

ARRL DXCC - 160 Meters

The ARRL DXCC is awarded to amateurs who submit confirmations for contacts with 100 or more entities on the ARRL DXCC List. As of 04 Apr 2025, there were 340 current entities on the list. The DXCC Honor Roll includes those who are within 9 entities of that figure for the Mixed, Phone, CW and RTTY awards. The following listing of the DXCC membership contains the call signs and exact credited totals by endorsement level. Awards are NOT activated automatically; participants must apply to have a particular award (band, mode etc) activated when the qualifying number of credits is obtained. "Inactive" members (whose most recent DXCC application was before 1994-01-01 and who are not a current ARRL member) are shown in gray.

See the [ARRL DXCC FAQ](#) for details.

344 W8LRL	325 K9UWA UA2FF	315 IK4WMA K5RK N1DG OH3SR S50U W1JR	309 UT5UGR W5IZ	RU3DX YU1FW
341 EA8AK	324 K2TQC OH2BO S50A W1NG	314 IK4GME NX4D OK3GU OZ1LO PE5T RW2A UA4CR	308 I4EWH IK4MGP IV3PRK K4SV K8GG UT3UA	302 DL4MCF GM3YTS
340 K1ZM	323 EY8MM SP5EWY	313 GM3POI OE3GCU OG2M OZ7YY	307 DJ7MI N4RJ OH5VT VE3EJ	301 DL9KR F6BKI LZ2JE N1RJ N3XX S54E SV8JE
339 W4DR W4ZV	322 K4PI UX0UN W3UR	312 OH1MA	306 EA6SX K4CIA SM0AJU WT3Q	300 G0JHC G3KMA I2ZFD JA4LXY PA3FQA SM3EVR SP3EPK VA3EF
335 OH2BU	321 WB9Z	311 DF3CB DJ6RX DJ9KG G3PQA RA7A RZ3AM SP2FAX	305 JA7NI K4ZW N4IS NN4T UA6A	299 JA4DND K4TEA N1BUG OE1WEU SV1FJA UX1UA W7UT
334 N4WW	320 SM4HCM W8UVZ	310 I4AVG KJ9I RA3CQ SM5BFJ SM6CVX	304 CT1EEB DJ0MDR SM3GSK	298 9A2AJ IK2DFZ OE6IMD OZ3PZ SM5CEU
333 R7LV	319 K8MFO N0XA SM4CAN		303 F5LGE GM0GAV JA1BK JA4LKB K1UO	
332 UR0MC	318 4X4DK W9ZR			
331 K5UR LZ2DF	317 W3LPL			
330 AA1K HA0DU OH1XX UT7QF	316 W2VO			
329 K3UL UA4HBW				
328 R4GM UA4CC				

297 DK5PR N4CC OM2XW RA3DX W0FLS	289 I5NPH JA3ONB K0KX K4WM N8DX RX4HZ US4EX	K9CT N2LT SM6CTQ US5WE UY5ZZ W0BV W2YC	275 9A1CCY F5NBU IK4CIE K2UO K4IQJ OH3BU SP5CJQ SP6AEG UW2ZM	RK4FD W1MK
296 DF2UU F5NTV G4PWA JA2JPA ON5NT RY9C W1JZ	288 PA3GCV SL0ZG SP7VC UA4LY W0JX WK3N	281 DF2PY HB9BIN JA2PJC K1CP NJ6P S59Z W4TO	274 G3TXF K1ZZ KF2O W6UB	267 LU8DPM RZ3DX
295 K3UA	287 DL1RWN G3XTT N2QT VA3DX W4PK	280 EA6NB SM4DHF SP6HEQ YO3APJ	273 IK8HJC JA8ISU K2CL K5BG MD0CCE RA3DA SM6CCO UA3DPM UX1AA	266 G4OBK K8PT NR1R R3LA W8TE W8XD
294 DL1AMQ JH2FXK LA5HE RJ3AA SV8CS WD5COV	286 CT1APE DJ2YA IK1GPG K3SX N3SL PA0WRS UA3AB UT7UW W8AV	279 IK4DRY JR7VHZ N2TK N5DG SM6CNN UA6MF	272 9A2EU CT1EKY DL1DUL DL2OE OH1LEU SP6CIK	265 AA1V AA4V AA6YQ AA7A RWOLT SV8BHN YO5BRZ
293 N0TB S58T	285 G4CCZ HB9BGV UR5WA	278 DK0EE F6BEE IK6DLK JA3FYC K5DU KG4W RU3FM	271 EU7A G4GED OZ1CTK SM5KNV	264 IK2YCW K7ZV SP9JZU W1GL
292 G4BWP JH4UYB JR2KDN OZ1BTE SM5AQD SP3IBS SV1AOZ W3YX W8TOP	284 K5XI SP3DV	277 AA4MM DJ9VA F6AOJ HB9AMO IK5BAF ON7TK SP9DWT	270 JA5AUC OE5KE	263 IZ1ANU K9OW LA5IIA W2SM W3AP
291 9A7V DF3GY IZ0AEG KD9SV R7NW SM3NRY SM6CMU SP3E UA3LAR UT7UJ W5ZN	283 JA5EXW JH4IFF N7NR NA0Y NO3M R3OK	276 DK5WL DL7VEE G3LZQ N8RR N9IW OK1AWZ VE2TZT	262 EU7A G4GED OZ1CTK SM5KNV	262 EI7BA G0DQS IK5HHA K4XP KR9U W1YY
290 UA3AKO	282 DL1YD I0WDX K4SO K8KS		269 K6ND KD5M RV3LO W1ZC	261 9A4T DL9YX K2EK K5KC N3NT N6SS NO8D SP1S SP5DIR

