

Welcome to the Coconino Amateur Radio Club (CARC) Monthly Newsletter. CARC is a non-profit club devoted to providing communication services to local volunteer agencies and events. Meetings are held the second Thursday of each month at the East side Sizzlers Restaurant Highway 66 at Fanning Dr. Flagstaff, at 7:00PM. All persons interested in amateur radio, whether licensed or not, are welcome to attend.

*Coconino SkyWarn meets 1900 every Monday evening on the 146.98 repeater and at 1930 on the Navajo Mountain CACTUS repeater and 146.480 simplex.*

*Coconino ARES meets 1900 every Wednesday evening on the 146.98 repeater and at 1930 on the Navajo Mountain CACTUS repeater and 146.480.*

## Officers:

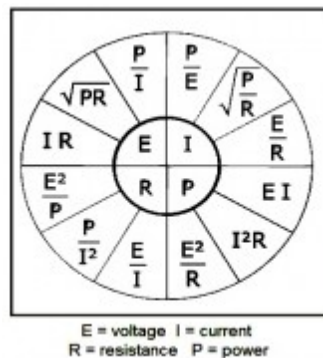
President: Sandy Meadowcroft KF4JHC

Vice-President: Tom Shehan KY7WV

Secretary: Erv Perelstein, KE7QFI

Treasurer: Pat Traber, KE7QFG

Newsletter: Janice Enloe, KI6WCK



## Calendar of Events for 2016:

June:

25-26 Field Day (KG7OH & Team)

July:

4 Munds Park Parade  
 17 Snow Bowl Hill Climb (KF4JHC)  
 23 Amateur Radio License Exams at  
 Williams Hamfest/Arizona State Convention (W7LUX)

August:

6 Toys for Tots/Fat Tire Bicycle Ride (Mike, Ron & Tom)  
 13 Big Brothers/Big Sisters Run for the Magic (Bob Meadowcroft)  
 28 Arizona Trail Marathon at North Rim  
 \*\*Northland Preparatory Academy to ISS amateur radio contact during  
 Aug-Sep-Oct

September: 5 Williams 10K Labor Day Run  
24-25 Flagstaff to Grand Canyon 100 Mile Run

October: 8 Soulstice Mountain Trail Run (KF4RKS)  
15 Amateur Radio License Exams at North County Health Care (W7LUX)  
?? Northland Preparatory Academy solar observing (W7LUX)

November: ?? Arizona Division of Emergency Management Exercise  
?? Girls on the Run (KF4JHC)

December: 3 SkyWarn Recognition Day at NWS Belmont (UTC date) (KD8RQV)  
11 Christmas party- Sandy and Bob Meadowcroft's home

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## Thank you and Help Wanted:

Thank you to all who have run the Monday and Wednesday night nets:  
Flagstaff: Tom KY7WV, Erv KE7QFI, Mike KD8RQV, Bob KF4RKS, Janice KI6WCK  
Page: Lee KF7YRS and Vince WB7UWW

If anyone one would like to help with the nets, please let Tom know. It is good practice for radio skills and the script is written for you to use.

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## Licensing Exams for 2015-2016:

July: 23 Radio Exam at Williams Hamfest

October: 15 Radio Exam. Location TBD

Remember to bring your HAM license and a copy (if you are upgrading your license), a government issued picture ID, a black ink pen, calculator with memory erased and fifteen dollars (exact change is appreciated).

<http://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>

**Arizona Newsletter:** <http://www.arrl.org>

**Tutorials:** <http://www.arrl.org/tutorials>

[http://www.arrl.org/exam\\_sessions/flagstaff-az-86004-1221-2](http://www.arrl.org/exam_sessions/flagstaff-az-86004-1221-2)

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## Next Business Meeting:

Our next business meeting will be June 9, 2016 at the East side Sizzlers at the corner of Highway 66 and Fanning. Dinner @1800 and meeting starts @1900.

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## Minutes of the Coconino Amateur Radio Club

5/12 /2016

Meeting Started: 19:00

**Secretary's Report:** Since the minutes of the April meeting were published in the newsletter, there was no need to read them. There was one change recommended by Joe Hobart, correcting the date and location of the next VE Testing Period to 5/14/2016 at Flagstaff East Library. These corrections were made. Scott Martin made a motion and Pat Traber seconded the motion to accept the minutes as corrected. They were approved unanimously.

