

Results of the 2005 CQ WW VHF Contest

BY JOHN LINDHOLM,* W1XX

BlackBerry: A portable handheld computer with a mini-keyboard for sending and receiving e-mail.

LingonBerry: A portable interactive 3830 device for instant amateur radio contest reporting. Utilizes authorized Part 97 RF spectrum for both visual and audio interactive response.

Handbook of Fruitful Communications Devices [2005 Edition]

As has become traditional, the spring meeting of the Contest Quahogs of Rhode Island (CQRI) was devoted to a review of the popular CQ WW VHF Contest, held July 16–17, 2005. Thanks to the recent invention of the LingonBerry by OH-amateur Prof. Olaf Pikisilmä, two-way pictorial and audio exchanges were instantaneously available to all participants. The projection mode enabled all to view input on the screen right next to the mounted Quahogasaurus head unearthed by Fossilman from the Charlestown moraine.

Favorite Topic: Propagation

K4XR was first to offer: "Some fair openings for a few hours on 6 meters, but conditions were really flat on 2." K9GY "had an nice opening to Florida from 17–19Z on day two," while K9HUY in Florida experienced a "great opening on Sunday to make it all worthwhile." Multi-op station N4DXY noted "the band opened up nicely to the northeast on Sunday," while N2GKM found "6 meters fun on Sunday." Mountaintop multi W3SO "shut down at 10:45 PM local Saturday due to heavy electrical storms. The first

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Bob, K0NR, is the ultimate QRP portable "Hilltopper" proponent. Here he's enjoying the fresh air operating in the 2005 CQ WW VHF Contest from Mt. Herman [CO] in DM79. This was a backpack hiking effort providing "a fun afternoon running radios in the mountains." (Photo by KA0DEH)

operator back at the site Sunday morning phoned the others and excitedly reported the bands were wide open. Six-meter *E*-skip to the south and Caribbean continued throughout the day. Two meters never really opened up like that, but we worked south to EM85 and EM95. It seems the single operators opted for 6 meters over 2. Rover activity was good, as we were able to clean sweep many in each grid square they passed through. Activity was definitely up for this year's CQ WW VHF Contest."

On the DX side, EU powerhouse station OK1KIM "tried Multi-Single, making about 10 Qs on each band for some nice multipliers. On 2 meters, tropo openings to the west on late Saturday and even better Sunday morning produced some rare locators in England and France. Sunday afternoon 6 meters finally opened up to Italy, southern France, and Spain." VA3TSG "was bored until 6 meters opened up Sunday and then enjoyed the best results ever." Jody, VP5JM, who made it into lots of North American 6-meter logs, really "enjoys the contest when the band is open, since there are so many nice people on that band."

Newbies

One of the major attractions of the CQ WW VHF Contest is its appeal to newcomers. You don't need a whole shack full of gear to compete, as noted by HS7ZSX: "My first contest was very exciting, making contacts in central Thailand up to 400 km by VHF-FM with 10 watts limited power." And from Karn, E20ZFD: "This was my first time in the CQ WW VHF Contest. I was very happy to make so many QSOs . . . lots of fun."

Can it get any better than these father-and-son combos? Via KB3KJS: "First contest for my son Josh, KB3LTE. We had a blast. Josh got to experience a real nice *E*s opening on 6 meters that lasted almost all day on Sunday." Meanwhile, new ham KE5ELU deputized "son KE5DUK to rover to a nearby grid intersection to activate four grid squares on FM simplex." Taking a cue from mass media advertising, Bill, W4GRW, found this contest to be "very special for me, operating with my 17-year-old son, Josh, W4WJF. I operated Single Op 6 meters, and Josh SO 2 meters. Result? Sandwiches for two, \$10; snacks for two, \$12; drinks for two, \$15; spending a weekend of quality time operating beside a great kid and contesteer, *priceless!*"

The Old Timer

Not to be denied his usual due, the "Old Timer" grabbed the D104 to compare VHF contesting to, of all things, basketball. An avid round-ball fan of Atlantic Coastal University, he explained how media game announcers continually fall into the use of meaningless clichés, which got him to thinking of comparable contesting usage. After the following comparison was presented (which impressed no one), the OT mercifully sat down.

TOP SCORES WORLD

All Band	QRP
SQ6ELV7,844	HS9MBK/P*2,250
XE2ED2,226	JH3DMQ1,003

6 Meters	Rover
EH2ARD31,784	HS6RMY16,740
EH6VQ22,890	E20MFV13,860
CT1DHM21,111	
S51CK15,879	Multi-Op
TA2RC/P13,398	OK1KIM293,940
VP5JM13,157	CQ3A71,278
	IQ2GM36,480
2 Meters	HS0AE21,298
DK5DQ39,960	F6IFR18,837
DG3XA13,692	
E20YGG12,782	

