

Beginner to Winner

Confessions of a Phone Operator, by N6KT



Beginner to Winner

1976 to 1993

Rich Smith, [N6KT](#)

Skills, Techniques, Tips, Tricks,
Secrets, and Maybe Something
Useful.

Upcoming Quiz

- "Mother Nature is _____."
- "___ dB is a Ton."
- "When Running, it's not as Important to Talk Fast as it is to _____."
- "Every ___ Seconds Count."
- "Contests are usually Won or Lost on _____."

N6KT - Who the Heck are You?

- Dozens of Full-Bore Contest Efforts
- Operated Contests from W6, VE7, HK0, OA, PJ, P4, EA9, KH6, TI, EA8, HC8, PY0, TI9.
- Contest QSO Totals ranging from ~100 Q's to the Maximum QSO's ever made
- Lifetime Total QSO's on the order of 200,000

Introduction to Contesting

Field Day as a Novice - 1972

Played in ARRL DX and CQWW
for new countries through 1975.

My First "Serious" Contest

1976 ARRL DX SSB Contest
as WA6MQS/6

60 hours - 757 QSO's

(I learned to "CQ")

My Station Location At That Time





I was invited to join the NCCC

I was invited by George, WB6DSV (now K6SV).

It must have been those 757 Q's in 2 weekends!

What an amazing group of high-energy, helpful, serious testers!

The Bug Has Bitten - 1976

I tried to operate every contest the next few years:

WPX	Bicentennial
All Asian	Sweepstakes
CQWW	ARRL DX
CQP	CD Parties

No great scores but I was getting experience.

Why I Like Phone

- High Rates
- Different Voices and Accents are Fun and Challenging
- Easier to Move Multipliers
- Experience the Excitement
- (What I Don't Like – Lots of QRM)

Figuring Out How To Operate Contests

- Learn the Rules and Exchanges
- Learn to Call CQ
- Calling in Pile-ups
- Propagation and Beam Headings
- Advantageous/Disadvantageous Situations
- Off-Times and CQ/S&P Strategy
- Sleep Deprivation
- Technical Proficiency

Highlights of Major DX Contest Rules

CQ World Wide

ARRL DX

CQ WPX

Main Categories

- Single Operator – All-Band – Unassisted
- Single-Operator – All-Band - Assisted
- Single-Operator – Single Band
- Multi-Single
- Multi-Two
- Multi-Multi
- Depending on the Specific Contest, Single-Op Categories May Be HP, LP, and QRP.

CQ World Wide

- DX Contacts and Multipliers per Band
- Multipliers - DXCC Countries and CQ Zones*
- Exchange - Signal Report and Zone

Points per QSO

- 1: Different Country/Same Continent
- 2: Different Country within North America
- 3: Different Continent

*including your own country and zone.

ARRL DX (For W/VE)

- DX Contacts and Multipliers per Band
- Multipliers - DXCC Countries
- Exchange - Signal Report and State/Province
- QSO Points - 3 Points per QSO Outside of W/VE

CQWPX (Prefix)

- Contacts with All Stations per Band
- Multipliers - Only Counted Once (Not per Band)
- Multipliers - Callsign Prefix
- Single-Operator - Maximum of 36 Hours Operation...Minimum 1 Hour Off-Times
- Points per QSO - Just a little complicated...

CQWPX - QSO Points

High Bands

- 1: Same Country
- 1: Same Continent (except North America)
- 2: Different Country within North America
- 3: Different Continent

Low Bands

- 1: Same Country
- 2: Same Continent (except North America)
- 4: Different Country within North America
- 6: Different Continent

Calling in Pile-ups

- Clarity
- Timing
- Phonetics
- Corrections

Clarity

- Speak Clearly
- Clean Signal
- Good Audio Quality
- Speak Forcefully
- Zero Beat

Timing

- Immediately after the “QRZ”
- After the First Wave of Callers
- Tail-End (Please do it Correctly!)

Phonetics

- Please Use Them!
- Know the Standard Ones and Acceptable Substitutes
- Consider Something Slightly Unusual or Rhyming

Callsign Corrections

- A DX Station comes back to "November 6 Kilo Echo, Five Nine Nine"

Which is the Best Way to Correct Him?