**Treasurer's Report:** Pat Traber, our club treasurer, gave the Treasurer's Report. The closing bank balance was \$3,741.75. Membership is 50 members, consisting of 46 paid members and 4 lifetime members. Pat discussed our CARC insurance situation. We have changed insurance companies and the total cost is now \$200.00 per year but the policy does not cover non-owned auto liability. To add that feature will cost about \$100.00 per year. Since we do tow the antenna trailer and the CARC operation trailer using non-club owed vehicles, it was decided that the extra \$100.00 will be worth the cost of covering that risk. Mary Lou Hagan moved to add the extra coverage to the policy, Erv Perelstein seconded the motion and it was accepted unanimously. Since there was nothing additional for the Treasurer's Report, Scott Martin moved and J.D. Ward seconded a motion to accept the Treasurer's Report as corrected. Unanimously accepted.

**President's Report:** After Introductions, Sandy thanked everyone involved with the completed Technician Licensing Class. Some class students will be taking the Technician Exam this Saturday. She wanted to thank Bill Smith for arranging the use of the North Country Health Care facility to hold the classes and testing.

**Vice President's Report:** Tom Shehan told the members that the AUXCOMM class held on April 2nd and 3rd was an excellent review of disaster communications and equipment. Joe recommended we hold a table-top exercise for club members who did not attend the class to learn this material.

Tom reminded us that the National Parks On The Air (NPOTA) project is still active and will continue to be through the end of 2016. He urged HF Operators to try their hand at contacting "activators" in as many National Parks as possible. It's fun and excellent practice. You can find the entire schedule at [NPOTA.ARRL.org](http://NPOTA.ARRL.org).

**Old Business:** Scott Martin reminded us that our mobile tower and trailer for Field Day needs maintenance and asked for help on June 11th starting about 10:00 at the Open Air Market, (where we hold our Field Day). We need to make sure it is in good shape. All volunteers will be welcome. He also reminded us that the CARC Operations Trailer is falling apart. He does not think it is safe to tow it. We need to continue looking for a replacement trailer, under \$2,000.00, on the internet, (Craig's List, etc.) or newspaper.

Field Day discussion was led by Tom, Scott and Joe. There was a question as to whether we wanted to try a 6 meter station because we are in the middle of the low sunspot portion of the

Sunspot Cycle and propagation on 10 and 6 meters has been very poor. The DX Club told us they would like to help us set up but that they could not participate this year because there are so many members leaving the area on vacation. We decided not to attempt a 6 meter station or a CW station but we would like to try for 2 SSB stations, the GOTA station and Joe will bring his telescopes again. We will use our recently purchased Yagi on the tower and run another dipole off the tower. The GOTA station will use Joe's 80/40 inverted V antenna again. We also talked about trying some digital contacts this year. Several digital capable systems will be available.

Scott talked about the Overland Expo and our participation. We were given a free demonstration space because of the VE Testing Session we will once again offer. The session will start being set up at 7:00 am on Sunday 5/22 and testing will start at 8:00 am in the building next to the Main Lodge. Scott gave a thumbnail sketch of the Expo for those members who are unfamiliar with its purpose.

Upcoming project review:

5/14 VE License Testing at Flagstaff East Library for our Technician Class students and anyone else seeking to get or upgrade their license. Joe coordinating.

5/ 20-22 Overland Expo: Demonstrations and Amateur Radio Exams (Sunday 5/22) , Tom coordinating.

6/4 Sacred Mt. Prayer Run, Janice/Bill Smith helping coordinating.

6/11 Trailer Maintenance Day, starting at 10:00 at the Open Air Market. Scott coordinating.

6/25-26 FIELD DAY 2016. Ron Gerlak & team coordinating.

7/4 Munds Park Parade. Pat Traber coordinating.

7/17 Snowbowl Run, Sandy coordinating.

7/22-23 Williams Hamfest, VE Testing on Saturday the 23rd. Joe coordinating.

**New Business:** Sandy told us that we had to find another location to hold our licensing classes as well as the quarterly VE Testing Sessions. There were several suggestions: New Harkins Theater, Finley Toyota Community Room near the mall, Pulliam Airport, Baptist Church on Hwy 89. The most popular of these was the community room at Pulliam Airport. Sandy said she would contact them again and try to make final arrangements. This upcoming Testing Session will be held at the East Library facility in the Community Room. This location is not ideal for future use because the library will only reserve the room two weeks before the date of use and they do not permit money transactions in the library. Further discussion at the June meeting.