USA

K2DRH74,880	K9GY8,325
W4WA45,650	K9AKS6,816
WA1HHN45,486	WB2SIH5,244
W1XX42,315	N0URW5,088
K3TUF28,122	K1ZE*2,610
W3DOG27,645	
K4XR25,840	Rover
W2DAN23,868	W4VHF80,073
K9HUY17,216	K9JK23,754
W3ARS15,540	WB8BZK20,705
	W4TXS16,530
	W4SHG10,366
6 Meters	Multi-Op
K1TOL70,144	W3SO99,883
W2MMD35,394	K5QE39,984
WN1GIV21,842	KB1DFB16,284
2 Meters	N4DXY14,916
W4WJF10,540	K4ATM14,120
W3MTC6,104	
QRP	<i>*Hilltopper</i>
KA1LMR30,969	

QSO LEADERS BY BAND WORLD

Single-Op 50 MHz	Multi-Op 50 MHz
EH2ARD274	CQ3A432
CT1DHM227	OK1KIM224
VP5JM223	F6IFR207
EH6VQ210	
S51CK201	144 MHz
	OK1KIM598
144 MHz	HS1QKQ512
E20YGG581	HS0AE463
HS8GLR/9474	HS1CLE422
DK5DQ333	E20HWD418
HS4DDQ/1234	
HS9MBK/P225	

USA

Single-Op 50 MHz	W3MTC109
K1TOL512	KG6IYN106
W2MMD347	Multi-Op 50 MHz
WN1GIV326	W3SO307
W1XX309	N4DXY168
K2DRH294	K5QE151
W2DAN264	KB1DFB140
K9HUY261	W1QI138
W4WA257	K4ATM135
WA1HHN243	
KA1LMR231	144 MHz
144 MHz	W3SO222
W4WJF170	K4ATM109
K2DRH141	K5QE103

Basketball Sports Clichés Applied to VHF Contesting

By "The Old Timer"

Basketball

Let the game come to you.
Knows how to play the game.
Take what the defense gives you.

Take care of the ball.
Starts with the point guard.
Knows how to put the ball
in the hoop.
There is no "I" in team.
Has tremendous up-side.
There's a lid on the basket.
Play within yourself.

VHF contesting

Call CQ a lot.
Has read the contest rules.
Two kHz from the calling
frequency is clear.
Check the SWR often.
Use a good logging program.
Rogers the completed QSO
and hits the "enter" key.
Operate multi-op.
KW amplifier.
You've worked everybody!
Take some off time.

Portables

The LingonBerry heard next from a very vocal group of stations, such as K7MDL, who "operated portable for five hours at 5300 feet at the Mt. Pilchuck [Washington state] fire lookout with just 5 watts with an FT-817." It took California's KQ6EE "six hours to hike up Mt. Baldy at 10,064 feet to have fun in the contest, working as far south as DM12 in Mexico." On the East Coast, NE1B "operated less than three hours from Mt. Washington in

Expanded CQ WW VHF Results

For a listing of the ops and grids activated by the rover stations in the 2005 contest, plus the operators of the multi stations, go to <www.cq-amateur-radio.com>, to the Contests section, to "Expanded Results of the 2005 CQ WW VHF Contest."

FN44 using a 6-meter mobile whip and 4-element 2-meter beam." Meanwhile, NE1RD extolled the virtues of the QRP Hilltopper category, "working from atop Mt. Wachusett in FN42 with a cool breeze, cool drinks, and a great view."

K7XC "operated portable from a rented forest service lookout at Drake Peak in Oregon's CN92. It is an awesome location at 8220 feet with tropo contacts ranging from CM97 to CN97 all with 100 watts to a homebrew 4-element 6-meter Yagi and M² 2M9SSB atop a 30-foot trailer tower. Patience and persistence prevailed over wind, bugs, and Murphy, and nothing beats the smell of bacon and eggs cooking outdoors Sunday morning, thanks to the support of my lady, Rosie."

Portables were in evidence on the DX side as well, with TA2RC, who "planned a good operation from KM59. But two days of rain wiped out all access roads." Thus, Ozer "returned to KN50bv two hours before the contest start. After a pileup on

K9ILT/Rover in Cheesehead-Land

By Tim, K0PG, and Pat, K9ILT, Sullivan

This year in order to do something a little different, we thought we would go north through the Cheese Curtain and run some Wisconsin grids along the Lake Michigan shore.

We took a scouting trip over the July 4th weekend and found a couple of good rover spots. Upper Lake Park in Port Washington would give us a great shot over Lake Michigan into MI, IN, OH, and ON with a great view from the lighthouse. However, there was a minor detail that we didn't know about until the day of the contest. The third Saturday in July is the annual "Fish Day," described as the world's largest outdoor fish fry and a major attraction . . . blocked-off streets, a big parade, an arts and crafts fair held where? You guessed it. At Upper Lake Park!

With no vehicle access to the park and throngs of people, we lost our high spot. All the way there we had been rehearsing: "Who's the VE3? Would the W8 please try it again." So we had to find a different spot in a hurry. Keeping as close to the lake as we could, we eventually came to a dead-end with big trees between us and the lake. However, it was time to start the contest.

