# **Contest Academy**

# **Sponsored By**



### Northern California Contest Club

Friday, April 19, 2013 IDXC • Visalia Convention Center • Visalia, CA

## Session A - 1:00 to 5:00 PM - Room: San Joaquin A-B

# Advanced Contesting Techniques: "Take it to the Limit"

1:00 PM "Contest Station Layout and Design" – Tom, K5RC

2:00 PM "Advanced Antenna and Terrain Analysis for Contest Stations" – Dean, N6BV

3:00 – 3:10 PM BREAK

3:10 PM "Using the Reverse Beacon As A Contesting Advantage" – Bob, N6TV

4:00 PM "Train your Weaknesses; Compete your strengths" – Tom, ND2T

4:50 PM Ask the Speakers – Q&A, Discussion

# Session B - 1:00 to 5:00 PM - Room: Charter Oak A-B

# Specialized Contesting Techniques: "Unique Techniques for the New Playing Fields"

1:00 PM "Contesting With The New SDR Radios" – Stu, K6TU

2:00 PM "VHF Contesting" - Russ, K6KLY

3:00 – 3:10PM BREAK

3:10 PM "RTTY Contesting" – Jeff, WK6I

4:00 PM "Contesting in the Second Century of Amateur Radio" – Ward, N0AX

4:50 PM Ask the Speakers – Q&A, Discussion

#### **Online Access to Presentation Materials:**

In addition to the USB Drive provided to all registered attendees, the Presentation slides and this handout material are available online at:

http://ncdxc.org/presentations/2013/idxc2013-dxaca.zip

## **Contest Academy Speakers**



Tom Taormina, K5RC

Tom was first licensed at age 13 in 1959. He was active in local clubs and participated in early EME experiments. He also worked high-speed CW meteor scatter and obtained his 35 WPM Code Proficiency certificate at age 14. Tom has worked at various companies including Amplidyne Labs, Madison Electronics, Ford Aerospace, Communication Labs, and his own consulting businesses. Tom was an active member of the Texas DX Society, served several terms as its President, activated contest stations in Mexico, and co-founded The Great Armadillo Runs, in which the TDXS activated every county in the 5th call area. With K5LZO, Tom set a number of multi-operator Sweepstakes records. Tom moved to Nevada in 1997 and established Memorial Station W7RN. He has been an active member and director of the

Northern California Contest Club. In 1994, he worked with W6OAT and N6RO to lead the successful NCCC effort to win back the ARRL Sweepstakes Gavel. He is currently building his fourth major multi-op station to mentor new operators and provide superb accommodations to guest operators. Tom and/or his teams have set numerous contest records. Tom also helped found the Multi-Two categories and the North American QSO Party contests. Tom has served on the CQ Contest Committee, been Editor of the National Contest Journal and served as a Judge at WRTC 1996. Tom was one of the first Americans to obtain permission to operate from French Polynesia, has served as a Director of the YASME foundation, and has achieved the Top of the DXCC Honor Roll. Tom continues to be active in public service and emergency communications, organizing Ham Radio conventions and events, writing books, consulting and giving seminars, Tom is most active in NAQP and the 10 Meter Contest. For the other contests, he shares his station with guest operators.



R. Dean Straw, N6BV

Dean was a Senior Assistant Technical Editor for ARRL for 15 years, from 1993 to 2008, specializing in antennas, transmission lines and HF propagation. He has been truly blessed by the Good Lord—How many hams can say that their vocation was also their avocation? He was the editor of the last five editions of The ARRL Antenna Book and the last four volumes of The ARRL Antenna Compendium series. He coauthored with good friend K8CH Simple and Fun Antennas for Hams (we call it the "little antenna book with attitude"). Dean was editor for ON4UN's Low Band DXing and K1VR's Antenna Zoning, not to mention several stints as editor of The ARRL Handbook.

Since returning to the west coast in 1998 from New Hampshire, Dean was ARRL's longest-distance full-time "telecommuter" until retiring in April 2008. He continues to correspond with hams around the world on antenna and propagation topics.

First licensed as WH6DKD in 1959 at age 12, Dean has been active in the fifty-four years since then mainly on HF—and mainly in contests, both phone and CW. The vagaries and subtleties of HF propagation and the thrill of the competitive chase have kept his interest sparked in ham radio for more than 50 years. Experience in ham radio led him to a degree in electronics engineering at Yale University in 1967, where he was active at the W1YU club station, operating (you guessed it) mainly in contests. Dean worked in the marine electronics industry for more than 25 years before joining ARRL staff.