- "Five Nine Oh Three, November 6 Kilo Tango"
- "November 6 Kilo Tango, Five Nine Oh Three"

Propagation and Beam Headings

- When is Propagation Advantageous? Which are the most important times to be on the air?
- Important “Only Chance” Situations
- Short Path, Long Path, and Typical Skew Path Openings and Directions
- Memorize Beam Headings

Advantageous Situations

Sunrise/Sunset Enhancements

Running JA and Asia/Pacific when East Coast and Midwest don't have propagation.

Disadvantageous Situations

Low Bands - First Night

To Europe - When Propagation is not Good

Run vs. Search and Pounce

- When Your Run Slows Down or You Lose Your Frequency:
 - Search and Pounce to Check the Band and look for a new Run Frequency
 - Run on Another Band

Run vs. Search and Pounce

When is the Rate Low Enough to Stop Running on a Band?

- Choose a Rule of Thumb for your Skill Level and Situation
- “I Will Run Anytime my Rate is at Least _____ Q’s per Hour”
 - In California, that might Be 50 or 75 per hour
 - A DX Station might choose 100 or 150 per hour

Off-Times

- Choose Off Times That Least Impact the Score
 - Assuming a QSO Total of 1000 in 40 Hours
 - Average Rate is 25 QSO's per Hour
 - Some Hours will be 100 QSO's
 - Some Hours will be 5 QSO's
- After EU Sunset and Before JA Sunrise (1800 – 2100 UTC)
- After EU Sunrise, S&P Mults, Run JA. Rate to JA Will Slow Down until Just Before W6 Sunrise (1000 – 1300 UTC)

Sleep Deprivation

- Work Gradually toward More Operating Hours
- Be In Good Physical Condition
- Being Busy Keeps You More Awake (SO2R)
- Stay Interested – Anticipate Something Good About to Happen
- Caffeine Helps – Start Saturday Morning
- Planned Breaks – Push 'til the Break
- Make Sure You Get Up On Time!

Technical Proficiency

- Rigs Amps Antennas Towers
Feedlines Rotors Computers Sleep
Deprivation Noise Propagation
Soldering Coax Connectors Computers
Software Filters Chairs Antenna
Switches SWR Microphones
Headphones Interconnect Cables
Footswitches Resoldering Coax
Connectors Climbing Tools Interstation
Interference

