

K9YA Telegraph

Robert F. Heytow Memorial Radio Club

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The 'Untin' Bowler

A Roaring Twenties Misadventure

Philip Cala-Lazar, K9PL

It was the best of times, it was the worst of times, it was 1929 and Col. Robert McCormick, the Chicago Daily Tribune's iconic publisher, owned two Sikorsky S-38, twin-engine amphibian aircraft. Quaintly named *Arf*

Pint and *'Untin' Bowler*, these craft were examples of an airplane often referred to as the "explorer's" or "millionaire's air yacht" being well suited to both roles. Amongst S-38 owner/pilots were counted the explorer/film-makers Martin and Osa Johnson, celebrated aviator Charles Lindbergh and H.F. Johnson of the Johnson Wax company (seeking carnauba trees in Brazilian rain forests). Tribune articles used the spelling "amphibion" for the aircraft, at home on water and land, because; an "amphibian" is a "kind of animal." Yet another example of Col. McCormick's pet project of reforming the English language, think "thru," "photograf" and "telegraf."

Two years earlier, veteran pilot Parker "Shorty" Cramer convinced Tribune aviation editor Robert Wood that a Chicago to Berlin flight was a great idea. Cramer spoke to Wood of "sport, adventure, (and) glory" and the *'Untin' Bowler* the aircraft to deliver on that vision. The flight, widely heralded by the Colonel's newspaper as a purely scientific endeavor, nevertheless spawned two prize competitions, was besieged by requests by would-be explorers to accompany the flight and accumulated many hugely headlined column inches.

The 'Untin' Bowler

The standard 8- to 10-passenger Sikorsky S-38 biplane was powered by two Pratt & Whitney R-1340 Wasp 9-cylinder air-cooled radial engines, rated at 420

(410) hp each, flew at a maximum speed of 120 (125) mph and a cruising speed of 103 (110) mph, with a range of 600 miles (628 gallons of gasoline [300 gallons more than standard] providing up to 12 hours of flight time) and had a service ceiling of 16,000 ft. (Tribune's figures in parentheses.) Its length, 40 ft. 3 in.; upper wingspan, 71 ft. 8 in.; lower wingspan, 36 ft.; height, 13 ft. 10 in.; empty weight, 6,000 lb.; and loaded weight, 10,480 lb.

July 1, 1929, Chicago Daily Tribune

AMATEUR RADIO TO TELL WORLD OF SEA FLIGHT

Amateur and professional radio operators across the United States, Canada, Greenland and Europe are organized to monitor the flight's progress. Judges appointed by the (American) Radio Relay League will determine the five operators who provided the greatest service to the three aviators. In turn, the Tribune will

award them prizes totaling \$400.

July 2, 1929, Chicago Daily Tribune

BOWLER READY FOR ITS START

On this day, during a test flight over the city, and accompanied by a Department of Commerce inspector

CONTINUED - 'UNTIN' BOWLER ON PAGE 7

*"...think 'thru,'
'photograf,' and
'telegraf.'"*



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VHF Historical Notes

Part 1 - The Earliest Years

Kevin C. Kaufhold, W9GKA



Kevin, W9GKA, with his 8-year old daughter, Corey

Heinrich Hertz is credited with achieving the first successful demonstration of radio wave transmission in 1887. Of particular interest to the VHF theme of this writing, radio transmissions by Hertz occurred on 50,000,000 “vibrations” per second and higher (in today’s nomenclature, 50 MHz and higher). In the following figure, note the size of the radiating wires, spheres, and square plates of Hertz’s first oscillators—they radiated

somewhere in the ultra-high range.¹

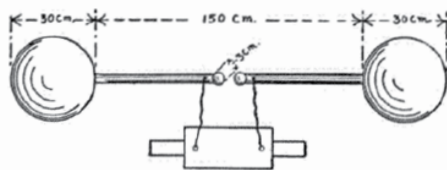


FIG. 21.—Hertz's large oscillator. Two spheres of zinc, each attached to a metallic rod terminating in a brass knob for the spark-gap.

