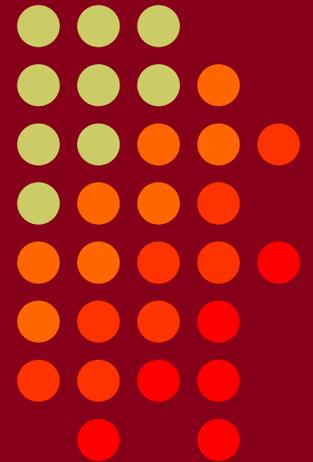


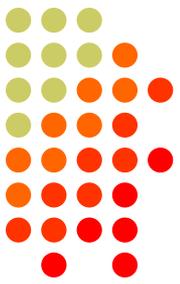
How to recruit new contesters

Doug Grant K1DG



• CTU •
CONTEST
UNIVERSITY

ICOM®

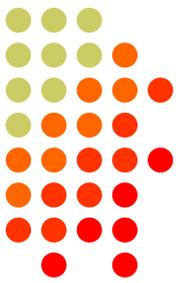


How many licensed hams are “active” HF operators?

- CQWW (biggest contest):
 - About 8000 logs per mode, involving about 16,000 operators
- Unique good callsigns in those logs:
 - 38,792 SSB 23,193 CW 8,266 both modes
 - COMBINED: 53,716 unique good calls
- Biggest DXpeditions work 25,000 – 50,000 unique callsigns (K5D 32,000)
- There are around 2.5 Million hams in the world, so active HF operators is about 1-2%
- How do we get the other 98% in the game?

○ CTU ○

CQWW and FT8 Operator Census



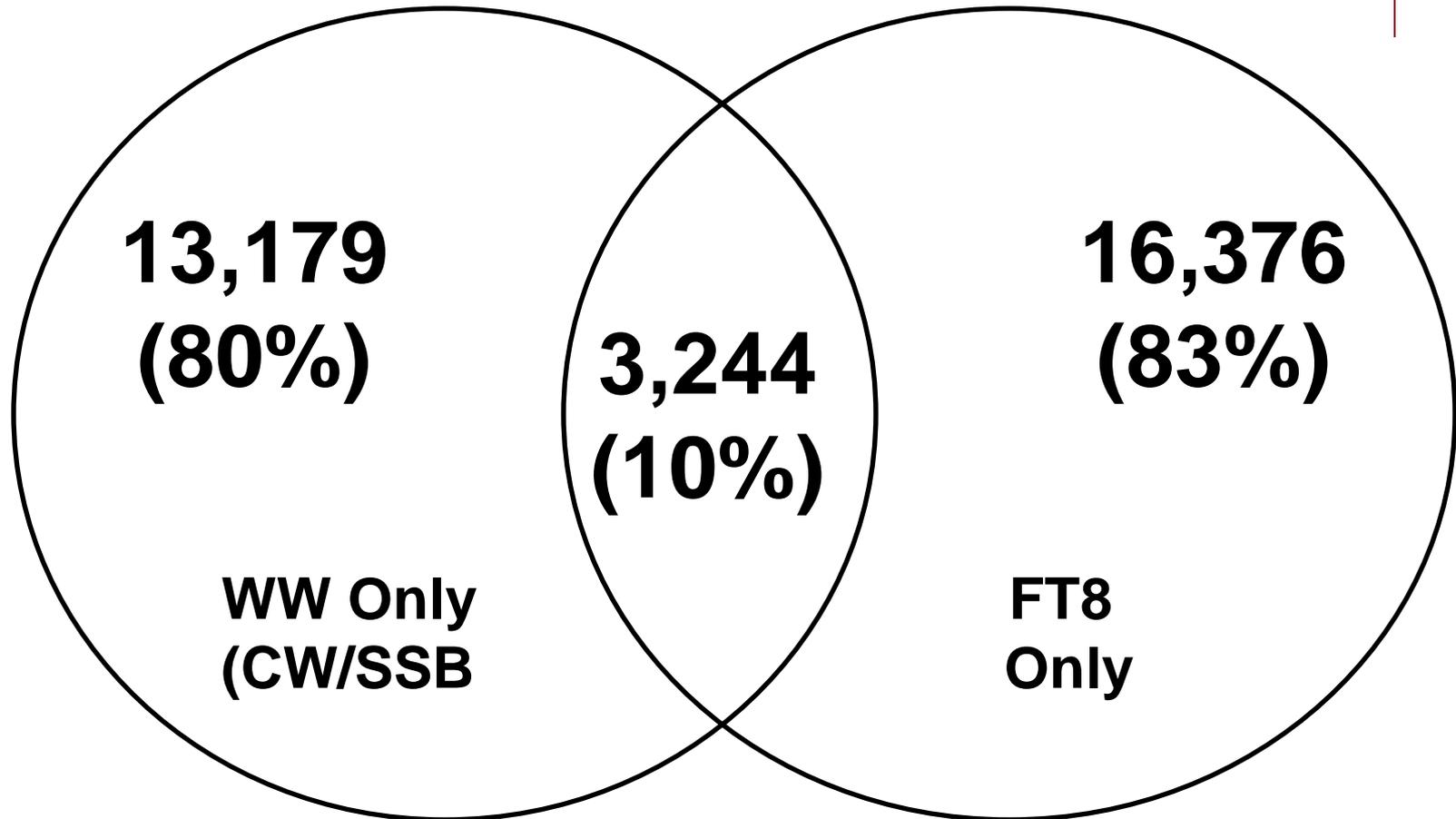
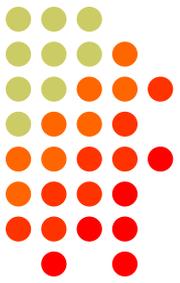
CQWW 2018 Operators:

