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By Lee Bergren, W0AR

The First Field Day

As W9AIW/W9NFV, the author was present at the outset—the first ARRL Field Day, held nearly seven decades ago.

Sixty-nine years ago in the June 1933 issue of *QST*, there was a single column announcement of an International Field Day to be held June 10 and 11. It was for all hams with portable station licenses. Only portable stations in the field away from the home address were eligible to submit Field Day scores.

Four high school students who had received their ham licenses just the year before jumped at the opportunity to set up a station away from home and to participate in this new event. Their calls were W9AIW, W9KGX, W9LPZ and W9LXG.

W9NFV/Portable Takes Shape

In those days amateurs had to have two licenses. An operator's license issued by the Department of Commerce and a station license issued by the Federal Radio Commission. It was not until the following year that the Federal Communications Commission was created by the Communications Act of 1934. If requested, the Federal Radio Commission would issue a special station license and call letters for portable use only. W9NFV was issued to W9AIW as a portable call shortly before the first Field Day event. It was decided that the Field Day contest would be just the ticket to set up a Field Day operation and use the portable call W9NFV. The F.R.C. also required notification by letter of the time and place of the portable operation.

Where to set up for portable operation? Fortunately, W9KGX's father was a member of a country club in south Kansas City and he obtained permission for the station to be set up on the grounds of the country club. So, the station was set up along the side of the 18th fairway. A beautiful location at the top of a gentle slope and beside an 80-foot water tower. An easy climb and perfect to secure one end of the antenna. A prime location to operate the Field Day contest.

Kansas City, by the way, was in the ninth call district. In that era, the ninth call district included states from Indiana west to Colorado and the Canadian border to Arkansas. It was the largest and most populated call district and it remained that



At the Hillcrest Country Club—standing, from the left: W9LPZ, W9LXG; seated from the left: W9AIW/W9NFV and W9KGX.

way until shortly after WW II when the F.C.C. in their infinite wisdom declared that only Illinois and Indiana would be in the ninth call district. The remaining eight states were then in the new zero district and not well received. Some of the kinder comments were: "This is the nothing district," "This is the goose egg district," "It takes a long time to send five dashes," "The zero has two syllables."

The Intrepid Four Set Up Their Station

The equipment was far less than modest by today's standards. Ham gear in those days was usually home brew since there was very little commercial built equipment for the ham market. Actually it made little difference because high school kids never had much money. In 1933 the country was in the throes of the great depression of the 20th century. Imagine—25 cents would buy 6 hamburgers at the White Castle, and gasoline was 12 cents a gallon.

Collectively the intrepid four had one 80-meter crystal and enough receiving tubes to build a breadboard transmitter.

Used tubes could easily be scrounged at the local radio repair shops, either free or for just a few cents. The transmitter was quickly constructed and it consisted of a crystal oscillator, frequency doubler and a UX210 final amplifier. Meters were expensive and hard to come by, so transmitter tuning was done by holding a neon bulb near the plate tank circuit and tuned for maximum brilliance. Proper loading was achieved when the plate of the UX210 had a slight cherry colored glow. This tuning procedure was not conducive to safety since the plate tank circuits were hot with plate voltage. As a guess, the output power was probably 25 W.

Fortunately, W9AIW had an old Pilot D.C. Super Wasp receiver. It had four tubes, a tuned R.F. stage, a regenerative detector and two stages of audio. The popular use of superheterodyne receivers was several years away. The Super Wasp used plug-in coils and was designed for general coverage of the short waves. Consequently, the amateur bands covered about $\frac{1}{8}$ inch on the dials. To solve the band spread problem, plates were removed from the vari-

First Annual Field Day Report

THE first Field Day was pronounced an unqualified success, according to about 50 accounts of station participation received. The gang who took part are looking forward to more similar occasions for the practical testing of portable (potential emergency) equipment, combined with a good time for all.

Forbearance was operated from all conceivable locations, and on almost all amateur frequency bands. Maximum activity took place on the 7- and 3.5-mc. bands, with about $\frac{1}{2}$ as much activity on 14 mc. and 56 mc., and with some scattered use of the 1.7-mc. band. In addition to power limitations (2 to 50 watts), participants reported insect and weather hazards. Suisseux rigs with but a single watt input were popular though some sets were "portable by truck" instead. Plate power was provided from D-batts, motor-car B-power packs, dynamitors, Diesel driven generators and filtered spark-coil step-up devices. The London Ontario club drove a 1200-volt machine (with fil. winding) from a 2-cylinder car engine.

