrator of Civil Aeronautics. He had been Acting Administrator since January 15, when Brigadier General Donald H. Connolly resigned, and was nominated on May 27 to fill the vacant position. General Connolly was called from CAA to the staff of Lieutenant General Henry H. Arnold, Chief of the Army Air Forces, to be Military Director of Civil Aviation. In this position he was to coordinate all civil aviation activities with the program of the Army Air Forces.

Stanton's background included a B.S. degree from Tufts College, Medford, Mass., in 1917, and service as a World War I aviator with the 122d Aero Squadron, U.S. Army. His civil aviation career began in 1918, when he was employed in the airmail operations of the U.S. Post Office Department. After leaving the Post Office Department, in 1923, he became executive officer of the National Aeronautical Association, and was later employed by the U.S. Engineer Corps and by private engineering firms. In 1927 he joined the Aeronautics Branch of the Department of Commerce as an airplane and engine inspector, transferring soon afterward to the Airways Division. He served continuously with the Branch and its successor organizations to the time of his appointment as Administrator.

1944

September 20: Theodore P. Wright was confirmed by the Senate as Administrator of Civil Aeronautics. Nominated on August 22, Wright succeeded Charles I. Stanton, who submitted his resignation on August 18 and on its acceptance reverted to his former position of Deputy Administrator.

Wright was educated at Lombard College, Galesburg, Illinois, and Massachusetts Institute of Technology. He was commissioned in 1918 as an ensign in the Naval Reserve Flying Corps and promoted in 1920 to Lieutenant. In his last year of naval service, in 1921, he was superintendent of naval-aircraft construction for the New York district.

## FAA Administrators P-3

After leaving the Navy he joined the Curtiss Aeroplane and Motor Corporation (later renamed the Curtiss-Wright Corporation), as executive engineer. During his subsequent tenure as chief engineer, the firm produced a number of outstanding aircraft types, both military and commercial. In the World War II emergency Wright served with the Advisory Commission for the Council of National Defense, as Assistant Chief of the Aircraft Branch of the Office of Production Management (later WPB), and as Director of the Aircraft Resources Control Office of the Aircraft Production Board. Along the way he contributed extensively to the literature of aircraft manufacturing.

1946

May 5: Delos W. Rentzel was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Theodore P. Wright, who resigned on January 14 to take a position with Cornell University, including presidency of the Cornell Aeronautical Laboratory.

Rentzel, before appointment as CAA Administrator, was president of Aeronautical Radio, Inc., from 1943 to 1948, and for 12 years prior to that had been director of communications for American Airlines. During World War II he served as a consultant to the Secretary of War on navigational aids and to the Secretary of the Navy on Pacific routes. He was educated at Texas A. & M., where he studied electrical engineering.

1950

September 20: Donald W. Nyrop was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Delos W. Rentzel, who resigned on September 18 to become Chairman of the Civil Aeronautics Board.

Nyrop was Deputy Administrator when nominated to be CAA Administrator, and had had previous service in the General Counsel's office of both CAA and CAB. He received his B.A. degree from Doane College (Crete, Nebr.) in 1934 and a law degree from George Washington University (Washington, D.C.) in 1939.

1951

April 11: Charles F. Horne was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Donald W. Nyrop, who resigned on March 18 to become Chairman of the Civil Aeronautics Board.

Horne, a regular Navy officer, graduated from the U.S. Naval Academy in 1926 and received an M.S. degree in communications and electronics from Harvard in 1935. On loan from the Navy, he became Acting Director of CAA's Airways Division in 1949. From 1950 to 1953 he served as vice chairman of the Radio Technical Commission for Aeronautics.

1953

April 23: Frederick B. Lee was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Charles F. Horne, who resigned on March 6, 1953, because of the change in administration following President Eisenhower's election the previous November.

Lee was educated at Stanford and Harvard Universities, receiving from the latter his A.B. degree in 1928 and a law degree in 1931. A naval aviator in World War II, he rose to the rank of commander, authored a manual for

naval flight instructors, and supervised training in night fighters and torpedo units. He joined CAA in 1946 as Program Planning Officer, was made executive assistant to the Administrator in January 1947, and became Deputy Administrator the same year. He was still Deputy Administrator when nominated on March 11, 1953, to be Administrator.

1954

June 6: Charles J. Lowen was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Frederick B. Lee, who resigned on December 8, 1955, because of policy differences with the Secretary and Under Secretary of Commerce.

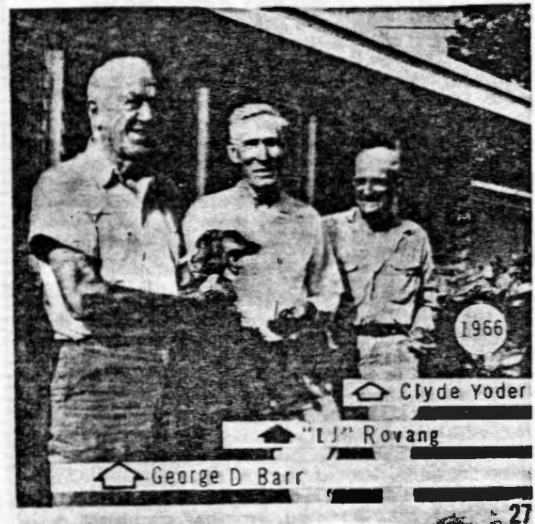
Deputy Administrator under Lee since the previous July, Lowen was nominated as his successor on December 12, 1955. He was a 1938 graduate of the University of Colorado, had worked in aviation sales and service until 1942, and had served during World War II with the Air Transport Command. His experience after the war included 3 years as an executive with Capital Airlines and a period as Director of Aviation for Denver.

Lowen underwent surgery for cancer in May 1956, shortly before the Senate confirmed his nomination as Administrator. He died the following September 5.

1957

February 7: James T. Pyle was confirmed by the Senate as Administrator of Civil Aeronautics. He succeeded Charles J. Lowen, who died September 5, 1956. Pyle had been Deputy Administrator under Lowen and was nominated as his successor on December 20, 1956.

Pyle studied business law and accounting at Princeton and Columbia Universities, aircraft mechanics at the Casey Jones School of Aeronautics, and meteorology and transportation at the Daniel Guggenheim School of Aeronautics, New York University. From 1935 to 1946 he was with Pan American Airways; during World War II he served in the Pacific with the Naval Air Transport Service. He was President of the Denver Air Terminal Corporation from 1946 to 1953, after which he served as special assistant to the Assistant Secretary of the Navy for Air until 1956, when he joined CAA as Deputy Administrator.



## FAA Administrators P-4

1958 -

November 1: **Elwood R. Quesada**, Special Assistant to the President for Aviation Matters and Chairman of the Airways Modernization Board, became the first Administrator of the Federal Aviation Agency. A retired regular U.S. Air Force officer, Lt. Gen. Quesada had been required by provisions of the Federal Aviation Act to resign his commission in order to qualify as FAA Administrator.

Before his retirement from the U.S. Air Force in 1951, Quesada had a long and distinguished career in military aviation. He was a member of the flight crew of the Army C-2 Question Mark, which, under the command of Major Carl Spaatz, broke all world endurance marks in January 1929 by remaining in the air for more than 150 hours. During World War II Quesada held a series of important commands, including the 12th Fighter Command, the 9th Fighter Command, and the 9th Tactical Air Command. In 1946 he became Commanding General, Tactical Air Command; in 1949, chairman of the Joint Technical Planning Committee of the Joint Chiefs of Staff; in 1951, Commanding General of Joint Task Force Three. He holds, with various other awards, the Distinguished Service Medal with one cluster and the Distinguished Flying Cross.

1958

December 31: The Federal Aviation Agency assumed the full scope of its statutory responsibilities. Under the provisions of the Federal Aviation Act the effective date of appointment of the first FAA Administrator determined the effective date of most of the operative provisions of the act, which were to take effect 60 days from the qualification of the first Administrator. On this date FAA superseded CAA and absorbed certain CAB personnel associated with safety rulemaking. James T. Pyle, the last CAA Administrator, became Deputy Administrator of FAA.

1961

January 20: **Najeeb E. Halaby** was named principal aviation adviser to President John F. Kennedy and Administrator of the Federal Aviation Agency on January 19, 1961. A lawyer and executive of industrial corporations in private life, Halaby was one of the original group which outlined proposals for the creation of the FAA and was a Navy test pilot for the first American-made jet airplane.

Halaby began his flying career in 1933 at the age of 17. He became a commercial pilot instructor of the Army Air Force in 1940. Later he joined the Lockheed Aircraft Corp. as a test pilot and in 1943 became a Navy pilot. As a naval aviator, Halaby helped organize the Navy's first Test Pilot School and acted as the school's chief instructor. He was one of the first pilots to flight test the first operational American jet plane, the Bell YP-59 - and in May, 1945, he made the first continuous transcontinental jet-powered flight in the Lockheed YP-80.

After World War II Halaby became Foreign Affairs Adviser to Secretary of Defense James Forrestal and also first chairman of the North Atlantic Treaty Organization (NATO) Military Production and Supply Board. He completed his Pentagon career as Deputy Assistant Secretary of Defense for International Security Affairs in 1953. He also was vice chairman of the White House Aviation Facilities Study Group which recommended in 1955 a rapid modernization of the long neglected airways. Until his FAA appointment, Halaby directed his own law firm and was President of American Technology Corp. in Los Angeles. Immediately prior to joining the FAA, he was secretary-treasurer of Aerospace Corp.

Born in Dallas, Tex., Halaby was educated at Stanford University (AB in 1937), the University of Michigan and Yale University (LL.B. in 1940).

1965

July 1: **General William F. McKee** (USAF Ret.) was nominated Administrator of the FAA by President Lyndon B. Johnson on June 23, 1965, confirmed by the Senate on June 30 and sworn in on July 1.

On retirement from the Air Force in August 1964, General McKee was Vice Chief of Staff. In September 1964 he joined the National Aeronautics and Space Administration (NASA) as Assistant Administrator for Management Development, a post he held prior to his FAA appointment.

Born at Chilhowie, Va., General McKee was graduated from West Point in 1929 and commissioned a second lieutenant in the Coast Artillery Corps of the Regular Army. He served in Army assignments in Florida, the Canal Zone, California, the Philippines, Puerto Rico and at the Norfolk Naval Station, Va. before transferring to Headquarters, Army Air Force in January 1942. He received his first star in 1945 and was appointed Chief of Staff of the Air Transport Command in 1946. In August 1946 he went to Europe as Commanding General of the European Division, Air Transport Command, with headquarters at Paris. In December 1946 he transferred to USAF Europe (USAFE) headquartered at Wiesbaden and became its commanding general in January 1947. He was appointed Assistant Vice Chief of Staff of the USAF in September 1947 and was promoted to Major General in 1948. In 1953 General McKee became Vice Commander, Air Materiel Command, USAF. He gained his third star as Lieutenant General in 1957 and, in August 1961, was named Commander, Air Force Logistics Command, receiving his fourth star at that time. The following July he became Vice Chief of Staff, USAF, under General Curtis LeMay. Relieved by John H. Shaffer Aug 1 1965

## Captain Fred C. Hingsburg ★★★★★

From WHO'S WHO IN AVIATION - 1942-43

**HINGSBURG, FREDERICK CHARLES**, Commander U.S. Coast Guard, Seattle. Res. 5810 Cowen Pl., Seattle.

B. NYC, July 5, 1889. P. Alexander and Emma (Marker) Hingsburg. Educ. B.E. 1909, C.E. 1913, Cooper Union, N.Y.C.; Poly. Inst. of Brooklyn 1910-12. M. Emma M. Geissinger of N.Y.C., Jan. 23, 1918.

**AVIATION BUSINESS RECORD:** Aide 1911-12, Asst. Supt. 1912-18, sig. engr. 1934-36, U.S. Lighthouse Service; supt. lighthouses 1918-25 and 1936-39; chief engr. Airways Div. Dept. of Commerce 1926-34; laid out 19,000 m. of airways.

**MILITARY RECORD:** Comdr. U.S. Coast Guard since 1939.

**AWARD:** Victory Medal.

**MEM.:** Amer. Soc. of Civ. Engrs., Assoc. Fellow Inst. of the Aero Sciences.

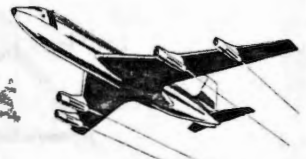
**CONTRIB.:** Articles on air navigation facilities to aero publications.

**Deceased - March 26 1959 - Heart.**

SOCIETY OF AIRWAY PIONEERS



# ALASKA



## Early Radio & Aviation in ALASKA

### Aviation Radio in Alaska

William A. Brennan

**T**here is no other area in the world in which Communication and Aviation has been linked more with the development of a country and its people than the Territory of ALASKA which up to the "Thirties" was still very isolated. Communications and Aviation has changed it all.

The "bush pilots" were the real pioneers in Alaska. Knowing the need for communication of this intrepid group, versed in the ways of the "Williwaws" and the Northern Winters, a radio operator by the name of Douglas Mathews, who later became Chief of the ALASKA AERONAUTICAL & COMMUNICATIONS COMMISSION station at Fairbanks established what would be considered a type of "AIRINC" station at Fairbanks, which for a fee, the bush-pilots could join and thereby keep in contact with home base during their flights to the back country. Both code and voice communications were used. Later a similar station was established at Anchorage.

It might also be mentioned that in 1935, PANAM (Pan-American Airways) established a string of stations through Alaska to support its flying activities. Point to Point communications was by C.W. as was much of the contact with its aircraft. All planes on scheduled flights carried a "Flight-Mechanic/Radio Operator" who handled the communications by hand key. Planes used were mostly "Pilgrims". Mechanical ability was the ONE REQUIREMENT of these men and radio secondary. Hence a code speed of 5-10 WPM was the usual transmission speed. Keys with contacts about 1/4" wide were used and passengers riding the planes could hear all that was going on if they could read code.

THE ALASKA AERONAUTICS AND COMMUNICATIONS COMMISSION was established in 1938 with an initial appropriation of \$100,000. Mr. Glen E. Goudie became the Chief Engineer & Administrative Officer of the AA&CC organization which was established to assist aviation throughout the Territory.

The first stations of the system were commissioned in 1938 using Halli-crafter transmitter and receiving equipment. Commissioning and Staffing of the facilities, as follows:

Sequence of Commissioning		
AA&CC Call of station	CAA Call assigned at later date.	Chief or first operator at station.
1. K7FXQ	KCDW ANCHORAGE	Johnny Conrad (D) Larry Lawton(d) Cmd. late 1938. Bill Cruise Chief & Ray Anderson Assistant.
2. K7FXU	KKEA JUNEAU	Grant McMurry helped build. Doug. Mathews was Chief.
3. K7FXS	KCAS FAIRBANKS	Cmd early 1939. Grant McMurry built & 1st Chief. Elmer Danes (d) Est. early 1939. Hoffman Chief.
4. K7FXO	NOME	Est. Apr. 39. Blaisdell Chief
5.	KETCHICAN	
6. K7FXH	CORDOVA	

Note the "FX" (Fixed Station) Amateur likes calls assigned. Operators were hired in Seattle and assigned first to Juneau where they "broke-in" under Wilse E. Cruise (Chief) and Ray Anderson - then assigned to stations North.

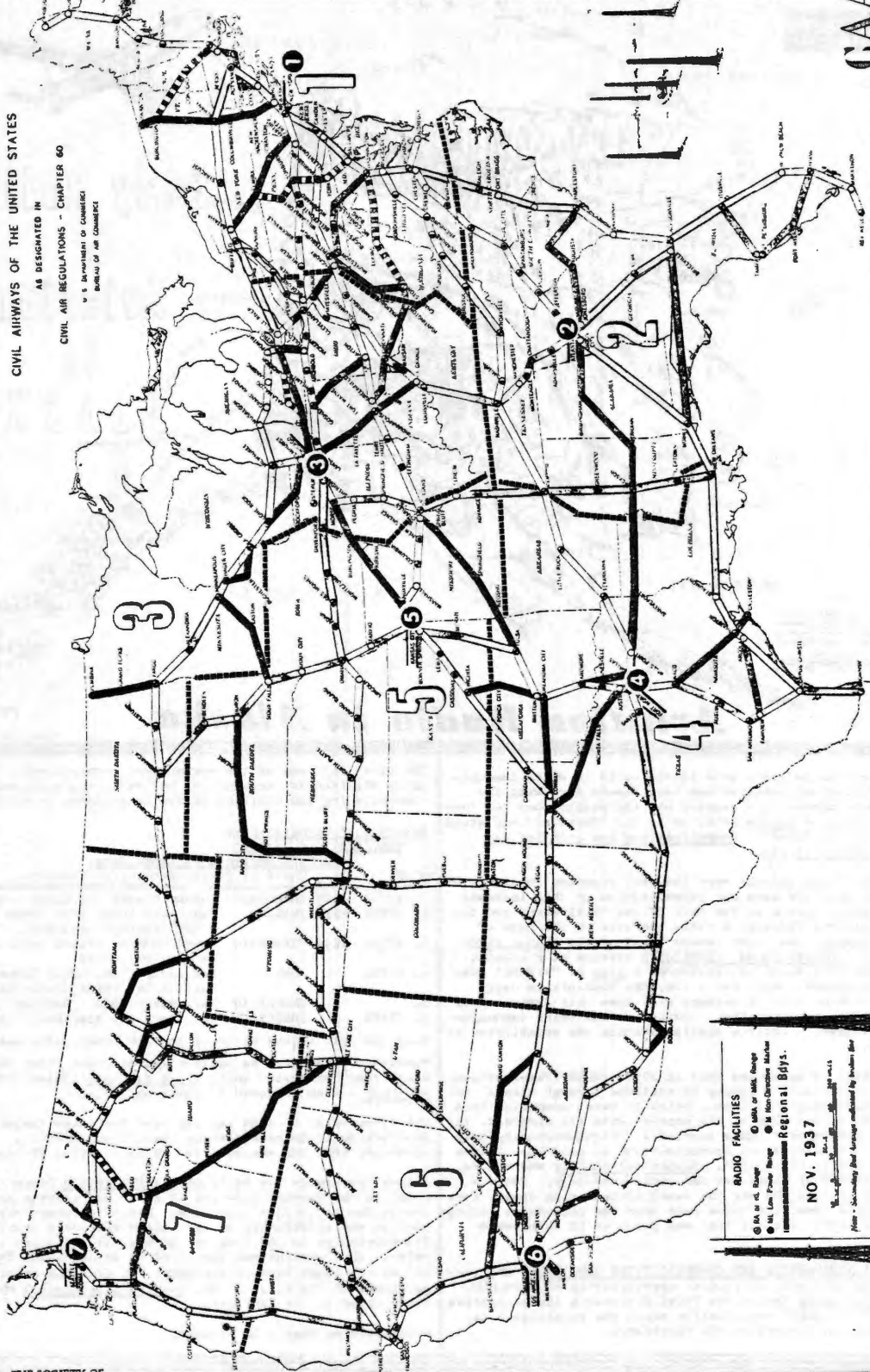
The frequencies of 3400 kcs was used for voice communication 24-hours daily in broadcasting weather and traffic. The frequency 6800 kcs was used for Point to Point CW traffic.

A loop type range was built on GRAVINA ISLAND (near Ketchikan) on the leeward side but it never did operate satisfactorily due to terrain problems. Later, a communications station was established on the island side near Ketchikan. Transportation to and from was across about 3 miles of open water. This station was installed in an abandoned Territorial school house, housing equipment and assigned station personnel of the C.A.A. Mr. George Hollingsworth was the first Chief of the facility.

(Completed on Page - 32 Please).

CIVIL AIRWAYS OF THE UNITED STATES

AS DESIGNATED IN  
CIVIL AIR REGULATIONS - CHAPTER 60  
BY THE BOARD OF COMMERCE  
BUREAU OF AIR COMMERCE



**RADIO FACILITIES**

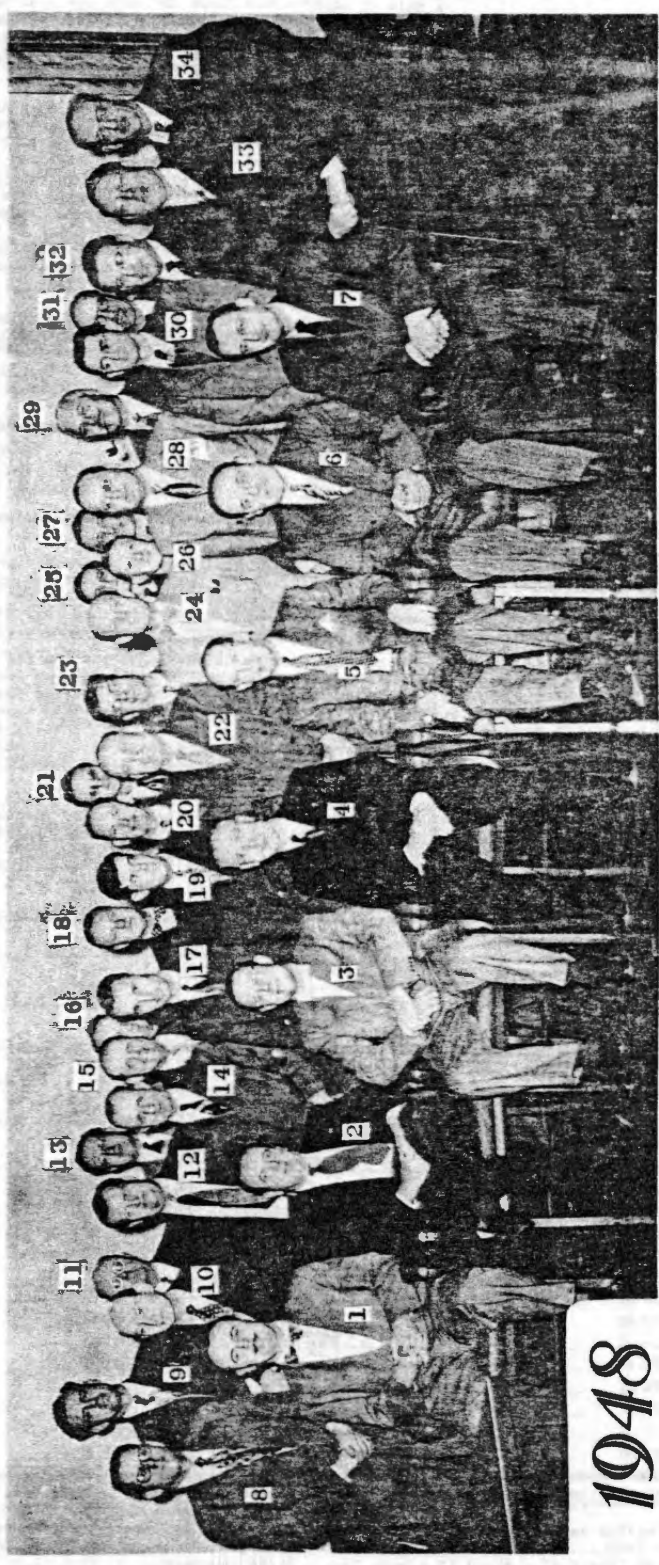
- HA or VLF Range
- HA or MW Range
- H Low Power Range
- H High Power Range
- H Non-Directional Station
- H Directional Station
- H Regional Station

NOV. 1937

Scale: 1:1,000,000

Notes: - Secondary and Airway authorized by Section 101

# Meeting - Region 1, ACS Chiefs, New York



1948

- |                                  |   |                                 |              |
|----------------------------------|---|---------------------------------|--------------|
| 1. LaRUE, Wm A. Chief ADO R-1    | 13. FELTEMAN, Lester - HAE  | 25. Unidentified                | WSY          |
| 2. DAVIS, John W. Pittsburgh R-1 | 14. PLANT, P.T. AVP   | 26. SPENCER, Clinton, Chief     | Philadelphia |
| 3. TALIX, Chet. R-1              | 15. MARABLE, Gus - Newark   | 27. MASON, James - Philadelphia | ELM          |
| *4. DONALDSON, R.O. Chf. COM R-1 | 16. WAKEFIELD, Macolm, Bradford Pa.                                 | 28. HOSKINSON, Paul             | R-1          |
| 5. BRENTMAN, Wm A. Chf. COM R-3  | 17. ZWICKER, Howard MIV   | 29. EDWARDS, Fenton L. (FxdCom) | R-1          |
| 6. BROWN, Larry AOS R-3          | 18. ALBRECHT, H.W. "Dutch" R-1                                      | 30. FRATINO, Don LaGuardia FSS. | R-1          |
| 7. DOROFF, Sydney Br.Chf. R-1    | *19. DOANE, Joe BUF   | *31. ROWE, William J. COM       | R-1          |
| *8. NEWMANN, Everett, AOS R-1    | 20. Unidentified  | +32. LYNCH, Irwin W. COM        | ROA          |
| 9. KAIZEN AOO                    | 21. Unidentified  | *33. WILSON, Walter E. COM      | R-1          |
| 10. O'DONOVAN, Wm. COM R-1       | 22. O'Neill, Daniel S. Allentwn                                     | *34. SAVAGE, Tom. COM           | R-1          |
| 11. LEPHART, Melvin IPT          | 23. HULL, Harry - Albany (Thanks to W.A. LaRue and Bill Cantwell    |                                 |              |
| *12. TOOMEY, John ATC R-1        | 24. SPARKS, Austin L, Washn. EA-510 for assistance in identifying.) |                                 |              |

# Early Alaska Radio



**FRONTIER STATION** Control A.C.S. at Farewell Alaska in Rainey Pass on the Anchorage-Nome Airways. G. A. Whittaker (who furnished pix) said it was hard at times to raise temp to over 45° in quarters. Note moose antlers over door.

**G**len E. Gordis, Electronics Engineer and Chief of AA&CC joined the FAA and for years was Chief of the Signals Branch in Anchorage and later became Division Chief in Washington. One of his developments was a "dual" diversity receiver which materially improved communications in the North.

The original stations used 50-watts power on H.F. which was not sufficient to maintain dependable communications. One of the big problems of communications in Alaska was and is that caused by the frequent displays of the "Aurora Borealis" which cause signals to become erratic or to blank out completely at times, as all radio men who have served in these northern areas know. There was never any PTP circuits on LF in the airways due to this reason. Replacement equipment in the form of "THJ" transmitters were furnished through the office of **Thomas Bourne** and later LSR-300 transmitters, type "THA" were installed.

**FOOTNOTE:**

I wish to thank **Gerald A. "Jerry" Whittaker** and **Wilke E. Cruse** for furnishing the foregoing historical data of the early day communications as used in Alaska flying. **Jerry Whittaker** has been identified with Alaska Communications and operations since he volunteered for Service in Alaska at the time it was started by C.A.A. and until retirement over a quarter century later, most of the time as Chief of Communications or the Operations Division. **WILKE E. "BILL" CRUSE** was one of the pioneer group of men who established the AA&CC in ALASKA. He later held administrative and training positions in the U.S. He is now Director of OCD in the Pacific Northwest.

**FIRST TELETYPEWRITERS IN ALASKA**

A rather interesting sidelight was mentioned by Whittaker. When he became Chief at Fairbanks (one of his first assignments) **"Andy" Anderson**, Chief of the USWB Station Fairbanks told him that he had 3 brand new type 15 teletypes on hand but no one to hook them up or do anything with them. Whittaker checked them out but found all had 215-A relays missing. He knew from specs a 60 mil-line was required so after much experimenting he was

able to balance his lines and make the sets work. The sets linked Ladd Field, the C.A.A. station and the Weather Bureau station in the P.O. Bldg. This was 1940... and believed to be the first time TELETYPE was commissioned and used in the Territory.

Expansion of communications and aviation in Alaska was largely due to our involvement in WW-2 and the need to ferry aircraft to Europe to assist our Allies in the struggle with the Central Powers. American pilots would fly aircraft, made in the U.S. to Fairbanks at which point the Russian crews would take over for the flight to Europe across Asia (Siberia). Stops after leaving Fairbanks were made for refueling at Galena and for final gas and weather check in Nome prior to final hop across the Bering Sea to Russian bases on the Chukotak Peninsula.

Another interesting note in early Alaska communications was that Station K7FXU at Juneau AA&CC (and later KCEA for CAA) used to handle traffic to/from the "States" through CAA Seattle Station KCZ. This was long before the high-power station was built and commissioned at Everett (KCJ) in 1942.

- 30 - CX

## DCA Honors FSS

Continued from Page 16.

The only "pioneer" who seems to have been invited to the big Washington celebration was Mr. **Art Johnson** who informed me that he received a "last-minute" call on August 18th... inviting him to attend Aug. 20th so he said he "grabbed a plane" and luckily made it.

The program started in Washington at the FAA Auditorium with an audio-visual presentation lasting about 14 minutes, showing pictures of many of the old stations and some of the newer ones. When the lights came on, many balloons were released marked "50". Walls of the auditorium were lined with pictures of people, equipment and stations (enlarged to about 20x24") many taken by Art Johnson himself in the early days.

Several former Administrators attended including Messrs **McKee, Quesada and Fyle**. Others noted included **Dave Thomas, Si Clark, Bill Jackson, Al Barnable, Vic Kayne, Eddie Greco and Joe Griner**. At the evening reception sponsored by NAC and AOPA, **Joe Greiner** cut a huge birthday cake

WB Form 1130 UNITED STATES DEPARTMENT OF WEATHER

Time entries on this form are 150 th meridian time.

To convert (add) 10 hours TANANA ALASKA SURFACE WEATHER (LAND STATION) WBAW

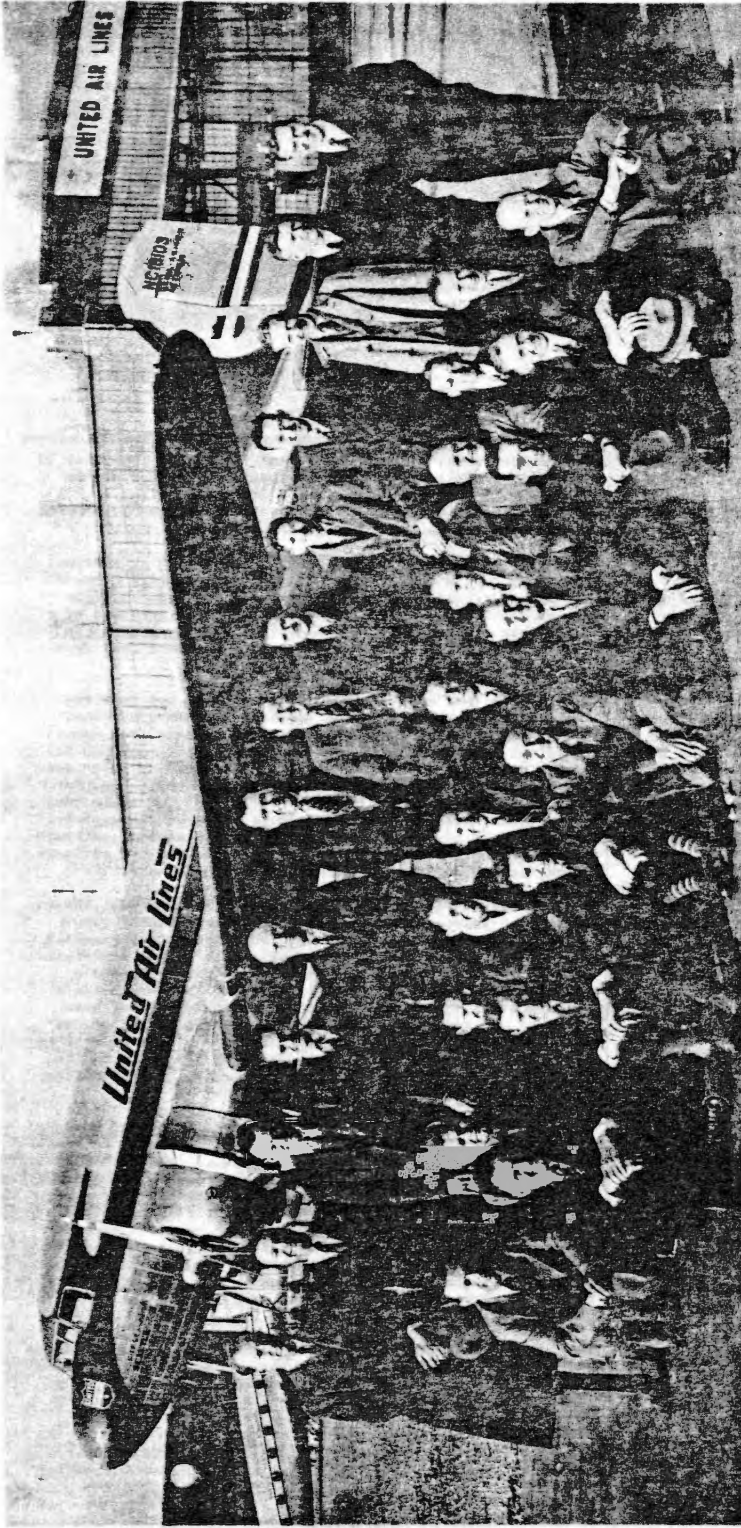
to G. C. T. {

Result of Observation 239.1 (LMSL) PAGE 1 JAN 25, 1947

TYPE	TIME	CLASSIFICATION	CEILING (in feet)	SKY	VISIBILITY (miles)	WEATHER AND/OR OBSTRUCTIONS TO VISION	SEA LEVEL PRESSURE (inches)	TEMP. AND DEW PT. (°F)	WIND			ALTIMETER (inches)	REMARKS AND SUPPLEMENTARY NOTATIONS	
									DIRECTION	VELOCITY (K.T.)	CHARACTER AND SHIFTS			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
✓	0005			O	3/4	IF	-	-		C		001		
R	0015			O	5/8	IF	123	-62	M		C	001		
✓	0100			O	3/4	IF	-	-		C		002		
R	0115			O	3/4	IF	190	-62	M		C	003		
✓	0200			O	1	IF	-	-		C		004		
R	0215			O	1	IF	193	-66	M		C	004		
✓	0300			O	1	IF	-	-		C		005		
R	0315			O	1	IF	196	-68	M		C	005		
✓	0400			O	3/4	IF	-	-		C		005		
R	0415			O	3/4	IF	196	-70	M		C	005		
✓	0500			O	3/4	IF	-	-		C		006		
R	0515			O	3/4	IF	200	-70	M		C	006		
✓	0600			O	3/4	IF	-	-		C		007		
R	0615			O	3/4	IF	203	-68	M		C	007		
✓	0700			O	3/4	IF	-	-		C		008		

"UNUSUAL WEATHER" said **Mark Twain**. But Mark never did report weather from TANANA ALASKA or he might have added a bit more colorful rhetoric, especially on Jan. 25 1947 as Form 1130-A clearly shows. Note Temperature in Col. 9 at 0425 ... -71° (MINUS 71 Degrees). Also note "IF" in col. 7. Few stations ever report "ice fog" - which it stands for. Photo courtesy G. A. Whittaker.

THE SOCIETY OF AIRWAY PIONEERS



## Seattle 1940 - Meeting, Region Seven O. I. C.'s

### REGION SEVEN CHIEFS

#### Front Row:

Ed Meyers; W.R. Crooks; Raymond E. Wali; Cliff W. Wheeler; Lee C. Churchill;  
(3 at right—unidentified).

#### Center:

B.C. Swaffield; A.R. Wahl, A.J. Fitzgerald; George Bates; John Piet; Ralph W. Baker; Ernest C. Dikes; W.A. Cutting; Oiva Riihula, C.C. Lange.

#### Rear Row:

C.W. Larsen; G.H. Pascoe; T.J. Schwarzmann; Oscar Rasmussen; H.W. Wilson;  
O.L. McCaughey; Norval E. Thurman; L.V. Richmond; Emory W. Readen; Jack  
Larabee; W.E. Cruse; N.W. Bliss; A.W. Whittaker.

Photo—courtesy Ernie Dikes.

# UN-OFFICIAL PUBLICATIONS OF THE C.A.A.



SEES ALL

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TELLS ALL!

**I**t is funny how a short phone call can sometimes change the routine of one's life. Take, for instance, the "jingle" from Bill LaRue (He was Chief A.O.D.) late one afternoon just before closing time back in the Kansas City Regional Office. Had it not been for that call - the chances are that you would not be reading this!

It was along in December when darkness comes early and some of the Regional Office employees had already left their desks and were on their way home for the week-end. Bill ask me to drop down to the "front office" for a few minutes. He said something about "...establishing empathy with the field but I guess it sort of went by as I was thinking of my group riders, Jerry Melville, Dave Freeman and several others who depended on my "Rockhill-Recket" for their ride home.