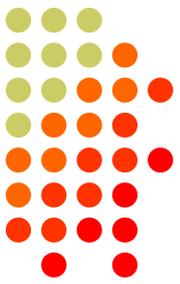
	CW	SSB
single ops	7803	7945
multiops	318	580
ops at multiops	1654	3206

TOTAL OPERATORS, EITHER MODE: 16,736

**FT8 CALLSIGNS WORKED BY LARGE “ROBOT STATION”
Aug 2017 – Apr 2019: 19,980**

FT8 – CQWW Overlap



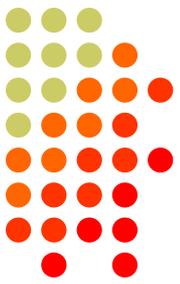


Other guys on HF

- Nightly (daily) roundtables and nets
 - 75M – 400 kHz, spaced 5 kHz = 80 groups
 - maybe 5 per channel across the U.S. = 400 groups
 - 40M – 175 kHz, spaced 5 kHz = 35 groups
 - 5/channel, 175 groups
 - 20M – 200 kHz, 40 groups, maybe 2/channel
 - 80 groups
- 655 groups, 10-20 ops per group = 13k HF ops

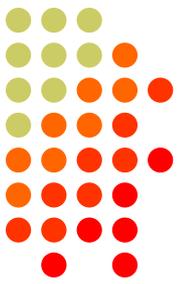
Can we get these guys on the air on contest weekends?

Average age of hams is...?



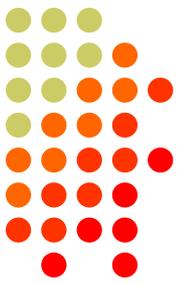
- KG5HVO is giving a talk later on getting “youth “involved in contesting
- How do we get “Oldth” involved (there are LOTS MORE of them)?
- Most radio clubs have more Medicare recipients than millennials/Gen-Xers

Some people are just not going to be interested



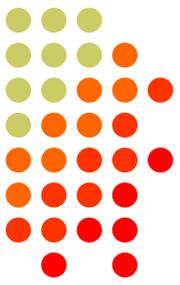
- “Every night for 20 years on this frequency” ops
- “14300” and “7200” guys
- AMers
- QRP/microwave builders
- SDR “builders” (“I needed a transmitter to test the antenna so I wrote one”)

