

**Contest Advisory Committee
Semi-Annual Report**

**For the American Radio Relay League
Board of Director's Meeting**

January 2020

**Dennis Egan, W1UE
Chairman, CAC**

COMPLETED ASSIGNMENTS

Tasking 2019.1 (Misc Tasks) has been completed. Copy attached.
Tasking 2019.2 (Club Competition) has been completed. Copy attached.
Tasking 2019.3 (Digital Contest) has been completed. Copy attached.
Tasking 2019.4 (VHF Rules Consolidation) has been completed. Submitted under separate cover.

CHANGES IN CAC MEMBERSHIP

There were no changes in the CAC membership during the second half of 2019. The CAC members as of January 1, 2020 are:

- Atlantic – Charles D. Fulp, Jr, K3WW; k3ww@fast.net
- Central – Craig Thompson, K9CT; Craig@K9CT.us
- Dakota – Dr Scott Wright, K0MD; DrScott.Wright@gmail.com
- Delta – Stan Stockton, K5GO; wa5rtg@gmail.com
- Great Lakes – Dave Pruett, K8CC; k8cc@comcast.net
- Hudson – Zev Darack, N2WKS; zevdarack@gmail.com
- Midwest – Dr. Glenn Johnson, W0GJ; w0gj@arrl.net
- New England – Chairman- Dennis Egan, W1UE; w1ue@ARRL.net
- Northwestern – Jim Cassidy, KI7Y; ki7y@arrl.net
- Pacific – David B. Ritchie, W6DR; w6dr@arrl.net
- Roanoke - Don Daso, K4ZA; k4za@juno.com
- Rocky Mountain – Kenneth “Mike” Fatchett, W0MU; W0MU@w0mu.com
- Southeastern – Charles Wooten, NF4A; NF4A@knology.net
- Southwestern – Glenn Rattmann, K6NA; k6na@cts.com
- West Gulf – James K. George, N3BB; n3bb@mindspring.com
- Radio Amateurs of Canada – Samuel A. Ferris, VE5SF; ve5sf@sasktel.net

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Tasking 2019.1 - CAC Tasking Proposals.

The PSC requests that the CAC analyze, study and provide more details on the following CAC proposals for potential new tasking's.

1. Change the ARRL LP designation for HF contests from a maximum of 150 watts to 100 watts. (Note- affects all ARRL sponsored HF contests)

Tracing back thru the years, after WW2 popular output tubes were 811A. A little later, we get into the 6146B tubes. What do all those tubes have in common? A pair results in about 150 watts input. Today, all rigs are transistorized; the common power output is 100 watts. The major ham manufacturers do offer rigs with more power output, but the majority of rigs (K3, 7300, 7610, FT101, TS890, etc.) give 100 watts out; we're not aware of any rigs that advertise "150 watts output". In our opinion, the Low Power class was meant to be barefoot rigs with no amp, but the power output level was never changed to reflect the changing market. CAC Polling- 14 Pro, 0 Con

2. Allow Multi-op stations to operate the entire contest period in all HF contests. (Note- affects RTTY Roundup, SS both modes, and ARRL 10M)

The CAC sees no downside in not allowing Multi-op stations to operate the entire contest period in the 4 contests where it is currently not allowed. More activity is always good. CAC Polling 14 Pro, 0 Con

3. Redefine what constitutes a single op

There was minimal support for changing the definition of a "single op" for ARRL HF contests. CAC Polling 5 Pro, 8 Con, 1 undecided

4. Eliminate paper logs.

In our computerized world, it seems that the time for paper logs has come and gone. CAC polling 13 Pro, 1 Con

5. Require live score reporting for top tier stations.

Some members felt this is an absolute need to get and keep new blood in radio contesting; the 6 months it takes for results is too long to wait. Others disagree.

CAC Polling 3 Pro, 10 Con, 1 undecided

6. Allow DX to DX QSOs in ARRL 160M and ARRL DX

There was little support for allowing DX to DX QSOs in ARRL DX. That would completely change the contest. CAC Polling 3 Pro, 10 Con, 1 Undecided

(Note- Limited DX to DX QSOs in ARRL 160M, no DX to DX QSOs in ARRL DX) There was also little support for allowing DX to DX QSOs in ARRL 160M.

CAC Polling 1 Pro, 12 Con

7. Goal of live scoring including log checking by 2022

While this idea was endorsed by the CAC, it is difficult to see how we get from where we are today to this. It does speak to the idea that the time from the contest to the publication of results is too long, and that we need to address that to see if the time can be shortened even more than it has been.

CAC Polling 13 Pro, 1 Con

8. Adding a QRP Category to RTTY Roundup (Note: all other ARRL Contests include a QRP category)

This was already resolved at the last BOD. The category was added.

CAC Tasking 2019.2

The PSC requests the CAC to analyze, study and provide more details on the following new tasking. Please provide information on each item consisting of, at least, description, study details, pros, cons, how the CAC voted, conclusion, etc.

The CAC strongly endorsed changes, particularly in how scores are allocated to a club:

1. Dxpediton scores should be allocated back to clubs by the % of operators that participated in the Dxpediton.
2. Single Op scores should be allocated back to their home club, regardless of where the Single Op score takes place.
3. Multi-op scores should be allocated back to clubs by the % of operators that participated in the Multi-op.

The CAC also endorsed, to a lesser degree:

1. In the ARRL DX Contest, Offer a Club Competition for DX
2. Incorporate Team competition in to ARRL Contests

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1. Should what constitutes a “Club Territory” (ARRL Section or 1 175-mile radius circle from a club-selected center point) be changed? If so, to what?

CAC Poll- 4 Eliminate “Club Territory” entirely, other than inside US.

2 Expand the “Circle” to 250 miles

3 No change

There was no consensus on this question, other than 6 of the 9 respondents indicated they would like to see the Club Territory either unlimited (nationwide) or expanded to 250 miles. While expanded the “Club Territory” might make sense in sparsely populated areas (like Canada or the Western USA), all it would really do in the Northeast is to expand the overlap of FRC/YCCC and FRC/PVRC, and it would be more difficult to administer if different rules were used for different areas of the country or Canada.

No recommendation.

2. Should a DXPedtion Score be split according to the % of members of a club that participated (current rule is if one club has more than 50% of the operators, that club gets the entire score).

CAC Poll- 10 Pro, 1 Con

The CAC was greatly in favor of this. Benefit: More “equitable” way of apportioning points for Expedition efforts. Con is the increased work necessary to do so. I know the YCCC would be able to provide assistance to the ARRL to assist with this, and FRC would probably also assist.

3. Should guest ops, operating anywhere in the USA or Canada, have their score count for their chosen club?

CAC Poll- 10 Pro, 1 Undecided

The CAC was greatly in favor of this. A guest op in a different area of the country would be able to claim their score for their home club. This would also benefit the ops that operate remote stations in that their scores would assist their home club.

4. Should Multi-op scores be apportioned back to clubs in a % relative to the % of ops in different clubs, regardless of their location?

CAC Poll- 10 Pro, 0 Con

The CAC was greatly in favor of this. Only con we could come up with is the increased administrative work necessary to apportion it to the individual club scores.

5. Should ARRL DX have a Foreign Club competition?

CAC Poll- 7 Pro, 2 Con

The CAC was a little less strongly in favor of this, but I’ve been in contact with several foreign clubs that would welcome it. Foreign Club Competition should increase activity overseas, particularly in Europe, and lead to more QSOs (and more fun) for W/VE stations.

6. Do the Unlimited (>51 logs) , Medium (<50 logs), and Local (<=10 logs) categories be changed. If so, to what?

CAC Poll- 5 Yes, 3 No Change

Marginal endorsement by the CAC but no agreement on what it should be changed to.

7. Should other forms of competition, i.e. 5-member teams, be incorporated into Club Competition?

CAC Poll- 6 Yes, 3 No

The CAC was in favor of this, but not strongly. Several felt that Team Competition would be a way to foster participation by ops that aren’t part of a club. It also works well on the Live Scoreboards.

8. Should the definition of a “member in good standing” for club competitions be changed? If so, to what?

CAC Poll- 7 No Change, 1 Change

CAC didn’t endorse changing this definition. Let the clubs decide was the overriding comment.

Tasking #2019.3, Digital Contest

The PSC request the CAC to analyze, study, and provide more details on an FT8 Contest.

1. Should the ARRL RTTY Roundup be the contest to accommodate FT8 and/or all new digital modes?

There is heavy sentiment from the RTTY contesters to NOT allow FT8/other digital mode contacts in the RTTY Roundup.

2. Should the ARRL sponsor a new FT8 Digital contest?

I asked the CAC with volunteers to form a committee to design a new Digital Contest; only one other CAC member volunteered to be on the committee. Several had other commitments, but most seemed to have the opposite reaction to the new digital modes- they are not in favor of them, so they did not want to participate. I took the opposite tact- the ARRL SHOULD have their own Digital Contest, so the committee designed the following contest.