W4PAW kept the air continuously for the 27 hours of the test at Indian Rocks Beach, Fla. by six operators, ran up the most outstanding score and tops the list. W8ZZAL and operators of the Central Illinois Radio Club (40 watts on p.p. 10s) at Bloomington Ill. used 7 and 14 mc. and placed second. W2BPP, Boyd Phelps and YF, and Phil Jensen at Minneapolis won third honors using both 3.5 and 7 mc. and a 150 watt crystal job on roller castors made to fit a car trailer and constitute a radio central for smaller portables in emergency. The Astoria Amateur Radio League took 4th place with 100 watts on SSB, 6000 feet, high. VE3BT and VE3GT "got up" 50 miles from Toronto between two elm trees using 71A and WUL car-pack. In spite of a sudden gale and YL QRM it was a successful location. The Sheslay had a pile of fun from a camp on the Wabigo River. The Pike's Peak Amateur Radio Ass'n had W9LJL on the peak (n.g. run from wheel of car) but the storage bats went dead. W2ZZD-BN-J and W2EMQ took time out from the Field Day program to help the canoe regatta races by sending results and starting time over a distance of about 1/2 mile. A 71-A and 125 v. of B bats took care of the job nicely. DX operation was handicapped by overhanging Palisades cliffs. W1GFM on 56 mc. had W2VZV in the state of W.V. and W2VZV in Pa. and a lot of S.M.R.A. arranged a hamfest at a gun club on Heron Lake with the cooperation of W8BN-CC-EYS. In commenting Rad says, "The Field Day activities were a real trial for portables. (And some portables are a trial for those who operate them too. hi) Too many stations are designed piecemeal, without

coordinating the receiver, transmitter and power supply. Often parts are weak or unwieldy in operation. Field Day activities served a good purpose by bringing out these weaknesses; better design will surely result. Many operators received benefit by observation and inspection of other portable sets, and constructive discussion."

So we believe that a forward looking step has been taken in inaugurating this annual affair. Of course many took part who did not report; nevertheless the results shown in the reports indicate the effort successful, both from the viewpoint that practical building and testing of emergency communication equipment was furthered, and

FIELD-DAY PARTICIPATION

CLUB SCORES		
	Points for Conts	Series Score
W2EAL London Atlantic Radio Club	95	15 1470
W2EBC London Atlantic Radio Club	33	22 770
W2WMD Berkeley Short Wave Radio Ass'n	56	16 475
W2WMD Berkeley Short Wave Radio Ass'n	56	16 475
W2WBY Albany Atlantic Radio Club	24	12 244
(W2EIE 17-3.9 fone and W2WAL 278)		
W2WBY Albany Atlantic Radio Club	10	10 100
W2E2E Victoria Short Wave Club	—	21
W2WIT Superior Minnesota Radio Ass'n	4	23
W2WIT Superior Minnesota Radio Ass'n	4	23
W2WTL Astoria Astoria Radio League	3	15
W2WKL Pease Peak Radio Ass'n	—	14
OTHER LEADING SCORES		
W2WAP W4EAL-W2WAT-W2WAL	62	25 1578
W2EFP Mr. Byrd Phelps and VF (7 and 3.5 mc.)	62	22 1396
W2LOY W2E2E-LIUW (P. 44's on 7 and 14 mc.)	33	26 1378
W2WNV W2W2C (60 watts on 7000)	52	26 1322
W2EIE (W2W2C, 22 watts on 7000)	51	22 1122

OTHER LEADING SCORES

W4PAW	W4AH-W4AEZ-W4BOT-W4AWS- W4JX-W4CXC	62	28	1876
W2BPP	Mr. Boyd Phelps and YF (7 and 3.5 mc.)	63	22	1286
W9LOY	W9HES-BPL-IHW (P. 44's on 7 and 14 mc.)	53	26	1378
W9NFV	W9AIW (50 watts on 7032 and 11064 kc.)	52	26	1382
W8IRE	(10 TNT, 22 watts on 7 mc.)	51	22	1122

W8HUC 819; V83GT 663; W3MKI 612; W2FDC 482; W5CNY
478; W7AAL 413; W92ZAP 340; V1PRL 228; W92ZAO 210; W9BKI
180; W4PAL 168; W62ZAC 112; W5G1 102; W9NLG 100; W1EZH
73; W8SHG 69; W1EEF 42; W5CTE 36; W6ZZC 34; W3CFM 36;
W1PRL 33; W6HTI 32; W6DQD 24; W1QSD 6; W6ZZDI 6; W1CJD
2; W3CU W 2.