**EMPATHY?** I was wondering what this was all about as I walked into the office of Ed Kline our Regional Manager. Bill and our R.M. "filled me in" with little delay on an idea they had been kicking around to establish a Regional Newsletter or "scandal-sheet". Purpose? Combat or off-set the effects of chain round-robin letters that were mushrooming in the field.

We were experiencing growing personnel problems in the staffing of our stations as well as increasing difficulties at facilities in maintaining "esprit de corps" and friendly relations between assigned personnel. No one realized this better than Bill Brennan who had been bouncing around the region like a rubber ball, putting out fires and resolving the rising incidence of problems at field stations that seemed to come up several times weekly... and you thought "Cabin fever" only occurred in ALASKA?

The primary cause of such unrest and the rising incidence of problems as mentioned was the increasing influence of the "ROUND-ROBIN CHAIN LETTERS". Each graduating class of the Region's training school seemed to start a chain of its own. ...just to keep in touch with class members.

Soon the region had some 14 (known) chains with an average of 30 members in each chain. These chain letters crossed and criss-crossed the region - were read and exchanged by all at stations, hence they not only kept all informed of every iota of news (and views) but MUCH "MIS-INFORMATION" was included so it became impossible to separate fact from fiction or vice versa.

Considering that many of these new employees had been recruited from large cities and population centers and that this was, for many, their first experience away from home, it is not hard to realize that the only outlet many had to combat home-sickness or the rural "quaintness" of such isolated spots as Hayes Center, Nebr., Bitter Creek, Wyo., or Casseday Kansas (to name a few) was to **POUR OUT** their pent up emotions, feelings and frustrations in these "round-robin" letters, most of which presented a pretty distorted, disturbed and provincial view of these city people who had not been "conditioned" to live at isolated locations.

Some Station Chiefs took on the aspect of being cruel, heartless and monstrous demons, while the description of some stations and their locations would make the "outer-reaches" of Mongolia seem a paradise. Needless to say we experienced a number of "instant" resignations when we proposed a transfer to some locations. Considering the Government's investment of approximately \$1850 training cost/s of each employee or student graduated from the training center, we had a responsibility in protecting our investment as well as the problem of staffing which became very acute due to the sychoning and attrition of trained personnel by the military during these war years.

... but to get back to the "nitty-gritty". Regional Manager Kline and AOB Chief LaRue "thought" that I would be the answer to the problem (!?) So it happened... Bill Brennan, sans editorial ability or publishing experience, started the "TV-REGIONNAIRE". The first edition to hit the field was January 26 1945. Of course there was one little problem -- "MONEY"! We couldn't produce or mail our paper at government expense, hence we had to solicit employees and induce them to "subscribe" to our publication, so... "Ye Ed" became not only the editor and publisher but Chief of the Entrepreneur Section with no extra pay... but think of the GLORY!

Well, the first edition seemed to "click" and the publication became quite a success and was going strong when I transferred to Chicago in 1946 as Chief Communications Branch, Reg. III. Now, I thought, at least I can concentrate on my own job and forget copy, deadlines and promotional material! It was a beautiful dream and it lasted almost a whole month. One day, George W. Vest, our Third Regional Administrator called me to his office. Guess what? I became the editor and publisher of the Third Region's "FLIGHT LOG"!

(There is more of this lurid story on the following page)





(Continued from Page - 34)

My story doesn't quite end in Chicago (Region III). Later I was transferred to Washington as Deputy Chief of the Communications Division. The CIVIL AERONAUTICS CLUB of the CAA & CAB put their grubby little fingers on me to publish their "CA-NEWS" which I did till I was transferred to Seattle. I did "con" my Secretary, Anna M. Meyer into doing most of the typing which she did with aplomb and deftness. However by the time I left Washington's "foggy-bottoms" I had talked one Charles Plonck into taking over where I left off.

So you have the history of the beginning of the "V-REGIONNAIRE" and the "FLIGHT-LOG". There were other publications even better known - that is if you were in the service during the late thirties or early forties. One was the "720-HOUR CHECK" edited and published by Harry Agerter, Ass't. to Howard Rough, Director of Regional Offices.

The cartoon at the right shows Harry hard at work on copy for the coming edition. It was drawn by Charles R. McComas who furnished a cartoon or monthly drawing for the publication. Among the "characters" that "Mac" and McComas made famous is that of SYEN TUBHENNY shown at top of Page 34...with battered spy-glass and briefcase, over sized boots, and pencil and pad, concealing, as Mac says, the famous monkeys with his slogan of "SEES ALL - HEARS ALL - KNOWS ALL - TELLS ALL". Behind the headlines was also a C.A.A. gal by the name of Miss Esther Cloyd who helped Mac put the mag together ea each month. Mac, the "spark-plug" of "720" resigned in May 1940 to sell Erocoupes so it wasn't long till the sign "30" appeared and "720" was but a memory... a VERY nostalgic one to most of us old timers.

**MUKLUK TELEGRAPH**

Perhaps the best known Regional monthly was THE MUKLUK TELEGRAPH from the land of ice, snow and Marshall Hoppin.

Issue No. 1 was published in Jan. 1943 with Jack T. Jefford (when not flying) Manager & Newboy. The Editor who probably did more than any to make it so successful was Marjorie Jenks, Dot Revell and Mabel Stubbs also took a turn at the editor's desk. Vivian Chevillan and Marion Buscy did much of

the drawing and illustrating. Al Horning was THE sports editor. MUKTEL (as it was often abbreviated) survived 7 Arctic winters and 8 summers... until the trek of Chechakos from "foggy bottoms" caused its demise in 1950. (This could not be proven)

MUKLUK TELEGRAPH personified ALASKA ( A close race with the mosquitoes for this honor). It was the history of Alaska, at least most of the early years. It presents "portraits" of scores of interesting "characters" who helped make CAA histo and its pages cover the pioneering days from 1943 to 1950. Sorry it didn't touch the real rugged years between 1939 to 1943.

The pages of MUKTEL reflect and tell about the Agency's contributions to the war-effort, its struggles in recruiting, its problems of logistics, its services to the military and the lives its personnel lived.

MUKTEL also tells about the gripes of the human beings who did the work. In fact, the correspondents of MUKTEL, stashed away in lonely spots, often became such too human when they sat down to write the "news" from their stations. Sobersided officials often winced at MUKLUK items. They were sometimes heard to wonder(C-36



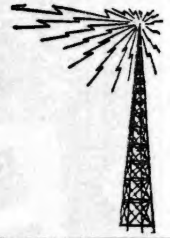


"AJ" is considered by most old-timers in our business as the "DEAN" of the Air-Mail Communications people. Not only has he made major contributions to the art but he has earned the respect and high esteem of all who know him. We value him as a friend. We admire him for his knowledge of radio and people. We tip our hat for his marvelous sense of values in dealing with superiors and subordinates alike with complete honesty. Few, if any, in the business command greater respect and admiration.

## His wavelength is communication



# AIR MAIL RADIO



BY

ART JOHNSON

The following is from a paper presented by Mr. Johnson at an IAS meeting in Los Angeles, Calif., June 29 1962. Mr. Johnson was one of five panel members, all Air Mail Pioneers who were selected to tell the story of the Air Mail Service.



OR a long time, I have wondered what went on in the field of radio and communications in the Air Mail Service before I entered it.

It is evident that plans to use radio were being made at the very start of the Air Mail. It is also evident that the thinking at this time was that radio would be used for Air Navigation and Air/Ground Communications, and that leased wire service would be used for point to point communications exactly as it is done today.



In line with the foregoing, the Navy Department, in cooperation with the Post Office Department, tried a Robinson crossed-coil receiver on a plane in test flight about June 1919, using the Navy's Arlington transmitter. Results of this experiment are not known.

Four, 5-KW spark transmitters were ordered installed about July 1919, at New York, Bellefonte, Cleveland and Chicago. They were to transmit beacon signals, chiefly for twin-motored planes. Installation was completed at Bellefonte about Nov. 15 1919. Loop antennae were employed to provide directional signals and fair results were obtained. (Please turn to Page 37)

## PUBLICATIONS

(Continued from Page - 35)

"What will Washington think of that?" and to shudder at what a Congressman would say about a "personnel-paper" like the MUKLUK? It survived the early days but a change in format came along about 1946 which made it more "formal". That was perhaps the "beginning of the end" for this wonderful publication. Considering that the editors (like Bill Breziman in Region V) were not newspaper people and it was put out as an extra-curricular activity, usually on their own time, they can be pardoned for occasional missed editions, slips in recording volume and number ids and the many errors likely to creep in. Readers of MUKLUK did little "nit-picking" it was reported. They were too interested in the earthy character of the publication to take much notice of style. After all, the Radio and TV Commercial ... "What do you want -- Good grammar or good taste? was a quarter century or so away. "What do you want ... Good grammar or an ACTION PACKED PUBLICATION? Muckluc'ers said... "We'll take MUKTEL any time !!! It will be long remembered.

While MUKTEL perhaps didn't have the emotional appeal of Robert V. Service's "SPELL OF THE YUKON", it continues to recall nostalgic memories of the past. We still chuckle at some of the reports sent in by Malamute Slim from Tanx cross; The reports by Emy Ominus from ZZZ Sittinsmoke; Slep from the Chena Slough and the sophisticated "game" each month from the "City of Stupidity in the State of Confusion".

The Saga of the CAA's invasion into the land of Steffanson's "Friendly Arctic" has been preserved for posterity through the reprinting and binding of all (or mostly all) of these frostbitten issues in one volume, circa 1950 by the Civilair Club of Anchorage. It is a real collector's item of Alaska memorabilia... telling it as it was.

"SERVICE BULLETIN" of the Sixth A.N.D.

Back in December 1934, Alvin O. Preil, at that time Manager of the 6th Air Navigation District (A.N.D.) with head quarters at Oakland, started a "Service Bulletin" for the field personnel of his District. Al Preil himself acted as Editor of the publication with J.O. Hay assisting as "Printer's Devil". This publication carried articles of great interest associated with the times, such as "FLYING THE PACIFIC (A report on the Clippers) by Gordon Pascoe. "FLEWS NASH" which Art Johnson probably forgot writing long ago. "AVIATION PROGRESS" by Frederick H. Stephens and contributions by many by such authors as Eskel Daniel, Delbert K. Gifford, Hal Carrick, J. C. Taylor, Hans Anderson, E. Mathews, Ward Cutting, Reese Clark, T.K.J. and many others.

We note that the Bureau was having a hard time deciphering the reports from one of its Assistant Radio Engineers (Homer E. Applecraft, by name). Seems like Homer had been inducted into the Wahoe Council of the Navahoes while building the station at Kingman Arizona. It was reported that Washington had to employ Indians from 19 different tribes in the area to translate the hieroglyphics on the New Jersey (Indian) blanket he wore around his neck and shoulders. Other "light key" articles could be found almost at will scattered through the official distums and governmentese releases of the period

We recall other publications such as "THE BEACON" published by the Aeronautical Center at Oke-City. "FLIGHT LINES" from Region III. "REGION FOUR NEWS" from the Region of the same number ... Natch! "TRADE WINDS" from Region VI. Also a publication we all purloined from the Weather Bureau gang, simply called "TOPICS". (We gave it back to them when all of us had read it).

- 30 -

THE SOCIETY OF  
AIRWAY PIONEERS



# EARLY YEARS OF THE AIR MAIL & AIRWAY RADIO

## From The Notes of Art Johnson

(Continued from Page - 36).

About two months earlier, a spark transmitter, borrowed from the Navy, was installed at College Park, just outside Washington. This was the first radio installation in the Air Mail Service. Another spark transmitter, borrowed from the Navy, was installed at Heller Field in Newark about March 1920. The Navy station at Philadelphia and the Air Mail stations at College Park and Newark were used to transmit beacon signals for planes experimentally. About May 1920, pilot Wesley L. Smith flew an airplane from College Park to the Philadelphia Navy Radio Station without regard to compass or ground indications, and with but brief instructions in radio navigation before departure. The airborne installation consisted of a receiver with a fixed loop antenna. Several other pilots also made flights using this equipment. At that time, there appeared to be very little demand for radio-navigation because all flights were made in daylight.

Some experimental work in direction finding was accomplished on twin motored planes, and radio telegraph communication was held with good results by carrying a radio operator on the plane. In one case a field was ordered lighted by utilizing the radio communication from the plane. Lighting was accomplished by using automobiles lined up with their head lights on the field.

By mid-1920 the idea of large planes had been abandoned and the DH-4 came into prominent use. A report status there was that no immediate requirement for beacon service, and the



**Robert O. Donaldson**

"BOB" DONALDSON was the FIRST appointed AATS. He EOD in the POD, 1-27-1923 at Cleveland, O., as operator. Later as AATS (early 1929) with HQ at Cleveland Later transferred to 1st Regional Office Newark which moved to New York City. "Bob" was an extremely capable administrator who was highly respected by all who worked for or with him. He was Charter Member #50 of the Society of Airway Pioneers. He retired in 1958 and moved to Florida where he died of heart attack Oct. 15 1960.



**Theodore K. Johnson**

"TK" or "Ted" Johnson was one of the Service's finest supervisors. He joined the POD 12-15-1920. He was AATS with HQ at ARS Station Oakland, CA., then circa 1929 he moved to Los Angeles. Later he was Chief Communications Branch, Santa Monica when brother Art was Chief, AOB., He traded positions in 1946 with Claude Smith and went to Honolulu as Chief AOB where he remained until he died July 3 1958.

beacon stations became radio communication stations. This was accomplished simply by changing the station antenna.

The Air Mail Station at Heller Field was moved to Garden City, Long Island, and was installed on property belonging to the Curtiss plant there. The Navy radio stations at Cleveland and Great Lakes, near Chicago, and the Air Mail radio station at Bellefonte, Garden City and College Park were the first units of the Air Mail Radio System, replacing leased wire telegraph service which had been established in 1919 between Washington and New York, and between New York and Chicago. One report states that the leased wire telegraph service was unsatisfactory and it gives this as the reason for discontinuance. I am not inclined to believe that it was unsatisfactory from an operational standpoint. It is more likely that it was unsatisfactory economically. Even though the service was leased part time (for certain hours each day), only a few messages were handled, and the cost per message was, no doubt, prohibitive. I am inclined, therefore, to think that the leased wire service was discontinued for reasons of economy, because you must remember that funds were mighty scarce in those days. Radio for point to point communication was far cheaper and was well adapted to the needs of the service.

Beginning in August 1920, sites were selected for radio communication stations at St. Louis, Omaha, North Platte, Cheyenne, Rock Springs, Salt Lake, Elko, Reno and arrangements were made for use of the Navy Radio Station at San Francisco (NPG).

Federal 2KW Arc Transmitters, shipboard type, were obtained from the United States Shipping Board and were installed between September and December 1920 in the following order: Cheyenne, Salt Lake, Reno, Elko, North Platte and Rock Springs, thus completing the transcontinental chain. Performance of the spark transmitters in the East left a great deal to be desired; therefore additional 2KW arc transmitters were obtained and installed to replace the sparks. Additional intermediate arc stations were installed at Iowa City and Bryan, just west of Toledo, in 1921. The arc transmitters operated on wave lengths between 2500 and 4200 meters. I am not sure about the spark transmitters, but I believe (See 38

# ART JOHNSON

"Telling it as it was"

(Continued from Page - 37)

they operated between about 900 and 1800 meters.

During heavy atmospherics, signals from the arc transmitters sometimes failed to get through. Phil Coupland and I, working at Salt Lake in 1921, developed a means of raising the power of these 2KW transmitters to 3KW, by enlarging the power supply, installing larger field coils and improving both air and water cooling. We also developed a wave-change switch by which we could change the transmitter from one wave length to another without shutting down the transmitter. BOTH OF THESE INNOVATIONS WERE ADOPTED BY WASHINGTON for use at all stations. But, even with the additional power, there were times when communication was impossible due to lightning storms and extremely heavy atmospherics. This gave rise to experiments with vacuum tube transmitters operating on short wave-lengths. The first experiments were conducted largely by radio operator Hadley Beedle at Reno and myself at Salt Lake City in 1921 and 1922. Hadley developed a convenient transmitter model utilizing two 1/4KW tubes with raw AC power supply. His model had certain advantages over mine, therefore I adopted his. He built and installed his units at Reno and Sacramento, and I built and installed similar units at all stations between Elko and Iowa City. This equipment, including receivers, was built in spare time while we were standing regular radio operator's watch. We had little or no money for the project and had to improvise in every way we could. The boys in the wing shop built some wooden frames in which we mounted the transmitter components.

Discarded 1/4" copper gas lines from Liberty engines was used to form inductance coils. Choke coils were wound on 2" paper mailing tubes. Condensers were robbed from Navy spare parts. Discarded 1/2KW power line transformers were purchased from the power company for about two dollars apiece, and these provided high voltage for the tubes. About the only items we had to buy on the open market were the tubes themselves and a filament voltmeter and a plate ammeter. We experimented on practically all wave-lengths from about 40 to 100 meters, finally settling down on 30 meters for daylight operations and 88 meters for nighttime. Additional experiments were conducted by Carl Hempel at the Monmouth Illinois Experimental Depot and I believe he installed one set at Chicago. Dan Cordano built and installed one later at San Francisco. One was also installed at Concord (Cal.) which by the mid 20's had become our Western Air Mail Terminal. These installations revolutionized the Air Mail



George L. Rand

**GEORGE L. "TIGER" RAND** about to "scramble" in his T-33, taken circa 1951. George was, at the time, Chief, Communications Division, Washington D.C. He was one of few supervisors who actually flew, hence in addition to being well grounded in communications, he also knew problems of the pilot who depended on CAA facilities. George became AATS at Fort Worth vice Elmer C. Butler in 1935 and 15 years later he was selected by Administrator DeLoe W. Rentsel to head the Communications Division. Later he was Deputy Chief of the Aeronautical Center from 1956 until retirement. A highly competent and personable executive.

radio system. It was not only possible to communicate consistently through the heavy atmospherics, but the distance range was extended tremendously. Daytime work up to 600 miles was common. During night hours, any station could work any other station with ease.

About 1921, the station at College Park was discontinued and an arc installation was made in the Post Office Department Building at 12th & Pennsylvania Avenue in Washington. About three years later, the arc installation was replaced there with a vacuum tube telephone and telegraph transmitter, which I believe was built by Westinghouse. It operated on medium wave lengths similar to the arcs. Voice transmissions were made to aircraft experimentally but we were still a long way from establishing regular two-way voice communication with aircraft.

In one experiment, a transmitter which had been installed on DH-245 at Schenectady and flown there, maintained successful two way communication on 222 meters with Long Island during the daytime. This was on October 26 1923. A short time thereafter, this aircraft, flown by Jack Knight over North Platte made transmissions which were reported heard in 32 states. Following this, ground radio phone installations were used experimentally at Omaha and Monmouth to communicate with aircraft in flight. Additional radio beacon experiments were conducted at Monmouth. I believe it was not until 1927, however, that the first four-course aural radio range beacon was installed. I believe it was at Bellefonte, Pennsylvania.

(Continued on Page - 40)



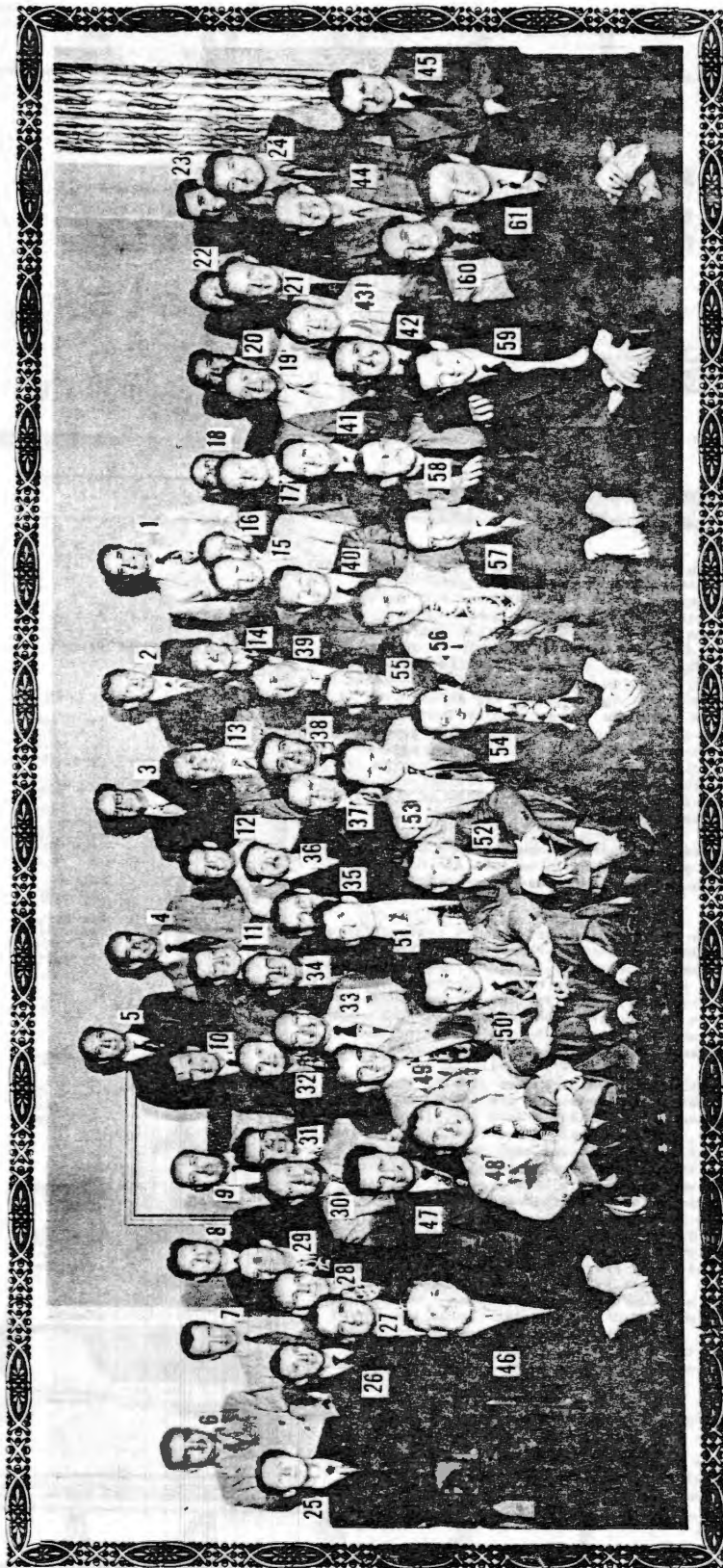
## Communications Supervisors of the C. A. A.

L to R. **CLAUDE M. SMYTH** (Chicago) Region III; **ROBERT "BOB" DONALDSON** (New York City) Reg. I; **ART JOHNSON** (Santa Monica) Reg. VI; **BENJ. WEINBERG** (Atlanta) Region II; **EUGENE SIBLEY**, (Wash., D.C.) Chief, Communications Service; **P.W. "Ed" WHITE** (Kansas City) Reg. V; **GEORGE L. RAND** (Ft. Worth) Reg. IV; **C.W. "Bill" LARSEN** (Seattle) Region VII; Not Shown - **Allen D. Hulen** (Alaska); **Theodore K. Johnson** (Honolulu). Picture taken in Washington 1939 and furnished through courtesy "Bob" Donaldson, Deceased. Others deceased include C.M. Smith, Benj. Weinberg and Eugene Sibley.

THE SOCIETY OF  
AIRWAY PIONEERS

# 1950 - Meeting of ARS Chiefs Reg. VI

SANTA MONICA CALIFORNIA APRIL 10-15 CLUB DEL MAR



1. Claude Smith R.O.
2. Herb Hela, R.O.
3. Wright, R.O.
4. Staff, R.O.
5. Butler, S.F.
6. Leavy, Needles
7. Potter, Prescott
8. Vroman, GilaBend
9. Talbot, Tucson
10. MacAdam, ElCentro
11. Weidner, Douglas
12. Hacker, Yuma
13. Kelley, Winslow
14. Johnson, Las Vegas
15. Fielder, R.O.
16. Solomon, Phoenix
17. Cartwright, S.Geo.
18. DeAndrea, R.O.
19. Trahan, Hanksville
20. Stepp, Blythe
21. Graham, Bryce Canyon
22. Jensen, Silver Lake
23. Atkins, Daggett
24. Pearce, Battle Mtn.
25. Jones, Ogdan
26. Christiansen, Fairfd
27. Davis, Crescent City
28. Brown, Oceanside
29. Ward, Delta
30. Kelso, Indio
31. Gibson, Winnemucca
32. Burns, Elko
33. Willey, San Diego
34. Byers, Wendover
35. Willhoite, Bkfield
36. Tripp, Salt Lake C.
37. Hall-R.O.
38. McCaughey, CedarCity
39. Walters, Milford
40. Timmons, StaBarbara
41. Daniels, Fresno
42. Deziel, Salinas
43. Elwell, Riverside
44. Pratt, LongBeach
45. Andrews, PasoRobles
46. Spiegelberg, Oakld.
47. Kulisek, Stockton
48. Renfro, Ukiah
49. Tate, RedBluff
50. Boughn, Arcata
51. Ashley, Burbank
52. Rylander, Donner S.
53. Hill, Montague
54. Prater, Lovelock
55. Fulton, L.A.
56. Miller, R.O.
57. Tucker, Fallon
58. McDonald, Sacto
59. Waldbieser, Wms.
60. Ware, Palmdale
61. Roberts, Reno.

# 5 DECADES

of  
Air Mail & Airway Radio History



## ART JOHNSON-CONTINUED

In communicating, the stations employed the calling/working wave system: i.e., a call would be made on the calling wave and the station would then shift to their own assigned working waves in order to clear the calling channel for use by other stations. Although the most important work was with the adjacent stations, about two hundred miles away, it was the practise to work any station directly whenever possible to effect direct delivery of messages. The traffic consisted chiefly of weather reports, departure and arrival messages and administrative messages relating to the Air Mail Service. At times during its existence, the Air Mail Radio Service handled messages for other government departments in order to fill up the time and avoid discontinuance when some congress man started throwing barbs about the silly Air Mail experiment. Included in this category were agricultural crop reports and messages for the Bureau of Public Roads. Radio telegraphy was used exclusively, and many of our operators were able to use the Phillips code of abbreviations which was an immense time saver.

Mr. Bernard Linden, who headed the Federal Communications Commission offices in the West for many years, once told me that Air Mail Radio was the most efficient communication service he had ever had the privilege to monitor.

It may be interesting to note that the Air Mail Service devised its own system of weather observing and made weather observations from its beginning in 1918 until it ceased operations in 1927. I believe it was not until about 1925 or 1926 that I ever saw anyone in the Weather Bureau making aeronautical observations. The Weather Bureau, of course, standardized and improved the weather service and provided such needed instruments. The basic elements, developed by the Air Mail, however, are still in use today in standard aeronautical weather observations.

In the beginning, the Air Mail radio stations were staffed with one operator. He stood split shifts to accommodate the scheduled movements of the aircraft. In some instances, he would work say, from 4:30 A.M. to 8:30 A.M., be off all day, the come back at 4:00 P.M. for another four hours or more. Overtime (always without pay) was frequent. We worked seven days a week. Annual Leave was supposed to be authorized, but most of the time, there was no money to hire a relief operator, so it was forfeited. As time went on, additional operators were assigned to some stations to meet the expanded needs of the service. By 1927, all stations from New York to Salt Lake were providing 24-hour service seven days per week with three operators, and the Washington station and those west of Salt Lake provided 16 hours service with two operators. Supervision was handled by Washington except during the few years that our National headquarters were at Omaha. On July 1, 1927 the 16 stations from New York to San Francisco, plus the one at Washington, were turned over to the Department of Commerce in compliance with the provisions of the Air Commerce Act of 1926

**LIGHTING**  
Feb. 22/23 1921 Through-flight NY-SF experiment—demonstrated the need for lights.  
Aug. 1923 Some lights installed between Cheyenne and Chicago. Experimental flights on through service basis were operated for 4 days. (Turn to Page 46 Please).

**5 DECADES OF FLIGHT**

- DC-3 (1936)**  
Speed: 185 m.p.h.  
Passengers: 28  
Range: 1,500 miles  
Payload: 2 1/2 tons
- DC-6 (1946)**  
Speed: 275 m.p.h.  
Passengers: 52  
Range: 2,700 miles  
Payload: 1 1/2 tons
- 707 (1958)**  
Speed: 600 m.p.h.  
Passengers: 138-181  
Range: 4,000 miles  
Payload: 20 tons
- 747 (1969)**  
Speed: 625 m.p.h.  
Passengers: 342-400  
Range: 6,000 miles  
Payload: 62 tons
- DC-10 (1970) L-1011**  
Speed: 600 m.p.h.  
Passengers: 252-345  
Range: 3,000+ miles  
Payload: 40 tons

# - HONORARY MEMBERS -

## SOCIETY OF AIRWAY PIONEERS

### HONORARY MEMBERS OF THE SOCIETY OF AIRWAY PIONEERS

(Listed Alphabetically)

**ALLEN, C.D. - 576-H**

Pioneer in Aviation writing and whose words did much to promote the Federal Airways Program. Military aviator since 1918 and served as Ass't. Chief of Staff AFPC WW2. Joined Martine Company 1953. Was Aeronautical Consultant to the CAA prior to 1939 and the original 3-man Air Safety Board 1939-40.

**BARNETT, CLYDE P. - 423H**

Director of Aeronautics for State of California 1969.

**BEAN, HAROLD T. - 411H**

One of the early pioneers of the Airways. Air Mail Pioneer BOD 8-20-24 in POD. District Manager Region VI (Oakland) 1935. Supt. of Airways, etc.

**BEMENT, HARLON W. - 909H**

State Director Utah Aeronautics Commission since 1950. Chairman NASAO Committees.

**COLBERT, Rear Admiral L.O. - 554H**

Pioneer in development of Aeronautical maps and charts. Associated closely with earliest Airway Pioneers in the development of maps and charts to specifically meet the needs of airman and the navigation of aircraft.

**GODFREY, ARTHUR - 1025H**

He has taken the lead in promoting flying and aviation on both radio and television and has always been a "friend" of those who staff airway stations and facilities.

**GOLDWATER, SENATOR BARRY - 1888H**

The Senator is a pilot himself and has perhaps done more in Congressional circles to assist airway development through legislation than any other person with the possible exception of former Senator "Mike" Hearnsey who is also an Honorary Member. Additionally, his contacts with CAA personnel have always been friendly and constructive in nature which is not always the "norm" for Congressional contacts. The Society is appreciative of his good will and support.

**HALABY, N.E. "JEEB" 588P**

Administrator of the CAA 1961-1965. Biography of this outstanding Administrator delineated on Page 28, Col. 1.

**HARTFRANT, J.B. Jr. - 407P**

President of the Aircraft Owners and Pilots Association and Publisher of THE AOPA PILOT. "JB" has for many years been vitally interested in the airway facilities of the FAA and the improvement in operation and equipment and the service furnished the public. He early endorsed "Ye Ed's" FLIGHT SERVICE PROGRAM during his tenure in Washington. Circulation of the AOPA PILOT now reaches 182,000, according to ABC.

**HESTER, CLINTON M. - 551H**

Mr. Hester was the First Administrator of the C.A.A. July 7, 1938 - See page - 28).

**KARANT, MAX - 401H**

Senior V.P. of AOPA and Editor of THE AOPA PILOT. "Max" has been in "pitching" for the pilots who use the airways over the years and has been most effective in looking out for their interests.

**MacCRACKEN, WILLIAM P. Jr. - 550H**

First Assistant Secretary of Commerce for Aeronautics. (See Page - 25).

**MARSHALL, R.C. "TEX" - 416H**

"Tex" was the supervisor of beacon installation between Cleveland and Des Moines back in 1923 for the Post Office Air Mail Service. He was also an Air Mail Pilot on the Chicago-Omaha run. Interest in the Airways has never waned as he flies his Apache contacting the PSS Stations en route.

**MONRONEY, SENATOR S.A. "MIKE" - 590-H**

Provided the guiding hand for legislation favorable to the Airways for many years. The Senator lost out in the 1968 elections but the progressive legislation and funding he has backed during his tenure as Senator will be a credit to him for many years in the hearts of those who use the airways, as well as those who staff the facilities.

**MOULTON, CHET - 413H**

Director, Department of Aeronautics, State of Idaho. Worked up a very effective SAR program to use on the rough terrain of his state and worked closely with Airway Stations for many years.

**PARRISH, WAYNE W. - 1019H**

President & Publisher, American Aviation Publications, one of the world's largest publishers of Aviation News and reports. He has been closely identified with aviation for over 40-years and his publications have had much effect in the shaping of policy and direction of the CAA -- all very constructive. His "En Route" column has been eagerly read by all. He has probably "rede" more airlines for more miles than any other living person. There is not an important airport in the world that Wayne has not personally set foot on.

**PICKERILL, ELMO NEALE - 1853H**

Elmo Pickerill was one of the early day operators who helped pioneer the new wireless profession which was to become so important as Radio in aviation. He was the first man to contact a ground station from the air (1910). Later, he worked with many of the great men of the wireless/electronic field including Marconi, de Forest, Picard, Tesla, Stone and Feasenden - to name a few. Later, "Pick" was selected to be the Chief Radio Operator on America's largest ship, the SS LEVIATHAN. "Pick" was a member of the "Early Birds", OX-5 Club, etc. He died in January 1968.

**PYLE, JAMES T. - 408H**

CAA Administrator from Dec. 20 1956 until Nov. 1 1958. "Jimmy" Pyle was one of the most personable administrators of the CAA and won the "Hall of Fame" award in 1966 from Society members. He was named second to Captain Hingsburg in accomplishments and for promotion of the Services - mostly Air Traffic Control. He was Director Aviation Development Council after leaving the CAA in 1958.

**QUESADA, LT. GEN. ELWOOD "PETE" - 412H**

"Pete" Quesada became the first Administrator of the FEDERAL AVIATION AGENCY on Nov. 1 1958 and remained in the position until Jan. 20 1961. He had a long distinguished career in the USAF. He may be remembered as one of the crew of the Army C-2 "QUESTION MARK" which broke all world endurance marks in 1929 under the command of Major Carl Spaatz by remaining in the air for more than 150 hours. He holds many awards including the Distinguished Service Medal with one cluster and the Distinguished Flying Cross.

**REICHELDERFER, Dr. F.W. - 906H**

Dr. Reichelderfer started his career as pilot and meteorologist at the Naval Air Station, Hampton Roads in 1919. He served as Chief the U.S. Weather Bureau from 1938 until retirement 1963... a quarter of a century of dedicated service. Dr. Reichelderfer may perhaps be remembered most for sponsoring the "TIROS SATELLITE" program which continues to benefit all mankind even after he has retired. Dr. Reichelderfer was a highly capable administrator with an open-mind for improvement and has been responsible for greatly improving the quality of service of the Weather Bureau to all citizens of the U.S. -- especially to those who fly.

**ROBINSON, ERIC W. - 406H**

He is the only foreigner to be recognized by the Society and so honored. He has for years been one of England's most capable executives in the British counterpart of the FAA and in visits to the United States where he has studied all aspects of the U.S. system, he has endeared himself as a very fine product of the British Commonwealth. (See P-42)

# H E N E R A R Y

\*\*\*\*\*  
(Continued from Page 41)

**ROUNTREE, ASA, Jr., - 908H**

Asa started flying in 1917 and holds Certificate #4576 from "Federation Aeronautique". He has been Director of Aeronautics for Alabama from March 1936 until retirement - with over 30 years in this public office during which time he raised the state's aviation potential from "small and crude" to "large and forceful". He has made the Alabama Airport Program one of the models of the nation. He has long been a supporter and good friend of those of us on the Federal Airways.

**STANTON, CHARLES I. "CHARLIE" - 553-H**

Administrator of the CAA from July 13 1942 until 1944. His career and appointment as Administrator varied from all others who have held this office in that he was a "maverick" who rose from the ranks and therefore knew the business to start with. Also, he held office during the most "difficult" years of the war and served with distinction. Most of the "old timers" of the CAA voted Charlie Stanton as the Best Administrator that the CAA ever had and placed him next to Captain Hingsburg for his pioneering achievements and his "helmanship" of the organization. Certainly he had esprit de Corps that few others enjoyed. Stanton's aviation career began in 1918 when he was employed in the airmail operations of the Post Office. He became executive officer of the National Aeronautical Association in 1923 and joined the Aeronautics Branch of the Dept. of Commerce as Airplane and Engine Inspector in 1927, transferring shortly afterwards to the Airways Division.

