

Second A.R.R.L. Field Day Results

EARLY in June, scores of hams in each U. S. district responded to the annual call for an outing and field day test of portables. Canada was well represented, even though special permission must be obtained before VE hams can work portable on frequencies other than in the 56-mc. band.

Many affiliated A.R.R.L. clubs took the lead in plans for a trek to the lakes or hilltops. Power supplies were gathered up; portable gear brought out of storage; finishing touches added to newly constructed sets, and certain plans for the outing made, that all members might have fun and benefit in the activities scheduled nationally for June 9th and 10th. In addition to club plans, many individual amateurs took part, parties of two or three working together in most cases.

Only portable stations actually operated away from their home address were eligible to submit Field Day scores. Each contact made by a portable with a different station counted a point. The total of points was multiplied by factors (1, 2, or 3), depending on whether the transmitter or receiver, or both, were independent of commercial

brewed black coffee. The reliability, efficiency (and deficiencies too—hi) of quickly-constructed and set-up portable equipment was demonstrated. The size of the scores reported evaluates only the communications value or achievements of portable stations. Regardless of the standing of stations, every report without exception makes it unanimous that a profitable and very swell time was had by all.

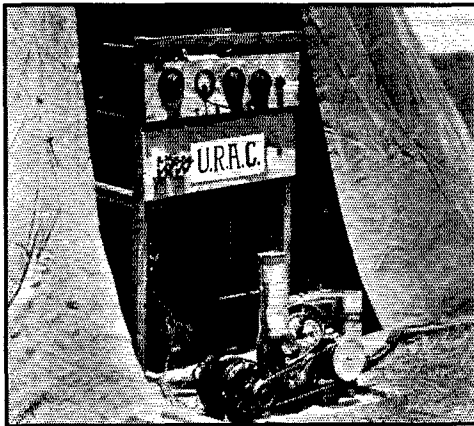
While dynamotors were popular, many battery-powered sets were in the field, and gas-engine-driven units were used in several instances.

A noteworthy item: 40% of all the portables reporting used crystal-control. Push-pull ar-



THE EGYPTIAN RADIO CLUB'S OPERATORS

The Egyptian Radio Club's, '47, 46 transmitter (also 18 watts) placed second in the country due to the efforts of (standing, left to right) W9FYZ, W9KEH, W9NDB, W9BLL, W9BPN, W9DJG, operators.



W6DIS/6

This '41 '10 3690-kc. rig with 18 watts from a 400-volt gas engine generator power supply won the A.R.R.L. Field Day, June 10th-11th.

power supply mains. Also a similar multiplier gave extra credits to stations using under 20 watts input, and suitable credit for using less than 60 watts.

Encamped in tents, in cottages, exposed to the hazards of open fields and pastures, portables were put to work. Where clubs took a holiday, part of each group handled radio operation by shifts while others indulged in swimming, sports in the open, and still others prepared camp sites or

rangements of TNT, Hartley, T.P.T.G. and Colpitts were fairly numerous. Several used the Tri-tet arrangement. In most cases a '47, 42, 41, 37, 31, or '01A was used as crystal oscillator, usually followed by a 46, '10, '45 or '12. Single '71A and '45 tubes were also used. Crystal-control, because of its assurance of "in band" operation, easy solution of the problem of obtaining frequency stability and a good note under trying conditions, proved extremely popular.

The highest scoring station, and also the runner-up for honors, both used crystal-control. The United Radio Amateurs Club of Torrance, California (W6DIS/6), located its station in the Palos Verdes Hills, 1500 feet above sea level. Fifty-eight QSOs were made. Twenty operators were present. No sleep for anyone Saturday night! A compact receiver ('77 det. and '37 audio) was used for the contest. A 400-volt d.c. generator supplied 45 mils to the final and fed the oscillator through a dropping resistor. The Egyptian Radio Club (W9AIU) reported 56 QSOs. The station was set up in the base of a bandstand in a park on bluffs overlooking the Mississippi, about 250 feet above the river. The gang made a real camping trip of it, and stayed four days. This storage battery dynamotor-operated station used the portable receivers of W9BPN and W9DJG. Three transmitters and four receivers were ready in case

