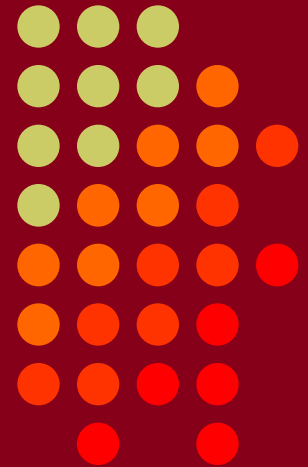


Why Cabrillo is Important to You

Randy Thompson, K5ZD



• CTU •
CONTEST
UNIVERSITY

ICOM®

Purpose of this Session



- History of the Cabrillo log specification
- Cabrillo log file basics
- How the log submission process works

"Contest Log" – 1980



DATE	FREQ.	MODE	POWER	TIME	STATION WORKED	REPORT		TIME OFF	QTH	COMMENTS NAME	QSL VIA	QSL	
						SENT	REC'D					S	R
11/12	21	SSB	KW	0320	JAIYDU				082	12			
				20	JA9CWS				3	30			
				21	JR1BV				4	10			
				21	JN1NDY				5	10			
				22	J53IMX				6	24			
				22	JA5DOH				7	37			
				23	JH4NMT				8	35			
				24	JAIRLM				9	12			
				26	JO1KSD				090	10			
				26	JH4JWI				1	35			
				27	JR1LGP	55			2	17			
				28	JA1KT1				3	10			
	7	CW		33	OK1KSO					28			
				41	5U7DL					46	QSL YASME		
				44	HA3PT					28			
				44	Y21EF					28			
				45	LZ1DZ					28			
				45	OK1OPT					28			
				46	OK3CGN					28			
				46	OK1MNV					28			
				47	OK2011					28			
				48	OK2ZU					28			
				49	OK3RJB					28			
				49	OK1BVA/P					28			
				51	OK1DOH					28			

Contest Log - 1986



(do not write above this line)

ARRL INTERNATIONAL DX CONTEST

CW Third FULL weekend in February—Phone First FULL weekend in March

CALL USED K3TUP CW ☒ PHONE ☐ ARRL SECTION (p. 8 QST) WPA

Separate logs and summaries must be submitted for each mode of operation.

☐ Novice/Technician

Valid QSOs

DXCC Countries

Single operator

☒ All band

☐ Single band (circle one)

160 80 40 20 15 10

☐ QRP (5W or less output)

Multipoperator

☐ Single transmitter

☐ Two transmitter

☐ Unlimited

Multiples list ALL operators:

160	34	30
80	212	66
40	496	80
20	742	80
15	659	78
10	39	24
Total	2182	358

Please enclose logs, dupe sheets, photos and soapbox comments with your entry and mail within 30 days after the phone contest to: ARRL Contest Branch, 225 Main Street, Newington, CT 06111.

2182 x 3 = 6546 x 358 =
(Valid QSOs) (QSO Points) (DXCC Countries)
2,343,468 Claimed Score.

POWER OUTPUT—CHECK ANY USED: ☐ 5 watts or less ☐ 6-150 ☒ Over 150

YES ☒

AFFILIATED CLUB PARTICIPATION

NO ☐

ARRL AFFILIATED CLUB NAME Mad River Radio Club

(Note: Club secretary must submit list of eligibles in order for club aggregate to be listed. 3 or more entries must be submitted.)

"I have observed all competition rules as well as all regulations established for Amateur Radio in my country. My report is correct and true to the best of my knowledge. I agree to be bound by the decisions of the ARRL Awards Committee."

Date 2/28/88

Signature Randy Thompson

Call K5ZD

NAME: Randy Thompson CALL: K5ZD

1. Check log for duplicate QSOs.
2. Copy ALL QSO info carefully. A penalty is assessed for incorrectly copied QSO info.
3. Observe million deadline.