**WILEY, FRANK W. - 419H**

Director of Montana State Aeronautics Commission for many years, retiring in 1965 to give full time to Historical research in aviation. His book "MONTANA AND THE SKY" published in 1966 tells of the beginning of aviation in the land of the "Shining Mountains" - Saga of Aviation in the West. It was published by the Montana Historical Society. Frank is a seasoned pilot and a staunch supporter of the Federal Airways.

**WILLIAMS, COL. ROGER Q. Sr. - 912H**

One of the true pioneers of aviation, soloing at Sheepshead Bay, N.Y. in 1910. "ROGER-Q" became known as "King of the Daredevils" and as stunt pilot/barn-stormer circa 1919. In 1928 with Clarence Chamberlain he established a new non-refueling record of 32-hours in the air. In 1929 he made the first trans-ocean flight to Rome in 41 hours and in 1930 the first non-stop flight from New York to Bermuda in 17-hours. "ROGER-Q" published "TO THE MOON & HALFWAY BACK" in 1946. It is one of the most absorbing books on early day aviation we have ever read. Unfortunately, it is no longer available at any price. Roger has accomplished more in aviation than most of us even talk about.

**YOUNG, CLARENCE M. - 421H**

Mr. Young was the first Director of Aeronautics - 7-1-1927, becoming Assistant Secretary of Commerce for Aeronautics and in Oct. 1929 became the Secretary of Commerce for Aeronautics which office he held until March 4 1933 when the Roosevelt Administration took office. He was in office when the Dept of Commerce took over operation of the Air Mail from the Post Office Department. Mr. Young, after leaving the CAA became Vice President of PANAM and was very active in the pioneering of Pan American routes across the Pacific with its famous "Clipper" fleet.

*Art Johnson* .....

(Continued from Page 40)

Lighting of the airways was completed between Cheyenne and Chicago in Aug. 1923 and experimental flights were 100% successful. A 30-day trial followed, also successful. Regular service was inaugurated July 1 1924.

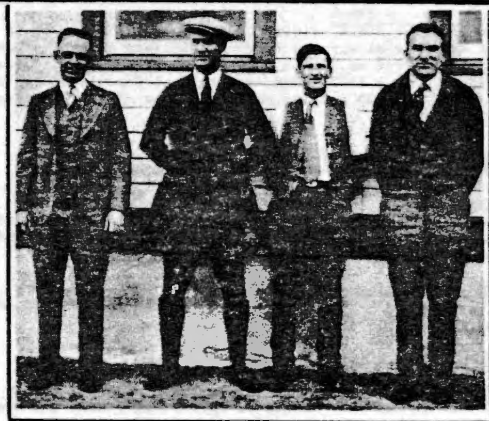
**July 1, 1925** Lights extended from Chicago to N.Y. Special overnight Chicago-NY service inaugurated in response to public demand. Lights also extended from Cheyenne to Rock Springs in the summer of 1924 and from Rock Springs to SLC in spring of 1925.

(Concluded at upper right).

Field lighting was of the flood light type, using portable 36" searchlights, and later BBT floods. En route beacons of the rotating type were generally 18" or 24" searchlights spaced at 10 to 20 mile intervals. Gaps between the rotating beacons were implemented with acetylene gas blinkers spaced at three-mile intervals. Most of the beacons had course lights; green denoting that a field was nearby; red indicating there was no field. The course lights appeared to the pilot between the rotating beacon flashes, and were coded in dots and dashes so a pilot could tell how far he was from a certain terminal. The rotating beacons flashed six times per minute.

In 1925, the AMS operated 18 terminal fields, 89 emergency fields 500 (approximate) light beacons.

- 30 -



**SALT LAKE CITY - KGD, 1928.** L/R: Art Johnson AATS Herb Wilson, Mike Banks Operators, Julius G. Petrison OIC. (Wilson & Petrison - since deceased).



**MULLAN PASS**  
.....

This Mountain top station has two front doors. The top level door, used in winter when snow level was above lower door.

*(Handwritten signature)*

**RANGE ROADS**  
.....

Typical range roads OIC's used to have to drive to their range station.

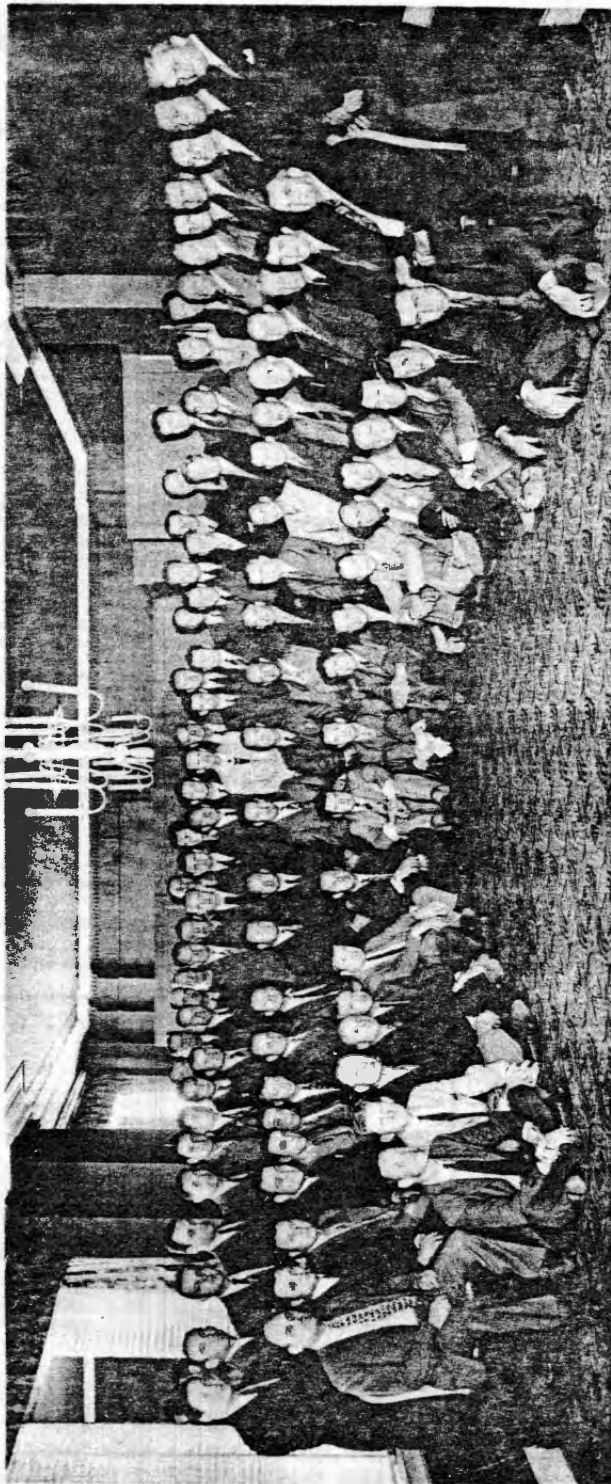
This one is at The Dalles, Ore.



Two lower pictures, courtesy Rose Montle. Top pic from collection of William A. Breniman.

APR. 1946, FT. WORTH, TEXAS

CONFERENCE REGION IV (FSS) FACILITY CHIEFS



L. to R., (FRONT ROW):

1-U, 2-U, 3-Geo. Garrett (Reg. V); 4-Al Fleck (D); 5-Paul Lanman (RFW); 6-Geo. Kriske (Reg. V); 7-Russell; 8-Paul H. Boatman (RFW); 9-Harold Carrick (DCA); 10-U; 11-U; 12-U; 13-U; 14-Jerry Williams, Otto NM; 15-"Doc" Cline, (U) 16-Tilghman (RFW); 17-Bud Fox (ZFW); 18-"Hop" Parker.

SECOND ROW

1-Chet Ridgeway WA; 2-Cecil Shelby RFW; 3-Connelly AEX; 4-WmB. Ditmore (R); 5-Carroll BTR, 6-Rufenburg, 7-Braden DAL; 8-Floyd Kimsey ELP; 9-Ruben Quillian TUL; 10-Carl Fry FSM; 11-Glenn Estes FYV; 12-George L. Rand (R-FW); 13-Elmo Cone GAG; 14-Johns, 15-U; 16-U; 17-Leon Land R-4; 18-U; 19-Phil Holbrook (R); 20-U; 21-U; 22-U; 23-U; 24-Barcley.

BACK ROW

1-Sinclair ZBQ; 2-Carl Carroll LFK; 3-J.D. Miller RFW; 4-U; 5-U; 6-U; 7-U; 8-U; 9-Jordan (R/MWL); 10-U; 11-U; 12-J.D. Donaho R-2; 13-Ken Lawson (SAT); 14-U; 15-U; 16-Bill Bettis SAT; 17-U; 18-U; 19-Bill Rogers ROW; 20-Igo OKC, 21-U; 22-U; 23-U; 24-U; 25-Chestnut; 26-McCormick.

U = Unidentified.

# HISTORIC ..... AIRWAY MEMORABILIA



Recalled by the 'Old-Timers'

Ⓐ Nostalgic memories of the 'early days' plus a lot of history can be found in the letters and memos received from some of the "Old-Timers" who ... "tell it as it was". Some are quotes, others extracts, etc. We think this memorabilia will be of great interest to those of us who were associated with the early days of the Airways and Air Mail. Priceless sidelights on a wonderful but rugged era of our lives and of history in the making. W.A.B.

## HENRY W. BRENDEL

"When I EOD at the Air Mail Radio Station, Hazelhurst Field, Garden City, Long Island on May 17 1923 I found Ed Monahan in Charge. He was the first Chief or operator assigned. We were the only two operators for a time. The usual 2-KV Arc and long-wave receiver constituted the equipment. Mr. "Pink Whiskers" Whitbeck was Eastern Superintendent and Percy Kirkham was the Field Manager.

When the Eastern Terminus was moved to HADLEY FIELD near Dumellen, N.J., I moved to Jersey. In those days we operated out of one of the hangars until a small building was put up across the street. Danny Givens and Fred Robinson came to assist.

In searching through my old records I found a portion of an article titled "Eyes for Blind Flying" which I enclose if you wish to use. From the layout you can see that we had graduated to Vacuum tube equipment. Of course the article stresses the use of teletypes along the airways (See Page-19). The center picture is that of Weather Bureau Observer Homer Ball at the teletype while at the bottom is one of the real old timers of the W.B. Mr. C. George Andrus.

The Services were moved from Hadley to the Newark Airport and I guess you have the history from there on. "

Henry W. Brendel

Henry keeps busy working as Inspector for Frequency Engineering Labs. at Farmingdale, N.J.

## C. GEORGE ANDRUS



This will tie in with correspondence from Henry Brendel who was assigned Hadley Field at the same time.

George reports that the FIRST TELETYPE USED FOR WEATHER REPORTS was installed at Hadley Field when the Weather Bureau prevailed upon the AT&T to furnish a few weeks of FREE service for evaluation, using a tape teletypewriter connecting the "downtown" WB office in the Whitehall Bldg., with his shack at Hadley Field so they could get the SPM "SIGNALS" (as reports were then called) so they would be available in time to brief the pilots scheduled to leave Hadley at 9:15 PM each night for Bellefonte and Cleveland.

About mid-year, they rented the line and then extended the circuit to Cleveland and Chicago -- all in advance of the "well publicized" story that P&T put in the FIRST LINE for Western Air Express, which was some months later. AT&T never liked the idea of publicizing a "free gift" of a circuit !!! so remained silent.

SOCIETY  
of  
AIRWAY PIONEERS

Printed in U. S. A.

## ROME MONTLE

Rome Montle EOD April 23 1925 and was assigned for some time as "Vacation Relief", hence he travelled around quite a bit, meeting operators at various points and getting acquainted with stations, equipment and personnel. Following is a recollection of these early days.

### BRYAN, OHIO - KDEL

Rome reported for duty at Bryan and found Paul T. McEvoy (D) Chief with Dan Givens (D) and George Whitney as assistants. Rome reported that "Mac" was on special assignment at Manmouth for part of the period. Mac and Rome had been shipmates, circa 1918 in the Navy. The Equipment at Bryan was 2KV arc - standard at 13 stations from Hadley to Calif., plus WWX Washington.

### CHICAGO - July/Aug. 1925 KDQA

After leaving Bryan, Rome reported at Maywood for vacation relief. Chief at Chicago was Harry Dudley. Second man was Sam Kelly. I do not recall the name of #3 reported Rome, he spent most of his time attending NW Univ. Rome recalls Sam's motorcycle ... his pride and joy ... and was it fast! Sam went to Rock Springs, then Idaho Falls. Sam put in for Spokane and was Senior bidder but due to delays cancelled out so Rome eventually went to Spokane (this was later in 1932). Rome said the Chicago station was across the landing field at Maywood, near the hospital. There he saw the first Ford Trimotor take off - clearing the fence at the end of the runway by inches.

### IOWA CITY - KDIS (Aug/Sept. 1925)

Percy E. White was in Charge with Raymond E. Dickens (D) and (I believe) Si Clark. Recalls seeing Les Harringer of the Illinois football team making big holes for Red Grange to run

## CRISSY FIELD S.F. 1925

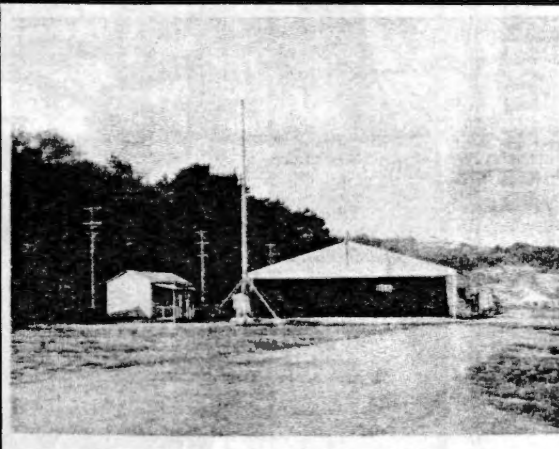


Photo Credit - ART JOHNSON

RADIO STATION "KFZP" & AIR MAIL HANGAR  
DANTE CORDANO RADIO OPERATOR



# Airway Memorabilia

## ROME MONTLE - CONTINUED

full length of the field for a TD. (Les now retired from FAA and lives near Port Gamble Washington).

## NORTH PLATTE - 1925 - KDHM

Rome says during his 3 plus years assignment at North Platte Ward Cutting was OIC. (Later he went to Portland Oregon and Ira P. Wright became Chief. (Both now deceased). Rome was there when the station was blown up.

## KANSAS CITY, MO. 1928 KRC

Transferred to K.C. Nov. 1928 as Chief and only operator at first; standing "split watches" to accommodate National Air Transport's scheduled flights on the Chicago - Fort Worth run. Kansas City was the focal point. One operator at Moline Ill., (Frank Walton was one), Wichita Kansas and Fort Worth came on watch simultaneously. The first assistant Rome had assigned to help was Raymond T. King (Deceased at Walnut Creek, CA. 3/68) He was later Chief at El Paso for many years. "Ray" reported in fresh from the USN from which he retired as Chief. From KC, Ray transferred to Glendale, (KCT) as one of the original staffers of that station under Elmer Butler. Vice King, came Dave Freeman fresh from the MW Station WPA at Port Arthur Texas. Another WPA Operator Elmer Birchfield left about the same time to report in at Rock Springs Wyo.

Following Dave Freeman came a "raft" of others including (and about in order): Bob Galloway, Joe Fischer, Hans Anderson (who later became Chief of Maint. Region VI) Bernie Swaffield, Tommy Walker, Harold Carrick, Frank Gavnor, Pop Neeland, etc. Elmer Birchfield came to K.C. to install equipment and talked Dave Freeman into joining him, so he left to install equipment throughout Utah, Colo., Nebr., Etc. His boss was "J.J." Rovang who was quite a worker himself..... and let us not forget that one bright sunny day I saw a familiar shape of a fellow I recognized walking towards my one-man station in 1929 and wearing that distinguished "iron-lid". None other than Percy White, my former Chief at Iowa City.

Asking him what he was doing he replied that he had just been made Communication Supervisor of the area with HQ at St. Louis -- that Station KCO, St. Louis was being built and would be... "the station of all stations" --but after awhile that fixaled out and K.C. remained the "hot spot" for quite a while. There the Weather maps were sent out simultaneously on five circuits throughout the country. By this time we had three stations with one man assigned to the range (Erwin); 5 at the Radio station and about the same number at the teletype station at the airport. This number increased to 22 men (a big staff for those days). I then left for Spokane in Nov., 1932 beating out Bill Breniman, Chf. at Pasco plus 20 others who bid on the position. Incidentally there were 22 bids on the Assistant operator positions at Spokane so it must have been popular. I took over from Leslie M. Hart who had been assigned Spokane as caretaker. My first operator was James "Cougar Jim" Darton, He and I helped Joe Hornada install the equipment. We commissioned Spokane in 1933. First operators also included Cliff Sundan, Ray Bishop, Bill Hickok (D), Geo. Overton and the a bunch of others.

In the early days we first used 2-KW arcs. Later on, Art Johnson "homebrewed" a small powered HF transmitter which did a very good job for us, particularly during the static season. I might mention that the early chiefs I recall include the following: Tom Gale (D) Hadley; Harold Burhop - Bellefonte; Bob Donaldson - Cleveland; Dudley - Maywood; Percy E. White - Iowa City; Paul McEvoy (D) Bryan; Irving Rovang - Omaha, and

before him - Barahill at Omaha; Ward Cutting (D) North Platte; Elmer Butler - Cheyenne; Ted Schwarzmann - Rock Springs; Art Johnson - Salt Lake City; Bill Larsen - Elko. (Rome Monte retired Sept. 1953 and lives in Kent Washington)



## Norman W. Bliss



Dear Bill: Here is a brief resume of my service in the Air Mail radio service.

1921 - EOD, Aug. 15th. Relief for WWX operators at Post Office Washn., then Oct/Nov. 1921 at Cincinnati for relief. The Air Mail had a station located in the "carriage house" of an old estate which had been donated to the city for a park. I recall a beautiful view of the Ohio River and city from the Station. OIC was Sam Curtis, a very interesting personality, since deceased I believe. A Bostonian as I recall.

## 1921 - BRYAN, OHIO (Nov 1921 - May 1922)

Transferred to assist Walter R. Lindsay in constructing the station. Upon completion I took over as OIC with Dan Givens as assistant. He had been transferred from Salt Lake City. All stations at this time were using the 2-KW arc sets, beefed up a lot, running the cooling water through an airplane radiator mounted outside the building. As I recall we burned up the copper anodes pretty fast.

## 1922 -

Transferred to Washington permanently, taking the Ass't. Opr position. Resigned Oct. 1923 to go with the Army Engineers.

## 1926 -

Returned to Duty in June with the successor of the Air Mail Radio, the Bureau of Lighthouses. At Washington for a month or two on AL RJ duty, then to Bellefonte for the same, ending in September. I was then assigned to construction duty on the new HF stations at Greensboro N.C., Spartanburg, S.C., Atlanta Ga., and Richmond Va., being in charge of this work.



□ □ NORMAN W: BLISS □ □

Mr. Bliss was not only an excellent operator but a fine radio technician with good grounding in civil engineering. Additionally, he was a capable administrator who was liked by all employees. He did much of the pioneer work in establishing facilities throughout the service.

Photo Credit - W. A. Breniman

Having completed work in the area, I was assigned in Nov. 1926 to the Western U.S. in charge of construction and installations. These included HF and the larger voice-telegraph equipment along with building construction at Elko, Reno, Donner Summit, Auburn, Oakland, Fresno, Los Angeles, Medford, Portland and Seattle. Later I handled construction on range stations at most of the above locations, and others as well.

As the construction work was mostly completed for the time, I accepted position as AATS Albuquerque in May 1931

This lasted until Aug. 1933 when a reorganization resulted in transfer to Salt Lake City in an exchange with Lloyd Simpson. This job was in the R.O. and I recall was called Maintenance Supervisor. I remained there from Aug. 1933 until April 1936.

I was OIC at Medford Ore., April/Sept. 1936 at my request and at Seattle from 1936 until retirement in 1954. During this time I held various positions, mostly in charge of Seattle Everett and Sea-Tac. Took time out Jan. 1942 to May 1945 to serve on active duty in USNR.

The names of some of the people I worked with include: Dan Givens and Lindsay at Bryan; Sam Curtis at Cincinnati; Tom Gale, Schwartz, Leonhart, Sibley, Edgerton at Washington; Ray Green, Benny Wineberg, Tony Gerhart, Leonhardt and others at Bellefonte.

Of the ones I knew later, there were so very many that I can't recall any great number of them. There were, of course Bill Breniman, the Johnsons - Art and Ted, Schwarzmann, Elmer Butler, Ward Cutting, C.S. Fuller, Bill Larsen, Dan Cordano, Slits, Baker and many many more.

# ~ C. A. A. & WW-2 ~

## Quick Response Military's "May-Day"

### WE HELP FIGHT ROMMEL THE DESERT FOX

**T**HE support roll played by the communications personnel of the CAA during WW-2 has received little publicity or credit over the years for the vital help furnished military pilots and others during these critical months.

It was imperative and crucial that American planes and help be expedited to help defeat Marshal Erwin Rommel's panzer divisions sweeping across North Africa and later to help the Allies strike Italy in 1943 in the long struggle which finally ended when Hitler's Government collapsed in 1945.

### The "South Atlantic Bridge"

Thus it was, that a string of stations were built and staffed almost overnight on a route across the South Atlantic to provide communications for aircraft being flown or ferried from the U.S. to Africa or Europe. These craft would leave bases in Florida flying via San Juan P.R., then St. Thomas, V.I., St. Croix, V.I., Trinidad BWI, Santa Cruz, Belem, Fortaleza to Natal Brazil where they would make the 1600 (plus) mile flight across the South Atlantic to Dakar FWA, thence up the West Coast of Africa to Port Lyautey Morocco. Staffing of facilities at all "South Atlantic Bridge" locations required from 20 to over 100 men each, and it may be said that some of the best code (CW) men of the CAA volunteered for duty. It is estimated that some five hundred CAA operators were required to staff these stations plus many more NATS stations in the continental U.S.

### The "OFACS"

Another mammoth project which tied in with the war effort was the establishment of domestic HIGH-POWER code stations called "OFACS"

### WE TRAIN OUR OWN



Photo Credit - FRANK OMANORA

**TYPICAL TRAINING CLASS.** This picture taken, circa 1943 in Region VI, Los Angeles. Mr. G. Dyke was instructor in background. He later transferred to the International Training Program in Washington D. C.

These were designed for the purpose of exchanging intelligence and weather information, transmission of military orders, etc. These facilities were established at the following locations:

NEW YORK	- WSY	SAN FRANCISCO	- KSF
MIAMI	- WBR	HONOLULU	- KVM
EVERETT	- KCJ	ANCHORAGE	- KIS
BALBOA	-	NEW ORLEANS	-

LOS ANGELES (Scheduled but never built).

The above facilities were built and commissioned, mostly during 1942. Station **KSF** at San Francisco was commissioned April 1 1942 with **Elmer C. Butler** Chief. This station handled over **TEN MILLION** words of traffic per month PLUS intercepting millions of words of weather from Russian stations at Khabarovsk and Komsomolsk.

The CAA OFACS station **WBR** at Miami was considered the largest aeronautical telecom station in the world with a staff of some 187 operators, under the direction of **Ellsworth K. Shinn**, Chief. Staffing at the other facilities also ran into sizable figures - nearly all expert CW men, hence the establishment of these facilities syphoned off personnel from the domestic stations and some complements were reduced and in some instances the station operated on "part time" basis.

### Pacific Communications

Additionally, a number of facilities were established in the Pacific including stations at Guam, Wake, Midway, Palmyra, Midway and Canton Islands. At other locations around the world we operated facilities in the Azores, Bermuda, Swan Island, Guantanamo, Rio de Janeiro, Montevideo, etc.

### ALASKA

Another gigantic project which tied in closely with the war effort was the building and staffing of facilities throughout Alaska. It was very clear in 1939 when Hitler's forces invaded Poland and as France fell in 1940 that we might well be involved in the conflict. Indeed, we had already become known as the "Arsenal of Democracy". During 1938 the Territorial Government of Alaska established the Alaska Aeronautics & Communications Commission (See Page - 29). The Alaska Region was established Jan. 1 1940 following which the AA&CC stations were taken over and an additional 36 built and commissioned

The largest station in Alaska at **ANCHORAGE** required a staff of nearly 40 to handle the workload. Initially, Alaska required a total of some 350 (plus) operators to staff the new facilities. Each Region was given a "quota" by Washington to supply Alaska communications personnel to staff these stations. The "quota" of the Fifth Region was 76 men which were all volunteers.

Since many of those recruited from domestic regions simply could not "take" Alaska, the attrition rate was high and demands for staffing urgent. The first effort to meet this acute situation was by officials of the Alaska Region itself, headed by Administrator **Marshall Hoppin** and **Allen D. Hulen**, Chief Communications Div., with help and encouragement of **Mr. Chris Lample**.

**Mr. Wilke Cruse** who transferred to CAA from AA&CC was selected to head the Region's training program and to work up necessary curriculum. Many trainees selected were "Husband and Wife" teams. Training got under way in early 1942 in a basement room (28-E) of the Federal Building in Anchorage. It was a barn-like room which accommodated about 30 individuals plus instructors. The first of which included **Vance Hawley**, **Elmo Cone** and **George Hollingsworth** in addition to Cruse.

AIRWAY PIONEER

# "KICK-OFF" CAA TRAINING PROGRAM AT CONGRESS HOTEL, CHICAGO, MARCH 1942

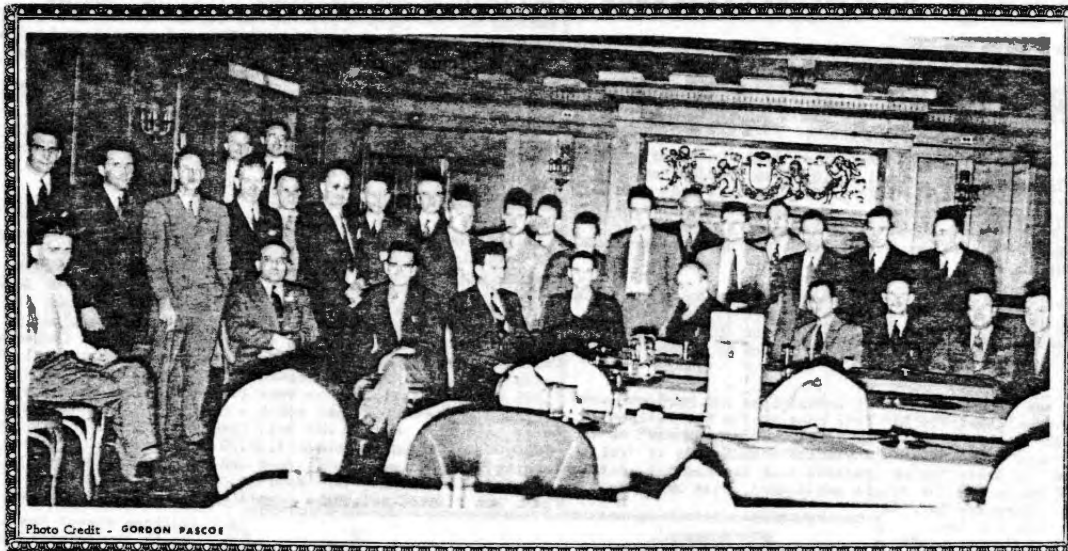


Photo Credit - GORDON PASCOE

### SITTING L/R

L.J. Stock, J. Kneell, D.N. Long, W.J. Evans, M.K. Hammond, L.D. Anderson, E.E. Newman  
C.E. Gardner, Al L. Goodrick, P.E. Riney

### STANDING L/R

L.L. Kullenberg, A.O. Basnight, L.M. Ballard, J.D. Saunders, C.L. Kenney, W.A. LaRue,  
D.V. Millard, A.W. Strete, R.A. Mattmuller, J.N. Becker, G.A. Hall, P.H. Boatman,  
B.A. Denicke, J. Croft, C.W. Carmody, H.W. Wilson, C.C. Gorsuch, G.V. Hamerick,  
E.M. Barstow, H.E. Applegate, Gordon H. Pascoe.

( A.V. Carroll - Holding the "Birdie" )



## Gigantic Training Program

**T**HE Alaska Region had trained about 100 "Man/Wife" teams and then ran out of recruits so they arranged with Reg. VII Seattle for the training of stateside recruits at Seattle for the region. Gordon Pascoe was in charge of the Region VII training program. Classes were conducted at Boeing Field quarters. Mr. W.E. Cruise was detailed by the Alaska Region to assist in the program.

It is estimated that during WW-2, that OVER 4,000 men and women were trained at the various regional training schools for Airway Communication assignments. A majority of those trained were women. Most female communicators adapted to the work, even at isolated locations and proved their ability, becoming highly capable and competent employees AND WERE A REAL CREDIT TO THE SERVICE. Many of these girls remained in the service after the war and are to be found in the service even today - 1970.

We did have problems during the early days, especially at a few stations where some Chiefs were prejudiced, even under emergency conditions, to assignment of female operators at their facilities. Gradually their resentment wore off but not before supervisory personnel had many a headache! The author could write another book on this subject alone.

Most continental regions trained an average of 750 new employees in classes of about 30 each before the program was eventually transferred to the Aeronautical Training Center established at Oklahoma City (Late 1943 or early 1944). Mr. W.E. "Bill" Cruise became Chief of the National Training program.

Some of the Supervisory personnel who headed up the program in Washington included, first Mr. A. V. Carroll (Communications) and then Mr. Harold J. Carrick. Mr. Leslie (D) Kullenberg was in charge of the ATC training program



AIRWAY PIONEER

.....  
Following is the staff of instructors and those in charge of training programs (underline) of the various regions. Regret fully, it may be slightly incomplete.

### REGIONS

- I - NEW YORK  
Sidney Doroff, E. E. Newman, Homer E. Applegate.
- II - ATLANTA  
L.M. Ballard, D. V. Millard
- III - CHICAGO  
C.C. Gorsuch, E.M. Barstow, Hugo Boyle, Myron Worcester, Lawrence C. Brown, Glenn E. Nash
- IV - FORT WORTH  
W. J. Evans, J.N. Becker.
- V - KANSAS CITY  
P.E. Riney, Al. Goodrick, Merl O'Brien, Burl B. O'Connor, Manuel Goulart.
- VI - LOS ANGELES  
H.J. Carrick, G. Dyke, Geo. A. Hall, Frank A. DeAndrea, C.L. Kenney, Tom Dodson, Byars.
- VII - SEATTLE  
Gordon Pascoe, Geo. Purvis, Russell Thrapp, Karl Burley, John Piet. (W.E. Cruise on detail from Alaska Region).
- ALASKA REGION  
W.E. "Bill" Cruise, Vance Hawley, Elmo Cone, Geo. Hollingsworth.

### INTER-AMERICAN (LATIN AMERICAN) TRAINING PROGRAM.

A program to instruct foreign nationals in communications procedures was established by the CAA at Kansas City in 1944 centralizing such training for the entire U.S. at this one location. Mr. Gordon Pascoe, who was Chief of Instruction in Region VII Seattle was selected to initiate the program and reported for duty in Nov. 1944. He was relieved by Mr. John Piet in Jan. 1945 so Mr. Pascoe could return to Seattle (on loan). Mr. Piet in turn was relieved by P.E. "Earl" Riney on July 1 1945. Others identified with the program include Grant Brallier, Arthur Orsillo, J.I. Seward, J.J. Millard, F.P. Gavner, Administrative: H.J. Carrick, R.A. Mattmuller, both of Washington D. C.

# Airway Memorabilia

## IRVING J. ROVANG

EOD June 16 1924 at Omaha Nebraska as Radio Operator under Frank Barnhill. Later was A.A.T.S. from 9/20/30 until 1933 at Cheyenne and from July 1933 to Feb. 1934 at Salt Lake City, then to Chicago 1934-38 as Maintenance Supervisor; 1938 to 1955 Chief Signals Division at Kansas City, Region V; 1955/56 Honolulu as Airways Engineer; 1956 until retirement in Washington D. C.

"IJ" recalls early staffing (1924-1930) at Omaha which included Frank Barnhill Chief, Everett Newman (D), Paul Sievers (D), George Renish, Omar Young and himself (OIC Following Barnhill). Omar Young (D) became OIC when he became supervisor.

"IJ" who was perhaps the "most industrious and hardest working individual that "Ye Ed" ever knew in the CAA retired to Vero Beach Florida where he is still "pounding-brass" as an amateur radio operator at his station WA49CK. He is "fully committed" in humanitarian projects such as handling traffic to/from Peru during the tragic earthquake, Viet Nam, etc. He is County Emergency Coordinator for AREL and the county Communications officer for Civil Defense.

Thanks to "IJ" for his interest and work, I am including a list of early staffing at various facilities in the Cheyenne Division when IJ was AATS. This included alphabetically with other listings in back pages of this book.

## HAROLD J. BURHOP

EOD - May 9 1923 at Washington D.C. Relief duty at Iowa City and Bellefonte, then Chief at Bellefonte. Transferred to La Crosse Wisc. and commissioned this station July 29 1929 (WSG) and remained here as OIC for 12 years before transferring to Chicago 1941. Transferred Kansas City when Regions III & V combined 1953. Additional duty at Hutchinson combined station/tower 1954 and Sault Ste Marie 1954 until retirement 1960.

When Station "WSG" La Crosse, Wisc., was commissioned in 1929 Burhop had as staff, Stark Tolman (SR), Harry Fink, Clyde Roberson, Norman Reynolds, Harold Snow and Joe Allgood. The station served the Chicago - Twin Cities airways.

Burhop says that the 1923 equipped station included a Federal 2-KW arc boosted to 5KW, a SE-1420C or similar receiver single wire antenna about 300' long on two 128' steel towers Small bldg., no rest room, no water, stove heat. By 1929 equipment included a G.E. RT-10-Q or similar 2KW phone, CW, ICW transmitter for 200-300 KHz, Lighthouse Service LSR-500 1/2-KW self-rectified transmitters for HF with open feed, tuned zepp antennae for 3000 to 6000 KHz circuits.

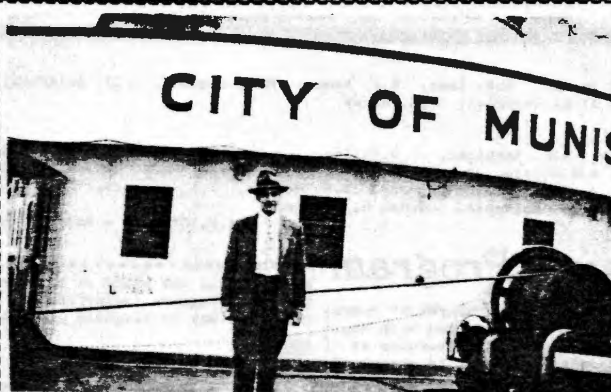
The 1923 planes used were modified DH biplanes, 12-cylinder Liberty engines, 2-place open cockpit, cruising speed 90MPH. Planes, radio stations and all functions operated by the P.O Department with Mr. Carl F. Egge, Supt. of Air Mail and Mr. Eugene Sibley, Communications Supervisor. No radio equipment on planes and no beacon lights (until late 1923, consequently no night flying and no Sunday flying. Mail flown from New York to Chicago the first day, then overnight by train to Cheyenne then planed on to San Francisco the second day. No radio beacons yet, no phone, all C. W.

When Harold Burhop was Chief of the Mobile Section in the Chicago Regional Office he started a mimeograph sheet called "Flight Lines" what later became "Flight Log" when the Ancient Mariner took over. HB has furnished much information over the years for the AIRWAY PIONEER. Few men have been as dedicated to their calling as Harold Burhop or have served as conscientiously as this fine gentleman.

## ELMER C. BUTLER

ELMER C. BUTLER - EOD 12-11-1920

Mr. Butler reported in at Cheyenne taking over from Walter Lindsay who had built the station and was the first operator At that time, Ellsworth Hosmer was OIC at North Platte, Lucian Coman OIC at Rock Springs, Art Johnson OIC at Salt Lake City and as he recollects, Coman was first OIC at Reno and L.O. Bates first OIC at Rock Springs Elmer says, "We had 3-letter calls which I won't try to recall originally, then 4-letter calls. At the time I reported in at Cheyenne there was only 1 operator at each station. Sick or well, we came to work!!! A second operator was added right after 1921 and the stations were open 16-hours daily, seven days a week. Pay - \$166.66 per month - no pay for overtime. We were paid very well by Air Mail Standards then. Pilots got \$250.00 and a good mechanic \$125.00 per month. I had been making \$150 per month plus room and board on a Standard Oil Tanker, so I was not too happy at the Air Mail schedule of pay, but I found out there wasn't much money to be spent.