First Contest Expedition -1977

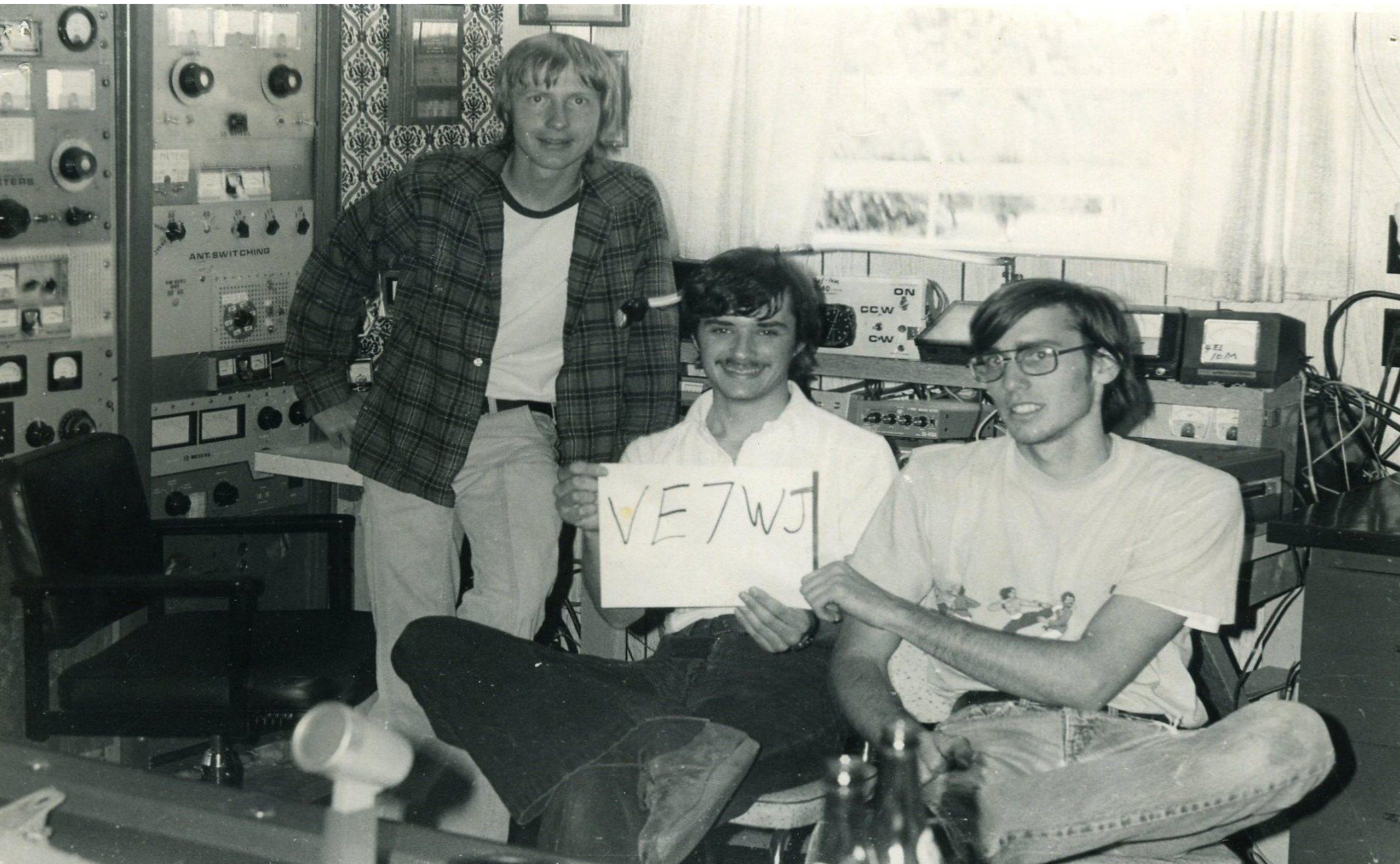
IARU Radiosport Contest

Multi-Single at VE7WJ

With Gary, now VA7RR, and VE7CGY

Placed 3rd in the world!

The Team at VE7WJ - 1977



More Multi-Op Efforts - 1978-1979

Great experience in Multi-Multi's at AI6V

Learning From Some Great Op's:

Holding a CQ Frequency

Passing Multipliers

Propagation

More Multi-Singles at VE7WJ

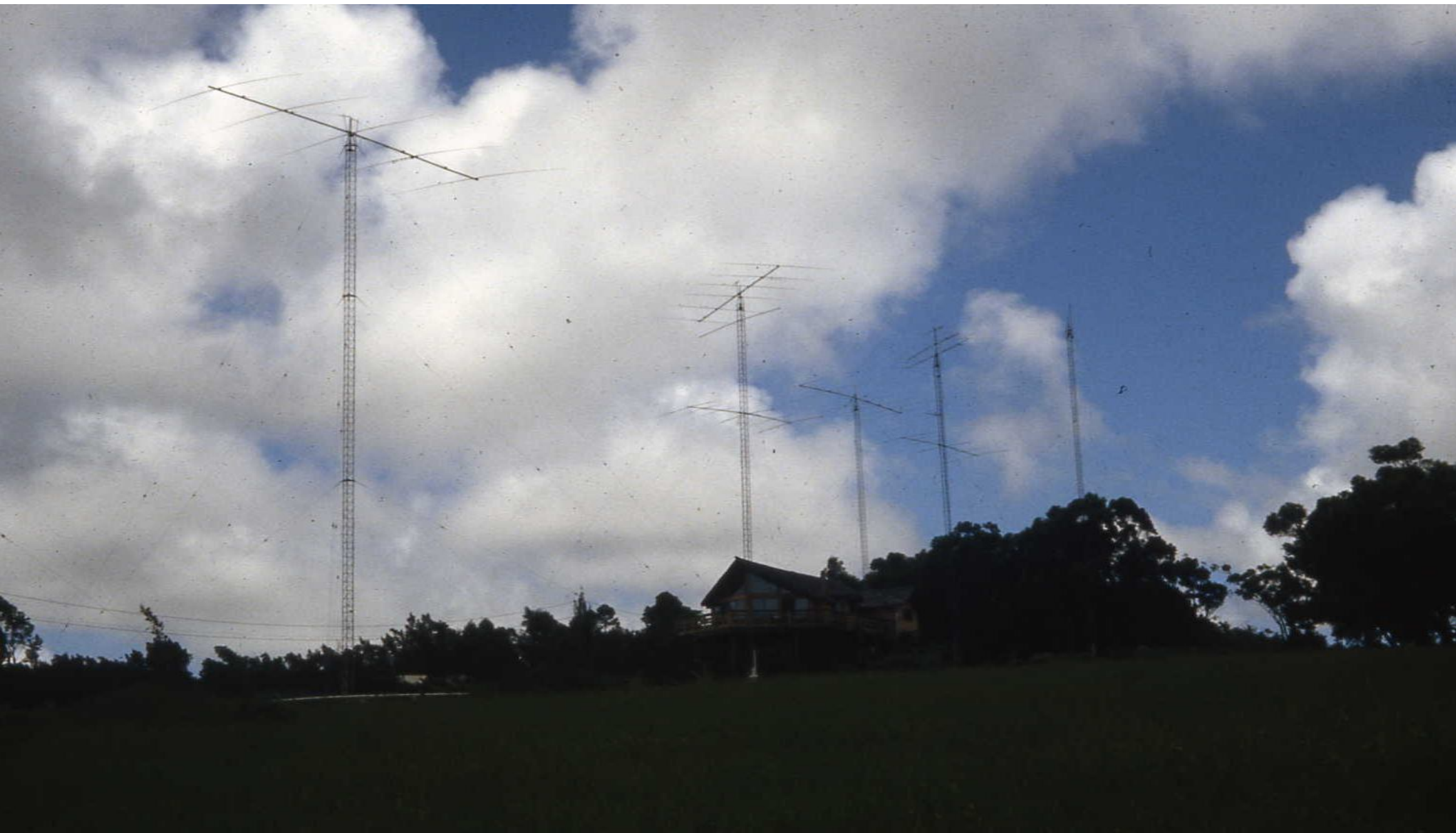
IARU Radiosport Contest

1978 3rd Place in the World

1979 First Place in the World

(World Record)

1980 – IARU Radiosport at KH6XX



Big Win!

New World Record!

60% above previous World Record!

1980 KH6XX 5,071,845

1979 CK7WJ 2,870,544

1980 CQWW SSB from W6YL Tribander and Dipoles at SJSU

Tenth place in the USA!

1981 – Time to venture out on my own – N6KT/HK0

With the help of Fred Laun, K3ZO,

was invited to the station of HK0BKX (sk)

Tribander/Dipoles station on San Andres Island

Welcome to Latin America!



HK0BKX (sk)



#4 in the World!

1981 CQWW SSB Scores – Top 4

9Y4VT	11,085,529
EA8AK	9,974,811
HI8PGG	9,009,721
N6KT/HK0	6,823,008

I can compete with the Big Boys!

CQWW 1982 – Operating from South America – 4T40

3 Points per QSO in the CQ Contests

Again with the help of Fred Laun, K3ZO, got
an invite from OA4AHA to operate from
Lima, Peru

The 4T40 Team



Broke the M/S World Record (and came in 4th) - 1982 CQWW SSB

9Y4W 16,775,034

NP4A 14,953,818

FM7CD 14,481,363

4T4O 13,494,118

Previous world record:

I4RYC 9,918,368

It's Fun to Travel



I met Rebecca in 1983



ARRL DX SSB - 1983

Carl, AI6V, went to try his luck in KH6.

I operated at his home station in Nevada City.

AI6V (N6KT op) - First place in W/VE!!

Ran tons of JA's

Slept 1 hour that weekend

East Coast had terrible propagation (poor fellas)

1983 – Entering The Big Leagues - Single Op from South America

Called up Freddy, PJ2FR, in Curacao.

An unexpected invite to operate his station
for CQWPX and CQWW

My First South American Single-Op Effort - WPX SSB 1983 – PJ2FR

Amplifier quit after 9 hours.

Ran 21 hours barefoot.

Set new World Record in SOABHP!

(Never Give Up)

