## Introduction to ARRL Field Day

## **About Field Day**

1. 2pm Saturday 27 June to 2pm Sunday 28 June 2.

Work as many stations as possible on:

- a. HF -- 160, 80, 40, 20, 15 and 10 Meter bands
  - i. No WARC bands (60, 30, 17, 12); no repeaters (including DMR, DSTAR, etc.)
- b. VHF/UHF -- 50 MHz and above
- 3. All modes may be used
- 4. Per ARRL, a premium is placed on developing skills to meet the challenges of emergency preparedness as well as to acquaint the general public with the capabilities of amateur radio.

## Planning your Field Day Operation

- 1. Outcomes
  - a. What is your goal?
    - i. Points?
    - ii. Experience? iii. Trying a new antenna? iv.

Trying a new mode?

- v. Meeting a personal goal for number or type of contacts?
- b. What do you want to operate? HF? VHF/UHF? Both?
- 2. Logging software
  - a. Even if you only plan to make a few Qs, log them
  - b. Logging software is designed with the exact parameters of the contest, so you only need to type in the information you need
  - c. If you already use N1MM that is fine, use what you have
  - d. For others, we recommend N3FJP
    - i. Field Day Log Version 6.3 include the ARRL rule waivers
  - e. Anything is fine even paper logs -- as long as you get the information you need to submit to ARRL per their requirements
    - i. Submission is a list of stations worked by band and mode, plus supporting information if you are submitting for a bonus

#### 3. The exchange

- a. Given phonetically
  - i. Station call sign
  - ii. Number of transmitters capable of simultaneous transmission
  - iii. Designator indicating the nature of their individual or group participation iv. ARRL section

#### b. Examples

- i. CQ Field Day, CQ Field Day, K4KNS, K4KNS, CQ
- ii. K4KNS, Two Alpha, Golf Alpha, QSL? iii. QSL, K4KNS QRZ? iv. May also hear 73 and good luck, thank you, roger

### 4. Choosing your Operating Class

- a. Consider number of people who will operate; where do you want to operate from; what kind of power output will you use; and what kind of power supply b. Classes A, B, C, D, E, F
  - i. (Class A Battery) Club / non-club portable: 3+ people
  - ii. (Class B) One or two person portable
  - iii. (Class B Battery) One or two person portable: 5W max output, alternate power
  - iv. (Class C) Mobile: In vehicles capable of operating while in motion and normally operated in this manner. This includes maritime and aeronautical mobile.
  - v. (Class D) Home stations: Commercial power
  - vi. (Class E) Home stations Emergency power
  - vii. (Class F) Emergency Operations Centers (EOC)

### 4. Operating

- a. Once you designate your category, that is it for the duration of the contest
- b. You may experiment with equipment but your category is the same
- c. If more than one operator, choose one call sign that will be used throughout the contest
- d. Control operator must be present if operator is unlicensed
- e. When a control operator is not present, an operator with a lower license class may only work within their own privileges

#### 5. Scoring

a. When contest is over, you will submit a summary sheet to ARRL, and supporting documents if needed for bonus points

- b. Points for contact with any US or DX station, even other home stations (this year only)
  - i. 1 pt phone, 2 pts digital and CW
  - ii. Stations can be worked once per band, per mode
  - iii. Scores are calculated as (Total number of QSO points X power multiplier)
  - + bonus points iv. Logs are not checked, you won't lose points for broken calls
- c. Power Multipliers
  - Highest power output of any of the transmitters used during the Field Day operation, and/or power source, e.g.:
    - 1. 5 watts or less
    - 2. Power source other than commercial mains or motor-driven generator
    - 3. Batteries charged during Field Day period using commercial mains or motor-driven generator 4. Output power 150 watts or less
- d. Bonus points
  - i. Are they worth it to you? Most are 100 points. Specifics are in the rules.
  - ii. Examples that may apply this year:
    - 1. Youth 20pts for each participant 18 or younger
    - 2. 100% emergency power
    - 3. Message origination to ARRL section manager
    - 4. Message handling
    - 5. Satellite QSO
    - 6. W1AW bulletin include accurate copy of transmission in your submission
  - iii. Others would apply only to a standard public facing event
    - 1. Site visitation by elected official/agency representative
    - 2. Social media presence, media publicity, public location, public information table
- e. For Field Day 2020 only, an aggregate club score will also be published, which will be the sum of all individual entries indicating a specific club

- 6. Station equipment and setup
  - a. What do you have for equipment?
    - i. Radio
    - ii. Antenna
    - iii. Shore power vs battery iv. Computer/peripherals mike, headset, foot pedal?
  - b. Consider your operating Modes anything goes
    - i. Phone
    - ii. Digital
    - iii. CW
- 7. Next steps
  - a. Test radio, antenna, computer, other equipment
  - b. If want to use alternative power sources, test them now

## **Introduction to Making Contacts at Field Day**

#### **About the Contest**

Remember that this is also a contest, in which the goal is to make as many contacts during the contest period as possible. Each party will log the others' call sign, category, and ARRL section. No other information is required.