In Hertz's first oscillator (Fig. 21), the two terminal conductors were spheres of fifteen centimeters radius, and the intermediate conductor a straight wire 150 centimeters long. Hertz also used square plates instead of the two spheres. (Fig. 22.)



FIG. 22.—Hertz's oscillator with flat plates instead of the spherical conductors.

The receiving side of Hertz’s device was exceedingly simple. The resonator, also sometimes referred to as a wave-detector, was merely a piece of wire bent into a circle, with a small air gap in it. The energy emanating from the radiating wave collected on the resonator wire, and would jump across the air gap of the resonator without any further need of an energy source or other devices on the detection side of the system. The small size of the resonator closely resembles modern day TV receiving antennas at UHF frequencies.

1 *Maxwell's Theory and Wireless Telegraphy*, H. Poincare & Frederick K. Vreeland, McGraw Pub., 1904, p. 34., Fig. 2.1.

At one point, Hertz even made a “small oscillator,” which was composed of two spheres attached to very small radiating wires. It operated around 500,000,000 vibrations per second, somewhat above today’s amateur 432 MHz band. Hertz then made a parabolic device that produced waves possibly as high as 500 Mc to 1 GHz. He used a parabolic mirror of zinc with the radiating wire and spark gap placed at the focal point. Described as a “parabolic projector or reflector,” the arrangement was thought at the time to generate a parallel beam of electrical radiation similar to a luminous line of light.² This advancement on the basic spark gap generators and resonators demonstrated to Hertz that electromagnetic waves obeyed the laws of optics. In later experiments, Hertz would even show wave interference, reflection, and refraction.

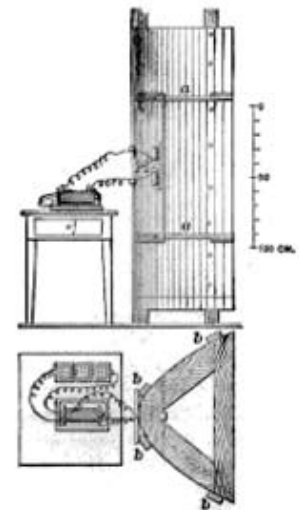


FIG. 44.—Hertz's apparatus for concentrating the radiations of an oscillator by means of a parabolic mirror of zinc. (From "Electric Waves," *Eug. Trans.*)

Subsequent to Hertz’s experiments in the ultra-high range, other researchers generated spark transmissions at even higher frequencies. Professor Righi immersed a spark gap in oil to generate oscillations at 3,000,000,000 vibrations per second (3 GHz). He then decreased the size of the spheres, and obtained oscillations four times as rapid. Professor Jagadis Chunder Bose used three platinum spheres placed in a small box. Platinum was used instead of brass

2 *Ibid.*, p. 75, description of parabola device pp. 74-77. Ref. to “small oscillator” p. 85.



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to prevent the spheres from quickly deteriorating. He produced spark radiations at an incredible wavelength of six millimeters (somewhere around today's 50 GHz). Bose commented that he was then within 13 octaves of visible light.³

A young Italian student of Professor Augusto Righi, Guglielmo Marconi, began experimenting in 1895 with various electromagnetic devices at his father's estate in Pontecchio Bologna, Italy. In some of his earliest experiments, Marconi utilized ultra-high frequencies. For oscillations, Marconi used a Righi oscillator, and like Hertz, placed the air gap into the focal line of a parabola reflector of zinc (or possibly copper). Within a short time, he had increased transmission and reception to over two miles, using very short wavelengths of only a foot or so. In 1897, Marconi sent and received modulated microwave signals over a four mile path in a demonstration for the British Post Office.