260
EA5BM
K1LT
K4DY
KX4R

259
DF4PL
F6GCP
G3ZSS
I1FQH
R9FM

258
KW9A
N5KD
RN3CT
VE3QAA

257
K1GUN
W9YSX

256
9A5CY
JA5BZL
JH1GZE
K1QX
K5VRX
K8FL
N8TR
PA7MM
W1TSP
W3DF

255
K4QL
KY7M
N2MF
R5AJ
UX0FF
VK4MA
W3KX
W5OZI

254
N0AT
OM3DX
WA4FFW

253
5B4AGN
AA1QD
K5ESW
S58Q
UA1OMS
W0YG

252
EA1DR
IV3YYK
JA2VPO
JF2MBF
JG3QZN
JQ3DUE
ON4AOI
PA4VHF
R5DT
S52F
W3UM

251
DJ7RD
DL9RT
I1EIS
JH0BBE
N4II
PY2RO
W5UN
W7LR

250
HB9RG
NQ1K
OZ8BZ

249
AI9L
IV3ODE
JR3IIR
K9NW
SP5DRH

248
K3WW
K5RX
K9RX
N2NL
SM3VAC
SV8GFW
T77C
UT9FJ
W9NGA

247
AB3CV
K0IEA
K6XT
NN4X
NO2R
R7IA
WB3AVN

246
DJ2TI

F2JD
JF8QNF
N6TR
TF4M
W2TQC
W5XZ

245
DL4CF
JA1GV
K2FF
N9US
RL9F
RY7G
W9XY

244
AG9S
DK6WL
F6BLP
IK0XBX
JA1HGY
JA7QVI
ON4IQ

243
DK2JX
DK3DG
IK0MHR
ON4ATW
S57A
W9RPM
WX4G

242
EA4KD
KG7H

241
JA0CRI
JA1SYY
JA3EMU
K5ZK
N4XM
N5TY
N7RT
OE2LCM
OK1DWJ
SP5GRM
UA3TT
VE1YX
VE3NH

240
JA5MHD
K0JUH
K1FZ

K1ZG
K9OT
KA9CFD
LA2XPA
UR5MID
VO1NA

239
G8VR
JR3GWZ
K0KT
K1HTV
KH6AT
LY3UM
RN3QN
RU3QR
SV1ELF
SV1RK

238
DL8WN
EA6ET
IK0XEZ
JA0DAI
K1DG
RA0FF
VO1HP

237
DL7MAE
NI0G
OM4EX
UR5EDX

236
AB4I
K1JO
K9NR
K9ZO
KC7V
OK2ZI
OZ4O
SP8AJK
W3LL
YO9HP

235
CX6VM
EA6VQ
JH4ADV
K3SWZ
K5EK
N6DX
OK1CF
R7DX
VE3XN
WA7NS

234
AC4G
AJ6T
IZ8FFA
K1AR
K4UTE
KF0QR
NV9L
PY1BVY

233
JA0FSB
K0CS
K2UU
KA7T
SK3PY
SV8CKM
UA4HAU
VA2WA
W7AO

232
JA8EAT
JG1ULJ
JH1HGC
K2AZ
K4XL
NI6T
S51DI
UA3AP

231
4X4NJ
HA9RE
IK0YUT
N6AR
N7NG
ON4ACG
W9IXX

230
DJ5FI
FK8CP
JA1CMD
KD0Q
N8JV
SM3NXS
W4GF
W4VQ

229
CT1FJK
DJ4AX
JA8FKO
JI1BEX
OE5NNN
RO7T

