Results of the 2018 CQ DX Marathon

BY JOHN SWEENEY,* K9EL/VA3CDX

hether you are a supporter of FT8 or want nothing to do with it, this new mode had a major impact on the 2018 CQ DX Marathon. With truly bad band conditions in 2018, we expected a significant drop in total QSOs and lower overall scores. We did see lower total scores but total QSOs were essentially flat from 2017 and actually higher than 2016. More than half of all QSOs in 2018 were made using digital modes, with the majority of those being FT8. In 2016, digital QSOs made up just 20% of the overall QSO total.

FT8 did bring some new hams to the DX Marathon, but their FT8 QSOs clearly came at the expense of phone QSOs, which were 40% of all QSOs in 2015, yet just 16% in 2018. Perhaps the weak-signal capabilities of FT8 allowed stations with smaller antennas and lower power to work more countries. North America appeared to jump on the FT8 mode very guickly as NA was the only continent to record an increase in overall participants in 2018. Although fewer participants submitted logs in 2018, as expected, the people who did submit were very active. The average number of QSOs per person was up 20% over 2017 and identical to the level in 2015, when sunspot activity was very good. Digital-only submissions saw a big increase from just 5% of the total in 2015 to 15% in 2018. Phone-only submissions dropped to just 6% of the total, while CW-only submissions remained steady.

The maximum possible score in 2018 was 333, a slight increase over 2017. Although signals may be weak, there is still plenty of DX activity. Not surprisingly, fewer high score records were broken in 2018, but 22 new records is still very impressive, considering the band conditions. One of the new records was a new 6-meter high score set by I4EAT - 147 - more than the highest 10- or 12-meter scores. The majority of his QSOs were digital, presumably FT8. The 10-, 12-, and 15meter bands accounted for only 17% of total DX Marathon QSOs in 2018, reflecting the poor conditions on our higher HF bands. Twenty, 30, and 40 meters accounted for 64% of all QSOs,



Jim, K2JL, had the top worldwide Formula Class score in 2018 — very impressive considering he had three major operations in 2018. Jim felt the DX Marathon was very therapeutic — we agree. Jim was licensed in 1978 and has never run more than 100 watts. Jim uses a TS590 plus various wires and a 43-foot vertical antenna.

with 30 meters recording the largest increase — 175%. The majority of the 30-meter QSOs were digital.

And the Winners Are...

Winning the DX Marathon takes a lot of patience and time in front of the rig, especially during periods of low sunspots. Bill, K2TQC, seems to have the right formula for winning - once again Bill came out on top, making three years in a row as top worldwide DX Marathon scorer. Bill had a total score of 326 - very impressive considering the conditions. Confirming the broader trend we saw in 2018, the majority of Bill's QSOs were on CW and digital. In second place, and a former Marathon top place finisher, was Eduard, OM3EY, who finished with a total score of 323. Oms, PY5EG, finished third at 322. Rounding out the top five were Serge, R6YY, in fourth place with a score of 321; and Marvin, VE3VEE, with a score of 318 in the fifth position. Serge has placed in the top 5 for the last four years. Marvin was also once again the number-one finisher in the 20-meter only category. Newcomers to the overall Top Ten worldwide include John, K2ZJ (6th), Graham, VK3GA (7th) and Shin-ichi, JAØDAI (10th).

In the Limited Class category, congratulations to Alex, EW7A, who jumped from 14th place in 2017 to first in 2018. His score of 274 was very impressive in light of the current conditions. Alex uses a hex beam for the higher bands. Second and third place positions went to newcomers to the top three: W9RF at 265 points and PY2SPW at 255 points, respectively. In Formula Class, 100-watt option, the winner is James, K2JL, with a very impressive score of 293 points. James uses a 43-foot vertical and wires for his antenna system. TA4RC finished second with 273 points and HA7LJ finished third with 261. Istvan (HA7LJ) has consistently placed in the top three in Formula Class. Working the Marathon with wire antennas is a difficult challenge with no sunspots.

Even more difficult working DX are those brave hams who do so with QRP power. This year we saw another decline in 5-watt submissions and average scores were also lower than in pre-

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vious years. Congratulations to Karel, OK2FD, for winning the QRP category with score of 262 points. Fulvio, IV3AOL, repeated his second-place finish of last year with an impressive 234 points, which was identical to his 2017 score.

Each year, about 25% of the DX Marathon participants choose to submit scores for a single mode, and 2018 was no exception. As noted above, phone submissions dropped significantly while digital-only submissions almost doubled. CW-only submissions were down slightly, but very close to the annual average.

One person who seems to really enjoy CW is Lada, OK2PAY, who, for the fourth year in a row, had the highest overall CW-only score. The top North America CW score went to John, K3MA, who finished just 5 points behind Lada. Both Lada and John will soon hold beautiful DX Marathon plaques for their efforts. Ken, W1NG, was 2 points behind K3MA and continues his string of top CW finishes.

On phone, Bruno, PY6BA, in his first attempt at winning, made a very strong effort and came in first with a score of 300. Gert, PA2LO, repeated his second-place finish from last year with a very respectable score of 269.

Digital-only submissions were up 30% from 2018 and represented over half of the single-mode submissions. This is a major change — in 2015 digital submission were only 5% of the total entries. The digital-only category also saw the only increase in high scores. The ability of FT8 to work weak signals clearly was responsible for the score increases. The top digital-only score was the same as phone and only a few points behind the top CW score at 300. The winner of the digital category once again is Jan, OM5XX, who increased his 2017 score by 10 points to win the digital plaque. Coming in second at 270 points was Piero, IK5FKF - always a top contender in the digital category. Vlad, RZ1OA, came in third with 260 points.

In addition to the overall and mode plaques, each year we award plagues to the top score on each continent plus the highest score on each of the 10- through 80-meter bands. Top honors for Africa once again went to EA8AXT with his 307 points, just one point less than his 2017 score and higher than his 2016 winning score. In Asia, JAØDAI has never finished lower than 4th in the last 5 years, but in 2018 had the high score with 311, which is also his highest score in

TOP SCORES

BOLD = Plaque Winners
* = Certificate Winners
Callsion is followed by Score

Unlimited Class		
K2TQC	326	
OM3EY	323	
PY5EG	322	
R6YY	321	
VE3VEE	318	
K2ZJ	318	