BAND MHZ	TIME UTC	STATION	COMPLETE EXCHANGE		NEW MULTIPLIERS							POINTS
			SENT	RCVD	1.8	3.5	7	14	21	28		
7	0225	P46GD		KW			P4					
	26	OKIRI		500								
	26	FLBEE		KW			F					
	27	FSIN		KW								
	27	H3KXX		200								
	28	12MBP		300								
	29	SP9AKD	559	004								
	30	H21HZ		000			H2					
	30	DK20Y		500								
	31	R85LVV		50								
	32	R85LF	559	100								
	32	OK3TEC		100								
	33	OK3IF		579 200								
	34	RA9YD		200								
	35	DK8AX		100								
	36	YU7AJR		100								
	37	U1BBAA		200			41					
	40	YT2GI		100								
	42	Y4IUF		100								
	44	OKIAJY		200								
	45	ET5UY		200								
	47	OK2KMR		150								
	47	UA9MAC		050								
	48	UV9FM		200								
	49	OK3CEL		100								
	49	UA4BGB		50								
	50	FLGCT		100								
	51	UR8QWA		200								
	53	LZ1GC		250								
	55	OK1AMM		050								
	56	HB9DDZ		200			HB9					
	57	HA5UA		100								
	57	YU4SO		150								
	58	UB4XWB		200								
1.8	0302	P46GD		KW			P4					
	03	NPHA		000			KPH					
	04	YU10B		KW			YV					
	09	V31TP		100			V3					
7	18	YU1EXY		KW								
	20	DJ9MM		500								
	21	UB5ILW		50								
	21	HA6MK		200								
	22	BP9EK		500			BP					
	23	KH6XX		000			KHL					
	24	OK3YX		KW								
	24	OA4SS		600			OA					
	25	CT3CU		100								
	25	K12AC		K12			K12					

PAGE: 4

CALLSIGN:

☒ CW

☐ PHONE

ARRL INTERNATIONAL DX CONTEST

1. Separate summary sheets and logs required for each mode.
2. Check entry for duplicates on each band.
3. Dupe/check sheets must be included with every entry of 500 or more QSOs.

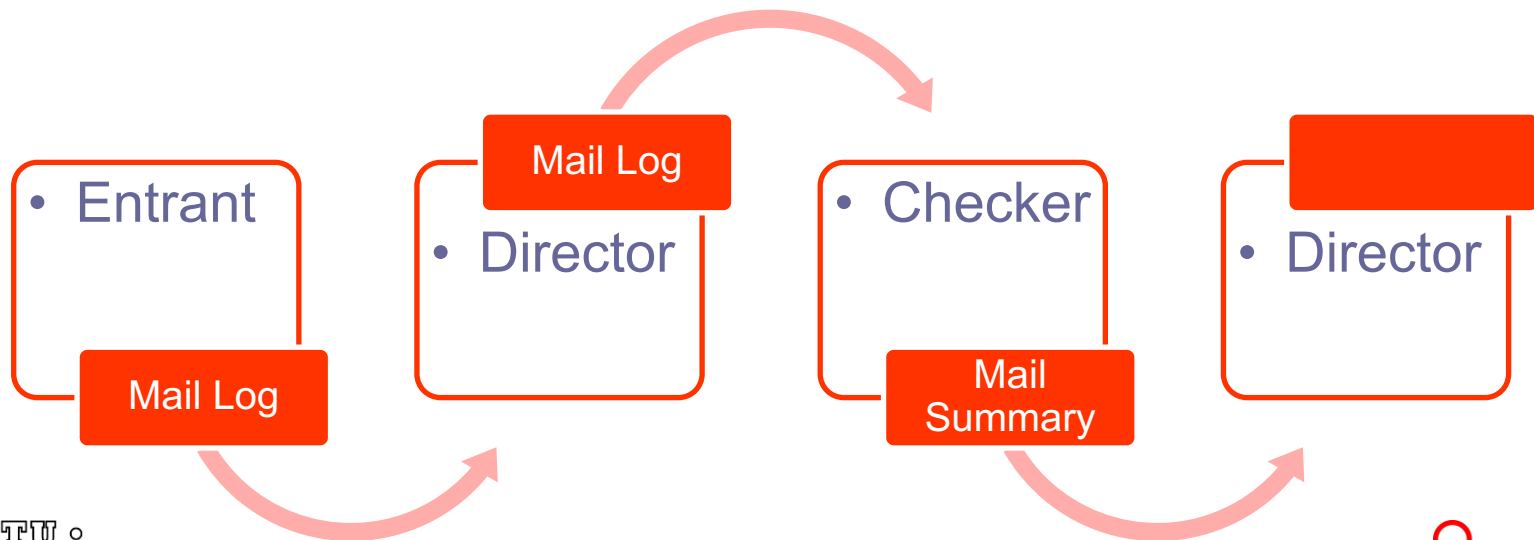
WVE: Three points per DX QSO.
DX: Three points per WVE QSO.