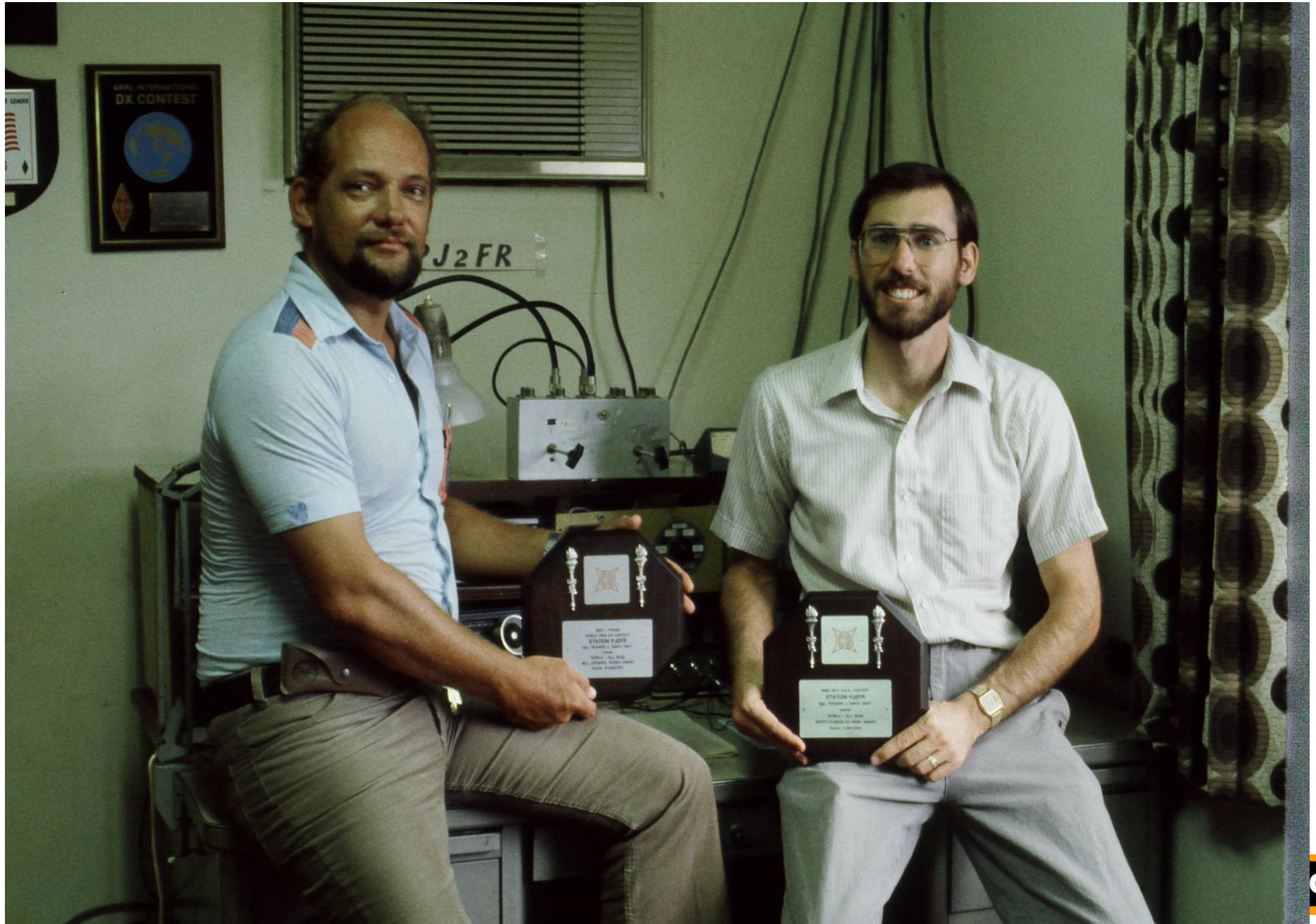
CQWW 1983

SOABHP from PJ2FR

Was expecting N6AA to be on from 9Y4VT,
but he didn't go that year

First Place in the World on my first try in
CQWW from South America!

Two World High Plaques in 1983



1983 was an incredible year!!!

Seven years after I began
operating contests seriously:

W/VE Winner in ARRL DX

World Record in CQWPX

World High in CQWW

Improving Skills

- Learning to Run Effectively
- Moving Multipliers
- Trying to Use Two Rigs
- Food/Drink
- Operating with Less Sleep

Running Effectively

What You Say and Don't Say

- Speak Clearly
- Talk Fast, But Not Too Fast
- Be Polite, Assertive, Cheerful, Professional
- Don't Get Angry or Lecture
- Make People Want to Call You

Your Transmissions

- Be Loud
- Very Good Audio (Crisp, Clear, No RF, No Hum, etc.)
- Don't Add Extra Words, Unless to Get More People to Call You
- Short Clear CQ with Phonetics
- Give the Report on the First "Over"
- Keep a Rhythm
- Confirm That You Are Finished With a QSO