Limited Class	
EW7A	274
W9RF	265
PY2SPW	255
HA0IV	254
PY1SX	252

Formula Class - 100w		
K2JL	293	
TA4RC	273	
HA7LJ	261	
YV5OIE	260	
TA1CM		

Formula Class - 5w

OK2FD	262
IV3AOL	234
K8ZT	222
W8QZA	208
KZ3I	87

CW		
OK2PAY		
КЗМА		
W1NG		
W4QN		

DL6DH	.277	
Phone		
IPY6BA	.300	
PA2LO	.269	
EA5HRV	.246	

Digital		
KL7KK	228	
W4HY	246	
EA5HRV	246	

Digitai		
OM5XX		300
K5FKF		270

	Africa
EA8AXT	
CT3MD	
ZS2EZ	
ZS6C	
ZS6AI	
	Asia
JAØDAI	
TA4RC	

RZ1OA260 K7MTR.....248 IK2RPE248

TA4RC	ZIJ
A92GE	
TA2LG	
R9AB	

Europe	
OM3EY	323
R6YY	
PA3FQA	312
DL5AN	310
9A2AJ	310

North America		
K2TQC	326	
VE3VEE	318	
K2ZJ	318	
	~	

W9ILY	309
Oceania	
VK3GA	313
YB5QZ	303
ZL2IFB	
VK3BDX	271
VK3SIM	267

South America

PY5EG	322
PY6BA	300
PR8ZX	298
PY5DK	298
PY7DJ	293

6 Meters	
I4EAT*147	
IW2CAM92	

UNLO	
PY2TMV ZY2G PU2LEW .	10 Meters 131 65474519
WK3N	12 Meters 112
BUDWEO	15 Meters 226
PY2CX	
PU5YSV	
ZS6HON .	156
	17 Meters 287
	213
	20 Meters
VE3VEE	318
	217
K3HW	169
	152
K2RK	141
PY2ADR	30 Meters 252

<2RK	141
30 Meters PY2ADR	
PY2ADR	252
PY2XO	
PY2LCD	214
N1JR	206
K6FW	122

40 Meters

W9KNI	
9A2EU	
PP5JR	228
K9CJ	216
CM2RSV	163

80 Meters		
N3QE		
PY5XH		76
	400 14-1	_

	TOO MICLEIS	
W1TC*		182

K7ZV K4IQJ	
	121
CW-Europe	
OK2PAY	
DL6DH	
PAØINA	246
CW–North America	
КЗМА	
W1NG	
W4QN	
W4JS	268
K6XT	266
Zones	
KL7KK*	228
W07R*	
VE3VEE	
K2TQC	
CO2QU*	
HK3W*	268
HC5VF*	157
PY5EG	322
CE7KF*	160
LU5HA*	
PA3FQA*	312
OM3EY	
R6YY*	
RQAR*	253
YO3APJ*	273
A92GE*	270
VU2IBI	
BV1EK*	
JAØDAI	
4F3OM*	
YB5QZ*	
VK6DW*	
VK3GA	
ZL2IFB*	
EA8AXT	
ZS2EZ*	228

Note: Top scorers in some zones received Plaques or Country Certificates.

TF3DC*.....194

the last 5 years. The battle for the Europe's top score is always close but, once again, OM3EY came out on top with a score of 323 followed closely by R6YY with 321. Their scores are almost identical to last year's and we congratulate both on their continued excellent results in the DX Marathon. In Oceania, VK3GA managed to improve on his 2017 winning score to once take top honors with a score of 313. YB5QZ and ZL2IFB were close behind in 2nd and 3rd, respectively. No North America plaque is awarded as Bill, K2TQC, already took overall worldwide honors. Oms, PY5EG, one of the top winners since the beginning of the DX Marathon, took home top South America honors with a score of 322.

About 10% of DX Marathon participants submit single-band scores each year and 2018 was no different. For the 2018 single-band competitions, there were only six entries for 10meters, all from Brazil. The 10-meter plaque was won by PY2CP with an amazing top score of 131 points — higher than 2017's 10-meter winning score. WK3N once again took top honors for 12 meters with a score of 112. We had some



John, OM5XX, has been very active since he retired and is a DX Marathon multiple plaque winner. He is shown here with his 2015 Limited Class plaque and his 2017 Digital plaque. Very soon he will add the 2018 Digital plaque to his collection.



Shin-ichi, JAØDAI, is a retired engineer and an active DX Marathon participant who credits the Marathon with keeping him active every day. He has a large array of antennas — clearly helping him to win the 2018 plaque for top Asia score.

CLUB SCORES

Club	Score
CDR GROUP	
Rio DX Group	
Northern Illinois DX Association	
Araucaria DX Group	
Mother Lode DX/Contest Club	2,831
Carolina DX Association	
Willamette Valley DX Club	
East Tennessee DX Association	
Metro DX Club	
YB Land DX Club Yankee Clipper Contest Club	
Salt City DX Association	
Radio Club Venezolano.	
NERG	
Society of Midwest Contesters	
Bahia Dx Group	
CMDXGroup	
Potomac Valley Radio Club	
Lone Star DX Association	
Central Arizona DX Association	
ARI Florida Contest Group	
VU Contest Group	
Croatian Contest Club	
Southern California DX Club	
Bavarian Contest Club	
Arizona Outlaws Contest Club	528
Vytautas Magnus Univ Radio Club	
Rhein Ruhr DX Association	
GITRAD	
Frankford Radio Club	
CABREUVA DX	
Regionalis Radios Sportklub Puspokladany	
GDXC	
North Eastern Radio Group	
Belarus Contest Club	
CWOPS	
GPDX	
CDXC	
São Paulo Contest Group Northeast Wisconsin DX Association	
INDIO'S DX TEAM	
USKA	
REDXA	
599 DX Group	
DDXG	275
ТЕАМРАРА	
YO DX Club	
Grand Mesa Contesters of Colorado	
HA-DX-CLUB Secunda Amateur Radio Club	
Panhandle DX and Contest Club	
Central California DX Club	
Western WA DX Club	251
Maritime Contest Club	
Cantareira DX Group	
599 DX Association	
GADX Ham Society Of the Philippines	
Chilean Pacific DX Group	
Mile High DX Association	220
North Coast Contest Club	
EA CONTEST CLUB	
CDXA	
Southern California Contest Club	
Nixa Amateur Radio Club	
NCCC Southwest OH DX Assoiation	
Sunday Creek Amateur Radio Federation	
RL Luxembourg	
RZS Amateur Radio Club	
DX3H	
Utah DX Association	
CAPE FEAR AM RADIO SOC	
WACOM	
lu7dzl rc miramar CARL, Inc	
Shude High School Amateur Radio Club	169
USA	
Kentucky Contest Group	
AZUAY RADIO CLUB	157
Magalies Radio Amateur Klub	156
SPDXA	
Clark County Amateur Radio Club	
Tennessee Contest Group	
Federacion de Radioaficionados de Cuba	
Harwell ARS	
Northern Californa Contest Club	
RadioSport Manitoba	104
First State Amateur Radio Club	71

very intense competition on the 15-meter band, but PU2WSQ came out on top with an impressive 226 points and PU2WDF followed in second place with 225 points. Seventeen meters proved to be a good DX band with Oscar, EA1DR, winning the top spot with an amazing score of 287. VE3VEE was once again the king of 20 meters with the very good score of 318. Twenty meters was definitely the hot band of 2018, as Marvin's 20-meter only score put him in a tie for 5th place overall worldwide. PY2ADR took top honors on 30 meters with a high score of 252. It was nice to see so many 30-meter submissions in 2018. Bob, W9KNI, continued his winning ways with the high 40-meter score of 297, slightly below 2017's winning score, but all his QSOs were phone or CW - no FT8. The 80-meter plaque was won by N3QE with a score of 188. Congratulations to all of the single-band plaque winners. The top 160-meter score of 182 will earn W1TC a nice certificate for taking top honors on the top band. Once again, I4EAT was king of 6 meters with his score of 147, which is higher than the top 10- and 12-meter scores and 9 points higher than his 2017 winning 6-meter score.