HAROLD J BURHOP

Harold Burhop was a well known early day wireless operator on Great Lake ships. After a tour of duty during WW-1 in the USN he EOD'd 5-9-1923 in the Air Mail Service of the Post Office Dept. He served as Chief at Bellefonte, LaCrosse, then RO in Regions III and V where he served with distinction.

appointed Ellsworth Hosmer as his first (acting ?) supervisor, but Hosmer didn't stay with the service very long. The radio operators were always a relatively small group in the service up to the time the Air Mail went out of existence in 1927. There are only 19 known alive today, and the ages are over 70 now.

One little sidelight which has always amused me. We radio operators made the weather observations, reporting the same basic things which are reported today. But, we didn't know anything about cloud types and their heights! I used to report clouds at 2,500 ft., solid overcast which were actually 5000 feet higher and I never knew the difference until we learned meteorology, years later. The pilots never corrected us because they looked upon it as a safety factor.

Note: Butler along with E.K. Shinn were two of the most outstanding HIGH-POWER men (OFACS) employed by CAA. After EOD Cheyenne 1920, he was assigned OIC Rock Springs 1921-25, OIC Cheyenne 1925-28, Glendale KCT 1928-29, AATS Fort Worth 1929-35 returning as OIC San Diego due personal reasons 1935-41; LAX 1941-42, Chief KSF (S.F. OFACS) 1942-56. Retired 1961 after holding one of the top Communication positions in the Orient at Bangkok for the Thai Government. He was elected President of the AIR MAIL PIONEERS, Oct. 3 1970. He is a Charter Member of the Society of Wireless Pioneers (#46P).

# Telling it..... as it was!

## C. W. 'Bill' LARSEN



The ASSISTANT AIRWAY TRAFFIC SUPERVISORS (AATS) Aeronautical Section of the Lighthouse Service, DOC., were recorded on Page 13 of this book. An interesting sidelight of the administrative phrase of the organizational set-up which existed at the time is furnished to us by C. W. "Bill" Larsen, who describes the situation as follows:

"The AATS offices were operated under direct Washington supervision, as were the radio operators at the AIRWAY RADIO STATIONS. The Airway Keepers, on the other hand, stationed at intermediate landing fields were paid through and were under the direct supervision of the District Offices.

Embarrassing situations sometimes developed as the AATS, who included the intermediate field personnel in addresses of "General Instructions" -relating of weather observations, and handling of communications via teletype or local station radio equipment and procedures of such nature. LHS Superintendents sometimes, jealously protected their autonomy and road-blocked the AATS on occasion. Therefore, each AATS had to exercise extreme tact and diplomacy in this tricky "sandwiched" type of supervisory control. I always got along fine but not without some occasional brain-wracking, for example:

One time I arrived at the station at weather sequence collection time. The Assistant Keeper who was on duty was nowhere to be found. Just as his turn was reached, he rushed into the station breathlessly (from 'downtown' coffee) entered his weather report with 'unobserved temperature' etc., as "MISG". ... told me he hadn't expected to be gone so long. I informed him that he was not authorized to be downtown for coffee or to vacate his post of duty, monitoring of receiving watches etc., for any reason short of emergency. I reported this matter to the Supt. of Lighthouses, as I told the Ass't. Keeper I would. The Superintendent later told Captain Frederick Hingsburg that ... "The AATS had exceeded his authority by "upbraiding" the DISTRICT EMPLOYEE; that the AATS should only have reported the dereliction to the Supt., with no comment or criticism to the employee ... and so it went - always necessarily on your toes, but an ever interesting job!"

## HOWARD W. MCKINLEY



HOWARD W. MCKINLEY EOD - April 1928

Howard was one of the first Radio Engineers employed for the new Airway System expansion and reported to Mr. H. J. Walls who was then head of the Radio Aids Section. William Jackson was there as was Lloyd Berkner - for a short time before he went with Admiral Byrd to the South Pole. "I went in vice Berkner" said McKinley. Don Stephens and Joe Hromada came in a bit later. Don was killed in a plane accident near Haynes Point while doing some personal flying. Clint Hawkins also came in about the same time as Stephens. Clint was killed in a plane crash with Benj. Wineberg en route Atlanta some years later. "Mac" said he ... wrote some equipment 'specs' and did factory inspection while in Washington.

Mac also reports inaugurating the first 2-letter identification keying devices for the radio ranges, link circuit relays and various details. He was assigned as Radio Engineer in 1933 to the Oakland and San Francisco Office at the time Hawkins was assigned Atlanta, Parrot to New York, Whig to Chicago. Chris Lample and Ted Raigt did pilot check-work on radio ranges. Later, Al Smith and Fitzgerald were the flight-checkers.

(Completed on Page - 52)



Chris. M. Lample

Catalyze the following and you come up with one of the most outstanding men, in the writer's opinion, that the Airway Service ever employed:

Registered Civil Engineer. Registered Electrical Engineer. Commercial Pilot (Cert. #169), Registered Land Surveyor -- plus being a top organizer and an outstanding executive.

Result? CHRIS M. LAMPLE

Chris Lample has been associated with much of the Airway work throughout the system, especially that of pioneering routes and sites, both domestically and throughout Alaska. Matter-of-fact, one of the Alaska Regional DC-3 Airplanes was named in his honor ... "KING CHRIS" and marked with the insignia at top of picture.

Lample was chosen as Regional Manager for the proposed new Alaska Region in 1939, due to his extensive work and experience in the area along with his "first-hand" knowledge of flying throughout the territory. However, at the last minute, Thomas B. Bourne - who himself was perhaps the most outstanding Director of the Office of Air Navigation Facilities that ever occupied the position (a human dynamo, if there ever was one) prevailed upon Chris to transfer to Washington to help during the War Years - a call that Chris could not turn down.

Chris Lample is one of the first CHARTER MEMBERS of the Society of Airway Pioneers (#9). He is also a member of the Society of American Military Engineers, National Pilot's Association, Silver Wings Club, OX-5 Club and many other professional organizations.

The CAA was indeed fortunate in having the RIGHT MAN in the RIGHT PLACE at the RIGHT TIME ... in the case of Chris Lample. He has certainly left his mark in the big book of history and achievements accomplished during three and a half decades of dedicated service that has marked his career in the CAA and the Airways.





# Divisions - Districts - Regions



## Air Commerce Act



The Bingham-Parker-Merritt Bill passed Congress 5-20-1925 - known as the "AIR COMMERCE ACT" laid the foundation of today's FAA. It provided that the Dept. of Commerce would foster and encourage aviation, provide all air-nav. facilities, establish airways, etc. The Bureau of Light Houses was designated to administer and supervise all airway matters. Capt. F.C. Hingsburg was its Chief Engineer.

Administration was placed under District Superintendents of the USLHS in areas where such offices existed, including the following:

- STATEN ISLAND (N.Y.)**  
Frank H. Tower - Airway Engineer.
- SAN FRANCISCO, CALIF.** (Capt. Rhoades IC).  
Fred Farnell, Airway Engineer
- MILWAUKEE, WISC.**  
I.D. Marshall, Airways Engineer.
- PORTLAND, ORE.**  
Stan S. Boggs, Airway Engineer  
----- **NEW OFFICES** -----
- SALT LAKE CITY, UTAH**  
W. E. Kline, Supt. of Airways
- FORT WORTH, TEXAS**  
George C. Miller, Supt. of Airways



P.O. Dept., USLHS., CAA., FAA.

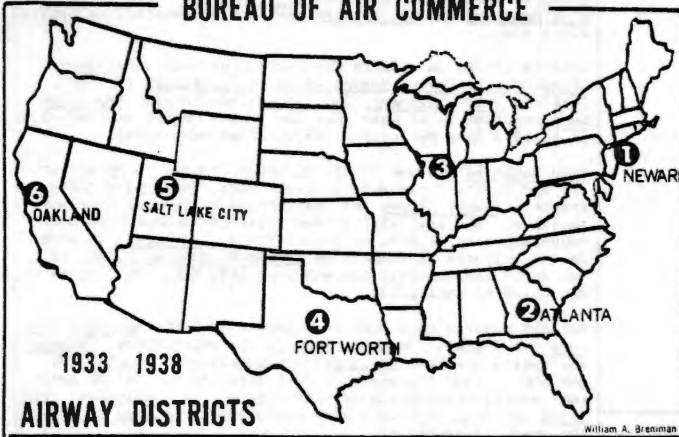


BUREAU OF AIR COMMERCE

BUREAU OF AIR COMMERCE  
Est. July 1 1933

DISTRICT MANAGERS 1933 - 1938

1. - **NEWARK**  
Thomas B. Bourne, D. G. Van de Water  
Jack Sommers.
  2. - **ATLANTA**  
I.H. Polk
  3. - **CHICAGO**  
Irving D. Marshall, Carl McCluer (5-1-1933 to 7-1-1938).
  4. - **FORT WORTH**  
George C. "Jack" Miller,  
L. C. Elliott.
  5. - **SALT LAKE CITY (\*)**  
W. E. Kline, W.T. Miller, Geo. C. Miller, C. C. Lange
  6. - **OAKLAND (\*)**  
Alvin O. Preil, Harold T. Bean
- (\*) Districts discontinued when Regions Est.



AIRWAY DISTRICTS

William A. Brennan



ESTABLISHMENT

The Civil Aeronautics Authority was established July 1 1938 with 7 Continental Regions as shown in Map at Right. Alaska was Administered by Region 7 until Jan. 1 1940, when it became Region 8. Hawaii and the Pacific Islands were under Region 6 with John V. Dolan assigned 3-1-41 as Eng. in Charge. Mr. Harold T. Bean set up the Honolulu Office and was relieved by Mr. Jack Beardslee in Dec. 1942 as First Regional Manager.

Nomenclature of "AUTHORITY" Changed to "ADMINISTRATION" July 11 1940.

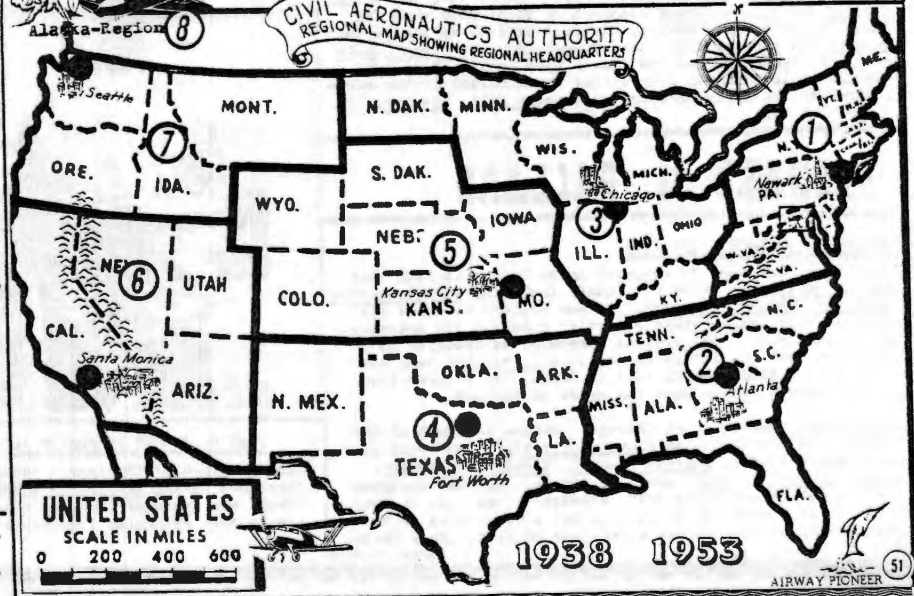
Nomenclature of "Regional Manager" changed to "Reg. Administrator" by 1948.

Mr. Howard F. Rough, Assistant to the Administrator, Washington D.C. was "Administrator at Large" and theoretically in charge of all Regional Administrators for many years.

Credit for much of the information used and map at right were furnished by Mr. George W. Vest.

1. Jack Sommers, Ed. Kline, Ora W. Young, Joseph D. Blatt, Larry Elliott, Oscar Bakke (DePue)
2. George W. Vest, Philip Coupland, William Robertson (Carl Schanche)
3. Harold E. Neely, George W. Vest (Les Marriner, Carl McCluer)
4. George C. Miller, L. C. Elliott, Archie League (Art Blomgren)
5. Leonard C. Jurden, W. E. Kline, Edw. Marsh. (Chris Lample)
6. Joseph S. Marriott, Art Hook, Walter Plett, Basnight (Harold Bean)
7. R.D. Bedinger (Paul Morris -during war) (C.C. Lange)
8. Marshall Hoppin, Walt Plett, Allen D. Hulen, Bob Gale (Walt Plett)
9. John M. Beardslee, W. E. Kline, John M. Beardslee (John V. Dolan)

SUPERINTENDENTS OF AIRWAYS  
(Listed in parenthesis)



UNITED STATES

SCALE IN MILES

0 200 400 600

1938 1953

## "MODERIZATION" STARTS ?



Region and field personnel will recall the big "modernization" program started in 1938. This is the first steps in the program taken at Butte Montana by V. A. Whiley (?).

## Telling it as it Was

### Howard W. McKinley

**TOM GAYLE** was in the Washington office for a long time. Wm. McBride and H.I. Rothrock remained in Washington when the Radio Engineers were sent to District Offices in the field. Freston and Stanton (all under Hingsburg) with Chris Lample were the "top-gears" at the time. Left Region VI in 1951 for assignment in Oklahoma City at the Aeronautical Center where I directed the Study Section, with Harry Hill, Muehler, etc. Retired in 1961.

## LEONARD M. BALLARD

### LEONARD M. BALLARD - EOD 1928

"Len" says that when he reported in at Toledo in 1928 that Paul T. McEvoy was Chief with staff including Hillard D. "Doc" Cline and "Wally" Pritchard. It was decided to close the station except for weather reporting crew and the operators were transferred. Ballard was scheduled to transfer to Bryan but went to Chicago instead. D.V. Millard took the place he was scheduled to fill in Bryan. He retired from Atlanta several years back and moved to England.

Harry Dudley was Chief at Chicago. Others assigned in the "passing parade" included Elmer T. Birchfield who went into Maintenance (1930), Charlie Beckett, Harold Bell Wright, Hagan, Schuffler, Riney and many others. Len was assigned "in charge" of the first "DT" Station in the U.S. In late 1929 or early 1930 the DT Station had a voice line to the main broadcast station and a receiver on 3105. They faith-

AIRWAY PIONEER

fully waited for aircraft to call, but if they did, Len says they never could have heard them due to heavy inrush as they were next door to a dentist's office and over a street-car power line switch point. During 1929, beginning about the time the new Edc. station at Maywood was commissioned, we discarded the old arc. Chicago was a training point for new personnel entering the service and 30 or more new operators EOD each year at this station.

Len transferred to WWAB Buffalo in Oct. 1930 where he found William Crawford (D) Chief with Peters and Alec Currie as part of the staff.

During 1931 Len transferred to Greensboro (WRW) as Chief vice "Doc" Cline who was on his way to New Orleans as Chief. He later transferred to the RO-FTW, then on to the Balboa OPACS where he died in 1955. Included in the staffing at Greensboro were John Donnell, W. W. O'Donovan, H.E. "Robbie" Robinson who later went to Washington and Central America.

Ballard moved to the Second Regional R.O. in Oct. 1941 replacing Dick Manhardt who transferred to Washington. Also going to Washington (DCA) was A.V. Carroll. Ben Weinberg, Fred Robinson and Len Ballard were the Communications Section for a time.

Next to arrive in Atlanta for assignment 2-RO were Johnny Nolan, Oliver Lewis, Howard Bates, D.V. Millard (Training Center), Doug. Tilghman, Tom Boddie and others. Ben Weinberg reported to Atlanta when the Second Region was established in 1938 from Bellefonte where he had been Chief.

Fred Robinson was one of the pioneers, coming in by way of the old Hadley Field and St. Louis ARS. Fred was a close friend of Danny Givens and they served at several stations together. His last station was Chief of Memphis before he transferred to Atlanta as relief for A. V. Carroll in 1941. He was relieved at Memphis by Vernon M. Goldsmith, one of the early day wireless operators at KPR, KHK, etc., where he was Chief of facilities.

Ballard reports that when he reported to 2-RO, Mr. George W. Vest was Regional Manager, Hawking was Maintenance, Schanke was Engineering and Weinberg, Communications. Roosa (D) was ATC... just beginning to feel their oats. Of the original staff, discounting the war increase in complement, John Nolan and Geo. Vest both live in Colorado, Ballard in Florida the rest all deceased.

Ballard remained in RO-2 until 1953 as Inspector, Ass't Chf. Com. Branch, Chf. Perf. Stds, Chf. Program Req. Br. He tfrd Ft. Worth when two Regions combined in 1953 remained ATL as Dist. Supvr until Jan. 1954 when he tfrd FTW and remained till 1957 when selected for AOS Seoul Korea, then a tour of duty in the International Region, Washington to retirement.

- 30 -



JOHN M. "JACK" BEARDSLEE (L) WILLIAM A. BRENNIMAN (R)

Picture taken at "Shriner's Beach" Leeward side Oahu in June 1959 during SOCIETY OF AIRWAY PIONEER picnic/meeting. "Jack" was Regional Administrator 9th Reg. Bill Breniman & wife were returning from cruise to Australia and N.Z.





C.A.A.

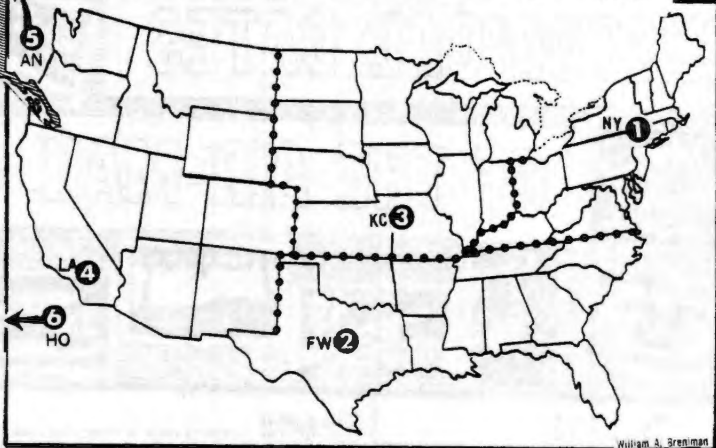
# CONSOLIDATES Domestic Regions

President Elect, Eisenhower in 1952 had pledged "Government Economy" - hence in the retrenchment move, Regions II and IV were combined with Hq. Ft. Worth under L.C. Elliott; Reg. III & V at K.C. under Len.

Jurden; Reg. VII & VI at L.A. with J.S. Harriott. Later, AREA OFFICES were added to improve supervision.

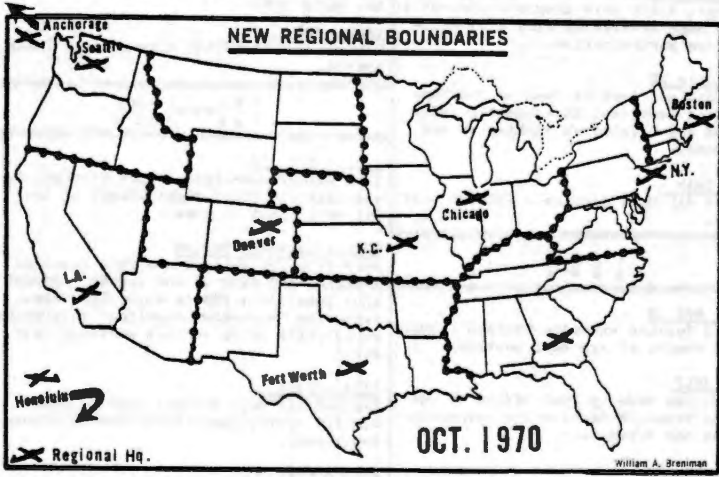


CAA / FAA Regions—JULY 1953—OCT. 1970



William A. Brennan

## NEW REGIONAL BOUNDARIES



OCT. 1970

William A. Brennan

# F.A.A. EXPANDS

UNIFORM FEDERAL AGENCY  
STANDARD REGION CONCEPT

THE FAA announced Oct. 12 1970 that 4 NEW REGIONS would be established not later than Apr. 1, 1971. Headquarters for the new regions and "Directors" as follows: SEATTLE - C.S. Walk Jr., BOSTON - F.J. Howland, DENVER - M.M. Martin and CHICAGO - Lyle K. Brown. It was stated that the expansion of regions is in keeping with President Nixon's "STANDARD REGION CONCEPT" which calls for uniform boundaries of all Government Agencies, for better coordination and the strengthening of supervision and control over area facilities. Mr. Jack Webb will be the new Alaska Director.

## Headquarters

of Sibley's

A. A. T. S.

When the Department of Commerce took over operations of the Airways July 1 1927 there were 45 Radio Operators on the pay-roll. During the following two years, staffing increased nearly 2,000 % creating an urgent need for improved field supervision; hence the selection and appointment by Mr. SIBLEY of some 13 "Ass't. Airway Traffic Supervisors" between 1929 and 1931. The story of the AATS is covered in some detail on Page 13.



A. A. T. S. 1935

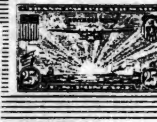
Refer Page 13

William A. Brennan

# HISTORICAL DATES



## OF THE AIR-MAIL & AIRWAYS



William A. Brennan

### To 1915

**1896 - May 6**

Dr. S.P. Langley makes successful flight with steam-propelled model - receives \$50,000 grant from U.S. Government for further experimentation.

**1903 - Dec. 17**

ORVILLE WRIGHT makes first "controlled flight" in power driven, heavier than air craft at Kitty Hawk, N.C.

**1910 - Aug. 4**

ELMO NEALE PICKERILL makes first air-ground radio contact with CW (code) in a flight between Mineola and Manhattan Beach, N.Y. Proves such communication possible.

**1911 - Sept. 17 to Dec. 10**

Pilot C.P. Rogers - first to fly across the United States.

**1911 - Sept. 23 to Oct. 2**

EARLE OVINGTON carries first airplane mail in Blériot monoplane Queen from Nassau Blvd., Long Island.

### To 1919

**1916 - Nov. 2**

Victor Carlstrom flies first air mail, Chicago to New York - consigned to the German Submarine "Deutschland"

**1918 - MAY 15**

First regular Air Mail Service inaugurated between NY and Washington with stop scheduled Philadelphia by U.S. POST OFFICE and U.S. Army. Washington Pilot Lt. Boyle "got lost" 20 miles after departing Washn. On second take-off he again got lost near head of Chesapeake Bay, gassed up and crashed plane on arriving Philadelphia. Congress had appropriated \$100,000 for the new service. Route was 218 miles. No "Nav aids" and maps were inadequate for flying.

**1918 - July**

Post Office established a combination AIR/MAIL route between New York & Chicago

**1918 - Aug. 12**

P.O. Dept. takes over complete control of the Air Mail Service as U.S. Army withdraws from participation.

**1919 - July 15**

Eugene Sibley hired to head up the Communication Services. Experimental radio stations established at Washington and Bellefonte.

**1919 - July 1**

Daylight Air Mail Service - CHICAGO - NY started.

### 1920

**1920 - MAY 15**

Air Mail Service extended CHICAGO - OMAHA and 2nd Anniv. of Air Mail Service.

**1920 - JULY.**

Decision was made by Post Office to use Point to Point CW Service for communications on the Airways.

**1920 - AUG. 20**

TRANSCONTINENTAL AIR ROUTE ESTABLISHED. P.O. Dept. Authorized establishment of Air Mail Radio Stations at "key" locations on proposed NY-SF day/night mail route

**1920 - AUG. 28**

Chicago - St. Louis Airway Route inaugurated.

**1920 - SEPT. 8**

Regular service established between NY - SF by the Post Office Dept.

**1920 - SEPT. 9**

Stan Boggs, Air Mail Pioneer flies first Air Mail into San Francisco.

**1920 - NOV. 1**

Ten Air Mail Radio Stations completed

staffed and ready for service. Operators include: NAUCK VWX; GREEN VWQ; MONAHAN VWU; WOODSON \*USN NZL; (DONALDSON VWO); NAVY MAJ (DUDLEY KQQA; BARNHILL KDEF; LINDSAY KDEG; GALE KCQ; COMAN KDEK; NGP SF; MASON KDEJ;

**1920 - DEC. 1**

CHICAGO - TWIN CITIES Airway Route inaugurated.

### 1921-1925

**1921 - FEB. 22**

JACK KNIGHT made Epic Flight at night to complete the FIRST night flight of the Air Mail coast to coast.

**1921 - Extended Period**

Operators Art Johnson and Phil Coupland modified ABC SETS of the system, increasing power from 2KW to about 5KW, also improving "Wave-Change-Switch" to provide rapid shift in WL without shutting Xmt. down.

**1924 - JULY 1**

Regular Air Mail Service over LIGHTED AIRWAYS established NY-CHICAGO-SF (Routes completed).

**1925 - FEB. 2**

"KELLY BILL" (HR-11704) "AIR MAIL ACT OF 1925" sponsored by Sen. Charles D. McNary of Oregon and Lawrence H. Watres - PASSED Provided for TRANSFER OF AIR MAIL OPERATIONS TO PRIVATE CONTRACTORS.

### 1926-1929

**1926 - APRIL 6**

VARNET AIR LINES starts carrying Air Mail Elko, Nev., to Pasco Washn. (First of "Feeder Line" Service/s).

**1926 - MAY 20**

BINGHAM-PARKER-MERRITT BILL passed by the Congress and became known as the AIR COMMERCE ACT OF 1926 which was the foundation of today's FAA (Continued Page-55)



and legislative cornerstone of American Civil Aviation.

It provided that the Dept. of Commerce would foster and encourage aviation, provide for all Airway facilities needed, establish airways etc. The Bureau of Lighthouses was designated to administer and supervise all airway matters. **Captain Fredrick Charles Kingsburg** was selected as the Chief Engineer and was administratively in charge.

1926 - AUG. 10

**WILLIAM P. MAC CRACKEN** was appointed as ASSISTANT SECRETARY OF COMMERCE for AVIATION.

1926 - (CIRCA)

**Art Johnson** builds and installs H.F. transmitting and receiving equipment at most Western Stations. These units were later designated as "THE" transmitters. They materially improved the handling of traffic between stations. **Mr. Hadley S. Beedle**, Chief AMRS Reno Nevada helped Mr. Johnson develop these new units.

1926 - SEPT. 15

Pacific Air Transport (PAT) Starts Air Mail Service, Los Angeles - Seattle.

1927 - APRIL 17

First Independent CAA Office established at Salt Lake City. **Mr. Henry S. Simmons** reports for duty and ran it as "one-man" office until July 1st, when **W.E. Kling** and other staff reported for duty. The AIRWAY DISTRICT OFFICE at FORT WORTH, TEX was also established at the same time with **Mr. Jack Miller** in charge.

1927 - APRIL 15

Colonial Air Transport flies first NIGHT PASSENGERS, New York - Boston.

1927 - MAY 20/21

**CHARLES A. LINDBERGH** flies N.Y. to PARIS non-stop, 2610 Miles in Ryan, "Spirit of St. Louis".

1927 - JULY 1

Position, "Director of Aeronautics" established and **Mr. Clarence M. Young** selected to fill same.

BOEING AIR TRANSPORT takes over operation of the CHICAGO - SAN FRANCISCO route.

The POST OFFICE DEPARTMENT turned over all ground support facilities to the Dep of Commerce, after 7 years of regular air mail service. Ground personnel, including 45 radio operators, 14 maintenance mechanics and 84 caretakers transferred to DOC. Air Mail Radio Stations renamed AIRWAY RADIO STATIONS. Included also were 2665 miles of airways on the Transcontinental route with 101 elec. beacons 417 acetylene gas beacons etc.

1928 - CIRCA.

Washington starts to equip stations with LSR-500 HF transmitters to replace the Art Johnson equipment which served long and well. Type RT-10Q (TBA, TBS etc -GE 2KW CW-ICW-PHONE equipment installed at most facilities on continuing program. ARC TRANSMITTERS "phased out" as no longer needed. Had been little used in past two years.

1928 - Dec.

United Air Lines organized.

1929 -

**Mr. Sibley** appoints Assistant Airway Traffic Supervisors to serve the expanding facilities and personnel to staff same.

# HISTORICAL DATES

1929 - JULY 4

Start of 48-Hour air/rail service NY-LA.

1929 - OCT. 1

**Mr. Wm P. MacCracken Jr.** resigns and his position as Assistant Sec. of Commerce for Aeronautics filled by **Mr. Clarence M. Young**.

## 1930

1930 - APRIL 29

Congress approved McNary-Watres act - award of routes - amendment to Kelly Bill, Air-Mail Act of 1925.

1930 - JULY 1

Aeronautics Branch, Department of Commerce reorganized and named BUREAU OF AIR COMMERCE.

1930 - (Jan. to August)

Several classes of Supervisory AATS, Station Chiefs, etc., attend Teletype Corps. School in Chicago for familiarization with teletypewriter equip. so that they will be able service/repair their own equipment. Leases for such service by Telephone Company employees terminate.

1930 - APRIL 4

Dirigible Akron with Admiral Moffett and 73 men lost off Baregate N.J. in storm. Operator **Bill Bushing** at Station WWU is last to work the Akron.

1930 - JULY

BUREAU OF AIR COMMERCE takes over from the BUREAU OF LIGHTHOUSES (LBS). Six Airway District Offices established. Supervision of Communications and A.R.S. also transferred to District Offices. (See Map, Page 51).

1930 - FEB. 9 4PM

Post Master General Farley cancels all AIR MAIL CONTRACTS (Terminology - annulled). President Roosevelt order the U.S. ARMY TO FLY THE MAIL starting in 10 days

1930 - Feb. 19 to May 8th.

Army pilots fly the mail with disastrous results. Total of 12 pilots dead, During the first week of operation, 5 pilots were killed and 6 critically injured with 8 planes "washed out" and property damage of over \$300,000

1930 - May 8

UAL and TWA resume mail flights.

1930 - July

First "APOB" flight made by Pilot **Geo. Lockhart** for the U.S.W.S. at Cheyenne Wyoming. **H.P. Adams** Chief assisted by **W.W. Oaks** in the first program.

1930 -

Air Traffic Control established as a Corporation with personnel drawn from the Air Lines etc.

1930 - (CIRCA)

WEATHER MAP SIGNALS transmitted over the teletype circuits. Maps received and drawn every 4-hours for distribution and briefing. These were drawn up by (SAC) personnel at points where the USWB did not have staff assigned.

1930 - July 6

AIR TRAFFIC CONTROL taken over by B.A.C. Among the first, and those transferred included the following: Messrs: Earl F. Ward, Glen Gilbert, John Huber, Homer

Cole, Red Stardevant, Hugh McFarlane, Emerson Mehrling, Ted Westlake, Jack Tighe, C.J. Stock, L. Ponton de Arce and Walter Swanson.

1930 - JUNE 23

McCarron - Lea Bill becomes CIVIL AERONAUTICS ACT of 1930. Most important legislation in history of Civil Aviation

1930 -

Alaska Aviation & Communications Commission established with **Glen Goudie W. Cruise** and others. Five stations established (Later taken over by CAA 1940)

1930 - July 1

CAA REGIONS ESTABLISHED.

Seven CAA Regions Established as follows: 1-NEWARK; 2-ATLANTA; 3-CHICAGO; 4-FORT WORTH; 5-KANSAS CITY; 6-SANTA MONICA; & 7-SEATTLE.

1930 - AUG. 22

Civil Aeronautics Act becomes effective Creating the CIVIL AERONAUTICS AUTHORITY with **Clinton M. Hester**, Administrator.

Names of AIRWAY RADIO STATIONS changed to be known as AIRWAY COMMUNICATIONS STATIONS and Chief's called OPERATOR IN CHARGE (OIC).

1930 - Oct.

Fire destroys the ACS at Knight Wyoming (Henry McConnell Chief, Robt. Workman and others loose possessions).

1930 - CIRCA.

MODERNIZATION PROGRAM STARTS, New Adcock ranges installed and old loop type ranges modernized.

1930 - Jan. 1

State of Wyoming transferred from Reg. 7 to Region 5.

1930 - CIRCA.

Start of program to assign maintenance personnel to field facilities to relieve operations personnel of increasing workload caused by increasing workloads at all facilities plus more sophisticated equipment in use. Earlier operations personnel were required to operate and maintain their equipment, also install if necessary.

## 1940

1940 - Jan. 1

ALASKA becomes REGION #8 with **Marshall Hoppin**, Regional Manager, **Walter Platt** Deputy, **Allan D. Hulen** Chief Communications Div., with **Joe Tierney** and **G. A. "Jerry" Whittaker** Inspectors. **Mr. John Beardlee** was Airway Engineer assigned.

Alaska Aviation & Communications Commission discontinued. CAA takes over stations and most of personnel.

1940 - Jan. 15

CAA (Region 5) takes over UAL stations at Akron, Colorado (**Carl Kugroff**, Chief) and Hayes Center, Nebr.). These stations built by UAL (Gov't funds not available at the time to fund) for the DENVER-GRAND ISLAND "CUT OFF" from mail line. Most of station complements transfers to CAA). This program initially concerned DENVER ACS, however funds were at last provided by Government to commission facility.

1940 - July 1

Air Traffic Control Branches established and staff assigned regions.

Society of Airway Pioneers

# Historical Dates

**1940 JULY 11.** President Roosevelt transfers most of the functions of the CIVIL AERONAUTICS AUTHORITY back under jurisdiction of the Department of Commerce, renaming it the CIVIL AERONAUTIC ADMINISTRATION (under reorganization Acts III and IV). Donald H. Connolly became Administrator. Regional "Managers" became Regional "Administrators".

**1941 - July 9**  
Schedule "C" Teletype circuit established with major relay stations at Denver Colorado and Louisville, Kentucky.

**1942 - March**  
Training program for new Communications and ART personnel starts with class-rooms set up in each region. Ultimately, some 4500 men and women were trained, due to war emergency conditions and graduated to staff field facilities.

**1942 - APRIL to NOV.**  
"OFACS" (HIGH POWER) Stations commissioned for inter-continental communication with allied nations at the following points:



*Henry Simmons*

**HENRY SIMMONS** was considered by many in the FAA as the "Dean" of the Administrative Officers. He EOD in the LBS at Boston Aug. 4 1919 and was connected with the AIRWAYS from the date Commer "took over" from the POD, until retirement. Actually, Simmons was the first District employee assigned to the new District Offices, commissioned 7-1-1927. He reported on Apr. 16 1927 and ran a "one man" District for a couple months until Mr. W. E. Kline and others reported at Salt Lake City.

Henry Simmons was always considered one of the field employees' best friends - compassionate but firm - always tempering his personnel actions with wisdom and justice. He served under various titles including "Chief Clerk", "Administrative Officer", Executive Officer, etc (Salt Lake, Newark, K.C.) He was a wonderful and fine man. He died May 1 1956.



*Donald G. Morehead*

## PRESIDENT

Election of officers in 1966 resulted in Don Morehead being chosen as President of the

Society. Other officers include the following:  
Vice President George D. Barr  
Secretary Gerald W. Whittaker  
Treasurer Frank A. De Andrea  
Executive Director William A. Breniman

Mr. Morehead, as most members recall was a former Director of the Society. He EOD in the Federal Airways in 1930 and after assignments at various ARS, shifted to Maintenance. He retired in 1957 from the position of District Supervisor at Wichita, Kansas. He now lives in Fresno, California.

Mr. Morehead is one of those "dedicated" men one often hears about. He is a very personable and highly qualified individual and we consider the Society lucky in having him as the head of our organization.

New York City (WSY), Miami (WBR), Everett, Washn. (KCJ), San Francisco (KSF), Honolulu (KVM), Anchorage (KIS) and Balboa.

**1942 - April 1**  
Signals Branches established in all regions.

**1942 - JULY**  
"CEMO" (Central Monitoring Offices) established in all Regions.

**1942 - Nov. 15**  
Position, Chief of Training & Performance, established in Communication Branches of each region.

**1942 - NOV.**  
Emergency staffing requested for facilities throughout Alaska. Regional volunteers and draftees sent by each region to furnish necessary complements.