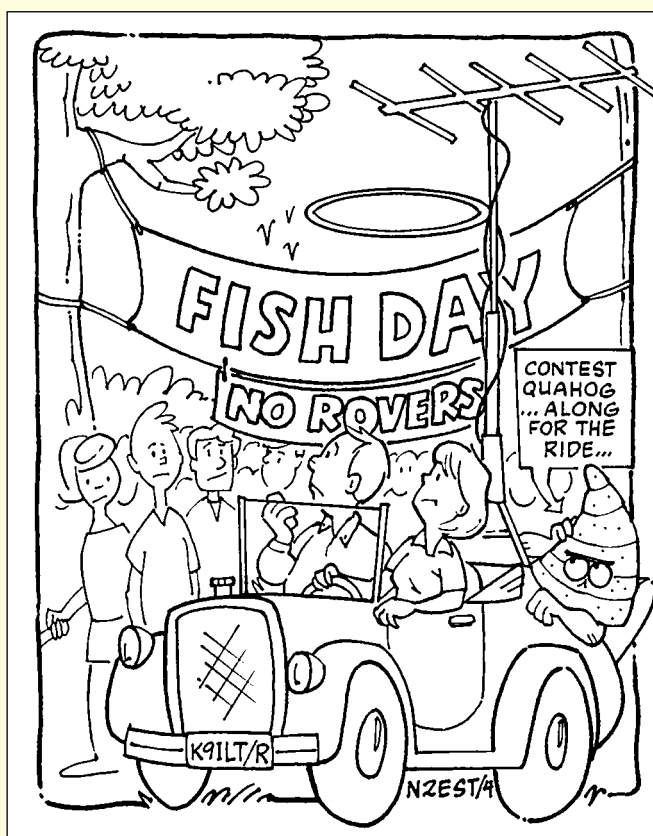
At the stroke of 1800Z we exchanged reports with N9UX/R, who was weak on 2 but with a booming signal on 6. Oh well. Since we had checked out the 2-meter beam on the analyzer before we left (it was perfect), it must have been conditions.

Hearing nothing on 2, we decided to head for Manitowoc in EN64. While traveling through EN63, KB9VQC called us on 6 with a huge signal . . . moving to 2, not a peep. With no luck CQing, we went to a park on the lake shore with a nice open shot east and south. W9GA was loud on 6 and weak on 2. We had to go to CW to complete with K2DRH on 2. Something was wrong! I took the coax off the amp and plugged in the analyzer. The needle pegged! No antenna!

Pat (the more agile one) knew the drill: climb up on the vehicle roof, wiggle the connector and balun; SWR 1.2:1 . . . back in business. Upon further inspection later at our hotel in Sturgeon Bay, the coax adapter to the amplifier fell apart in my hands. After an appropriate fix we were off to EN65. On the "DeLorme" we located some nice spots where we worked lots of WI, IL, IN, and MI stations. A little later we drove out onto a lighthouse causeway for a bunch more Qs. Our best DX was K9ZO in EN50.

In search of food, the Coyote Roadhouse was our next adventure. The only place to park the rover-mobile was right out in front in plain sight. Anyone who has roved knows what came next. It was straight from the scene in *Close Encounters of the Third Kind* when all the scientists did the glazed-over "Spielberg stare" at the spaceship and aliens.

Pretty soon a fellow who had been selected by the group at the bar approached us. Pointing to our 5-element 2-meter beam and KB6KQ 6-meter loop mounted on the roof tripod, he asked, "What's that for?" I replied, "There's a bear with a radio collar causing trouble. We're tracking him down." Then the waitress wanted her picture taken next to our vehicle.



I tried to seriously explain that we were making contacts in a ham radio contest, but he'd have none of it: "My dad's a ham and his antenna's a whip-thing on a magnet. What you got there isn't ham radio." So I repeated the bear story, which he liked better.

We bagged it for the night and were on the road again by 1400Z heading south for EN54, 53, and 52. Six meters finally opened up when we were in Oconomoc. Signals were very loud and then they were gone, prompting Pat to observe, "I guess that's why they call it sporadic." As 2100Z approached, we spent the final 20 minutes making contacts in a Wal-Mart parking lot.

We had a lot more fun than our 7K score would indicate, but if it hadn't been for "Fish Day" and the bad adapter, we would have had a much better score. Wait 'til next year. Thanks to everyone who rode along with us and helped us enjoy the scenery in our favorite way. 73!



W4VHF (right) stopped by the CQ Dayton booth last year to pick up his plaque from contest director W1XX (left). Ted was first-place finisher with wife K4LJV in the Rover category for the fifth consecutive time in 2004, only to repeat again in '05. (W2VU photo)

6 in the first hour, the band closed until Sunday evening, but not enough for a good score."

Who Won?