Program and Services Committee
ARRL

The CAC was tasked with developing rules for a new ARRL Digital Contest. There was not enough interest from CAC members to set up a committee to do this, so I asked for nominations of ops from their areas and got a few. I then perused Digital contest results and asked several other ops if they were interested. The committee that developed these contest rules was as follows:

W7CD John Zantek
K9WX Tim Gennett
KA1R Matt Power
N0SSC, Sterling Mann
W0MU Mike Fatchett, CAC Member
W1UE Dennis Egan, CAC Chairman

What emerged is a contest with different rules than the normal style ARRL contest. We are confident that current logging software can be modified to accommodate these rules, and the WSJT-x software already has the required exchange coded in. We have not asked any of the logging software authors if this is possible, nor have we conversed with the authors of WSJT-x.

After considering several names, we chose the “ARRL Digital Derby” as the contest name. We used dates in 2020 for the contest, just to give it a little more reality.

Dennis Egan, W1UE
CAC Chairman

The 2020 ARRL Digital Derby

Dates: March 14-15, 2020 (Optional date, April 19, 2020)

Same weekend every year, or if in April it would vary with a non-Easter weekend.

The contest calendar is very crowded. The committee definitely wanted this contest in the Spring. Best dates we could find were above. We rejected August as the month due to conflicts with the WWDigi contest.

Starts: 1200Z UTC Saturday

Ends: 1159Z UTC Sunday

Contest is 24 hours long. Wanted one complete shot at propagation

Objective: For amateurs around the world to contact as many other amateurs in as many grid squares as possible.

Standard objective. Wanted it worldwide to increase participation.

Bands: Six bands only: 1.8, 3.5, 7, 14, 21, and 28MHz. Observation of established band plans is strongly encourage.

Normal 6 contest bands. Below, suggested band plans were lifted directly from WWDigi contest rules. It is very important at this stage of digital contesting the we keep the suggested band plans consistent from contest to contest.

Suggested Band Plans:

FT-4 Recommended Sub-bands

1.840-1.844
3.580-3.590
7.080-7.090
14.080-14.090
21.080-21.090
28.080-28.090

Set the radio dial at the bottom of the sub-band and work stations on audio frequencies within the radio passband, typically 2.5-4 kHz wide. If a sub-band becomes crowded, move the radio dial frequency up in 2 kHz increments, as needed. (For example: 7.080, 7.082, 7.084, 7.086 and 7.088

FT-8 Recommended Sub-bands:

1.844-1.848
3.590-3.600
7.090-7.100
14.090-14.100
21.090-21.100
28.090-28.100

Set the radio dial at the bottom of the sub-band and work stations on audio frequencies within the radio passband typically 2.5-4 kHz wide. If a sub-band becomes crowded, move the radio dial frequency up in 2 kHz increments, as needed. (For example: 7,090, 7.092, 7.094, 7.096 and 7.098)

Contest Exchange: 4-digit Grid Squares

This feeds right into the scoring below. Already provided for in WSJT.

Modes: FT4 and FT8 only. Stations may be worked once per band, regardless of mode. We could add more modes if they become available. Stations worked once per band is to ensure that there are lots of QSOs available.

Scoring:

A. The final score is the result of the total QSO points multiplied by the number of Grid Multipliers.

Example: 2500 QSO Points * 100 Grid Multipliers = 250,000 points.

B. QSO Points: 1 point per QSO, plus an additional point for each 1000km of distance between the centers of the grid squares of the two stations, expressed to one decimal place.

Example: two stations with a center-to-center distance of grid squares is 1565 km make a contact. They receive 1 point for the QSO, and another 1.6 points for the distance, or a total of 2.6 QSO points for the contact.

C. Multipliers: There is one multiplier awarded for each unique “first 3” of each Grid Square worked, regardless of frequency band. Example: “FN1” is one multiplier, “FN2” is a second multiplier, “FN3” is a third multiplier, and so on. Multipliers are worked once per contest, NOT once per band.

Perusing some online maps, I can count about 100 USA multipliers and 122 European multipliers using the first 3 characters of the grid square as a multiplier. Distance based scoring favors some stations, doesn't favor others, but it is the style of digital contests to allow it. Our QSO Pts algorithm is more generous than the WWDigi algorithm, and one also gets points for fractions of the 1000km distance. We wanted the contest to be more QSO oriented, with less score emphasis on working lots of multipliers.

Entry Category:

A. Single Operator Categories: One person (one operator) performs all operating and logging functions. There is a 20 hour limit for single operators; the 4 hours off time must be taken in minimum 1 hour blocks. Time starting late or finishing early counts as off time.

1. High Power (all band or single band): Total Output power must not exceed 1500 watts.

2. Low Power (all band or single band): Total output power must not exceed 100 watts.

3. QRP (all band or single band): Total output power must not exceed 5 watts.

Off time adds a strategic item to the contest. Standard power definitions for the others. Notice that we specified 100 watts for the LP entry; many of the ops in this contest will be operating with a barefoot transceiver with 100 watts max.

Any Single Operator entrant who meets the requirements may ALSO enter one of the following OVERLAY categories:

1. For Single Operator Low Power and QRP, an overlay for “ALL Enclosed Antennas”. For this category, all antennas must be enclosed within a structure.

2. Limited Time Category: 8 hours operating time maximum.

3. For Single Operator Low Power and QRP, an overlay for “ALL Enclosed Antennas” and “Limited Operating Time”

“ALL ENCLOSED ANTENNAS” overlay is for ops that have all their antennas enclosed within a building. “Limited Time” is for up to 8 hours of operation, to get competitive activity from those that can't spend an entire day contesting or don't care to do so.

Multi-Operator Category- there is only one Multi-Operator Category available:

1. Single Transmitter: This is true one transmitter, multiple operators. No multiplier transmitter, no in-band transmitter. Multiple operators, one transmitter. Stations in this category may operate the entire 24 hours.

This returns us to probably what started out as a Multi-Single entry: one radio, more than one operator.

Awards:

A single band log will be eligible for a single band award only. A log containing more than one band will be judged as an all-band entry unless specified as a single band entry.

Certificates: Electronic certificates will be made available for download for everyone that submits an entry.

Plaques: Are awarded for top performance in a number of categories. How many and to whom, subject to donations. TBD

Definitions:

1. “QSO Finding Assistance”- Examples that are permissible are PSKReporter, Telnet, and other chat rooms. Such assistance may NOT be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact. Self-spotting through the use of Telnet is not permissible.
2. “All Enclosed Antennas”- all antennas are enclosed within a building.

General Rules:

1. Each claimed contact must include contemporaneous direct initiation by the operator on both sides of the contact. Initiation of a contact may be locally or by remote. (ARRL Requirement)
2. All entry categories are limited to 6 band changes per clock hour. Example: A band change from 80m to 40M counts as one band change; if the op made one contact, then changed back to 80M, it would then count as another band change.
3. No alternating CQ on two frequencies in the same band, i.e. an op calling CQ on FT8 during even periods, then calling CQ on FT4 during odd periods, or an op calling CQ on FT8 on 14.074 during odd periods, then calling CQ on FT8 at 14.094 during even periods. (ARRL Requirement)
4. All requests for contacts, responses to calls, and copying of call signs and contest exchanges must be accomplished during the contest period using the mode and frequencies of the contest.
5. All entry categories may use “QSO Finding Assistance”.

Team Competition: You may wish to form a team with fellow digital participants. If so, your team must consist of two to five stations (of which one may be a Multi-op) whose individual scores are combined to produce a team score. Although clubs or other groups having more than five members may form multiple teams, there are no distance or meeting requirements for a team entry. Teams must be registered prior to the start of the contest. Use one of the following online forms to register your team:

Registration will be available from 10 days before the start of the contest, until 1 hour before the contest begins, at the following url: <http://contests.arrl.org/teamreg.pho?eid=1>. Teams may also be registered by sending an email to the ARRL Contest Branch Manager at contests@arrl.org. If an op is registered for more than one team, the last team he is registered for will be his team of record.

Team Score: the sum of the scores from the qualified members.

No club competition but Team Competition. This section probably needs more work to match up with what the ARRL Contest Branch can provide.

VHF Contests Rules Consolidation

10 GHz and Up Contest

Objective: For North American amateurs to work as many stations in as many different locations as possible in North America on bands from 10-GHz through Light.

Dates: Third full weekend of August and September. The dates for 2020 are:

Contest Period: 6am local time Saturday until 12:00 Midnight local time Sunday. Stations may operate 24 hours during those hours. Listening time counts as operating time. Times off must clearly be marked in the log.

Entry Categories:

1. 10 GHz only
2. 10 GHz and Up

Exchange:

6 Character Maidenhead Locator, signal report is optional

General Rules:

1. Scheduling of contacts is both permissible and encouraged.
2. All entrants, regardless of category, are permitted to use spotting assistance or nets including but not limited to DX-alerting nets, internet chat rooms, APRS and other packet, reverse beacon networks and repeaters to identify stations available for contacts and to announce (self-spot) their availability for contacts. Announcements shall be limited to call sign, location, band or frequency, mode and- if applicable- transmitting sequence and listening direction. These methods of spotting assistance may also be used to coordinate antenna peaking prior to initiation of the contact and to explain contest rules, such as the required exchange, for those who need clarification. Such assistance may not be used to facilitate the completion of any contact once the contact has commenced. This means such assistance may not be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact.
3. Stations are encouraged to operate from more than a single location. For this contest, a change of location is defined as a straight line distance move of at least 16km (10 miles). A station may be reworked on each band for additional credit by either end of the contact moving to a new location.
4. Contacts may not be duplicated on the second weekend (at least one end of the QSO must be from a different location to count).
5. Contacts must be over a minimum distance of 1 km.
6. A transmitter used to contact one or more stations may not be used subsequently under any other call during the contest period. The intent of this rule is to prohibit “manufactured contacts”.