of equipment failure. Both W6DIS and W9AIU used the 80-meter band. W5AI/2, station of Sidney Shore located in N. Y. C. placed third in the scoring. He used 7 mc. altogether, and while he kept the power below 20 watts, a.c. supply was used on the transmitter, which rolled up 76 QSOs during the test. VE3KC, station of the Western Ontario Amateur Radio Association, operated by VE3PA, VE3DU, VE3WW, VE3VR, VE3LW, VE3QC and VE3KC upheld the honor of Canada, making 70 contacts using '10s and a gas engine-driven generator.

A few stations attempted work in more than one band. Most, however, worked in one particular band. 48.3% of all QSOs reported in logs were in the 80-meter band. 30.7% of the work was done using 7 mc., 19% (all 'phone) on 56 mc., and 2% on 14 mc. 'Phone contacts constituted 21.7%, and telegraph contacts 78.3% of all communications reported.

56 mc., being a popular band this summer, came in for more than usual attention. The most outstanding Field Day report of 56-mc. work came from W1HDQ/1, station of Mr. E. P. Tilton. Using 112A's PP, 19 Class B modulator, and a 31 driver, he made 36 QSOs from Mt. Monadnock, at 3166 feet elevation, near Jaffrey, N. H. W1BYK/1 on 56 mc. had 27 QSOs.

The complete tabulation of scores reported credits each log of Field Day work received. We wish we might have space to reproduce all photographs and pass on the interesting data received. The best we can do is to present the winning stations and tabulate all results. Many more clubs and individual groups were in the field than last year. From Lake Tahoe to Mt. Washington hams were active.

"Enough junk to break an elephant's back—lanterns, fishing tackle, and radio. The camp site left nothing to be desired, but we found later it was a poor place for a radio transmitter. Our converter blew up rectifier tubes in rapid succession. Alternately pounded the key, cursed, fought bugs, and drank coffee all night long. Much was learned. Another? We shall start out soon as we get a power supply that won't fold up . . . pick a bald knob where there are no trees to sidetrack the soup from the antenna. More power to the Field Day."—*M.A.R.S., W8KYC.*

"At the end of the day the Hartley transmitter was put into the back seat of the car, and a 10-foot antenna strung up between 4-foot poles and the transmitter put on the air at every stop of the car. With only two 45-volt batteries on it, W9KWJ worked the Pike's Peak Amateur Association portable station W9OKY during the trip back to town."—*W9EHC.*

W4NC reports that eleven of the Winston-Salem Club turned out. They used a 500-watt a.c.



THE UNITED RADIO AMATEUR'S CLUB WITH PORTABLE W6DIS OF WILMINGTON, CALIF.

Standing (left to right): W6EZB, W6HYX, W6HBC, W6HLF, W6EDW, W6BEX, W6IGY, W6EGQ. In front (left to right): W6GVL, W6GZO, W6DIS (black sweater), W6CSO, W6FVR, W6DCF, W6IWI, W6HCF, W6CIP.

self-excited generator run by an Austin engine, mounted on an Austin chassis. This lighted Top Hanging Rock Mountain with a dozen incandescent lamps as well as giving 16 watts for the transmitter.

Among the woes of the C.I.R.C. (Lake Bloomington, Ill.) were scratched arms, torn trousers, skinned ankles, and mosquito bites. Three kittens found in a box in the cabin were accepted as mascots. "We were glad to see the end, but happy to know we had portable equipment that was reliable under trying conditions. Come on Field Day 1935!"

W6AHJ of El Cerrito operated from Lake Tahoe. W3DZK made 35 contacts with only 70 stations called, plus a few CQs. Operation was by lantern light—a swell set-up. W3QV/3 reports 56% of his calls were answered and worked. His portable was not one for the occasion only, but is kept ready for emergencies. W1BYK-ABG wants another Field Day right off. He says to keep the "simulated emergency" (preparedness) idea going strong.

