# 2010 ARRL September VHF QSO Party Results

Lots of competition, fun and some exciting moments.

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RRL VHF+ contesting for 2010 is now in the history books. The January contest saw a nice uptick in log submissions while June was an all-time record breaker with 6 meters wide open for extended periods across much of North America. Amazing QSO and grid totals indicated that when band conditions cooperate there is plenty of VHF+ contest activity.

Would the September contest (September 11-13) keep the trend going? In general, band conditions were not all that great with the exception of some nice "tropo" (tropospheric enhancement) in the Midwest. As it turned out it, activity decreased in virtually all operating categories with 488 log submissions this year versus 595 in 2009. Most importantly, the number of Rover logs was down significantly with a major impact on the number of contacts and grids available to all operators.

#### **Tropospheric Enhancement**

One challenge with VHF+ contesting is that many operators are fairly casual about their efforts. They often get on at the beginning to give out points and then either stop operating or only listen in from time to time. An opening like the one on Sunday morning in this past September's contest, though, may be over before the casual operators get on to check the band.

Sharp operators know how to find the brief tropo enhancements even under average conditions. Record-setting QRP Portable op N6NB was frustrated early, but late in the contest there was a little bit of lift that allowed him to achieve his high score. Likewise, Multioperator winner K1WHS found the briefest of enhancement periods to work some long-haul microwave contacts from Maryland, helping them to just squeak by W2SZ.

Many contesters use the Hepburn Tropo maps from **www.dxinfocentre.com** to pre-



Single-Operator,					
Low Pov	ier .				
K1TR	178,715				
K2DRH	169,740				
W3SZ	119,301				
W3PAW	102,810				
K1KG	66,780				
N4QWZ	60,941				
AF1T	60,200				
W3IP	47,047				
N3RN	43,461				
KOKID	44 004				

## Single-Operator, High Power K1TEO 388,080 WA2FGK (K2LNS, op)325,208 K1RZ 246,689 W8ZN 100,497 K8TOK 90,134 K3CB 77,674 N3HBX 61,476 VE3ZV 60,759 K3TUF 50,949 W2SJ 42,738

QRP Por	table
N6NB	266,192
KA1LMR	41,400
K9GY	12,740
NØJK	4,361
KB5WIA	900
W7RDP	896
KC8KSK	528
K6BSR	490
AB1MI	242
KX9X	200

Limited	Multioperator
W3SO	188,232
W4NH	112,504
W4IY	110,600
KA2LIM	91,256
W2LV	81,812
AA4ZZ	75,504
K2BAR	57,672
W1QK	21,830
WO9S	20,175
VA7ISL	16,422

#### Multioperator K1WHS 1.159.9

K1WHS	1,159,924
W2SZ	1,141,254
KBØHH	140,430
K5QE	124,320
W2EA	81,548
N9UHF	27,825
K4EJQ	25,912
K3EOD	25,359
W4MYA	21,804
WY3P	18,900

Rover	
KK6KK/R	252,195
W6XD/R	248,178
N6HC/R	244,608
W6TE/R	238,260
WB6BFG/R	236,640
N6HD/R	228,900
N6VI/R	221,367
KJ6CNO/R	202,950
VE3SMA/R	109,440
VE3OIL/R	98,736

Limited Dayor

Liiiiilea n	over
K9JK/R	11,592
AF6AV/R	10,368
N6ZE/R	4,968
K4AMK/R	4,485
N6ORB/R	4,230
K8MAD/R	3,630
WR8W/R	3,450
AB1GF/R	2,640
K7TM/R	2,047
ABØYM/R	1,975

	,
Unlimited	Rover
W1RT/R	85,028
WA3PTV/R	67,609
NV6C/R	4,158
KRØVER/R	4,154
KCØP/R	2,640
N4GER/R	2,016
AA5JG/R	836
K1MAP/R	578
NØHZO/R	510

dict tropo conditions during contests. The Hepburn prediction for Saturday was for enhancement from Kansas and Oklahoma east to Illinois and as far as western Tennessee. Sunday morning's map looked even better. Sure enough, N4QWZ in Tennessee noted working into Oklahoma and up to K2DRH in Illinois through 1296 MHz.

KBØHH in Oklahoma managed to work as far east as Alabama on Sunday, as far west as central Colorado, and up to K2DRH in Illinois. QRP station NØJK found the opening and managed to work many contacts beyond normal coverage range.