Newer HF operators see the game differently



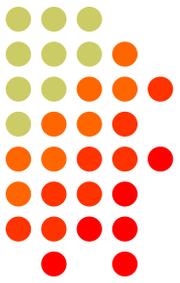
- “What do you mean I shouldn’t look a call up on QRZ.COM if I didn’t copy his state?”
- “Prefills are my friend”
- “Headphones? Why? Just let the computer copy it.”
- Just keep calling...and calling....and calling...

This really happened one night when I was on FT8



- I received an email from a guy in RI that said: “Doug needing NH for WAS and I’m on 1773 20M now can you help me out?”
 - New ops only know one frequency on each band
- I had already moved to another band, but replied that we could try...he was already calling me on 40M FT8.
- 18 (!!!) emails later, we completed a QSO
- Confirmed that night on LOTW

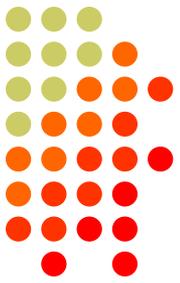
New ops don't speak our language



- **“Pyrrhuloxia” is:**
 - a. A gum disease
 - b. A type of volcanic rock
 - c. A songbird of the American Southwest
 - d. Forensic evidence in an arson investigation
 - e. N9JA's middle name

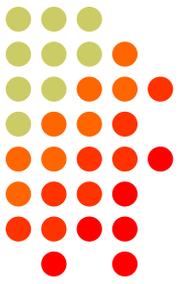


Operating with a newbie



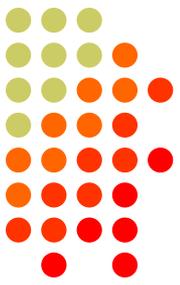
- Which of these is a callsign?
 - 2ASTX
 - CQFD
 - QRZ
 - W1AW
 - IC7610

We have to meet prospective new contesters where they are



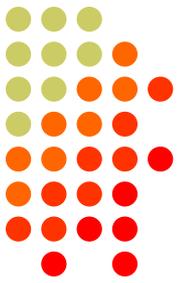
- They have no experience with tuning in SSB signals
- Some think that stations should transmit on exact kHz (14.200.00)
- Their “channel selectors” click
- They don’t copy by ear – some have never used the speaker in their radio
- They have never turned the big knob
- EVERYTHING in HF contesting is new to them

Best chance is to get involved with a local club



- Go to their pre-FD meetings
- Volunteer to help (but don't be too pushy)
- Go to FD
- Offer to do CW - most clubs don't have many (or any) CW ops
- Sit with a phone op and help them (logging, etc.)
- Bring two pairs of headphones and an audio splitter

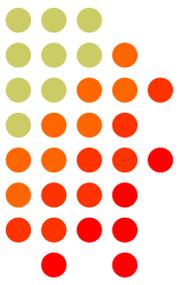
Field Day



- Not really a contest, but the higher scores are listed first
- “Gateway drug” of radiosport

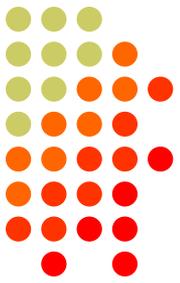


IF there is interest, volunteer to do a talk about contesting

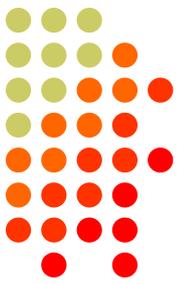


- After FD, maybe before NAQP
- Or in the fall before SS
- Feel free to use the following slides...they were developed for a similar purpose over several iterations and will help you get started

Why operate contests?



- Improve operating skills
- Uncover weak spots in your station
- Pickup new states, countries, etc.
- FUN!!!!