W8PO says, "Ohio participation much wider this year, judging from the number of BT8 contacts made. W4BJS (Fla.), located on the gulf, used a palm tree and a century plant to hold up the respective ends of his antenna. W8DGT/4 at St. Pete (Fla.) also used an a.c. generator run from the fan belt of an Austin for power."

"Fifth place with W9NFV last year. This year a terrible showing, ruined a lot of radio stuff, had much tough luck, but never had a better time in our lives." W9AIW, W9LPZ and W9KGX kept the latter call on the air from the shore of a lake.

W3DUU, portable of the W.R.C.S., was installed at Lenape Park, Pa., with 37 in attendance, including fellows from the Chester and Frankford Radio Clubs. Wind and rain, so we decided to sue A.R.R.L. for permitting such weather . . . but after the storm there were still several hours of fun. Swimming and canoeing went best while QRN was heavy.

W9GBP/2 says 600 miles was his best DX. On the air 17½ hours, he averaged a contact every 21 minutes with P.P. '45s. The Buckeye Short-wave Radio Association's station, W8BSR, was installed at Munroe Falls Park, Ohio. W8IOI, W8KXP successfully operated W8KCS for the Boys' Club of St. Mary's. The Akron Progressive Short Wave Club ran its sets off two auto bats connected in parallel . . . they were still going strong at the end. W2DOG was set up on Bald Hill, 300 feet high, on Sunday. The transmitter was the exciter unit from the home station. W3DVY portable was battery operated at The House of Prayer, Limkiln Pike and Church Lane, Philadelphia, Pa., by the H.O.P.R.S.

FIELD DAY PARTICIPATION

Club Scores	Score	Nr. QSOs	Power ¹	Mains ²	Comm'l for
W6DIS/6 The United Radio Amateurs' Club	522	58	18	—	—
W9ATU/9 Egyptian Radio Club	504	56	18	—	—
W9AYO Central Illinois Radio Club	441	45+6	20R	(10%)	—
W9OKY/9 Pikes Peak Amateur Radio Association	270	10+14+9	20	—	—
W4NC/4 Winston-Salem Amateur Radio Club, Inc.	270	30	16	—	—
W8ML South Cleveland Radio Club	252	28	19	—	—
VE3KG Western Ontario Amateur Radio Ass'n	210	70	210	—	—
W1CDX/1 73 Radio Club	144	16	8.1	—	—
W8BSR The Buckeye Short Wave Radio Ass'n	140	70	40	R, T	—
W8LGR/8 Utica Amateur Radio Club	116	38+1	20	R, T	—
W8HXT/8 Ludington Amateur Radio Association	114	57	40	R, T	—
W8KGY Sylvania Transmitting Amateurs Ass'n	108	12	16	—	—
W5SP Abilene Amateur Radio Club	72	8	10	—	—
(W5AUL) Lakewood Radio Club	63	7	18	—	—
W8DT Mohawk Valley Brass Pounders (Fitch)	54	6	4	—	—
W8KCS/8 Boys' Club of St. Marys House of Prayer Radio Society	45	5	12	—	—
W3DVY Starved Rock Radio Club	40	4	40	T	—
W9LEP/9 Starved Rock Radio Club	40	10	30	T	—
W8KYC Marietta Amateur Radio Society	36	4	10	—	—
W3DUU The Western Radio Communication Society	27	3	18	—	—
W8OW/8 Amateur Transmitters Association of Western Pennsylvania	27	3	17.5	—	—
W1GVS Portland Amateur Wireless Association	18	2	10	—	—
OTHER LEADING SCORES					
W5AI/2 Sidney X. Shore	456	76	16/18	T	—
W8EAH/8 W8DNZ-W8EQX-W8BZL-W8EAH-W8BSH-W8LPQ	450	50	13.6	—	—
W4BNR/4 W4BOT-W4BNR	360	40	19	—	—
W1HDQ/1 Edward P. Tilton	324	36	7	—	—
W9GBP/2 R. D. Pickett	300	50	19	R	—
W3DZK/3 Richardson S. Roberis	297	33	19.8	—	—
W3QV/3 W3CTB-W3QV	252	28	18½	—	—
W1BYK/1 Al Giddis	243	27	4.5	—	—
W8PO/8 W8PO-W8CHO-W8BAH	189	21	6.4	—	—
W4BJS/4 W4ZU-W4ZV-W4BJS	172	43	55	T	—
W8DGT/4 144; W1BDI/1 (Ev. Hal & PH) 144; W1HZU/1 108; W6PFC 102; W1AWY/1 90; W1KH/1 81; W8LWD/8 81; W1FGC 72; W8CHEM/8 72; W6AHL/6 63; W9KGX/9 54; W9EBK/9 48; W1APK 45; W2DOG/2 45; W1CCM/1 36; W1FSE 36; W1ETE 27; W1GTY 27; W8BRB 27; W9FKU/9 18; W8IGQ 16; W6FYM 15; W9NSD/W9RLC 14; W1GVS 9; W5DKF (W5DYU) 9; W7ASG/W7DIW 9.					