#### Fun, Fun, Fun

We all operate contests to have fun. There are many ways to have fun and September is often a time when the weather is great for heading outdoors. Quite a few participants had their fun combining a good hike with contesting. KD7WPJ hiked up an 11,800 foot mountain carrying equipment for three bands. Five hours operating on the summit followed by a three-hour descent made for a great day. In Washington, W7RDP headed up to a fire lookout to operate. With a fantastic view of Mt Rainier it was hard to focus on the operating while enjoying the view. The ARRL's Contest Manager, Sean, KX9X, took a nice hike Saturday afternoon to a Connecticut high point, too.

Another way to have fun is to make station improvements and give them a workout during a contest. The KA2LIM group in New York added omnidirectional antennas this time to better search for stations and had fun trying them out in the contest. KD5IKG/R added a new band before the contest (432 MHz) and another one during the contest (222 MHz). He did not find great activity overall but still had lots of fun handing out contacts and trying out the new bands. AB1GF/R decided to build a bigger setup after his first-ever rove in the June contest. He added a 28 foot tower to his rover setup.

When the band conditions do not cooperate there are other modes available to help the score and increase the fun. With the availability of *WSJT*, EME operation has become much easier for smaller stations. The

#### **Regional Leaders**

A = Single Operator, Low Power; B = Single Operator, High Power; Q = Single Operator, QRP Portable; L = Limited Multioperator; M = Multioperator; L = Limited Multioperator; R = Rover; RL = Limited Rover; RU = Unlimited Rover

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)	Southeast Region (Delta, Roanoke and Southeastern Divisions)	Central Region (Central and Great Lakes Divisions; Ontario Section)	Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)	West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections)			
K1TR 178,715 A W3SZ 119,301 A W3PAW 102,810 A K1KG 66,780 A AF1T 60,200 A	N4QWZ 60,941 A W3IP 47,047 A WB8TFV 13,130 A K4FJW 8,008 A W4XP 4,720 A	K2DRH     169,740     A       WZ8T     15,714     A       KC9BQA     14,076     A       K8MR     10,850     A       N9LB     9,333     A	NOLL 38,090 A W6ZI 29,606 A ABØRX 7,936 A WAØARM 4,794 A K5YM 3,325 A	W6AQ 10,745 A K6TSK 8,865 A AF6RR 6,697 A K6XN 6,660 A W6YLZ 3,116 A			
K1TEO 388,080 B WA2FGK (K2LNS, op) 325,208 B K1RZ 246,688 B K3CB 77,674 B N3HBX 61,476 B	W8ZN 100,497 B W4WA 40,656 B KE2N 36,696 B K4QI 30,302 B KG5MD 12,720 B	K8TQK 90,134 B VE3ZV 60,759 B K9EA 42,237 B K8MD 41,418 B W0UC 32,118 B	WQ0P 37,932 B K5LLL 26,572 B W0LGQ 13,275 B W0RT 10,640 B W0EEA 7,810 B	N7EPD 17,280 B KC6ZWT 13,988 B W7MEM 5,408 B W7FI 5,304 B KB7ME 5,000 B			
KA1LMR 41,400 Q AB1MI 242 Q KX9X 200 Q KC2JRQ 55 Q	K9GY 12,740 Q KC8KSK 528 Q	K9PLS 78 Q W9LGP 50 Q	NØJK 4,361 Q N7QF/7 1117 Q KD7WPJ 77 Q	N6NB 266,192 Q KB5WIA 900 Q W7RDP 896 Q K6BSR 490 Q			
W3SO 188,232 L KA2LIM 91,256 L W2LV 81,812 L K2BAR 57,672 L W1QK 21,830 L	W4NH 112,504 L W4IY 110,600 L AA4ZZ 75,504 L K1KC 3,367 L	WO9S 20,175 L N2BJ 3,810 L N9TF 3,094 L KA9RSL 143 L KI4OIP 16 L	KØSIX 10,780 L NØLD 4,094 L WDSIYF 3,219 L	VA7ISL 16,422 L N7CKJ 2,100 L KE6GFF 715 L WB6CZG 312 L			
K1WHS 1,159,924 M W2SZ 1,141,254 M W2EA 81,548 M K3EOD 25,359 M NE1B 10,374 M	K4EJQ 25,912 M W4MYA 21,804 M WY3P 18,900 M N4JQQ 13,050 M W4YCC 3,300 M	N9UHF 27,825 M KB8O 17,940 M VA3WLD 4,608 M W8RU 2,856 M	KB0HH 140,430 M K5QE 124,320 M NR5M 6,780 M	WB6W 10,824 M WA6KLK 6,552 M WA1PMA 126 M			
NN3O/R 62,522 R K2QO/R 62,127 R KB1EKZ/R 45,780 R WAZIID/R 31,348 R W1AUV/R 29,946 R	AG4V/R 23,236 R N4OFA/R 20,679 R W4WNT/R 78 R	VE3SMA/R 109,440 R VE3OIL/R 98,736 R W9SNR/R 48,594 R W3USA/R (K8MR, op) 924 R	W9FZ/R 97,519 R K5GJ/R 22,880 R KA0KCI/R 14,352 R WR0I/R 13,970 R WB0LJC/R 294 R	KK6KK/R 252,195 R W6XD/R 248,178 R N6HC/R 244,608 R W6TE/R 238,260 R WB6BFG/R 236,640 R			
K9JK/R 11,592 RL AB1GF/R 2,640 RL	K4AMK/R 4,485 RL AD4IE/R 864 RL	K8MAD/R 3,630 RL WR8W/R 3,450 RL K8DOG/R 1,280 RL VE3RKS/R 648 RL	AB0YM/R 1,975 RL KD5IKG/R 1,850 RL KK6MC/R 1,550 RL AF50/R 1,197 RL K5MRA/R 1,166 RL	AF6AV/R 10,368 RL N6ZE/R 4,968 RL N6ORB/R 4,230 RL K7TM 2,047 RL K6JRAVR 1,083 RL			
W1RT/R 85,028 RU WA3PTV/R 67,609 RU K1MAP/R 578 RU		N4GER/R 2,016 RU	KR0VER/R 4,154 RU KC0P/R 2,640 RU AA5JG/R 836 RU N0HZO/R 510 RU	NV6C/R 4,158 RU			