In 2017, we awarded 106 DX Marathon certificates in various categories, including the top continental score for each of the three modes, top score in each country, top score in each CQ zone, top score in each Canadian call district plus the top score in each U.S. call area for each of the four DX Marathon classes. For 2018, we added certificates for the top single-mode score in the U.S. The detailed listings showing all certificate winners are available on the DX Marathon and CQ websites. Congratulations to all the 2018 certificate winners.

Although propagation was down in 2018, there were 22 new DX Marathon records set by participants. New records

TOP SCORES: CONTINENTAL MODE, USA & CANADA CALL

Phone	W4K4IE*127
TC5OCK*65	W5K5DC*209
PA2LO*269	W683
W4HY*246	W7155
YB1AR*177	W8170
PY6BA	W9227

CW	
EA8KC*21	6
ZL1BBW*19	99
PY4HO*26	55

Digital								
ZS6AI*	220							
VU2IBI*	211							
OM5XX	300							
K7MTR*	248							
YBØEIN*	220							
PY2APK*	240							

PY2APK*.		240										
USA Unlimited												
W1	W1NG*	300										
W2	K2TQC	326										
W3	K3RA*	305										
W4	K5EK*	308										
W5	W5IF*	299										
W6	N6JV*	300										
W7	WO7R	302										
W8	K8AJS*	275										
W9	K9NU*	313										
WØ	K6XT*	266										

W9158 WØ......AD1C*.....184 **USA Formula 5W** W3KZ3I*.....87 W4K4AR*.....44 W8K8ZT*222 Conodo

USA Formula 100W W1K1RI*219 W2K2JL253 W3115 W4N4KW*153 W5G5THG*170

W6K6LE*112 W7N7UVH*110

	Canada	
VE1	VE10P*	249
VE2	VE2BR*	271
VE3	VE3VEE	318
VE4	VE4HAZ*	104
VE5	VE5UA*	253
VA7	VA7CRZ*	214
VE9	VE9VIC*	164

USA Limited W1141 W3WA3WZR*152

* Certificate Winners

included 11 new country records, six new continental mode records, two Formula Class 5-watt option records plus new records for highest 6-meter, club competition, and Zone 10. Even with reduced conditions, breaking records is still very possible.

In the popular club competition, the CDR Group in Brazil again took top honors while setting a new club score record. The battle for second place was very close, with the Rio DX Group beating the Northern Illinois DX Association by only 130 points. NIDXA is the sponsor of the top three DX Marathon plaques. Don't forget to include your club name on your 2019 DX Marathon submission.

Error Rates Drop

Each year the DX Marathon website publishes a large amount of information to help participants minimize errors in their submissions. The Helpful Hints page can be accessed from the DX Marathon home page. In 2018, we published approximately 1,500 callsign exceptions and notes to help every participant reduce the number of errors in their submissions. We also recommend that you regularly update your logging program callsign database if it has one. Unusual callsign prefixes seem to multiply every year, so updating your program's database is critical to properly determining the DX location and/or Zone.

In 2018, the number of participants with no errors was about the same as 2017 — 22%, but we did see a significant drop in the overall QSO error rate to 1.7% — the lowest ever recorded in the DX Marathon since electronic scoring was initiated. Perhaps more participants are using the information we provide on the DX Marathon website, plus there is less chance of callsign errors when operating on FT8. The highest error category in 2018 was wrong coun-

try, which accounted for nearly 29% of all score reductions. There were many unique callsigns used in 2018, so it is critical to review your DX Marathon submission carefully.

The second highest error category was wrong zone at 27%. Confusion with U.S. zones is one of the biggest sources of zone errors. It is very important to note that U.S. callsign numbers are no longer required to match their QTH. A W6 could be in New York, or a KL7 could

COUNTRY WINNERS

Collaign is followed by sears	GI4DOH*240
Callsign is followed by score	
* = Certificate Winners	GUØSUP*155
	GW4EVX*139
4F3OM190	HAØHW*264
7Z1SJ*207	HB9BYQ*286
9A2AJ*310	HC5VF157
9H3HZ*116	HK3W268
A92GE270	IZ5CML*288
BI8CKU*168	JAØDAI311
BV1EK235	K2TQC326
CE7KF160	KL7KK228
CO2QU190	LU5HA222
CT1IUA*	LX1NO*223
CT3MD*261	LY2MM*258
CX3AL*217	MØNKR*
DL5AN*	OD5YA*248
DP1POL*	OE1SGU*289
EA1DR287	OH2BLD*
EA8AXT	OK2PAY
EI7CC*237	OM3EY
ES4RLH*210	ON6SAT*
EV1R*	OZ7YY*275
F4ESV*	PA3FQA
F\$/W9MK*116	PJ2/W9VA*72
F3/W9WIK110	FJ2/VV9VA12

*	240	PJ7AA*120
D*	155	PYØFW*96
(*	139	PY5EG322
*	264	R6YY321
*	286	R9AB253
	157	SQ8N*
		SV9COL*161
		TA1CM*259
	311	TA4RC*273
		TF3DC194
	228	VE3VEE
	222	VK3GA313
		VU2IBI211
		YB5QZ
		YO3APJ273
		YU1WAT*169
*	289	YV5OIE*260
*		Z68HZ*160
		ZL2IFB
		ZS2EZ228
*		
	-	Note: Top scorers in some
	312	countries received plaques.



Fabricio, PU2WSQ, is active on all modes and primarily operates the 10-, 12-, 15-meter bands from his QTH in Sao Paulo, Brazil. He is shown holding the plaque for top 15-meter score in 2017.



Vassilis, SV1CNS, is shown here holding his 2017 plaque for winning Formula Class, 100-watt option. Vassilis has been a very active DXer for many years with a multitude of DX awards.



Bruno, PY6BA, has been an active ham since 1994, primarily chasing DX with some nice antennas. He clearly worked hard in 2018 as he had the top phone score and will soon have a DX Marathon plaque in his shack.

be in Puerto Rico. In addition to the U.S., there are many special callsigns in Russia that do not follow the traditional callsign mapping, thus creating many errors in zones 16, 17, 18, and 19. Zone 2 also continues to be a problem. Very few VE2 stations are actually located in Zone 2 — most are in Zone 5. The DX Marathon website does list the most active Zone 2 stations. Invalid callsigns and Busted Calls were the next highest error categories. Unfortunately, the number of bad and incorrect DX Spots seems to be on the increase. We also saw an increase in the number of pirates active on the bands. When logging a QSO from a DX spot, listen carefully to the DX station to make sure the callsign is logged correctly, 40% of all point subtractions were due to busted or incorrect callsigns. Some invalid callsigns may have been busted calls that were so bad that we could not determine the real callsign. Once again, there were many mix-ups between "0" (Zero) and "O" (Oh). The computer is not forgiving, so check your log carefully.

There are also mix-ups in dates, with different parts of the world using different date formats. The database that is used for scoring the DX Marathon includes start and end dates for all major expeditions, so please ensure that dates and times are properly logged along with the callsign, country, and zone for each QSO. Not-in-log reductions dropped significantly from 2017. With more logs being posted online, it is easy to check if you are in the log before entering that QSO in the DX Marathon. We do publish a lot of helpful information on the DX Marathon website, but there is nothing we can do to make sure you are in the log.