### **Best-Practices**

Follow the lead of the person calling CQ regarding any non-required information. For example, if they ask about your station, location, or weather, feel free to oblige; but wait for them to ask. If having difficulty with a contact, you may want to explain that this is your first time in a contest, or your first time doing Field Day, etc.

Don't hesitate to ask for corrections if you aren't sure what you heard. You may have to ask several times if conditions are tough. If conditions are really tough you can work through the exchange one piece at a time, asking them to repeat just their call until you get it, and then just their category, and then just their section, if needed.

If you don't understand something that is being said to you, ask them to repeat. Say QSL to indicate that you copied it and understand. When giving information, if you want to be sure they acknowledge what they received from you, say "QSL?" with an upward inflection as a question.

#### **ARRL Sections**

Any contacts, anywhere can count for your log. You may make contacts with people who are not participating in the contest and do not know the exchange. You can ask for the information that you need for the log – chances are, non-contesters will be either a single home station on normal power (1D), or mobile in their car (1C). So, ask them if they are

operating from home, or their car and log that as their category. If you're lucky enough to get someone who is operating QRP, they are likely to be a 1B. Then for the rest of the exchange, if they do not know their ARRL section, ask them where they are located and use the ARRL Section Abbreviations List to discern what area to log.

Note that some states have multiple ARRL sections designated by a compass directional (north, northern, eastern, south etc.). Pay particular attention for stations in Florida, Massachusetts, New York, New Jersey, Pennsylvania, Texas, and Washington State. In Canada, pay particular attention to Ontario stations, as there are 3 ARRL sections there.

If you are lucky enough to get a foreign station, log it as DX. Remember that Puerto Rico and Virgin Islands are part of the US. And be careful with the abbreviations of the "M" states as they are easily confused.

## **About the Field Day Exchange: Calling CQ**

To call CQ, find a frequency, ask if it is in use, and if not, call CQ. Give your call phonetically.

## CQ, CQ, CQ Kilo Four Kilo November Sierra, Kilo Four Kilo November Sierra, CQ

CQ is how you announce you are looking for someone to contact ("I Seek You"). Listen for any responding station calling your sign, then acknowledge their callsign and give the contest exchange:

## (Their Callsign), We Are One Delta, One Delta in Golf Alpha, Q S L?

Log their exchange, which will be their category (a number and the letter A, B, C, D, E or F) and their ARRL section. They might give you a 2 or 3 letter abbreviation or they might give you the section (e.g., Utah, San Joaquin Valley, West Texas, etc.) Log it while they are giving it to you, ask for any corrections, and when you have it all, say:

## QSL. 73 and good luck. Kilo Four Kilo November Sierra, Q R Zed?

QSL means "I acknowledge." QRZ is spoken as Q -- R -- Zed and means "who else is calling me?" You are announcing that you are ready to make contact with anyone else waiting to call you. "73 and good luck" is optional, but often a sign of courtesy during a contest. If no reply, then start calling "CQ" again. When making several contacts in quick succession, you can save time by just saying QRZ, or even just your call sign. If many stations are trying to contact you at once, congratulations, you have a "pile-up!" You can make note of the stations who are waiting to contact you, and just call the next one in line by their call, or any portion of it you could discern – for example, "The Whiskey Four station?" "The station ending Juliet?" When through with your list of waiting stations, call CQ again.

## About the Field Day Exchange: Responding to a CQ

To respond to a CQ, give your call phonetically, one time only.

## Kilo Four Kilo November Sierra

When they acknowledge your call and give their exchange, log it, then give your exchange:

# We are One Delta One Delta in Golf Alpha, QSL?

If they got any part of your exchange wrong, correct it. If you are not sure of part of theirs, ask them to repeat it. If they give information asn ask "QSL?" they are asking if they got it right; if not, repeat the information they need to correct. If they got your information correct, you can acknowledge with QSL, or Roger-Roger.

The calling station may say QSL, thank you, 73, or by saying QRZed to indicate they have finished with you and are moving on to another contact. If they are very busy, they may just move to the next contact without acknowledging. You can then start tuning around to find someone you haven't contacted yet or find a clear spot and start calling "CQ" yourself.

## Field Day Script for Calling CQ

Find a frequency, ask if it is in use, and if not, call CQ. Give your call phonetically. You may shorten to just your call and CQ.

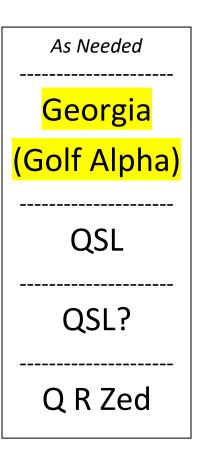
CQ Field Day

CQ Field Day

Kilo Four Kilo November Sierra

Kilo Four Kilo November Sierra

CQ



Those wishing to contact you will give their call signs. To select a station for the contact, state their call phonetically and then give your part of the Exchange, with your category and ARRL section.