K5QE group managed to work 95 grids on 2 meters, many obtained by EME. Single-Op WA2FGK also made use of the Moon to help his score and have some fun when terrestrial activity was slow.

#### Single-Operator Categories

A total of 250 stations submitted logs in the Single-Operator, Low Power (SOLP) category, while 106 entered the High Power (SOHP) competition. SOLP has seen some great competitions between Ed, K1TR and Bob, K2DRH over the last several years. This year 'TR narrowly edged out 'DRH, with 178k to 169k points. Bob used a combination of the enhanced conditions in the Midwest on Sunday morning and a terrific station to work 91 more grids than Ed. Operating portable from Mount Wachusetts in Massachusetts, 'TR countered with much higher QSO totals (681 versus 429) and benefited from having two bands — 5 and 10 GHz — that Bob does not have. Ed worked more stations than other Single-Operator, high or low power, on 6 meters and was near the top in QSOs on most other bands. Congratulations to both ops for some great results!

In SOHP category, despite a slightly lower score in 2010, WA2FGK finished a good deal closer to the leader, K1TEO. Herb, 'FGK, added to his excellent grid totals with effective use of WSJT (Weak Dignal Soft-

### Affiliated Club Competition

Medium Club Category		
Southern California Contest Club	17	2,172,895
Potomac Valley Radio Club	23	899,786
North East Weak Signal Group	18	640,712
Mt Airy VHF Radio Club	15	407,084
Contest Club Ontario	11	305,021
Yankee Clipper Contest Club	10	234,431
Society of Midwest Contesters	15	231,629
Nacogdoches ARC	3	126,702
Rochester VHF Group	3	93,977
Carolina DX Association	5	81,018
Pacific Northwest VHF Society	22	64,636
Tennessee Contest Group	3	60,977
Roadrunners Microwave Group	3	52,138
Northern Lights Radio Society	7	50,639
Mad River Radio Club	7	22,899
Northern California Contest Club	8	21,606
Frankford Radio Club	3	18,904
North Texas Microwave Society	4	4,147
CTRI Contest Group	3	3,146
Arizona Outlaws Contest Club	5	1,436
Alaska VHF-UP Group	5	413
Local Club Category		
Murgas ARC	4	375,949
Badger Contesters	9	116,651
Bristol (TN) ARC	5	38,558
Stoned Monkey VHF ARC	3	27,953
Florida Weak Signal Society	7	
Eastern Connecticut ARA	3	17,667 15,934
Portage County Amateur Radio Service	4	558
Fortage County Amateur Hauto Service	4	336

ware by K1JT) for scatter contacts on 6 and 2 meters, and added some on EME as well. Dave, K1RZ was third with a very good score of 246k.