Judging from the exuberant quotes, the answer is "everyone!" Scores do not tell it all, but then again making the biggest score possible is certainly an objective. Repeating as top U. S. scorer was K2DRH, who noted "in discussion with K9AKS in our post contest round table, it was a good thing this is a 27-hour contest instead of 24. Six meters finally opened up to the East Coast in a far-ranging and wildly cyclic feeding frenzy. It kept moving between New England FN grids and the Mid-Atlantic FM grids, with a few southeastern EM grids thrown in for good measure." Bob scored just under 75K points, followed closely by Lefty, K1TOL, operating only 6 meters,

with 70K. On the DX side, 2-meter single-band repeat winner DK5DQ led all single-ops with nearly 40K points, while Spain's EH2ARD, operating just the "magic band," followed with 31K.

NC State student W4WJF out focused all U.S. 2-meter single ops with 170 Qs in 31 grids. The CQRI contingent did not fail to notice that all other 2-meter scores trailed significantly, underscoring the continued decline in 2-meter North American contest activity. Short of grounding all 6-meter Yagis, how do we reverse this alarming trend on 144 MHz?

KA1LMR led the QRP crowd with a nice 30K score, while K1ZE and HS9MBK outpaced other Hilltoppers, who venture to far-flung locations often with their rigs on their backs to dispense rare multipliers.

Big-time multi-op stations fuel increased contest activity, and the ever-

2005 PLAQUE WINNERS

Single Operator

USA All Band: Bob Striegl, K2DRH. Donor: Ted & Itice Goldthorpe, W4VHF & K4LJV
USA 6 Meters: Lefty Clement, K1TOL. Donor: Todd Dravland, WD0T
USA 2 Meters: Josh Fisher, W4WJF. Donor: CQ Magazine
USA QRP: Christopher M. Merchant, KA1LMR. Donor: Bob Witte, K0NR
World 6 Meters: Jon Sistiaga, EH2ARD. Donor: Dennis Motschenbacher, K7BV/1
World 2 Meters: Nicolas Exner, DK5DQ. Donor: Contest Quahogs of RI
Asia 2 Meters: Natthida Suphon, E20YGG. Donor: Golden Kilowatt Council In Memory of Hans D. Hollstein, HS0/KA3TDZ

Multi-Operator

USA: Wopsononock Mountaintop Operators, W3SO. Donor: Bob Striegl, K2DRH
World: Radioklub OK1KIM. Donor: Grid Pirates, K8GP
Asia: HS0AE. Donor: Siam DX Group

Rover

USA: Ted & Itice Goldthorpe, W4VHF [+K4LJV]. Donor: W3SO, Wopsononock Mountaintop Operators

GRID MULTIPLIER LEADERS BY BAND WORLD

Single-Op 50 MHz	Multi-Op
EH2ARD.....116	CQ3A152
EH6VQ.....109	OK1KIM.....100
CT1DHM.....93	F61FR.....91
S51CK.....79	IQ2GM.....75
TA2RC/P.....77	
Z36W.....72	144 MHz
	OK1KIM.....107
	IQ2GM.....39
144 MHz	
DK5DQ.....60	
DG3XA.....42	

USA

Single-Op 50 MHz	Multi-Op 50 MHz
WA1HHN.....39	
W4WA.....34	
W4WJF.....31	
	Multi-Op 144 MHz
K1TOL.....137	W3SO.....89
W2MMD.....102	K5QE.....71
W1XX.....88	W1QI.....58
K2DRH.....85	N4DX.....51
W4WA.....76	KB1DFB.....50
WA1HHN.....75	
W3DOG.....74	144 MHz
KA1LMR.....74	W3SO.....44
W2DAN.....71	K5QE.....41
WN1GIV.....67	
144 MHz	
K2DRH.....45	

enthusiastic W3SO team again posted the best North American score with just a shade under 100K points. Team OK1KIM did the same on the DX side with a whopping 293K score, and Madeira's CQ3A was second with a nifty 71K.

For the sixth consecutive year, W4VHF/R [+K4LVV] won the Eukanuba® award, activating four grid locators for a score of 80K. Meanwhile, Thailand discovered the joys of rover operation, with HS6RMY, H20MFV, and others posting nice scores.

For "the rest of the story" (scorewise) see the top scores, QSOs, and grid boxes, the plaque winners, and the *complete* scores listing for *all* logs submitted.

Math 101

The CQRI members gave a rousing round of applause for NC1C, without whose log-processing software these results would not appear. Dave reported a banner year for entries. A record 303 valid logs were submitted, with 30,790 claimed QSOs—100% cross-checked for accuracy. Error rates were pretty much unchanged from previous years: Invalid or "not in log" 1.1%; Dupes 0.2%; "Busted" calls 1.3%; Overall error rate 3.1%. 9971 different callsigns were logged, with 4310 making at least

two QSOs. 664 different grid locators were reported active. All the numbers indicate a healthy 25% increase in activity, not bad considering the smattering of enhanced propagation. CQ VHF is on the move! Also acknowledged for his able assistance is Bruce, WA7BNM, who continues to make CabForms available to those folks who enter their paper logs online—much to the relief of the volunteer data-entry team.