**1942 - Dec.**  
HAWAII - PACIFIC REGION ESTABLISHED with Mr. John M. Beardslee the First Regional Administrator (takes over from Mr. Harold T. Bean who had been acting Manager under 6th Region jurisdiction).

**1943 - MAY**  
Communications Branch takes over Schedule "F" positions at the ATC Centers.

**1943**  
"MATS" STATIONS being commissioned and staffed for USN VR-3 circuits, terminated in ARC quarters.

**1943 - 1947**  
Some of the Region's best operators (mostly CW men) selected to man stations on the "SOUTH ATLANTIC BRIDGE" ferry route to Africa & Southern Europe. (See Page - 46)

1944

1944 - Feb. Certification of personnel at field stations starts in the Communications Divisions.

1944 - APRIL 1 Communication Branches assume operation of "B" Stands for ATC.

1944 - July 1 Inspector positions (per se) terminated in Communications Branches of Regions.

1945 - Jan. 1 "NAVE" positions abolished and "WFC" positions established.

1945 - JAN. 26 First edition of the Fifth Region's "V-REGIONNAIRE" published with W. A. "Bill" Breniman Editor & Publisher, W.R. LaRue Ass't. Editor.

1945 - May 1 Longline Schedule "B" and area circuits, formerly known as Schedule "S" were combined to form Svc. "B" net between Centers (ATC) and with S/R drops all ACS.

1945 - May 10 Security measures on weather information removed.

1945 - SEPT. Communication Analyst positions established in each region - function to check longline and other communications. Staff included 1 Chief, 3 Analysts and 5 Ass't Analysts.

1945 - OCT. 2 First Stenographic help approved for field stations. They were assigned to all DTX facilities.

1945 - NOV. 15 Broadcast of Weather Reports resumed. (Had been discontinued during war).

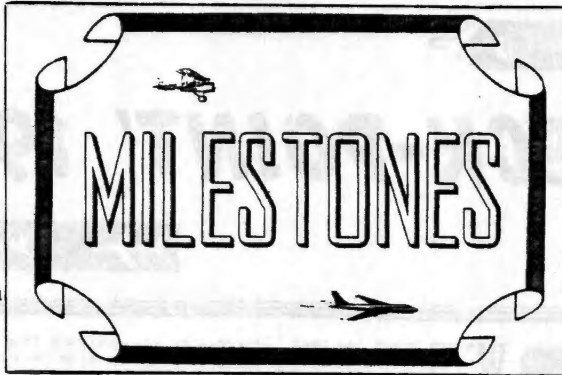
1946 - JAN. Administration of Airways at Regional level broken down into 3 Divisions, i.e.: "OPERATIONS", "MAINTENANCE" and "ESTABLISHMENT". ACS now called "INSCAS"

1946 - MAR. 10 Employees at all field stations return to 40-hour work week.

1950

1950 First DIRECTION FINDING EQUIPMENT (Sponsored and included in budget submission by William A. Breniman) approved. The original recommendation called for 122 units for installation at most Airway Communication Stations as a "tie-in" for the "FLIGHT ASSISTANCE PROGRAM". Actually only 3 units procured, 1 installed Goshen, Indiana, 1 at Red Bluff, Calif. and one scheduled for Front Royal, Va. transferred to Martha's Vineyard. This was the initial start of the DF program with exception of Kohlster equipment installed KCT Glendale 1929 (which did not work) and 2 old Int. Pay units, one at Pittsburgh and one at N.Y. One was scheduled for Washington (canabalized for parts). They both saved lives and equipment.

1951 - Sept. 17 Effective date of Consolidation in Washington of the COMMUNICATIONS DIVISION



and ATC Divisions into one Division headed by Clifford P. Burton, Chief and George L. Rand, Deputy. W.A. Breniman made Chief, Communications Section, ICAO Branch.

1953 - July 1 Continental Regions merged or combined by order of President Eisenhower who had pledged to reduce government expenditure in his campaign. These consolidations of regions included Regions II and IV at Fort Worth, III and V at Kansas City, and VI and VII at Los Angeles. The new alignment remained static until 1970 except AREA OFFICES were established.

1957 - Airways Operations Division renamed AIR TRAFFIC CONTROL DIVISION.

1958 - DEC. 31 FEDERAL AVIATION AGENCY ESTABLISHED with Elwood R. Quesada as Administrator and James T. Pyle became Deputy Administrator.

1958 Field designation of AIRWAY COMMUNICATION STATION changed to "FLIGHT SERVICE STATION". Breniman had tried to have them changed to "FLIGHT ASSISTANCE STATIONS" back circa 1946-50 but program opposed by the ATC Division.

1966 Federal Aviation Agency becomes FEDERAL AVIATION ADMINISTRATION.

1970 - OCT. 12 FAA announces that four new regions will be established and in operation by Apr. 1 1971. New headquarter offices have been approved for the following location (with Regional Administrator selected): Seattle, Washn. Christian B. Walk Chicago Lyle K. Brown Boston F. J. Howland Denver M.M. Martin

INVITATION

No one realizes more than the author that the forgoing chronicle of history is incomplete ... but it is a start.

Many events of great importance have occurred since the first radio station opened back in 1920 when the Air Mail first started. There has been graphic changes over the years and the transition in the communication field has been profound - hence many changes of importance have happened which should be recorded for posterity. (Upper Right)

The Author would like to complete the list and rewrite it with the inclusion of all noteworthy events and dates of importance that would add to the usefulness of such a document.

Invitation is therefore extended to all members and to those who read this book, to furnish dates and facts they recommend be added to such a chronological record of Airway History.

Thank you.



"SAGA" U.S. AIR MAIL SERVICE

One of the most authentic books that was ever written about the start of the U.S. Air Mail Service, during the period the Post Office Dept. operated same from Aug. 12 1918 until Aug. 31 1927 at which time it was turned over the Dept. of Commerce, can be found in a book published by the AIR MAIL PIONEERS titled "SAGA OF THE U.S. AIR MAIL SERVICE 1918-1927". Author was Dale Neilson who compiled and edited the "SAGA". It is a book of fact and pictures of the early days of the Air Mail.

Mr. Elmer C. Butler, President of the AIR MAIL PIONEERS informs me that there are only 300 copies of this book left... when they are gone, it will be the END! This is a priceless historical record of the early days and the book will shortly be a "collector's item" and not available at ANY PRICE.

It is not my purpose in this publication to promote or sell books but rather to alert members who may be interested in early Air Mail memorabilia, that the opportunity to obtain a publication of this type is rare indeed and I recommend, if interested, you procure before it is too late.

The price of the "SAGA" is \$4.75 postpaid. Send order to Mr. Elmer C. Butler, 325 North El Camino Real, San Mateo, Calif. 94401. Mr. Butler, incidentally is SOAP Member # 825.

The AIR MAIL PIONEERS is an organization consisting of all the former employees of the world's first scheduled airline--the U.S. Air Mail Service, Post Office Department - between dates of Aug. 12, 1918 and Aug. 31 1927. The organization is unique in many ways. First, its membership includes ALL EMPLOYEES of the POD engaged in Air Mail Service -- Pilots, Radio Operators, Clerks, Watchmen, Mechanics, etc etc.

There were some 2713 individuals eligible for membership in "AMP"; however, some 1700 members could never be located after AMP was founded. Mr. Philip L. Coupland was the dynamo behind the AMP and for many years followed every lead to bring in those eligible for active membership. In the early days of the Society, Phil Coupland and "YeEd" worked together closely and we are glad to have found many members for AMP. -30-



# 'CHECK-POINT' 1970



## EPILOGUE

We are prone (as most of us are "status-quo" individuals --- content to live in the past) to overlook the vibrant and challenging requirements of the present and future. The following articles, prepared and furnished to us by the Office of Information, FAA., tell us of changes being made in the realm of the old Airway Radio Stations ... now "tagged" FLIGHT SERVICE STATIONS.

Rhetoric changes the nomenclature as the years pass, but basically, we do the same things - only we do them faster and better because we have better tools to work with and we have been skilled in their use. The Author is particularly happy with the progress of the DIRECTION-FINDING PROGRAM. Everyone familiar with Airway history circa 1944-52 will remember his "one-man" crusade to secure this needed equipment

It appears to have received the endorsement/acceptance he envisioned and is paying handsome "dividends" in the saving of lives and property. A salute from one lone individual to those who have continued to champion this wonderful program.

## Direction Finding Program



### FSS DIRECTION FINDING NETWORK

Few pilots will ever admit to being lost, but a great many will confess that at times they have been somewhat unsure of their exact position.

For these pilots, as well as their more thruthful contemporaries, the Federal Aviation Administration's expanding network of ground-based doppler direction finding units is a God send. In 1969, for example, FAA Flight Service Station rendered 1,160 Flight assists to lost pilots using doppler "D.F." equipment.

The D.F. unit essentially is a radio receiver capable of receiving any selected VHF (very high frequency) or UHF (ultra high frequency) signal. At 1,000 feet above ground, the range is 45 to 50 miles. At 8,000 feet, the range is approximately 125 miles.

Furthermore, the equipment makes use of the "doppler effect" of wave perception to "bend" the signal so that reception is not strictly limited to line of sight -- as is the case with radar. Also, small aircraft which may be picked out on radar only with difficulty under certain atmospheric conditions, are clearly seen on the direction finder scope.

The direction finder console has two rows of channel select buttons, 10 for VHF, covering the range of common use frequencies and 10 for UHF. When a button corresponding to a pilot's transmitting frequency is punched on the console, a thin strobe light darts out from the center of the cathode ray tube of the direction finder scope and paints a line directly to the source of the transmission. The bearing of the aircraft in relation to the ground station is thereby established immediately. (Upper right please).

Determining its distance from the antenna site is a simple triangulation exercise requiring little more than a minute.

Suppose, for example, the DF strobe line indicates the aircraft to be on a 90° bearing from the antenna. The pilot is told to turn to a compass heading of 360° and fly this course one minute. A minute later, when he has complied with a request to transmit again, the DF strobe indicates a bearing of 80° from the antenna. He has transited a 10° arc in 60 seconds. Given the airspeed, wind direction and velocity, it is a simple matter to calculate the length of the hypotenuse of this triangle. The DF operator now gives the lost pilot a 260° "steer" toward the DF antenna, and informs him as to his estimated time of arrival.

When the pilot arrives over the DF antenna, he is guided to a point where he can see the runway, or if the ground is obscured, he is provided with an emergency doppler DF approach.

The FAA is ready, and will be even better prepared in the years ahead, to give this kind of flight assistance. At the end of 1969, there were 134 doppler direction finders in commission, and new ones are being added at the rate of two or three a month. In all, there will be 188 UHF/VHF doppler direction finders installed as part of the present program. Future plans call for about 200 additional direction finders to fill the gaps in the present network. These will be installed at the rate of 40 a year over a five-year period.

The average cost for electronic components and installation for a VHF/UHF doppler DF is approximately \$45,000. Compared to the value of a human life, it is an incomparable bargain.

## Flight Assistance Service

The radio call on the emergency frequency was compelling.

"Mayday ! Mayday !" crackled over the receiver in the Federal Aviation Administration's Flight Service Station at Tallahassee, Florida.

The call came from a two-seater Navy A-4 Skyhawk which had just hit a large bird on a low-level, high-speed training mission. The canopy had been ripped off, smashing vital flight instruments in the process, and the wind was tearing through the cockpit, buffeting the crew and carrying the navigation charts and other loose objects overboard.

The instructor pilot, who was seriously injured in the strike ejected from the aircraft, expecting his student to follow. But the student's ejection mechanism had jammed, and now he was alone in the aircraft and asking for help.

Galvanized into action by the "Mayday" call, the team of Flight Service Station specialists at Tallahassee first established communications with the pilot and then pinpointed his location with electronic direction-finding equipment. In the interim, local civil authorities were alerted to search for the injured instructor pilot who had ejected from the aircraft.

(Continued on Page - 59 Please).

**"THE FLIGHT ASSIST" (Continued)**

Contact also was made with other FAA air traffic facilities to clear the air for the crippled jet. The pilot then was given the necessary vectors (headings) to the nearest airport capable of accommodating his aircraft. Following these calm and precise instructions, he made a safe and uneventful landing. Not long afterwards his injured instructor was found and rushed to a hospital.

Such appeals for air are not uncommon at the 340 Flight Service Stations operated in the United States and its territories by the Federal Aviation Administration of the Dept. of Transportation. They happen more than five times a day on the average. Last year alone, these facilities provided emergency assistance to more than 1,900 aircraft in distress.

The great majority of flight assists -- over 1,400 last year involve pilots who are lost or "temporarily unsure of their position". But frequently the pilot not only is lost but also has other problems. He may be low on fuel, or have mechanical problems or be caught in adverse weather conditions. And someday everything goes wrong at once.

In the case of lost aircraft, the use of direction finding equipment which uses radio signals from the lost aircraft to pinpoint its location, has proved an invaluable aid. But sometimes the Flight Service Station specialist's knowledge of local terrain can be equally effective. By having the pilot describe local landmarks, the specialist frequently is able to tell him his location immediately and give him the necessary directions to the nearest airport.

For most FSS specialists, the most gratifying flight assists -- or "saves" as they're sometimes called -- are those involving pilots caught in weather conditions beyond their

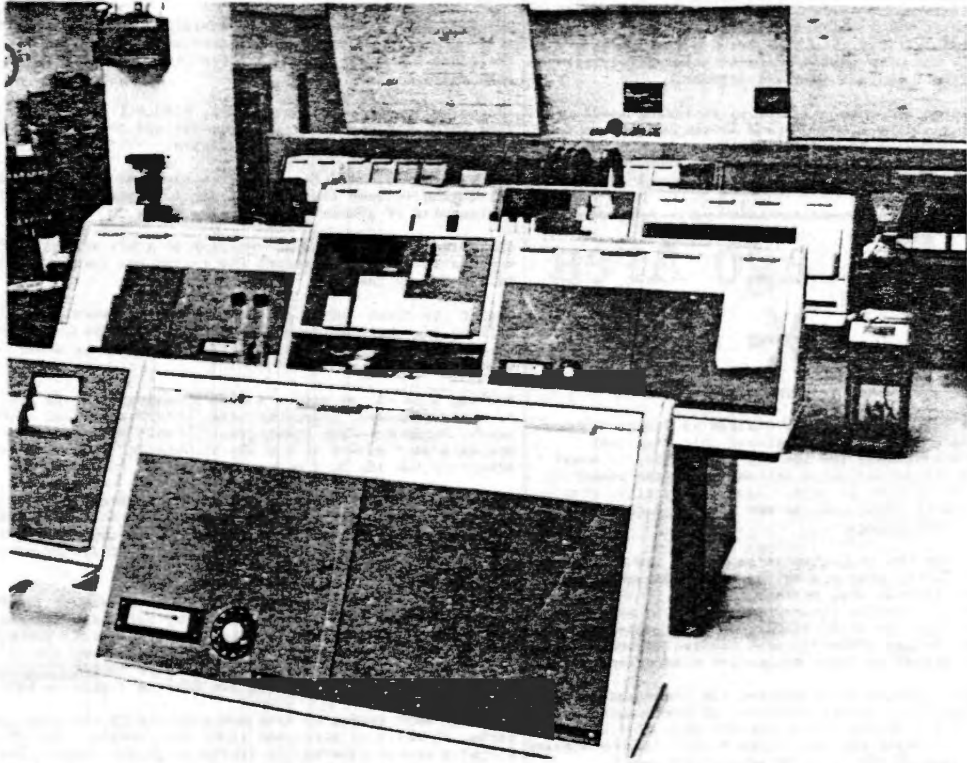
flying capabilities. In these situations -- and there were more than 300 reported last year -- the specialist's coolness and judgement can mean the difference between life and death.

Such was the case earlier this year when a young engaged couple took off in a single-engine lightplane from Florence S.C. for their wedding in Fort Wayne, Ind. Not long after passing the mid point of their flight, the pilot contacted the Huntington W. Va., FSS to report he was caught in a rapidly deteriorating weather situation and asked for help.

Using direction finding equipment and working in conjunction with FAA's Cleveland ARTC, the Huntington FSS established the aircraft's position near Portsmouth, Ohio. By this time however, the pilot was reporting that he was completely surrounded by clouds and was being buffeted by severe turbulence.

The Huntington FSS decided it had no alternative other than to bring the non-instrument rated pilot down through the clouds using DF guidance for a landing at the Huntington Airport. Weather conditions, meanwhile, continued to worsen. The pilot reported he was in the middle of a violent thunder storm and couldn't take his hands off the wheel even momentarily for fear of losing control. In addition, freezing rain and hail were blasting into the cockpit through a small air vent and ice was building up on the control surfaces.

But the calm voice of the Huntington FSS was reassuring. Gradually it guided the aircraft through the storm. Fifteen minutes after starting its descent, the aircraft broke through the cloud cover just seven miles northeast of the airport, where it made an erratic landing shortly thereafter blowing a tire in the process. Shortly after, a card was received from Niagra Falls: "Because of you, we are enjoying our honeymoon here - Thanks again for everything".



LOS ANGELES, CALIF. Interior view of the "top volume" Flight Service Station in the world. Pictured are the "Preflight Briefing Positions". Overhead projection screens depicting weather/notes data in upper center. The new Chicago FSS Station at DuPage Airport runs LAX a close second. During May 1970 the Los Angeles Station recorded 21,328 pilot briefings or an average of 688 per day. If they could be "spread out" over 24-hours things would be fine - however they come in "bunches".

# Automated Communication Nets

A new high-speed telecommunications message switching center to expedite the flow of international aeronautical information has been placed in operation at Kansas City, Mo., by the Federal Aviation Administration of the Dept. of Transportation.

Some 86 communications channels directly interconnect the Kansas City facility with three FAA domestic networks and with more than 100 specific locations outside of these networks. Almost 50 of the locations are on foreign soil under 17 national flags in the Caribbean, South America, Europe and North Atlantic.

Fully automated, with dual computer systems for increased reliability, the center speeds message transmissions and improves accuracy by eliminating intermediate relay points. A message from Lima, Peru, destined for Lisbon, Portugal, for example, no goes directly from Lima to Kansas City to Lisbon. Before the new center went into operation, the same message would have been relayed by three intermediate stations.

Messages are stored magnetically at the center for delivery to users in accordance with established priority levels. Urgent messages are retransmitted almost instantaneously.

The new facility is the key element in the North Atlantic and Caribbean Aeronautical Fixed Telecommunication Network (AFTN) a worldwide telecommunications system operated by member States of the International Civil Aviation Organization (ICAO). The system handles international aeronautical operational, meteorological and flight data messages and consolidates at Kansas City all the AFTN switching functions formerly performed at Miami, New York, San Juan and Balboa.

This consolidation was made possible by extending local and long-haul circuits from four previous switching centers to Kansas City. Circuits from Miami and New York are carried by landline while those from Balboa and San Juan are carried first by submarine cable to the Florida cablehead and then by landline to Kansas City. T 70-27.

## New Chicago Area \* F.S.S.

NEW FSS FOR CHICAGO/LAND.

When you're Number Two, you try harder.

Take the FAA's new Flight Service Station at DuPage County Airport outside Chicago. Commissioned only this last Spring as the replacement for the old Joliet FSS, it would seem a shoe-in for second place nationally in the number of flight services provided in 1970. After all, Joliet finishes in that position in 1969, and the new Chicago facility has even greater capabilities.

But is the Chicago FSS satisfied to be Number Two? Apparently not. It's taking dead aim on the Number One position held by the Los Angeles FSS, perhaps inspired by the fact that two other air traffic control facilities in the Chicago area -- the Chicago Air Route Traffic Control Center at Aurora and the Chicago O'Hare Airport Control Tower -- rank as the worlds busiest in their respective categories.

The new facility already has surpassed its predecessor in the number of pilot briefings conducted in any single month. In May 1970, it had 18,759 with a one-day high of 1,007 on May 29. The May total was only 2,569 behind the Los Angeles FSS which recorded 21,328 pilot briefings that month.

And there is the promise of more to come. Located in the heart of the mid-west flying belt, the new Chicago FSS serves no less than 70 general aviation airports. And its equipment and facilities -- not to mention its personnel -- are the best available. Among its features are:

- ① Four air/ground communications consoles, double the number in the old Joliet FSS

- ② Completely new and modern telephone system, providing much greater coverage on toll-free lines than its predecessor.
- ③ A larger area of radio coverage with the addition of two VOR (very high frequency omnidirectional range) sites.
- ④ An automatic telephone weather advisory service for pilots in the Chicago, Milwaukee and Davenport (Iowa) areas.

None of this has the crew at the Los Angeles FSS worried, of course, but it has caught their attention.

Chief of the new CHICAGO FSS is Harold Michael who rather recently took over the post from Society member, John N. Longton who was appointed to the Chief position at Chicago Sept. 1949 by Ye Ed who at the time was Chief of the Third Region's Communications Division. Mr. Longton, until his recent retirement has held the post some twenty years.

Former Chiefs of the Chicago included Grant Jacobson, Omar Young(D), Harold Burhop, and Harry Dudley to name a few. Other Pioneers include Jack G. Brance and Hubert D. Broyles both retired.

## Tomorrow's FSS—Today

Equipment modernization, improved communications and a better all-around working environment are planned for the FAA's flight service stations during the coming decade.

Expenditure of approximately \$56 million for re-configuration and improvement of flight services is set forth in the "National Aviation System Ten-Year Plan", issued earlier this year.

According to the plans, the FAA by 1980 will have 155 full-time FSSs, 416 part-time stations and 400 unmanned stations within the conterminous United States.

Improvements planned for FSSs over the next decade include relocation in some instances, facility modernization and replacement of obsolete equipment.

Also planned under the NAS ten-year plan are systems improvements in the International FSS system and the FSS systems in Alaska and Hawaii.

One of the first facilities to complete an overall facelift was the Washington D. C. FSS at the Washington National Airport. It literally sets the pattern -- today -- for tomorrow's FSSs.

Serving some of the nation's most prominent persons -- congressmen, senators, industrialists, entertainers and noted sports figures -- the Washington FSS will be among the nation's most modern as the FSS celebrates the 50th Anniversary of the Air Mail Radio Station.

According to FSS Chief Joseph J. Greten, Charter Member #164 of the Society of Airway Pioneers and who has served over three decades, the recently completed physical changes at Washington FSS have added greatly to the efficiency of his complement of 64 employees.

Attractive paneling has been installed throughout. The FSS has been soundproofed. Modern chairs, updated communications equipment and a conveyor belt system for speedily processing flight plans have been installed. The station, one of the first seven to be established, earned the "OUTSTANDING FACILITY OF THE YEAR AWARD" from the Eastern Region in 1967.

Station "WXX" serves an area encompassing 55 civilian airports, 12 military bases and eight omni ranges. The 67 airports served generate in excess of 10,000 flight plans monthly most of which come by phone but many are walk-ins.

CHIEFS of the Washington D.C. Station has included the following: Eugene Sibley, Oscar Nausak, Carl A. Bauer, T. J. Swartzmann, Godfried Muehl, Thomas Wallin, Everitt, C. Newman, Francis A. Richards, Austin L. Sparks, Nelson W. Thorp, James Mays, Gene E. Smith and Joseph J. Greten.



## ALABAMA

**BIRMINGHAM** JAN. 1934  
M.V. Black 5C, D.M. Updegraff 7C

**DOTYAN** AUG. 1940  
Claude Stewart 3C, Henry B. Date 7C

**EVERGREEN** NOV. 1949  
J.B. McGEE 5C, XXX

**MOBILE** JUNE 1952  
Augustus Eitz 5C, John B. Pacheco 7C  
Jim Bennett 1C

**MONTGOMERY** JUNE 1933  
W.N. MANOR 5C, Wm E. ELLIOTT 7C

**MUSCLE SHOALS SHEFFIELD** MAY 1940  
P.A. CRAWFORD 5C, Robt. B. Thornberry 7C

**FUSCALDOOSA** MAY 1943  
Paul G. Meadows 5C, Paul G. Meadows 7C (20 years plus), J.W. Thomas 1940  
C, N.V. O'Drion, A.G. Cousins, A.R. Crumley Jr.

## ARIZONA

**DOUGLAS** SEPT. 1934  
Cornelius Weidner 5C, LeRoy Pepper 7C, Kenneth Fauchier 1954C Joe Falbo 1956C Max Haynie, Jim Gunn, H.Howard Jay Harrod.

**GILA BEND** 1948  
R.J. Vroman 5C, John E. Click 7C

**PHOENIX** DEC. 1958  
BERNARD SOLOMON 5C, K.W. Barrett 7C

**PRESCOTT** OCT. 1944  
A.S. POTTER (D) 5C, R.E. Shire 7C

**FUGSON** NOV. 1931  
R.B. TALBOT 5C, W.P. McCART 7C  
JAMES M. PRATT 1C.

**TINSLOW** JAN. 1931  
C.S. Kelley 5C, XXX

**YUMA** JAN. 1943  
R.M. HACKER (D) 5C, R.A. Uruchurtu 7C  
Harold Johnston 1C (1931)

## ARKANSAS

**EL DORADO** JULY 1949  
L.S. PALCON 5C, C.R. COUSAR 7C

**FAVETTEVILLE** JULY 1947  
G.D. Estes 5C, Jack Hover 7C

**FORT SMITH** N.R.  
C.P. FRY 5C, Edgar F. Stacy 7C

**LITTLE ROCK** N.R.  
R.T. RICHARDS 5C, XXX

**PINE BLUFF** SEPT. 1938  
A.D. HOSSEY 5C, D.A. CARROLL 7C

**TEXARKANA** SEPT. 1931  
J.E. Gattis 5C, J. E. GATTIS 7C (20 years plus).

**WALNUT RIDGE** MAR. 1949  
L.I. GRAYS 5C, XXX

## CALIFORNIA

**ARCATA** NOV. 1949  
R.H. BOUGHN 5C, Lawrence H. Payne 7C (Original FIDO test facility with William Gottlieb in charge).

**BAKERSFIELD** JAN. 1934  
C.H. WILLMOITE 5C, DONALD M. EDWARDS 7C, Eskel Daniels C, Hal Carriek C (1934) C.M. Tate, Howard Smith, Bill Gottlieb. BYARS C (1939) Masterson, Lowen, Rylander, Morrissey, J.P. Johnson.

**BLYTHE** SEPT. 1937  
H.J. STEPP 5C, C.R. McGowan 7C FRED L. BROWN 1C, CLARENCE REED 2C

**BURBANK** 1930  
L.D. ASHLEY 5C XXX7 W.A. SIMONSON 1C (DTX STATION AT FIRST).

**CRESCENT CITY** OCT. 1949  
F.E. DAVIS 5C GEO. A. PALMER 7C

# Facility Chiefs & Commissioning Dates

\*\*\*\*\* COMPILED BY W.A.BRENNIMAN \*\*\*\*\*

20  
years  
ago

During the assignment of the Author some 20 years ago as Deputy Chief of the Communications Division in Washington, he found he needed for a roster of Station Chiefs - hence made one up from Regional lists which he consolidated in his office. The tabulation records the name of the Chief Aircraft Communicator assigned in 1950. Added to the list, is the Chief of the FSS facility recorded in the National Field Office Directory of the FAA - 1970. The names of additional Chiefs and operating personnel have been included as recalled by the Author. Listing of Chiefs of the Alaska and Hawaii Regions are included under dateline of 1955.

Identifying legend used in listing is as follows: "5C" (Chief - 1950); "7C" (Chf in 1970); "1C" (First Chief if known), "2C" (Second Chief, if known, etc.), "C" Chief. Initial staffing complement will be identified by legend "FS" for First staffing. Other personnel recalled will be listed without prefix.

To make the list more useful, the date the facility was officially commissioned, as taken from the official records compiled under the direction of Mr. Henry S. Chandler (1-30-1959) will appear at the right of station listing. If the original date of establishment is known it will be marked (\*) if other than the date shown which in some cases may indicate a "relocation" rather than the initial commissioning date of the facility.

Great care and much time has been spent in checking records so the listing/s are believed to be highly accurate and the author hopes useful - at least they may recall many nostalgic memories of people and places over the years.

**DAGGETT** JAN. 1932  
W.H. ATKINS, Jr. 5C, W.H. ATKINS 7C (Over 20 years).

**DONNER SUMMIT** 1929  
D.T. Rylander 5C, 1970 XXX (See story Page 14).

**EL CENTRO (IMPERIAL)** MARCH 1943  
J.A. MacADAM 5C, RAYMOND E. TUCKER 7C.

**FRESNO KCU** 1928  
ESKEL DANIELS 5C, J.F. JACKSON 7C  
FS: D.E. Gifford, Dan O'Neill, Cody Lehr, Jepson. W.A. Breniman (1929)

**INDIO (THERMAL)** N.R.  
T.W. KELSO 5C Ralph D. Huffer 7C  
H.J. Stepp (1938) H.G. Pack, James Foster, B.B. Greenleaf.

**LONG BEACH** MARCH 1943  
John M. Pratt 5C, XXX7

**LOS ANGELES "KCT"** JULY 1 1928  
ELMER C. BUTLER 1C, H.D. Heister 7C  
D.R. Fulton 5C. FS/E.L. Plagee, Stan Hutton, R.T. King, Dewey L. Perrine 1929 W.A. Breniman, Stan Hutton.  
2C W.A. Simonsen, 3C Herb Hela

**MONTAGUE** APRIL 1948  
J.C. Hill 5C, Dale C. Crase 7C

**NEEDLES** OCT. 1938  
W.H. Leavy 5C, A.W. Osowski 7C

**OAKLAND** "KCV" JULY 1 1928  
R.C. Spiegelberg 5C, Joseph C. Hill 7C, 1C T.K. Johnson, 2C C.W. "Bill" Larsen, 3C Ray E. Dickens, 4C D.K. Gifford FS/Dan Cordano, Gordon H. Pascoe, A. D. Herbert, T/W.A. Bill Breniman, Art Fielder, Jerry Whitaker and many others. Original station located on "BAY FARM ISLAND"

**OCEANSIDE** N.R.  
R.J. Brown 5C XXX7

**OGDEN** MARCH 1944  
E.C. Jones 5C, XXX7

**PALMDALE** JAN. 1934  
E.L. Ware 5C, H.A. Elias 7C.

**PASO ROBLES** FEB. 1947  
R.V. Andrews 5C, Wm K. Vanderpool 7C

**RED BLUFF** JAN. 1939  
C.M. Tate 5C, D.C. Burns 7C; Cody Lehr C (1939) Ed. Daniels, Harry Watkins, Al Frazier.

**RIVERSIDE** N.R.  
J.W. Elwell 5C, XXX7

**SACRAMENTO "KDOC"** OCT. 1938  
F.H. McDonald 5C, E.E. Johnson 7C  
P.E. White 1C, Herb Hela C, Gordon Pascoe C (1929), James Bennett, A.D. Herbert. (1925\*)

**SALINAS** APRIL 1947  
Ed. G. Deziel 5C, Robt. H. Hill 7C

**SAN DIEGO** FEB. 1931  
R.E. Wiley 5C, John J. Masiello 7C  
Ira G. Parish C-1932, W.A. Breniman C-1933, E.C. Butler C-1935. / J. Palmer, H. Helmes, M.E. Walton

**SAN FRANCISCO IATCS KSF** APR. 1 1942  
Elmer C. Butler 5C (1C) H.N. Stewart 7C. Station "KFZP" 2-25/6-27;  
KSF FS/ Butler, Geo. Hall Ass't. Chf. Supvrs: D.H. Cordano, H.T. Timmons, R.L. Clarke, Oprs: A.K. Frazier, Leo Rozalski, L.H. Hoppick.

**SANTA BARBARA** 1941  
H.T. Timmons 5C, John P. Elwell Jr. 7C, William Leavy C, Monte Porter C.

**SILVERLAKE** N.R.  
H.W. Jonsen 5C XXX70

**STOCKTON** APRIL 1947  
L.C. Kulisck 5C, Francis A. Rosach 7C

**THERMAL** MARCH 1938  
Ralph D. Huffer 7C

**UKIAH** SEPT. 1949  
J.T. RENFROE 5C Aurelio V. Nofi 7C  
Ray Brown C, D.C. Burns C.

**WILLIAMS** N.R.  
C.R. Waldbieser 5C, XXX7

(Continued on Page 62 Please)

## COLORADO

**AKRON** MARCH 1939(##)  
M.J. GALARD 3C, Wm F. Cobb 7C, Carl Kusrow 1C (# Commissioned by United Airlines 1938 - April taken over by CAA March 1939. Raymond Green C. Earl L. Leith 1942/49.

**DENVER** APRIL 1938  
O.E. Hammond 5C, Robert M. Hacker 7C (D-1968)FS/Wm A. Breniman 1C, Tom Bestie, Don G. Morehead, Harold Gardie, Geo. McGowan. / Russell M. Woodson 2C, R.B. Workman 3C, Manuel Goulart 4C

**EAGLE** JAN. 1946  
Grant H. Brallier 3C, W.G. Jackson 5C

**GRAND JUNCTION** NOV. 1945  
J.F. CAMPBELL 1C, Ralph E. Calkins 5C

**LA JUNTA** APRIL 1941  
Chas. F. Barclay 3C, Harold T. Seibel 7C.

**PUEBLO** 1937 Est.  
F.M. Eastman 1C Gordon Pascoe, J.J. Nasello, Charles F. Barclay

**TRINIDAD** DEC. 1939  
L.M. Warren 3C, Wayne G. Jackson 7C  
John Jetts 1C, Elmer Doty 2C, FS/  
John H. Reed, James W. Winborn, W. Bentley, Chas. H. Hess, Bren. Querea

## CONNECTICUT

**WINDSOR (BRADLEY FIELD)** AUG. 1947  
T.C. WILDE 3C, A.J. Venne 7C

## DISTRICT OF COLUMBIA

**WASHINGTON D.C.** WXX Sept. 15 1919  
A.L. Sparks 3C, Joseph J. Greten 7C (See Page 60) Other Chiefs include Sibley 1C, Nauch, Bauer, Schwartzmann, Muehl, Wallin, Newman, Richards, Sparks, Thorp, Mayes, Smith. Station commissioned for CW - July 12 1920 - previously used for Nav-Aid experimentation.

## FLORIDA

**CRESTVIEW** JULY 1940  
C.C. Subor 3C, R.D. Duniyav 7C

**CROSS CITY (CROSSVILLE)** JUNE 1940  
M.C. WRIGHT 5C, James N. Denson 7C

**DAYTONA BEACH** N.R.  
H.D. ARNOLD 3C, XXX7

**FORT MYERS** MARCH 1939  
O.W. Craig 5C, E.M. Hickey 7C

**JACKSONVILLE** DEC. 1938  
F.M. Liaville 3C, G.C. Subor 7C

**KEY WEST** OCT. 1931  
J.C. Hancock 3C, J.C. Holyfield 7C  
Chas. Moresus.

**MARIANNA** DEC. 1949  
H.G. BROOKMAN 5C XXX7

**MELBOURNE** FEB. 1939  
C.A. McAllister 3C, C.A. McAllister 7C (Over 20-years) 1939 J.C. Nolan C. W.H. Baker, Wm Perkey, Y.J. Howard W.G. Kelly.

**MIAMI** ATCS-Jan.34 IATCS-June 1944  
E.K. SHINN 5C, Henry B. Ibbetson 7C

**ORLANDO** JUNE 1940  
Wm. Persky 5C, Wm. Persky 7C (Over 20 years).

**PENSACOLA** Feb. 1943  
L.E. Caulk 5C, James D. McGee 7C

**TALLAHASSEE** Feb. 1940  
T.M. McNeil 3C, James T. Reeder 7C

**TAMPA** N.R.  
H.R. Barrett 5C, XXX7

**VERO BEACH** JAN. 1936  
W.A. Carrison 5C, W.A. Chapman 7C

**WEST PALM BEACH** N.R.  
A.V. Baird 3C, XXX7

## GEORGIA

**ALBANY** OCT. 1948  
S.M. GREENE 5C, Seth M. Greene 7C (Over 20 years at Albany).

**ALMA** NOV. 1938  
J.M. BOYLE 3C, Joe. J. Henney 7C

**ATLANTA** "HIZ" JAN. 1929  
D.V. MILLARD 5C, Douglas C. Rhodes 7 Ed. England 1C

**AUGUSTA** N.R.  
L.R. Nesmith 3C, Ernest L. Bracy 7C

**BRUNSWICK** NOV. 1943  
Benj. Eulenfeld 5C, Benj. Eulenfeld 7C (Over 20 years).

**MACON** DEC. 1948  
J.A. Bubby 3C, J.D. Lott 7C

**SAVANNAH** N.R.  
Willis Bruce 3C, H.L. Hauger 7C

**VALDOSTA** APRIL 1948  
O.W. Wilson Jr. 5C, Fred W. McIntyre 7C.

## IDAHO

**BOISE** "KGR" 1930  
H.M. Bray 3C, C.E. Abshire 7C W.A. Simonson 1C, Reese Clark 2C, Ira G. Parrish C / FS: Harry L. Bergey, E.V. Whitlock, W.C. Johnson, 1942 M.M. Marvin, H.C.D. Morris, J.L. Pratt.