*Club stations. The call signal of the leading individual operator is otherwise listed, where several club member stations were put on the air at a club outing.

from the standpoint that an enjoyable operating activity was made possible. This is hardly sparse for more than a résumé of the highlights here, but the enthusiasm greeting our first Field Day awards call for future similar occasions. What shall we all for next Field Day to give it more of a "preparation for emergency" significance? Suggestions will be welcomed. Bearing in mind that the new amateur station regulations make every licensee a potential operator of portable equipment, and that the emergency alerting system make himself ready to render constructive service in any time of emergency. Many portables will undoubtedly be ready to test before our next Field Day Emergency Test. Is your portable equipment independent of interruptions of power service? Are you ready for the next tests?

— F. E. H.

September, 1933

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The September 1933 issue of *QST* reported the results of the first Field Day. The article begins: "The first Field Day was pronounced an unqualified success, according to about 50 accounts of station participation received." Communications Manager F. E. Handy's report including this prophecy: "... the enthusiasm greeting our first Field Day augurs well for future similar occasions."

able tuning condensers and with the proper padding the ham bands were spread over most of the dial. A 6-V auto battery powered the tube filaments and two 45-V "B" batteries supplied the plate voltage.

A popular antenna of the day was a so-called off center fed hertz and this half wave flat top was fed with a single wire soldered off the center of the antenna by 14% of the dipole length. This single wire feed was then simply tapped to the plate tank coil of the UX210 for proper loading. Again, not too safe since the plate voltage of the UX210 was on the antenna. This off center fed hertz worked quite well on both 20 and 40 meters.

Operating procedures were far different in the early '30s than present-day operating procedures. Today two stations in QSO are usually on the same frequency, unless split frequency is requested. In those olden times the transmitters were either MOPA (master oscillator power

amplifier) or crystal controlled, which meant that the transmitted frequency was fixed and not readily movable. To establish a QSO, for instance, a station calling CQ would look for a response by tuning from band edge into the band until the operator heard a station calling. So, two stations in QSO were almost never on the same frequency. This was a slow and cumbersome way to establish a QSO. The latter-day VFO control of the transmitter has certainly been a great improvement in operating procedure.

How'd We Do? Where'd We Go?

How did the shade tree Field Day setup work? W9NFV scored 5th in the country. Four kids were happy.

The first Field Day contest was pronounced a success, and has been one of the most popular ham contests throughout the years. For the last several years an average of 2075 logs have been submitted

[illegible]

The W9AIW/W9NFV log shows the stations the four high schoolers contacted 69 Field Days ago.

and a total of 30,000 persons have participated at Field Day sites. What a far cry from the first Field Day event 69 years ago.

And what has happened to the four high schoolers after that first Field Day in 1933. W9LXG, now a silent key, graduated with degrees in Journalism and Law from the University of Kansas and worked for the City of Toledo, Ohio. W9LPZ attended Purdue and his working career was in sales. He is now retired and living in the Dominican Republic and active on the air as HI3/W4DT. W9KGX, now a silent key, earned a degree in electrical engineering at MIT. His working career was with the James Millen Co and was one of Millen Company's first employees. As Chief Engineer he was responsible for many of the Millen Company's products. He was active as WIKRD and KAIUP and almost exclusively on CW with a straight key. W9AIW/W9NFV earned a degree in electrical engineering at the University of Kansas. Employment included stints at General Electric, Chief Engineer at Aireon Mfg Co, Manager of Research and Development at Great Lakes Pipe Line Co, and finally founder of Radio Industries, Inc. He is retired and active as W0AR on most bands.

I wonder how many operators of that first Field Day contest are still pounding brass.