As part of this issue you will find a complete listing of all scores plus a listing of the top scores in all available categories. The DX Marathon website will include additional information and details on the 2018 results plus photos of plaque winners as they become available. For any questions or comments about the DX Marathon, please contact the author. Thank you for your participation in 2018 and best of luck in 2019!

Results 2018 CQ DX Marathon

	UNLIMITE	D CLASS		OM5XX	260	40	300	AA4SC	233	40	273	PY2AE	213	40	253
Callsign	Countries	Zones	Score	ZL2IFB	261	39	300	Y03APJ	235	38	273	KZ2I	214	38	252
K2TQC	286	40	326	W5IF	259	40	299	VE3UTT	234	39	273	W90A/9	213	39	252
OM3EY	283	40	323	PR8ZX	258	40	298	VE2BR	232	39	271	PY2ADR	212	40	252
PY5EG	282	40	322	PY5DK	262	36	298	VK3BDX	232	39	271	W7YAQ	212	39	251
R6YY	281	40	321	W9KNI	257	40	297	A92GE	231	39	270	WA5VGI	212	39	251
VE3VEE	278	40	318	OH4UI	259	38	297	IK5FKF	231	39	270	W7CD	213	38	251
K2ZJ	278	40	318	K5BG	255	40	295	PA2L0	231	38	269	VE10P	210	39	249
VK3GA	273	40	313	K9NB	255	40	295	9A2EU	228	40	268	W9ZCL	212	37	249
K9NU	273	40	313	N6WT	254	40	294	W4JS	229	39	268	K9MK	209	40	249
PA3FQA	272	40	312	PY7DJ	254	39	293	HK3W	231	37	268	KA6BIM	209	39	248
JAØDAI	271	40	311	AA9A	253	39	292	VK3SIM	227	40	267	OD5YA	208	40	248
DL5AN	270	40	310	DL1NKS	252	37	289	OZ2ABI	227	39	266	K7MTR	208	40	248
9A2AJ	270	40	310	0E1SGU	249	40	289	K6XT	227	39	266	EA5HRV	211	35	246
EV1R	269	40	309	IZ5CML	250	38	288	PY4H0	225	40	265	W4HY	207	39	246
W9ILY	269	40	309	DJ9ZB	247	40	287	K6YK	226	38	264	PAØINA	209	37	246
K5EK	268	40	308	EA1DR	247	40	287	HA0HW	225	39	264	PY40Y	206	39	245
OK2PAY	267	40	307	W60U	248	39	287	OZ1HX	223	40	263	CT1ILT	204	39	243
EA8AXT	268	39	307	W4QN	246	40	286	OE4VIE	223	39	262	W6XK	204	39	243
MØNKR	267	39	306	HB9BYQ	248	38	286	CT3MD	224	37	261	WS1L	205	38	243
SQ8N	266	40	306	WØRIC	245	38	283	TA2LG	238	23	261	ON6SAT	206	36	242
K3RA	265	40	305	KC6AWX	242	40	282	RZ10A	221	39	260	K9RR	204	37	241
OK2SG	263	40	303	K1PTF	241	40	281	LY2MM	219	39	258	VE3ZZ	205	36	241
N2BJ	264	39	303	PY2COY	241	39	280	VK3VT	218	39	257	VK3AWG	202	39	241
OH2BLD	263	40	303	N4EFS	242	38	280	N5ZC	217	40	257	SQ3MZM	205	36	241
YB5QZ	263	40	303	N6RV	240	39	279	ND9G	216	40	256	GI4DOH	201	39	240
F4ESV	263	40	303	NI3P	238	40	278	WS7L	216	39	255	PY2APK	200	40	240
K3MA	262	40	302	W9MK	238	40	278	YF9CDL	220	35	255	N4MIK	201	38	239
W07R	262	40	302	DL6DH	237	40	277	VK2CA	215	39	254	K9ARZ	208	31	239
CT1IUA	261	40	301	PY6TS	238	38	276	WX6V	215	39	254	W1AJT	201	38	239
N6JV	261	39	300	0Z7YY	235	40	275	W7WM	214	40	254	WA4JQS	200	38	238
PY6BA	262	38	300	K8AJS	235	40	275	VE5UA	214	39	253	NJ6G	199	39	238
W1NG	260	40	300	NU8Z	234	40	274	R9AB	215	38	253	EI7CC	198	39	237