2006 CQ VHF Contest

Before breaking up for coffee and donuts, the contest director took the podium to remind everyone of the upcoming 2006 CQ WW VHF Contest, July 15–16. The full announcement will appear in the June issue of CQ, on the CQ website, and on the new contest dedicated website: <www.cqww-vhf.com>. This website has all updated information relative to the contest thanks to its multi-tasking webmaster, NC1C.

With the appointment of regional coordinators worldwide, using E21EIC's program in Thailand as a template, CQ VHF is gaining increased recognition as a viable member of the CQ World-Wide family of contests. With thousands of entrants in CQ-sponsored DX, 160, RTTY,



VHF Contesting in Thailand

By Fred Laun, K3ZO/HS0ZAR

Look at all those happy faces! I recently had the pleasure of a month-long trip to Thailand which included the December meeting of the Radio Amateur Society of Thailand. Usually the monthly RAST meeting is attended only by a few old-timers. This time the meeting was mainly given over to the presentation of certificates and awards to participants in the 2004 CQ WW VHF Contest.

What a blast! Thanks to the contest, the meeting was infused with the youthful spirit of contest participants. Contest coordinator Champ, E21EIC (far right in the photo), emceed the awards ceremony. The Hans Hollstein Memorial Plaque, held by HF/VHF contester Yod, HS0XNO (center), was won by YL operator E21DKD, who could not attend. The woman next to him in the photo is long-time RAST President Mayuree, HS1YL.

Standing to my right (I'm the tall guy in the center) is John, HS1CHB, who started the idea of mass Thai participation in the CQ VHF Contest in 1996. This was a result of brainstorming between him and me on how we could bring contesting to the vast majority of Thai hams "frequency-locked" on 2-meter FM. Champ, E21EIC, has done a magnificent job in promoting competition in recent years, especially among young people at universities.

It might even be said that CQ, through its VHF contest, has done more to encourage youthful enthusiasm for amateur radio in Thailand than any other institution.

and WPX contests, we should expect the same for our VHF contest. Talking up the contest at your club meetings, Elmering a contest “newbie,” or sponsoring a plaque, contribute to more fun and Qs for everyone. Are you doing your part?

With that, all the LingonBerrys were turned off 'til post-contest reporting time.
73, John, W1XX

QRM

Caught bits of the contest during a family trip to the lake with an IC-706MKIIG to a 3-element at 10 feet on 6 and an omni on 2. As a result, son, age 7, now wants to study for his license! . . . **AA4ZZ**. Nice 2-meter enhancement just before midnight to the west. Those who thought the bands closed Saturday night after 2130 local missed a lot. Six opened up twice on Sunday... **AK4FL**. I think I was the best station from northern Europe in the contest. Not much activity from Scandinavia, so I missed many multipliers. This was my first CQ WW VHF Contest. My station is near the Hamburg-Bremen Motor Speedway, so I heard many Harley-Davidson motorbikes for their biker meeting of nearly 10,000 participants, creating a high noise level! Best DX was G4PSU/P at 795 km... **DG3XA**. Ran an FT-817 with 5 watts out, plus a homebrew 4-element Yagi after the DK7ZB design. Overall activity low, as the contest is not known well enough yet in EU . . . **DH8BQA**. Unfortunately a lightning strike before the contest disabled much of my station. But managed to recover for 6 hours of contest operating. Lots of fun . . . **E20YLM/4**. Best DX UX8ER, KN70do at 2667 km . . . **EA3FM**.

I am very happy to be QRV in CQ WW VHF every year. This year we had many new Thai hams QRV in the contest... **HS0XNO**. I was very excited to be in the CQ WW VHF Contest for the first time. I've been licensed 18 years but this was the first time in the contest . . . **HS1VSB**. I met many old and new friends in the contest. A lot of fun . . . **HS6MCB**. First time in the contest and a very good experience . . . **HS7QLZ**. Fun time and good 6-meter openings operating from my SUV on a nearby hilltop for the weekend . . . **KA1LMR**. This was my first contest and I had a good time. The goal I set for myself was 1000 points. Will do better next time . . . **KA3DQD**. Good conditions except for a bit of QRN from thunderstorms in the area . . . **KB8U**. I was QRV on a mountaintop on Phuket Island, IOTA AS-053. What a view . . . **HS8KAY**. Very, very nice contest. Conditions got better Sunday afternoon increasing the 50 MHz score . . . **I2AZ at IQ2GM**. A very limited part-time operation while on vacation with the family on Cape Cod . . . **K3IXD**. Six-meter band was very quiet on the West Coast, so there were not many QSOs . . . **K6JRA**. Only worked the contest for a short time, but had lots of fun . . . **KG4NEP**. Zero propagation but at least a fair turnout of locals to keep activity up over the entire duration of the contest. The nice pace allowed time to encourage others to join in the good time. Contest probably needs a little more publicity . . . **KG6IYN**.