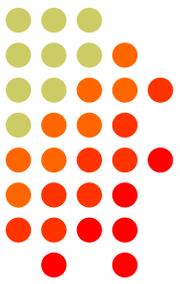


Skills involved

- Copying the other station's exchange accurately
- Having a big enough signal to be heard
- Knowing when to call between the bigger signals
- Knowing which band is the best at the time
- Ability to maintain focus for 48 hours

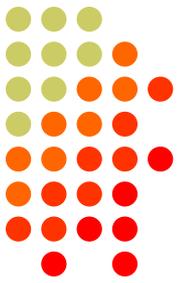
***ALL OF THESE SKILLS WILL HELP YOU
IN PUBLIC SERVICE ACTIVITIES***

When was the First Contest?



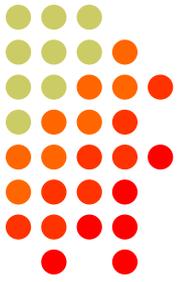
- “The first contest was when the third guy got on the air” ...*FCC Official*
- Early amateur radio was all about message relaying
 - Some wondered how far their signals could reach
- The first “TransAtlantic Tests” were held in the early 1920s, organized by M. B. Sleeper of “Everyday Engineering” magazine in the U.K.

The Object of the Game



- Contact as many other stations as possible...
- ...in as many other states/countries/zones...
- ...in a given time period (anywhere from 30 minutes to 48 hours)
- Contacts only count if they are accurately executed (callsign and “exchange” logged correctly)

The First Successful Transatlantic Test - 1921



- It was also the first DXpedition – Paul Godley took the best available receivers to Ardrossan, Scotland
- Copied 26 North American stations (most ~200 meters)

The First Official “contest”

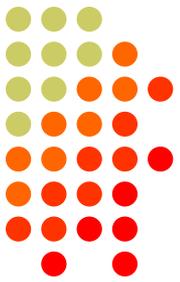


- 1927 International Relay Party, sponsored by ARRL
- Two weeks long in May 1927
- *Wavelengths as short as 20 meters* were in wide use

Re: The International Tests

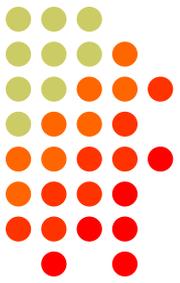
THESE tests which were announced in last QST have a number of important objectives. They promote international fellowship and goodwill in addition to making possible some rare sport with a pile of new records for every station that takes part. Stations must help each other over with test messages to boost the score equally at both ends of a QSO.

First VHF Contest



- Also in 1927, on 5 meter band
- Covered in the “Experimenter’s Section” of QST
- “Try to keep your wave between 4.9 and 5.1 meters” (58.8 and 61.2 MHz)

Contests of all kinds

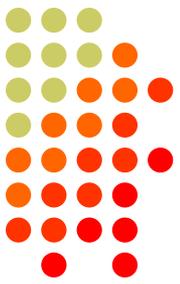


- North American QSO Party
 - Operate 10 of 12 hours, 100W max power
 - Exchange: name and state
 - May work that same station on multiple bands
- ARRL November Sweepstakes
 - Operate 24 of 30 hours
 - Based on message handling – long complicated exchange
 - Work station only once regardless of band

More...



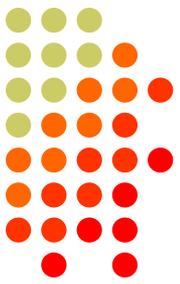
- State QSO Parties
 - World works target state (FL, CA most popular)
 - Many mobile stations going from county to county
- North American Sprint
 - 4 hours long
 - Special QSY rule



International Contests

- ARRL International DX Contest
 - 48 hours long; World works USA/Canada
 - Last weekend of Feb (CW); 1st weekend of March (SSB)
- CQ World Wide DX Contest
 - 48 hours long; World works world
 - Last full weekend of Sept (RTTY), Oct (SSB), Nov (CW)
- CQ WPX Contest
 - Operate 36 of 48 hours; World works world;
 - Prefixes are multipliers
 - Feb (RTTY); March (SSB); May (CW)