#### **QRP Portable Operation**

Wayne, N6NB lapped the field of 15 entries as he broke K9PW's long-standing category record with 266k points, operating from a mountaintop location at 6800 feet in DM05. An associated group of pack rovers provided the majority of his QSOs and grids as they worked him on as many as 10 bands each from each grid. Clearly this was a very effective strategy as even with QRP power Wayne's score was higher than all but two Single-Operator scores.

Placing second was KA1LMR with a fine 41k, followed by K9GY with 12k. Eric showed that even a simple setup in a good location can do quite well as he ran an FT-817 into 4 elements on 2 meters, 3 elements on 432, and a Hamstick on 6 meters. Of course it helps to be on Skyline Drive in Virginia at 3500 feet!

#### **Multioperator Categories**

Despite a drop in score, the W3SO team

Top Te	en Band	d-By-Ba	and Bı	eakdo	wn by	Entry	Categ	ory									
Number	s in each	column	show to	otal QSO	s/total n	nults											
Single-C	p High F	ower							Limited	Multiop							
Call K1TEO WA2FGK K1RZ W8ZN K8TQK K3CB N3HBX VE3ZV K3TUF W2SJ	50 171/40 150/43 175/44 65/21 60/38 56/25 165/29 36/16 57/20 28/13	144 290/51 157/51 164/40 123/21 108/51 69/24 139/30 65/33 72/23 45/17	222 99/35 85/31 62/26 45/22 49/32 35/21 45/20 42/25 41/18 31/14	432 126/37 89/31 82/29 67/22 46/32 46/24 64/24 50/24 48/20 32/15	902 49/18 48/17 34/14 17/7 15/13 22/13 0/0 18/13 10/7 18/10	1296 62/19 40/15 43/16 24/11 21/17 22/15 14/6 12/6 26/13 22/12	2304+ 85/45 108/48 82/39 47/24 4/4 32/20 0/0 24/12 11/10 25/21	TOTAL 882/245 686/236 642/208 388/139 303/187 282/142 427/109 247/129 265/111 201/102	Call W3SO W4NH W4IY KA2LIM W2LV AA4ZZ K2BAR W1QK W09S VA7ISL	50 246/46 222/52 240/50 174/36 226/36 110/29 229/28 162/21 71/24 66/11	144 306/58 171/49 190/48 221/43 200/31 178/53 215/28 110/18 72/23 86/20	222 85/38 60/30 57/30 66/27 63/23 51/21 38/16 28/10 26/14 32/9	432 145/44 85/32 78/30 72/30 86/23 91/29 64/17 21/10 37/14 53/11	902 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0	1296 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0	2304+ 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/	707AL 782/186 539/164 565/158 533/136 575/113 430/132 546/89 321/59 206/75 237/51
Single-C	p Low P	ower							Multiop								
K1TR K2DRH W3SZ W3PAW K1KG N4QWZ AF1T W3IP N3RN K2KIB	208/28 103/52 82/20 115/30 72/18 56/25 101/15 90/18 87/23 41/16	176/27 134/60 92/19 88/29 99/21 90/41 115/18 125/23 78/25 83/21	67/21 53/37 55/17 44/21 38/15 40/28 45/12 32/14 46/20 28/12	104/22 80/44 69/19 52/23 51/14 54/31 56/10 62/21 52/20 34/15	32/21 22/21 26/11 23/12 19/9 12/12 20/7 18/7 0/0 12/6	45/13 27/22 31/10 22/12 28/8 14/12 26/7 20/8 26/11 20/9	49/30 10/10 76/37 40/22 35/21 0/0 36/17 0/0 0/0 26/14	681/155 429/246 431/133 384/149 342/106 265/149 399/86 347/91 289/99 244/93	K1WHS W2SZ KBØHH K5QE W2EA N9UHF K4EJQ K3EOD W4MYA WY3P	390/75 456/45 78/27 93/48 211/30 74/16 13/6 56/15 137/35 95/24	360/69 395/55 168/48 187/95 202/35 79/19 56/19 40/15 87/30 54/21	139/42 173/42 78/33 46/30 45/16 29/12 24/14 24/13 0/0 22/12	200/44 266/43 105/38 68/33 55/18 37/11 35/17 29/13 26/14 22/14	71/35 87/35 12/12 7/7 12/6 9/7 8/6 12/6 0/0 4/3	89/35 101/34 21/17 9/8 14/9 13/8 15/9 13/7 0/0 1/1	232/109 261/88 11/11 1/1 3/2 5/2 15/11 11/10 0/0 0/0	1481/409 1739/342 473/186 411/222 542/116 246/75 166/82 185/79 250/79 198/75
-	p QRP P																
N6NB KA1LMR K9GY NØJK KB5WIA W7RDP KC8KSK K6BSR AB1MI KX9X	90/16 115/16 79/19 9/9 8/6 20/4 8/3 10/5 10/6 10/5	123/19 109/18 76/18 32/20 17/8 22/7 14/5 9/5 8/4 10/5	86/13 43/12 0/0 0/0 0/0 0/0 3/2 0/0 0/0 0/0	95/16 64/15 45/15 24/20 10/6 11/3 8/2 8/4 2/1 0/0	64/11 18/7 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0	83/13 20/7 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0	270/39 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0 0/0	811/127 369/75 200/52 65/49 35/20 53/14 33/12 27/14 20/11 20/10									

