K9YA Telegraph

Robert F. Heytow Memorial Radio Club

Volume 6, Issue 4, April 2009

The 1930 "Arctic Patrol" Maneuvers

3,500 Open Cockpit Miles in a Curtiss P-1 Hawk

Philip Cala-Lazar, K9PL

Imagine yourself in the open cockpit of a 1930s-era pursuit biplane whipping through the wild blue yonder at 160 mph. Now imagine yourself doing that in subzero temperatures from Michigan to Washington State. All the while your progress is being monitored by a group of handpicked amateur radio operators along the route who are relaying information to and from the patrol to the military, the American Radio Relay League and newspapers across the country.

That this was an important public relations issue to the U.S. Army Air Corps and the ARRL is amply reflected in the nine-page article devoted to it in the May 1930 issue of *QST*: "A.R.R.L. Cooperates With the 'Arctic Patrol' in Mid-winter Maneuvers—Work With Army Air Corps Successful."

"…whipping through the wild blue yonder…"

Let us hearken back nearly 80 years to that event.

This January 1930 venture between the ARRL and the USAAC offers a prismatic view of the state of military aviation, electronics technology, politics and amateur radio's public image during the early period of the Great Depression. Though the flight never neared the geographic Arctic, it was, nonetheless, named the "Arctic Patrol" Maneuvers. The exercise was one of a series of "Arctic Patrols" the USAAC executed across the northern tier of states to test their men and machines' war preparedness in extreme low temperature conditions (e.g., -32° f at Great Falls, MT and -20° f at Minot, ND).

This endeavor was part of the ongoing cooperation between the U.S. military and the League on land, sea and in the air, stemming from, in 1925, the creation of the Army-Amateur Net and radio Naval Reserve.

Though not mentioned in either the newspaper accounts, nor the *QST* article, the pursuit aircraft discerned in very grainy newspaper photo images were 18 ski-equipped Curtiss P-1 Hawk biplanes of the First Pursuit Group flying out of Selfridge Field near Detroit, Michigan. The single-seat P-1 Hawk was powered by a 435hp Curtiss V-1150-1, water-cooled V-12 engine good for 160mph.

Accompanying the Curtiss Hawks were two Ford Trimotor transports. Powered by three 200hp Wright J-6 Whirlwind engines or 420hp Pratt & Whitney Wasp engines the slab-sided "Tin Goose" was the backbone of the American airline fleet into the early 1930s until replaced with larger and faster aircraft. One Trimotor carried the radio gear and operator, Staff Sergeant K.D. Wilson, W3GT, for this flight assigned the call sign AB6.

Aboard the radio plane was a battery-powered "oscillator-amplifier" transmitter employing type 10 tubes (400-volt plate supply) on 9,370 Kcs (32 m.) and what came to be considered the most useful frequency,

CONTINUED - ARCTIC PATROL ON PAGE 7

Inside This Issue…

Philip Cala-Lazar, K9PL
Editor

Mike Dinelli, N9BOR
Layout

Dick Sylvan, W9CBT
Staff Cartoonist

Rod Newkirk, VA3ZBB
Contributing Editor

Robert F. Heytow Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org

VHF Historical Notes

Part II

Kevin C. Kaufhold, W9GKA

Group of Short-Wave Ultraudion Oscillators Showing Construction Needed when Operating at 3/4 m. Directly and Advantage of Working in Manner Suggested. This is the Group Mentioned Before as Used by Phelps at 2EB.

Additionally, early references to amateur allocations were invariably in "wavelengths" with the basic measurement being in "meters" (for example: 200-meters). This designation was only occasionally translated into a frequency measurement, normally expressed in kilocycles. It took much encouragement before frequency designations were regularly used.[1] In the ultra high ranges, even when frequency measurements were used, "kilocycles" and not "megacycles" were often employed. The term megacycle, or mc, was advocated in the late 1920s, but gradually developed only thereafter.[2] Indications of frequency in megahertz instead of megacycle were even longer in the making. References to "bands" (as in the 80-meter band, etc.) did not come into regular usage until separate tuning ranges or bands developed on amateur receivers, although many early references to 5-meters and ¾-meters did mention "band" activity. During the early years of equipment development, a simple tuning knob moved a receiver through the entire radio spectrum, often in a single rotation. Any references to "bands" were more illustrative than real.

