



ARRL FIELD DAY

Modified for Social Distancing During The 2020 Pandemic

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Field Day A ...B ... C

- Purpose of FD
- Basic rules
- The Contact Exchange
- Scoring
- Station Setup
- Logging Software
- Practice Exercise



Usual Field Day Purpose

- Emergency preparedness
 - Training ourselves
 - Demonstration of emergency preparedness to the public, government, and served agencies
 - Experimentation with antennas, portable equipment, and unusual power sources
- Social gathering
 - Eating and drinking
 - Camaraderie and friendship
 - Camping
 - Weekend “getaway”



Pandemic Field Day Purpose

- Emergency preparedness
 - Training ourselves
 - Demonstration of emergency preparedness to the public via **social media**
 - Experimentation with antennas, portable equipment, and unusual power sources
- **Social Distancing**
 - Eating and drinking
 - Backyard Camping
 - Weekend “hide away”



Workshop focus

- Contest aspect of Field Day



Motivation for this workshop

- Many hams profess no interest in operating radio on Field Day, but in reality they're often reluctant to participate because of
 - "Mike fright"
 - Unfamiliarity with contesting procedures
 - No experience on HF (but hey, ham radio is more than 2M repeaters!)

So...

- Those of us with experience are here to help you become comfortable with operating in an easy and non-threatening way.
- Consider us your “Elmers” (ham jargon for mentors)
- So here we go...



Eligibility to Participate in Field Day

- All amateurs in US, Canada and possessions
- DX stations may be contacted for credit but are not eligible to submit entries



Object

- Contact as many other stations as possible
- On any amateur band (excluding the 60, 30, 17, and 12 meter bands)
- And in doing so to learn to operate in abnormal situations in less than optimal conditions.
- A premium is placed on
 - developing skills to meet the challenges of emergency preparedness
 - acquainting the general public with the capabilities of Amateur Radio

Date and Time Period

- Always the fourth full weekend in June
 - June 27-28, 2020
- Begins at 1800 UTC (2 pm ET) Saturday June 27 and ends 24 hours later
- EXCEPTION: Class A and B stations that do not begin setting up until 1800 UTC may operate 27 hours.
- Nobody can start setup before 1800 UTC Friday.

Our Operation

- By special rule changes created for the pandemic, we will not operate as a club but will operate as individuals!
- All individual stations will use their own call sign from their unique operating location and submit a log of their contacts
- When submitting scores via the web please enter "Long Island Mobile ARC" in "Club or Group Name" to contribute to the LIMARC club aggregate score!

Let's repeat that

- When submitting scores via the web please enter **“Long Island Mobile ARC”** in “Club or Group Name” to contribute to the LIMARC club aggregate score!
- Entering LIMARC or anything else will not get us credit

Entry Categories

- Composed of:
 - Number - indicating the maximum number of transmitters operating simultaneously
 - Letter - indicating the class of Operation

Number of transmitters

- The maximum number of transmitters in simultaneous operation.
 - **For most of us operating alone this year, that might be just 1 transmitter!**
 - Does not include bonus stations such as
 - GOTA Station
 - VHF/UHF Station
 - Satellite Station

Number of xmtrs (cont)

- All transmitters must be within a 1000' diameter circle.
- All transmitters used at a single location will use the same call sign for the entire event.
- All stations sending in a log will submit a log with their call sign used for the entire operation.
- Please enter "**Long Island Mobile ARC**" in "Club or Group Name" to contribute to the LIMARC club aggregate score!

8 Classes of operation

- Class A – portable station with 3 or more operators, using 100% emergency power
 - This is our usual class – using gasoline generators
- Class A battery – 3 or more operators, max output 5 watts, power cannot be commercial mains or motor driven generator
- Class B – portable station with 1 or 2 operators, using 100% emergency power
- Class B - battery – same, 5 watts max., battery
- Class C – mobile station

Class of operation (cont.)

- Class D – home station on commercial power
 - **Note: class D stations may contact other class D stations this year as a special rule change for the pandemic!**
- Class E – home station using emergency power
- Class F – operation from an established Emergency Operations Center (government or served agency)

Typical Pandemic operations might be:

- Class B one or two person portable, otherwise it is the same as class A except that there is no free GOTA or VHF station.
- Class B Battery running portable 5 Watts or less. Power may not be commercial mains or gasoline generator.
- Class C operating from your car
- Class D operating from your typical home or backyard station
- Class E operating from home on emergency power

Misc. Rules

- No contact between FD station and individual participants of that station
- Radios cannot be used for more than one callsign during FD period
- Phone, CW, and Digital are considered separate "bands"
- All voice contacts (SSB, FM, AM) are worth 1 point each.