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CQWW Paper Log Processing



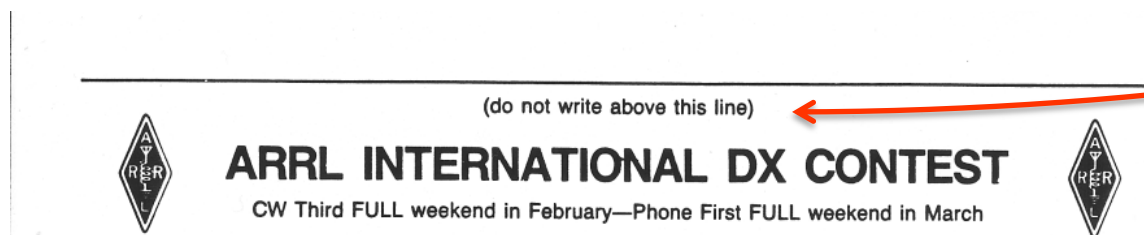
- Receive logs (4-8 weeks in mail)
- Divide logs by category
- Mail logs to log checker for that category
- Checker reviews logs and marks scoring changes on summary sheet
- Sends summary sheets back to Director



Paper Log Results



- Director collects all summary sheets
- Write correct line score info “above this line”



- Store summary sheets in results order
- When final, deliver to typesetting department (in results order)

Contest Log – 1989



Year **1989**

World Wide DX Contest **CQ**
Last Full Weekend of October (Phone) & November (CW)

Call Sign **K3TUP** Country **USA**

Mode: ☒ Single Op., All Band ☐ Multi-Op. Single Transmitter
☒ CW ☐ Single Op. _____ MHz ☐ Multi-Op. Multi-Transmitter

☐ QRP [5W or Less]

QSO's (minus duplicates)	QSO Points	Zone Multiplier	Country Multiplier	Score	Band
1.8 MHz: 14		X 5	+ 9		1.8 MHz
3.5 MHz: 61		X 15	+ 46		3.5 MHz
7.0 MHz: 622		X 31	+ 85		7.0 MHz
14 MHz: 759		X 36	+ 98		14 MHz
21 MHz: 864		X 35	+ 99		21 MHz
28 MHz: 894		X 33	+ 95		28 MHz
All Bands: 3214	9499	X 155	+ 432	5,575,913	All Bands

How to score: QSO Points X (Zones + Countries) = FINAL SCORE
EXAMPLE: 1000 QSO Points X (30 Zones + 70 Countries) = 100,000 points

Station Description: **2 ICOM IC-765, 6 AMPLIFIERS**

Antenna(s): **7 OVER 7 ON 10M, 6 OVER 6 ON 15, 5 OVER 5 ON 20, 4 EL 40M,**
3 EL VERT ON 80M, 1/4 VERT ON 160M

Operator: **K5ZD**

Remarks (Biggest thrill in Contest, funniest story, comments, etc.): **ANTICIPATION, NERVOUSNESS, EXCITEMENT,**
GREAT CONDITIONS, AWARE 48 HOURS, RATE, LOOK FOR MULTIPLIERS, #1, A DREAM!

Club Competition / Minimum 3 logs: **NORTH COAST CONTESTERS (NCC)**

This is to certify that in this contest I have operated my transmitter within the limitations of my license and have observed fully the rules and regulations of the contest.

Signature: *Randall A. Thompson* Call: **K5ZD**

NAME: **RANDALL A. THOMPSON**

1989

CQ WORLD WIDE DX CONTEST CQ Page 8

CALLSIGN: K3TUP MODE: CW BAND: 40

DATE	TIME	NUMBER	FREQ	CALL	RCVD	NEW	MULTS	PTS
11/25/89	0825	281		40 OZ6PI	599 14			3
11/25/89	0825	282		40 OE5JDL	599 15			3
11/25/89	0825	283		40 OK2RU	599 15			3
11/25/89	0826	284		40 G3SBI	599 14			3
11/25/89	0827	285		40 HA6KQD	599 15			3
11/25/89	0827	286		40 VE2AJD	599 05			2
11/25/89	0828	287		40 VE7ZZZ	599 03			2
11/25/89	0829	288		40 G4TNI	599 14			3
11/25/89	0830	289		40 JA6VU	599 25			3
11/25/89	0830	290		40 GW3JI	599 14			3
11/25/89	0831	291		40 I1BWI	599 15			3
11/25/89	0832	292		40 JA7SN	599 25			3
11/25/89	0832	293		40 OH9NV	599 15			3
11/25/89	0833	294		40 JA3EMU	599 25			3
11/25/89	0833	295		40 JA7AO	599 25			3
11/25/89	0833	296		40 VE6BF	599 04			2
11/25/89	0834	297		40 OZ1KAQ	599 14			3
11/25/89	0834	298		40 JA4JSV	599 25			3
11/25/89	0835	299		40 SM0BDS	599 14			3
11/25/89	0835	300		40 SM6AOU	599 14			3
11/25/89	0836	301		40 Y22HC	599 14			3
11/25/89	0837	302		40 Y23HJ	599 14			3
11/25/89	0837	303		40 G4DQW	599 14			3
11/25/89	0838	304		40 UL7LFB	599 17		UL	3
11/25/89	0840	305		40 Y32PI/P	599 14		-DUPLICATE-	0
11/25/89	0850	306		40 P40GD	599 09		P4	3
11/25/89	0908	307		40 HC8U	599 10	10	HC8	3
11/25/89	0913	308		40 CU2AK	599 14		CU	3
11/25/89	0916	309		40 NL7G	599 01	01	KL7	2
11/25/89	0918	310		40 JH1GTV	599 25			3
11/25/89	0928	311		40 YV2BE	599 09			3
11/25/89	0933	312		40 V31B	599 07	07	V3	2
11/25/89	0939	313		40 VP9LB	599 05		VP9	2
11/25/89	0945	314		40 VP5Q	599 08	08	VP5	2
11/25/89	0948	315		40 8P9HT	599 08		8P	2
11/25/89	0949	316		40 9Y4H	599 09		9Y	3
11/25/89	1000	317		40 AA6Y/KH6	599 31	31	KH6	3
11/25/89	1003	318		40 JA5JCC	599 25			3
11/25/89	1003	319		40 JA1XAF	599 25			3
11/25/89	1006	320		40 VK8AV	599 29	29	VK	3
Totals This Page:						6	12	109
Cumulative Totals:						22	58	930