7. Contacts with aeronautical mobiles do not count.
8. Each claimed contact must include contemporaneous direct initiation by the operator on both sides of the contact. Initiation of a contact may be either locally or by remote.
9. Schedules: Schedules may be set up by use of the HF calling frequency of 3818 Khz on the evenings of Tuesday, Wednesday, and Thursday before the contest weekend starting at 7pm local. Also, 144.230 and 146.55 MHz can be monitored during the contest to arrange schedules with other stations. Paired stations should move off these frequencies once contact has been made.

Multipliers: This contest does not have any multipliers.

Scoring:

1. Distance points: Distance between stations in Km for each QSO is calculated. Distance = distance in km. In making the distance calculations, a string (or rule) and a map may be used. Calculations using a computer program, however, are preferred. For distance determination, the assumption is made that a station is located in the center of the 6-character locator sub-square.
2. QSO Points: Count 100 QSO points for each unique call sign worked per band. Portable indicators added to a call sign are not considered as making the call sign unique.
3. Total Score = Distance + QSO Points

Scoring Example:

On the first weekend, W9JJ operating from Mt Greylock, Ma works W1VD (distance 97km) and W1LJ/1 (distance 107km), and W1LJ/1 (distance 107km) on 24GHz. On the second weekend, operating from Pack Monadnock, NH, W9JJ works W1VD (154km), W1VT (205km), W1LJ (157km), and K1RO (147km) on 10GHz, and K1RO (147km) on 24GHz.

Distance points – $97+107+107+154+205+157+147+147 = 1121$

QSO Points $100 \times 6 = 600$

Final Score – $1121 + 600 = 1721$

Log Submission:

1. Official Entry form is available here and a log sheet with a field for distance points here.
2. Electronic entries in Cabrillo or ADIF format must be made to the web app at <http://contest.arrl.org/arrl10gscoresubmission.php>.
3. Paper logs may be mailed to ARRL 10-GHz Contest, 225 Main St, Newington CT 06111
4. Logs must be submitted within 30 days after the final event weekend.
5. Late logs may be classified as “check logs”.

Awards:

Suitable awards will be downloadable on line at <http://contests.arrl.org/certificates.php>

January VHF Contest

ANNOUNCING:

2020 JANUARY VHF CONTEST

Start: 1900z Saturday January 18, 2020 Ends 0359Z Monday January 20, 2020

Objective: For amateurs in the US, Canada, and their possessions to work as many amateur stations in as many different 2 degree by 1 degree Maidenhead Grid Squares as possible, using authorized frequencies above 50 MHz. Stations outside the US, Canada, and their possessions may only work stations in the US, Canada, and their possessions. Stations in KH0-9, KL7 & KP1-KP5, CY9/CY0 count as W/VE stations and can be worked by DX stations for contest credit.

Entry Categories:

1. Single Operator Low Power (SOLP)

Power output limited per table below.

2. Single Operator High Power (SOHP)

Power output on any band exceeds the SOLP output in the table below.

3. Single Operator Portable (SO/P)

Power output limited per table below

Location can't be a permanent station

Must use Portable power, equipment, and antennas all located within a 500 meter diameter circle

4. Single Operator 3 Band (SO3B)

Power output and permitted bands limited per table below

5. Single Operator FM Only (SOFM)

Power output and permitted bands limited per table below

6. Rover

No more than 2 ops.

An op may perform any or all rover functions, but a driver's function shall be limited to driving the vehicle. Drivers may be switched out during the contest.

Must move among two or more grid squares during the contest.

All equipment, power supplies, and antennas must be transported in vehicle

Only one call sign may be used. Exception: ARRL Family Rule

For the one call sign that is used; "/R" must be appended for CW and digital transmissions, and "/Rover" must be added on phone.

Rovers are encouraged to adopt operating practices that allow as many stations as possible to contact them.

A Rover may not make more than 100 QSOs with any other one rover.

Any number of observers is allowed, but observers may not perform any rover function at any time.

Rover vehicles with only one occupant are allowed to perform all functions listed.

Rover operators may submit separate logs for a single operator (fixed station) in addition to their rover entries.

7. Limited Rover

All the rules for Rover, except may use only the 50, 144, 222, and 432 MHz bands.

8. Unlimited Rover

All the rules of the Rover class, with the following changes:

More than 2 operators can be used.

There is no limit on the number of QSOs that can be made with any other Rover

All the equipment, power supplies, and antennas used at each operating site do not have to be transported in the Rover vehicle.

9. Multi-Operator Limited (Limited Multi)

Only 4 bands may be used; additional bands should be submitted as “checklogs”

10. Multi-Operator Unlimited (Unlimited Multi)

Stations may submit logs for any bands used.

Maximum permitted power on Each Band, per Entry Category

Entry Class	50	144	222	432	902	1296	2.3 GHz & Up
SO LP	200	200	100	100	50	50	50
SO HP	1500	1500	1500	1500	1500	1500	1500
SO/Port	10	10	10	10	10	10	10
SO3B	100	100	N/A	50	N/A	N/A	N/A
SOFM	100	100	100	100	N/A	N/A	N/A
Rover	1500	1500	1500	1500	1500	1500	1500
Limited Rover	200	200	100	100	N/A	N/A	N/A
Unlimited Rover	1500	1500	1500	1500	1500	1500	1500
Limited Multi	1500	ON	ANY	FOUR	BANDS	>	>
Unlimited Multi	1500	ON	MORE	THAN	FOUR	BANDS	>

Modes: For SOFM category, the only allowed mode is FM. For all other categories, all legal modes are permitted. FM, CW and SSB/Phone are the most common, MSK144, FT8, FT4, PSK31, FSK441, and JT65 are all used.

Exchange: For all stations and modes, exchange is the 4-character Maidenhead Grid Square of the station transmitter location. See <http://www.arrl.org/grid-squares>

SCORE COMPUTATION:

QSO Points:

- 50 or 144 MHz: 1 point
- 222 or 432 MHz: 2 points
- 902 or 1296 MHz: 4 points
- 2.3 GHz and higher: 8 points

Multiplier:

Sum of the number of grid squares worked on each band.

Score: (QSO Pts Total) x (Multiplier Total)

Rovers Only:

QSO Points are summed the same as other categories.

Multiplier computation: Each unique Grid Square worked on each band, regardless of which grid square they were made from, plus one additional multiplier for every grid square from which they made a QSO.

Definitions:

1. Single Operator: One person performs all transmitting, receiving, spotting, and logging functions as well as equipment and antenna adjustments.
2. Non-contact producing Activity: Spotting assistance, nets including but not limited to DX-Alerting nets, internet chat rooms, APRS, and other packet, reverse beacon networks, and repeaters to identify stations available for contacts.
3. Maximum number of signals at one time: This Maximum total does not include a signal necessary to provide communications to a “Non-Contact Producing Activities”.
4. Self-spotting: Your posting of your call sign, location, band or frequency, mode and-if applicable- transmitting sequencing and listening direction.
5. Maritime Mobile: Shipboard operation on the high seas, outside of the territorial waters of the country (defined these purposes only as 12 miles)

General Rules:

1. The same station may be worked for credit only once per band from any grid square, regardless of mode. Any station that changes their transmitting grid square may be reworked in the new grid.
2. All stations may have only one signal per band at any given time, regardless of mode.
3. Crossband and Aeronautical mobile QSOs are not counted for contest credit.
4. Contacts made through repeaters, digipeaters, satellites or gateways are prohibited.
5. While no minimum distance is specified for contacts, equipment should be capable of communications at a range of at least 1 km.
6. A station located on a dividing line between grid squares may only give out one grid square in the exchange. A different grid square cannot be given out unless the complete station including antennas is moved at least 100 meters.
7. Above 300 GHz, contacts are permitted for contest credit only between licensed amateurs using mono-chromatic signal sources, i.e. laser and LED, and employing at least one stage of electronic detection on receive. Laser usage is restricted to ANSI Z136 Class I, II, IIa, and IIIa, i.e. power less than 5mW.
8. Marine Mobile (and Maritime) entries will be listed separately as “Marine Mobile” in the listings and compete separately for awards.
9. Total transmitting power for any high power entry in any category is either 1500 Watts PEP or the maximum power level established by the national licensing authority of your country, whichever is lower.
10. Stations in any entry class are permitted to self-spot.
11. Only one transmitted signal per band is permitted at any given time; alternating CQs on two or more frequencies using the same band and mode is prohibited.
12. Multi-op stations may not include QSOs with their own operators except on frequencies higher than 2.3GHz. Even then, a complete, different station (transmitter, receiver, and antenna) must exist for each QSO made under these conditions.

13. Stations in any entry class are permitted to use “Non-Contact Producing Activities”. These announcements shall be limited to call sign, location, band or frequency, mode and-if applicable-transmitting sequence and listening direction. These methods of spotting assistance may also be used to coordinate antenna peaking prior to initiation of a contact and to explain contest rules, such as the exchange required, for those who need clarification. Such assistance may NOT be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact.