Sandy reminded us that club elections are coming up in August and it's not too early to think about nominees for President and Vice President. After a short discussion, Tom Shehan agreed to run for President this year. Since both the Treasurer and Secretary agreed to continue in their positions, we still need nominees for President and Vice President. Further discussion at the June meeting.

**ARES Report** Joe told us that the new antenna on the Mt Elden .98 VHF repeater is now available and that ARA is planning on install it sometime soon.

Joe reminded members how important the capability to handle digital messaging is for disasters. The RACES test of digital capabilities on Saturday, April 16th using the EOC HF

frequencies was very successful. Good comm. was established between Emergency Management, the Red Cross, the State EOC and other County Emergency Management personnel. Tom TO set up a weekend digital demo and class at his house and might also be talked into a BBQ if the club organizes it. Many members indicated they would be interested.

Joe told members that name tags and vests with the club name can be purchased at Flagstaff Stamp and Engraving on 4th St, next to UPS in the shopping center with CAL Ranch.

**50/50 Raffle:** Bob Meadowcroft won the raffle this month and a second drawing which was won by J. D. Ward.

There being no further business, Scott moved and Diane Martin seconded a motion to adjourn. Passed unanimously.

Meeting Ended: 20:45.

**Presentations:** No additional presentations this month.

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Yavapai ARC Hamfest  
Friday June 10 noon to 5 pm  
Saturday June 11 8 am to 5 pm

Embry-Riddle Aeronautical University, 3700 Willow Creek Road, Prescott, AZ

Talk in: 146.880 MHz 100.0 tone Also 147.220 162.2 tone

Details and map:

<http://www.w7yc.org/prescott-hamfest/>



# FIELD DAY

## A Mirror of Amateur Radio History

Steeped in tradition and mystery, today's Field Day evolved from humble beginnings in the Golden Age of Radio. Anything but stable, Field Day rules and practices have changed radically since the 1930s.

**Be** careful when you start to search *QST* archives for the answer to a simple question—it can become an obsession! That's the lesson I learned when, following my participation in Field Day this year with the Potomac Valley Radio Club (W3AO—7A MDC), I was asked whether I thought we had set a new Field Day record. Because I volunteer at the Historical Electronics Museum in Linthicum, Maryland, which happens to have a nearly complete set of *QST*'s in its library, I figured I would spend a lunch hour at the museum and dig up the 7A and overall Field Day records. In pursuing this goal I quickly learned that: (1) this is *not* a simple question; (2) the history of Field Day reflects the history of communications technology in general and ham radio in particular; and (3) old *QST*'s are fascinating!

Here is a chronology of Field Day starting from the first outing in 1933. In the process of piecing this together, I learned (or relearned) much about what has happened to ham radio in the past 66 years.

### 1933: Field Day #1 QSO Leader Uses 1x4 Call Sign to Save Time

Great ideas often have humble beginnings, and Field Day is no exception. A one-column announcement in the June 1933 *QST* states that, for 27 hours starting the second Saturday in June at 4 PM local time (no daylight savings yet!), there would be an opportunity for "portables" to go into the field to contact as many stations as possible. Says

F. E. Handy, W1BD1, in the announcement, "The real object of this contest is to test 'portables' wherever they may be available.... If successful, we want to make it an annual affair." To score the event, each QSO with fixed stations will count 1 point, contacts with other portables count 2 points, and DX contacts count 3 points. Multiply QSO points by the total number of ARRL sections, plus countries worked. No mention is

made of a required exchange, which clearly must include an ARRL section!

The September 1933 *QST* announces that the winner of the First Annual Field Day is a non-club group signing W4PAW. Club members made 62 QSOs and had a multiplier of 28 sections/countries for a grand total of 1876 points. The Central Illinois Radio Club, W9ZZAL, tops the QSO totals with 98! What's the "ZZ" all about? Until 1933 it had been necessary to get a special license to operate portable, and these licenses all had suffixes starting with ZZ. In 1933 the FCC allowed portable operation under a home call sign. Why did the CIRC use their old call sign? Well, operating portable under the new rule called for an even longer station ID—your call sign followed by the break sign (double dash) *three times*, followed by the call area (1 through 9)!