"…bowl-shaped electric heaters…"

By the mid 1920s, a few hams had begun experimenting on 5-meters. The original 1924 5-meter allocation was actually between 4- to 5-meters, or 60,000 to 75,000 kilocycles, but was loosely characterized as being "5-Meters."[3] In October, 1924, the Third National Radio Conference changed slightly the amateur wavelength boundaries assigned a few months before in July, 1924 by the U.S. Navy in order to establish more precise harmonic relationships, and thereby reduce interference to broadcast stations. At that time, the 5-meter wavelength was changed somewhat to 5.3- to 4.7-meters (56,000 to 64,000 kc). By the next year, the 5-meter allocation was more precisely defined as being between 4.69- to 5.35-meters, but still at 56,000 to 64,000 kilocycles in frequency.[4]

On March 17, 1925, the Department of Commerce allocated frequencies at ¾-meters (400,000 kc to 401,000 kc) for amateur use. In announcing the new wavelength, the League indicated that the Bureau of Navigation acted at the request of the ARRL Board of Directors.[5] Supposedly, 400 Mc was developed for "beam experiments," as this was the resonant frequency of popular bowl-shaped electric heaters which could be pressed into service as a dish antenna.[6] Little activity initially occurred on this ultra high frequency however, and one writer believed that "this band is of interest only in that it demonstrated the confidence built up in the Department concerning the experimental ability and value of amateur radio." [7]

Several article appeared on construction techniques for the new band, but almost all parts, including the tubes, had to be modified.[8] The new frequencies were posing severe challenges to even the most experienced amateurs. The following photograph shows various tubes being reworked and physically altered for use at ¾-meters.[9]

A technical editor at the ARRL, Robert S. Kruse, made huge contributions to the early usage and development of 5 and ¾-meters when he wrote numerous articles

1 "We Ought to Talk Frequency," *QST,* K.B. Warner, Sept. 1928, pp. 19-23.

2 Usage of "megacycles" to express a frequency measurement was suggested in the Experimenters' Section Report, *QST,* June 1927, p. 42.

3 See, DeSoto, at 93. The regulations are contained at "The New Short Waves," *QST,* Sept. 1924, pp. 7-8.

4 *QST,* Dec. 1924, pp. 16-17; See, "New Regulations for Transmitting Stations," *QST,* March 1925, p. 29.

5 See, "A New Amateur Band at ¾-Meters", May 1925, p. 36.

6 See, "1927: The Year of Living Dangerously," Bill Orr, CQ, May, 1994, p. 140.

7 DeSoto, at 102; and *QST,* June 1927, p. 41.

8 "Getting Down Below 5-Meters", Harry Lyman, 6CNC, *QST,* January 1926, p. 28, may have been the first article discussing ¾-meter activity.

9 "The ¾-Meter Band Officially Opened," Boyd Phelps and R.S.Kruse, *QST,* August 1927, pp. 9-14, at p. 13.

Robert F. Heytow Memorial Radio Club

www.k9ya.org

telegraph@k9ya.org

in *QST* on equipment at UHF frequencies. He also wrote or co-wrote a monthly *QST* column entitled "Experimenter's Section Report," (which many amateurs referred to as the "X Report," for short).[10] Other writers also made early and important contributions to the understanding of UHF activities. The following diagram of various 5-meter transmitter circuits was taken from one of Robert Kruse's articles.[11]