Misc. Rules (cont.)

- All CW & digital contacts (FT4/8, PSK31, MT63, Packet, Pactor, etc.) are worth 2 points each
- No cross-band contacts (except Satellite)
- Only one transmitter per band at any time (except GOTA)
- No contacts on repeaters or on 146.52 simplex
- Batteries may be charged while in use, but not from commercial mains (except Class D)
- All stations must use same call sign (except GOTA)

Limitation

- Can only work each station once per band-mode
 - For example you can work each station once on 20M phone, once on 20M CW, and once on 20M digital mode (for a total of 5 points).
 - You can work the same station on other frequency bands and modes for additional points.

The Contact “Exchange”

- In order to make a valid contact, the information to be exchanged consists of
 - Number of transmitters at your site
 - Class of operation
 - ARRL Section
- Examples
 - On CW or Digital – “6A NLI”
 - On Phone – “Six Alpha, NLI”

Exchange must be accurate

- You must copy the information correctly from the other station AND...
- The other station must copy your information correctly, OR ELSE...
- It is not a valid contact and your final score may be penalized.

ARRL Section

- 84 Sections in the US and Canada
- Basically each US state and Canadian province
- Some states are divided into more than one section
 - Ohio is one section
 - New Jersey is 2 sections
 - Texas is 3 sections
 - New York is 4 sections
 - California is 9 sections

ARRL Sections (cont.)

- Use 2 or 3 letter abbreviations
 - OH – Ohio
 - KY – Kentucky
 - EMA – Eastern Massachusetts
 - LAX – Los Angeles
 - NFL – Northern Florida
 - NLI – New York Long Island

All valid section abbreviations are listed
on the screen of the software we use

ITU Phonetics on Phone

- You MUST memorize and be familiar with ITU phonetics on phone.

Alpha	Hotel	Oscar	Victor
Bravo	India	Papa	Whisky
Charlie	Juliet	Quebec	X-ray
Delta	Kilo	Romeo	Yankee
Echo	Lima	Sierra	Zulu
Foxtrot	Mike	Tango	
Golf	November	Uniform	

Two Basic Strategies

- Hunt and pounce
 - Look for stations calling CQ and answering them
- Running a frequency
 - Calling CQ and waiting for stations to answer you



Hunt and pounce

- You can be selective who you contact
- You can avoid stations with big pileups, which waste your time and reduce your Q rate (contact, or QSO, rate per minute or hour)
- You can listen to a previous contact that a station made and know their class and section before you even call them

Running a frequency

- You never know who will answer
- Usually can work a lot more stations (more points, higher Q rate)
- Easy to do with voice or CW recorder, but can get tiring if no one answers
- May have to handle pileup if you're a rare multiplier (N/A for FD)
- May not work as many multipliers (N/A for FD)

Example of Good Exchange

- CQ Field Day, CQ Field Day from W2VL, Whiskey Two Victor Lima
- W2VL, here is November Four Echo Tango Tango
- N4ETT, please copy Six Alpha, NLI
- QSL, please copy Four Alpha, South Florida
- Thank you, good luck in Field Day. CQ Field Day, CQ Field Day...

Bad Example #1

- CQ Field Day, CQ Field Day from W2VL, Whiskey Two Victor Lima
- W2VL, here is November Four Echo Tango Tango, Four Alpha, South Florida...

N4ETT didn't give you a chance to recognize his call. If you heard a different station better, you wouldn't have contacted N4ETT and he wasted time with the exchange info ("Four Alpha, South Florida...").

Bad Example #2

- CQ Field Day, CQ Field Day from W2VL, Whiskey Two Victor Lima
- W2VL, here is Norway Four Easy Tom Tom

Used non-ITU phonetics. Tom could easily be mistaken for Don, Ron, John, etc.

Ask for repeats

- CQ Field Day, CQ Field Day from W2VL, Whiskey Two Victor Lima
- W2VL, here is November Four Echo Tango Tango
- N4ETT, please copy Six Alpha, NLI
- QSL, please copy <static crash!>...
- N4ETT, please repeat the exchange!

Ask for fills

- CQ Field Day, CQ Field Day from W2VL, Whiskey Two Victor Lima
- W2VL, here is November Four Echo Tango Tango
- N4ETT, please copy Six Alpha, NLI
- QSL, please copy Four Alpha, <static crash!>...
- N4ETT, give me your section again!
- South Florida, South Florida, Sierra Foxtrot Lima.
- QSL, South Florida, thank you! CQ CQ Field Day...