### 1934: 60 W is QRO!

It looks like Handy's wish is coming true—there *will* be a Field Day number 2! The Field Day period remains the same, although the chosen weekend in June will range from the first to the third for a long time to come, eventually settling on the fourth full weekend of the month.

The characteristics of today's competition are beginning to be established. Emphasis is shifted to the total number of stations contacted—the multiplier for sections and countries has been removed. At this point, multi-band contacts are not permitted. DX contacts, while still allowed, receive no special point advantage. The scoring system begins to resemble Field Day as we now know it,



By the '50s Field Day had grown into a major event worthy of its own *QST* cover.



## International Field Day— June 10th–11th

**C**LUBS, 50-mc. operators, all hams with licenses for portable stations, attention! Starting Saturday at 4 p.m. local time (June 10th) and ending Sunday at 7 p.m. local time (June 11th), all U. S. A. and Canadian station owners are invited to schedule "field activities," excursions with concentrated operation of portable transmitters and receivers. Only portable stations, actually in the field, away from the "home" address are eligible to submit field day scores.

The object will be for each "portable" station to work as many other amateur stations as possible—each to count one point toward a score. Any or all amateur frequency bands may be used, voice or c.w. telegraph likewise. The "total" of such points may be multiplied by the number of A.R.R.L. Sections worked. Contact with another portable station at any point except its base, or home address, will "rate" double credit, or two (instead of one) points. Two-way work with a foreign station shall entitle the operator of the "portable" to triple credit, or three (instead of one) points, in addition to which each foreign country (prefix) may be added to the number of Sections to increase the "multiplier." The R.S.G.B., N.V.I.R. and R.B. are sponsors of similar national field days in Europe, and we hope this may assume an international complexion. All amateurs with licensed portable stations are invited to take part . . . each such station will please report its power and frequency band used, and its log of operation and score for the period given, within the week following the Field Day. Also, gang, don't forget to comply with F.R.C. regulations for portable station operation. Notify your Radio Supervisor of the approximate location and time of intended operation of the "portable" by postal or letter, just in advance of the "field" radio work. We shall be interested to know how many clubs plan outings, and also suggestions for a similar activity for 1984 (if you want one) will be welcomed.

Besides offering an opportunity to get out in the open in this fine spring weather, the real object of this contest is to test "portables" wherever they may be available. If successful we want to make it an annual affair.

— F. E. H.

The first Field Day was announced in the June 1933 QST by F. Edward Handy, W1BDI.

with 3-, 2-, or 1-point multipliers per QSO depending on power output. The technology of the '30s is highlighted by the fact that the breakpoints are set at 20 W and 60 W! As technology changes these breakpoints are modified many times throughout the years to come.

The desire to encourage operation independent of public mains is also expressed by a 2X multiplier if either the receiver or transmitter is independent of public mains (3X if both are independent). The 3X multiplier is destined to last 37 years until it's removed in 1971! No special exchange is needed. The ops must simply indicate whether their sta-

tions are portable. At this early time in Field Day history, only portables are listed in the scores.

## 1936: The Year with Two Field Days!

The June 1936 Field Day is so popular a second one is held on August 22–23 with identical rules. Participation in both Field Days is about the same, as winning contact totals in June and August are 143 and 136, respectively.

## 1937: The "Field Day Message" is Born

The special Field Day of August 1936 apparently becomes Field Day number 4, as the Fifth Annual Field Day is announced for June 19–20. In a battle that continues to the present between creative rules interpretation and the "spirit of the law," the League outlaws "manufactured contacts with stations of the same field group." The Field Day message bonus, another venerable Field Day tradition, is born as 10 points (before multiplier) are awarded for a single properly formed and serviced message to League Headquarters stating the number of ops, location, "conditions," and power. Multipliers and QSO points are unchanged. For the first time, the winning QSO total exceeds 200 (204), with a breathtaking average rate of 7.5 QSOs per hour.

## 1938: I'm Not Ready to QRT!

The contest period is extended to 26 hours—from 4 PM Saturday to 6 PM Sunday.