PY2KP PY2DMZ	199 199	38 37	237 236	W5ZO VU2DED	151 153	35 33	186 186	PY2MP PU2NAX	106 106	29 27	135 133	PY4JW PR2IL	40 39	19 19	59 58
K2UF	203	37	236	PY2ZZ	153	33	185	PUZNAX PY5II	100	31	133	PH2IL PY2ZA	39 41	19	58
BV1EK	196	39	235	W1HS	153	29	182	PP2CC	106	26	132	PY8ABH	41	16	57
LY2FN	195	39	234	W1TC	149	33	182	PY2CP	109	22	131	PP8FA	41	16	57
K9KE KY7M	193 194	39 38	232 232	PY2CAT PY2GTA	145 149	37 32	182 181	K9UQN PU4GOD	104 105	27 26	131 131	PY5BK W6LP	34 36	22 20	56 56
K8YC	194	34	232	PY2UD	145	35	181	PY2TWI	103	30	131	W7SLS	35	20	55
WD9DZV	195	36	231	PY2GZ	146	35	181	WB5WAJ	103	27	130	PU5BOY	40	15	55
W4HG	192	38	230	VK4CC	146	34	180	PY2XZ	99	31	130	KU4NY	39	15	54
W60AT	190 189	39	229	N9AKR	143	37 35	180	AE4WG W9VA	105 100	25	130	PS1S	37	15	52
KL7KK ZS2EZ	189	39 39	228 228	N7US YB1AR	142 143	35 34	177 177	K6SZQ	95	28 32	128 127	PY2VOA ZY2G	35 31	17 16	52 47
PP5JR	189	39	228	K6UM	142	35	177	K4IQJ	99	28	127	PY1SGT	33	13	46
N4PQX	190	38	228	AF6SA	143	34	177	PY1FI	98	28	126	PU2LEW	33	12	45
W3GQ	189	37	226	PS8MT	141	36	177	W6DCC	96	29	125	PU8RJI	29	14	43
KC1BB ZS6C	188 185	38 39	226 224	KT7E PU2KNM	141 144	35 32	176 176	W9XS CT1AHU	99 96	26 27	125 123	PY2UG0 ZV4SL	27 25	16 15	43 40
OD5ZZ	187	36	223	PU8RFL	144	31	175	K6FW	92	30	123	PY2ANY	19	13	32
LX1NO	185	38	223	PR8MET	142	33	175	DL7JAN	94	28	122	K8EJ	16	12	28
NC6R	184	39	223	CT3HF	137	38	175	N9MS	93	28	121	PY2LCM	18	10	28
K8PK ZS6AI	190 181	32 39	222 220	N9LAH YE1AR	140 141	35 34	175 175	PY2CM PU2UAF	90 99	30 20	120 119	PY2BK PR2CI	20 12	7 10	27 22
YBØEIN	181	39	220	WA3DQS	141	34	175	K9RHY	99 88	30	118	PU8MGB	12	8	22
PY2CX	183	36	219	PY2RTB	141	33	174	PY2KG	89	28	117	KE40JI	13	7	20
W8AV	181	37	218	W9JJB	143	31	174	PY2CN	88	29	117	PQ2HX	12	8	20
WXØZ	183	35	218	PY2GIG	137	37	174	N9JV	87	29	116	KI6YYT	5	6	11
PS2T EA8KC	177 182	40 34	217 216	IK2HTY YU1WAT	135 138	35 31	170 169	FS/W9MK PY9MT	90 86	26 29	116 115	PU1LMN ZW1F	5 4	5 3	10 7
K9CJ	179	37	216	LUGUBM	133	35	168	PT2ARR	87	27	114	PY2XDX	3	3	6
K9QVB	177	38	215	PY2LPM	134	33	167	TA4MA	88	25	113				
VA7CRZ	178	36	214	NE8P	136	31	167	PU2UG0	85	27	112			- 100W OP	
WA9LEY PY2LCD	180 175	34 39	214 214	W3MR WC3W	133 132	32 32	165 164	WK3N W4UW	91 87	21 24	112 111	Callsign C EW7A	235	Zones 39	Score 274
VK3GK	176	38	214	CT7AKW	132	32	164	PU8MRS	86	24	110	W9RF	233	38	265
PY2TUA	178	35	213	PY5HT	131	33	164	N9EP	83	27	110	PY2SPW	220	35	255
W4AG	184	29	213	PU2YFR	132	32	164	PY2TTE	81	28	109	HAØIV	217	37	254
LY5M	177 174	36 38	213	PY1GB PY2NFT	128 132	35 31	163 163	PY1CDR	76	30 25	106	PY1SX IK2RPE	213 208	39 40	252 248
PC3T PY2XV	174	36	212 212	P 12NF1 PQ5B	132	35	163	PY2CAZ K9ANN	79 82	25 21	104 103	PY2RJ	200	40 36	240 248
PY1ZV	177	35	212	SV9COL	130	31	161	PP5BZ	78	24	102	K5DC	209	38	247
VU2IBI	173	38	211	K7ZV	127	34	161	PY2EMI	76	26	102	TA4SO	208	38	246
PY2NF	174	34	208	Z68HZ	128	32	160	AF4T	75	26	101	PY2MSR	197	39	236
7Z1SJ PY2WND	168 172	39 35	207 207	W7RM PY2RF	123 128	37 32	160 160	PT9IR PY2VH	74 75	27 25	101 100	PP5XA PP5AM	197 197	39 37	236 234
W90A	171	36	207	CE7KF	130	30	160	FS/K9EL	75	23	98	PU2WSQ	192	34	226
WAØJZK	171	35	206	NUØC	126	34	160	K7EMI	70	28	98	PU2WDF	194	31	225
W1JR	171	35	206	NV4A	132	28	160	PYØFW	70	26	96	LU5HA	187	35	222
K1ESE PR7AB	174 171	32 35	206 206	PY4AZ K1SND	130 127	29 31	159 158	PY2SEI PY5FB	74 69	19 23	93 92	YV6BXN PY2X0	187 183	34 37	221 220
N3RC	167	38	200	K13ND K2PO	121	36	157	IW2CAM	77	15	92	YV5EN	182	37	219
K9MM	165	40	205	ZS6HON	125	31	156	PU2MB0	67	25	92	N9TF	181	37	218
PP1WW	171	34	205	W1RH	123	32	155	PY2ABN	64	25	89	CT7AQS	174	37	211
PY20KB PY2VA	170 171	35	205 204	LU1DLA W6RKC	117 121	38 33	155 154	FS/K9NU	68						211
NIØC	165	33		WORKC						21	89	VU2AE	175	36	
		38	203	PY2XI				PU2WDX	69	20	89	SP3AM	175	35	210
AJ8B	168	38 34	203 202	PY2XL PY7BR	124 124	30 28	154 152								
W6UB	168 165	34 37	202 202	PY7BR W6RC	124 124 122	30 28 30	154 152 152	PU2WDX PY1NS PU1KDX FS/W9ILY	69 68 64 66	20 21 23 18	89 89 87 84	SP3AM TA2LP TA5FA WT8E	175 169 165 170	35 38 37 32	210 207 202 202
W6UB K9JU	168 165 168	34 37 34	202 202 202	PY7BR W6RC PY4ARS	124 124 122 124	30 28 30 27	154 152 152 151	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH	69 68 64 66 61	20 21 23 18 22	89 89 87 84 83	SP3AM TA2LP TA5FA WT8E PU2RTO	175 169 165 170 167	35 38 37 32 34	210 207 202 202 201
W6UB K9JU ZW5B	168 165 168 161	34 37 34 39	202 202 202 200	PY7BR W6RC PY4ARS N3CDA	124 124 122 124 123	30 28 30 27 26	154 152 152 151 149	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW	69 68 64 66 61 61	20 21 23 18 22 20	89 89 87 84 83 81	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI	175 169 165 170 167 161	35 38 37 32 34 37	210 207 202 202 201 198
W6UB K9JU	168 165 168	34 37 34	202 202 202	PY7BR W6RC PY4ARS	124 124 122 124	30 28 30 27	154 152 152 151	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH	69 68 64 66 61	20 21 23 18 22	89 89 87 84 83	SP3AM TA2LP TA5FA WT8E PU2RTO	175 169 165 170 167	35 38 37 32 34	210 207 202 202 201
W6UB K9JU ZW5B ZL1BBW W1NK AK6A	168 165 168 161 162 166 163	34 37 34 39 37 33 36	202 202 202 200 199 199 199	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT	124 124 122 124 123 115 111 121	30 28 30 27 26 34 37 26	154 152 152 151 149 149 148 147	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL	69 68 64 66 61 61 64 60 54	20 21 23 18 22 20 17 19 23	89 89 87 84 83 81 81 79 77	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9	175 169 165 170 167 161 160 155 150	35 38 37 32 34 37 32 35 35	210 207 202 201 198 192 190 185
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU	168 165 168 161 162 166 163 166	34 37 34 39 37 33 36 31	202 202 202 200 199 199 199 197	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM	124 124 122 124 123 115 111 121 112	30 28 30 27 26 34 37 26 34	154 152 152 151 149 149 148 147 146	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH	69 68 64 66 61 61 64 60 54 55	20 21 23 18 22 20 17 19 23 21	89 87 84 83 81 81 79 77 76	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO	175 169 165 170 167 161 160 155 150 149	35 38 37 32 34 37 32 35 35 35	210 207 202 201 198 192 190 185 184
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC	168 165 168 161 162 166 163 166 162	34 37 34 39 37 33 36 31 35	202 202 202 200 199 199 199 197 197	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT	124 124 122 124 123 115 111 121 112 112	30 28 30 27 26 34 37 26 34 34 34	154 152 151 149 149 148 147 146 146	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO	69 68 64 66 61 61 61 64 60 54 55 56	20 21 23 18 22 20 17 19 23 21 20	89 87 84 83 81 81 79 77 76 76 76	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX	175 169 165 170 167 161 160 155 150 149 149	35 38 37 32 34 37 32 35 35 35 35 35 34	210 207 202 201 198 192 190 185 184 183