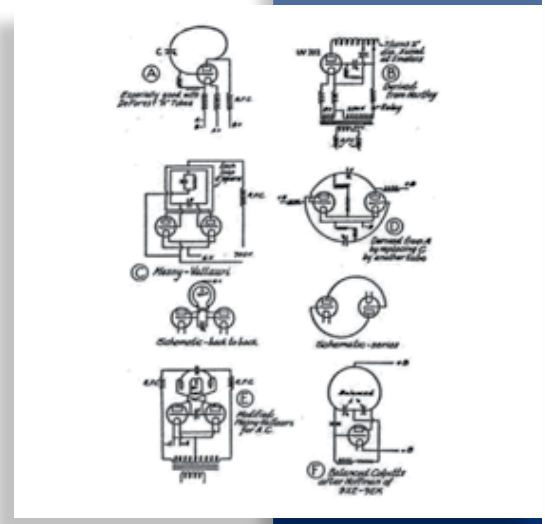
With the advent of short wave and ultra high frequencies available to the amateur, the radiation and reflection of radio waves became oft-discussed subjects. Amateurs wrote of their efforts at horizontal wave reflections and polarization attempts.[12] Still others were commenting on the effect of auroras on radio signals.[13] U.H.F. activity reports were being analyzed in the context of the various propagation concepts and beliefs floating about. International 5-meter tests occurred in July through September of 1926, resulting in the 5-meter reception in Tripoli of an Italian transmission.[14]

The Fourth Annual Radio Conference held by the Department of Commerce on Nov. 9-11, 1926 preserved the amateur waves at 5-meters and "75 cms," despite efforts by the U.S. Navy to reserve all frequencies below 16.6-meters for experimental purposes.[15] Legislation was enacted in February 1927 that created a new agency, the Federal Radio Commission, to regulate the airwaves, rather than through the Radio Conference system that had existed with the Department of Commerce. The new act codified the word "amateur" for the first time. In its first meeting held on March 15, 1927, the commission extended all amateur licenses and all amateur radio operating privileges (including amateur activity on 5 and ¾-meters), until "further notice," but then added code and written exam requirements for new amateur licensees.[16]

"…worthy of note."

The following photograph is of an experimental, but complete, one-tube 5-Meter transmitter, circa 1925 to 1927. It was described as "Transmitter No. 1." The tube was a Westinghouse 216A. The transmitter was "put on the air with no results."[17]

The first amateur experiments on 5-meters occurred shortly after the band was authorized. Using debased UV-202 tubes, 9APW conducted tests with 1FG. Experiments continued, and by March 1927, regular two-way contact on 5-Meters was occurring between a few stations located in close proximity to each other. For instance, repeated communication between 2EB in New York City and 2NZ in New Jersey some 15 miles away was considered worthy of note.[18] Several one-way signal receptions of far greater distances were also being reported. By May and June of 1927, came confirmed reports of 1,000-mile signal reception of 9EHT, although no relays or two-way contacts could be established. Monthly 5-Meter tests occurred in 1927, led by announcements contained in the Experimenters' Section Report of *QST*. Many hams hoped 5-Meters would become quite useful in extending long distance communication abilities of the lower bands. Contemporary papers and amateur radio articles suggested ionization of air might be responsible for the generally good operating conditions on the shorter waves.[19] There was, therefore, great hope that the reflection of radio waves off of ionized layers of air might even be better when transmissions moved to the higher frequencies of 5-Meters. Real excitement existed among UHF devotees that "skip" might be used for long distance work.



Sending Circuits

With this enthusiasm in mind, the ARRL sponsored a 5-Meter CQ Party on June 11-12, and June 18-19, 1927, following a CQ Party format previously held on 100-meters in 1923. This 5-Meter event may have thus been the first organized gathering of hams on a