The World Radiosport Team Championship



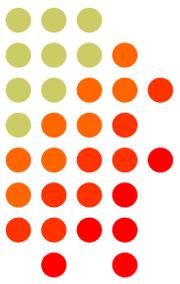
- The “Olympics of Ham Radio”
 - Held every 4 years
- Top two-operator teams from around the world
 - Identical power and antennas
 - Same geographic area
- Operator skill and strategy determine the winners

Most contests have multiple categories



- Single-operator
 - Assisted = DX Cluster
- Multi-operator
 - (1, 2, or “unlimited” transmitters)
- High power, low power, QRP
- “Overlay” categories
 - “Rookie”, “Tribander/wire”

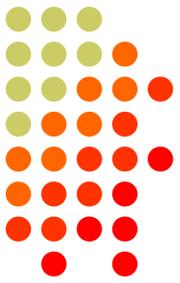




How to get into a contest

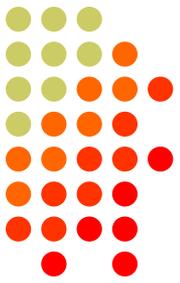
- Get on the air!
 - No pre-registration required
- Review the rules first
 - Who can work you for points?
 - What is the exchange?
- Find a station calling “CQ Contest”, make the QSO, log it
 - Then work another one!

During the contest - A Contest QSO



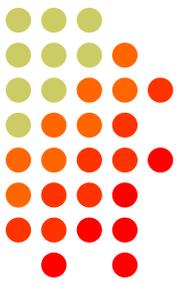
- “CQ Contest, Kilo One Delta Golf”
 - *K1DG, using standard phonetics is soliciting contacts*
- “*Whiskey One Alfa Whiskey*”
 - *W1AW is calling K1DG*
- “W1AW, 59 1234 New Hampshire”
 - *K1DG is giving W1AW a signal report, serial number, and his state*
- “*K1DG, QSL, 59 001 Connecticut*”
 - *W1AW confirms he copied K1DG’s exchange, then gives his exchange*
- “Thanks...K 1 Delta Golf, Contest”
 - *K1DG confirms he has received W1AW’s exchange, announces he is ready for the next caller*

A More Realistic Contest QSO



- “CQ Contest, Kilo One Delta Golf”
 - *K1DG, using standard phonetics, is soliciting contacts*
- “*Whiskey One GLB#FY%ST%KQ@WX&ZSK*”
 - *A W1 and a bunch of other guys are calling K1DG*
- “W1something, 59 1234 New Hampshire”
 - *K1DG only heard the W1 part of the callsign, and is giving that station a signal report, serial number, and his state*
- “*K1DG, my call is W1 Alfa Whiskey...QSL, 59 001 Connecticut*”
 - *W1AW repeats his call, confirms he has copied K1DG’s exchange, then gives his exchange*
- “W1AW...thanks...K 1 Delta Golf, Contest”
 - *K1DG confirms he has the callsign correct now, has received W1AW’s exchange, announces he is ready for the next caller*

◦ GTU ◦

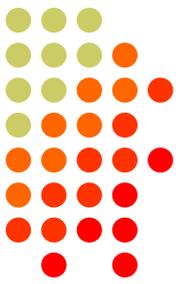


A Very Bad Contest QSO

- “CQ Contest, Kilo One Delta Golf”
 - *K1DG, using standard phonetics is soliciting contacts*
- “*Whiskey One PQMN&XW%PR\$YO@WI#LJDHFKSLJ*”
 - *A W1 and some other stations are calling K1DG*
- “W1something, 59 1234 New Hampshire”
 - *K1DG only heard the W1 part of the callsign, and is giving that station a report, serial number, and his state*
- “*K1DG, this is KC4XYZ - Kentucky Cocacola 4 X-Xray Y-Yellerbelly Z-Zinjanthropus - KC4XYZ - did you come back to me?*”

What part of this is wrong?