## 1939: Everyone Form a Circle

For the first time, the area within which all equipment must be located is defined as a restrictive 100-foot radius. Do they mean this to include your 160-meter dipole?

## 1940: Modern Field Day Rules Emerge

Significant changes are afoot. For the first time, a station can be contacted on multiple bands. Results are grouped by the number of simultaneous transmitters used. The 100-foot circle expands to 500 feet, giving those multi-transmitter teams a little breathing room. Home stations are encouraged to work Field Day stations, and their scores will be listed, but no multipliers are allowed (a rule that never changed). The Field Day message to ARRL HQ now earns 25 points, points are given for Field Day handling of other teams' messages, and both home and portable stations get one point for each message copied and one point for a message passed on. From 1933 to 1980 message points will be changed no less than 12 times!

## 1941: Field Starts Simultaneously Across the Country (by Accident?)

The Field Day period now starts at 4 PM EST across the country. Strangely, this change may have come about by accident. To smooth the FCC approval every portable station needs for Field Day operation, the League

## HIGH CLAIMED SCORES — 1946 FIELD DAY

As this issue goes to press, Field Day logs have been received from 104 club groups, 53 nonclub groups and individuals, and 45 home stations. We are passing along the highest claimed scores so far reported. These are subject to checking, and should not be considered a final tally.

### CLUB GROUPS

(Listing shows club name, call used in FD, claimed score, and number of simultaneously-operated transmitters.)

Jersey Shore Amateur Association	W2PC/2	2621-8
Frankford Radio Club	W2HE/3	2508-7
Tri-County Radio Association	W2HK/2	2521-8
Northwest Amateur Radio Club	W2IT/9	2333-5
Monmouth County Amateur Radio Association	W3AC/2	2327-7
Motor City Radio Club	W8ONK/8	4590-3
St. Paul Radio Club	W8KYC/9	4338-6
Greater Cincinnati Amateur Radio Assn.	W8JIN/8	4320-2
Four Lakes Amateur Radio Club	W9HNL/9	4290-3
Bonnet Hills Radio Club	W2ZD/2	3978-5
York Road Radio Club	W3IU/3	3870-6
Steel City Amateur Radio Club	W8TUD/3	3870-5
Palmair Radio Club	W6HIC/6	3726-6
Mountaineer Amateur Radio Association	W8DOX/8	3525-6
Men. Youth Amateur Transmitters Association	W8OC/8	3227-2
Amateur Transmitters Assn. of Western Pa.	W8RSO/2	3249-4
Wisconsin Valley Radio Association	W9RQM/9	3060-2
Narragansett Assn. of Amateur Radio Ops.	W1LWA/1	3051-1
Mississippi Radio Club	W2DSM/2	2961-3
Northern Nassau Wireless Association	W2FV/2	2907-6
Tales Amateur Radio Club	W1LH/3	2875-4
Kalamazoo Amateur Radio Club	W4DM/6	2817-3
Bacon Radio Amateurs	W3ATE/3	2707-2
Lancaster Radio Transmitting Society	W3LN/3	2656-1
Delaware Valley Radio Association	W3AQ/2	2328-3
Milwaukee Radio Amateur Club	W8EY/9	2328-3
Cuyahoga Radio Association	W8OW/8	2229-2
York Radio Club	W8OY/9	2229-2
Bridgeport Amateur Radio Club	W1HWN/1	2457-3
Columbia Amateur Radio Club	W7CKE/9	2427-3
So. Lynne Beer, Chowder and Poppage Ice Soc.	W1EH/1	2371-1
North Newark Amateur Radio Club	W2PY/2	2322-3
Greater Cincinnati Amateur Radio Assn.	W8ILO/8	2313-1
Radios Magazine Club	W9FWJ/9	2214-3
Jeliet Amateur Radio Society	W0HVZ/5	2183-3
Fort Worth Hobbies Club	W5AA/5	2142-2
New Haven Amateur Radio Association	W1OB/1	2106-4
South Hills Brass Foundries and Molds	W8BK/3	2001-2
Isles	W8ANP/8	2001-2
Toldeo Radio Club	W1FIS/6	2040-8

### NONCLUB GROUPS & INDIVIDUALS

(Listing shows call used by each group, number of operators, claimed score, and number of simultaneously-operated transmitters.)