10 Cruse wrote the first article on UHF: "Working at 5-Meters," *QST,* Oct. 1924, pp. 13-19.
11 "Progress and Plans at 5-Meters – and Below," Robert S. Kruse, *QST,* July 1926, pp. 34-38, at 34.
12 *QST,* Feb. 1926, pp. 9-17; and *QST,* Nov. 1926, pp. 32-33.
13 *QST,* Oct. 1926, pp. 23-24; *QST,* Dec. 1926, p. 62.
14 *QST,* July, 1926, pp. 34-38; *QST,* Dec. 1926, p. 44; and *QST,* Nov. 1926, p. 13. A photo and schematic of the transmitter was presented in *QST,* Jan 1927, pp. 32-33.
15 "The Fourth National Radio Conference," *QST,* Jan. 1926, pp. 33-36.
16 "Radio Regulation Returns," *QST,* May 1, 1927, pp.15-17.
17 E.M. Guyer and O.C. Austin, *QST,* July, 1927, pp. 29-30, at 29.
18 "Flash! 5-Meter Results", *QST,* March 1927, p. 55; *QST,* March 1927, pp. 44-45.
19 *QST,* May, 1924, pp. 9-14; *QST,* Dec. 1924, pp. 18-19; *QST,* April 1925, pp. 9-12.

Continued - VHF on Page 8

Robert F. Heytow Memorial Radio Club
www.k9ya.org
telegraph@k9ya.org
Volume 6, Issue 4

Barefoot Boy with Cheeks of Tan...

Bob Dillon, WB9LTN

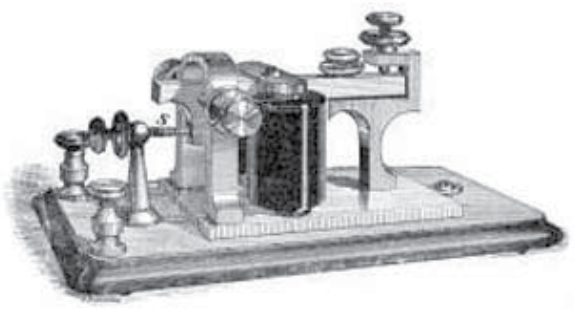
Back in the early 70s, I lived in Huntington, Indiana, and became an acquaintance of a ham named Stan, WA9RQZ, (later W9HI). Stan was an obstetrician and had practiced in Huntington County for over 50 years. While having breakfast with him one morning, a lady who I judged to be in her mid-thirties stopped by to say "Hi" to "Doc." After she left, Stan started a sentence with, "Now that lady, I delivered…" I was expecting him to say he had delivered her, but he finished with, "I delivered her mother."

I once asked Stan how he had gotten interested in ham radio, and he told me a story of his childhood growing up in southern Indiana, and it seems worth sharing. He said he had a brother who was a station agent on a different railroad than the one that ran through his town a few miles away, and when his brother was home, he started teaching Stan Morse code. After getting somewhat adept at it, Stan walked over to the local station and asked the agent if it was okay if he hung around a bit to practice copying the "wire." The agent seemed intrigued by a barefoot eleven year old kid who claimed to know Morse code, and gave Stan a piece of paper and pencil to see what he could do. It didn't take long for the agent to realize the kid had some talent!

"…copying the 'wire'"

After a couple of weeks, the agent was not only letting Stan copy messages from the wire, but also sending the necessary responses all on his own. The agent seemed quite content to sit in the corner reading a magazine while Stan did the Morse work. One day one of the agent's children came into the station, and told the agent there was some kind of problem at home. The agent told Stan the only train due through in the next hour was number 47, and since it was a through train, there shouldn't be anything needed while the agent was gone. A few minutes after the agent left, a message came over the wire to stop number 47 and change its orders to hold on a siding a few miles beyond the station so a train from the other direction could pass. Stan acknowledged the orders and set the semaphore. The conductor and engineer seemed a little surprised to take an order from an eleven-year-old barefoot kid, but Stan explained the situation, and they signed and left. About a week later, a letter came in the mail for the agent containing a reprimand for leaving "unauthorized personnel" in charge of the station. Apparently the whole story had not made it to the home office, because there was an additional note on the letter that if the guy the agent had left in charge was looking for work, the railroad was looking for operators. The agent sent a reply that the "guy" was a barefoot kid eleven years old, and would need to wait a few years to apply.