repeated as top dog for September. They had excellent grid totals on all four bands, including tying for top results with 44 grids on 432 MHz, a good deal ahead of the 2<sup>nd</sup> and 3<sup>rd</sup> place groups, W4NH and W4IY who were separated by less than 2000 points in a tight finish.

The stiffest competition in the contest was in the Multioperator category, pitting perennial leader W2SZ against the K1WHS team from "Down East." Year after year the "Sugar Zebra" team does an amazing amount of work before and after the contest to set up a huge station from one of the best operating locations in the Northeast, Mt Greylock in Massachusetts. K1WHS is located in southwestern Maine in a good location, though further from the higher density operating areas than the 'SZ location. The 'WHS team does have the advantage of operating from a fixed station and Dave, the station owner, has built an impressive array of antennas to maximize the team's capabilities. Both groups scored over 1.1 million points with 'WHS finishing a slim 19k ahead of 'SZ.

In the Midwest, the KBØHH group enjoyed some good propagation and made use of their outstanding setup to place third, up from 6<sup>th</sup> in 2009. K5QE continued their run of Top 10 results repeating in the 4<sup>th</sup> position.

#### **Rovers**

A total of 64 rovers submitted logs, down almost 25% which of course has an impact on all stations operating the contest. In the



The winning K1WHS Multioperator team included (back to front) Steve, N2CEI on 222 MHz, Sandra, K4SME on 432 with HØUND in her lap. Joel, W5ZN is on 903 through 3456, and AI, WA1T is at the 5 and 10 GHz position.

Traditional category as has been the case the last several years, pack rovers from southern California worked together, sweeping the top eight places and scoring between 202k and 252k — in order KK6KK, W6XD,

N6HC, W6TE, WB6BFG, N6HD, N6VI and KJ6CNO.

Regionally, there were many fine efforts worth noting in the traditional Rover category including NN3Q who led the Northeast ahead



Eric, K9GY entered the QRP Portable category from this picturesque location on Thorofare Mountain, VA in FM08. An operating position at 3500 ft ASL (above sea level) certainly helps!

of K2QO, KB1EKZ, WA2IID and W1AUV. In the Southeast AG4V and N4OFA livened the contest up for many others handing out lots of QSOs on their roves. In the Central region W9SNR was third after VE3SMA and VE3OIL, while in the Midwest W9FZ just missed a Top 10 finish by 1k points while leading the region.

The RL category saw a very close finish with K9JK driving more than 1000 miles and just getting by AF6AV, 11k to 10k! The rest of the top scorers had a very tight contest with N6ZE who went roving in the Pacific Northwest and placed 3<sup>rd</sup>.

The number of RU entries tripled to nine this contest. Last year's 9th place traditional Rover, W1RT, moved to the Unlimited Rover category this time and finished in first with 85k. John operated 10 bands from 6 grids with his partner Andy, K1RA to edge out WA3PTV's 2<sup>nd</sup> place effort. Joe ended up with 67k operating from 4 grids, also with 10 bands.