228 AF9H AI0O E72A EA1N K4HB N2WK OH2BEN UW5ZM VE3DZ	IZ1LBG N0AV N8BM SP5INQ VK6VZ W2RQ	LB8DC OE8RT RA3WDK SP4K UT7UV WA2UUK	213 DF2IS EI3IO HA1RW JA2IVK JF6DSZ K1ST LA4GHA NA2M RU4SO W0LYI W1FJ W2WG W3YY	JA0UUA N9LB VE1DX VE3LYC W0ZR W7KNT
227 DL7HU ES1RA IK0HBN IK6FWJ JA1UQP JA2NDQ JA9CHI K1FK K3NW W1TC W9BF WB6RSE	223 AB0X DJ8NK HA7TM JH2TPI RT6T SV2JAO ZS4TX	218 DJ4PI DK0PM IK1YDB JA8CDT K0EU K5UO UT4MF W5PJR	212 AA9A DL9GFB F6DAY JH0INP K4MQG K8ZH KE9I KG6I KV7K LA7JO N1ZZ N4MM NX0I OZ1AXG SM5CZQ W1ECT WB9CIF WS9V	208 G3NSM I4LCK JA9FPI JF4VZT K2FU K5RT N5ORT RU3ZX UN5J UY1HY W6PJ W9EWZ
226 I3BUI JA6BZI JF2KOZ JR6EZE K9FD* N6JV ON4GG US0SY UT5JAJ VE6WZ W0VTT	222 DF6PB IV3JVJ K3SV K6EID N5AW N8PR N9BX SM0CCM SP7GAQ	217 DM5EE K5PC ON6YH UA3AGW	216 JA6LCJ JA9PPC JH1IFS K5EJ N4PQX N5UL OE1ZL RZ0AF W0GJ W6XA YO7LCB YU3AA YV1DIG	207 K1DT K1LPS K3JT K8EUR N9AU* PY2BW W0LS
225 A45XR IW1ARB JH7PFD K1MM K5AB K9FD/KH6* N4CH RA3QK RV1CC RW3XZ SP3CGK SP8NR VA5DX W7KW WA7NB	221 K4MWB K8FH K8SIX MM0EAX N6VR W1ZK W6JRY WS6X	215 AD5A K3JGJ N7JW RA1QD W0UO W2LK W6YI	211 IK4DRR JA4DEN K3WA RU3SD UR5FEO WA5VGI	206 IK0IOL JA3PIS K2VV K5AQ K5MC KG9N N8DJX SM6BZV US0KW VE3BW
224 DL5WW	220 AG8B DK2NG HB9LCW HL5IVL JA2WYN JJ3PRT JR4OZR K8ZTT KA1R N1LN N5JR VE3EXY	214 DL7BA HL3IUA IZ8VYU JA2JW K4NA OK1DX RN7G W4NL	210 I8SAT JA7MSQ JJ2LPV UW7LL W7JW	205 F6EXV I4KDJ JA3AAW K8AC KA9FOX LA7HJA PY2XB W8UN WB8ZRL
	219 IK3VUU JA2FBY JA2FJP JF3KON LA7GIA		209 DL5CF DL9MRF EA1RT EU1KY HB9CXZ HB9DDZ	204 DJ5AV IK7NXM JA9NFO