¹ Plate input to final stage.
² Where receiver or transmitter are not indicated operation was entirely independent of public mains.

W9FYA/W9FKU would like Field Days to come every two months instead of annually. In their set-up, 20-foot poles were tied to fence posts, with the set in a couple of pup tents. W4BOT and W4BNR got the latter call on the air with a generator belted to their fiivver, and a good time was had by all.

W6FYM went to the mountains, 80 miles distant, with the Modesto Amateur Radio Club. W8IGQ suggests that Field Days be held in winter, or under real emergency conditions. W9KWP would like to see an emergency rig kept on hand by every club . . . a good idea.

W4ADX was set up on Clinch Mountain in Tennessee, and got good signals from W4ABX on Roan Mountain on 56 mc. The East Tennessee Amateur Radio Association sent all local hams a fine announcement of their Field Day organization to get the gang together.

W1FSE worked four using a Pickard antenna set up on a survey marker in Amesbury, Mass. W1GEY worked some from a fire tower with a gale of wind blowing. W8LWD/8 kept the OWs and YLs sending up food. DHU and LWD got up at 3.30 a.m., but QRN was still going. W8GPT reports that W8GWY agreed to get two fish for every contact, and held up his end of the bargain!

"The S.T.A.A. (W8KGY/8) left Bradford, Pa., for the hunting camp of W8FKQ. There were several cars loaded with equipment. W8KFE, W8KOB, W8AXD, W8KDM, W8KYW, W8HKU, W8KCW, W8FVN, W8AXG, W8FEL, W8FKQ, W8JZZ and W8FDD were on hand. Looking forward to next year . . . a good time was had by all."

W8BRB of the Lakewood Radio Club furnished a most excellent and complete report. W8BON, W8GUL, W8ITR, W8FGJ and BRB had good success. Necessary to act quickly to save the set from destruction when a friendly (?) cow strolled through the antenna!

Appreciated by all will be the ditty offered by one participant as he balanced the QSOs against the "calls made": "No sadder word of tongue or pen—The QSOs that might have been."

"Had adequate battery power for a kw. W8KJL used 71A until filament went; W8HQJ used '01A with 8 watts on it; then used a '45 TNT to the end. Five autos, one trailer, 17 present." —W8ML, So. Cleveland Radio Club.

"High winds hampered operations. Rain soaked our equipment and put the transmitter out. Couldn't keep the tent up. QRN worst on record. The Utica Amateur Radio Club station was operated by W8LGR and W8CYG, with reliefs by W8HNZ, W8LUF, W8LVZ, W8LGZ, W8HNY. Six transmitters available, four used."