Other Running Skills

- Recognize Standard Phonetics and Typical Substitutes
- Get The Call and Exchange Right the First Time
- Learn to Copy Through QRM
- Recognize if Someone is Calling You or Another Station (Split, or Out of Your Skip Zone)
- Accept Tail-Enders (If It Works)

Typical Big Pile-Up



Whiskey"

"The Whiskey Station 5910"

"Roger, K 6 Alpha Whiskey, 5903"

"K6AW, QSL, QRZed, Hotel Charlie 8 Alpha"

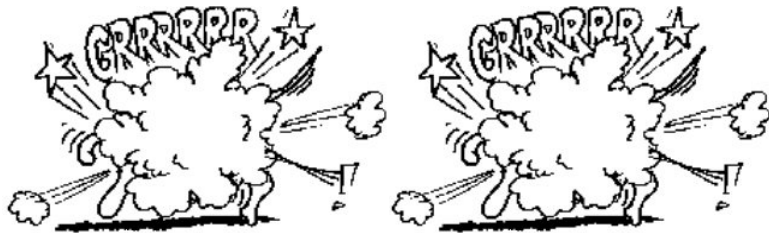


Oscar"

"The Oscar Station 5910"

"Roger, N 6 Radio Oscar, 5903"

"N6RO, Thanks, QRZed?"



Victor"

"The Victor Station, 5910"

Roger, AI6Victor, 5903"

"AI6V, QSL, QRZed, Hotel Charlie 8 Alpha"



How Can We Speed Things Up?

DX Station Can Pause
to Encourage “Tail-Enders”

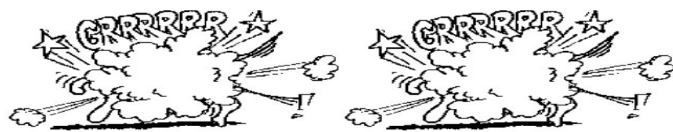
“The Whiskey Station, 5910”

“Roger, K6 Alpha Whiskey, 5903”

(Pause) “K6AW, QSL, QRZed, HC8A”

Good String of Tail-Enders

“QRZed, Hotel Charlie 8 Alpha”



Whiskey”

“The Whiskey Station, 5910”

“Roger, K6Alpha Whiskey, 5903”

(Pause) “K6AW, QSL, QRZed”



Mexico”

“The Mexico Station, 5910”

“Roger, K6Mike Mike, 5903” “N6RadioOscar”

“QSL, N6RO, 5910”

“Roger, 5903” “Alpha Italy 6 Victor”

“Thanks, AI6V, 5910”

“5903” “W6 X-Ray X-Ray”

“Thanks, W6XX 5910”

“5903” “K6 X-Ray X-Ray”

“Thanks, K6XX 5910”

“Roger, 5903” “W6 Norway Lima”

“QSL, This is HC8A, W6NL, 5910”

“5903” “N5 Kilo Oscar”

“Thanks, N5KO, 5910”

“Roger, 5903” “K6 North America”

“QSL, K6NA 5910”

“Roger, 5903” “K7 Sugar Sugar”

(This was an Exceptionally Good run
of Tail-Enders)

Moving Multipliers

- Normally Can be Done When You Are DX
- Move to the Band that is Most Likely Open, then the Next Most Likely Open Band, etc.
- SO2R – Find a Clear Frequency for QSO
- Move Rare and Semi-Rare Mults the First Day
- Move Any Mult the Second Day

More efforts and more wins from PJ2FR

1984 CQWW SSB SOABHP

1985 CQWW SSB SOABHP

1986 WPX SSB SOABHP

1987 WPX SSB M/S

1988 ARRL DX SSB - PJ2FR

Background: In 1987, KE5CV, as V31CV,
made almost 8000 QSO's
in the ARRL DX SSB contest.

I was inspired to try to be the first Single-Op
to make over 8000 Q's.

The Result?

Over 9200 Q's!

First Single-Op to make over 8000,
and the first to make over 9000!

At the half-way point, I had 5500 Q's in the log!

At that moment, I wondered if a Single-Op
could make 10,000 Q's in 48 Hours.

Where To Next For CQWW? Africa in 1989

Tribander and wires in EA8

Nice short callsign – EA8RCT

Not the best conditions, but still came in
first place in the world.

Late 1980's - PJ2 gets crowded

Two giant Multi-Multi efforts began in PJ...

Finnish group - PJ9W

WANK group - PJ1B

I needed a new Contest QTH.

With the assistance of N6TJ,

I got an invite to HC8.