14. ARRL Family Rule: A transmitter, receiver, or antenna used to contact one or more stations may not subsequently be used under any other call during the contest period, except for family stations where more than one call sign has been issued, and then only if the call sign is used by a different operator. The intent of this rule is to accommodate family members who must share a rig and to prohibit manufactured or artificial contacts.

15. Participants are reminded that the segment 50.100-50.125 MHz should be used for intercontinental QSOs only, using 50.125MHz as a calling frequency, then QSY after contact is established.

16. Retransmitting either or both stations or use of repeater frequencies for purposes of completing a contact is prohibited.

Log Submission:

1. All QSOs made on a contest band during the contest period that may count for either your score or another op’s score, should be put into your submitted log.

1. Entries that have been electronically generated must submit their log file in the Cabrillo file format. Paper printouts are not acceptable.

2. Hand-written paper logs must be mailed to ARRL January VHF Contest, 225 Main St, Newington CT 06111.

3. Entries must be postmarked or uploaded within 10 days. Deadline is 0359Z January 30, 2020.

4. Cabrillo logs must be submitted using the web app. Once uploaded, a confirmation email will be sent to you. The list of electronically-submitted logs can be viewed at <http://contests.arrl.org/logsreceived.php>

Awards:

1. Top Single Operator High and Low Power in each ARRL/RAC Section.

Where Significant effort or Competition is evident, in each ARRL/RAC Section:

1. Top Single Operator for each band (50, 144, 222, 432, 902, 1296, 2304 and up)

2. Top Single Operator/Portable

3. Top Single Operator/3 Band

4. Top Single Operator/FM

5. Top Multioperator Score

6. Top Limited Multioperator Score

7. Top Multioperator Score

Where significant effort or competition is evident, in each ARRL Division and Canada:

1. Top Rover Score

2. Top Limited Rover Score

3. Top Unlimited Rover Score

Where significant effort or competition is evident:

1. Top DX Score(s)

Web Link for Certificates: <http://contests.arrl.org/certificates.php>

Affiliated Club Competition (ACC)

Rules of Participation

1. Only clubs affiliated with the ARRL or RAC may participate in the ACC.
2. Within the US and its territories, a club must also have filed an annual report with the Field Services department of ARRL HQ within the past two years.
3. Clubs outside of the ARRL Operating territory may participate as follows:
 - a. In Canada, clubs that are fully affiliated with Radio Amateurs of Canada (RAC) are eligible.
 - b. Outside ARRL Operating territory and Canada, clubs must be ARRL affiliates as determined by the "Rules and Regulations Concerning Affiliated Societies" section of the ARRL Articles of Association, By-Laws, Rules and Regulations".
4. For a club to be listed, a minimum of 3 entries are required.
5. The entry must clearly state the club name in the Cabrillo file header.
6. To be eligible to submit a score in the ACC, ops must be eligible members in good standing of the club designated, and reside and operate in the club circle for the category of entry. The Club Secretary or designated Club Scorekeeper for an affiliated club must submit a list of all club members eligible to compete for the club (not a club roster) and which level (unlimited, medium, local) they wish to enter prior to the start of the contest.
7. Club Eligibility Lists may be submitted via the ARRL-provided web uploading service, or by email, fax, or USPS to the ARRL Contest Branch Manager. The Eligibility List must contain the club name, club ARRL section (or the location of the center of the grid of the club's eligibility circle), and a list of member callsigns and "locations". Locations are specified as 6-character grid locators. Distances are calculated from center to center of the 6-character grid locators.
8. Failure by the club to submit a valid list of members eligible to submit scores for the club either electronically or by mail (postmarked before the beginning of the contest) may result in the club being declared ineligible for the ACC in question.
9. A member's score must be shown in the contest results to be counted for a club. Only that score shown in the results (or in subsequent corrections) will count for the ACC.
10. All stations must be located and all operators must reside within the designated club territory.
11. "Rover Rule"- Rovers who submit scores for the club competition must submit a second summary sheet indicating QSOs and score *if they made any contacts from outside of the club territory*. Indicate clearly on the summary sheet and in log if the log is the total entry or that portion to be counted to the club score.
12. Unlimited Rover scores may not be applied to a club score for the ACC.
12. Guest Operators: The Guest Op at a SO station must meet the membership and residency requirements for the club entry category, and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member.
13. At a Multi-Op station, at least 50% of the operators must be eligible members of the club and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member. A club member who resides outside of the club territory counts as a non-member when determining the number of eligible members at a multi-operator station. Multi-op entries may utilize non-member ops licensed one year or less without including these ops in the 50% calculation. The intent is to encourage clubs to recruit contesters from newer amateurs without adversely affecting the club aggregate score. Only one club may receive the multi-op score.

Categories of Entry:

1. Unlimited: Over 50 entries, 175 mile (282 km) or one section club circle
2. Medium: 11-50 entries, 175 mile (282km) or one section club circle
3. Local: 10 or fewer entries, 35 mile club circle.
4. A club's entry category may be changed if, in the opinion of the ARRL Awards Committee, the club has manipulated its number of entries to allow the club to enter a lower category.
5. It is not the intent of these rules that a club vote out a member, or that a member resign and then be voted back into the club at a later date, so that the member in good standing rule can be met.

Awards:

1. The highest scoring ACC entry in each category will be awarded a gavel.

June VHF Contest

ANNOUNCING:

2020 JUNE VHF CONTEST

Start: 1800z Saturday June 13, 2020 Ends 0259Z Monday June 15, 2020

Objective: For amateurs in the US, Canada, and their possessions to work as many amateur stations in as many different 2 degree by 1 degree Maidenhead Grid Squares as possible, using authorized frequencies above 50 MHz. Stations outside the US, Canada, and their possessions may only work stations in the US, Canada, and their possessions. Stations in KH0-9, KL7 & KP1-KP5, CY9/CY0 count as W/VE stations and can be worked by DX stations for contest credit.

Entry Categories:

1. Single Operator Low Power (SOLP)
Power output limited per table below.
2. Single Operator High Power (SOHP)
Power output on any band exceeds the SOLP output in the table below.
3. Single Operator Portable (SO/P)
Power output limited per table below
Location can't be a permanent station
Must use Portable power, equipment, and antennas all located within a 500 meter diameter circle
4. Single Operator 3 Band (SO3B)
Power output and permitted bands limited per table below
5. Single Operator FM Only (SOFM)
Power output and permitted bands limited per table below
6. Rover
No more than 2 ops.
An op may perform any or all rover functions, but a driver's function shall be limited to driving the vehicle. Drivers may be switched out during the contest.
Must move among two or more grid squares during the contest.
All equipment, power supplies, and antennas must be transported in vehicle
Only one call sign may be used. Exception: ARRL Family Rule

For the one call sign that is used; “/R” must be appended for CW and digital transmissions, and “/Rover” must be added on phone.

Rovers are encouraged to adopt operating practices that allow as many stations as possible to contact them.

A Rover may not make more than 100 QSOs with any other one rover.

Any number of observers is allowed, but observers may not perform any rover function at any time.

Rover vehicles with only one occupant are allowed to perform all functions listed.

Rover operators may submit separate logs for a single operator (fixed station) in addition to their rover entries.

7. Limited Rover

All the rules for Rover, except may use only 50, 144, 222, and 432 MHz bands.

8. Unlimited Rover

All the rules of the Rover class, with the following changes:

More than 2 operators can be used.

There is no limit on the number of QSOs that can be made with any other Rover

All the equipment, power supplies, and antennas used at each operating site do not have to be transported in the Rover vehicle.

9. Multi-Operator Limited (Limited Multi)

Only 4 bands may be used; additional bands should be submitted as “checklogs”

10. Multi-Operator Unlimited (Unlimited Multi)

Stations may submit logs for any bands used.

Maximum permitted power on Each Band, per Entry Category

Entry Class	50	144	222	432	902	1296	2.3GHz & Up
SO LP	200	200	100	100	50	50	50
SO HP	1500	1500	1500	1500	1500	1500	1500
SO/Port	10	10	10	10	10	10	10
SO3B	100	100	N/A	50	N/A	N/A	N/A
SOFM	100	100	100	100	N/A	N/A	N/A
Rover	1500	1500	1500	1500	1500	1500	1500
Limited Rover	200	200	100	100	N/A	N/A	N/A
Unlimited Rover	1500	1500	1500	1500	1500	1500	1500
Limited Multi	1500	ON	ANY	FOUR	BANDS	>	>
Unlimited Multi	1500	ON	MORE	THAN	FOUR	BANDS	>

Modes: For SOFM category, the only allowed mode is FM. For all other categories, all legal modes are permitted. FM, CW and SSB/Phone are the most common, MSK144, FT8, FT4, PSK31, FSK441, and JT65 are all used.

Exchange: For all stations and modes, exchange is the 4-character Maidenhead Grid Square of the station transmitter location. See <http://www.arrl.org/grid-squares>

SCORE COMPUTATION:

QSO Points:

50 or 144 MHz: 1 point
222 or 432 MHz: 2 points
902 or 1296 MHz: 3 points
2.3 GHz & Up: 4 points

Multiplier:

Sum of the number of grid squares worked on each band.