The "guy" did indeed apply when he was old enough, and worked his way through medical school in the nineteenteens as a Morse op. Years later after partially retiring from the practice of medicine, he returned to his love of the code as a ham. I still miss him. ■



Robert F. Heytow
Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org

The Day Australia Called

Scott Laughlin, N7NET

Dave Philips, WB7VSN, a native of Southern California, learned American Morse as a youngster. As soon as he learned how to reach the Los Angeles Southern Pacific train depot by city bus he was often found there awaiting an opportunity to operate an idle telegraph wire. By the time he'd graduated from high school, he was a station agent. During World War II he was General Douglas Macarthur's personal telegrapher. After the war he became a Southern Pacific train dispatcher.

After forty years he retired and became an amateur radio operator, as did many others who had spent their lives directing trains hither and yon by means of telegraph. But Marks and Spaces ran deeply in their veins and it wasn't long before they discovered that by using discarded 8-bit computers and modems their telephone lines would emulate Western Union wires. Soon, they were dialing one another and rehashing days of old while using American Morse.

In 1990 Philips responded to American Morse Club's urging and formed a Eugene, Oregon chapter. A host of retired railroad and Western Union telegraphers quickly became charter members

> *"HI HI. HI HI."*

When Morse first came into use there were two codes—American and International. The United States chose American because of its many special characters that supported the livestock and grain markets, Wall Street and baseball, not to mention railroads, Western Union, Associated Press, and the U.S. Postal Telegraph while the rest of the world selected International.

Both systems share many characters. However, C, F, J, L, O, P, Q, R X, Y, Z, all numbers, and all punctuation are different.

Dave, master of both, never gave much thought to the differences. International was heard through the radio headphones while American was copied over the phone line. That was a given.

On 2 April 1991 the world celebrated Samuel Finley Breese Morse's 200th birthday celebration. In keeping with the spirit of that festivity, Australia's counterpart to America's AT&T, as it was in 1991, provided 24 hours of free telephone service to the Alice Springs Radio Club. After contacting everyone they knew on the continent, it seemed fitting to join the celebration at the Blackstone Hotel in Chicago, Illinois. Unfortunately, the only United States phone number they could find belonged to Dave Phillips in Eugene, Oregon.

Dave Philips, WB7VSN

Dave, having already enjoyed a dozen contacts that morning, was prepared when the phone rang. But after copying the initial message, he discovered that the fellow on the other end of the line was sending him garbage. The A was okay, but after that he couldn't read enough characters to make one single word. Who was this guy, he wondered?

When the fellow turned the wire back, Dave sent an American Morse question mark, asking him to send everything again. But in International Morse the Australians read a DN. Alice Springs, totally confused, sent an International Morse question mark, which in American Morse was a period.

Sometimes, when old landline telegraphers, turned amateur radio operators, become excited they start mixing American and International characters, an incident known as "Box Car-ing." Dave, who had been guilty of this a time or two, recognized the problem and responded in International Morse.

The Blackstone Hotel phone number was sent to Australia and then Morse code laughter was exchanged over the wire, which is the same for both languages. HI HI. HI HI. ■

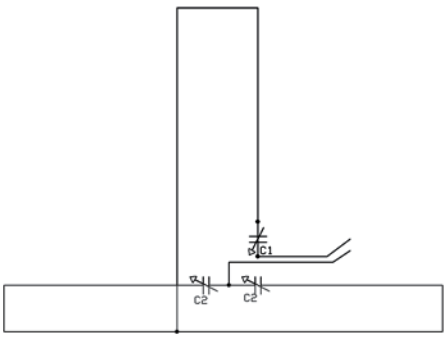
Robert F. Heytow Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org

The Indoor Sportsman – Part IV

Unlooping the Loop

Rod Newkirk, VA3ZBB/W9BRD



As most mobile operators will attest, there are days when a simple vertical whip will outplay a high horizontal radiator. This propagation singularity is one of the things that make ham radio so interesting.