First Contest as HC8A – CQWW 1990

Bigger Pile-ups Than PJ2

Fairly Rare Country

Double Multiplier for CQWW

World #2 Score – but Big Potential...

Still Trying to Improve

- Trying to Run Even Faster
 - “Thanks” instead of “QSL, QRZed”
 - Get Part of a Second Callsign
 - Don’t Use Phonetics if you are Sure of the Callsign
- Adjust RF Gain to Hear Better
- Improve Second Day Results
 - More Rest Before the Contest
 - Choose Food That Is Easier to Digest

1992 – The Quest for 10,000 Q's

I decided to try for 10,000 Q's
in the ARRL DX contest.

I went to TI1C and ended up with 9779!
(New World Record)

WPX – 1992 –HC8A

Spent a week rebuilding and rearranging antennas.

Almost 6900 Q's in 36 hours
(New World Record)

Preparing for the CQWW - 1992

After losing to Martti Laine, OH2BH, twice, (1988 and 1990), I spent many hours trying to figure out how to beat him and take the World Record.

I couldn't match his multiplier, (EA8 closer to Europe than HC8), so I would have to beat him in QSO's.

The strategy starts to take shape

He will have a higher multiplier total –
I need to have 1000 more Q's.

If I can make 6900 Q's in the WPX in 36 hours
(with serial numbers in the exchange),
I should be able to make 8000 Q's in 48 hours
in the CQWW.

The 1000 QSO Difference

What does it take to make 1000 more Q's
than your opponent in a 48 hour contest?
(Round 48 hours to 50 to make the math easy)

$$1000 \text{ Q's} / 50 \text{ Hours} = 20 \text{ Q's/Hour}$$

20 Q's per hour is one Q every 3 minutes

If I make one more Q than my opponent every three minutes,
I'll beat him by 1000 Q's!

HC8A 1992



The Result?

Concentrating on Rate instead of Multipliers:

HC8A (N6KT)	8318	160	508	16,391,450
EA8BH (OH2BH)	7094	158	519	14,307,041

(Running Rate brings Multipliers, too.)

1992 – A Big Year!

Three Contest efforts and three World Records!

ARRL DX SSB TI1C

WPX SSB HC8A

CQWW SSB HC8A

I owned the SSB World Records
for all three major DX Contests at the same time!

The Other “Big One” The Quest for 10,000 Q’s

The HC8 station played so well in 1992,

I had to try the 1993 ARRL DX.

Final Total - 10,470 QSO'S!

ARRL DX SSB - 1993 - HC8A

I never worked so hard in a contest in my life,
paper-logging a raw QSO total of 10,938 QSO's.

(Raw Average of 227 QSO's per hour)

I finally achieved the goal

I had conceived in 1988!

(This is still the current World Record)

Success in Contesting

You Gotta Love What You're Doing

Can't Get There Alone

Never Give Up

Keep Learning

Practice, Practice, Practice

Success in Contesting

Ask Questions – Contesters will Share

Non-Contesters make up Most of your Score

Operate the Entire Contest

Complacency is Death

“KT - ism”

“Every _____ seconds matter”

“KT - ism”

“Every 5 seconds matter”

(Make 1 more QSO every 3 minutes and
you'll beat your opponent by 1000 Q's)

“KT - ism”

“_____ dB is a Ton!”

"KT - ism"

"2 dB is a Ton!"

(From a conversation with N6BT in the 1980's)

“KT - ism”

“Mother Nature is _____”

“KT - ism”

“Mother Nature is a Stubborn Bitch”

“KT - ism”

**When Running, it's not as important
to Talk Fast**

as it is to _____.

“KT - ism”

**When Running, it's not as important
to Talk Fast
as it is to “Hear Fast”**

"KT - ism"

**"Contests are Usually Won or
Lost on**

"

"KT - ism"

**"Contests are Usually Won or
Lost on
the High Bands."**

Multi-Operator Wins Through 1993

- **M/S World Wins HC8A, PY0FF, KH6XX, VE7WJ, PJ2FR**
- **M/M USA Wins AI6V**
- **M/M World Wins EA9UK**