Marconi quickly experienced difficulties with interference from obstacles, however. "A few buildings and a small hill" were sufficient to cut off the wave "quite effectively." In order to overcome this problem, Marconi began experimenting with larger capacity plates. He may not have realized initially that the larger plates were effectively increasing the wavelength of the devices. Later, Marconi added long vertical antenna wires and ground to the sender, which also increased the wavelength. Thus, Marconi may have unwittingly moved to lower frequencies largely to avoid what today is known as microwave absorption characteristics. Marconi may have been one of the first, if not the first person, to have actually observed and experienced absorption tendencies at ultra-high frequencies.⁴

Later, in 1919, Marconi used dipoles and parabolic reflectors on frequencies near what is today two meters. Other experimenters in Europe were also active on the UHF frequencies. Triodes were adapted to work at 900 mc, and the forerunner of magnetrons, diode valves with split cylindrical anodes, were under development as early as 1920.⁵ The following diagram shows interesting

dipoles and parabolic reflectors made by Marconi for two meter work, circa 1919.⁶

Amateur Activities on the Ultra Highs

Prior to 1924, all frequencies higher than 130 meters were specifically reserved and available for use only by special licensing of the Department of Commerce. On July 24, 1924, the Commissioner of Navigation authorized amateur radio wavelengths at 80-, 40-, 20- and 5-meters.⁷ All these new wavelengths, including 5-Meters, were initially limited to CW operation.⁸ Spark transmissions became restricted for use on only 150 to 200 meters, and special amateur stations above 200 meters were no longer allowed. Operating practices among amateur wireless stations increasingly moved away from an early "anything-goes" attitude: direct communication with commercial and military services was eventually banned, and other eccentricities of the era, including the playing of music and the sending of sporting and news reports over the air, were frowned upon and ultimately restricted to only commercial operations.⁹

Figure 3 is the first 5-Meter oscillator ever described in an amateur radio publication. Note: all parts, except the transformer core, are handmade.¹⁰

5-meters was initially viewed as a short wavelength. For instance, as late as 1927, construction articles were treating 5-Meters as a "short-

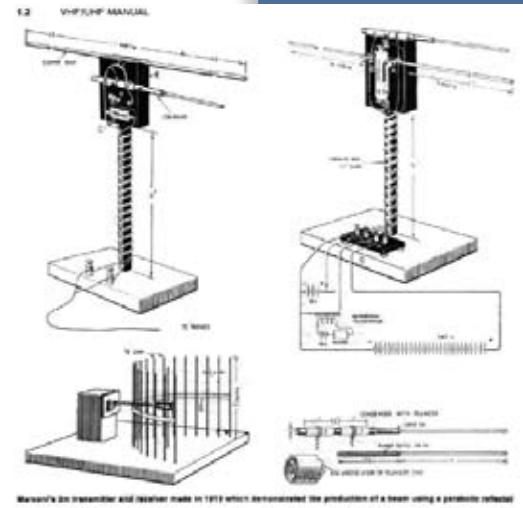


Fig. 3

3 For references to Righi's and Bose's oscillators, see: Poincare and Vreeland, pp. 85-90.

4 Poincare and Vreeland, pp. 132-135.

5 *VHF/UHF Manual*, RSGB publ., 4th ed., 1991, pp. 1.1-1.2.

6 Diagram from *VHF / UHF Manual*, p. 1.2.

7 The initial regulations did not specify the exact frequencies or wavelengths of use, only "75 to 80 meters, 40 to 43 meters, 20 to 22 meters, 4 to 5 meters..." See: "The New Short Waves," *QST*, Sept. 1924, pp. 8-9.

8 "Twenty Years of Amateur Radio," *QST*, May 1934, pp. 23-25.

9 Amateurs were prohibited from generally communicating with commercial and government stations in the October, 1927 regulations issued by the FRC.