#### **Club Competition**

Twenty-eight clubs submitted scores for the September contest with roughly half of the participants crediting their score to a club. Finishing on top in the Medium category was the Southern California Contest Club. Swapping places from the prior year were the Potomac Valley Radio Club (PVRC) in 2nd and the Northeast Weak Signal Group (NEWS) in 3rd.

Repeating as Local Club winner was the Murgas Amateur Radio Club from Pennsylvania in a significant jump from 2009. The Badger Contesters moved from the Medium category to Limited and took 2<sup>nd</sup> with over 100k points. Next in line were the Bristol Amateur Radio Club out of Tennessee and the Stoned Monkey VHF Amateur Radio Club.

#### In Closing

The 2010 September contest is in the books as we head toward a new year for VHF+ contesting. We hope that conditions will be great to enhance the fun. But if not, there is still a lot of fun to be had. Let's all get on the air and have some fun September 10-11, 2011.

#### Online Version

You won't have to wait for sporadic-E to get more photos and information about the contest and Midwest Mania. Read the expanded version of the results online at www.arrl.org/contests/results.

### Frequency Measuring Test — April

The Frequency Measuring Test (FMT) adds a couple of new wrinkles to the format when it takes to the airwaves on April 12. The first change is that the FMT will be held on Tuesday evening instead of Wednesday. If weeknight schedules have prevented you from participating in past FMTs, this change is for you. The second change is in the sequence of stations transmitting. The new format will mimic a round-table QSO in which all of the stations are close to the same frequency but not exactly on the same

Here's how the new format works: K5CM will lead off with a call-up followed by a key-down period. He will then hand off the frequency to W8KSE who leads with a call-up and then performs a key-down transmission before handing it off to the next station and so forth. Your job is to measure and report the frequencies of all the stations. 1

The test will begin on 40 meters near 7055 kHz at 10:15 PM EDST. That is on Tuesday evening in North America and all times are listed in EDST in the accompanying table. (For our friends in Europe, that is 0215 UTC on the morning of April 13.) There will be four stations in the 40 meter round-table: K5CM (OK), W8KSE (OH), W6OQI (CA) and WA6ZTY (CA). The test will then move to 80 meters near 3575 kHz beginning at 10:45 PM. The 80 meter stations will be K5CM, W8KSE and W6OQI. All stations will be within ±200 Hz of the initial frequency for K5CM. While the start time on 80 meters is a little early for the West Coast, this was felt to be a reasonable compromise without beginning too late on the East Coast.

For more information and any updates in procedure, tune in to the ARRL's Frequency Measuring Test web page at www.arrl.org/frequency-measuring-test. Results will be reported using the regular web page format provided by WA7BNM. More information on frequency measuring techniques and exercises can be found on K5CM's website at www.k5cm.com.

<sup>1</sup>QST articles from 2005 and before on FMT techniques are available to ARRL members at www.arrl.org/arrl-periodicals-archive-search.

#### April 2011 FMT Schedule in Eastern Daylight Saving Time

#### 40 Meter Sequence (near 7055 kHz)

		,
K5CM	10:15 PM	call up (3 mins)
K5CM	10:18	key down (2 mins)
K5CM	10:20	turnover to W8KSE (1 min)
W8KSE	10:21	call up (2 mins)
W8KSE	10:23	key down (2 mins)
W8KSE	10:25	turnover to W6OQI (1 min)
W6OQI	10:26	call up (2 mins)
W6OQI	10:28	key down (2) mins)
W6OQI	10:30	turnover to WA6ZTY (1 min)
WA6ZTY	10:31	call up (2 mins)
WA6ZTY	10:33	key down (2 mins)
WA6ZTY	10:35	end and announce FMT
		move to 80 meters

80 Weter	Sequence (	near 3575 KHZ)
K5CM	10:45 PM	call up (3)
K5CM	10:48	key down (2)
K5CM	10:50	turnover to W8KSE (1)
W8KSE	10:51	call up (2)
W8KSE	10:53	key down (2)
W8KSE	10:55	turnover to W6OQI (1)
W6OQI	10:56	call up (2)
W6OQI	10:58	key down (2)
W6OQI	11:00	end FMT announcement