We need a better way!



Electronic Log Submission

Requirements



- What makes up a contest log?
- What data do we need for each QSO?
- What data is needed from the summary sheet?
- Formatting?
- Human readable?

QSO Data



3/9	21	0050	JH3DPB	59	TX	59	KW
			JA7YAA				KW
			VS6BG				100
		55	KH6ND				KW
			ZL1ANJ				150
	28		HC8A				KW
			OA4ANR				100
		0100	KL7RA				KW
	14		VP2E				KW

- Easy for humans to understand, but not for computers

ARRL Format “V1” – 1993



ARRL Suggested Standard File Format For Submission of Contest Log Data

- All files must be in standard ASCII format.
- All files must be on an MS-DOS formatted disk, 3.5 inch (720-KB or 1.44-MB) or 5.25 inch (360-KB or 1.2-MB).
- The diskette label should clearly indicate the call sign used, contest name, entry class, and date of the contest.
- A paper summary sheet is required of all logs, either an official ARRL summary sheet or a close facsimile with a signed contest participation disclaimer.
- All diskettes become the property of the ARRL and are not returnable.
- All QSO data must appear in each line, aligned by columns...

SAMPLE FILE :

```
20 CW 15/02/92 0001 UW9WA 599 MA 599 100 * 3
20 CW 15/02/92 0001 UZ1AWJ 599 MA 599 200 * 3
20 CW 15/02/92 0002 OZ1IKW 599 MA 599 100 * 3
20 CW 15/02/92 0002 YU1GN 599 MA 599 100 * 3
20 CW 15/02/92 0003 UZ9XWT 599 MA 599 100 3
20 CW 15/02/92 0003 UZ4WWA 599 MA 599 200 3
20 CW 15/02/92 0004 OZ4UN 599 MA 599 500 3
20 CW 15/02/92 0005 OK1ALW 599 MA 599 KW * 3
20 CW 15/02/92 0005 DF5UL 599 MA 599 KW * 3
20 CW 15/02/92 0005 YU7XM 599 MA 599 100 3
20 CW 15/02/92 0006 RH0E 599 MA 599 300 * 3
20 CW 15/02/92 0006 YO7BGA 599 MA 599 006 * 3
```

Next Steps



- Logging software authors had embraced ARRL Format V1
- But, floppy disks and paper summary sheets wasn't making things better
- In 1998 K5FUV at ARRL invited Trey, N5KO, to investigate electronic log submission

Other Possible Formats



- ADIF
 - Late response from developers
- DARC Contest Data Exchange Format "STuetzerbach Format" – STF
 - Discovered too late
- XML
 - Too new and not easy to read

~~ARRL Format V2~~



- Needed summary sheet data to put complete log submission in one file
- CQ Magazine would not accept file format with ARRL in the name

Cabrillo Log Format – 1999



- Name of Portuguese explorer whose name was popular near where Trey lived!
- 1999-08-16 Cabrillo V2.0 recognized by ARRL and CQ