First 6-meter contest. Tough conditions but had a great time . . . **KI4AOC**. My first contest. Great learning experience. Look forward to next year . . . **KI4HRF**. QRP = no TVI = lotsa fun! . . . **KR1ST**. Only operated 4 hours but it was fun. Hope to operate more next time . . .

N1CJG. Fun to work VP5 in one call and a few FL, MS, GA, and AL grids . . . **N3UM**. Naturally the aurora waited until after the contest . . . **N6KW**. Was in the contest the first hour to give out points, then away 'til 1740Z when I arrived home to find 6 meters open. So I had fun 'til the end of the contest . . . **VE3CRU**. Worked a few new grids . . . **VO1AU**. The start of the contest was quite slow, just picking up as many locals as possible. On Sunday morning at about 1305Z the fun really started. Worked most of FL, GA, AL, TN, and the Carolinas with a few in EN41 off the side of the beam. Then snagged VP5JM. After a break for lunch, there was another opening to the northern part of 4-land. Got KØHA in EN10 just before the band closed at 2019Z. Spent the last 35 minutes on 2 meters looking for a few more Qs; W3DOG was a nice surprise from FM28. Overall, it was a really fun and exciting contest for me . . . **W2AJM**. Had other commitments but managed to get on early Saturday and Sunday afternoon. There were good 6-meter openings to the south. I even had several CW QSOs. Two meters was very sparse even though most signals were very good. Guess everyone opted for 6 meters. Keep the two-band concept! . . . **W2UDT**.

Unfortunately bad conditions, but good enough I hope for one more first-place single-op score from Mexico . . . **XE2ED**. My first time in this contest. No propagation but it was fun with some interesting QSOs . . . **XE2K**. My second time in the the CQ WW VHF Contest. It was difficult since the temperature in the shack was more than 40° C. Anyway, I had fun and it was nice to hear some old friends on the magic band. See you next year . . . **Z36W**. Thanks to all concerned in running the contest . . . **ZC4LI**.

Number/letter groups after call letters denote the following: Class (A = all band, 6 = 6 meters, 2 = 2 meters, Q = ORP, Q* = ORP portable hilltopper, R = rover, M = multi-operator), Final Score, Number of QSOs, Number of grid locators, State/Province (USA/Canada only), Grid Locator or Number of grids activated (rover only). Rover scores for USA are listed separately. Certificate winners are listed in boldface. * Is a Hilltopper.