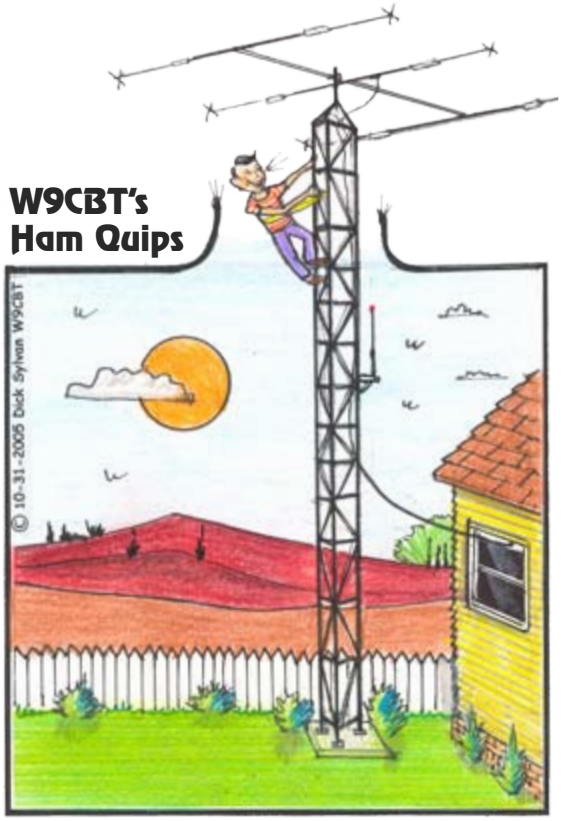
We thought we'd try the standard Sportsman approach, a quarter-wavelength of wire—lamp cord in our case—as an indoor vertical. As usual, it's self-tuning and self-matching to coax. We can't bring an auto body inside as counterpoise but we should be able to fake one.

Thirty meters is a good band to experiment on. Suspension dimensions are within reasonable bounds. These can be scaled up or down for other bands, but the 8-foot height for 40-meters is a bit tight. For 30-meters about 25 feet of wire are called for, including the doubled portion that minimizes counterpoise radiation.

The tune/match capacitors, small receiver types at 100 pFd per gang, probably won't be in the exact center of the system and so won't be equal for 1:1 coax match. We wound up with about 50 pFd for C1, 30 pFd for each gang of C2. The counterpoise is trimmed for unity match. Spacing S is noncritical: ours is eight inches. Rigidity should be maintained.

The counterpoise may be laid on the floor for moderate inputs, assuming there's no metal down below. We find this antenna handy to fill in nulls of our regular outdoor horizontal wire. For more construction discussion see earlier Indoor Sportsman Parts 1, 2 and 3. ■

*Click **HERE** for W9BRD's detailed schematic.*



DICK'S STILL LEARNING TO COLOR BETWEEN THE LINES

K9YA Telegraph Moving

It's Official! The *K9YA Telegraph* is Moving its HQ to the John Hancock Building. Check our Web site for details.

Robert F. Heytow Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org

5,552 Kcs (54 m.). The storage cells powering the gear were charged in flight and, when maintained in good condition, provided about three hours of operating time. AB6 passed traffic on the 80- and 40-meter bands both in-flight and while on the ground.

From January 8 to January 29 a select group of hams stood by to assist flight communications. According to *QST* there were three major considerations concluded by the League and the USAAC.

1. "A route to and from the fliers over which reports, messages, orders or press dispatches" would be relayed "speedily and accurately as possible—and at least once daily."

2. "Daily press messages" filed by Major Ralph Royce, Commander, First Pursuit Group, would be relayed to message centers located in Hartford, Detroit and Washington, D.C. The messages would then be relayed by stations at the message centers to amateur radio operators nationwide for delivery to "every city, town and hamlet" with a request from the USAAC for publication.