Don't say more than necessary, and NEVER EVER say...

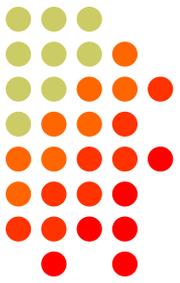


- “Please copy”
- “QSL the 59 1234 New Hampshire, my report to you is...”
- “Who is your QSL manager?”
- “Do you know my friend Charlie up there in New Hampshire?”



***Imagine you are the guy on the other end, listening to
“Please Copy” 5000 times in a weekend!***

Keeping track



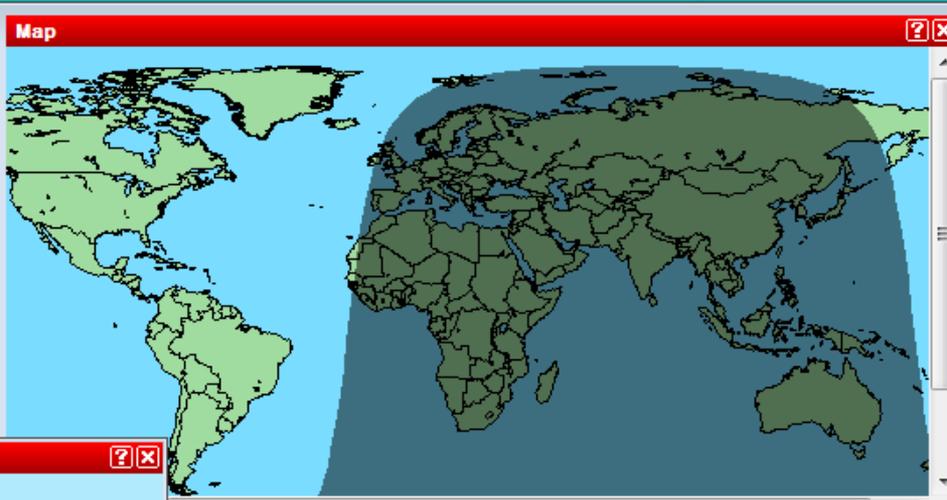
- Many logging programs available
 - Some are free, some cost a few dollars
 - Most for PC/Windows, some for Mac, some for Linux
 - Better-suited than general-purpose everyday loggers
- What they do
 - Track stations worked (so you don't make a duplicate contact)
 - Track multipliers worked
 - Score computation
 - Send pre-recorded CW or voice messages
 - Produce Cabrillo-format log for submission to sponsor

◦ CTU ◦



Worked zones [35/40]

01	02	03	04	05	06	07	08	09	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40



Rate

All bands - All modes
 Last hour: 51 Q/h
 10 last QSO: 31 Q/h
 100 last QSO: 52 Q/h
 Since 1900z: 0 QSO
 - 15 last minutes -

Min: 0 Q/h Max: 0 Q/h
 Moving graph computed on 15 mins
 Continental distribution

EU NA SA AF AS OC
 Elapsed time since the last QSO:
Over 100 h

Check multipliers

160					
926	80	08:56	PT2CM	59911	Z
36	40	00:20	PF5BG	59911	Z
116	20	01:01	PR2F	59911	Z
1121	15	12:01	PW2A	59911	Z
2308	10	19:34	PY5FB	59911	Z
PY: Brazil ☀️ 16091					
Az: 160° Lp: 340° SR: 0935z SS: 2133z					

Check partial result

[UNIQUE]	PY1NB	PY1NX
-----------------	-------	-------

Check c...