He operates regularly at the N6RO contest superstation in the East Bay or from DXexotic locations around the world. Dean resides with his wife Rayma in the Richmond District of San Francisco, in a house that looks directly into Golden Gate Park, where he tries to run about 9 miles a week, albeit slowly. He has two sons, four grandchildren and one great-granddaughter and one great-grandson.



Robert Wilson, N6TV

N6TV aka "TV Bob" is an active CW contester and Win-Test supporter. Licensed for over 40 years, Bob competed at the World Radiosport Team Championship (WRTC) in San Francisco (1996), Slovenia (2000), and Moscow (2010). He earned numerous Top Ten finishes in the CW NA Sprints from his home station in Silicon Valley, a small suburban lot

with a single tower loaded with monobanders. Bob was an early adopter of the Perseus SDR and CW Skimmer, and has recently been analyzing signal reports using data from the Reverse Beacon Network (RBN). He voluntarily supports Win-Test users via the Win-Test Reflector, and also helps update the documentation. He participated with K2KW's original "Team Vertical" group (6Y4A, 4M7X), and has been a member of the multi-op teams at HC8N, K3LR, and W7RN.



Tom Berson, ND2T

Tom was licensed at age 11 as WV2ASJ, and remembers working his first DX, the exotic SP1IB, from home as a rock-bound novice with a 40m dipole. As time passed, Tom upgraded to WA2ASJ, became trustee of W2AJJ, his high school club station, operated from MIT as K1EQT, but eventually let all amateur radio licenses lapse as he pursued education and careers first in physics (BS, State University of NY), then in computer science (PhD, University of London), and finally in information security. After a forty-year hiatus from amateur radio, during which time he was never without an HF receiver close to hand, Tom jumped back into the hobby as ND2T in

2001. He loves the challenges of tight integration among antenna systems, radios, computers, and networked information. He is a keen contester, capable of accurately working high-rate runs in CW, SSB or RTTY. He considers Rusty, W6OAT, along with other members of NCCC, to be his contesting Elmer. Tom is a member of competitive multi-op teams at W6YX, and K6IDX. He has contested from W7RN and KH6LC. Tom is a member and Past-President of the Northern California Contest Club, a member of the Stanford Amateur Radio Club, the Chiltern DX Club, and the CW Operators' Club. Tom is Treasurer of the International DX Convention ("Visalia") for 2011 and 2013. Tom went to Scarborough Reef BS7H in 2007. He has since been a member of the K4M (KH4), VP8ORK and NH8S DXpeditions. Tom's DXpedition motto is "Any mode, any band, any shift." Professionally, Tom is an expert in cryptography, computer security, information conflict, and high-tech business — with over 40 years experience. He is a Silicon Valley entrepreneur, manager, and researcher. He works as an independent consultant to industry and government. He maintains international contacts and is a talented communicator across language and culture. Tom has founded four successful Silicon Valley companies, one of which he is still actively working. He is the author of numerous papers and holds about twenty US Patents. For more on Tom's professional activities, see <a href="https://www.anagram.com">www.anagram.com</a>



Stu Phillips, K6TU

Stu has been a licensed Ham since 1973 where he got his license in the UK as G8HQA. After operating for some time in California as G8HQA/W6, he got his first US callsign (N6TTO) in 1988. A professional engineer and business consultant by background, Stu's Ham Radio interests include contesting, DXing, Remote Controlled Stations and construction. A life member of the ARRL, Stu lives in Woodside, CA and operates 100% of the time with a remote controlled station in both contests and DXing. He also created and operates the K6TU.NET "Propagation as a Service" web site.



Russ Bentson, K6KLY

Russ was first licensed in 1958, Has been in every June VHF contest since 1960. Holds the Pacific Division Single-Op High Power record for the June VHF contest. Also part of the group that holds the Multi-Op Unlimited record for the Pacific Division in the June VHF contest. President of the NCDXC. DXCC #1 Honor Roll. 9 Band DXCC, 6 meter DXCC, over 2300 band-countries. VUCC on 6 meters and 10 Ghz. WAS #212 on 6 meters. DXCC & VUCC card checker.