Score: (QSO Points Total) x (Multiplier Total)

Rovers Only:

QSO Points are summed the same as other categories.

Multiplier computation: Each unique Grid Square worked on each band, regardless of which grid square they were made from, plus one additional multiplier for every grid square from which they made a QSO.

Definitions:

1. Single Operator: One person performs all transmitting, receiving, spotting, and logging functions as well as equipment and antenna adjustments.
2. Non-contact producing Activity: Spotting assistance, nets including but not limited to DX-Alerting nets, internet chat rooms, APRS, and other packet, reverse beacon networks, and repeaters to identify stations available for contacts.
3. Maximum number of signals at one time: This Maximum total does not include a signal necessary to provide communications to a "Non-Contact Producing Activities".
4. Self-spotting: Your posting of your call sign, location, band or frequency, mode and-if applicable- transmitting sequencing and listening direction.
5. Maritime Mobile: Shipboard operation on the high seas, outside of the territorial waters of the country (defined these purposes only as 12 miles)

General Rules:

1. The same station may be worked for credit only once per band from any grid square, regardless of mode. Any station that changes their transmitting grid square may be reworked in the new grid.
2. All stations may have only one signal per band at any given time, regardless of mode.
3. Crossband and Aeronautical mobile QSOs are not counted for contest credit.
4. Contacts made through repeaters, digipeaters, satellites or gateways are prohibited.
5. While no minimum distance is specified for contacts, equipment should be capable of communications at a range of at least 1 km.
6. A station located on a dividing line between grid squares may only give out one grid square in the exchange. A different grid square cannot be given out unless the complete station including antennas is moved at least 100 meters.

7. Above 300 GHz, contacts are permitted for contest credit only between licensed amateurs using mono-chromatic signal sources, i.e. laser and LED, and employing at least one stage of electronic detection on receive. Laser usage is restricted to ANSI Z136 Class I, II, IIa, and IIIa, i.e. power less than 5mW.
8. Marine Mobile (and Maritime) entries will be listed separately as “Marine Mobile” in the listings and compete separately for awards.
9. Total transmitting power for any high power entry in any category is either 1500 Watts PEP or the maximum power level established by the national licensing authority of your country, whichever is lower.
10. Stations in any entry class are permitted to self-spot.
11. Only one transmitted signal per band is permitted at any given time; alternating CQs on two or more frequencies using the same band and mode is prohibited.
12. Multi-op stations may not include QSOs with their own operators except on frequencies higher than 2.3GHz. Even then, a complete, different station (transmitter, receiver, and antenna) must exist for each QSO made under these conditions.
13. Stations in any entry class are permitted to use “Non-Contact Producing Activities”. These announcements shall be limited to call sign, location, band or frequency, mode and-if applicable-transmitting sequence and listening direction. These methods of spotting assistance may also be used to coordinate antenna peaking prior to initiation of a contact and to explain contest rules, such as the exchange required, for those who need clarification. Such assistance may NOT be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact.
14. ARRL Family Rule: A transmitter, receiver, or antenna used to contact one or more stations may not subsequently be used under any other call during the contest period, except for family stations where more than one call sign has been issued, and then only if the call sign is used by a different operator. The intent of this rule is to accommodate family members who must share a rig and to prohibit manufactured or artificial contacts.
15. Participants are reminded that the segment 50.100-50.125 MHz should be used for intercontinental QSOs only, using 50.125MHz as a calling frequency, then QSY after contact is established.
16. Retransmitting either or both stations or use of repeater frequencies for purposes of completing a contact is prohibited.

Log Submission:

1. All QSOs made on a contest band during the contest period that may count for either your score or another op’s score, should be put into your submitted log.
 1. Entries that have been electronically generated must submit their log file in the Cabrillo file format. Paper printouts are not acceptable.
 2. Hand-written paper logs must be mailed to ARRL January VHF Contest, 225 Main St, Newington CT 06111.
 3. Entries must be postmarked or uploaded within 10 days. Deadline is 0359Z June 25, 2020.
 4. Cabrillo logs must be submitted using the web app. Once uploaded, a confirmation email will be sent to you. The list of electronically-submitted logs can be viewed at <http://contests.arrl.org/logsreceived.php>

Awards:

1. Top Single Operator High and Low Power in each ARRL/RAC Section.

Where Significant effort or Competition is evident, in each ARRL/RAC Section:

1. Top Single Operator for each band (50, 144, 222, 432, 902, 1296, 2304 and up)
2. Top Single Operator/Portable
3. Top Single Operator/3 Band
4. Top Single Operator/FM
5. Top Multioperator Score
6. Top Limited Multioperator Score
7. Top Multioperator Score

Where significant effort or competition is evident, in each ARRL Division and Canada:

1. Top Rover Score
2. Top Limited Rover Score
3. Top Unlimited Rover Score

Where significant effort or competition is evident:

1. Top DX Score(s)

Web Link for Certificates: <http://contests.arrl.org/certificates.php>

Affiliated Club Competition (ACC)

Rules of Participation

1. Only clubs affiliated with the ARRL or RAC may participate in the ACC.
2. Within the US and its territories, a club must be also have filed an annual report with the Field Services department of ARRL HQ within the past two years.
3. Clubs outside of the ARRL Operating territory may participate as follows:
 - a. In Canada, clubs that are fully affiliated with Radio Amateurs of Canada (RAC) are eligible
 - b. Outside ARRL Operating territory and Canada, clubs must be ARRL affiliates as determined by the “Rules and Regulations Concerning Affiliated Societies” section of the ARRL Articles of Association, By-Laws, Rules and Regulations”.
4. For a club to be listed, a minimum of 3 entries are required.
5. The entry must clearly state the club name in the Cabrillo file header.
6. To be eligible to submit a score in the ACC, ops must be eligible members in good standing of the club designated and reside and operate in the club circle for the category of entry. The Club Secretary or designated Club Scorekeeper for an affiliated club must submit a list of all club members eligible to compete for the club (not a club roster) and which level (unlimited, medium, local) they wish to enter prior to the start of the contest.
7. Club Eligibility Lists may be submitted via the ARRL-provided web uploading service, or by email, fax, or USPS to the ARRL Contest Branch Manager. The Eligibility List must contain the club name, club ARRL section (or the location of the center of the grid of the club’s eligibility circle), and a list of member call signs and “locations”. Locations are specified as 6-character grid locators. Distances are calculated from center to center of the 6-character grid locators.
8. Failure by the club to submit a valid list of members eligible to submit scores for the club either electronically or by mail (postmarked before the beginning of the contest) may result in the club being declared ineligible for the ACC in question.
9. A member’s score must be shown in the contest results to be counted for a club. Only that score shown in the results (or in subsequent corrections) will count for the ACC.
10. All stations must be located and all operators must reside within the designated club territory.
11. “Rover Rule”- Rovers who submit scores for the club competition must submit a second summary sheet indicating QSOs and score *if they made any contacts from outside of the club*

territory. Indicate clearly on the summary sheet and in log if the log is the total entry or that portion to be counted to the club score.

12. Unlimited Rover scores may not be applied to a club score for the ACC.

12. Guest Operators: The Guest Op at a SO station must meet the membership and residency requirements for the club entry category, and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member.

13. At a Multi-Op station, at least 50% of the operators must be eligible members of the club and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member. A club member who resides outside of the club territory counts as a non-member when determining the number of eligible members at a multi-operator station. Multi-op entries may utilize non-member ops licensed one year or less without including these ops in the 50% calculation. The intent is to encourage clubs to recruit contesters from newer amateurs without adversely affecting the club aggregate score. Only one club may receive the multi-op score.

Categories of Entry:

1. Unlimited: Over 50 entries, 175 mile (282 km) or one section club circle

2. Medium: 11-50 entries, 175 mile (282km) or one section club circle

3. Local: 10 or fewer entries, 35 mile club circle.

4. A club's entry category may be changed if, in the opinion of the ARRL Awards Committee, the club has manipulated its number of entries to allow the club to enter a lower category.

5. It is not the intent of these rules that a club vote out a member, or that a member resign and then be voted back into the club at a later date, so that the member in good standing rule can be met.

Awards:

1. The highest scoring ACC entry in each category will be awarded a gavel.

EME Contest

Objective: To contact as many stations via the Earth-Moon-Earth path on any authorized amateur frequency above 50MHz.

Dates: Third Weekend in September, October, and November. For 2020, the dates will be September 19-20, October 17-18, and November 21-22.

Contest Period: 48 hours long, starts at 0000Z Saturday and ends at 2359z Sunday. Stations may operate the entire 48 hours.

Entry Categories:

1. Single Operator, All Mode: Any combination of CW, Phone, or Digital modes, available for all bands.

2. Single Operator, CW only: 144, 432, and 1296 MHz bands only.

3. Multi-operator, All Mode: Any combination of CW, Phone, or Digital modes, available for all bands.

4. Multi-operator, CW only: 144, 432, and 1296 MHz bands only.

Exchange:

Both call signs, signal report (either RST or digital strength), plus an acknowledgment. Partial or incomplete contacts should be indicated on your log, but not counted for contest credit.

Multipliers:

US states, Canadian Provinces, DXCC entity (excluding W/VE contacts) worked via EME on each band. Multipliers are counted once per band.