Cabrillo Basics



Sample Log File

```
START-OF-LOG: 3.0
CALLSIGN: AA1ZZZ
CONTEST: CQ-WW-SSB
CATEGORY-OPERATOR: SINGLE-OP
CATEGORY-ASSISTED: NON-ASSISTED
CATEGORY-BAND: ALL
CATEGORY-POWER: HIGH
CATEGORY-MODE: CW
CATEGORY-TRANSMITTER: ONE
CATEGORY-OVERLAY: ROOKIE
LOCATION: WMA
CREATED-BY: SuperLogger v1.0
NAME: John Smith
ADDRESS: 100 Main St
ADDRESS-CITY: Uxbridge
OPERATORS: K5ZD
SOAPBOX: Put your comments here.
```

Header

The beginning of each line
is **<LABEL>**: followed by a
space

```
QSO: 3799 PH 2000-10-26 0711 AA1ZZZ
QSO: 14256 PH 2000-10-26 0713 AA1ZZZ
QSO: 21250 PH 2000-10-26 0716 AA1ZZZ
QSO: 28530 PH 2000-10-26 0721 AA1ZZZ
QSO: 7250 PH 2000-10-26 0751 AA1ZZZ
END-OF-LOG:
```

59	05	K9QZO	59	04	0
59	05	P29AS	59	28	0
59	05	4S7TWG	59	22	0
59	05	JT1FAX	59	23	0
59	05	WA6MIC	59	03	0

QSO Data

Cabrillo Basics

Sample Log File



START-OF-LOG: 3.0 ←

CALLSIGN: AA1ZZZ
CONTEST: CQ-WW-SSB
CATEGORY-OPERATOR: SINGLE-OP
CATEGORY-ASSISTED: NON-ASSISTED
CATEGORY-BAND: ALL
CATEGORY-POWER: HIGH
CATEGORY-MODE: CW
CATEGORY-TRANSMITTER: ONE
CATEGORY-OVERLAY: ROOKIE
LOCATION: WMA
CREATED-BY: SuperLogger v1.0
NAME: John Smith
ADDRESS: 100 Main St
ADDRESS-CITY: Uxbridge
OPERATORS: K5ZD
SOAPBOX: Put your comments here.

QSO: 3799 PH 2000-10-26 0711 AA1ZZZ
QSO: 14256 PH 2000-10-26 0713 AA1ZZZ
QSO: 21250 PH 2000-10-26 0716 AA1ZZZ
QSO: 28530 PH 2000-10-26 0721 AA1ZZZ
QSO: 7250 PH 2000-10-26 0751 AA1ZZZ

59	05	K9QZO	59	04	0
59	05	P29AS	59	28	0
59	05	4S7TWG	59	22	0
59	05	JT1FAX	59	23	0
59	05	WA6MIC	59	03	0

END-OF-LOG: ←

**MUST have Start-of-Log:
Number is version (2.0 or 3.0)**

MUST have End-of-Log:

Cabrillo Basics



Sample Log File

```
START-OF-LOG: 3.0
CALLSIGN: AA1ZZZ
CONTEST: CQ-WW-SSB
CATEGORY-OPERATOR: SINGLE-OP
CATEGORY-ASSISTED: NON-ASSISTED
CATEGORY-BAND: ALL
CATEGORY-POWER: HIGH
CATEGORY-MODE: CW
CATEGORY-TRANSMITTER: ONE
CATEGORY-OVERLAY: ROOKIE
LOCATION: WMA
CREATED-BY: SuperLogger v1.0
NAME: John Smith
ADDRESS: 100 Main St
ADDRESS-CITY: Uxbridge
OPERATORS: K5ZD
SOAPBOX: Put your comments here.
QSO: 3799 PH 2000-10-26 0711 AA1ZZZ
QSO: 14256 PH 2000-10-26 0713 AA1ZZZ
QSO: 21250 PH 2000-10-26 0716 AA1ZZZ
QSO: 28530 PH 2000-10-26 0721 AA1ZZZ
QSO: 7250 PH 2000-10-26 0751 AA1ZZZ
END-OF-LOG:
```

MUST have callsign used
in the contest

MUST have contest name
specified by the sponsor

59	05	K9QZO	59	04	0
59	05	P29AS	59	28	0
59	05	4S7TWG	59	22	0
59	05	JT1FAX	59	23	0
59	05	WA6MIC	59	03	0

Category Information



V3.0 (preferred)

- Each descriptor has its own line
- All lines must be included

```
CATEGORY-OPERATOR: SINGLE-OP  
CATEGORY-ASSISTED: NON-ASSISTED  
CATEGORY-BAND: ALL  
CATEGORY-POWER: HIGH  
CATEGORY-MODE: CW  
CATEGORY-TRANSMITTER: ONE  
CATEGORY-OVERLAY: ROOKIE
```

V2.0 (old)

- All descriptors on one line

```
CATEGORY: SINGLE-OP ALL HIGH  
CATEGORY-OVERLAY: ROOKIE
```