Jeff Stai, WK6I

Jeff first got interested in radio in the 70s, but didn't get a Tech license until 1996. Upgraded to Advanced around year 2000, learning Morse Code so he could copy 6m beacons. Started to play around on HF and caught the contesting bug in phone contests. RTTY had always interested him but he had trouble setting it up right until he visited Arne N6HC to get cards checked for DXCC. After a great time with Arne going over the cards, they headed down to the shack to see how RTTY should be setup. After that, Jeff got his HF rig working on AFSK but the narrow filters didn't adjust for AFSK so he ran his first RTTY contest with wide-open filters. After that he got FSK figured out and was off. After moving to Northern California he set up his own station and did OK, but was somewhat limited until Rich WC6H said Jeff could operate

RTTY contests from his station. That worked great, and then eventually Tom K5RC put out the call for someone to build out the RTTY capability for the fantastic W7RN station. Jeff says: "After every contest we figure out what worked and what didn't, and then Tom proceeds to make it better the next time." Recently Jeff has been working with "SO4V" and "SO6V"- that is, both VFOs on two or three radios decoding at all times. Jeff has had to carve out time for RTTY contests the last few years as he is busy running Twisted Oak Winery in Calaveras County. Twisted Oak proudly provides special wine awards to winners of the California QSO Party.



Ward Silver, NØAX

Ward has been an active contester since before receiving his Novice license in 1972, participating with his high school club friends as WAOWBJ and WBODQI. He credits contesting and later DXing as guiding his early interests in ham radio and propelling him to a career in electrical engineering. Ward is the Lead Editor of the ARRL Handbook and the ARRL Antenna Book. He also serves as a Contributing Editor to the ARRL Publications Department, writes the popular monthly QST column "Hands-On Radio", and consults on a variety of projects and programs in the ARRL Contest Branch. He is a founder of the World Radiosport Team

Championships and is a member of the YASME Foundation Board of Directors. Ward is the author of all three ARRL License Manuals and the Q&A Study Guides and you will find his byline in the popular Wiley "for Dummies" series; Ham Radio, Two-Way Radios and Scanners, and Circuitbuilding Do-It-Yourself. He just published a ham radio detective novelette, "Ray Tracy - Zone of Iniquity". Outside of ham radio, Ward plays the mandolin, dabbles in digital photography, and enjoys camping, canoeing, kayaking, and Ultimate Frisbee.