W6SRU/9	10-2574-3	W1BDI/1	6-1428-1
W8ROQ/1	1-2115-1	W7RT/7	1-1424-1
W6PNU/9	4-1878-2	W8KYW/3	6-1368-2
W6STA/6	3-1878-2	W9VFD/9	4-1233-2
W3FBA/2	2-1827-1	W8TFS/4	6-1179-2
W8PBC/9	11-1513-2	W8YMF/3	4-1134-1
W8PBC/8	3-1467-1	W1GK/1	4-1126-1
W8AVE/9	7-1431-3	W1JWG/1	2-1087-1
W1LLX/1	2-1438-1		

High claimed scores from the first post-World War II Field Day.

informs the FCC of the Field Day period. In aptly numbered announcement 73-D, the FCC refers to a single operating period for all stations. My guess is that the League's communication to the FCC lists the period from 4 PM EST June 7, to 6 PM EST June 8, inadvertently establishing a single starting time.

Last year's change to allow contacts on multiple bands was apparently unclear, so this year's rules make a point to state that phone and CW are separate "bands" for the purposes of Field Day contacts. Also, even in these early days stations must be complaining about being in "black holes" as far as contesting is concerned. In response, an overall 1.5X mul-



tiplier is established for the Northwest, Pacific, Rocky Mountain, Southwest and West Gulf areas "to assist in equalizing contact opportunity...in these less populous areas." This West Coast handicap remains until 1950.

#### 1942-1945: "Closed for the Duration"

As is the case with so many activities, Field Day posts a "Closed for the Duration" sign during WW II. In fact, so does all ham operating.

#### 1946: The Post-War Era—A VHF-Only Category Debuts

Field Day returns after the war with virtually no changes. Starting time is back to local time (more evidence that the 1941 change was inadvertent). For the next three Field Days there is a VHF-only score listing designed "to lend point to the participation of VHF Emergency Corps networks that may wish to arrange special activities or simulated tests on these dates."

#### 1948: CQ Field Day on 11 Meters?

Eleven meters is now available to hams (for a while) and it counts as a Field Day band. There are no CW/phone subbands on 11 meters, but phone and CW count separately here, too. The period is shortened to 24 hours, starting at 4 PM local time. Each station worked is now worth one point (regardless of whether fixed or portable). The 2X multiplier for transmitters that are independent of commercial mains is dropped. Battery operation now is recognized with a 1.5X multiplier.

#### 1949: Field Day Mobile Operation Comes of Age

The growing interest in mobile operation results in some significant rules changes. This year, four categories are recognized: (1) Club and group (no battery multiplier); (2) One or two operators; (3) Mobile; and (4) Home stations. Also, the Club Aggregate Mobile listings are established whereby clubs can compete with teams of mobile stations. This special listing will last until it's quietly dropped in 1978. In other changes, a specific exchange of signal report and ARRL section is required for the first time, and the Field Day message now goes to the Section Communications Manager (today's SM) or the SEC rather than to HQ.

#### 1950: Modern Field Day Classes are Established

The four classes offered last year are modified and labeled with letters for the first time: A—Club or non-club portable; B—Unit or individual portables (1 or 2 ops); C—Mobile; and D—Home. The Field Day "circle" is increased to 1000 feet. The wording last year said "25 points for each such [Field Day] message." What was meant, we learn, was 25 points for each team's single Field Day message (some stations, not unexpectedly, had cranked out a pile of Field Day

messages looking for 25 points each).

#### 1951: Duck, Cover and Turn on Your CONELRAD Monitor

Says June 1951 QST: "At a time when civil defense is organizing, the Field Day provides an unparalleled opportunity for mass testing of our emergency facilities." To encourage emergency preparedness, home stations on emergency power will be listed separately as Class D, while home stations on commercial power will be listed as Class E.

#### 1952: "Having a Wonderful Time, Wish You Were Here"

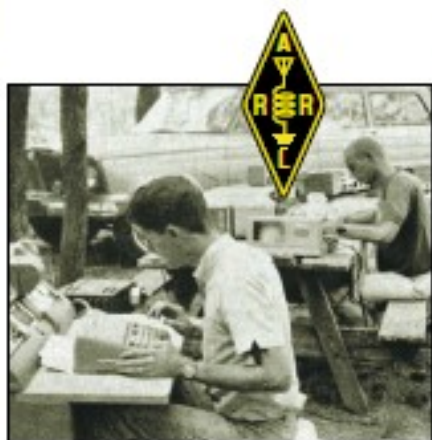
The 1950 rule that allowed one point for any message originated during Field Day has resulted in some groups cranking out meaningless "rubber stamped" messages during Field Day to generate points. Because the emphasis is on contact totals and not message generation, the League responds by eliminating the bonus points for message origination after a trial of only two years.