Other Header Fields



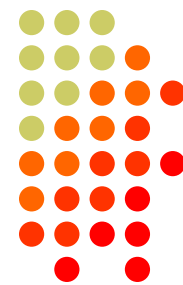
Sample Log File

```
START-OF-LOG: 3.0
CALLSIGN: AA1ZZZ
CONTEST: CQ-WW-SSB
CATEGORY-OPERATOR: SINGLE-OP
CATEGORY-ASSISTED: NON-ASSISTED
CATEGORY-BAND: ALL
CATEGORY-POWER: HIGH
CATEGORY-MODE: CW
CATEGORY-TRANSMITTER: ONE
CATEGORY-OVERLAY: ROOKIE
LOCATION: WMA
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NAME: John Smith
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QSO: 14256 PH 2000-10-26 0713 AA1ZZZ
QSO: 21250 PH 2000-10-26 0716 AA1ZZZ
QSO: 28530 PH 2000-10-26 0721 AA1ZZZ
QSO: 7250 PH 2000-10-26 0751 AA1ZZZ
END-OF-LOG:
```

LOCATION: used to determine section or call area where operation occurred

Address is optional, used to mail certificates

Other Fields



- OPERATORS:

- Calls of all operators, use @ to show station used

OPERATORS: K3EST @N6RO

- SOAPBOX:

- Limit line to 75 characters, use multiple lines

SOAPBOX: The contest was great fun

SOAPBOX: until my amplifier blew up!

- CREATED-BY:

- Optional, sometimes helps us know which programs are not formatting correctly

Other Fields



- CLUB:

- Single ops – only one club name
- Multi-ops – may list multiple club names

CLUB: 1/3 Yankee Clipper Contest Club 2/3 North Coast Contesters

- Robot will give warning if multiple clubs, but can be ignored

- CLAIMED-SCORE:

- Optional, not used

QSO Data



```
QSO: 3799 PH 2000-10-26 0711 AA1ZZZ      59 05      K9QZO      59 04      0
QSO: 14256 PH 2000-10-26 0713 AA1ZZZ      59 05      P29AS      59 28      0
QSO: 21250 PH 2000-10-26 0716 AA1ZZZ      59 05      4S7TWG      59 22      0
QSO: 28530 PH 2000-10-26 0721 AA1ZZZ      59 05      JT1FAX      59 23      0
QSO: 7250 PH 2000-10-26 0751 AA1ZZZ      59 05      WA6MIC      59 03      0
```

```
-----info sent----- -----info rcvd-----
QSO: freq mo date      time call      rst  exch  call      rst  exch  t
QSO: ***** **  yyyy-mm-dd nnnn ***** nnn ***** ***** nnn ***** n
QSO: 3799 PH 2000-11-26 0711 N6TW      59 03      JT1Z      59 23      0
```

```
000000000111111111122222222223333333333444444444455555555556666666666777777777788
123456789012345678901234567890123456789012345678901234567890123456789012345678901
```

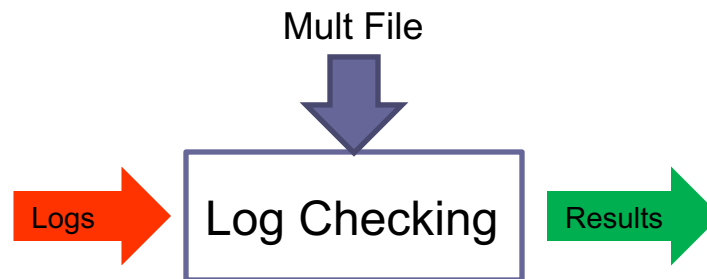
- QSO: indicates a QSO
- Each line contains all frequency, date, time, and sent/received info
- Every line must include all fields
- Use spaces or tabs between fields
- Columns do not need to line up

◦ CTU ◦

Why no Multipliers or QSO Points?



- Electronic logs enable fully computerized log checking
- All logs are scored in a consistent way without “interpretation” by the entrants
 - Common multiplier file and scoring algorithm
 - What country is TO2A? TX5K? GM4WXQ?



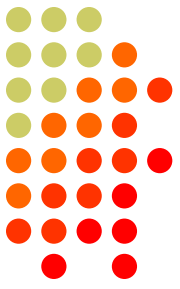
(FY, FO/c, GM/s)

What about dupes?