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU	168 165 168 161 162 166 163 166	34 37 39 37 33 36 31 35 37	202 202 202 200 199 199 199 197	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM	124 124 122 124 123 115 111 121 112	30 28 30 27 26 34 37 26 34	154 152 152 151 149 149 148 147 146	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4T0 PY4ME	69 68 64 66 61 61 64 60 54 55	20 21 23 18 22 20 17 19 23 21 20 19	89 87 84 83 81 79 77 76 76 76 76	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO	175 169 165 170 167 161 160 155 150 149	35 38 37 32 34 37 32 35 35 35	210 207 202 201 198 192 190 185 184
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI	168 165 168 161 162 166 163 166 162 159 161 161	34 37 34 39 37 33 36 31 35	202 202 200 199 199 199 197 197 197	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN	124 124 122 124 123 115 111 121 112 112 112 113 113 116	30 28 30 27 26 34 37 26 34 34 31 30 27	154 152 151 149 149 148 147 146 146 144	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO	69 68 64 66 61 61 64 60 54 55 56 57	20 21 23 18 22 20 17 19 23 21 20	89 87 84 83 81 81 79 77 76 76 76	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP	175 169 165 170 167 161 160 155 150 149 149 152 144 147	35 38 37 32 34 37 32 35 35 35 35 34 30	210 207 202 201 198 192 190 185 184 183 182
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC	168 165 168 161 162 166 163 166 162 159 161 161 163	34 37 34 39 37 33 36 31 35 37 35 34 31	202 202 200 199 199 199 197 197 197 196 196 195 194	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR	124 124 122 124 123 115 111 121 112 112 112 113 113 116 109	30 28 30 27 26 34 37 26 34 34 31 30 27 34	154 152 151 149 148 147 146 146 144 143 143 143	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA	69 68 64 66 61 61 64 60 54 55 56 57 53 56 60	20 21 23 18 22 20 17 19 23 21 20 19 22 19 22 19 14	89 87 84 83 81 79 77 76 76 76 76 75 75 74	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR	175 169 165 170 161 160 155 150 149 149 152 144 147 138	35 38 37 32 34 37 35 35 35 35 35 34 30 36 31 34	210 207 202 201 198 192 190 185 184 183 182 180 178 172
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP W4EP W4EP W1EBI TF3DC JN3SAC	168 165 168 161 162 166 163 166 162 159 161 161 163 156	34 37 34 39 37 33 36 31 35 37 35 34 31 38	202 202 200 199 199 197 197 196 196 195 194	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B	124 124 122 124 123 115 111 121 112 112 113 113 116 109 112	30 28 30 27 26 34 37 26 34 34 31 30 27 34 30	154 152 152 151 149 148 147 146 146 144 143 143 143 143 142	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA	69 68 64 66 61 61 64 55 55 55 55 55 55 50 53 56 60 53	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19	89 89 87 84 83 81 81 79 77 76 76 76 76 75 75 74 72	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR KI1U	175 169 165 170 167 161 160 155 150 149 149 152 144 147 138 141	35 38 37 32 34 37 32 35 35 35 35 34 30 36 31 34 30	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP W82NVR W1EBI TF3DC JN3SAC W30A	168 165 168 161 162 166 163 166 162 159 161 163 156 158	34 37 39 37 33 36 31 35 37 35 34 31 38 35	202 202 200 199 199 197 197 196 196 196 195 194 194	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW	124 124 122 124 123 115 111 121 112 112 113 113 116 109 112 132	30 28 30 27 26 34 37 26 34 31 30 27 34 30 10	154 152 152 151 149 148 147 146 146 144 143 143 143 143 142 142	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B	69 68 64 66 61 61 64 55 56 57 53 56 57 53 56 60 53 54	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19 18	89 87 84 83 81 79 76 76 76 76 76 75 75 75 74 72 72	SP3AM TA2LP TA5FA WT8E PU2RT0 LX1TI G4AYU N7RD K9QVB/9 PY4Z0 PY1AX WA3WZR PU5KGB PY5IP LW5DR KI1U SP5CGN	175 169 165 170 167 161 160 155 150 149 152 144 147 138	35 38 37 32 34 37 32 35 35 35 35 34 30 36 31 34 30 32	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W3OA PY2BEK VK6DW	168 165 168 161 162 166 163 166 162 159 161 161 163 156	34 37 34 39 37 33 36 31 35 37 35 34 31 38	202 202 200 199 199 197 197 196 196 195 194	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B	124 124 122 124 123 115 111 121 112 112 113 113 116 109 112	30 28 30 27 26 34 37 26 34 34 31 30 27 34 30	154 152 152 151 149 148 147 146 146 144 143 143 143 143 142	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA	69 68 64 66 61 61 64 55 55 55 55 55 55 50 53 56 60 53	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19	89 89 87 84 83 81 81 79 77 76 76 76 76 75 75 74 72	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR KI1U	175 169 165 170 167 161 160 155 150 149 149 152 144 147 138 141	35 38 37 32 34 37 32 35 35 35 35 34 30 36 31 34 30	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W3OA PY2BEK VK6DW PR2D	168 165 168 161 162 166 163 166 162 159 161 161 163 156 158 187 159 155	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36	202 202 202 199 199 197 197 196 196 195 194 194 193 193 192 191	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG	124 124 122 124 123 115 111 121 112 113 113 116 109 112 132 118 111 111	30 28 30 27 26 34 37 26 34 31 30 27 34 30 27 34 30 10 24 31 29	154 152 151 149 149 148 147 146 144 143 143 143 143 142 142 142 142 142	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 54\\ 49\\ 47\\ \end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19 18 15 19 20	89 87 84 83 81 79 77 76 76 76 76 75 75 75 74 72 68 68 68 67	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT	175 169 165 170 161 160 155 150 149 152 144 147 138 141 138 138 139 136	35 38 37 32 35 35 35 35 35 35 35 35 35 35 31 30 30 32 31 30 31	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W3OA PY2BEK VK6DW PR2D PP1CZ	168 165 168 161 162 166 163 166 162 159 161 161 163 156 158 187 159 155 155	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35	202 202 200 199 199 197 197 196 196 195 194 193 193 193 193 192 191	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z	124 124 122 124 123 115 111 121 112 113 113 113 116 109 112 132 118 111 111 108	30 28 30 27 26 34 37 26 34 31 30 27 34 30 10 24 31 29 32	154 152 151 149 149 148 147 146 144 143 143 143 143 143 142 142 142 142 142 142 140 140	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 54\\ 53\\ 49\\ 47\\ 47\end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19 18 15 19 20 19	89 87 84 83 81 79 77 76 76 76 76 76 75 75 74 72 72 68 68 67 66	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YC6JRT	175 169 165 170 161 160 155 150 149 149 149 144 147 138 141 138 138 139 136 129	35 38 37 32 35 35 35 35 35 36 31 34 30 32 31 30 31 31 37	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W3OA PY2BEK VK6DW PR2D PP1CZ 4F30M	$\begin{array}{c} 168 \\ 165 \\ 168 \\ 161 \\ 162 \\ 166 \\ 163 \\ 166 \\ 162 \\ 159 \\ 161 \\ 161 \\ 163 \\ 156 \\ 158 \\ 187 \\ 155 \\ 155 \\ 155 \\ 155 \\ 153 \end{array}$	34 37 34 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35 37	202 202 200 199 197 197 196 196 195 194 193 193 193 193 193 191 190	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z PY2ZEA	124 124 122 124 123 115 111 121 112 112 113 113 116 109 112 132 118 111 111 108 108	30 28 30 27 26 34 37 26 34 31 30 27 34 30 10 24 31 29 32 31	154 152 151 149 148 147 146 146 144 143 143 143 143 142 142 142 142 142 142 140 139	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR CE3JRI	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 49\\ 47\\ 47\\ 47\end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 22 19 14 19 18 15 19 20 19 20 19	89 87 84 83 81 79 76 76 76 76 76 76 75 75 74 72 72 68 68 68 66 66	SP3AM TA2LP TA5FA WT8E PU2RT0 LX1TI G4AYU N7RD K9QVB/9 PY4Z0 PY1AX WA3WZR PU5KGB PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YC6JRT PU2STZ	175 169 165 170 167 161 160 155 150 149 152 144 147 138 141 138 138 138 139 136 129 134	35 38 37 32 35 35 35 35 35 35 35 34 30 36 31 34 30 32 31 30 31 37 31	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166 165