ı	٥	4
	9	ζ
ı	_	3
ı	ú	ĺ
į		7
i	٥	5
ı	Ē	
ı	ŭ	2
	E	
ı	5	Ę
ĺ	۲	3

ARRL DX SSB  NA Sprint RTTY CQ WPX SSB  NA Sprint RTTY CQ WPX SSB  NO NOTH North Nor											
ARRL DX SSB  NA Sprint RTTY CQ WPX SSB  RTTY CQ WPX SSB  CQ WPX CM COMPX CQ WPX CM COMPX CO	8	MAR	APR		NOI	JUL	AUG	SEP	OCT	NOV	DEC
NA Sprint RITY CQ WPX SSB CQ WPX SSB CW SSB CW CQ WPX CW CQ WPX CW CQ WPX CO WP	_	ARRL DX SSB			ARRL VHF		ARRL UHF	ARRL VHF		ARRL SS CW	ARRL 160M
NA Sprint RTTY CQ WPX SSB CW SSB RTTY RUSSIAN EA RTTY DX Manchester Mineira North Georgia Indiana North Michigan North Michigan North Michigan North Michigan North Michigan North North North Michigan North North Michigan North North North Michigan North Nort										ARRL SS SSB	ARRL 10M
RTTY CQ WPX SSB CW RUSSIAN EA RTTY DX Manchester Mineira Mineira North Georgia Indiana North Michigan						CQ WW		CQWW DX RTTY	CQWW DX SSB	CQWW DX	
SSB  BARTG JIDX CW DX RUSSIAN EA RTTY RTTY DX Manchester Mineira	NA Sprint SSB	NA Sprint RTTY						NA Sprint SSB	NA Sprint RTTY		
BARTG JIDX CW RUSSIAN EA RTTY RTTY DX Manchester Mineira Mineira SPDX RTTY Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	CQ WPX RTTY	CQ WPX SSB		CQ WPX CW		RAC - Summer	WAE - CW	WAE - SSB		WAE RTTY	RAC - Winter
BARTG JIDX CW RUSSIAN EA RTTY RTTY DX Manchester Mineira Mineira SPDX RTTY Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska						NAQP	NAQP CW				
BARTG JIDX CW RUSSIAN EA RTTY RTTY DX Manchester Mineira Mineira SPDX RTTY RTTY Mineira SPDX RTTY North Georgia Indiana North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	99						NAQP SSB				
RTTY RUSSIAN BARTTY DX Manchester Mineira Mineira SPDX RTTY SPDX RTTY Idaho Idaho Florida North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	NA Sprint CW							NA Sprint CW			
RUSSIAN EARTTY RTTY DX Manchester Mineira Mineira SPDX RTTY Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska		BARTG	JIDX CW		ALL ASIAN CW	RSGB-IOTA		ALL ASIA SSB	JARTS	SSS XQII	
Mineira SPDX RTTY Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	Mongolian RTTY		EA RTTY	VOLTA	DLDC RTTY	DLDX-RTTY	CW OPEN	RUSSIAN	Makrothen RTTY		TARA RTTY
Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska			Manchester Mineira		SP TBDC	IARU - WRTC	SCC RTTY	SACCW	Oceania CW		OK DX RTTY
Idaho Florida 7th Area North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	XE RTTY		SPDX RTTY						SP TBDC		SP TBDC
North Georgia Indiana North Michigan New Oklahoma Missouri Nevada Virginia Montana Wisconsin Nebraska	Delaware	Idaho	Florida	7th Area	Alabama	New	Hawaii	Arkansas	Arizona	Kentucky	
Oklahoma Missouri Virginia Montana Wisconsin Nebraska	Minnesota	North	Michigan	New	Mast		Maryland/	South	lowa		
New Virginia Vermont Wisconsin	Mississippi		Missouri	Nevada			Ohio	Tennessee	Illinois		
Wisconsin	New		Montana					Texas	New York		
	Vermont	Wisconsin	Nebraska					WA	Pennsylva		
New			New Ontario								
South			South								

## **Contest Academy Contesting Resources**

#### Major Contests:

CQ Worldwide DX Contest

CQ Worldwide WPX Contest

ARRL Contests

National Contest Journal

California QSO Party

http://www.cqww.com/
http://www.arrl.org/contests
http://www.ncjweb.com/
http://www.cqp.org/

NCCC Sprint - Thursday Night Contesting <a href="http://www.ncccsprint.com/">http://www.ncccsprint.com/</a>

#### **Contest Calendars:**

ARRL Contest Calendar

WA7BNM Contest Calendar

http://www.arrl.org/contest-calendar

http://www.hornucopia.com/contestcal/

SM3CER Contest Service <a href="http://www.sk3bg.se/contest/">http://www.sk3bg.se/contest/</a>

#### Contest Software:

N1MM <a href="http://www.n1mm.com/">http://www.n1mm.com/</a>
Win-Test <a href="http://www.win-test.com/">http://www.win-test.com/</a>
Writelog <a href="http://writelog.com/">http://writelog.com/</a>
TR4W Contest Logger <a href="http://www.tr4w.com/">http://www.tr4w.com/</a>
N3FJP Logger <a href="http://www.n3fjp.com/">http://www.n3fjp.com/</a>

#### Other:

CQ-Contest Email List <a href="http://lists.contesting.com/mailman/listinfo/cq-contest">http://lists.contesting.com/mailman/listinfo/cq-contest</a>

3830 Score Reporting Form <a href="http://www.3830scores.com">http://www.3830scores.com</a> Radio-Sport.net Contest News <a href="http://www.radio-sport.net/">http://www.radio-sport.net/</a>

Contest University at Dayton Hamvention <a href="http://www.contestuniversity.com/">http://www.contestuniversity.com/</a>

AA5AU's RTTY Contesting.com <a href="http://rttycontesting.com/">http://rttycontesting.com/</a>

## World Wide Radio Operators Foundation



## **Contester's Code of Ethics**

- I will learn and obey the rules of any contest I enter, including the rules of my entry category.
- I will obey the rules for amateur radio in my country.
- I will not modify my log after the contest by using additional data sources to correct callsign/exchange errors.
- I will accept the judging and scoring decisions of the contest sponsor as final.
- I will adhere to the DX Code of Conduct in my operating style.
- I will yield my frequency to any emergency communications activity.
- I will operate my transmitter with sufficient signal quality to minimize interference to others.