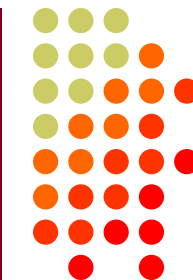


- Submit all QSOs that you make
 - Even if you are single band
 - The Header tells us your category for scoring
- There is no penalty for logging duplicate contacts

Cabrillo Notes



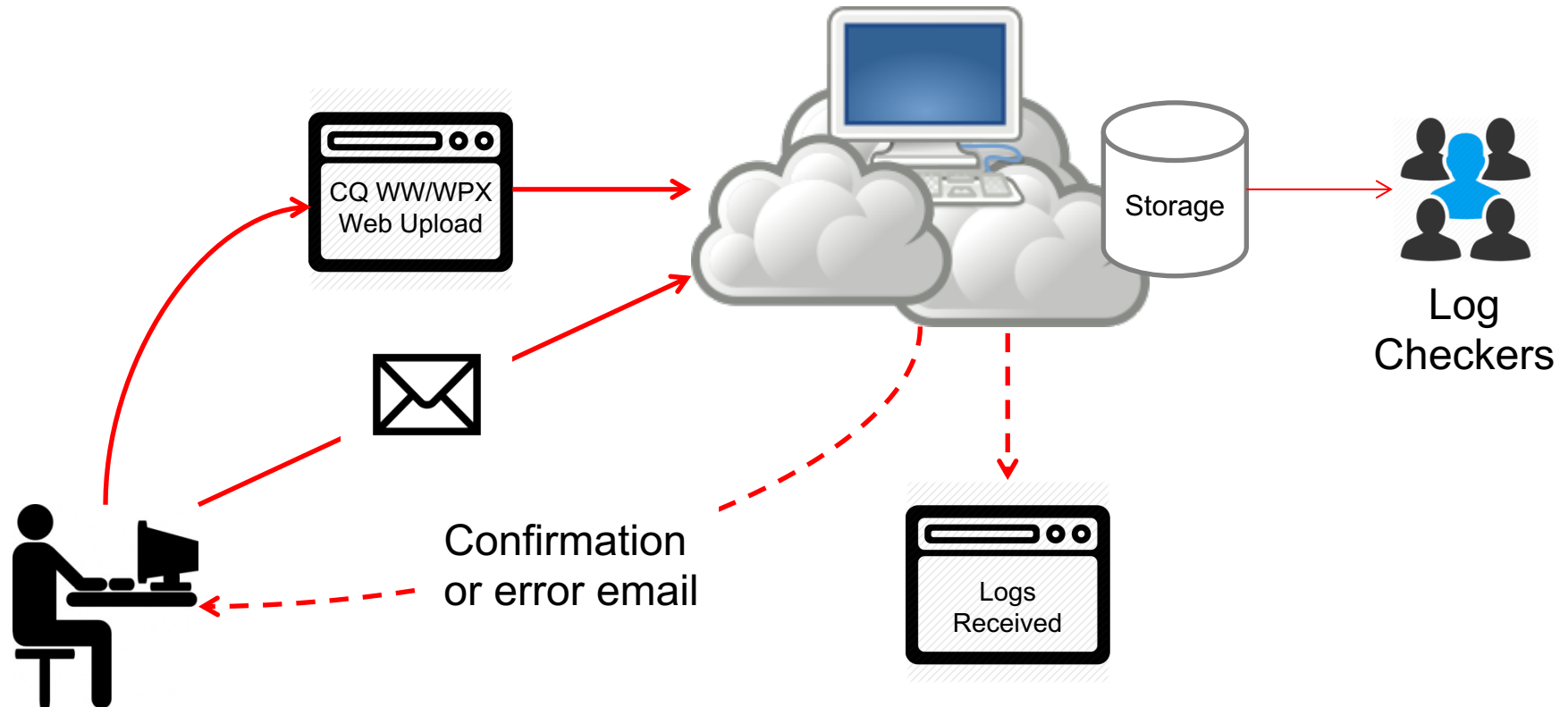
- Must be ASCII text file
- You can edit with any text editor (such as Notepad or Wordpad)
- Please do not use special fonts to create slashed zeroes
- Use tabs or spaces between line items
 - Text columns do NOT need to line up
- **ACCURATE DATE/TIME IS IMPORTANT!**



Submitting Your Log

A few tips

ARRL and CQ “Robot”



Email Tips



- Log can be an attachment or in the body of the email
 - Use `<call>.cbr` or `<call>.log` for file name
- Subject line should have only your callsign
 - Subject line must have less than 4 words (spam defense mechanism)
- READ THE CONFIRMATION EMAIL!
 - Your log may have errors or been rejected
- Each new log submitted replaces any previous one

Final Confirmation



- Your log is not officially received you receive an email confirmation with tracking number in subject line



- Check your category!!
 - The robot may enter a default if something is missing or invalid