10 Fig. 3 from "Working at 5 Meters," S. Kruse, *QST*, Oct. 1924, pp. 13-19.



My Start in Radio

A G.E. Portable Leads to Great Things

Greg Harris, WB9MII



WBAP-AM
Fort Worth, Texas

While my dad and I were on the way home from an event one night the car AM receiver was tuned to 820 kcs, WAIT in Chicago at that time. They signed off at sunset and big as life “WBAP Fort Worth-Dallas” came through the speaker. Yours truly at age 12 was hooked. What a miracle! This is coming over the air from far places! Once home I tuned in other long haul AM signals and that was that, another radio junkie was born.

The portable G.E. receiver I used had a band marked “SW,” I thumbed the switch over and heard strange noises though the speaker. I tuned in a strong signal and heard an accented voice reporting grain futures. Then came the strains of *Waltzing Matilda* and the words, “This is Radio Australia-Melbourne.” Talk about neat! One Sunday afternoon while tuning the SW band where the dial was marked “7” I heard thumps, Donald Duck noises and then two AM signals (no BFO on this cheapo portable). I paused and listened; these guys were having a two-way conversation! What was this? After 10 minutes came, “W8RKW this is W8HP.” They were using something called a DX-100 to talk on. Wow! This was more than just listening! How could I do this?

I went prowling the streets of my small town located just south of Chicago. At one house a few blocks away I saw a shed with what I would later know was a 20-meter dipole. Parked in the driveway, a car, its license plate—W9GOG. I knocked on the door and a kindly elderly guy (he must have been all of 40) answered the door. I stammered that I wanted to become a ham, what did I have to do? He ushered me into his sanctum, fired up the Drake twins and we listened to an American soldier in Germany with a DL callsign talk to a friend back home. I was given

dog-eared copies of the *License Manual* and *How To Become a Radio Amateur*.

For a birthday present I was given a good receiver that had a BFO and I spent every spare moment SWL'ing the ham bands and listening to the Novice bands to get my code up. A magazine picked up at a local drugstore let me know many folks; kids to grandpas and grandmas pursued the radio hobby. I sent SWL cards to the hams I heard and had a roughly 80 percent return rate. All were encouraging me to get a ham ticket. I joined the local radio club (Tri Town RAC-W9VT) and when ready I asked another local ham, K9RPX to give me the code test. I was nervous as a cat so Bob sat down at his J-38 and oscillator and said, “Lets do some practice first.” Ah, well, practice was no big deal; I copied nursery rhymes and a story from the *Chicago Tribune*. Bob looked it over and said, “Looks good, we'll call that the code test.” Whew!

Schoolwork suffered, I SWL'd my head off and about three weeks later sat at Bob's kitchen table and took the written test. Wonder of wonders, about two and a half months later an envelope from the FCC shows up with a white card in it. Hey! My ticket! WN9MII. Yee Ha! I was 14 by this time. I sat at a borrowed Globe Scout and fired off a shaky slow CQ in the 40-meter Novice band. No joy—another CQ. What? Hey that's

MY callsign coming back, then “DE W9JMG.” Slim lived across the street and was sending about 30-wpm below his accustomed speed. Bless his heart, he patiently got me through that QSO and asked me to come by his shack. He slowly sent his address as few of us kids had callbooks—they cost money—addresses for QSLs were sent over the air. Thus I met the best Elmer in ham radio. Our friendship continued until Slim's passing in 2000. He was an A1 Operator and a top-notch guy. I miss him much. Amateur radio led me to 20-plus years as a Navy “sparks” and now I'm back home in the same suburb south of Chicago pounding brass. My station is low powered and simple. I don't have a keyer; every night is straight key night. Far as I'm concerned ham radio is still the finest hobby going. ■

“Talk about neat!”



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A Tale of the South Pacific

'Twas the Night before Christmas

Rod Newkirk, VA3ZBB/W9BRD

This story has been told before and it never ceases to amaze me. The timing of the event was truly exquisite. My fellow protagonists are both Silent Keys now, so I'll tell it one last time...