3. "Daylight cooperation of amateur operators was desired in monitoring the frequency of the fliers continuously to intercept possible distress signals, reports of grounded planes, needed supplies or other dispatches relating to the safety or welfare of the Group during flying hours (8 a.m. to 4 p.m.)."

From the start the radio plane and other transports lagged so far behind the pursuit planes part 3 of the plans "were of little practical value."

Supplementing individual amateur operators were club stations; the General Electric Company in Schenectady, NY monitored the "first few minutes of every hour" for emergency traffic; and the Army Signal Corps Net.

The flight paths to Spokane and back to Selfridge Field were developed following discussions between the League and officers of the USAAC to locate "reliable and active reporting stations" along potential routes.

Flight Synopsis

Western route: Depart Selfridge Field; Duluth, MN; Minot, ND; Great Falls, MT; and Spokane, WA.

Eastern route: Miles City, MT; Fargo, ND; Wausau, WI; and arrive Selfridge Field.

Chicago Daily Tribune
January 6, 1930: Army "Arctic Patrol" Planes to Wage Mimic Winter War

The maneuvers are described as the "…first attempt of a large plane fleet to engage in mock warfare under arctic conditions…"

The War Department declared the patrol's primary objective was to test personnel and machines under severe cold conditions. The patrol's secondary objective was to "…obtain firsthand experience in the value of short wave radio in connection with army air corps operations in remote sections and covering long distances."

Chicago Daily Tribune
January 13, 1930: MOTOR TROUBLE DELAYS ARMY'S WINTER PLANES

Not included in the description of the original air fleet complement is a "single motored Douglas (C-1) transport which broke an axle in landing here (Minot)." Subzero temperatures engendered a broken crankshaft on one pursuit plane and a failed starter on another.

Chicago Daily Tribune
January 14, 1930: 9 OF ARMY'S ARCTIC PLANES DROP BEHIND IN SPOKANE FLIGHT

Nine aircraft were delayed in their arrival at Great Falls. Mentioned for the first time are "four heavier transport" airplanes. So, in addition to the two Ford Trimotors and a Douglas transport may be added an additional, unidentified, transport.

Chicago Daily Tribune
January 15, 1930: ARMY ARCTIC PATROL PLANES SCATTERED IN SPOKANE FLIGHT

Engine problems for the rest of the air fleet on that day resulted in only three pursuit planes crossing, at 12,000 feet, the Continental Divide. The rest of the fleet was strung along 1,200 miles of the westward route.

Chicago Daily Tribune
January 21, 1930: Last Plane of Army's Arctic Lands Near Spokane

Seventeen pursuit planes (one pursuit plane having been damaged beyond repair near Beach, ND) and one Trimotor transport successfully arrived at Spokane. They were overhauled in preparation for their return flight.

Chicago Daily Tribune
January 30, 1930: ARCTIC AIR PATROL ENDS 19 DAY FLIGHT; BACK AT HOME FIELD

Assessing the maneuver's accomplishments, Major Royce candidly stated, "…the present type of airplane is not practical and… the present type of heater will

CONTINUED - ARCTIC PATROL ON PAGE 8

Robert F. Heytow
Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org

Volume 6, Issue 4

Continued - ARCTIC PATROL from Page 7

not get a motor warmed up after a cold night in the open."

Despite pilots suffering extreme discomfort from frigid temperatures and exposure during the long hours endured in the Hawk's unprotected cockpit, no severe injuries were incurred although frostbite caused several pilots to drop out. Delayed arrival of the transport aircraft forced some makeshift maintenance along the route and heightened the patrol's danger quotient.