Note



**Do not put any information
about your entry in the email
subject or body.**

**The log checkers only see
the log file!**

Log Submission Deadlines



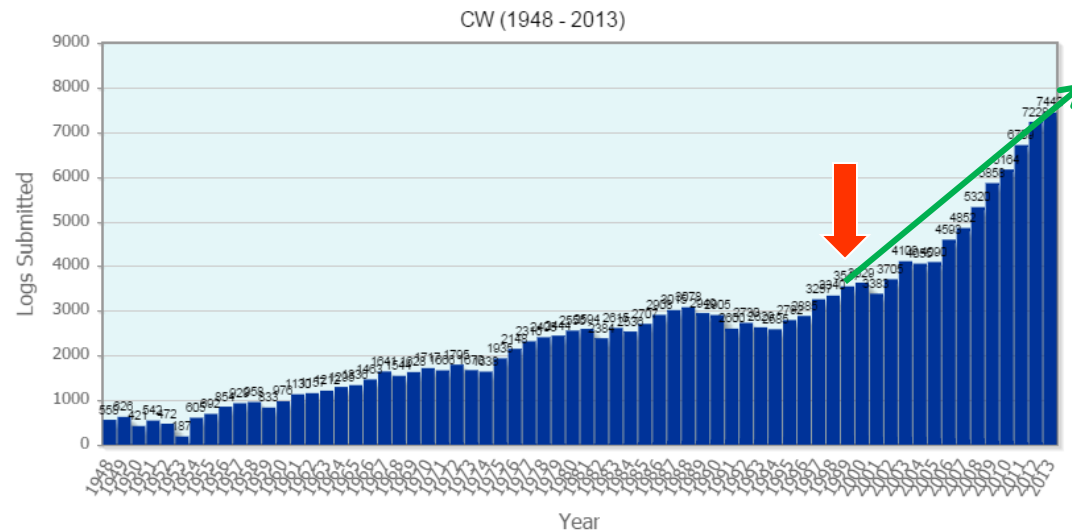
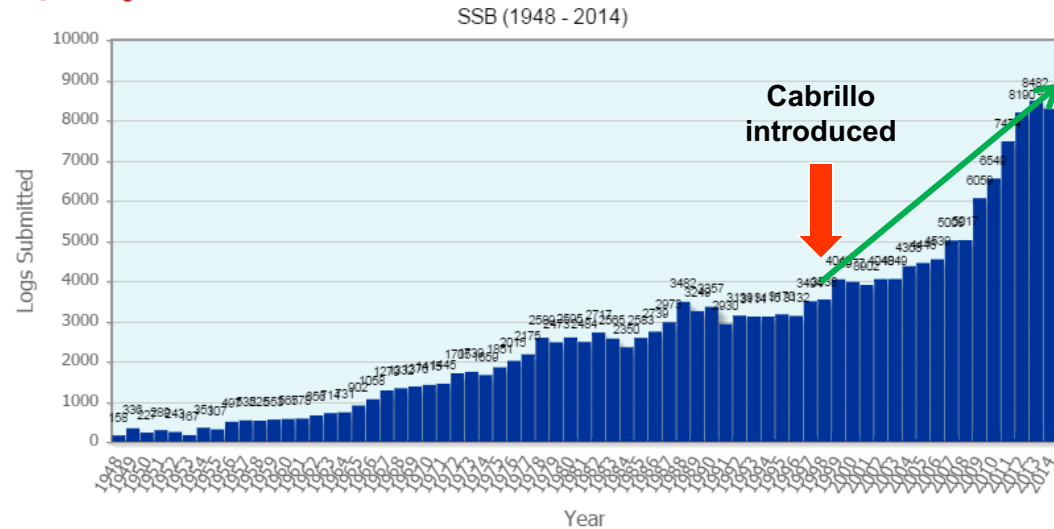
- See the contest rules for log deadline
 - For CQ Contests, it is 5 days
 - For ARRL Contests, it is ~15 days
- Robot accepts late logs
- If you need more time, request an extension

**Why not just submit your log
as soon as the contest is over?**

Impact of Electronic Logs



CQ WW Log Entries - World



World Wide Radio Operators Foundation



- Non-profit corporation focused on support of radio contesting
- WWROF funds
 - CQWW infrastructure including the robot, web site, log checking software/hardware
 - Manages Cabrillo log format standard
 - Webinar series
 - Other projects that support contesting
- Learn more and donate at www.WWROF.org



Questions?



Cabrillo Specification: <http://wwrof.org/cabrillo/>

Questions or Change Requests: cabrillo@wwrof.org

ARRL Article about Cabrillo: <http://bit.ly/1FzgkM9>