At the end of 1944 in the middle of WWII my army outfit was leaving New Guinea, the armpit of the world, after ten miserable months. A huge convoy was forming in Hollandia harbor. We were aboard a Liberty transport, early arrivals, eventually to head for the Philippines. It was stinking hot and humid, as usual. Morale was close to rock bottom. Crammed quarters and no mail for weeks.

My sack was in the cab of an SCR-399 radio van with a good view of other ships at anchor. I spent several nights idly reading blinker traffic before falling into fitful sleep. Business transactions between the fleet and shore under strict radio silence. It occurred to me to try a CQ with my GI flashlight. Maybe there was a ham out there with exceptional eyesight. My light was no match for the high-powered blinkers, but what the heck? I waited until a nearby vessel signed off and put out an insipid CQ.

The other operator adjusted for tidal drift and pierced the gloom with a brilliant question mark. I clumsily sent HI OM I AM ROD FROM CHICAGO. A moment's hesitation and he almost blinded me with W9BRD DE W5EGA. I nearly fainted dead away. Hal, W5EGA, had been a regular

CW contact for me in better days. His sledgehammer signal from Oklahoma City meant 20 meters was open. Here he was, in the middle of nowhere!

The boring night suddenly took on an exhilarating aspect. Hal and I couldn't make much time at 10 WPM but we spent the next hour or two reliving the past. Halfway through the QSO he told me to stand by while he did some checking. When he came back he gave me the plan for the following day, Christmas. We signed off with profuse 73s.

Next morning I told my sleepy sidekick Willie, W8YNY, to get himself dressed properly. We were stepping out for dinner. Willie said, "Newkirk, if this is another of your bum jokes, you're getting dumped over the side." Then I told him about my blinker contact with W5EGA. Willie still had doubts but he put on his last clean uniform and shaved.

At twelve noon a dinghy pulled up to our ship. A loudspeaker blared, "Sergeants Newkirk and Kuure report to the bridge." We moved on the double. Soon we were en route over the waves to Hal's merchant ship for a hamfest and Christmas dinner. And what a meal it was. They called it a Little Roundhouse, a substantial helping of everything in the galley. We gobbled it up, feeling sorry for our outfit who would be lucky to have dried-up turkey legs for their holiday feast.

Hal's neat quarters were replete with copies of late *QST*s. We chewed the rag at length between burps. All too soon it was time to return to our floating sweatbox. We signed off with W5EGA in the gathering dusk with copious thanks and 73. By New Year's Day our convoy finally hauled anchor for Leyte. It was a miraculously merry Christmas thanks to Morse and a couple of weak flashlight cells. ■



Official U.S. Navy Photograph

*"Sergeants
Newkirk and
Kuure report to
the bridge."*



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Cartoon Caption Contest

Put Down Your Slide Whistle and Pick Up a Pen

Dick Sylvan, W9CBT

Ham Quips



YOUR CAPTION HERE!

SO YOU THINK YOU'RE PRETTY FUNNY, EH? YOU WERE THE CLASS CLOWN IN HIGH SCHOOL AND NOW THE OFFICE CUTUP? HERE'S YOUR CHANCE TO STEP UP TO THE PLATE AND PROVE YOUR NYUK, NYUK, NYUKINESS! OUR ILLUSTRIOUS CARTOONIST, DICK SYLVAN, W9CBT, HAS A CHALLENGE FOR YOU—WRITE A CAPTION FOR HIS CARTOON ABOVE. THE FUNNIEST CAPTION, AS JUDGED BY OUR TEAM OF CRACK HUMORISTS, WILL WIN A FULL-COLOR, AUTOGRAPHED PRINT OF THE CARTOON WITH YOUR CAPTION! THE WINNING ENTRY, AS WELL AS HONORABLE MENTIONS, WILL BE INCLUDED IN OUR FEBRUARY ISSUE.