**BURLEY** "KCEI" DEC. 1927  
R.R. Wall 5C, Leo E. Peirce 7C  
1939/G.L. Newell, N.E. Thurman, J.A. Busby, R.E. Ross, W.P. Boyd 1942/  
G.W. Hurst C, R.E. Wall, W.F. Mee, J.M. Storm, E.C. Niemann.

**COEUR D'ALENE** N.R.  
E.C. DICKES 5C XXX7

**DUBOIS** 1939  
C.D. Riley 3C, XXX7

**GOODING** JULY 1941  
Ralph L. Hasleton 3C, XXX7

**IDAHO FALLS** "KCAD" 1934  
R.J. Geiser 3C, John K. Krohn, Sam Kelly 1C (1931) Frank Walton, Pop Neeland, Al Barnabei, Jerry Whittake

**MALAD CITY** JAN. 1944  
C. W. Wheeler 5C, R. Timmerhoff 7C

**POCATELLO** N.R.  
N.E. Thurman 5C, Donald L. Washington C/ST.

**STREVELL** "KHE" N.R.  
J.V. Yasaitis 5C XXX

## ILLINOIS

**BRADFORD** N.R.  
L.M. Arnett 3C, XXX 1932 (Norse)  
Eddie Kilbride, Charlie Parker, H. Broyles, Stevenson.

**CHICAGO** "KQDA" "KDA" 1920  
Harry Dudley 1C, Sam Kelly, Ralph C. Soney 1929/ Dudley, Elmer Birchfield Jack Kurillo, Len Dallard. 1931/Dudley, C. Beckett, C. Michiel, H. Hagen R.T. Kruke, J. Montpas, Geo. Yunk. 1938 Omar Young C. C. Pikell, H. Robinson, S. Shumway, Harold Snow, Ray Kruke, Geo. Yunk. J. Russell, Roland Barstow. Harold Burhop C. Grant Jacobson 5C, John N. Longton, and Harold Michael. Station relocated to DuPage Summer 1970. Others/P.E. Rinsey, Rose Montie, H.B. Wright, Hans Anderson, Peter W. Peterson.

**EFFINGHAM** N.R.  
H.C. Solmon 5C, XXX

**JOLIET** JULY 1937  
J.N. Longtin 5C. (Combined with Chicago Radio - see above.)

**MOLINE** N.R.  
E.H. Mann 5C, D.G. Phillips C/ST 7C

**PBORIA** N.R.  
Fred D. Sommer 3C L.A. Case C/ST 7C

**QUINCY** FEB. 1948  
H.H. Hayes 5C, K.T. Leffman 7C

**ROCKFORD** N.R.  
R.P. Turnbull 5C, Andrew Bili 7C

**SPRINGFIELD** N.R.  
W.B. Quirk 5C, Richard A. Carman XXX7

## INDIANA

**EVANSVILLE** N.R.  
Charles Whitehead 5C XXX7

**FORT WAYNE** N.R.  
E.H. Shookman 5C, A.A. Iahof

**GOSHEN** OCT. 1930  
W.G. Stephenson 5C, XXX7

**INDIANAPOLIS** FEB. 1933  
R. A. Carman 5C, Roy E. Messmore 7C  
M. E. Walton C.

**LAFAYETTE** JULY 1935  
W.B. Adams 5C, H.G. Blain 7C

**SOUTH BEND** N.R.  
J.A. Coughlin 5C, K.T. Leffman 7C

**TERRE HAUTE** MAY 1930  
C. Turner 5C, Howard E. Casey 7C

## IOWA

**ATLANTIC** N.R.  
B.R. King 3C, XXX7. C.F. Minkner C (Station moved from Adair about 1939).

**BURLINGTON** JAN. 1939  
S.D. "Duffy" Brooks 5C, Geo. A. Green 7C. C.C. Richelieu 1C, Hatch 2C 1939/ Smith, Al Duros, J.A. Boland Lon J. McKnight, McCombs, Wally Boyle, Dick Kaizer.

**DES MOINES** JULY 1934  
W.M. Buchanan 5C, Albert A. Keim 7C 1937 R.H. Barker C, C. Homer Jones, L.T. Mutterfield, Carl Hatfield, Louis Potter/1940 T.W. Melartin, J.P. Curry, J.P. Menge, Raymond B. Kruke C.

**IOWA CITY** "KDX" "KIS" 1921  
J.M. Bradford 5C, XXX7 P.E. White C. Wm A. Crawford C. Ray E. Dickens Rome Montie, Claude M. Smith, Tony Gerhart, Silas F. Clark, Sam Allen.

**LAMONI** NOV. 1949  
J.F. Menge 5C XXX7

**MASON CITY** April 1941  
C.R. Minkner 5C, Wm C. Lyons 7C

**OTTUMWA** JAN. 1948  
B.H. BARKER 5C, Roger J. Dessert 7C

**SIOUX CITY** N.R.  
L.C. LePORTE 5C, R.H. Davis 7C

## KANSAS

**ANTHONY** N.R.  
John R. Goodman 3C, XXX7 /1937  
Gene Matthews, Lee Hopkins, Veryl Lee, M.H. Stinson, 1938 Eddie Amble John Reed.

**CHANUTE** OCT. 1938  
Burl B. O'Connor 5C, (D); Joseph R. Gernley 7C/1942 Geo. G. Garrett C, C.H. Hatfield, Joe L. Black. /C.  
Homer Jones C.

**DODGE CITY** JUNE 1942  
Frank R. Rapsilber 5C, Kenneth F. Terry.

**GARDEN CITY** 1944  
R.W. Barclay 5C, Lazar Shorter 7C

**GOODLAND** DEC. 1947  
J.C. Bligh 5C, W.E. Prueit 7C  
B.B. O'Connor C.

**HILL CITY** JUNE 1938  
L.E. Shall 5C, Harmon A. Williams 7C.

**HUTCHINSON** 1942  
C.L. Keller 5C, C.H. McCrary 7C/ST.

**LEBO** N.R.  
L.T. Nutterfield 5C, XXX7 Foster J.  
Perry 1939-50, C.H. Jones C L.T.  
Nutterfield.

**RUSSELL** AUG. 1949  
N.J. POOL 5C, Robt. J. Kaps 7C

**SALINA** APRIL 1940  
E.B. Johnson 5C, Robt. H. Hill 7C  
(Johnson C 1949-58)

**TOPEKA** 1947  
C.Homer Jones 5C 1947-51, XXX7

## KENTUCKY

**BOWLING GREEN** N.R.  
N.C. Reynolds 5C, XXX7

**CORBIN, S.S.** N.R.  
S.S. Loomis 5C XXX7

**LEXINGTON** 1949  
Otto G. Schmidt 5C XXX7 (Dix E.  
Newton MIC WB 1947-65), CS/T 59.

**LOUISVILLE** N.R.  
Peter W. Bertonis C-1933, Sidney W.  
Fitzhugh 5C (1933-39 & 45-53). (O.K.  
Anderson WB MIC 1949-59) Sumner S,  
Loomis 7C.

**PADUCAH** N.R.  
C.H. Sonner 5C, Geo. T. Harris 7C

## LOUISIANA

**ALEXANDRIA** JAN. 1948  
P.T. Connally 3C, P.W. Connally 7C  
(More than 20 years)

**BATON ROUGE** N.R.  
J.W. Scott 5C, Billy J. Tharp 7CS/T.  
Larry S. Falcon C 1944-53.

**LAFAYETTE** JAN. 1940  
C.S. Loving 5C, W.J. Ward 7C

**LAKE CHARLES** FEB. 1939  
P.C. VAN HOOK 5C, Arthur J. Davis 7C  
N.E. Braden C-1942-44, VanHook 44-53  
Arthur Davis 1953 on. (Joe D.  
Worrrell WB MIC 1948-59).

**MONROE** JUNE 1940  
Jack Hover 5C, William A. J. Thomp-  
son 7C.

**NEW ORLEANS** May 1957 (New -  
Field)  
N.A. Barret 5C, Harold (Field)  
Chadick 7C, Hillard D. "Doc" Clyne  
1C 1931, Lazard S. Falcon 1954-58  
CS/T. (W.W. Oak WB MIC 1943-44)

**SHREVEPORT** N.R.  
V.A. Jones 5C, H.G. Reynolds 7C CS/T

## MAINE

**AUGUSTA** MARCH 1939  
F.J. Best 5C, Ernest L. Bracy 7C  
Howard Best C 1935 (D); Geo. A.  
Greene Sr. C 1942-43; Ralph F.  
Schaffstall C-1943-46.

**HOULTON** JAN. 1942  
P.T. White 5C, Arthur J. Venne 7C  
Geo. A. Lynn C-1951-53.

**MILLINOCKET** FEB. 1940  
E.H. Carroll 5C, Vacant 7C

**OLD TOWN** MAY 1948  
J.A. Bennett 5C, Nelson L. Clark 7C

**PORTLAND** N.R.  
J.F. Carroll 5C, J.F. Carroll 7C  
CS/T (Over 20 years).

## MARYLAND

**BALTIMORE** N.R.  
W.W. Pumphrey 5C, XXX7

**SALISBURY** OCT. 1948  
Donald Fratio 5C, Rolla E. Vice 7C

## MASSACHUSETTS

**BOSTON** "WSX" JUNE 1929  
Harry Goldstein 5C, Geo. A. Lynn 7C  
1933; R.C. Soney C, Bert Hackenbur-  
ger, Manual Goulart, Geo. Baker.  
Geo. Gonnell C. B.L. Hackenberger C  
1937-40. Ed. Carrell, Eugene  
Merrison.

**NANTUCKET** MAY 1948  
L.E. Bachman 5C, 7C same after more  
than 20 years).

**WESTFIELD** N.R.  
Michael O'Seep 5C, XXX7

**WORCESTER** N.R.  
R.S. Allen 5C, Henry E. Szeftlinski  
7C CS/T.

## MICHIGAN

**BATTLE CREEK** N.R.  
C.N. HAAS 5C, A. Nonickonen 7C CS/T

**CADILLAC** N.R.  
Pitt Van Hoose 5C XXX7

**DETROIT** DEC. 1935  
J.M. Eudaly 5C, Harrison W. Young 7C  
Myron Worcester C-1930-33, Hugo  
Boyle C-1938, Mark Eudaly 1948 -  
Roland H. Barstow C-1954. (1934-52  
MIC WB Floyd H. Pearson).C.W. Tone,  
Wm Jessup, W. G. Stephenson

**FLINT** N.R.  
W.P. Hurst 5C, (1949-52), Robt. L.  
Hall C 1952-56. R.A. Kerwin 7C CS/T

**GLADWIN** N.R.  
R.T. Underwood 5C. XXX7.

**GRAND MARAIS** AUG. 1948 \*  
L.E. McFall 5C XXX7 (This station  
built by State of Michigan for the  
Canadian Govt. Operation assumed by  
CAA 1948).

**GRAND RAPIDS** N.R.  
M.L. Allen 5C, L.L. Arnold C. XXX7

**HOUGHTON** AUG. 1948  
G.L. Royce 5C. R.L. Nordstrom 7C  
FS/ Royce, Tom Lark, Chas. Balyan,  
Tom Corrigan. Name of station  
changed to CALUMET. This station &  
Grand Marais built so AIR CANADA  
could "overfly" Great Lakes, short-  
ening route Toronto-Winnipeg several  
hundred miles. Due technicality, the  
U.S. Gov't. could not finance so the  
State of Michigan built and operated  
for short time until the CAA took  
over. W.A. Brennan made acceptance  
survey for Region III.

**JACKSON** NOV. 1938  
E.P. Reynolds 5C. G.H. Prints 7C

**LANSING** FEB. 1938  
E.G. Adams 5C, Walter Fern 7C.  
FS/ Raymond W. Kruke C, Charles F.  
Wisler, P.E. Jensen, E.P. Dagle, Max  
Lerner.

**MUSKEGON** N.R.  
T.J. Kelly 5C XXX7

**PELLSTON** MAY 1941  
J.M. Schaufler 5C, Loyd A. Lovnaesen  
7C. (Schaufler C 1948-58+)

**SAGINAW** APRIL 1941  
O.B. LaFlair 5C, E.L. Scott 7C  
FS/ LaFlair 1941-43 & 1944-59+, F.H.  
Carey, J.J. Bamberg, Robt. J. Flem-  
ing. (TRI-CITY AIRPORT).

**SAULT STE MARIE** APRIL 1941  
L.W. Stira 5C. A.W. Lundquist 7C  
Harold Burhop Circa 1956-60 C.

**TRAVERSE CITY** APRIL 1941  
F.A. Gineran Clarence S. Rasmussen.  
7C.

## MINNESOTA

**ALEXANDRIA** JAN. 1939  
R.J. Huhn 5C (1C 1939 to 1959+)  
Gerald L. Smith 7C

**DULUTH** N.R.  
R.R. King 5C, XXX7. Sidney W. Fitz-  
hugh C 1941-42.

**MINNEAPOLIS** JAN. 1932  
B.W. DRIPPS 5C, M.L. Willkerson 7C  
McTigh 1C, Clyde E. Roberson C 1950-  
1940, Raymond W. Kruke C 1953,  
Elmer Dety C.

**REDWOOD FALLS** JULY 1949  
L.W. Berg 5C. D.R. Malveg 7C

**ROCHESTER** N.R.  
J.C. HANNAN 5C. Victor I. Stein 7C

**WILLMAR** N.R.  
W.R. Jessup 5C. XXX7 M.W. Royce C  
1939-40.

## MISSISSIPPI

**GREENWOOD** MAY 1946  
L.A. Beville 5C, 7C (Same after over  
20 years)

**JACKSON** APRIL 1948  
W.L. Chambers 5C P.L. Spencer 7C  
Stanley E. Hutton C 1934\* Vernon M.  
Goldsmith 1942, L.A. Beville 1944.

**McCOMB** JULY 1948  
J.G. Manuel 5C, Warren D. Schenck 7C

**MERIDIAN** JAN. 1939  
J.W. Reid 5C, 7C Same after 20 years

**VICKSBURG** N.R.  
B.F. Stacy 5C XXX7 L.Y. Avery C  
1940-42.

## MISSOURI

**BUTLER** AUG. 1949  
L.S. Rich 5C, XXX7 Harrison W.  
Yount C 1951-59+

**CHILLICOTHE** N.R.  
A.E. Sewell 5C, XXX7

**COLUMBIA** JAN. 1933  
J.C. Hammer 5C D.R. Sherman 7C  
James C. Thurber C 1937-40, Burl B.  
O'Connor C 1941-42

**FARMINGTON** APRIL 1949  
J.A. Boland 5C XXX7 Walter D. Buss  
C-1956 +

**JOPLIN** FEB. 1945  
R.B. Carroll 5C, E.J. Moeskau 7C  
(This was a relocation from Neosho,  
H.O. Fath, etc.)

**KANSAS CITY** "KRC" \*1928 MARCH 1931  
FRANK P. GAYNOR 5C (1949-1960+)  
ROME MONTLE 1C 1928-1932 FS/ R.T.  
King, David H. Freeman, Robt. Gallo-  
way, Joe Fischer, Hans Anderson,  
Bernard Swaffield. Wm R. Turpin C.  
1938-39. - 1970 -  
Aeronautical Fixed Telecommunications  
Network Center - George Hallett  
F.S.S. - L.S. Rich  
National Communications Center -  
L.H. Turk

**KIRKSVILLE** NOV. 1931  
Royal L. Peterson 5C, Chas H. Lanpher  
7C. 1939 Peterson, John C. Ward, M.  
E. Loep, G. Greenbaum, Alva Gibbs,  
EARLE L. LEITH C.

**MALDEN** SEPT. 1949  
Earl L. Leith 5C, (1949-58) XXX7  
Lyle G. Kjer C 1940-41. Station was  
operated by USWB in 1950's.

**ST. JOSEPH** N.R.  
E.L. Knute 5C XXX7 A.R. Gibbs C.

# People Who Made F.A.A. History

**ST. LOUIS** "KCO" July 1929 (Oct. 1920)  
 IC Thos. C. Gale, 2C Eugene E. Nichols. Claude M. Smith 1928-33 C, R.S. Allen 1931 C, Edw. F. Plagge C. 1932-33, Fred Robinson C, M.E. Walton C, Marion F. O'Brien C 1938-1942. (also 5C) E.E. Frain 7C.  
**SPRINGFIELD** N.R.

L.L. Chambers 5C Hugh H. Hayes 7C, J.G. Melville C, M.E. Walton C, L.C. LePorte C (1952-54). C.C. Williford WB MIC 1932-1955.

**TARKIO** N.R.  
 H.W. Yount 5C XXX7  
 1940: John C. Landers C, Raymond J. Rechlicz, Don W. Lowrey, Don W. Warden, R.O. Wheeler./ H.H. Hayes C. 1944-48, H.W. Yount C 1949-51.

**VICHY** AUG. 1943  
 W.J. Nosley 5C, Avery E. Sewell 7C

## MONTANA

**BILLINGS** MARCH 1936  
 Geo. R. Corning 5C also 1942-43 and 1944-1958+, IC Edgar F. Key. Note: E.F. Key and G.A. Whittaker started copying map sigs for WB until stations between Fargo & Spokane fully staffed about March 1936 - this in 1955. 1942: Key C, Atkins, Abbot, Branton, Brown, Decke, Delaney, Sourk Willoughby, Gunsolley.

**BOZEMAN** FEB. 1938  
 J.W. Vickroy 5C, B.B. Sutton 7C (Vickroy C 1944 - 1958+)

**BUTTE** JAN. 1938  
 A.I. Allison 5C F.E. Hardebeck 7C Herb Wilson C, Geo. P. Beckett C 38-40, Inman Allison 1942-38+

**CUT BANK** July 1943  
 J.W. Gunsolley 5C, R. J. Titland 7C Orray M. Blanton C.

**DILLON** AUG. 1939  
 C.M. Schmauch 5C, J.C. Williams 7C W.R. Crooks C 1940-42.

**DRUMMOND** 1937  
 J.N. Toy 5C, XXX7 1938: D.L. Peterson C, Carl Baessler, Monte L. Porter Gerry Hurst. 1942: M.E. Arbutckle C, Alvin H. Peters, W.E. Clayton, H.Z. Lehman. A. I. Allison C 1942; J.M. Toy C 1949-55 & 1955.

**GREAT FALLS** "KDEE" N.R.  
 L.C. Ward 5C, 7C same - over 20 yrs. 1936"

**HELENA** APRIL 1938  
 W.B. Bartlett 5C Ludwig G. Hodge 7C CS/T. Geo. A. Day IC Jan. 1936 Richard A. Dightman WB MIC 1947-59

**KALISPELL** N.R.  
 R.T. Smith 5C, XXX7

**LEWISTOWN** N.R.  
 W.R. Crooks 5C (1946-59+) James A. Henderson 7C, A.J. Fitzgerald C 1942 1944. W.H. Chaves C 1959+

**LIVINGSTON** JAN. 1940  
 G.E. Atkins 5C, Markus S. Richter 7C Gael E. Atkins C 1946

**MILES CITY** SEPT. 1935  
 L.D. Travis 5C, Eldon W. Long 7C R.M. Woodson C 1936-38, Geo. Bates, Jack Cooper, Reed.

**MISSOULA** MARCH 1936  
 T.J. Schwarzmann IC 1937, Karl Burley C 1941-42, Emil W. Olson 5C and 1942 and 1946 to 1959+.

**MULLAN PASS** OCT. 1937  
 James Darton IC, Richard D. Smith 1942-44, S.W. Harrison 5C, Clyde A. Powers 7C.

**SUPERIOR** N.R.  
 L.S. Yates Jr. 5C, XXX7. A.J. Fitzgerald C 1940-42, R.J. Titland C 42-49, Yates 49-51, Wm H. Sourk C 1951-1954. G.A. Whittaker C IC.

**WHITEHALL** SEPT. 1938  
 H.B. Wick 5C XXX7, Herb W. Wilson C 1939-42.

## NEBRASKA

**CHADRON** AUG. 1948  
 C.B. Colburn 5C Paul F. Bailey 7C

**GRAND ISLAND** N.R.  
 Alfred D. DuRoss 5C, Al Goodrick C. Burl B. O'Connor C 1542, John J. Faltermier 7C, Geo. G. Garrett C 1954-58.

**HAYES CENTER** MAY 1958  
 G.E. Lloyd 5C, Marion R. Neary C. 1942-43. XXX7. This station built and first staffed by UAL for Grand Island - Denver "cut-off" route. When station taken over by CAA, all personnel remained with UAL.

## LEGEND

Facilities listed were those in operation circa 1950. Some facilities have been discontinued or are remotely controlled from other points, hence no longer staffed. Where no staffing is shown in FAA's 1970 National Field Directory, it is indicated by symbol "XXX7".

Other LEGEND used: 5C = Chief of facility 1950; IC = First Chief, etc. FS = Names of first staff assigned. Date at right of geographical location indicates when station first commissioned or its relocation to new quarters. First date marked with asterisk (\*) if known. "NR" indicates - no record available.

Facilities discontinued after the 1950 listing will be recorded alphabetically by name following "STATE" listings contained in these pages.

No claim is made that the list is complete. It is drawn from Society records and some cases from Regional Rosters, 720 Hour Check, Regional News releases etc. Regrettably, many cards of members are not complete and therefore we are unable to transfer data which would be of interest. We do think the names listed will recall old associates and colleagues we used to work with. They give us a flash-back of the nostalgic days gone by and will serve to record a part of history of our great organization before it becomes completely lost in the hazy mists of antiquity - which is, after all, a relative matter.

W.A.B.

**LINCOLN** DEC. 1954  
 Joseph Arit 5C, Jerome P. Francis 7C M.E. Walton C.

**NORTH PLATTE** "KDHM" "KVM" JAN. 1921  
 Ellsworth Hoessner IC (For a time the Acting Western Supervisor of AMRS) Raymond E. Bruner 2C, Ira P. Wright C, Ward Cutting, Wallace A. Pritchard C, Chester A. Bruner 5C, S.G. Fleck C7 (Bruner 1942-58+) 1925

Staff: I.P. Wright, Ward A. Cutting, Rome Montle, 1929: I.P. Wright, F.M. Eastman, Vincent P. Wilane, Eskel Daniels, Paul R. Mudd.

**OMAHA** "KDEF" "KJF" SEPT. 1920  
 Frank Barnhill IC, I.J. Rowang 2C, (1924-1930), (1928: I.J. Rowang, Omar T. Young Sr. Wm T. Busching) (1924-30 staff: Everett Newman D., Paul Sievers (D), Geo. Renish, Omar Young) Also - C.A. Crowe, E.J. Pocock, M. F. Strutsel, F.J. Dunlap E.A. Rmfifenberg, C.F. Steinhoff. Other Chiefs: Samuel Allen 1929, Charles A. Schwab 1938-59+. 1939 Staff: Schwab, C. Barrett, C. Bruner Irving Bacon, C. Hatfield. Also early: Carl Hempf, Paul T. McEvoy, Dan Larsen. C.R. Minkner 7C.

**SCOTTSBLUFF** FEB. 1942  
 John H. Reed 5C, Luther C. Vail 7C

**SIDNEY** N.R.  
 J.W. Haugan 5C. Geo. Hansen C 1939, H.E. Korrell C-1938-40, Al Cook C 1941, Otto Tholke C 1938. Kermit B. Karns C 1942-48, Grant Bralier C 1947-49, Joseph W. Haugan 1949 to 7C listing.

## NEVADA

**BATTLE MOUNTAIN** MARCH 1944  
 L.W. Pearce 5C, C.V. Willhoite C 1939\* Goldie Dyke, L.E. Backman, C.A. Pearson, C.U. Wolfe, Merritt E. Arbutckle C, John T. Renfro C. XXX7

**ELKO** "KDEL" "KOJ" DEC. 1920  
 Samuel F. Mason Jr. IC, (8-27-30) Other Chiefs: Hadley S. Beedle, Dante H. Cordano, C.W. Larsen, Ralph Baker, M.E. Ellison, C.M. Tate 1938 Complement: M.E. Ellison C, E.P. Shobe, C.M. Tate, D. C. Burns, Ray Abbott. Others: Gordon Pascoe 1927, C. Geo. Benson 1929, Leo K. Bash 1923, Carl H. Hamilton 1921. Roy F. Miller WB MIC 1944-45, 7C King C. Francis.

**FALGON** N.R.  
 R.E. Tucker 5C Louis C. Kulisek C. 1944-47. XXX7

**LAS VEGAS** N.R.  
 H.E. Johnson 5C, Bernard Solomon C 1940-44, Wa E. Sourk C 1957-to 7C. Carl A. Carpenter WB MIC 1931-38.

**LOVELOCK** DEC. 1947  
 J.H. Prater 5C, 1939: J.T. Renfro C L.T. Ward, J. Dittrich, J. Dunato, F.C. Goff; 1940: Albert S. Hall Jr. C. E.P. Wing, Samuel L. Barr, Joe Dunato, Leo E. Razalski. 7C Henry A. Elias

**RENO** "KDEK" "KJK" NOV. 1920  
 Lucian D. Coman IC, Walt Lindsay Dante H. Cordano C 1921, Hadley S. Beedle 1921-25, Ralph Jennings to 1933, William A. Breniman 1933-1938 Art Fielder 1939-40. Staff incl: Antone E. Gerhart 1922, G.A. Whittaker, G.A. Day, Allen D. Hulen, Whitey Reid, Jerry Williams, B. C., Swaffield, Dick Chesmore, Reese Clark, Mel Ellison, Marc, Snyder, USWB: James L. Mack MIC 33-40, Cheney, Cupples, Atkinson, Dahman, Curtis. 7C Frank C. Saunders.

**WINNEBICCA** SEPT. 1949  
 J.L. Gibson 5C XXX7

## NEW HAMPSHIRE

**CONCORD** FEB. 1939  
 J.S. Satterfield 5C, 1933: Hubert D Broyles C, Charles Sievers, Lloyd Wright, Dale Drago, 1940: G. Mortenson C. 7C: V.V. Kirkell

**NEW HAMPSHIRE**

**LEBANON** MAY 1944  
N.C. Preece SC, Richard D. O'Neal  
C-1945-49, 7C Reginald C. Hoskins Jr

**NEW JERSEY**

**MILLVILLE** DEC. 1946  
H.H. Zwicker SC, R.P. Achats 7C

**NEWARK (WVJ) WVV** MARCH 1920  
Raymond Green C (Heller Field)  
Edw. Monahan (Hazelhurst) Hadley  
Field then Newark. Henry Brendel C,  
FS/ Danny Givens, Fred Robinson,  
Wollen, Kaulback, Charles M. Clark,  
Wm Bushing, 1929 Staff: Brendel C  
Wollen, Kaulback, Goulart, 1940: Sid.  
Deroff C, Gord. Pearson, G. James,  
I. Lynch + 20. USWB MIC NY Louis  
Landau 1928-1961. Also C.George  
Andrus MIC Newark, Homer Ball.  
Later: Wm S. Rowe, Emerson Mehrling.  
XXX7

**NEW MEXICO**

**ACONITA** N.R.  
H.A. Myatt SC XXX7

**ALBUQUERQUE "KSF"** (1930) April 31  
James Lee Bennett C 1930, FS/ Oris  
B. LaFlair, J.W. Fairweather, Vic  
Post, Ralph Adams, Daniel S. O'Neill  
C-1931, C.S. Fuller C-1932, Philip  
M. Holbrook C, Davis M. Bussey C of  
NATS 1945-46 & Station 1947-1970 per  
7C (over 20 years). WB MIC ERLE L.  
Hardy 1932-41. HQ. AATS Norman W.  
Bliss circa 1930-1935.

**CARLSBAD** JUNE 1948  
J.L.A. Carroll SC, Neal Rogers 7C

**COLUMBUS** 1932

R.W. Robbins SC 1939: Wesley, Berato  
LaTusek, Nicholson, P.E. Parks. XXX7

**ENGLE** N.R.  
N.E. Smith SC XXX7

**HOBBS** MAY 1948  
W.A. MAGILL SC, 7C listed as CS/T  
position vacant.

**LAS VEGAS "WEOB"** MAY 1940  
J.D. Miller SC 1940-V.J. Gilbert C,  
J.J. Newman, D.M. Edwards, F.L. Wil-  
son, H.A. Scott; 1942-48 Wm B. Dit-  
more C, Curtis B. Riley 1955, Ralph  
L. Petersen 1956. 7C Perma R.Cody.

**OTTO** NOV. 1930  
Gerald R. Williams SC (1943-1969+)  
XXX7

**RODRO** N.R.  
L.H. Land SC, Addis W. Gibson C 1936  
1937, Carl E. Carroll C 1941-44 XXX7

**ROSWELL** APRIL 1948  
W.B. Rogers SC, Frank R. Roycroft 7C  
A. Inman Allison C-1958-59.

**SANTA FE** MARCH 1938  
C.A. Palmer SC, Arthur W. Pittius C  
1943-45, Palmer C 1948-53, Ken Har-  
kema C 1953-57. W.N. Strickland C  
CS/T 7C.

**TUCUMCARI** 1932  
H.W. Logan SC, Richard W. Taylor 7C

**ZUNI** JAN. 1949  
B.K. Teyeffert SC, Wm M. Sourk C  
1956-58, Henson R. McKissack 7C

**NEW YORK**

**ALBANY** JUNE 1930  
A.L. Hendrick SC, Wm H. Jones C 1935  
Arnold L. Hendrick 7C (over 20 years  
Also: Roy H. Purdy, Chester Talix,  
Jim Magidham (1st of the Maintenance  
Technicians).

**NEW YORK**

**BUFFALO "WVAB"** JULY 1930  
J.C. Lecurto SC, Wm Crawford 1930  
Julius G. Petrisen C 1931-57, J.C.  
Lecurto 7C. Alec A.B. Currie.

**DANVILLE** JULY 1942  
John Regan SC. XXX7

**DUNKIRK** N.R.  
A.J. Dugan SC, 1932: Ray Griffin C  
Joe Deane, Guy Crandal; 1935: Ray  
Griffin, Paul McGowan, Michael Mc  
Donough, Joe Greiner. XXX7

**ELMIRA** MAY 1935  
P.C. Hoskinson SC, (1947-1967) Lymax  
T. Newell C 1935-38. 7C Hoskinson  
(over 20 years).

**GLENS FALLS** AUG. 1940  
E.M. Feinberg SC, Same 7C (Over 20  
years).

**MASSENA** APRIL 1948  
J.H. Mason SC, Ivan E. Briggs 7C

**NEW YORK** 8-40 ATCS  
C.S. Spencer SC, Louis Horvath 7C  
(Long Island MacArthur Airport)  
(See NEWARK N.J.)

**POUGHKEEPSIE** MAY 1934  
Robert McClatchey SC, Philip M.  
Holbrook C. M. Cunningham 7C

**ROCHESTER** N.R.  
G.O. Crandall SC, 1939: G.O. Cran-  
dall C, A.A. Iodice, W.H. Devoll,  
M.C. Wakefield, E.J. Castongway.  
7C Loren E. Wagner CS/T.

**SYRACUSE** N.R.  
J.O. Boylan SC, Archibald C, Bill  
Tang, 7C A. Camilli CS/T.

**UTICA** MAY 1938  
K.E. Markona SC, Ken Harkema C 1947  
1951, Geo. A. Lynn C 1953-1960+  
I.S. Lawrence 7C

**WATERLOO** MAY 1949  
H.E. Bull SC, John Asafayle 7C

**NORTH CAROLINA**

**ASHEVILLE** N.R.  
A.J. Moorhead SC, (1949-57) Harold  
Roberts 7C CS/T.

**CHARLOTTE** N.R.  
E.F. Robbins SC, (1949-52) XXX7  
Ray R. Rogers C 1938-42.

**ELIZABETH CITY** JUNE 1952  
W.R. Singletary SC, Richard G. Ray 7C

**GREENSBORO "WVW"** N.R.  
J.A. Donnell SC "Doc" Cline C,  
1931, 1931: Len Ballard, John Don-  
nell, W.W.O'Donovan, H.E. Robinson.  
XXX7

**HICKORY** FEB. 1948  
D.W. SCOTT SC, L.E. Avery C 1950,  
Andrew B. Miller 7C

**LUMBERTON** N.R.  
D.A. Gause SC XXX7

**NEW BERN** NOV. 1947  
H.H. Rhodes SC, Wm K. Pearson 7C

**RALEIGH** JUNE 1932  
J.M. Monroe SC, Virgil I. Frazier 7C

**ROCKY MOUNT** FEB. 1948  
J.A. Raff SC Same 7C (Over 20 Yrs)

**WILLIAMSTON** N.R.  
Lawrence Avery SC, XXX7

**WILMINGTON** N.R.  
C.W. Hall SC, Wesley W. Knape 7C

**NORTH DAKOTA**

**BISMARCK** OCT. 1935  
T.H. Carpenter SC, Henry J. LaBore  
7C CS/T.

**DICKINSON** APRIL 1935  
W.G. Campbell SC, 1936: Royal S.  
Peterson C, John Coughlin, G. L.  
Royce; Ehot. L. Hall C 1956-1960+  
Edwin R. Marvin 7C

**FARGO** N.R.  
S.C. Aarskaug SC XXX7

**NORTH DAKOTA**

**GRAND FORKS** May 1936  
J.P. Korunyah SC, 1939: Heidenreich  
C, I. Lynch, R. Rasmah, R. DeFord,  
C. Gustafsen, 1947-49 Walter J.  
Allard C., 1949: John Longton, J.  
Gould, J. Henderson, A. Bergum.  
7C G. W. Campbell.

**JAMESTOWN** SEPT. 1935  
A.F. Rova SC, 1937: Sy Aarskaug C,  
J. Hannap, M. Royce, J. Longton;  
Otto G. Schmidt C 1941-48. Joseph  
A Gould 7C.

**MINOT** JUNE 1942  
Arthur Wheeler C 1947-53, Leo E.  
Shull. (This station located in a  
Great Northern Pacific R.R. box car  
late 1940's.)

**PEMBINA** N.R.  
J.A. Schmidt SC, 1936: K.C. Adams  
C, Geo. L. Royce, Walter D. Buss,  
H.C. Anderson. XXX7.

**OHIO**

**AKRON** N.R.  
A.C. Cameron C,5C, James F. McGlynn  
C 1941-42 and 1952-55. XXX7

**CINCINNATI "KDOC"** 1926 1921+  
H.H. Doyle SC, Same 7C (Over 20  
years) IC Wilfred G. Dodson 4-21 to  
10-21, 2C Sam Curtis C, Clyde F.  
Shannon 1930 plus Charlie Saider,  
Ed Ihl, Mearse, Lindell; Ed Ihl C  
1938-40. Norman W. Bliss early RJ  
Oct/Nov. 1921. (Not a relay station  
and not served by all mail flights)

**CLEVELAND** 1920 by Navy NRE (Operator  
Woodson) AMRS "WVW" R.O. Donaldson  
C 1920, 2C Wm Crawford, 3C George  
Trudan, 4C. Geo. Campbell, 5C Peter  
W. Peterson. Chas Weigand, etc.  
USWB MIC C. George Andrus 1923-1953.  
1939: G.W. Trudeau, C.C. Weigand Sr  
C.F. Steinhoff, W.B. Bingham, L.W.  
Schilling, C.M. Gardner, J.F. Urban  
O.B. La Flair, J. Longtin, G.R. Are  
H.T. Bell, C.F. Moshier, R.C. Ying-  
ling, H.P. Ewitts, G.W. Marek.  
J.K. Myers Chief 1953-57. A.L.R.  
Snyder 7C.