Scoring:

QSO Points: Count 100 points for each complete EME contact.

Final score: (Sum of QSO points) x (Sum of Multipliers)

Miscellaneous:

1. A multi-operator entry may be made up of neighboring amateurs within one state, province, or non-US/Canadian DXCC entity, but with EME facilities for different bands on different team members' premises, as long as no two are more than 50 km (30 miles) apart. Multi-operator neighborhood groups may use the same call signs at each location if permissible under national licensing rules and regulations. If not possible, separate call signs may be used for the multi-operator neighborhood entry. When operating under this neighborhood provisions, all logs must be submitted together in a single envelope or email with a single summary sheet showing the combined operation, designating the principal call sign for the entry. All multi-operator call signs will be shown in the results.
2. Stations may be worked for credit only once per band, regardless of mode.
3. All entrants, regardless of category, are permitted to use spotting assistance or nets including but not limited to DX-alerting nets, internet chat rooms, APRS and other packet, reverse beacon networks and repeaters to identify stations available for contacts and to announce (self-spot) their availability for contacts. Announcements shall be limited to call sign, location, band or frequency, mode and- if applicable- transmitting sequence and listening direction. These methods of spotting assistance may also be used to coordinate antenna peaking prior to initiation of the contact and to explain contest rules, such as the exchange required, for those that need clarification. Such assistance may not be used to facilitate the completion of any contact once the contact has commenced. This means such assistance may not be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact.
4. Only one transmitted signal is allowed per band at any given time; alternating Cqs on two or more frequencies using the same band and mode is prohibited.
5. There is no specified minimum terrestrial distance for contacts, but all communications must be copied over the EME path, regardless of how strong (or weak) a nearby station's terrestrial signal may be.
6. Stations using equipment that is not amateur-owned (such as a dish antenna or lab equipment owned by an institution or government agency) are ineligible for awards.

Reporting:

Entries must include complete log- QSO-EME exchange as well as an official ARRL EME Contest Summary Sheet. Official forms are available at the top of this page "Entry Methods and Forms" or with an SASE request to the Contest Branch. No other forms of the summary sheet will be accepted. Each line of QSO data in the log must contain band, mode, date and time in

UTC, callsign of station worked, EME exchange sent, EME exchange received, each new multiplier, and points earned. Photocopies of the log form and official Summary Sheet are acceptable.

Log Submission:

1. Web App; <http://contests.arrl.org/arrlemescoresubmission.php>
2. Mail to ARRL EME contest, 225 Main St, Newington CT 06111
3. All entries must be emailed or postmarked within 30 days after the last weekend of the event

Awards:

Awards are downloadable on line at <http://contests.arrl.org/certificates.pho>

Awards will be made in the following categories:

1. Single Operator, Multi-band All Mode
2. Single Operator, Multi-band CW Only
3. Single Operator, Single Band, All Mode
4. Single Operator, CW Only, for each of the single bands 144, 432, and 1296 MHz.
5. Multi-Operator, Multi-Band, All Mode
6. Multi-Operator, Multi-Band, CW Only
7. Multi-Operator, Single Band, All Mode
8. Multi-Operator, CW Only, for each of the single bands 144, 432, and 1296 MHz

ANNOUNCING:

2020 222 MHz and Up Distance Contest

Start: First Full Weekend of August, beginning at 1800 UTC on Saturday August 1, 2020, and ending at 1800 UTC on Sunday August 2, 2020.

Objective: To work as many stations as possible on the 222 MHz through 241 GHz bands using any allowable mode. A station in a specific grid locator may be contacted from the same location only once on each band, regardless of mode.

Entry Categories:

1. Single Operator, Fixed: A station operated at a single location by only one person. Only one transmitted signal per band is allowed at any given time, alternating CQs on two or more frequencies using the same band and mode is prohibited. Non-contact-producing activities are not considered transmitted signals for the purpose of applying the rule.
2. Multi-Operator, Fixed: A station operated at a single location by two or more persons.
3. Rover: A Rover is a station that moves beyond the limits of a fixed location during the course of a contest. Aeronautical mobile stations are not allowed. Rover stations may be worked from each four-character grid square in which they operated. If more than one contact on a given band is made between stations in specific grid squares, then the contact with the longest path distance will be counted. A vehicle may transport only one Rover station including all equipment, power sources, and antennas. Rover stations must add "Rover" on phone and "/R" on CW and digital modes after their call sign. The operator of a Rover may also operate at a Fixed Station during

the contest period and submit an additional log for a Fixed Station Entry. Rovers submitting a score for inclusion in the Club Competition must also include an additional summary sheet indicating the portion of the score that counts for the club score if any of the contacts submitted were made from a location outside of the club's territory.

Modes: Any allowable amateur mode is permitted.

Exchange: All stations exchange the Six-Character Grid Locator ("sub-grid", see <http://www.arrl.org/about-grid-squares>) of the station. Rovers in motion report the grid locator at the time of each contact. Fixed stations operated via Remote exchange the grid locator of the transmitting and receiving equipment, not the location of the control point. A valid contact consists of both call signs, exchanges, and acknowledgments.

Scoring: QSO Points are computed as the center-to-center distance in kilometers between the sub-grid of each station, multiplied by the Band Factor. Contacts between stations within the same sub-grid are assigned a distance of 1 kilometer.

Band	Band Factor
222 MHz	2
432 MHz	1
902 MHz	4
1296 MHz	2
2.3 GHz	6
3.4 GHz	10
5.7 GHz	10

Band	Band Factor
10 GHz	6
24 GHz	20
47 GHz	20
76 GHz	20
122.25 GHz	20
134 GHz	20
241 GHz	20

Scoring Example:

W9JJ Log shows these 6 QSOs from EN44xa:	
K9JK/R in en44bc on 1296 MHz	(147 km x 2 = 294)
W9XA/R in en43xx on 10 GHz	(5 km x 6 = 30)
K8QYZ/R in en74de on 432 MHz	(346 km x 1 = 346)
K8QYZ/R in en73aa on 432 MHz	(347 km x 1 = 347)
K8QYX/R in en73aa on 902 MHz	(347 km x 4 = 1388)
W9FZ/R in en44xa on 1296 MHz	(1 km x 2 = 2)
Total Contest Score = 2407	

Log Submission:

Cabrillo formatted logs must be uploaded via web app at <http://contest-log-submission.arrl.org/> Once uploaded, a confirmation will be sent to you. You can view the list of electronically submitted logs at <http://contests.arrl.org/logsreceived.php>. Deadline for submission of entries is 14 days following the contest. Entries received after the deadline may be considered checklogs.

General Rules:

1. ARRL Family Rule: A transmitter, receiver, or antenna used to contact one or more stations may not subsequently be used under any other call during the contest period, except for family stations where more than one call sign has been issued, and then only if the call sign is used by a different operator. The intent of this rule is to accommodate family members who must share a rig and to prohibit manufactured or artificial contacts.
2. Each claimed contact must include contemporaneous direct initiation by the operator on both sides of the contact. Initiation of a contact may be locally or by remote.

Club Competition:

1. Only clubs actively affiliated with the ARRL or RAC may participate in the Affiliated Club Competition (ACC)
2. Within the US and its territories, a club must:
 - a. Be affiliated with ARRL, and
 - b. Have filed an annual report with the Field Services Department of ARRL HQ within the past two years
3. Clubs outside of the ARRL operating territory may participate as follows:
 - a. In Canada, clubs that are fully affiliated with RAC are eligible to submit scores for an ACC event.
 - b. Clubs outside ARRL operating territory or Canada must be ARRL affiliates as determined by the “Rules and Regulations Concerning Affiliated Societies” section of the ARRL Articles of Association, By-Laws, Rules and Regulations.
4. For a club to be listed, the following conditions must be met:
 - a. A minimum of three entries from qualified club members must be submitted.
 - b. The entry must clearly indicate the club name in the Cabrillo file header.
 - c. To be qualified to submit a score in the ACC, operators must be eligible members in good standing of the club designated, and reside and operate in the club territory. The Club

Secretary or designated Club Scorekeeper for an affiliated club must submit a list of all club members eligible to compete for the club (not a club roster) and which level (unlimited, medium, local) they wish to enter for each competition prior the the start of the contest.

5. Rationale- a club's Eligibility List shows the call signs and locations for all members who are eligible to submit scores for club credit from a specific contest. It is not a list of entries in a contest that club claims. Clubs should submit a complete list of 'eligible members who may contribute their score' to the club as noted in their submitted log."

6. Club eligibility lists may be submitted via ARRL-provided web uploading service, or by email, fax, or USPS to the ARRL Contest Branch Manager. The Eligibility List must contain the club name, club ARRL section (or location of the center of the club's eligibility circle), and a list of member call signs and locations. Locations are specified as six-character grid locations.

Distances are calculated from center-to-center of the six-character grid locators.

a. Failure by the club to submit a valid list of members eligible to submit scores for the club, either electronically or by mail (postmarked before the start of the contest) may result n the club being declared ineligible for the Club Competition event in question.

7. A member's score must be shown in the contest results to be counted for a club. Only that score shown in the results (or in subsequent corrections) will count for the club competition.