SEND YOUR ENTRIES TO: CONTEST@K9YA.ORG ENTRIES MUST BE RECEIVED NO LATER THAN FEBRUARY 12, 2009.

W9CBT'S CARTOON CAPTION CONTEST WILL BE OVERSEEN BY THE PRESTIGIOUS LAW FIRM OF DEWEY, CHEETUM AND HOWE. ALL DECISIONS FINAL. CELEBRITY VOICES IMPERSONATED.



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and Tribune “radio men,” radio gear aboard the plane underwent testing. The transmitter was a “50-watt set (tuned plate, tuned grid), which will operate on a wavelength of 34.53 meters or 8,690 kilocycles” with the callsign KHEJ. (The October 1929 issue of *QST* stated the aircraft’s transmitter was licensed to operate on “6890 kc.”) Power was supplied by a “240-cycle alternator” making “identification of the plane’s signal fairly easy.” Amateur and commercial stations throughout North America and the Arctic will relay the crew’s messages to the Tribune’s station in Elgin, Illinois near Chicago. As messages are received radio station WGN (World’s Greatest Newspaper) will broadcast them to the public.

July 3, 1929, Chicago Daily Tribune

HIGH ADVENTURE MARKS LIVES OF BOWLER PILOTS

Robert Henry Gast: pilot, 32 years old, and a WWI veteran of the Royal Flying Corps. with 12 years flying experience.

Parker D. Cramer: co-pilot and navigator, 33 years old, WWI veteran of the American Air Service, more than 14 years flying experience and co-pilot of the Stinson Detroit *Greater Rockford* during the failed July, 1928 flight from Rockford, Illinois to Stockholm, Sweden.

Robert W. Wood: 24 years old and, for one year, the Tribune’s aviation editor.

ROCKFORD CHAMBER SENDS GOOD CHEER TO BERLIN FLYERS

Greater Rockford’s unsuccessful flight did not dampen municipal fraternalism as Illinois’ second city sent best wishes for a successful flight to the three fliers.

July 4, 1929, Chicago Daily Tribune

‘UNTIN’ BOWLER! WHAT’S IT MEAN? A PRIZE CONTEST

Despite repeated protestations by the Tribune that the Chicago-Berlin flight was no mere stunt but a scientific endeavor, they sponsored this event. First prize, \$100 and the contest closes July 18.

The answer: A *hunting* bowler, in the words of a London hatter, protects you so that after falling off an “orse you won’t ‘urt your ‘ead.” The July 15, 1929 issue of *Time* magazine, in a rather jaundiced article, concurs, but adds it was named thusly: “...because of a McCormick family joke about a child, a bowler hat and a pressing necessity.”

‘Untin’ Bowler’s Route

- Chicago
- Milwaukee
- Cape Chidley, Labrador
- Cape Walsingham, Baffin Island
- Mt. Evans, Greenland
- Angmagsalik, Greenland
- Reykjavik, Iceland
- Bergen, Norway
- Faroe or Shetland Islands (if needed)
- Copenhagen, Denmark
- Berlin, Germany

July 5, 1929, Chicago Daily Tribune

FLY TO RIM OF ARCTIC: ‘O.K.’

The journey’s Chicago to Milwaukee leg passes triumphantly, but the following day, on its flight northeast, problems arose. A bulletin reports the Tribune’s radio station heard the ‘*Untin’ Bowler’s* beacon, indicating it was airborne, but cannot place the aircraft’s position.

July 7, 1929, Chicago Daily Tribune

‘UNTIN’ BOWLER HELD DOWN BY ARCTIC STORM

Unfavorable weather conditions delay departure from a Hudson’s Bay Company post located at the mouth of the Great Whale River. Until flying weather improves the ‘*Untin’ Bowler’s* crew cannot proceed to Cape Chidley, next on their itinerary. Neither WGN’s low wave monitors nor amateur radio stations reported any further signals from the crew since a report from Port Burwell confirming the landing at Great Whale.