BT9 at the end of a call caused us to lose more QSOs than all of the conditions and what not prevailing! Had a good time anyway.—W9EBK.

(Continued on page 74)

To OUR READERS *who are not* A.R.R.L. Members

YOU should become a member of the League! That you are interested in amateur radio is shown by your reading of *QST*. From it you have gained a knowledge of the nature of the League and what it does, and you have read its purposes as set forth on the page opposite the editorial page of this issue. We should like to have you become a full-fledged member and add your strength to ours in the things we are undertaking for Amateur Radio. You will have *QST* delivered at your door each month. A convenient application form is printed below — clip it out and mail it today.

A bona fide interest in amateur radio is the only essential qualification for membership

AMERICAN RADIO RELAY LEAGUE
West Hartford, Conn., U. S. A.

I hereby apply for membership in the American Radio Relay League, and enclose \$2.50 (\$3.00 outside of the United States and its Possessions, and Canada) in payment of one year's dues, \$1.25 of which is for a subscription to *QST* for the same period. Please begin my subscription with the..... issue. Mail my Certificate of Membership and send *QST* to the following name and address.

.....
.....
.....

Do you know a friend who is also interested in Amateur Radio, whose name you might give us so we may send him a sample copy of *QST*?

.....

Thanks

highest scoring YF operator. W9JO heard 41 different countries. Losses? Everyone had 'em. W9DFY lost ten pounds, the friendliness of his YF, \$4.00 on bets, and a perfectly good milliammeter. W9AUH landed a J, something he had been trying to do for eight long years. W9GVL's list of calls heard is an inspiration for anyone. W9DQD chose the serial number 321 because the first ZL he ever worked was a 3, the second a 2, the third a 1. In the 1933 tests he took his number the same way from the first three VKs worked. W9GBJ started the contest using the same \$.65 '10 that he used in the Sweepstakes! Then half way through the contest his YF presented him with a new 800 . . . nice YF! W9CYA didn't have to ask for any repeats in numbers, nor did any of the stations worked by him! W9IH didn't send a single CQ throughout the whole contest. CE7AA is recommended as one of the best operators in the tests by W9IH. W9FYU worked all continents twice. W9BIB can now boast WAC, thanks to J2GY. 80% of the stations heard at W9ELL were worked. W9GDH worked all continents twice, within twenty hours, and added five new countries, his total 62. W9CPQ worked all continents in eight hours, and his total countries worked was boosted to 42. W9DHM heard 45 countries. The serial numbers heard the most by W9FO were 222 and 777 (six stations each). VE1EP added two new countries. VE2AX took a week of his vacation to participate. VE2HG made over 200 calls for his 13 QSOs, but didn't call a single CQ. VE3WA heard J2IN on 14 mc. from 4 to 6 p.m. E.S.T.

—E. L. B.

Field Day Results

(Continued from page 36)

The Starved Rock Radio Club, W9IEP-W9NIU, made a mad dash 350 miles north to Bear Lake, Michigan. Got a great kick hearing W9MKS, another portable from our own club. Hope to have R9 sig. everywhere next year.

W6DAN (A1) and W6EFK (MB) kept W6FFC on the air in a small cottage at San Diego. Eagerly looking forward to the next. In these days of high power the Field Days are refreshing. Operating ability was stressed, and it was great fun. W1AWY and W1BLZ were at Holbrook Pond, East Holden, Me.

Ludington Amateur Radio Association: CA, PLO, HG, RO, BO, JM and TP all operated W8HXT. Mosquitoes were bad! A generous supply of Flit helped. Maybe it oiled up several wrists as well!—W8IFQ.

—F. E. H.

Typical Technical Questions

(Continued from page 38)

will be the maximum capacity of the condenser plus that portion of the minimum capacity contributed by the circuit. Thus the maximum capacity will be 165 μ fd. This gives a capacity ratio, minimum to maximum, of 5.5 to 1. Taking the square root of this ratio gives a frequency