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W3OA PY2BEK VK6DW PR2D PP1CZ	168 165 168 161 162 166 163 166 162 159 161 161 163 156 158 187 159 155 155	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35	202 202 200 199 199 197 197 196 196 195 194 193 193 193 193 192 191	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z	124 124 122 124 123 115 111 121 112 113 113 113 116 109 112 132 118 111 111 108	30 28 30 27 26 34 37 26 34 31 30 27 34 30 10 24 31 29 32	154 152 151 149 149 148 147 146 144 143 143 143 143 143 142 142 142 142 142 142 140 140	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 54\\ 53\\ 49\\ 47\\ 47\end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 14 19 18 15 19 20 19	89 87 84 83 81 79 77 76 76 76 76 76 75 75 74 72 72 68 68 67 66	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY4ZO PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YC6JRT	175 169 165 170 161 160 155 150 149 149 149 144 147 138 141 138 138 139 136 129	35 38 37 32 35 35 35 35 35 36 31 34 30 32 31 30 31 31 37	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W30A PY2BEK VK6DW PR2D PP1CZ 4F30M WT2P AK70 PY2DPM	$\begin{array}{c} 168 \\ 165 \\ 168 \\ 161 \\ 162 \\ 166 \\ 163 \\ 166 \\ 162 \\ 159 \\ 161 \\ 161 \\ 163 \\ 156 \\ 158 \\ 187 \\ 159 \\ 155 \\ 155 \\ 155 \\ 155 \\ 153 \\ 155 \\ 153 \\ 155 \\ 153 \\ 152 \end{array}$	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35 37 34 36 36 36	202 202 202 209 199 199 197 197 196 196 196 195 194 194 193 193 192 191 190 190 189 189 188	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z PY2ZEA GW4EVX K1GU PY2RKG	124 124 122 124 125 115 111 121 112 113 113 116 109 112 132 118 111 111 111 108 108 114 107 109	30 28 30 27 26 34 37 26 34 31 30 27 34 30 27 34 30 10 24 31 29 32 31 25 31 25 31 28	154 152 151 149 148 147 146 146 144 143 143 143 143 143 142 142 142 142 140 140 139 138 137	PU2WDX PV1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR CE3JRI TC50CK PY2TMV WB6BET	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 49\\ 47\\ 47\\ 53\\ 49\\ 44\\ \end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 22 19 14 19 20 19 19 19 20 19 20 19 21 20 21 21 21 21 21 20 21 21 21 23 21 20 21 23 21 20 21 23 21 20 21 23 20 21 23 20 21 23 20 21 20 20 21 20 20 21 20 20 21 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	89 87 84 83 81 79 77 76 76 76 75 75 75 74 72 68 68 66 66 66 65 65 65	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YCØSDD SP3BGD AF5CC	175 169 165 170 161 160 155 150 149 152 144 147 138 141 138 139 136 129 134 131 124 130	35 38 37 32 35 35 35 35 35 35 35 36 31 30 32 31 30 31 30 31 37 31 33 33 33 33 33 33	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166 165 164 162 160
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W30A PY2BEK VK6DW PR2D PP1CZ 4F30M WT2P AK70 PY2DPM N3QE	$\begin{array}{c} 168 \\ 165 \\ 168 \\ 161 \\ 162 \\ 166 \\ 163 \\ 166 \\ 162 \\ 159 \\ 161 \\ 161 \\ 163 \\ 156 \\ 158 \\ 187 \\ 159 \\ 155 \\$	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35 37 34 36 32	202 202 200 199 199 197 197 196 196 195 194 194 193 193 192 191 190 189 189 188 188	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z PY2ZEA GW4EVX K1GU PY2RKG KK7PR	124 124 122 124 123 115 111 121 112 113 113 116 109 112 132 118 111 111 108 108 114 107 109 105	30 28 30 27 26 34 37 26 34 31 30 27 34 30 27 34 30 10 24 31 29 32 31 25 31 28 31	154 152 151 149 148 147 146 144 143 143 143 143 143 142 142 142 142 142 140 139 139 138 137 136	PU2WDX PY1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR CE3JRI TC50CK PY2TMV WB6BET PU9DCB	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 54\\ 47\\ 47\\ 47\\ 53\\ 49\\ 44\\ 51\\ \end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 22 19 14 19 20 19 20 19 19 20 19 20 19 12 16 21 3	89 87 84 83 81 79 77 76 76 76 76 75 75 74 72 68 68 67 66 65 65 65 65 65	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YC6JRT PU2STZ YDØSDD SP3BGD AF5CC K4IE	175 169 165 170 161 160 155 150 149 152 144 147 138 141 138 139 136 129 134 131 124 130 127	35 38 37 32 35 35 35 35 35 35 35 35 35 35 35 31 30 31 30 31 37 31 33 38 30 32	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166 165 164 162 160 159
W6UB K9JU ZW5B ZL1BBW W1NK AK6A W4CU PY2XC PY4EP WB2NVR W1EBI TF3DC JN3SAC W30A PY2BEK VK6DW PR2D PP1CZ 4F30M WT2P AK70 PY2DPM	$\begin{array}{c} 168 \\ 165 \\ 168 \\ 161 \\ 162 \\ 166 \\ 163 \\ 166 \\ 162 \\ 159 \\ 161 \\ 161 \\ 163 \\ 156 \\ 158 \\ 187 \\ 159 \\ 155 \\ 155 \\ 155 \\ 155 \\ 153 \\ 155 \\ 153 \\ 155 \\ 153 \\ 152 \end{array}$	34 37 39 37 33 36 31 35 37 35 34 31 38 35 6 33 36 35 37 34 36 36 36	202 202 202 209 199 199 197 197 196 196 196 195 194 194 193 193 192 191 190 190 189 189 188	PY7BR W6RC PY4ARS N3CDA KU1CW DP1POL I4EAT PY2VM K7VIT PY3TX ON6NA K6DN PY2SR PT4B AJ4HW PY4LH PU2MVE TA4ABG WE6Z PY2ZEA GW4EVX K1GU PY2RKG	124 124 122 124 125 115 111 121 112 113 113 116 109 112 132 118 111 111 111 108 108 114 107 109	30 28 30 27 26 34 37 26 34 31 30 27 34 30 27 34 30 10 24 31 29 32 31 25 31 25 31 28	154 152 151 149 148 147 146 146 144 143 143 143 143 143 142 142 142 142 140 140 139 138 137	PU2WDX PV1NS PU1KDX FS/W9ILY PU9ATH PT8CW PR8KW PY2AP PU1MIL PY5XH W4TO PY4ME PU90JZ PY20AL TC630MECCA PJ2/W9VA PV2B PT9BM PY2KEY ZW2MT VK3BNR CE3JRI TC50CK PY2TMV WB6BET	$\begin{array}{c} 69\\ 68\\ 64\\ 66\\ 61\\ 64\\ 60\\ 54\\ 55\\ 56\\ 57\\ 53\\ 56\\ 60\\ 53\\ 54\\ 53\\ 49\\ 47\\ 47\\ 53\\ 49\\ 44\\ \end{array}$	20 21 23 18 22 20 17 19 23 21 20 19 22 19 22 19 14 19 20 19 19 19 20 19 20 19 21 20 21 21 21 21 21 20 21 21 21 23 21 20 21 23 21 20 21 23 21 20 21 23 20 21 23 20 21 23 20 21 20 20 21 20 20 21 20 20 21 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	89 87 84 83 81 79 77 76 76 76 75 75 75 74 72 68 68 66 66 66 65 65 65	SP3AM TA2LP TA5FA WT8E PU2RTO LX1TI G4AYU N7RD K9QVB/9 PY4ZO PY1AX WA3WZR PU5KGB PY5IP LW5DR K11U SP5CGN K3HW PP5TG PT7ZT YCØSDD SP3BGD AF5CC	175 169 165 170 161 160 155 150 149 152 144 147 138 141 138 139 136 129 134 131 124 130	35 38 37 32 35 35 35 35 35 35 35 36 31 30 32 31 30 31 30 31 37 31 33 33 33 33 33 33	210 207 202 201 198 192 190 185 184 183 182 180 178 172 171 170 169 169 167 166 165 164 162 160