2005 VHF RESULTS

NORTH AMERICA

UNITED STATES									
W1XX	A	42,315	356	105	RI	FN41			
W2DAN	A	23,868	285	78	RI	FN41			
W1RZF	A	13,333	162	67	MA	FN42			
N1ZN	A	6,837	117	53	CT	FN31			
K1TR	A	3,306	72	38	NH	FN42			
N4CW/1	A	2,640	67	33	ME	FN53			
NE1B	A	1,155	43	21	NH	FN44			
KC1MA	A	1,116	46	18	MA	FN51			
N1ZMB	A	629	26	21	MA	FN42			
N1CUG	A	570	24	19	CT	FN31			
WA2BTR	A	351	20	13	ME	FN54			
KV1J	A	252	16	14	MA	FN44			
W1CRK	A	180	14	10	MA	FN41			
K1TOL	6	70,144	512	137	ME	FN44			
KB1JDY	6	840	40	21	CT	FN41			
KS2D	6	1	1	1	MA	FN42			
K1ZE	Q*	2,610	60	29	CT	FN31			
NE1RD	Q*	630	35	14	MA	FN42			
KAT1LMR	Q	30,969	282	93	NH	FN43			
KB1DFB	M	16,284	188	69	CT	FN41			
W1QI	M	12,104	158	68	CT	FN31			
K1JT	A	9,536	132	64	NJ	FN20			
K42CYN	A	8,662	128	61	NY	FN31			
W2UDT	A	8,468	123	58	NJ	FN20			
W2JAM	A	6,273	107	51	NY	FN21			
N2GKM	A	1,953	48	31	NY	FN31			
KC2MHU	A	1,484	42	28	NY	FN12			
W2XXM	A	814	34	22	NY	FN12			
W5KI	A	494	25	19	NJ	FM29			
W2MMD	6	35,394	347	102	NJ	FM29			
N4ZR	6	3,740	85	44	NJ	FN20			
KC2SP	6	1,960	56	35	NY	FN23			
N2GDY	6	736	32	23	NY	FN31			
KC2HZW	6	170	17	10	NY	FN30			
K42BXH	6	160	16	10	NJ	FN20			
N2SLNH	6	4	2	2	NY	FN22			
WB2SJM	Q	5,244	85	46	NY	FN31			
W2ZOW	M	4,730	78	43	NJ	FN20			
W1AHHN	A	45,486	321	114	PA	FM19			
K3TUF	A	28,122	249	86	PA	FN10			
W3DOG	A	27,645	239	95	DE	FM28			
W3ARS	A	15,540	179	70	MD	FM19			
W3ZZ	A	12,032	155	64	MD	FM19			
W3MEL	A	7,644	115	52	PA	FN10			
K3SH	A	7,502	113	62	PA	FN21			
W3LL	A	4,992	104	39	MD	FM19			
KB3JGS	A	4,712	92	38	PA	FN20			
KB3HOX	A	1,271	37	31	PA	FN22			
KA3DOD	A	925	35	25	DE	FM29			
N3UM	A	820	31	20	MD	FM18			
KB3EXB	A	392	23	14	PA	FN10			
W3DSX	A	240	17	10	PA	FN10			
W3PT	6	4,305	105	41	PA	FN10			
W3GNO	6	340	20	17	DE	FM28			
4U1WB	6	128	16	8	DC	FM18			
K3TW	6	104	13	8	MD	FM18			
K3ZO	6	48	8	6	MD	FM18			
W3MTC	2	6,104	109	28	MD	FM19			
W6AXX	2	1,564	46	17	MD	FM19			
K3CHB	2	24	6	2	PA	FN20			
K3OQ	Q	378	20	14	MD	FM19			
W3SO	M	99,883	529	133	PA	FN00			
NN3Q	M	5,029	95	47	PA	FN11			
KB3KJS	M	2,656	66	32	MD	FM19			
N3YRR	M	1,452	46	22	MD	FM19			
W4WA	A	45,650	336	110	GA	EM84			
K4XR	A	25,840	258	85	AL	EM64			
99HUY	A	17,216	265	64	FL	EL86			
KN4SM	A	13,904	138	79	VA	FM16			
WB4WXE	A	11,078	166	58	AL	EM74			
K4QI	A	10,230	167	55	NC	EM85			
NJ2F	A	8,918	159	49	FL	EL96			
N4HN	A	6,811	115	49	NC	EM95			
K04MA	A	5,160	112	43	FL	EL88			
K14FA	A	5,148	89	44	FL	EL99			
K14GZD	A	4,185	99	31	NC	EM95			
K4FJW	A	2,886	80	26	VA	EM86			
N4DWK	A	2,250	58	30	VA	FM17			
K14AOC	A	1,395	40	31	SC	EM92			
K4ZOO	A	1,248	41	24	VA	FM08			
K4FTO	A	1,197	40	21	VA	FM18			
AA4ZZ	A	1,188	42	22	NC	EM95			
KE4YYD	A	768	25	16	FL	EL79			
KU4VQ	A	741	27	19	FL	EL99			
N4AVM	A	713	28	23	NC	FM05			
K9TWP	A	364	19	14	VA	FM18			
KG4NEP	A	345	22	15	NC	EM96			
WB4YDL	A	336	22	14	TN	EM56			
W1NE	A	160	12	10	SC	EM84			
K14HRF	A	42	6	6	AL	EM64			
WN1GIV	6	21,842	326	67	FL	EL96			
W4IHI	6	7,774	169	46	FL	EL87			
W4GRW	6	6,786	174	39	NC	EM96			
K4UTE	6	4,000	100	40	FL	EM90			
W4KY	6	2,850	75	38	VA	FM17			
N4MM	6	2,759	89	31	VA	FM09			
KD4CIT	6	1,792	64	28	VA	FM17			
K4USE	6	1,188	54	22	GA	EM72			
N4BAA	6	1,064	38	28	VA	FM16			
W4FRA	6	675	27	25	NC	FM15			
K4NAU	6	500	25	20	SC	FM02			
K4BAI	6	378	21	18	GA	EM72			
K3IXD/R	6	12	4	3	SC	FN41			
WG4RAY	6	1	1	1	GA	EM73			
WB3DPR	6	0	0	0	FL	EL98			
W4WJF	2	10,540	170	31	NC	EM96			