#### 1957: Simultaneous Start Returns

Field Day starts at 4 PM EST and ends at 4 PM PST, as usual, but now everyone can operate any 24 consecutive hours of the 27-hour period. The purpose of the change is to "encourage long-distance QSOs." For the first time, more than 10,000 hams participate, a 430% increase over the first postwar event in '46.

#### 1963: Will "Manufactured" Contacts Ever be Eliminated?

Although contacts with other members of a Field Day group were outlawed way back in 1937, some creative types have determined that the rules don't ban those who are not "Field Day operators" from using the Field Day transmitters to work the group for points. The League counters by allowing a



If you think computer logging is a modern development, check out the key-punching station at the 1966 K2INO/3 Field Day effort. The cards containing the contact data were processed by an IBM 1401 computer at Johns Hopkins University after the event. K0OVZ is shown operating the key punch while WA2BUJ hunts for contacts.

Field Day transmitter to be used only under one call sign.

#### 1966: The Modern "Bonus Era" Begins

The simple Field Day message bonus concept, around since nearly the first Field Day, is expanded, bringing the beginnings of a wonderful aspect that one wag, who shall remain nameless (KE3Q), has characterized as "part radio contest, part scavenger hunt." Publicity is emphasized and 100% freedom from commercial power is stressed by a 500-point post-multiplier bonus for achieving at least two of the following three: (1) Use of no commercial power anywhere; (2) Publicity; or (3) Originating a message to the SCM or SEC.

#### 1968: The Field Day Period is the Field Day, Period

A major change is adopted that makes setup within the 27-hour period mandatory, and the starting time is advanced two hours to 1900Z to accommodate the change. All home stations, emergency powered or on commercial mains, now compete in a single D category. The 1.5X multiplier for battery power now applies to categories A, B and C. Bonuses provide for 200 points each for publicity, 100% emergency power and/or message origination. Lastly, and largely ignored, the exchange is now section only—but in practice many can't resist sending a signal report anyway!

#### 1969: An Idea Whose Time Has Not Come

Last year's mandatory setup within the 27-hour event period was not popular, so it is now optional (that is, ops can use the entire 27 hours if they start setup within that period). (Personal note: This was the year of my first Field Day victory—1A with WA3EPT/3, Johns Hopkins University Students and Alumni.)

#### 1970: Increasing Novice Participation

To further encourage beginners, a "free" Novice station (set up and run by Novices) is allowed for groups running three or more transmitters. The League continues to battle with creative rules interpretation (or, depending on your viewpoint, technology advancements) by outlawing "octopus" hardware for interleaving transmissions to avoid moving to a higher transmitter category. (We had made great use of that technique in our '69 1A win.) On another note, I guess we are getting better at setting up, because the starting time is advanced yet another hour to 1800Z.

#### 1971: Why Old-Timers Can't Remember Whether Home Emergency Power is Class D or E

After three years of being combined, Classes D and E are separate once again. The designators, however, are reversed. Class D is for home stations on commercial power,



while Class E encompasses home stations on emergency power. (I guess the feeling is that E for Emergency makes more sense.)

Major changes in the scoring system reduce points across the board. The 3X multiplier for 100% emergency power is eliminated and replaced by a requirement that all A and B transmitters now *must* be on emergency power. The 1.5X multiplier for battery operation is eliminated and replaced with limiting the QRP multiplier to battery operation only. The power multiplier now applies to the maximum power used at any time during the period. The four-QSO multiplier categories are reduced to three with a maximum of 3X for QRP/battery. Bonus points are now as follows: 100 points per transmitter for 100% emergency power; 50 points for publicity; 50 points for message origination; and 5 points per message relayed. Last, in a surrender to habit, the signal report is returned to the exchange!

#### 1972: Batteries are on Their Own

Ops using battery power no longer compete with ops using non-battery sources. Scores are listed separately.