(State Their Callsign),

We are Two Alpha

Two Alpha

in Golf Alpha, QSL?

Close out the QSO so others know you are ready for the next contact. You may shorten to just QRZ.

QSL. 73 and good luck.

Kilo Four Kilo November Sierra, Q R Zed?

## Field Day Script for Responding to a CQ

To respond to a CQ, give your call phonetically, one time

Kilo Four Kilo November Sierra

When they acknowledge your call and give their exchange, log it, then give your category and ARRL section

We are <mark>Two Alpha</mark>

<mark>Two Alpha</mark>

in Golf Alpha, QSL?

If they got any part of your exchange wrong, correct it. If you are not sure of part of theirs, ask them to repeat it. Acknowledge the info is correct by saying QSL, or Roger.

Substitute your callsign, station class and section in the highlighted text

As Needed				
<mark>Georgia</mark>				
(Golf Alpha)				
QSL				
QSL?				

## **Summer Field Day Operating Classes**

А	Club or non-club, portable, 3 or more people		
	outside regular station location		
A – Battery	Club or non-club, portable, 3 or more people, 5		
	Watts or less, no commercial power		
В	One or two person portable		
D. Dattam.	One or two person portable, 5 Watts or less, no		
B – Battery	commercial power		
С	Mobile stations		
D	Home stations, commercial power		
E	Home stations, emergency power		
F	Emergency Operations Centers (EOC)		

## ARRL Section Abbreviations – United States

1		2		3		4		5	
Connecticut	СТ	Eastern New York	ENY	Delaware	DE	Alabama	AL	Arkansas	AR
Eastern Massachusetts	EMA	New York City/ Long Island	NLI	Eastern Pennsylvania	EPA	Georgia	GA	Louisiana	LA
Maine	ME	Northern New Jersey	NNJ	Maryland/DC	MDC	Kentucky	KY	Mississippi	MS
New Hampshire	NH	Northern New York	NNY	Western Pennsylvania	WPA	North Carolina	NC	New Mexico	NM
Rhode Island	RI	Southern New Jersey	SNJ			Northern Florida	NFL	North Texas	NTX
Vermont	VT	Western New York	WNY			Puerto Rico	PR	Oklahoma	OK
Western Massachusetts	WMA					South Carolina	SC	South Texas	STX
						Southern Florida	SFL	West Texas	WTX
						Tennessee	TN		
						Virginia	VA		
						Virgin Islands	VI		
						West Central Florida	WCF		
6		7		8		9		0	
East Bay	EB	Alaska	AK	Michigan	MI	Illinois	IL	Colorado	СО
Los Angeles	LAX	Arizona	AZ	Ohio	ОН	Indiana	IN	lowa	IA
Orange	ORG	Eastern Washington	EWA	West Virginia	WV	Wisconsin	WI	Kansas	KS
Pacific	PAC	Idaho	ID					Minnesota	MN
Santa Barbara	SB	Montana	MT					Missouri	МО
Santa Clara Valley	SCV	Nevada	NV					Nebraska	NE
San Diego	SDG	Oregon	OR					North Dakota	ND
San Francisco	SF	Utah	UT					South Dakota	SD
San Joaquin Valley	SJV	Western Washington	WWA						
Sacramento Valley	SV	Wyoming	WY						

## ARRL Section Abbreviations - Canada

Alberta	AB
British Columbia	ВС
Greater Toronto Area	GTA
Maritime	MAR
Manitoba	МВ
Newfoundland/Labrador	NL
Northwest (includes Northwest, Yukon and Nunavut territories)	NT
Ontario East	ONE
Ontario North	ONN
Ontario South	ONS
Prince Edward Island	PE
Quebec	QC
Saskatchewan	SK

## Amateur Radio Phonetic Alphabet

Letter	Pronunciation	Letter	Pronunciation
А	Alpha (AL fah)	N	November (no VEM ber)
В	Bravo (BRAH voh)	0	Oscar (OSS cur)
С	Charlie (CHAR lee)	Р	Papa (pah PAH)
D	Delta (DELL tah)	Q	Quebec (keh BECK)
Е	Echo (ECK oh)	R	Romeo (ROW me oh)
F	Foxtrot (FOKS trot)	S	Sierra (see AIR rah)
G	Golf (GOLF)	Т	Tango (TANG go)
Н	Hotel (hoh TELL)	U	Uniform (YOU nee form)
I	India (IN dee ah)	V	Victor (VIK tor)
J	Juliet (JOO lee ETT)	W	Whiskey (WISS key)
K	Kilo (KEY loh)	X	X Ray (ECKS ray)
L	Lima (LEE mah)	Y	Yankee (YANG key)
M	Mike (MIKE)	Z	Zulu (ZOO loo)

Notes		