8. There are three categories of club competition:

1. 8.4.1. Unlimited

1. 8.4.1.1. Club submits 51 or more entries. (15C1)
2. 8.4.1.2. One station can submit two entries one on CW and one on Phone in the November Sweepstakes and the DX Contest. (15D5)
3. 8¹.4.1.3. The club territory is either defined by:
 4. 8.4.1.3.1. A 175-mile (282-kilometer) circle from a designated center;(15D3a2) or
 5. 8.4.1.3.2. One ARRL section. (15D3a1)
6. 8.4.1.4. All stations must be located (15D4) and all operators must reside within the designated club territory. (15B3)
7. 8.4.1.5. All eligible members must be "members in good standing" according to the rules and requirements of the club. (15B3)
8. 8.4.1.6. Eligible members that operate stations outside the club territory may not compete in the club competition, except as provided in rule 8.6. (15D10)

2. 8.4.2. Medium

1. 8.4.2.1. Club submits 50 or fewer entries and does not qualify under the local club criteria. (15C2)
2. 8.4.2.3. The club territory is either defined by:
 1. 8.4.2.3.1. A 175-mile (282-kilometer) circle from a designated center; or;(15D3a2)
 2. 8.4.2.3.2. An ARRL-section. (15D3a1)

3. 8.4.2.4. All stations must be located (15D4) and all operators must reside within the designated club territory. (15B3)
 4. 8.4.2.5. All eligible members must be "members in good standing" according to the rules and requirements of the club. (15B3)
 5. 8.4.2.6. Eligible members that operate stations outside the club territory may not compete in the club competition, except as provided in rule 8.6. (15D10)
- 3. 8.4.3. Local**
1. 8.4.3.1. Club submits 10 or fewer entries. (15D3b)
 2. 8.4.3.2. One station can submit two entries - one on CW and one on Phone in the November Sweepstakes and the DX Contest. (15D5)
 3. 8.4.3.3. All eligible members must reside and operate within 35 miles of the club's designated center. (15D3b)
 4. 8.4.3.4. All eligible members must be "members in good standing" according to the rules and requirements of the club.
- 2. 8.5. At Single Guest-Operator and Multioperator stations: (15B3)**
1. 8.5.1. To claim a Guest Operator score for a club, the guest operator at a single-operator station must meet the membership and residence requirement for the club classification (Unlimited, Medium or Local see rule 8.4) and the station must be located within the defined club territory. The owner of the station does not need to be a member of the club claiming the score. (15D6)
 2. 8.5.2. At least 50% of the operators at a multi-operator station must be eligible members of the club and the station must be located within the defined club territory. The owner of the station does not need to be a member of the club claiming the score. (15D8)
A club member who resides outside of the club territory counts as a non-member when determining the number of eligible members at a multi-operator station. (15D8)
 3. 8.5.3. Multioperator entries may (optional) utilize non-member operators licensed one year or less without including such operators in the 50% calculation. (The intent here is to encourage clubs to recruit contesters from newer amateurs without adversely affecting the club aggregate score.)
 4. 8.5.4. All other applicable contest rules must be satisfied(15-D8).
- 3. 8.7. For multioperator stations, the score may count for only one club and at least 50% of the operators must be members of the club receiving the score and meet all other criteria. (15D8)**
- 4. 8.8. A club's entry classification may be changed if, in the opinion of the ARRL Awards Committee, the club has manipulated its number of entries to allow the club to enter a lower classification. (For example, if a club with 100 members**

submits only the 10 highest scores, even if more than 10 of its members compete.) (15D11)

5. 8.9. It is not within the intent of these rules that a club should vote out a member or that a member resign and then be voted back into the club later so the member in good standing rule can be met. (15D12)
6. 8.10. The highest scoring active affiliated club entry in each category (unlimited, medium, local) will be awarded a gavel. (15D13)

3. A station's score may be credited to only one Club.
2. Rover stations that operate outside of the declared territory of a Local club may count only those contacts made from within the territory of the Local club toward the Club score.
3. A Club Score is the sum of scores of stations specifying that specific club affiliation in their contest entry.

Team Competition:

The purpose of Team Competition is to encourage participation. Each entrant may be part of one Team and part of one Club. **Team Registration will be available from 10 days before the contest, until 1 hour before the contest begins, at the following link: <http://contests.arrl.org/teamreg.php?eid=1>.** Teams may also be registered by sending an email to the ARRL Contest Branch Manager at contests@arrl.org. If more than one Teams are composed 2 to 5 entrants, of which one may be a Multi-operator entrant.

Multi-op

Team members must be registered for a specific team prior to the start of the contest. Registration consists of a **web upload** or time-stamped email - containing a list of all participant call signs and the team's declared Contest Region - sent to the ARRL Contest Branch Manager at contests@arrl.org.

A participant may only be a member of one team. If more than one registration contains the same participant, the registration received last will be used to determine team membership. To be a qualified member of a team, the member must make one valid contact with at least one other member of the same team. Rover members must make at least one contact from within the team's Contest Region.

The team score is the sum of scores from qualified members. Rover contribution is limited to that portion of the Rover's score achieved from within the team's region. A team member's score may also be counted for a club total in the Club Competition.

Awards:

1. Top Single Operator, Fixed in each of the 222MHz and Up Distance Contest Regions
2. Top Multi-Operator, fixed in each of the 222MHz and Up Distance Contest Regions
3. Top Rover Score in each of the 222MHz and Up Distance Contest Regions
4. Top Club Score in each of the 222MHz and Up Distance Contest Regions
5. Top Small Team Score in each of the 222MHz and Up Distance Contest Regions
6. Top Large Team Score in each of the 222MHz and Up Distance Contest Regions

222 MHz and Up Distance Contest Regions:

1. WA-OR-VE7-NT
2. ID-MT-VE6
3. CA-NV
4. UT-WY-CO
5. AZ-NM-WTX
6. ND-SD-VE4-VE5
7. NE-KS-MO
8. NTX-STX-OK-AR-LA
9. IL-IN
10. MN-WI-IA
11. MI-OH-VE3-NNY-WNY-WPA
12. KY-TN
13. MS-AL-GA-FL-SC
14. NC-VA-WV-MDC-DE
15. NJ-EPA-ENY-NLI
16. CT-MA-ME-NH-RI-VT-VE2
17. VE9-VE1-VY2-VO

Questions:

Any questions regarding this contest should be emailed to contests@arrl.org.

September VHF Contest

ANNOUNCING:

2020 SEPTEMBER VHF CONTEST

Start: 1800z Saturday September 12, 2020 Ends 0259Z Monday September 14, 2020

Objective: For amateurs in the US, Canada, and their possessions to work as many amateur stations in as many different 2 degree by 1 degree Maidenhead Grid Squares as possible, using authorized frequencies above 50 MHz. Stations outside the US, Canada, and their possessions may only work stations in the US, Canada, and their possessions. Stations in KH0-9, KL7 & KP1-KP5, CY9/CY0 count as W/VE stations and can be worked by DX stations for contest credit.

Entry Categories:

1. Single Operator Low Power (SOLP)
Power output limited per table below.
2. Single Operator High Power (SOHP)
Power output on any band exceeds the SOLP output in the table below.
3. Single Operator Portable (SO/P)
Power output limited per table below
Location can't be a permanent station
Must use Portable power, equipment, and antennas all located within a 500 meter diameter circle
4. Single Operator 3 Band (SO3B)
Power output and permitted bands limited per table below
5. Single Operator FM Only (SOFM)

Power output and permitted bands limited per table below

6. Rover

No more than 2 ops.

An op may perform any or all rover functions, but a driver's function shall be limited to driving the vehicle. Drivers may be switched out during the contest.

Must move among two or more grid squares during the contest.

All equipment, power supplies, and antennas must be transported in vehicle

Only one call sign may be used. Exception: ARRL Family Rule

For the one call sign that is used; "/R" must be appended for CW and digital transmissions, and "/Rover" must be added on phone.

Rovers are encouraged to adopt operating practices that allow as many stations as possible to contact them.

A Rover may not make more than 100 QSOs with any other one rover.

Any number of observers is allowed, but observers may not perform any rover function at any time.

Rover vehicles with only one occupant are allowed to perform all functions listed.

Rover operators may submit separate logs for a single operator (fixed station) in addition to their rover entries.

7. Limited Rover

All the rules for Rover, except may use only the 50, 144, 222, and 432 MHz bands.

8. Unlimited Rover

All the rules of the Rover class, with the following changes:

More than 2 operators can be used.

There is no limit on the number of QSOs that can be made with any other Rover

All the equipment, power supplies, and antennas used at each operating site do not have to be transported in the Rover vehicle.

9. Multi-Operator Limited (Limited Multi)

Only 4 bands may be used; additional bands should be submitted as "checklogs"

10. Multi-Operator Unlimited (Unlimited Multi)

Stations may submit logs for any bands used.

Maximum permitted power on Each Band, per Entry Category

Entry Class	50	144	222	432	902	1296	2.3 GHz & Up
SO LP	200	200	100	100	50	50	50
SO HP	1500	1500	1500	1500	1500	1500	1500
SO/Port	10	10	10	10	10	10	10
SO3B	100	100	N/A	50	N/A	N/A	N/A
SOFM	100	100	100	100	N/A	N/A	N/A
Rover	1500	1500	1500	1500	1500	1500	1500
Limited Rover	200	200	100	100	N/A	N/A	N/A
Unlimited Rover	1500	1500	1500	1500	1500	1500	1500

Limited Multi	1500	ON	ANY	FOUR	BANDS	>	>
Unlimited Multi	1500	ON	MORE	THAN	FOUR	BANDS	>

Modes: For SOFM category, the only allowed mode is FM. For all other categories, all legal modes are permitted. FM, CW and SSB/Phone are the most common, MSK144, FT8, FT4, PSK31, FSK441, and JT65 are all used.