KU4BP/4	Q*	484	22	11	NC	EM96			
AK4FL	Q	2,480	53	31	AL	EM64			
KR1ST	Q	800	37	20	SC	EM92			
N4DXY	M	14,916	197	66	AL	EM62			
K4ATM	M	14,120	244	40	NC	EM95			
NE0P	A	171	11	9	OK	EM04			
NM5M	A	110	15	5	TX	EM13			
W5PR	6	1,026	54	19	TX	EL29			
KJ5RC	6	1,012	44	23	MS	EM42			
KE5ELU	2	40	5	4	AR	EM34			
K5QE	2	39,984	254	112	TX	EM31			
K6GIYN	A	6,137	217	19	CA	DM12			
KC6ZVT	A	1,302	39	21	CA	CM98			
KF6YVY	A	1,010	70	10	CA	DM03			
KC6SEH	A	152	13	8	CA	CM98			
W6AMBL	6	230	46	5	CA	DM03			
K6JRA	6	1	1	1	CA	CM87			
KO6EE	Q*	590	40	10	CA	DM14			
KG6TGI	Q*	20	5	4	CA	DM13			
K7XC	A	4,329	76	39	NV	CN92			
W4TZY	A	3,186	76	27	WA	CN87			
N6KW	A	3,036	87	23	WA	CN87			
N7DB	A	1,700	60	17	OR	CN85			
K17JA	A	1,488	54	16	OR	CN85			
W7MGC	A	1,360	53	16	WA	CN85			
WB7BST	A	1,105	36	17	WA	CN87			
KG7P	A	369	27	9	WA	CN87			
W7OJT	A	147	11	7	AZ	DM24			
KZ7D	A	115	18	5	AZ	DM33			
K7MDL	Q*	1,064	50	14	WA	CN87			
KD7WPJ	Q	6	2	2	UT	DM37			
K8BU	A	12,716	138	68	MI	EN71			
K8MR	A	1,664	45	26	OH	EN91			
KF8QL	A	1,600	42	25	MI	EN72			
N8BJQ	A	558	23	18	OH	EN80			
WB8IDM	A	364	21	14	OH	EN80			
KB8A	A	340	21	10	OH	EN91			
WB8NO	A	60	6	6	OH	EN91			
KG6URI	A	6	2	2	MI	EN82			
AJ7M	6	108	12	7	WV	FM08			
NF8M	6	54	9	6	MI	EN82			
K8GT	6	6	3	2	MI	EN82			
KB8UJZ	6	6	3	2	OH	EN91			
K8MM	2	182	13	7	MI	EN83			
N8XA	Q	96	10	6	OH	EM79			
K2DRH	A	74,880	435	130	IL	EN41			
K9ZD	A	11,264	127	64	IL	EN50			
N9TL	A	1,122	33	22	IL	EN50			
KC9SCH	2	160	10	8	IL	EM59			
W9SZ	Q*	209	13	11	IL	EN51			
K9CY	Q	8,325	161	37	IL	FM08			
K9AKS	Q	6,816	99	48	IL	EN41			
N9DG	Q	680	24	17	WI	EN53			
K0AWU	A	2,542	65	31	MN	EN37			
W6OAL	A	497	49	7	CO	DM79			
N0P0A	A	315	30	7	CO	DM79			
K0NDR	A	176	29	4	CO	DM79			
K0FC	6	228	19	12	IA	EN41			
N0JUR	Q	5,088	79	48	IA	EN41			
N0JUNL	M	2,664	53	37	NE	EN10			
W0VH	M	1,130	80	10	CO	DM79			
Rover									
W4VHF	80,073	445	123						
K9JK	23,754	144	107	4					
WB8TX	20,705	136	101	12					
W4BKS	16,530	146	87	6					
W4SHG	10,366	101	71	6					
K9ILT	6,784	79	53	6					
N6TEB	2,852	60	31	4					
AA4S	1,980	42	33	4					
NE9O	1,922	62	31	3					
W6KA	1,820	45	26	3					
K8DQ	1,421	33	29	3					
N7EIE	1,365	39	21	6					
K1DS	880	34	20						
W4YOE	336	23	12						
IT4LY	M	36,480	223	114		JM44			
IO2GM	M	1,302	36	31		JM65			
IV3ZLT	M	1,302	36	31		JM65			
MACEDONIA									
Z36W	6	9,720	135	72		KN11			
NETHERLANDS									
PE2TET	6	143	13	11		JO32			
POLAND									
SO6ELV	A	7,844	110	53		JO80			
SP6MLK	A	1,428	42	34		JO80			
PORTUGAL									
CT1DHM	6	21,111	227	93		IN61			
ROMANIA									
YO3CZW	6	238	17	14		KN34			
SLOVAKIA									
OM5MX	2	1,952	61	16		JN98			
SLOVENIA									
S51CK	6	15,879	201	79		JN76			
S57S	Q	100	10	10		JN76			
S56PBZ	Q	1	1	1		JN76			
SWEDEN									
SA1A	6	168	14	12		JO97			
SM1TDE	6	1	1	1		JO97			
SPAIN									
EH2ARD	6	31,784	274	116		IN93			
EH3ATO	6	4,536	84	54		JN02			
EH5HT	6	3,822	78	49		IM98			
EH5GLN	6	3,332	68	49		IM98			
EA3FM	6	2,145	55	39		JN11			
EH1ATQ	6	238	17	14		IN73			
EA1TI	2	416	16	13		IN73			
TURKEY									
T2ARC/P	6	13,398	174	77		KN50			
T2AMM/P	2	518	37	7		KN50			
TB1CAK	2	84	14	3		KN41			
T1ABM	2	70	7	5		KN40			
T2ARX	Q*	108	18	3		KN40			
T47AK	M	3,154	83	38		KN91			
UKRAINE									
URSQU	6	6,667	113	59		KN77			
UXOFF	6	5,280	88	60		KN45			
UT7U	6	2,911	71	41		KO40			
UX8IR	6	918	34	27		KN87			
UT2UZ	6	616	28	22		KO50			
US9DA	6	589	31	19</					