July 11, 1929, Chicago Daily Tribune

BATTLE TO SAVE BOWLER FROM ICE CRUSH IN ARCTIC

Stranded at anchor in a fjord near Cape Chidley by “rain, overcast skies and poor visibility,” the ‘*Untin’ Bowler* was imperiled by tides, high winds and ice floes whose movement threatened to crush it.

July 15, 1929, Chicago Daily Tribune

‘Untin’ Bowler Sinks; 3 Airmen Safe

Unlike all the other ‘Untin’ Bowler story headlines this one did not rate all capital letters.



Tribune Tower (foreground, center) Chicago, Illinois



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As feared, the unoccupied Sikorsky broke free from its anchorage and was "swept to sea by a gale and sank among the ice of Hudson strait." Thus ended another arctic flight.

Who won the Tribune- and ARRL-sponsored contest? Due to the truncated flight, the ARRL granted the Tribune leave to back out of awarding the cash awards. To its credit the newspaper disbursed the checks (not equaling the \$400, nor five operators first announced) and presented handsome certificates picturing the "Untin" Bowler under the heading, "The Chicago Tribune Arctic Flight." The winners: 1st prize, J.R. Miller, W9CP, Hammond, Indiana, \$150; 2nd prize, F.H. Schnell, W9UZ, Chicago, \$100; and Irving Strauss, W9AAS, Chicago, \$75. We have met Fred Schnell many times in these pages and had a passing acquaintance with Irving Strauss concerning the *Greater Rockford* flight (see: *K9YA Telegraph*, January 2007, p. 5).

The 'Untin Bowler's Chicago to Berlin attempt was one of many failed flights of exploration during a period of personal daring, public adoration and private sponsorship. Despite the loss of their aircraft Gast, Cramer and Wood lived on to fly and valiantly entice the Fates in years to come. ■

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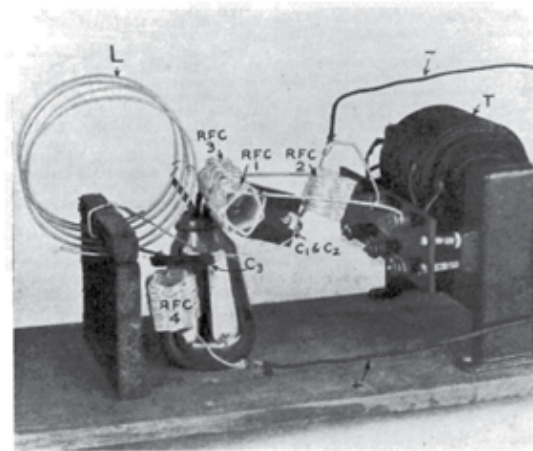
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CONTINUED - VHF HISTORICAL NOTES FROM PAGE 3

wave."¹¹ It became quickly apparent, however, that the frequency allocation might be radically different from 110-, 80-, or even 20-meters. Articles began to note 5-meters as an "Ultra-High Frequency," abbreviated as "U.H.F.," and 10-meters was also commonly treated as an ultra-high frequency. It wasn't until 1930, however, that radio magazine indexes even referred to 5-meters or 10-meters as ultra-high frequencies. The term "Very High Frequency," describing the radio space between 50 and 400 Mc, or so, first came into widespread use in WWII. What we commonly think of today as being the UHF spectrum and the "microwave frequencies" came into use even later.¹² ■

11 "New Short-Wave Receivers," *QST*, June 1927, pp. 9-17, was filled with construction ideas on 5-meter receivers.

12 Tynan makes this point in his 1994 Central States Conference paper, "Our Early Heritage," p. 66.



DETAIL OF THE OSCILLATOR, SHOWING CHOKES AND CONDENSERS. See Fig. 2 for meaning of the lettering. The mica condensers are not satisfactory at 5 meters and should be replaced by air condensers such as those shown in Fig. 8. Notice the short leads especially.