Exchange: For all stations and modes, exchange is the 4-character Maidenhead Grid Square of the station transmitter location. See <http://www.arrl.org/grid-squares>

SCORE COMPUTATION:

QSO Points:

50 or 144 MHz: 1 point

222 or 432 MHz: 2 points

902 or 1296 MHz: 3 points

2.3 GHz & Up: 4 points

Multiplier:

Sum of the number of grid squares worked on each band.

Score: (QSO Pts Total) x (Multiplier Total)

Rovers Only:

QSO Points are summed the same as other categories.

Multiplier computation: Each unique Grid Square worked on each band, regardless of which grid square they were made from, plus one additional multiplier for every grid square from which they made a QSO.

Definitions:

1. Single Operator: One person performs all transmitting, receiving, spotting, and logging functions as well as equipment and antenna adjustments.

2. Non-contact producing Activity: Spotting assistance, nets including but not limited to DX-Alerting nets, internet chat rooms, APRS, and other packet, reverse beacon networks, and repeaters to identify stations available for contacts.

3. Maximum number of signals at one time: This Maximum total does not include a signal necessary to provide communications to a "Non-Contact Producing Activities".

4. Self-spotting: Your posting of your call sign, location, band or frequency, mode and-if applicable- transmitting sequencing and listening direction.

5. Maritime Mobile: Shipboard operation on the high seas, outside of the territorial waters of the country (defined these purposes only as 12 miles)

General Rules:

1. The same station may be worked for credit only once per band from any grid square, regardless of mode. Any station that changes their transmitting grid square may be reworked in the new grid.

2. All stations may have only one signal per band at any given time, regardless of mode.
3. Crossband and Aeronautical mobile QSOs are not counted for contest credit.
4. Contacts made through repeaters, digipeaters, satellites or gateways are prohibited.
5. While no minimum distance is specified for contacts, equipment should be capable of communications at a range of at least 1 km.
6. A station located on a dividing line between grid squares may only give out one grid square in the exchange. A different grid square cannot be given out unless the complete station including antennas is moved at least 100 meters.
7. Above 300 GHz, contacts are permitted for contest credit only between licensed amateurs using mono-chromatic signal sources, i.e. laser and LED, and employing at least one stage of electronic detection on receive. Laser usage is restricted to ANSI Z136 Class I, II, IIa, and IIIa, i.e. power less than 5mW.
8. Marine Mobile (and Maritime) entries will be listed separately as “Marine Mobile” in the listings and compete separately for awards.
9. Total transmitting power for any high power entry in any category is either 1500 Watts PEP or the maximum power level established by the national licensing authority of your country, whichever is lower.
10. Stations in any entry class are permitted to self-spot.
11. Only one transmitted signal per band is permitted at any given time; alternating CQs on two or more frequencies using the same band and mode is prohibited.
12. Multi-op stations may not include QSOs with their own operators except on frequencies higher than 2.3GHz. Even then, a complete, different station (transmitter, receiver, and antenna) must exist for each QSO made under these conditions.
13. Stations in any entry class are permitted to use “Non-Contact Producing Activities”. These announcements shall be limited to call sign, location, band or frequency, mode and-if applicable-transmitting sequence and listening direction. These methods of spotting assistance may also be used to coordinate antenna peaking prior to initiation of a contact and to explain contest rules, such as the exchange required, for those who need clarification. Such assistance may NOT be used to convey receipt or non-receipt of any required element of a contact or to request a repeat of any required element of a contact.
14. ARRL Family Rule: A transmitter, receiver, or antenna used to contact one or more stations may not subsequently be used under any other call during the contest period, except for family stations where more than one call sign has been issued, and then only if the call sign is used by a different operator. The intent of this rule is to accommodate family members who must share a rig and to prohibit manufactured or artificial contacts.
15. Participants are reminded that the segment 50.100-50.125 MHz should be used for intercontinental QSOs only, using 50.125MHz as a calling frequency, then QSY after contact is established.
16. Retransmitting either or both stations or use of repeater frequencies for purposes of completing a contact is prohibited.

Log Submission:

1. All QSOs made on a contest band during the contest period that may count for either your score or another op’s score, should be put into your submitted log.
1. Entries that have been electronically generated must submit their log file in the Cabrillo file format. Paper printouts are not acceptable.

2. Hand-written paper logs must be mailed to ARRL January VHF Contest, 225 Main St, Newington CT 06111.
3. Entries must be postmarked or uploaded within 10 days. Deadline is 0359Z September 24, 2020.
4. Cabrillo logs must be submitted using the web app. Once uploaded, a confirmation email will be sent to you. The list of electronically-submitted logs can be viewed at <http://contests.arrl.org/logsreceived.php>

Awards:

1. Top Single Operator High and Low Power in each ARRL/RAC Section.
Where Significant effort or Competition is evident, in each ARRL/RAC Section:
 1. Top Single Operator for each band (50, 144, 222, 432, 902, 1296, 2304 and up)
 2. Top Single Operator/Portable
 3. Top Single Operator/3 Band
 4. Top Single Operator/FM
 5. Top Multioperator Score
 6. Top Limited Multioperator Score
 7. Top Multioperator Score

Where significant effort or competition is evident, in each ARRL Division and Canada:

1. Top Rover Score
2. Top Limited Rover Score
3. Top Unlimited Rover Score

Where significant effort or competition is evident:

1. Top DX Score(s)

Web Link for Certificates: <http://contests.arrl.org/certificates.php>

Affiliated Club Competition (ACC)

Rules of Participation

1. Only clubs affiliated with the ARRL or RAC may participate in the ACC.
2. Within the US and its territories, a club must be also have filed an annual report with the Field Services department of ARRL HQ within the past two years.
3. Clubs outside of the ARRL Operating territory may participate as follows:
 - a. In Canada, clubs that are fully affiliated with Radio Amateurs of Canada (RAC) are eligible
 - b. Outside ARRL Operating territory and Canada, clubs must be ARRL affiliates as determined by the "Rules and Regulations Concerning Affiliated Societies" section of the ARRL Articles of Association, By-Laws, Rules and Regulations".
4. For a club to be listed, a minimum of 3 entries are required.
5. The entry must clearly state the club name in the Cabrillo file header.
6. To be eligible to submit a score in the ACC, ops must be eligible members in good standing of the club designated and reside and operate in the club circle for the category of entry. The Club Secretary or designated Club Scorekeeper for an affiliated club must submit a list of all club members eligible to compete for the club (not a club roster) and which level (unlimited, medium, local) they wish to enter prior to the start of the contest.
7. Club Eligibility Lists may be submitted via the ARRL-provided web uploading service, or by email, fax, or USPS to the ARRL Contest Branch Manager. The Eligibility List must contain the club name, club ARRL section (or the location of the center of the grid of the club's eligibility

circle), and a list of member callsigns and “locations”. Locations are specified as 6-character grid locators. Distances are calculated from center to center of the 6-character grid locators.

8. Failure by the club to submit a valid list of members eligible to submit scores for the club either electronically or by mail (postmarked before the beginning of the contest) may result in the club being declared ineligible for the ACC in question.

9. A member’s score must be shown in the contest results to be counted for a club. Only that score shown in the results (or in subsequent corrections) will count for the ACC.

10. All stations must be located and all operators must reside within the designated club territory.

11. “Rover Rule”- Rovers who submit scores for the club competition must submit a second summary sheet indicating QSOs and score *if they made any contacts from outside of the club territory*. Indicate clearly on the summary sheet and in log if the log is the total entry or that portion to be counted to the club score.

12. Unlimited Rover scores may not be applied to a club score for the ACC.

12. Guest Operators: The Guest Op at a SO station must meet the membership and residency requirements for the club entry category, and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member.

13. At a Multi-Op station, at least 50% of the operators must be eligible members of the club and the station must be located within the defined club territory for that club entry category. The station owner does not have to be a club member. A club member who resides outside of the club territory counts as a non-member when determining the number of eligible members at a multi-operator station. Multi-op entries may utilize non-member ops licensed one year or less without including these ops in the 50% calculation. The intent is to encourage clubs to recruit contesters from newer amateurs without adversely affecting the club aggregate score. Only one club may receive the multi-op score.

Categories of Entry:

1. Unlimited: Over 50 entries, 175 mile (282 km) or one section club circle

2. Medium: 11-50 entries, 175 mile (282km) or one section club circle

3. Local: 10 or fewer entries, 35 mile club circle

4. A club’s entry category may be changed if, in the opinion of the ARRL Awards Committee, the club has manipulated its number of entries to allow the club to enter a lower category.

5. It is not the intent of these rules that a club vote out a member, or that a member resign and then be voted back into the club at a later date, so that the member in good standing rule can be met.

Awards:

1. The highest scoring ACC entry in each category will be awarded a gavel.