PY3VB	120	35	155	тсзно	61	17	78	KW9U	156	34	190	C05LB	90	26	116
N8EV	127	28	155	AE7U	56	22	78	PY3KN	152	35	187	2EØOXF	94	22	116
GUØSUP	122	33	155	ZY5WAS	44	20	64	0D5ZF	151	35	186	PG1R	93	19	112
TA1HZ	120	33	153	AL7GI	49	10	59	N4KW	153	33	186	W7FKI	86	25	111
TA4CS	123	29	152	PY1LU	31	15	46	PU5YSV	142	34	176	PY1JR	77	23	100
YB1UUN	116	33	149	PP5EI	31	13	44	AK1P	141	34	175	K2ZL	73	24	97
PU2LJH	120	29	149	PP5FE	21	15	36	EI3CTB	142	30	172	OK1BLU	77	19	96
TA4A	116	30	146	PT7APM	22	12	34	TA1MFR	137	34	171	PY6UL	68	25	93
CO8RCP	115	28	143	TA3ATE	16	14	30	PU5YDD	136	33	169	PU5SVE	71	18	89
ZS6CR	129	12	141	PU5LCP	15	11	26	TA4PR	134	34	168	AI3KS	69	17	86
KB7AK	109	30	139	PS2F	10	9	19	BI8CKU	135	33	168	KE7AUB	51	27	78
PY5WD	116	21	137	PU2XMY	10	9	19	DU7EYG	134	34	168	W4HZD	53	19	72
VK5DG	104	30	134	PU2TRX	5	5	10	CT7AIX	138	29	167	KB2GCG	54	17	71
PY1TV	102	27	129	PY1EI	8	1	9	VE9VIC	133	31	164	PU2UAH	46	16	62
ON2AD	100	25	125	PT9TW	4	4	8	CM2RSV	133	30	163	TA3LKC	48	10	58
ZS6GC	95	28	123					CO2AJ	130	32	162	PR3CDR	32	11	43
PP5DZ	95	25	120			- 100W OF		PY4XX	126	34	160	K4EPC	35	7	42
TF3JB	97	22	119	Callsign Co		Zones	Score	WA5POK	123	29	152	PY1IR	26	16	42
YE4IJ	95	24	119	K2JL	253	40	293	PP7DX	121	31	152				
9H3HZ	95	21	116	TA4RC	235	38	273	4F3BZ	119	33	152			S - 5W OP1	
YC1KK	87	28	115	HA7LJ	222	39	261	PU2VLW	121	31	152	Callsign Cou		Zones	Score
OD5UI	91	23	114	YV50IE	220	40	260	TA30ER	117	32	149	OK2FD	222	40	262
TC3SO	85	27	112	TA1CM	222	37	259	TA3AHJ	118	31	149	IV3A0L	197	37	234
N5YJZ	83	29	112	K1RI	219	38	257	N7UVH	110	35	145	K8ZT	187	35	222
AF5Q	86	26	112	5P1KZX	208	35	243	G4PDF	113	30	143	W8QZA	173	35	208
VE3MXJ	88	22	110	SP3AU PY5DD	200	39	239	K6LE	112	31	143	KZ3I	70	17	87
PU1WTM	80	26	106		193	39	232	K2RK	115	26	141	K4AR	31	13	44
VE4HAZ HAØIR	80 80	24 22	104 102	PP2RON AD1C	186 184	40 38	226 222	W3ZL PU8YPL	113 112	27 28	140 140	LATE	014/1 and	CHECK LC	000
TA1NAI	80 80	22	102	JATIRH	184	38 38	222	F6GGA	112	28 27	140 139	,			
PU2LRZ	80 74	22 27	102	CX3AL	183	38 37	221	PT7KM	108	27 29	139	Callsign Cou K9EL	276	Zones 40	Score 316
POZERZ PR1T	74 74	27	98	ES4RLH	170	37 40	217	PY3BEG	112	29 24	137	HAØØØØ1	239	40 39	278
K7ZYV	74	24	98 97	YV4BCD	170	40 34	208	YV5AJI	108	24	130	K7ACZ	239	39	248
YB6DE	72	20	97	KG5THG	174	34 36	208	W4WNT	108	28	130	N4KC	155	30	189
PY1AN	66	20	92 89	IN3FHE	170	30	200	YD2DSV	110	20	135	XE2AU	130	34	161
PU3YKW	63	23	84	AC7P	165	32	203	IZ2BHQ	105	24	129	ZP5DNB	113	31	145
TC4A	66	16	04 82	N1AM	165	30 31	197	TA30KK	105	24 28	129	KG1GEM	38	32 20	58
PY5AIE	59	23	82	CO2QU	157	33	197	PU4HUD	96	20	129	KE4QCM	30	20	55
	55	20		00200		55	130					ILHQUIN	52	20	55
DU3SE	71	8	79	N9LJX	158	32	190	PJ7AA	92	28	120				