Field Day Scoring

- 1 point for each voice contact
- 2 points for each CW or digital contact
- Add total points for all QSOs
- Multiplier is power level
 - QRP (very low power) without gas generator or commercial mains – 5x
 - QRP with gas generator or commercial power or batteries charged from either – 2x
 - Low Power (< 150 W) – 2x
 - High Power (> 150 W) – 1x
- Add bonus points

Bonus Points

- 100% Emergency Power – 100 points per transmitter (GOTA, VHF and Satellite not included)
- Media Publicity – 100 points
- Public Location – 100 points
- Public Information Table – 100 points
- Originating message to SM – 100 points
- Handling messages – 10 points each (maximum 100 points)

Bonus Points (cont.)

- Satellite QSO (just 1) – 100 points
- Use of alternate power: solar, wind, methane, water, human powered bicycle, - 100 points
 - Need to make 5 contacts minimum
 - Counts as one of the transmitters
 - Includes batteries charged by alternate power

Bonus Points (cont.)

- Copying special Field Day bulletin from W1AW (must be copied over the air) – 100 points
- Educational activity - 100 points
- Site visit by elected government official – 100 points
- Site visit by served agency representative – 100 points

Bonus Points (cont.)

- Web submission of Field Day Entry: 50 points
- Youth participation: 20 points per youth (18 or younger) who completes at least one contact (maximum 100 points).



Bonus Points (cont.)

- Safety Officer – Duties are to complete a check-list of key safety issues to ensure they have been addressed.
- Social Media - actively use Social Media platforms (such as Facebook, Twitter or Instagram) to engage the public in our Field Day activity.