#### 1973: The Space Age Comes to FD

The repeater rule is waived for OSCAR 6 contacts and a 50-point satellite bonus is instituted.

#### 1974: The Energy Crisis Strikes FD

A 100-point bonus is added for making natural power QSOs. The 15-minute rule for band changes further discourages tricky techniques for counting two transmitters as one.

#### 1975: Is SSB Taking Over?

SSB is demonstrating its superiority to "conventional" AM, and phone QSO rates

are so high that the mode threatens to dominate Field Day. To compensate, the 2X rule for CW QSOs is instituted on a trial basis (personal note: Hooray!).

#### 1976: The 10,000 QSO Mark is Broken

Field Day results show the many unusual prefixes permitted by US amateurs celebrating the Bicentennial. W1VV/1 celebrates with 10,010 contacts! In doing so, the group surpasses the 1933 QSO record in its first 15 minutes of operation.

#### 1977: Bring on the Techs!

Technician amateurs are now permitted to set up and operate the Novice station. Also, we have apparently solved the energy crisis because the natural power bonus is gone! The 2X rule for CW is "permanent."

#### 1980: 1A CT

RST is replaced with category and class in the exchange. FCC and Field Day rules no longer require portable call sign designators. Set-up time is tightened—nothing can be installed prior to 24 hours before the start of the Field Day period. Natural power was judged to be politically correct and too much fun to be eliminated—so it's back as a 100-point bonus. The satellite and Field Day message bonuses advance to 100 points. Copying the WIAW message is worth 100 points for the first time.

#### 1981: 1001001

Computers are becoming ubiquitous and, as a result, packet radio is soaring in popularity. Field Day enters the digital era by providing a 100-point bonus for a single packet QSO, permitting one "free" packet station and waiving the repeater rule for packet to allow digipeaters and nodes to be used. The 15-minute rule is eliminated at VHF and above. The Yankee Clipper Contest Club and The Wireless Institute of the Northeast combine using call sign W2RQ to turn in a QSO total of 11,201—unbeaten 18 years later!

#### 1984: We Finally Get it Right

Over the years we've had a heck of a time settling on the best way to score battery, low, medium and high power categories. Here's another try: The power breakpoints are adjusted so that the 5X multiplier applies to 5 W instead of 10 W (for battery or equivalent), and 2X applies to <150 W rather than <200 W. (These definitions will stick for at least the next 16 years! In particular, the 5X multiplier for QRP/battery turns out to be a good equalizer—the change will result in overall first place finishes by the entrants in this category in eight of the next 16 Field Days.)

#### 1993: VHF Becomes a Major Field Day Factor

The growing influx of Technician licensees changes Field Day in a big way—



Another Field Day retrospective graced the December 1999 QST.

there is now a 100-point bonus for making 10 VHF/UHF contacts and one "free" VHF/UHF station is permitted for Classes A and B.

#### 1994: I Guess They Don't Need a 1.5X "Equalizer" Anymore

K6CAB (Conejo Valley ARC) logs the modern Field Day record score of 30,150 by operating in the 15A battery category with 3460 5-W QSOs!

#### 1998: No More "Zero A" Entries

This year digital modes go from special handling to "mainline" modes. Although the "free" packet station and packet bonuses are eliminated, digital modes (including RTTY and PSK31) are added as a third mode on every band. Perhaps motivated by the "0A" tongue-in-cheek entry made by one station working exclusively on packet via the internet (thus no transmitters!), nodes and digipeaters are now outlawed for Field Day contacts. Finally, VHF/UHF has become such a mainstay that the 100-point bonus for 10 contacts is no longer needed.

So, that brings us up to date. Oh, I nearly forgot why I started all of this. Scores are fairly comparable from 1975 on—the year that the 2X multiplier went into effect for CW. With that definition, the Potomac Valley Radio Club team *did* set a modern record for 7A. In fact, our 26,324 claimed score is the highest non-battery score ever recorded in any category under the modern rules—beating N1FD's record set in 1998 by the narrow margin of 50 points!

Now, I wonder how the DX Contest got started...

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In 1976 the Indianapolis Power & Light ARC made a natural-power contact. Gary, K9LNX, operated the radio while Ron, WB9OKL, supplied the muscle. Mike, WA9BWY, assisted by holding the bike in place.