[0/6]	CW
160	
80	
40	
20	
15	
10	

Time ON: 44 h 58 min
 Time OFF: 3 h 00 min

All bands - All modes
 Time by mult: 4 min 14 sec
 1 QSO counts: 1 952 Pts
 1 mult counts: 13 311 Pts
 1 mult worth: 6.8 QSO

CW 32 WPM

QSO	Bd	Time	Callsign	Sent	Rcvd	Mult	Pts	Stn
4694	20	23:40	VE2FWW	599	599 05		2	R1
4695	20	23:42	B1Z	599	599 24	CZ	3	R1
4696	80	23:49	ZD8W	599	599 36	CZ	3	R2
4697	20	23:54	HS0ZAR	599	599 26	CZ	3	R1
4698	20	23:55	RW0A	599	599 18		3	R1
4699	20	23:55	CX4AT	599	599 13		3	R1
4700	20	23:56	BG3UPA	599	599 24		3	R1
4701	20	23:57	PT2AW	599	599 11		3	R1
4702	20	23:58	BA4DL	599	599 24		3	R1
4703	20		PY1N	599	599 11		0	R1

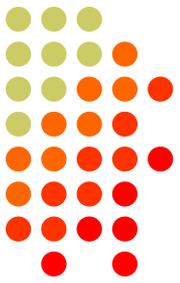
Summary

BAND	QSO	CQ	DXC	DUP	POINTS	AVG
160	225	17	68	5	600	2.67
80	664	25	80	8	1880	2.83
40	1452	30	97	31	4215	2.90
20	861	35	110	11	2503	2.91
15	1293	30	105	32	3790	2.93
10	120	21	59	0	323	2.69
TOTAL	4615	158	519	87	13311	2.88

FINAL SCORE: 9 011 547

19:09:26 K1DG SR 1013z SS 2312z

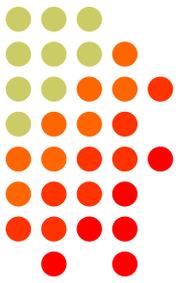
Common misconceptions about contests



- “Contesters are rude and obnoxious”
 - Are there any rude obnoxious people on your 2M repeater?

- “There are too many contests.”
 - Most contests are single-mode. There are none on the “new bands” (12, 17, 30 meters, which we have had since 1979...)

More misconceptions

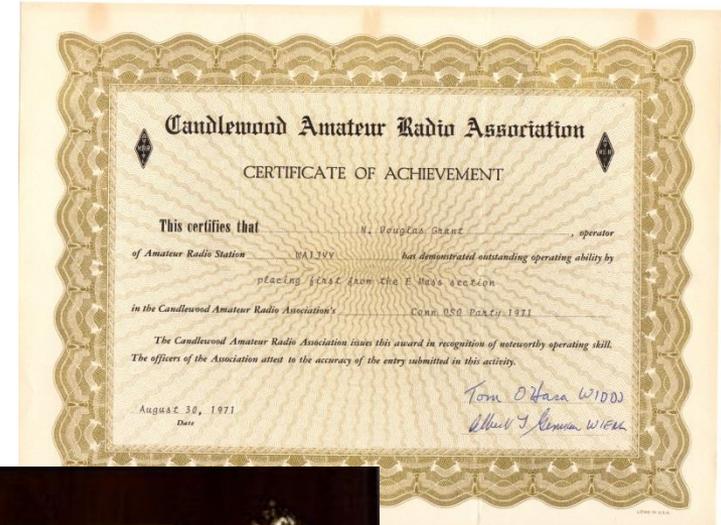


- “Contesters all run illegal power”
 - No...but since they usually have superior locations and antennas, it may seem like they are!
- “The only way to win is to have the biggest station”
 - Compare to car racing...a good driver in a slower car can beat a poor driver in a faster car.



And more...

- I only have a small station...it won't be much fun
 - Set reasonable expectations
- I can't copy CW well, so I'll never be any good
 - Practice, practice, practice...
- I'm too old
 - You can be competitive into your late 60s, even 70s



After the contest...