**COLUMBUS** FEB. 1931  
C.C. Weigand SC Malcolm C, W. A.  
"Bill" LaRue C 1934-38, R. E.  
Graves 7C.

**DAYTON** MAY 1930  
L.A. McGuire SC, John H. Prater C  
1944-49, H.K. Miller 7C

**FINDLAY** APRIL 1941  
W.L. Wagner SC, R. E. Reynolds 7C

**MANSHFIELD** N.R.  
V.W. Morgan SC, W.T. Lucas 7C CS/T

**TOLEDO KEL EDL** 1926 (Moved from  
BRYAN) (1921+) Norman W. Bliss IC,  
Dan Givens, Paul T. McDrey C 1928  
Doc Cline, Wally Pirstcher, Len  
Ballard. Claude M. Smith C 1927

1940: Wm Wagner C, Bob Reynolds, I  
Lynch. Toledo turned over to W.B.  
1929. 1950 SC W.W. Oakley te about  
1965 XXX7

**YOUNGSTOWN** APRIL 1942  
J.F. McGLYNN SC, (1942-52) R. S.  
Russell 7C

**ZANESVILLE** MAY 1945  
W.T. Johnstone SC Wilson Thornton  
7C

**WHEELING** N.R.

**WHEELING** N.R.

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## OKLAHOMA

**ARDMORE** MAY 1945  
J.E. Farmlay SC, 1935: Al Barnabei C  
T.J. Edwards, Ervil Scott, Al Henderson.  
1944-45 Davis M. Dimesy G, 1955  
1956- Ruben M. Quillian C. XXX7

**GAGE** JAN. 1939  
L.G. Maxwell SC, Earl L. Hartley 7C

**HOBBART** FEB. 1949  
J.B. Kendrick SC, (1948) IC. Leslie  
C. John C. L.Y. Avery C 1956-58.  
E.L. Hartley 7C.

**OKLAHOMA CITY** NOV. 1938  
C.L. McCormick SC, Clayton E.  
Beckner 7C.

**PONCA CITY** OCT. 1943  
E.G. Ige SC, William L. Davis 7C

**TULSA** DEC. 1938  
George N. Bang SC, Edw. F. Plage C  
1933-35 Victor W. Post 1935-40,  
Ruben M. Quillian C, 1958-? D. A.  
Carroll C 7C.

## OREGON

**BAKER** MARCH 1939  
L.S. Payne SC, (1941-58)+ Warren H.  
Curry, Donald A. Douglas, Russell L.  
Miles, John A. Sheekley. G. A.  
Whittaker late 30's C. Robert  
Grandstaff 7C.

**Eugene** DEC. 1938  
E.W. Readen SC, 1939: Ralph Ham-  
leton, Geo. Purvis, Anthony Fitzgerald  
Fred Debie, Sharkey Harrison, 1942:  
Emery W. Readen C, Edwin A. Meyer,  
Albert G. Cain, Woodrow W. Davvy, L.  
Langen. Gerald E. Coldeen 7C CS/T.

**KLAMATH FALLS** APRIL 1944  
T.C. Peterson SC, Vance Hawley C.,  
F.L. Flick 7C CS/T.

**LA GRANDE** N.R.  
J.F. Hamilton SC, XXX7

**MEDFORD** "KCY" 1928  
IC Russ A. Martin FS/Gorden Robinson  
A.D. Herbert, A.V. Carroll/John Ammons  
Frank Gates, Ernest C. Dicks, Geo.  
Hollingsworth. Chiefs following  
Martin: Gorden Pascoe, Norman W. Bliss  
Hans Anderson, Ira G. Parrish, Grant  
Bourquin (CS/T) Richard Smith, William  
Byerly. 1930: Martin, Geo. Johnson,  
V.M. Goldsmith. (Geo. Johnson has  
been assigned EXK since station was  
commissioned until retirement).  
Robert D. Church WB MIC 1944-1966?

**NEWPORT** N.R.  
V.F. Hawley SC, XXX7

**NORTH BEND** APRIL 1949  
G.C. Hollingsworth SC, E. Wallace  
Knight 7C.

**ONTARIO** N.R.  
L.L. Sevha SC, Thomas S. Lynn C 1939-  
1942, XXX7

**PENDLETON** 1935  
H.A. Robbins SC, Harold Johnston IC  
Emery Readen, Ed Sprinkle, Geo. Bates  
W.R. Crooks C 1942-44, STATION WAS  
RELOCATED FROM PASCO 1933

**PASCO** "KCS" 1930  
James Lee Bennett IC, Emery Readen,  
Wilson Bartlett, Fred McGinnis, Geo.  
Bates, Fred L. Brown, Dexter S. Bart-  
lett, Fred. Stephens Elec. 1931  
Baysmore C (D); 1931 William A. Bren-  
iman C, F.L. Brown, Wa Burris, Wa.  
Gottlieb, Ed. Sprinkle, John Gemmill,  
James L. Darton, Geo. Bates, Fred  
Buchanan. WB Staff: Cecil Gagle MIC  
1930 Whipple 1931 MIC, Bob Church,  
A. Laurits Larsen, Martin McGurran,  
Louis M. Jones. Harold Johnston C  
1933 to relocation at Pendleton 1935.

**PENDLETON** 7C Ronald C. Hanna CS/t.

**PORTLAND** "KCY" 1928  
Ward A. Cutting IC J.G. Melville,  
Lloyd Simson, Carl E. Anderson  
1930: Cutting C, E.E. Neff, Fred L.  
Brown, Frank Gates, Geo. Gemmill/  
1939: Cutting, C.E. Anderson, F.S.  
Gates, H.L. Berry, C.O. Sundin/  
L.S. Yates Jr. C, Henry D. Heister  
C 1958-59 etc.

**REDMOND** APRIL 1944  
L.E. Davis SC, (1944-196-?) J.B.  
Malley 7C

**ROME** N.R.  
E.F. Keenig SC XXX7

**THE DALLES** APRIL 1931  
A.J. Fitzgerald SC (1944-196?) Louis  
C. Kulisek C and still listed 7C.

## PENNSYLVANIA

**ALLENTOWN** N.R.  
DANIEL S. O'Neill SC, 1939: Joseph  
J. Serchak C, Thaddeus Ziniewicz,  
Joe J. Collins, John Cignek, Rus-  
sel Cardinal, Joe J. Greiner, also  
Westerlund and Roy Allea. 7C J.D.  
Murphy CS/T

**ALTOONA** MARCH 1938  
Hymen Kaison SC, Carl S. Nowak 7C

**BROOKVILLE** 1928  
B.J. Taylor SC, XXX7

**ERIE** FEB. 1933  
C.L. Chartley SC, Still listed 7C  
(over 20 years, from 1937) Carl  
Elsner.

**HARRYSBURG** N.R. (E-1930)  
L.N. Fetterman SC, John Schuergar  
C, Wa I. Rowe C 1940-42, A. D.  
Martin. Patrick J. Duggan 7C

**PHILADELPHIA** JULY 1940  
J.E. Doane SC, James H. Mason 7C  
(for many years) USWB MIC Harry  
Hood 1946-59+

**PHILIPSBURG** March 1945  
R.R. Hill SC, L.T. Killen 7C

**PITTSBURGH** (Allegheny Co. Apt) OCT. 1957  
J.M. Davis SC (1942-52) Geo. Baker  
C 1934, Henry W. Peterson C, G. V.  
Hamrick. USWB MIC Henry Rockwood  
1946-196? Ralph H. Rockers 7C

**SELINGROVE** N.R.  
M.C. Wafefield SC XXX7

**WILKES-BARRE** N.R.  
E.T. Plant SC, (1943-57) S.T. Aug-  
ustin 7C

**WILLIAMSPORT** JULY 1940  
M.E. Leiphart SC, J.H. Snyder 7C

## RHODE ISLAND

**PROVIDENCE** N.R.  
J.F. Gill SC, Wa S. DeLuca 7C CS/T.

## SOUTH CAROLINA

**ANDERSON** JAN. 1940  
H.C. Woodcock SC, (1950-1970) 7C  
(20-years)

**CHARLESTON** JUNE 1957  
Jamie C. Duncan SC, (1943-52)  
Rudolph A. Singley 7C. USWB MIC  
John S. Cummings 1945-65

**COLUMBIA** N.R.  
F.J. Colley SC, XXX7

**FLORENCE** MARCH 1939  
R.R. Rogers SC, 1939: S.M. England  
C., J. Haliczer, D. Mastro, D. W.  
Scott, Jepp B. Smidderth, Fred. Boyd  
Rogers C - 1947-60+; Joseph J.  
Crouse 7C

**GREENVILLE** N.R.  
W.G. Stone SC L.Y. Avery C 1942-45  
Cecil C. Davis

**MYRTLE BEACH** JUNE 1952

**MYRTLE BEACH, SOUTH CAROLINA**  
R.A. Singley SC, Joseph H. Crouse 7C  
**SPARTANBURG** "WEX" N.R.  
G.M. Eney SC, Smith Burton C 1931  
XXX7

## SOUTH DAKOTA

**ABERDEEN** OCT. 1945  
C.M. Hatfield SC, (1949-60?), Wa.  
Yeupp IC, John E. Schaeffle 7C

**BURTON** N.R.  
H.O. Path SC, Robt. B. Workman C,  
1939-41, Kermit B. Karns C 1941-42  
I.W. Olson 7C

**PHILIP** 1942  
Gedric A. Barns SC, (1949-52) XXX7

**PIERRE** JUNE 1941  
M.A. Stinson SC, 1941: Wa E. Roller  
C, R.W. Workman, Rolla Fay, Joe  
Falbe. 7C K.K. Anderson

**RAPID CITY** SEPT. 1941  
Charlie F. Merchant SC, Joseph  
Arlt IC, (8-16-41), James W.  
Dunfee 7C (Long period)

**SIOUX FALLS** N.R.  
Otto Theelke SC, 1942-60?) 1939:  
O.S. Theelke, P.R. Chambers (Acting  
IC) L.B. Pottor, B. R. King. XXX7

**WATERLOO** JAN. 1940  
C.R. Blissard SC, Chas. W. "Mac"  
McIntyre IC (1939) L.O. LaPorte C.  
1940-42, Wa H. Tanner 7C

## TENNESSEE

**CHATTANOOGA** N.R.  
G.W. Etheredge Jr. SC, Alik B.  
Currie C - 1935-38, XXX7

**DYERSBURG** MARCH 1948  
E.B. Francis SC, W.H. Richardson 7C

**JACKSON** APRIL 1948  
R.L. Howard SC, Marion C. Cole 7C

**KNOXVILLE** NOV. 1937  
R.E. Dickson SC, Arthur J. Moorhead  
1937 to 7C.

**MEMPHIS** FEB. 1932  
Vernon M. Goldsmith SC, (1942-52)  
Vic Fousard 1931 C, J.E. Barrett,  
A.G. Delatte, J.W. Fairweather.  
Hans Anderson C, Joseph E. Boyd C  
1952-55. John L. Prudhomme 7C

**NASHVILLE** JUNE 1930  
E.J. Powell SC, 1933: Tom Wollen C,  
Start Totman, Ray "Spud" Murphy,  
Ted Crowell; Seth M. Greene C  
1946-45. J.O. Porter - 7C

**SMITHVILLE** N.R.  
J.N. Denson SC XXX7

**TRI-CITY** N.R.  
G.E. Cable SC, XXX7

## TEXAS

**ARLINGTON** N.R.  
C.M. Martin SC, William Gottlieb C,  
Addis W. Gibson C - 1934-36. Ralph  
W. Read 7C; USWB MIC John A.  
Cummings 1938-37.

**ALICE** DEC. 1942  
W.C. Bond SC, Carl P. Fry C -1943-  
45, F.A. Griffin C - 1948-9; Earl E  
Orway C - 1949. John G. Manuel 7C

**AMARILLO** JAN. 1930  
J.F. Donahoe Jr. SC, Philip M.  
Holbrook C., Lon T. Golden 7C

**AUSTIN** OCT. 1938  
H.J. Fohn SC, (1942-196-); Joe D.  
Byrd 7C

**BEAUMONT** N.R.  
G.J. Guillot SC, (1941-7C) Nearly 30  
years. H.J. Fohn C-1941

(CONTINUED TO PAGE 67 PLEASE)

**TEXAS**

**BIG SPRING** MAY 1931 "KCAP"  
F.V. Kinsey SC, William A. Breniman  
IC/FS/ Breniman, Kenneth Fauchier,  
Wm Smallwood, Geo. N. Rang, Charles  
Tate and George L. Rand (R), Edw. W.  
McGiannis 2C, E.E. Neff 3C, William  
Gottlieb C. USWB MIC John A. Cum-  
mings 1931-35. XXX7

**BROWNSVILLE** N.R.  
P.B. Leflore 5C, 7C A.R. Ross CS/T  
(Many years).

**BRYAN** N.R.  
B.C. McCallum 5C XXX7

**CHILDRESS** AUG. 1948  
W.W. Flippen 5C, Earl Glenn 7C

**CORPUS CHRISTI** N.R.  
E.A. Riefenberg 5C, (1942-54) XXX7

**CORTULLA** SEPT. 1949  
H.M. Payne 5C, Wilbur H. West 1955-8  
Walter J. Ward 7C

**DALHART** DEC. 1948  
J.C. Chestnut, Jr. 5C, Orin A.  
Norwood 7C

**DALLAS** APRIL 1929  
M.E. Braden 5C., 1933: Bruce Byrd C.  
Vic. Post, A.W. Gibson, Frank T.  
Unruh, Al Barnabei, Bray. Paul F.,  
Lanman 7C.

**EL PASO** MAY 1931  
Raymond T. King 1C Jack Bourke  
Carl L. McLain 7C.

**FORT WORTH** OCT. 1929  
C.L. Selby 5C, Carpenter 1C, John  
B. Kendrick C., W.H. Burkeholder Jr.  
7C.

**GALVESTON** JULY 1948  
W.C. Cowan 5C, Leslie C. John Jr. C.  
Carl P. Fry C 1945-49, Fred C. Van  
Hook C 1942-43. James E. Paraley 7C

**GUADALUPE PASS** N.R.  
L.R. John Jr 5C XXX7 (Most isolated  
Station in the U.S. "CAVU" 100 mls +)

**HOUSTON** MAY 1933  
W.L. Norton 5C, H.D. Cline 1C, J.R.  
Shadden 7C. USWB MIC W.W. OAK 1945

**LAREDO** JULY 1949  
E.E. Ordway 5C, (1949-58) XXX7

**LURBOCK** N.R.  
W.B. Ditmore 5C, (1948-51) Wilber I.  
Zwiacher 7C CS/T.

**LUFKIN** JULY 1948  
C.E. Carroll 5C, (1948-57) still  
listed 7C - over 22 years.

**MARFA** N.R.  
A.J. Davis 5C, (1948-53) Jamie C.  
Duncan C 1944-48. XXX7

**MIDLAND** N.R.  
J.R. Shadden 5C, Cecil F. Lakey 7C

**MINERAL WELLS** MARCH 1948  
G.R. Jordan 5C, Z.C. Jacobs 7C

**PALACIOS** JAN. 1940  
W.S. Hall 5C, F.A. Griffin C 1949-  
7C - over 20 years.

**SALT FLAT** N.R.  
J.D. Holland 5C, XXX7

**SAN ANGELO** N.R.  
E.E. Cone 1C John W. Schwab 7C Cs/  
SAN ANTONIO 1931  
E.E. Cone 5C 1C, Ralph Jennings 2C  
(1935); M.K. Lawson 5C, J.D. Miller  
7C.

**TYLER** N.R.  
D.C. Russell 5C, R.E. Rainey 7C CS/T

**WACO** N.R.  
S.C. Barclay 5C, Arthur R. Ross C  
CS/T 1951-57; V.W. Turner C7 CS/T

**WICHITA FALLS** JUNE 1937  
W.C. Bettis 5C, C.M. Martin 7C

**WINK** SEPT. 1935  
R.M. Quillian 5C (1948-55) W.H. West  
7C

**UTAH**

**BRYCE CANYON** N.R.  
H.P. Graham 5C, XXX7

**CEDAR CITY** JULY 1937  
O.L. McCaughey 5C. K.J. Christiansen  
7C.

**UTAH**

**DELTA** MAY 1938  
N.E. Ward 5C, Erwin H. Farnsworth 7C

**FAIRFIELD** N.R.  
R.J. Christiansen 5C, Mahlon A.  
Harritt C 1942-43. XXX7

**HANKSVILLE** JAN. 1946  
C.T. Trahan 5C. XXX7

**MILFORD** N.R.  
M.I. Walters 5C, 1939: J.D. Odum,  
J.W. Hains, Paddy Ryan, "Tiny" Mc-  
Caughy, Hartquist. XXX7

**ST. GEORGE** N.R.  
J.H. Cartwright 5C, Wm. M. Sourk C  
1954. XXX

**SALT LAKE CITY "KDEH" "KGD" OCT. 1920**  
Art Johnson 1C, 6/21-3/25 Philip L.  
Coupland, Cordane C (1 Mo.); 1929-  
31 Julius G. Petrison C/ 1929 Comp:  
Petrison C, Herb. Wilson, Tom Perki-  
ns, Ralph Baker, Allen D. Hulén,  
Ray Scott, W.K. Barry. / Ralph  
Baker C, 1938-39 Wm H. Hill C, 1941  
1942 Arthur P. Fielder C, 1942-60+  
Ray N. Tripp, Operators: C. Geo Ben-  
son 1929, Reese A. Clark 1929, Ed  
Parks, Boeshore, John A Willoughby  
& Hugh Rodman made original instl'n  
1920 leaving final work to Art  
Johnson. Albert S. Hall Jr. 7C

**WENDOVER** N.R. (1930)  
Vacant XXX7 Now Wells.

**VERMONT**

**BURLINGTON** N.R.  
B.J. Roland 5C XXX7

**MONTPELIER** JAN. 1942  
Vacant 5C, Oliver H. Snyder 7C

**VIRGINIA**

**BLACKSTONE** OCT. 1941  
R.P. Schaffstall 5C, (1946-60+)  
William B. Duncanson 7C

**DANVILLE** JUNE 1942  
R.C. Hawkins 5C, Wm C. Flanik C 1942  
1944, Donald D. Jones 7C

**FRONT ROYAL** N.R. 1939E  
R.L. Bowers 5C, 1939: Bowers C,  
Austin L. Sparks, Glenn Richards,  
Orville Jones, George Lynn. XXX7

**GORDONSVILLE** JUNE 1938  
J.R. Ingalls Jr., 5C, XXX7

**LYNCHBURG** N.R.  
W.C. Flanik 5C, (1944-60?) XXX7

**NORFOLK** N.R.  
Samuel Cohen 5C, XXX7

**PULASKI** OCT. 1937  
R.D. O'Neal 5C, 1939: S. Levine C,  
M. Schwartz, R.O. Ellis, J.E. Doane  
W.V. Winebrenner C 1957-66. XXX7

**RICHMOND** JULY 1928  
Philip M. Holbrook 5C, Everett New-  
man 1C, Westerlund, Geo. Rowand.  
W. Duncanson C7

**ROANOKE** N.R.  
W.M. Wilson 5C, Wilbur O'Donovan C  
B.R. Brown 7C

**WASHINGTON**

**BELLINGHAM** 1939  
F.W. Brock 5C, 1942: Brock C, Kara  
H. Hitzel, J.S. Grace, Wm H. Hender,  
James G. Lambert/ Orroy W. Blanton  
C., Paul A. Fleming 7C

**ELLENSBURG** FEB. 1936  
John Piet 5C, (1938-40 & 1947-60)  
Richard T. Smith C (1944-46) 1942:  
Jack W. Larrabee C, Harry M. Plunne  
Gordon C. Anderson, Wes. A. Clanton  
Chester L. Dubois. XXX7

**EPHRATA** FEB. 1935  
R.S. Titland 5C, 1939: Si Little C,

**WASHINGTON**

**EPHRATA "KCCZ"**  
Al Harvey, Jim Toy, Paul Pollard,  
Monte Porter. 1942: Chester D.  
Ferris C., Woodrow W. Cabel, G.R.  
Craspai, Geo. W. Henke, Paul S.  
Pollard. 1942: Woodrow Cabel C.,  
Gael E. Atkins C 1944-46, Robt. J.  
Titland C. 1949-53, Louis S. Yates  
Jr. C. 1953-58. Bert F. Cortright  
C7.

**EVERETT "KCIJ"** 1942 OFACS  
INSAC: Lloyd V. Richmond C 1941,  
OFACS: T.J. Schwarzman C, A.W.  
Whittaker.

**1945 STAFFING**  
**COMMUNICATIONS**  
Theodore J. Schwarzmann Chf, Sr/s  
Geo. Bates, John G. Gemmill, Pat.  
Lestrangle, Cornelius L. Meyers,  
Ralph E. Ross. **COMMUNICATORS**  
Albertson, Batt, Belliveau, Cooper,  
Conrad, Cox, Crupper, Dale, Daniel  
son, Debelsky, Dennis, Dunato, Felden  
zer, Graham, Hardebeck, Hagleton,  
Jensen, Karp, McClain, McE, Mozeaki,  
Ryczek, Smith, Valentine, Youngberg,  
**MAINTENANCE:** Harvey L. Berry  
**CONTROL STATION:** Leroy D. Mason,  
McCarthy, Babb, Hall, Anderson, Bugh,  
Jagoditsch, Bruns.

**RECR STN. MAIRSVILLE**  
Dexter S. Bartlett, Coffee, Pratt,  
Salmon, Sydebotham, Parker.

**TRANSMITTER STATION. SILVER LAKE**  
Lorin G. DeMerritt, Wm L. Burris,  
Jacobson, Wolf, Lindberg, Lehman,  
Hursey, Eakins.

**1942: INSAC:** Geo Bates, Gemmill, Cornin  
Koenig, Babcock, Later: Herb  
Wilson Chief, Norman W. Bliss  
5C Geo. Bates. XXX7

**HOQUIAM** MAY 1953  
W.M. Sourk 5C, M.W. Royce, Jack B.  
Teitze 7C

**SEATTLE "KCCZ" 1928**  
**CHIEFS:** Herb Hela 1C (to 1931,  
W.A. Simenson 1931, Reese A. Clark  
1931-36, Herbert Wilson 1942, Norm  
an W. Bliss 5C Henry Palmer 1954,  
Bernard Swaffield 1957-68, J. W.  
Gunsolley 7C.

**SPOKANE "KCGAS" 1933**  
M.E. Arbuckle 5C, **Rome Montie 1C**  
(1933-1940) PS: James Darton, Cliff  
Sundin, Ray Bishop, Bill Rickock,  
Geo. Overton./ B.C. Swaffield C  
1940-42, Geo. Bates C./C.M.  
Schmouch 7C

**TOLEDO** APRIL 1941  
M.L. Porter 5C, (1940-57); Francis  
H. Johnson, Ernest N. Crump 7C.

**WALLA WALLA** JUNE 1941  
E.B. Wilhelm 5C, Richard T. Smith  
C 1951-52, Henry Gabriel 7C

**YAKIMA** N.R.  
H.T. Smith C5, Warren Heit 7C CS/T  
John Piet C 1942

**WEST VIRGINIA**

**CHARLESTON** APRIL 1938  
M.E. Bittinger 5C, Goodwin Glass-  
man 7C

**ELKINS** MARCH 1938  
Castonguay, E.J. 5C, Maurice J.  
Genthon 7C. John M. Davis C 1952

**HUNTINGTON (CHESAPEAKE OHIO)** JUNE 1938  
T.G. Cox 5C, 1939: W.V. Hixson, I.  
Roxin, Cliff B. Hyatt, Peter C.  
Herron/ John K. Myers C 1938-41.  
Robert T. Underwood 7C

**MARTINSBURG** APRIL 1939  
J.R. Snyder 5C, B.E. Ettinger 7C

**MORGANTOWN** JAN. 1945  
J.E. Jennings 5C, J.C. Coleman 7C

**PARKERSBURG** APRIL 1948  
G.V. Hamrick 5C, C. E. Brown 7C

**WHEELING** N.R.  
Sam Sorkowits 5C, Dick Westervelt  
C 1957-59 CS/T L.C. Rech 7C CS/T

# WISCONSIN

**EAU CLAIRE** JULY 1949  
W.J. Allard SC, 1949- Melvin T. Garbe 7C.

**GRANTSBURG** JULY 1949  
H.L. McTigue IC SC, Albert A. Keim 1953-59. XXX7

**GREEN BAY** AUG. 1949  
B.E. Maynard SC, L.W. Berg 7C

**LACROSSE** WISG JULY 1929  
Harold J. Burhop IC 1929-1941, FS/Burhop, Stark Totman Sr., Harry Pink Clyde Roberson, Norman Reynolds, Harold Snow, Joe Aligood, Samuel Allen C 1942-44; L.L.Armold C.42-44, A.J. Silva 7C.

**LONE ROCK** 1932  
G.W.Trumbel SC, J.A. Coughlin C 1937 1941, ST:1939: Coughlin, J.H.Sommerville, D.M. Gregoire, R.R.King/H.H. Doyle C 1941-48. 7C G.W.Trumbel - over 20 years).

**MADISON** N.R.  
E.G. Schrode SC, Richard Timmerhoff 7C.

**MILWAUKEE** N.R.  
Harold T. Snow SC, 1936: P.W. Peterson C., John Schaufler, Al Heidenrich, W.G. Stephenson, / 1940-43 Art. Wheeler

**WAUSAU** OCT. 1949  
L.L. Arnold SC, David C. Strachan 7C

# WYOMING

**CASPER** NOV. 1939  
J.R. Bishop SC, Richard T. Smith C CS,7 1955-7 / Charles E. Montgomery 7C Orville E. Hammond C 1940-42.

**CHEYENNE "KDEG" "KSG" SEPT. 1920**  
Harold E. Garde SC., IC Walter F. Lindsay SC Elmer C. Butler 1920-21, Carl Womack 1922, E.C. Butler C 1925 1928, W.A. Wallace 1929-33, Ray Joreby 1933, C.S. Fuller, J.E. Seward 1941-45, Harold Garde 1945-1955. J.G. Petrison RO 1925-29, 1929: W.A.Wallace C, Geo. Gemzell, Dexter S. Bartlett / 1941: Seward C, Joe Falbe, Rudy Nelson, Clyde Hengl, Leslie Bruce. Others per LI Rovang records: W.R. Jessup, V. C. Estergren, C.G.Warner, J.R.Bishop, G.P. Overton, CHEYENNE was the FIRST STN. in "Western" Division of AMPOD.

**DOUGLAS** FEB. 1940  
H.S. Fredrickson SC, Ralph R. Peterson 1958-59. XXX7

**FORT BRIDGER** 1942  
I.E. Bacon SC, L.A. Beville C-1941-2. Chas. F. Barelay C-1951-53. XXX7

**LARAMIE** JULY 1927  
H.G. Klein SC, Joe Arlt 1951-59, W.R. Crooks C 1959-61, P.A. GIRARD 7C

**MOORCROFT** N.R.  
W.D.Tullis SC, XXX7

**ROCK SPRINGS "KDNW" "KDN" JAN. 1921**  
L.D. Bates IC, Lesien D. Coman C, E.C. Butler 12-21/1925, Julius Petrison 1928, Samuel P. Kelly C Tom Bostic C. 1938-40 A.D. Hulén C 1936-38, Orville Hammond C 1940-41, Don M. Edwards 1950-1959? 1929 Staff Sam Kelly, Finus Pursley, W.A. Breniman, Stanley E. Hutton, Tr. Shorty Key, Emory Renden. IJ Rovang List: G.S.Morris, J.I.Seward, Geo.Newton, H.J.Robertson/ Elmer Frenzel, T. J. Schwartzmann. C.W. Wheeler 7C

**SHERIDAN** NOV. 1939  
C.J. Sherrin SC, Harold Garde C 1942 1945, Charlie Merchant C, Larry Payne, Darrel E. Downing 7C.

**SINCLAIR (PARCO) 1940E**  
C.B.Courtney 1940-41, Al Cook 1941, L.A. Beville C, 1942-44, C. W. Mc-

# WYOMING: PASCO - SINCLAIR - RAWLINS

**Alaska**  
1940: Courtney, Guy Springhetti, Cy Schmidt, Alvin Christiansen, Joe Falbe, Charles W. McIntosh from about 1945-1970 (23 years)

# ALASKA



## AIRWAYS OPERATIONS DIVISION 1955

G.A.Whittaker Chief  
E.F. Hickok Deputy Chief  
F.T. Umrak Chief Fac. Opras.  
R.Behal D.C. " " "  
G.G. Sink Tech. Svc & Pl.Br.  
R.L.Thomas Opras Supervisors  
E.N. Berate do  
V.W.Speer do

## FIELD FACILITIES - - - - -

**ANCHORAGE OFACS/INSAOS (ANC) JAN 1949**  
Virgil J. Lamb C, Carl Rhoads, J.J. Durant, W.T. Mullaly, C.S. Holland, R. E. Vice, Geo. R. Cooper, Lee Devlin. Eugene Berate C 1941 (CALL "KIS")

**ANILAK (ANI) DEC. 8 1941**  
Norman Poteaky SMOps, J.J. McMillen Odie C. Spikes

**ANNETTE ISLAND (ANN) JAN. 1 1940**  
Kenneth B. Ruble C 1951-58, John Myers C 1950-53, Frank E. Smith C 1948-51, Sanford Peterson SM 1953-58, Paul M. Leschig C 1964 CS/T. 1965 Staff: Victor Mahler, P.L.Scott,J.J.Scullion, F.E.Scott, H.L.Powers,M.Brew,L.E. Ekstedt, Mavor E. Taylor.

**BEYERLE (BEY) AUG. 20 1942**  
Warren R. Wootan C, Harold L. Chadick, Orin J. Wardwell. A.R.Ross C-1942-43.

**BEYTTLES (BTT) APRIL 23 1944**  
Ormond O. Robbins SMOps, Jane Robbins, J.J. Falls, Geo. L. Weyer, J.W. Musser

**BIG DELTA (BIG) MAY 1 1942**  
Richard L. Inman SMO, John H. Hummel, Ronald W.Logan, Curtis L. Tyree, Addward F. Harris. Dan W. Larsen C 1961 -

**CORDOVA (CDV) JAN. 1 1940**  
Milo M. Rousculp C, J.M. Frydler, C. J. Krah, J.R.Spartak, H.O. Slighter, H.A. Lindsay. / Sanford Peterson SM 49-53, Frank E. Smith SM 53-59+, James M. Toy

**FAIRBANKS JAN. 1 1940**  
Gerald W. "Jerry" Whittaker IC 1940, L.J.Avery C 1952-55, James M. Toy C., Paul M. Leschig C 1960-64, Paul M. Leschig C CS/T 1960-64; David Gray Jr., 7C; 1968: Walden A. Danielson C, L.V. Riley, W.G.Taylor, W.E.Taylor, L.O.Bah F.W.Coil,D.W. Finch,A.H.Burke,H.A.Hembree, M.E.Wetherill,J.G.Rooney,L.H. Bragg,J.F.Carrere,W.G.Dunn. USWB MIC O.K.Anderson 1940, Wm G.Duggin MIC 1956-58+.

**FARWELL (FWL) JULY 9 1942**  
Wm B. McKay C, Richard Todd, Albert L Iverson, Ken G. Raff. /Sanford Peterson C 1944-45; R.Forsgren 7C

**FORT YUKON (FTU) N.R.**  
Jack E. Shropshire SM, Virginia R. Shropshire, XXX7

**GALINA (GAL) SEPT. 15 1942**  
Willard P. McDuffie C, Nathan R. Gisham, Ivan L. Ruff, Ray S. McCarthy, Warren C.Wirges. R.W. Greiner 7C

**GULKANA (GKN) OCT. 30 1942**  
Francis H. Johnson C, Cecil W.Hinshaw, Agnes W. Bennett, Layton A. Bennett James N. Toy C 1956-57.

# ALASKA

**GUSTAVUS (GST) SEPT. 23 1942**  
Alexander Dufresne C, Henry Gabriel, Geo.E. Hottle, R.E.Nixon Jr. Wm J. Bell/Wm W. Winebrunner C 1944-45; Peter Davidson 7C

**HOMER (HOM) JULY 25 1942**  
Ralph W. Stone C, James W. Smyrl, Clarence A. Nelson, Dan.W. Larsen (Stone SM 1954-49) Herschell L. Price C 1945-48; Edwin J.Klepp 7C

**ILIAMNA (ILI) JULY 22 1942**  
Leadere M. Coleman C, Thos. M Sorriak, Alvin M. Pratt / Robert O. Hurt 7C

**JUNEAU (JNU) JULY 1 1940**  
Kenneth L. Wood C, Frank McIlharty Shirley F. Moursanen, Franklyn T. Thompson, Eugene R. Ekstedt, Thos. H. Carpenter, Glenn D. Davis, Frank Hall, Juan R. Abeita. /1938 Wilke E Cruise IC (AASCC); 1940: Victor W Post, W.E.Cruise, Ray Anderson, Herschell Price/ Herschell L.Price C 1943-45, Wm W. Winebrunner C 1945-46, Sanford Peterson C 1946-47, Glenn D. Davis C 1953-67/ William C. Heater, Jr., 7C

**KENAI (KNA) DEC. 13 1941**  
Jonathan C. Lawton SMO, Kenneth W. Jordan, Harold H. Griffith, Walter Hart, Robert McDonald/ John H. Hummel 7C

**KING SALMON (AKN) APRIL 1 1948**  
Raymond F. Plagge C, Robt. C.Wilson Walter Burkovich Jr., Phillip F. Chatlain, W.O.Covington, Joel R. Caudle/ Frank E. Smith SM 1961-53/ Ralph Reeves 7C

**KODIAK (WDY) (Woody Island) July 19-41**  
Darrrel F. Chaffin C, James C. Mallins, James M. Cusack, Leonard E. Zaber, Sam C. Welling, James A. Schmidt, Thayer C. Kessler / 1940: Carl J. Bassler, Vincent W. Spear, P.O.Peterson./ James N. Toy C/ Harry W. Burnette 7C

**KOTzebue (OTZ) JUNE 5 1942**  
Alan I.Haferbecker C, James H.Craig, Edw. L. Ward, Albert H. Guthrie, Warren B. Thompson/ Richard J. Tomany 7C

**MEGRATH (MCG) MARCH 10 1941**  
Joe E. Hellingner C, Dorothy Bryant Peter Blankensop, Alex. Hill, H.A. Williams, Merle W. Damron/ Ralph Sloan C 1943-54; L.D. Smith SM 1948-59, Len E. Zaber C 1960, Bert Cartwright C 1962-/ R.Forsgren 7C

**MIDDLETON ISLAND (MDO)**  
Vity J. Grabauskas C, A.E.Johanson A.J. Reber XXX7

**MINCHUMINA (MHN) July 21 1942**  
Richard H. Collins SM, Jeanne H. Collins, Walter B. Parker, Vincent Madden, Geo. Molitoris. / 7C R. Forsgren

**MOSES POINT (MOS) MAY 21 1941**  
John R. Bassler SM, Harold E.Rainer Ed. C. Medford, Patrick J. Daley, Joe V. Fowler/ XXX7

**NEWANA (ENN) NOV. 4 1943**  
Robert E. Leise SM, Jerry H. Culp Donald T. Slater, Charles H. Lanpher, Edw. F. Finch/ Ralph Hazleton SM 1943/ Arley R. Evans C 1943-45/ Jack T. Leonard 7C

**NOME (ONE) JAN. 1 1940**  
Chas.Swin C, Wm E. Cook, Albert J. Bussio, Art Imhof, Thomas, Dan Berrettini, Clyde Sterling, H.W. Moore, Kyo Y Cho./ Wm W. Winebrunner C 1942-44/ Robt L.Hall C 1950 -52/ Sanford Peterson C 1948-6/ Homer A. Sutter 7C

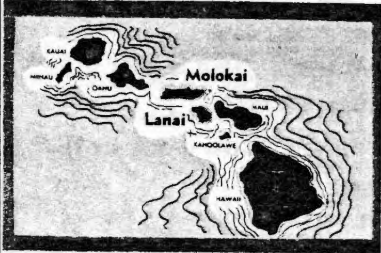
**NORTHWAY (ORT) JAN. 14 1942**  
Carl L. Shute C, Elmer I. Williams Warren M. Bargabus, Violet L. Bargabus, Chas. A. Pallen/ Daniel W. Larsen 7C

(CONTINUED COL. 3 PAGE 69 PLEASE)



# HAWAII

# ALASKA



## AIRWAYS OPERATIONS DIVISION: REGION - 9 ----- APRIL 10 1953 -----

T.K. Johnson, Chief  
D.L. Givens, Chief Facility Oprns. Br.  
J.C. Hoyt, OAS " " "  
S.F. Shellaby, Supvr. Diat 9-1  
J.O. Sanders, Supvr. Diat 9-2  
**TECHNICAL SERVICES & PLANNING BR.**  
G.A. Selig, Chief  
L.S. Powell, AOS  
J.A. McBride, AOS.  
**PROGRAM REQUIREMENTS BRANCH**  
E.A. Gillaspay, Chief  
D.A. Larsen, AOS  
**HONOLULU OFACS "KVM"**

Gerald Picard Chief, Geo. P. Loya, Sr.,  
Milton J. Braddy, Derino J. Cacace,  
R.J. Kasragis, John C. LaBarre, Art  
Pallagi, Theo Price, Edw. L. Snyder,  
Harvel E. Trinnaman, Mervel E. Valen-  
tine, James R. Banks, James " Casey,  
Leo J. DeMelle, Henry B. Dexter, Robt.  
W. Downey, Roger Fafard, Julius B.  
Fincher, Geo. R. Fleming, Louis E.  
Fullerton, Henry E. Gamache, Howard J.  
Greffe, James L. Gregg, Richard P. Han-  
sen, Thos. Hatfield, H. Hernness, Tur-  
an Hoffman, Paul Johnson, Gilbert T.  
Kawama, Stanley C. Kukla, Herbert T.  
Kumabe, Florence LaCaille, Gee R. La  
Caille, Thos J. Larrabee, Henry K.  
Lee, Guelino A. Lucchi, Edgar H.  
McCartor, Joseph E. Morin, Joe T.  
Oczkowitz, Wm R. Owens, James E. Rid-  
der, Joe E. Roberts, Duren L. Smith,  
David S. Sugimoto, Fred G. Tarlton,  
Emil C. Treskon, Peter Valoff, Frank  
B. Wong. (Additionally there were 52  
in lower CAF than OAS 8 listed here)

**HILO INSACS**  
Samuel P. Kelly C, Porfirio J. Garcia  
Roy T. Kobayashi, Frank J. Mason, Wm  
Seymour, Warren O. Smith, Perter  
Williams./ 1955 CS/T Jack D. Peters C  
Stuart E. Cannefax, Clarence J. Fox,  
Eric H. Leathley, Earl H. Pattce,  
Gerald N. Pesse, Basil Zengel, Roy T.  
Kobayashi, David Panik, Wm Seymore./  
R.E. Bereman 7CS/T.