Hash Tag: #ARRLFD

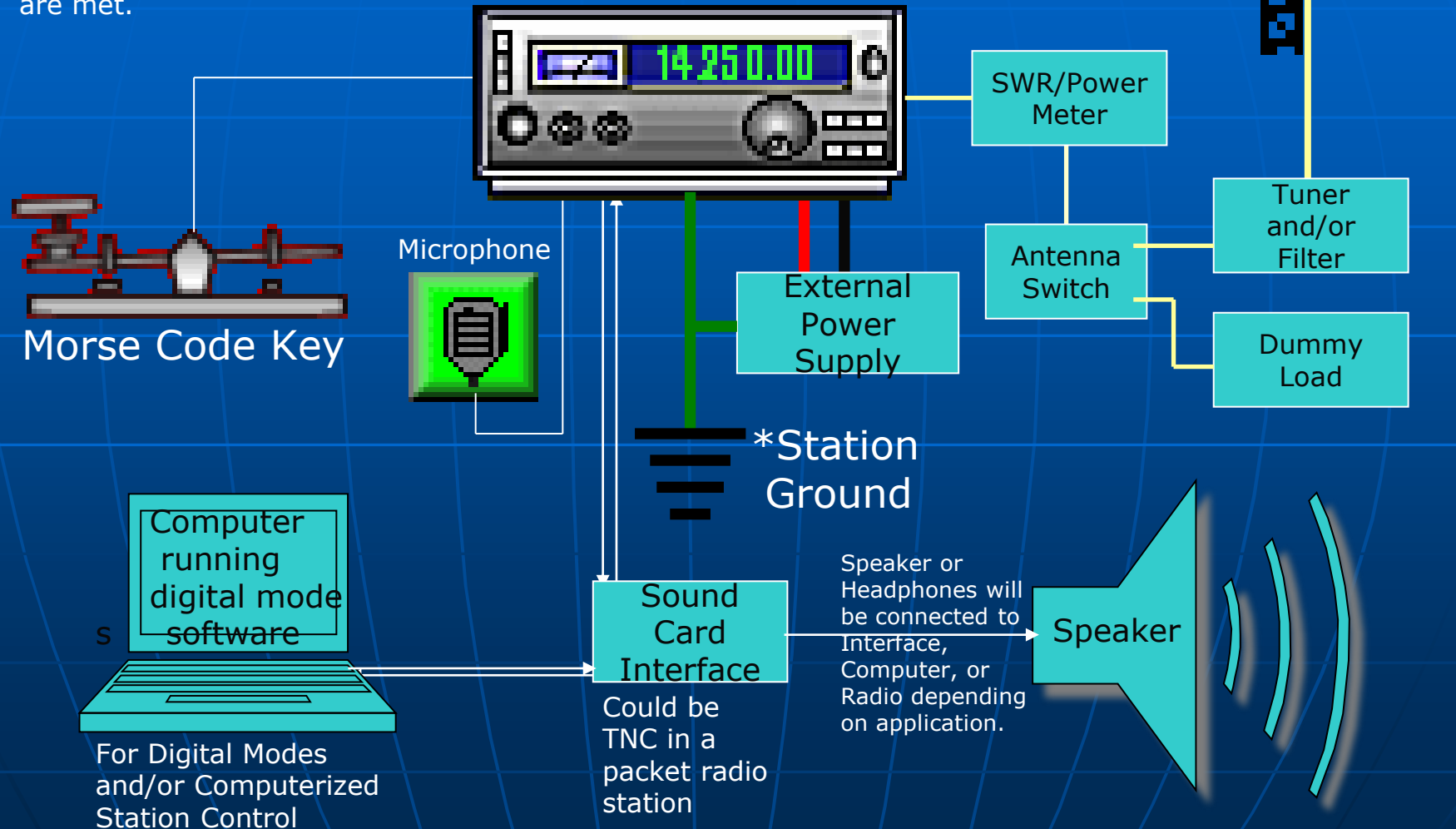
Field Day -- Reporting

- Entries may be submitted to the ARRL
 - Via Field Day Web Submission Site
 - Via email
 - Via postal or delivery service
- Entries must be submitted by Tuesday July 28, 2020. Late entries cannot be accepted.
- See official rules for details
- Complete ARRL packet with details, forms, rules, and FAQs is at
 - <http://www.arrl.org/files/file/Field-Day/2020/2020%20Field%20Day%20Packet%20Rev%20a.pdf>

Typical Station Configuration

A Station may be configured to meet the need!

* Typically every effort should be placed with ensuring that all station equipment is bonded to a common station ground and requirements of the National Electrical Code are met.



Control Operator ALWAYS Needed

- Be cautious to only operate on frequencies that your license class allows.
- If you operate with another licensee present and one of you has a higher class license then you may both operate the higher class' privileges

Let's repeat that

- IF YOU ARE PARTICIPATING ON A FREQUENCY WHERE YOU DON'T HAVE OPERATING PRIVILEGES THERE MUST BE A CONTROL OPERATOR WITH THOSE PRIVILEGES WITHIN THE ZONE OF THE CONTROL POINT!
 - http://nara.eqth.info/n8ara_station_control.pdf

Manual Logging of contacts

- Used to be all manual with paper and pencil
- Needed to record date, time, band, mode, callsign, exchange
- Needed to fill out “dupe” (duplicate) sheet
- Needed to add up points, multiply by multiplier, and add in bonus points
- Tedious and lots of opportunity for errors

Computer logging

■ Advantages

- Tracks number of QSOs, Q rate, multipliers worked and needed, and current score at all times
- Avoids working stations more than once (“dupes” or duplicates)
- Can use as CW keyboard with exchange components stored in memory – no key or keyer necessary
- Can format log for digitally submitting entry via web site so that log can be checked electronically
- Multiple stations can be networked via cable or wirelessly so others can see progress of group

Computer logging (cont.)

- Many popular competing brands of software:
 - N1MM+ (free)
<https://n1mmwp.hamdocs.com/> N1MM+ has been updated for the 2020 rules changes
 - N3FJP (\$8.99)
<http://www.n3fjp.com/fieldday.html>
(N3FJP version 6.3 and later support the 2020 rules changes)

N3FJP's Field Day Log Software



N3FJP Field Day Logging Software

N3FJP's Field Day Log 2.8

www.n3fjp.com

File Options Setup Band Mode Graph Map Operator Help

Recent Contacts

Find Last 20

Rec#	Call	Class	Sec	Date	Time	Bnd	Mode	Opr
2	KA8PCP	1F	OH	5/14	1:39	15	CW	ELP
1	N8WL	1A	OH	5/14	1:39	15	CW	ELP

Score Statistics

Total CW Contacts.....	2
Total Digital Contacts...	0
Total Phone Contacts...	0
Total QSO Points.....	4
QSOs / Hr (last 20 min)	0
QSOs / Hr (last 60 min)	0

Call

Class

Section

Clear

Dupe: N8WL 1A OH 2007/05/14

01:39:02 ON 15 CW Rec# 1

Possible Duplicates

On

Sections Worked

1

2

3

4

5

6

7

8

9

0

AR

LA

MS

NM

EB

LAX

ORG

SB

SCV

NTX

OK

STX

WTX

SDG

SF

SJV

SV

PAC

AZ

EWA

ID

MT

NV

OR

UT

WWA

WY

AK

MI

OH

IL

IN

WV

WI

CO

IA

KS

MN

MO

NE

ND

SD

Canada

NL

MAR

QC

ON

MB

SK

AB

BC

NT

Band

15

Mode

CW

N8ARA

3A

OH

9:41:02 PM

02:41:02 UTC

Have a great time

- . Whether you make one contact or stay up all night to get a great score, remember to have fun and stay safe
- . Good luck