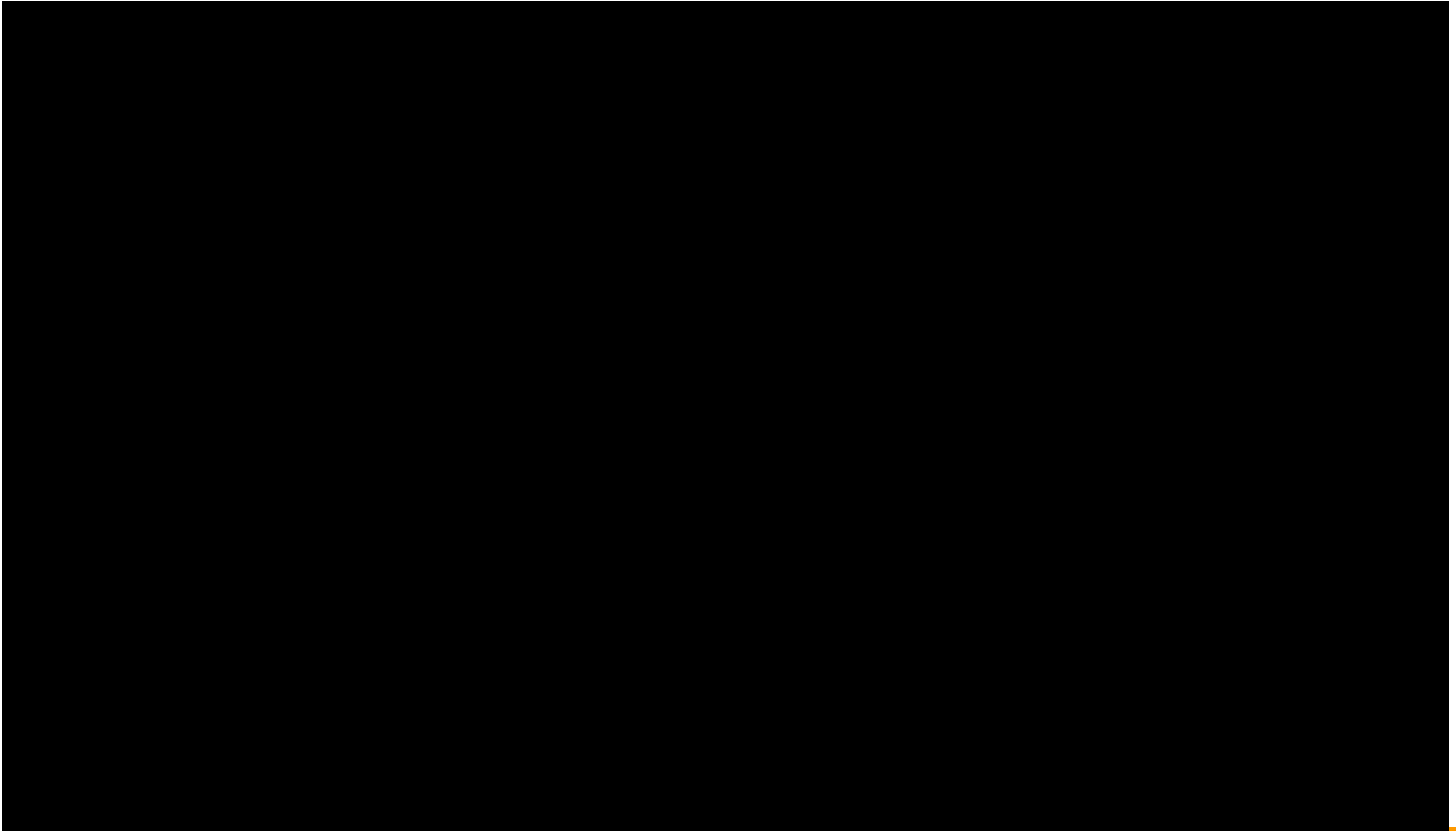
Single-Op All-Band Wins Through 1993 – N6KT, Op.

**CQWW - 5 World High Scores, 1 World
Record**

**CQWPX - 3 World High Scores, 3 World
Records**

**ARRL DX - 3 World High Scores, 3 World
Records**

Operated With or Helped By



From CQ Contest Magazine, Jan. 1999 (Rebecca's Words)

“Go into any bookstore and you’ll find many books on how to keep your marriage happy or alive. The “Ann Landers” or “Ask Abby” newspaper columns also quite often offer solutions to shaky marriages or romances. I’ve got a better solution! Just marry a Ham Radio Contester!”

Disclaimer

**Portions of this presentation ARE intended
to offend whiners and complainers,
although hopefully not to immediately
drive them to suicide.**