So important was this USAAF-ARRL liaison the League devoted the aforementioned nine-page spread to it in the May 1930 issue of *QST*. Suggesting big public relations dividends, included was a chart listing 37 newspapers and their coverage, in column inches, of the "Arctic Patrol." While decrying the lack of interest by newspapers in many communities, the ARRL's hometown newspaper, the Hartford Courant, with 78 1/2 column-inches of coverage bested the 36 other papers. The news organs in Miles City, Montana (1 1/2 column-inches) and the Merrick Courier (NY) with two ("garbled") column-inches managed to capture tail-end honors of those papers reported to the League by local amateurs.

Included in this extended coverage Staff Sergeant K.D. Wilson detailed his operations during the maneuvers. The radio plane's transmitter and receiver used the same trailing antenna, adjustable for use on "the first and third harmonic" by "winding or unwinding the antenna reel, in flight and on the ground." On the ground it was supported by an "18-foot jointed pole."

Wilson bemoans the poor propagation and frozen, damaged batteries that bedeviled his experience, and lists the 21 amateur stations he managed to work from the radio plane. He laments the impaired storage batteries provided only one hour's use between charges.

Because of the problems plaguing Wilson's operation, Major Royce "avail(ed) himself of the services offered by amateurs all along the prearranged route for filing press dispatches, messages and reports."

USAAC Thanks League

Thank you and your organization for the splendid support you gave the First Pursuit Group Maneuvers in connection with short wave communication. I am perfectly amazed at the results produced by your enthusiastic and able members. F. Trubee Davison, Assistant Secretary of War, In Charge of Army Aviation (see: *K9YA Telegraph*, January 2007, p. 6).

The publicity generated by the "Arctic Patrol" well served the interests of the League, the amateur radio service and the USAAC. For the League it emphasized its preeminent position as *the* amateur radio organization in the United States. For the amateur radio service the public's positive image of amateur radio operators was reinforced in another of many successful joint ventures between the U.S. military and amateur radio. For the USAAC the news coverage bolstered its case for budgetary appropriations as the patrol revealed the shortcomings of the current generation of military aircraft and its communications gear. ■

Bibliography

Chicago Daily Tribune.

QST, American Radio Relay League, pp. 29-38, Hartford, Connecticut, May 1930.

American Warplanes, Bill Gunston, Salamander Books Ltd., London, 1986, ISBN 0-517-61351-4.

The Radio Amateur's Handbook, American Radio Relay League, Inc., West Hartford, Ct., 1940.

World Aircraft, 1918-1935, Enzo Angelucci and Paolo Matricardi, Rand McNally & Company, Chicago, 1979, ISBN 0-528-88166-3.

Continued - VHF from Page 3

UHF wavelength. Prizes were awarded for the "best" in various activities, but this CQ Party was not described as a radio contest. Instead, it was more of an activity time governed by some "rules of the game." With recent activity reports of long distance reception, the CQ Party drew much attention and interested parties.[20] A 5-meter crystal-controlled transmitter was even transported to the top of a mountain.[21] Propagation turned out to be very puzzling, however, as hams were unable to contact anyone but the most local of stations. To sort out the propagation characteristics of the band, another 5-Meter CQ Party was scheduled for November, 1927.[22]

The following photograph is of a 5-Meter transmitter made in the ARRL lab around the time of the first 5-Meter CQ Party in June 1927. Note all parts are mounted on a wooden base, a common practice for the time. The transmitter used one tube: a UX-852 *Radiotron*. It generated 300 watts input, and its signal was heard 15 miles away.[23] ■

20 *QST,* May 1927, p. 44; *QST,* June 1927, p. 42.
21 *QST,* June 1964, pp. 78-79; *QST,* June 1927, pp. 24-26. These activities may be the earliest reported portable and mountain-top UHF work.
22 "The 5-Meter CQ Party," *QST,* August 1927, p. 47; *QST,* Sept. 1927, pp. 41-42; Sept. 1927, p. 24; and at "The November Tests," *QST,* Nov. 1927, pp. 37-40.
23 *QST,* W.H. Hoffman, June, 1927, pp. 33-34, at p. 33.

Robert F. Heytow
Memorial Radio Club

www.k9ya.org
telegraph@k9ya.org