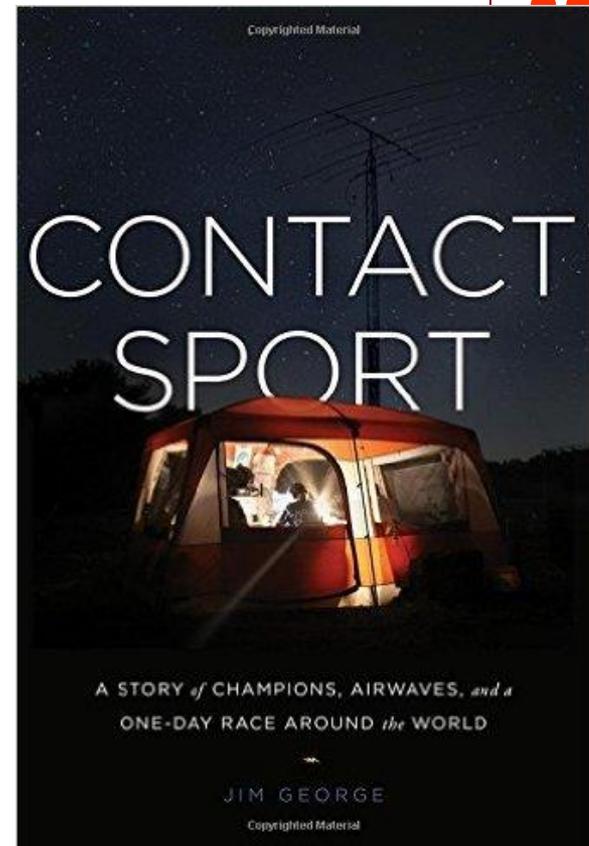


- Send in your log, no matter how big or small
 - It helps the log-checking process
 - Email or Web upload
- Compare your score to:
 - last year
 - guy across town
- Upload your log to LoTW
 - Watch the QSLs roll in
- “How can I do better?”

A screenshot of a web browser showing the ARRL Contest Log Submission form. The browser address bar shows 'contest-log-submission.arrl.org'. The form title is 'ARRL Contest Log Submission'. The instructions state: 'Use this form to submit your Cabrillo-formatted log to the ARRL for log checking. The form software will automatically recognize the correct contest from your log file (no need to select the contest). It will then briefly check your log for proper formatting and completeness before uploading to the log-checking database. All fields are required. Click on the Submit Log button after completing the form.' The form includes fields for 'Submitter's E-mail Address', 'Location During Contest: Select ARRL/RAC sections, Mexican states or DX', 'What's the highest output power you used during the contest?' (radio buttons for 5W or less, 150W or less, More than 150W), 'Did you use spotting assistance of any kind at any time during the contest?' (radio buttons for Yes, No), 'How many people operated under the call used during the contest?' (radio buttons for Only one, More than one), a checkbox for 'Check here if your log should not be scored and only used to check other entrants' logs.', and a section for 'Select Log File on Your Computer: Browse...' (No file selected) OR 'Paste your Cabrillo-formatted log into the text area below:'. At the bottom are 'Submit Log' and 'Reset Form' buttons. Footer text includes: 'Send comments or questions about this page to ARRL Contest Manager. Version: 1.2.2, Revised: March 7, 2016. Copyright © 2016 American Radio Relay League, Inc., All Rights Reserved.'

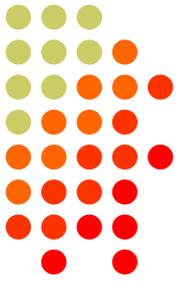
Resources...

- CQ-Contest email list
- “Contest Update”
- Your local/regional Contest Club
- Contest University
- National Contest Journal
- WWROF.org Webinars, etc.



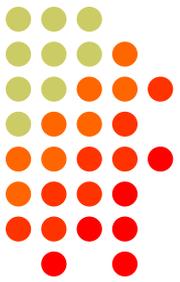
Available at Amazon.com

What you will get from Radiosport



- You will improve your operating skill
- You will improve your station
- You will learn more about propagation
- You will make friends worldwide
- You and your station will be ready for anything
- You will have fun!





73 &

see you in the next contest!