**CANTON OFACS**  
Van Houston C, Cyril G. Amerling, L.K.  
Budge, Fred V. Carpenter, Max S. Math-  
ews, Lyle J. Bieber, Leonard Feldman,  
Eugene Litz, Earl H. Rhoades. 1955:  
Roy H. Clemens, Amerling, Budge, Math-  
ews, Emil C. Treskon, Joseph Martin,  
Ralph W. Melander, Earl H. Rhoades,  
Robt. V. Culp/ XXX7



### LIHUE INSACS

1953: James A. Grady C, Alfred L. Di-  
ckens, Ervin J. Dworzack, Ken. Geila,  
Joseph K. Hae, Alonzo M. Simpson, Joe  
Soares/ 1955: James A. Grady C, Alfred  
Dickens, Ervin J. Dworzack, Joe Geila  
Joseph K. Hae, Joseph Soares./ 7C  
Joseph A. Soares.

### MAUI INSACS

1953: Noble F. Laesch C, James L.  
Brown, Wm F. Clark, Wm R. Humphreys  
Ralph J. Kron, Eliz. J. Laesch, Robt  
C. Rogers, Elvin C. Smith, Thomas T.  
Thompson/1955: Laesch C, Olney L.  
Aldrich, James L. Brown, Wm F. Clark,  
Frank J. Mason, R. John Roberts, R.C.  
Rogers, Elvin C. Smith, Warren O.  
Smith, Thomas T. Thompson/ XXX7

### GUAM - OFACS

1953: Roy H. Clemens, Basil Zengel,  
Geo. H. Buchmeier, Emil Guenther, F.O  
Parsons, Joe Yeasel, Grace E. Burns,  
Albert L. Corsale, Joe A. Hackett,  
Joe P. Higgins, Joe B. L'Argent, John  
P. Menard, Sampson Vogel, John M. Bon-  
visauto, Loyd P. Bowman, Thos. W.  
Carrow, Jr., Edw M. Carstarphen, Louis  
Caster, James B. Ellison, David P.  
Geyer, Nicholas L. Kass, John W. Ken-  
ney, Clyde Little, Robt P. Luerson,  
Benj. R. Marzelo, Robt. McKinney, J.  
S. Munsey, Ralph B. Prather, Michael  
R. Tavagliano, Donald Warden./ 1955:  
Arthur Pallagi C, Geo. Buchmeier,  
Wallace E. Knight, Emil Guenther,  
Peter Valoff, Grace E. Burns, Wm  
Jones, D.W. Warden, Joseph P. Higgins  
/Wm K. Vanderpool 7C/ Lloyd V. Rich-  
mond C SM 1957-; Homer L. Willess C.  
1958-61+.

### WAKE - OFACS

(1953)  
Bernard H. Hall C, Homer L. Willess,  
Harry Feuerstein, Wm I. Gordon, Jim  
M. McAdams, Bruce Abelian, Warren  
E. Baer, Dell Cooper, Donald S. Har-  
kins, Robt. R. Hill, Emil C. Lohrke,  
Carroll W. Matthews, Charles E. Pen-  
ton, Robt. E. Suits/1955: Hall C,  
Willess, Feuerstein, James W. Haines  
R.J. Kasragis, Geo.R. LaCaille, Dell  
G. Cooper, Robt. R.Hill, Carroll W.  
Matthews, James L. Parr, Thos L. Rob-  
inson, Don A. Russell, Joe H. Cunnin-  
gham, Richard Hansen, Robt. E. Suits,  
Fred. V. Switzer, Dominic C. Todarel  
Lo, Rudolph DeLozia, Ebt. C. Davis,  
Frank T. Eastice, Philip V. Group,  
Gonzale T. Hernandez, Nick T. Lambas  
Merl M. Storme, Simon Weiner, Louis  
A. Bove, Jason A. Gray, Robt. R.  
Levine, Glenn E. Jones./ Ken. W.  
Schrader C CS/T 1955-57/ Alfred E.  
Tara 7C

### HNL AIR ROUTE TRAFFIC CONTROL CENTER

Clarence P. Funkhouser (Many years)  
Richards, Jack R. 7C.

### HONOLULU - KVM 1941-42.

Ed Dezell C, Maurice Moseley, Jack  
Hoyt, Bob Craig, Robt. Jordan.

### HOUSTON ISLAND

Houston H. Doyle C - 1945 XXX7

### PALMYRA ISLAND (Line Islands)

Robert L. Hall C 1944 & 1947-50 XXX7

### MIDWAY ISLAND

Wm M. Sourk C - 1947-49 XXX7

### PETERSBURG (PSG) N.R.

Vernon Counter C, Casper Schregardus  
Gerald J. Nelson (1955)/ 1940: Herb  
Bridges C, Jim Haines, Gene Crase/  
XXX7 (Remoted to Juneau ?)

### SITKA (SIT) JAN. 4 1941

Roy S. Delaney C, James P. Channing  
Irving Ungadrak, William J. Stewart,  
John C. Huff./ Arley R. Evans C  
1943 (Biorika Island)/ 7C Carl L.  
Shute (Mt. Edgecumbe, Alaska)

### SWENTNA (SKW) FEB. 15 1945

George R. Wilkins C, Charles W.  
Irvin, J.B. Whalen, Charles W. Hab-  
bersett/ Leonard L. Schornak C 2yrs/  
7C XXX (Remoted to Anchorage ?)

### SUMMITT (UMM) MAY 10 1940

Glenn P. Poeset C, Richard J. Demp-  
sey, Harold S. Anderson, Joseph J.  
Yugovich/ XXX7

### TALKEETNA (TKA) MAY 17 1940

Everett R. Musgrove SMO, Joseph F.  
Shurka, Rolf W. Cramer, Donald D.  
Haight, Curtis C. Hall/ John R.  
Bessler 7C

### TANANA (TAL) APRIL 30 1943

John R. Andrews C, James I. Jensen  
Robert H. Craig, Joseph F. Ballard/  
Clyde E. Brown C 1943/ Jack E. Moore  
7C

### UNALASKLET (UNK) MAY 2 1943

Edwin J. Klopp SMO/ Robert L. Des-  
forges, James N. Thompson, Warren G.  
Williamson/ Homer A. Sutter 7C

### YAKATAGA (CTT) DEC. 21 1942

John L. Fickler C, Kenneth R. Spen-  
cer, Andrew F. McArrow, Joseph G.  
Williams/ XXX7

### YAKUTAT (YAK) JUNE 30 1940

Thomas C. Cianfrani C, Kenneth M.  
Carl, Donald W. Hoyer, Donald L.  
Waterman, Myron V. Galley/ Thoms  
Neville Jr. SM 1946-59./ J. Jensen  
7C

## ADDED STAFFING

The following calls are listed in alpha  
betical order and have not been include  
in foregoing list/s because (1) they  
have been commissioned since our 1950-5  
listing, (2) Early stations which have  
been closed or relocated (or) remoted  
to another station.

### ARCHBOLD, OHIO

Norman C. Eruke C - 1942-44.

### ARLINGTON, ORE.

Albert R. Waal C, Karl G. Schoewe,  
Clayton L. Hackett, Cecil G. Holmes  
Boyd A. Wolf. Merton W. Clair/C.

### ANTON CHICO NEW MEXICO

Carl P. Fry C - 1941-43; Ruben M.  
Quillian C 1945-46.

B...

### BALBOA, C.Z.

John C. Nolan C - 1957-59+; 7C Ken-  
neth E. Bennett.

### BEI GRADE, MONTANA

Emil W. Olson C 1940-42, (1942)  
Francis E. Canning, Cedric L. Gerry  
Seymour Greenberg, Jack Pflimmer

### BELLEFOUNTE, PENNA. "WFO" 11 - 15-1919

Raymond J. Green IC, Norman W. Bliss  
1926 RJ/ Harold Burhop 1923-29/ Ben.  
Weinberg 1929/ Lyman T. Newell 1929-  
1935/ R.P. Westervelt 1935-42/ R.O.  
F.M. Linville, Tom Wallen, Finus  
Pursley, Chas M. Clark, Henry  
Peterson XXX5





**BEAUFORT, S. C.** XXX7  
R.H. Miller C, 1939; J.V. Brandt, T.A. Seeley, W.N. Nicholson, H.M. Carter Jr

**BITTER CREEK, WYOMING** XXX7  
John B. Kennedy C-1935-37; Burton JS-

**BRITTON, ARK.** E 9-1-38 XXX7  
1940: M.C. Roth C, A.L. Byrd, R. W. Henning, C. S. Hanson, E.E. Ordway.

**BRYAN, OHIO "KEL" "KDEL" NOV. 1921**  
IC Norman W. Bliss/ 2C Paul T. McEvoy  
3C D.V. Millard; BO's: Dan Givens,  
Mel Whitney, Rose Montie, John W.  
Farnsworth, Walter R. Lindsay,  
Station relocated to Toledo about 1928

**BUCKSTOWN, PENNSYLVANIA** E-1930 XXX7  
E.E. Kilbride C about 1930-37

**BUFFALO VALLEY, NEVADA, 1937-38** XXX7  
C.H. Wilhoite, C.



**CAMBRIDGE, OHIO (HUNTINGTON W.VA.)**  
James B. Thorne C. 1932-35, Walter D.  
Buss C 1944-45. (See Huntington W.Va.)

**CAMDEN, NEW JERSEY**  
Wm A. LaRue C - 1932-34. XXX7

**CASSIDAY, KANSAS**  
1939: F.J. Perry C, Don Warden, Earl  
Glenn, J.W. McNutt, O.L. Sawyer/ 1940  
Wm. Lytle, Glen D. Colburn, Clair E.  
Colburn, Ole L. Sawyer, Jess H. Bresh-  
er, Robt. E. Taylor. XXX7

**CASTLE ROCK, WASHINGTON**  
1938: Karl Schavey, Ray Abbott, Jim Val-  
entine/ 1937: Karl Schoewe, Myron  
Jones, James H. Toy, Monte L. Porter/  
1939: Abbott, Clayton, Hartwell. XXX7

**CENTRALIA, ILLINOIS**  
1932: Marvin J. Wyrick, A.J. Riechman,  
Earl L. Leith. XXX7

**CHARLESTON, WEST VIRGINIA (ADD)**  
1939: R.E. Leeper C, W.C. Flanik, I.E.  
Ortiz, N.M. Heckman/ 1939-40: Wm A.  
Rowe C, Walter Wilson/ 1940-2 James B.  
Thorne

**CHEROKEE, WYOMING (RAWLINS) 1939**  
C.P. Wood C, M.L. Githens, J.A. Boland  
L.J. McKnight, Clement G. Sins, Walley  
Payne, Anthony Arrisa. XXX7

**CLARENCE, TEXAS**  
Robert D. Smith - C - 1942. XXX7

**COBUR DVALENE, IDAHO**  
1939: Ed Meyer C, Jimmy Sussman,  
Schoewe, McParlane; 1942: Ernest C.  
Dikes, M.E. Eisenbach, Stewart W.  
Miles, Joseph M. Sussman, E.H. Warren.

**COFFEYVILLE, KANSAS**  
Carl M. Hatfield C 1944-47.

**COLUMBIATVILLE, NEW YORK**  
1939: L.M. Cole, Allen E. Denning, Jo-  
Libutti, John H. Lang.

**CONCORD, CALIF. "KWH" 1925**  
T.K. Johnson C, Dante H. Cordano C.

**CUSTER, MONTANA**  
1938: C.J. Bassler (1938-40) W.M.  
Sourk, K.F. Johnson, O.W. Blanton, C.  
D. Riley/ Louis S. Yates C. 1949 XXX7

**DODGE CITY, KANSAS ( ADD)**  
Chas. H. Lees C - 1942-44; F.R. Rap-  
silber C 1944-59+

**DAKAR, F.W.A. 1943**  
Joe Deane C, Kara Merritt (40 others)

**DAYSPRISSE, UTAH**  
1937: Edw Vescey C, Jake Holsenberg  
M.E. Arbuckle, Hardin/ Art Fielder  
1938-9, Tom Dodson C-1943-5, Kam.  
Harkness 1946-7, Raymond B. Talbot C  
1948-58. XXX7

**EPPINGHAM, ILLINOIS**  
John M. Schaufler C 1942-48 XXX7

**FARRINGTON, NEW MEXICO (ADD)**  
Fred C. VanHook C 1953-8, G. R.  
Williams C 1958-68?+

**GRANGER, WYOMING**  
1939: James E. Brewer , Kermit B.  
Karas, Orson Topham, L.J. Miner. X7

**HARTFORD, CONN.**  
Frank Mika C - 1935

**HUMBOLDT, NEVADA**  
1934-35 Chester L. Keller C, John  
Renfree C, Bert P. Cortwright C  
1943-44; Tom Dodson C 1947-48 X7

**KETCHIKAN, ALASKA (Gravine Island) Add**  
1940: Geo. O. Hollingsworth, C, Carl J.  
Bessler, Ira Amatterson,

**KING HILL, IDAHO**  
John R. Kennedy C - 1937; 1939: E.L.  
Carroll, J. D. Pulscher, A. D. Ashby  
C.B. Harman.

**KNIGHT, WYOMING**  
Harry L. McConnell C-1939, Robt. B.  
Workman

**LA JUNTA, COLORADO ( ADD) April 1941)**  
John C. Ward C, Chas. St. John, Rus.  
Sexton, Leslie W. Bruce, Newton  
Johnson, (M) C.B. Courtney.

**LITTLE ROCK, ARKANSAS**  
1931 - A. V. Carroll C, Julius Gar-  
rett, J. W. Fairweather.

**LOCOMOTIVE SPRING, UTAH**  
1935-37 Otto S. Theelke C, 1943 -  
Maxwell A. Pohl Sr.,

**LOVELOCK, NEVADA**  
Tom Dodson C-1947-48.

**MCALLEN, TEXAS.**  
D.A. Carroll C - 1960-61.

**MCALISTER, OKLAHOMA**  
Earl E. Ordway C 1958-60+

**MCCONNELLSBURG PENNA.** 1939  
L.N. Fetterman C, C. E. Irish, R.L.  
Bowers, J.J. Wollner, B.J. Taylor

**MCDOOL, INDIANA**  
Walter J. Allard C-1942-47.

**MALAD CITY, UTAH**  
C.W. Wheeler C - 1946-59+

**MARSHALL, MISSOURI 1940: James E. Brewer**  
Kermit B. Karns, Joseph E. Stogsdle  
John L. Miner, Merton O. Smith. /  
1948-50 D. M. Edwards.

**MARTIND CREEK, PENNA.**  
Sidney Deroff, C.

**MAUNTON, WISC.** 1931  
J.M. Schaufler C, Henry Garsonbke,  
Archie Cameron, 1932 John Prater.

**MOLINE, ILLINOIS "KCCV"**  
Carl E. Anderson, 1939-41 C Peter W.  
Petersen.

**MONTEVIDEO, URUGUAY**  
1945 - Emmett F. Hunt, C.

**MONTEZUMA, IOWA**  
1938 - I. Fitzpatrick C, Walter  
Ritter, D. Watson, Earl L. Leith,  
1938-41 Cedric A. Barnes C.

**MORRISON MESA, UTAH 1939**  
D. W. McInturf

**MORSE, ILLINOIS (CHANGED TO BRADFORD)**  
1935: W. G. Stephenson, Hubert Broyles,  
Charles E. Parker, 1937 Chas. Parker  
Earl Beesey, John Landers, E.L.  
Leith/1938 John K. Myers C, 1942  
Stephen Zirko

**MOUNT POCONO, PENNA**  
Paul C. Heakinson C 1942.

**MOUNT SHASTA, CALIF.**  
Frank M. Asbell MIC 1951.

**NAKNEK, ALASKA**  
Frank E. Smith C - 1946-6.

**NAVASOTA, TEXAS**  
H.J. Fohn C 1940, John C. Leslie C.

**NORTH DALLES, WASHINGTON 1935**  
H.L. Crupper, Nic Licurus, Fred  
Parsons, Beaulieu/ Station now called  
"THE" DALLES ( AND LISTED P-66)

**PARIS, FRANCE 1945**  
Joe Deane, Ken Bennett (15-40 others)

**PERRY, OHIO 1932**  
Joe Deane, Joe Deane, Joe Deane ---

**PLYMOUTH, UTAH**  
1938 - Herb Bridges, A.S.Hall, G.A.  
Covertt, Wright.  
1938\* Bridges, Hall, Maynard Kaudson  
Covertt. 1941 Harold C. Robinson

**PORT HEIDEN, ALASKA**  
Gleam D. Davis 1946-51

**PORT LAUYETTE, FRENCH MORROCCO**  
Irwin W. Lynch C - 1945-44

**RATON, NEW MEXICO**  
Carl P. Fry - C 1940-41

**ROLLA, MISSOURI**  
Robt. S. Rowlett C 1938, H.W.Youmt  
C 1939.

**RUBY, ALASKA**  
James M. Toy C.

**ST. IGNACE, MICHIGAN**  
Arthur Wheeler C 1944-47

**ST. THOMAS, V.I.**  
James H. Milner C 1955-59

**SAN FRANCISCO (CHISSY FIELD) KPZP**  
1928 Don Cordano, Gerd Pascoe (R)

**SANTA CRUZ, BRAZIL**  
Emmett F. Hunt C - 1945

**SAN JUAN P.R.**  
Joseph H. Boyd C 1945-52; K.E. Ben-  
net 1952-55; Harry D. Arnold 56-58  
7C James Corretjer (WH)

**SPEARFISH, SOUTH DAKOTA**  
Cedric A. Barnes C - 1941-47

**STREVELLE, IDAHO "IDPE"**  
1929: Jim Bennett C, 1930: Cliff  
Sundin, Harold Johnston, Art Fielder  
Tom Beatie, Don Morehead, Mike Banks  
Tiny McCaughey. X7

**SWAN ISLAND, WEST INDIES**  
F.A.Griffin C 1946-7 & 1949-51

**TERRA HAUTE, INDIANA (Add)**  
1933: Clyde Turner, Barstow, Hocket  
Shumway

**TTUSVILLE, FLORIDA**  
1933: A.V.Carroll, Al Radermacher,  
J.W. Fairweather (others)

**VANDALLIA (DAYTON) OHIO ADD.**  
1933: Elfenbein, Eskel Daniels, Glen  
Nash, William Koller 7C E.J. Slags.

**VICKERY, OHIO**  
1937: Harold Michael, N. Beebe, H.  
Winters, Don Ferguson, Ralph Rockers

**WESTFIELD, MASS. ADD**  
Chester W. Talix C.

**WICHITA, KANSAS ( ADD)**  
1931: Edw. Plagge, Manuel Goulart,  
C.C. Millard, Warren P. Hurst. C.

**YOKUM, TEXAS**  
W.E. Braden C - 1940-1, Robt. D.  
Smith 41-42; John B. Kendrick 1945.

**YORK, NEBRASKA.**  
Addis W. Gibson - C 1930-33.

**BLANK**



THAT'S ALL ! THERE AIN'T NO MORE !!!  
"YE ED" HAS FINALLY RUN OUT OF NAMES!!

STATION  
COMBINED  
TOWER

C  
S  
T

The combining of (FSS) Stations and Airport towers started July 1 1950 at Augusta, Georgia with the first consolidation of these two facilities. Near the end of 1950, two additional facilities had been combined at Peoria, Ill., and Brownsville, Texas. By 1959, a total of 82 facilities had been combined but it was found necessary at some locations later to "decombine" due to operational requirements or space factor Combined Station/Towers (CS/T) existing as of Jan. 1 1959 are listed below. The tabulation shows date (1) the facilities were combined and (2) Name of incumbent Chief, as of 1970.

**REGION 1 - NY**

AKRON, OH	7-6-53	X7
ALLENTOWN, PA.	5-12-54	J.D. Murphy
BALTIMORE, MD.	2-4-53	X7
BINGHAMTON, NY.	8-15-51	S.Peliaschuck
BURLINGTON, VT.	12-17-52	X7
HARRISBURG, PA.	5-1-52	Decomined
LEXINGTON, KY.	5-13-55	X7
LYNCHBURG, VA.	12-17-57	X7
MANSFIELD, OH.	7-3-56	W.T. Lucas
NORFOLK, VA.	3-5-52	X7
PORTLAND, ME.	8-8-52	J.F. Carroll
PROVIDENCE, RI.	12-8-53	W.S.DeLuca
ROANOKE, VA.	8-11-52	Decomined
ROCHESTER, NY.	5-20-53	L.E. Wagner
SYRACUSE, N.Y.	12-4-53	A.Camilli
TOLEDO, OH.	2-7-55	Decomined
WHEELING, WV.	8-14-53	L.C.Rech, Jr.
WILKES-BARRE PA.	11-4-54	Decomined.
WORCESTER, MA.	5-3-58	H.E.Szefflink

**REGION 2 - FW**

ABILENE, TX.	3-7-51	Decomined
ASHVILLE, NC	9-10-56	H. Roberts
AUGUSTA, GA.	7-1-50	Decomined
BATON ROUGE, LA.	4-20-53	B.J. Tharp
BEAUMONT, TX.	9-1-53	G.J.Guillot
BRISTOL, TN.	12-14-53	Decomined
(Address now Johnson City, TN.)		
BROWNSVILLE, TX.	12-15-50	A.R.Reas.
CHARLOTTE, NC.	7-21-58	Decomined
CHATTANOOGA, TN.	1-9-52	X7 Twr Only.
COLUMBIA SC.	6-13-51	X7 Twr Only.
COLUMBUS, GA	1-1-58	X7 Twr Only.
CORPUS CHRISTI TX	2-4-54	X7 Twr Only.
DAYTONA BEACH, FL.	12-8-52	X7 Twr Only.
PAYETTEVILLE, NC.	12-1-57	K.L. Mix.
FORT SMITH, AR.	6-7-56	E.F. Stacy
GREENSBORO, NC.	10-26-54	X7 Twr Only
GREENVILLE, SC.	9-1-54	X7 Twr Only
HUNTSVILLE, AL	7-5-57	X7 Twr Only
JACKSON, MS.	12-6-51	Decomined.
LITTLE ROCK AR.	10-15-51	X7
LONGVIEW, TX.	9-1-57	J.E. Gatis
LUBBOCK, TX.	11-6-53	W.D.Zwiacher
MIDLAND, TX.	2-12-53	Decomined
SAN ANGELO, TX.	7-1-56	J.N. Schwab
SAVANNAH, GA.	4-30-53	Decomined
SHREVEPORT, LA.	7-6-52	R.Reynaga
SPARTANBURG, SC.	3-17-53	X7 Twr Only.
TAMPA, FL.	1-19-53	X7 Twr Only.
TYLER, TX.	10-12-52	R.E. Rainey
WACO, TX.	5-28-51	V.N.Turner
WEST PALM BEACH	7-22-53	X7 Twr Only
WILMINGTON, NC.	9-12-51	W.W. Knappe

**REGION - 3 KC**

BATTLE CREEK, MI	1-19-56	A. Monkkonen
DULUTH, MN.	4-16-51	X7 Twr Only
EVANSVILLE, IN.	4-7-54	X7 Twr Only
FARGO, ND	12-16-57	X7 Twr Only
FLINT, MI	3-15-56	R.A.Kerwin

PORT WAYNE, IN	3-10-53	Decomined
GRAND RAPIDS MI.	1-20-56	X7, Twr Only
BUTCHINSON, KS.	1-10-55	C.H.McCrery
MADISON, WI	4-5-55	X7, Twr Only
MOLINE, IL.	10-15-54	D.G.Phillips
MUSKOGON, MI.	8-25-55	X7, Twr Only
PEORIA, IL	12-15-50	L.A. Case
ROCHESTER, MN	9-8-54	Decomined
ST. JOSEPH, MO.	10-21-57	X7, Twr Only
ST. LOUIS, IA	4-22-54	R.H. Davis
ST. LOUIS, MO.	3-9-53	X7, Twr Only
SPRINGFIELD IL.	8-14-53	X7, Twr Only
SPRINGFIELD, MO.	7-20-53	Decomined
WATERLOO, IA.	12-22-54	J.P.Cresap

**REGION - 4 - LA**

BOISE, ID.	11-24-52	Decomined
CHRYSTENNE, WY.	8-6-54	C.R. Moore
FRESNO, CA.	4-22-53	Decomined
LAS VEGAS, NV.	6-8-51	Decomined
MEDFORD, OR.	5-20-53	R.T. Smith
ONTARIO, CA.	9-1-53	Decomined
PENDLETON, OR.	6-1-54	R.C. Hanna
POCATELLO, ID.	4-11-52	D.L.Washington
PUEBLO, CO.	7-16-54	H.A. Amman
RENO, NV.	8-3-51	Decomined
YAKIMA, WA.	10-17-52	Warren Hoit

**REGION - 5 - ALASKA**

FAIRBANKS, AK	10-25-54	Decomined
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**REGION - 6 HO**

HILO, HI.	8-25-54	R.E.Berman
KAHULUI, MAUI, HI.	12-19-58	D.F.Epler

NOTE: The foregoing list does not record changes made AFTER Jan. 1 1959.



**William A. LaRue**

William A. "Bill" LaRue, one of the Society of Airway Pioneer's Charter members and Directors has been an innovator and leader since he first entered the Service back at "Madley Field" in the early days of the Airways.

He was Chief at Camden, N.J., and Columbus, Ohio before transferring to Air Traffic Control about 1937. Since then he has held top positions in both fields

He was chosen to head an experiment, circa 1945, to consolidate the Field Branches of Communications and ATC into

an **AIRWAYS OPERATIONS DIVISION**. This program under LaRue's guidance was so successful that it was expanded system-wide.

LaRue was selected in 1952 as "Telecommunications Coordinator" (OCDM) in the Office of the President. Here he was a key official on "TCP" which handled "Top Level" Communications matters for the Government of the United States.

Later, LaRue became Manager for Martin Corp., as their Communications/Data-media expert. From here to Headquarters "NASA" as Executive Assistant to the Director of Advanced Manned Missions Program Office.

Since retirement, Bill LaRue has been called upon by the Board of Governors of the Federal Reserve System to study Communications requirements of that Agency.

Oh yes ... back in 1944 he "lapsed" (that is his word) Bill Brennan to become Editor of the "V-REGIONALIST". I am sure it is among his most outstanding accomplishments!

**FAA**  
**AMATEUR**  
**RADIO NET**

Thanks to **PAUL COLBY** whose address is 16 Camelia Drive, Ormond Beach, Fla., # 32072, an **AMATEUR NETWORK** has been established for retired (and active) employees of the FAA and friends, to enable them to get together for a friendly "QSO" weekly over the "ham" bands.

Paul acts as **NET CONTROL**. The **FAA NET** has been operating for several years and each year the roster grows longer. If you would like to join, drop Paul a line for details - or better yet, tune in on one of their schedules, which are as follows:

EACH SUNDAY	SSB	7260	1345 GMT
EACH MONDAY	CW	14072	1500 GMT
EACH MONDAY	SSB	14240	1545 GMT

**Errata**

No author likes to admit to errors, but in working up this book - much of it was done under the pressure of time. A number of errors have since been noted for which your sympathetic understanding is respectfully requested.

The "element of controversy" always seems to exist when the subject is ... "WHO CAME FIRST?"

This existed for years in the claim/s and feud between Dr. Langley and the Wright Brothers. Who discovered the **NORTH POLE**? Was it indeed Admiral Robert E. Perry or Frederick A. Cook? Who really invented **WIRELESS**? Was it Professor Amos E. Dolbear, Mahlon E. Loomis, Guglielmo Marconi or Alexander S. Popoff? Did Columbus **REALLY** discover America? (Continued on Page 72)

# THE ENGINEERS & MAINTENANCE TECHNICIANS



This book has been dedicated to the Radio Operators of the Air Mail and Airways Stations down through the years when their titles changed from Radio Operator to Communicators, Air Traffic Specialists, Flight Service Specialists etc. The sophistication of equipment and duties have increased greatly during the past five decades, with emphasis shifting from the handling of traffic by C.W. to that of furnishing D.F. bearings and Flight Assistance. Many case-histories are available of "saves" recorded in their daily "flight-assistance" routine.

Gradually, the amount of equipment at facilities increased to the point where the "OIC" had little time left to both operate and maintain his equipment. Hence circa 1939, help was furnished some key stations (or Sectors established) with radio technicians assigned who were capable and qualified to take this load off the shoulders of operations. Many of these maintenance men were recruited from the ranks of Operations people.

There were few "Degree" Engineers during the early years. Requirements for a position in the early days included the ability to install, operate and maintain the equipment furnished.

Mr. John A. Willoughby was perhaps the FIRST "engineer" to be employed by Gene Sibley. He was hired at the beginning of the Air Mail Service to experiment with radio-compass and D.F. equipment, plus A/G communications. Mr. Walter R. Lindsay made some of the first installations. Harold L. Rodman (on loan from the Federal Telegraph Co.) was responsible for installing most of the "are" transmitters throughout the West.

Others who did installation/engineering work included H.C. Pyle, Carl Hemple, Art Johnson, Hadley Beedle, Norman W. Bliss, Tom Gayle, Philip E. Coupland, Ray Green James Gordon Bennett, Edw. Waterman etc.

When the DOC "took over" from the POD on July 1 1927, most of the equipment inherited could be classed as "junk".

The first Engineers to join the LHS of DOC included HOEY J. WALLS (Chief) EOD

7-1-1927. Later came Messrs. Wm Mc Bride Howard McKinley, W.E. Jackson, Lloyd Berkner, Don Stephens, Joe Hromada, Clint Hawkins, H.I. Rothrock, Walt Plett, Don Stewart, Homer Applegate, Robt. W. Trip-plet, Richard Battle and many many others.

## CREDITS:

The Author wishes to thank all those who have so generously assisted in the publishing of this book. The pictures, memorabilia, suggestions and technical advice furnished are deeply appreciated.

I am especially thankful to Mr. Art Johnson (S-P) who has furnished the greatest amount of historical data and pictures for inclusion or use in the book. He is no doubt the most outstanding authority on Airway History alive today. His assistance and help have been deeply appreciated.

I must also give special mention to Mr. Dennis S. Feldman, Deputy Director of Public Affairs for the FAA, who has been most generous in furnishing releases and pictures which we have been permitted to use.

Others who have given generously of their time in furnishing pictures and historical facts, along with suggestions, etc. are the following:

Harold T. Bean (411-H); Richard P. Battle (659-C); Gene Kropf (1225-R); Fred D. Sommer (35-C); Peter W. Bertonia (856-C) Bill Cantwell EA-S10; Raymond J. Green Harold J. Burhop (24-CV); Geo. D. Barr (354-CV); G.W. Whittaker (265-CV); Elmer C. Butler (825-CV); Seth Davidson (842-C Frank A. DeAndrea (34-C); Wm A. LaRue 264-C); W. C. "Bill" Larsen (234-CV); Ruben M. Quillian (228-C); R.O. Donaldson (D) (50-CV); Geo. L. Rand (376-C); Rome Montle (175-CV); Frank T. Unruh\* (27-C); Henry W. Brendel, C. Geo. Andrus (350CV) Norman W. Bliss, Gordon H. Pascoe (29-CV) Irving J. Rovang (323-CV); Howard W. Mc

Kinley (1143-P); Chris M. Lample (9-CP) Geo. W. Vest (418-H); Leonard M. Ballard (37-CP); Dexter S. Bartlett (73-C) Joseph J. Greten (164-C); Thos. H. Chapman\* (787-CV); E.K. Shinn (1049-V); R.C. "Tex" Marshall (416-H); Joseph Feldman (1843-R); Allan Barnabei (15-C); Carl F. Kusrow (17-CO); and many others.

(\* In some instances material used has been furnished at an earlier date by member mentioned and taken from files of the Society for use at this time.

## Errata

The Author has tried to use care in recording the facts but he can not vouch for 100% accuracy or authenticity of the data used. He believes it to be "highly accurate". Many instances were noted, for example, of individuals who listed themselves as being "Chief" of a facility during the same period of time another reported filling the same position. Obviously this was in error and probably one honestly made but the contradiction could not allow inclusion of either.

Please correct the following: PAGE 30:

The date is correct but Regional boundaries were established the FOLLOWING year. PAGE 36: Henry Simmons died in 1966 instead of 1956, also (sp) change word to "compassionate". PAGE 53: New REGION MAP: Insert boundary between KC and Chicago Regions along North and E. border of Iowa and East border of Mo. PAGE 52: Headline "MODERNIZATION" (sp) (Most/similar are inadvertent or lack of time to properly proof).

I realize my sins of omission but since space available and time did not permit expanded coverage, I did the best I could and I hope you like it.

Much Airway History was generated in the early half of the Nineteenth Century but obviously only a fraction of it could be recorded in a book of this kind

What lies ahead in 2000 or 2025 AD ???  
What will they be flying in another 50 years ?

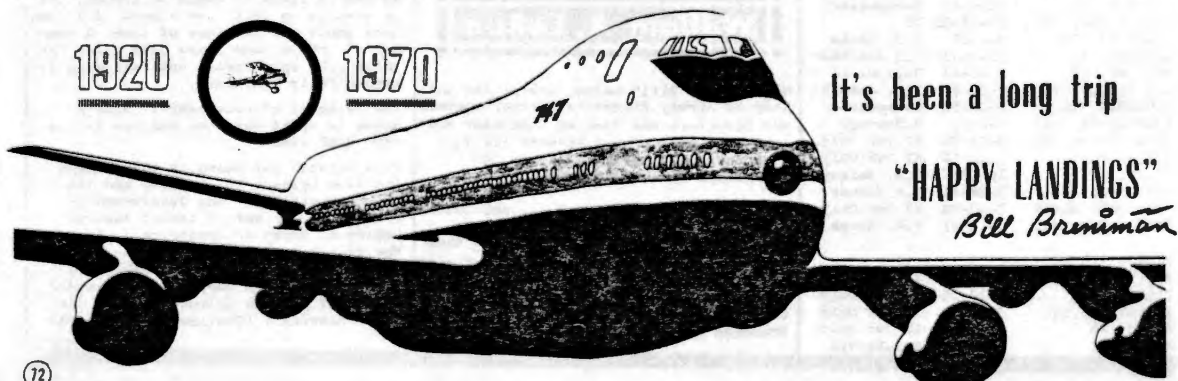
IT WILL BE INTERESTING.



1920



1970



It's been a long trip

"HAPPY LANDINGS"

Bill Brennan