K4JJW	200	KP2A	K3FN	WA6YEE
KK4SI	AG4W	ND0N	K4FJ	
LX2A	G0OIL	RA9CMO	K5XX	187
N4NX	JA1GTF	RZ4FO	K7GM	AJ1H
N7FU	JH2RMU	W0FS	K9EU	K0SR
UA0SR	K1GE	W2FCR	KF7PG	K6SRZ
US6EX	K9US	W4UM	N4DB	KL0S
W2HUV	K9YY		N5LZ	KN5O
WD8PKF	LA5YJ	195	W3UA	N2NS
WF4U	RW4NN	EA3JL	W3YQ	NE1B
W18A	RW7M	EA5RM	W8LGJ	OK1CZ
	UY0ZG	G3ZEM	WN6W	SM0NJO
203	W0DD	JA1EOD		W7AWA
JA2XYO	W0MHK	JH1QAX	191	
JE1PNX	W2IRT	JN7FAH	JA1ANR	186
K3LR	W3GG	K7SO	K0JGH	9A8A
K4XO		K9RT	K8FC	IK2QPR
K9MMS	199	KF8UN	K9LA	JA8DNV
KK2I	DK2LO	N1SV	RK2FWA	K0BJ
PA0A	G0BNR	NK1K		K3PA
R6AF	HB9DDO	W5ZG	190	K7LAY
W8GC	JA2DPC	W9OP	CT1IUA	YL2TW
	K1GG		IZ8XQC	
202	K6GXO	194	JA1DUH	185
AA5AM	N4DW	K4KDX	JA1MCU	AB6QM
DL1MGB	W1TO	K9JF	K2TE	EA6BF
DL2KQ	YO2DFA	KB9LIE	K9KU	G3KWK
DL9DRA		KC9ARR	KM1D	IK3SWB
JA2JNA	198	LA7AFA	N4XU	JA2LCP
JA3CSZ	DL1ROJ	W1NT	N5GH	K5ZD
JA5AQC	G3UJE	W2LO	SM7GIB	N4TJ
JH3VNC	G4BUE	W4FC	SP2LNW	N5UR
J12KXK	IT9JNR	W9OO	VE7VV	OE2BZL
K2NV	RX3APM	WD8JJA	WE9R	SV1DPI
LY1G	W8HB		XE2X	UA9CBO
N5ZM		193		
N7KA	197	DF2GH	189	184
OK1DOT	G3SNN	DK1FW	9A2F	I2AOX
R9TO	I5KKW	DL5ZB	EA8PP	JA2ZL
RA3S	IK0FVC	DL6ZXG	FM5CD	JF1NZW
SM2OAN	JH2UVL	EA3WD	JA0VSH	K4HGX
UA9FAR	K8NVR	HA5BSV	SP7HOV	K5KLA
W7DO	OE4PWW	JA0EOK	UA7T	KB4ET
WA2HZO	OE5FIN	JA1XEC		OH2IS
ZL3IX	ON4CD	K4ODL	188	S57AC
	RZ6FA	KB8VAO	AA1ON	US8UA
201	UA0SC	N9EN	AB4IQ	W2YJ
CU2DX	UT5EL	PA0LOU	JA1KQX	
DL1EJA		RN1ON	K0BBC	183
F4BKV	196	UA0CA	KB0EO	CT1FMX
JF1PUW	4Z4DX	W9MU	KB1EFS	CT3MD
JO7WXN	AA4HP	WA2VYA	KE9ET	IT9INO
K3HP	IK4PLW		N8LJ	K4CN
N4QS	IZ8FWN	192	RM0F	K8VC
W5TCX	JA3RAR	9A2NA	W6SR	LA3WAA
	JA4PXC	JA7JWF	W8JV	N9MB
	K8PO	JH1RFR	WA3C	NN2L

ON6SAS	LA0FA	JA0GJJ	N4OGW	K6KO
W2FP	NE0U	JA2XW	N7RO	K8NK
W8NW	SM7DLK	JA7MOL	N9RC	K9MBQ
182	SV1JG	JF7DZA	RA3DNC	N0IJ
DJ9ON	W6NWS	JK1OPL	SV1LK	N3BNA
DK3UA	W7MEM	JR6PGB	170	PA3C
HA5WA	ZS1LS	K0TT	DJ6TK	RA1AOB
HK3W	177	K1KI	JA6JPS	RN9N
JA1SHE	9H1SP	K2KA	JF1WPB	S51EC
K8RRT	AE5E	K3AJ	JM1GYQ	SP3FAR
UR3EO	CT1EAV	K4TR	K6ZZ	UN9L
W1YM	CT1GFK	K4WS	KI5BLU	VE6WQ
181	IK4ADE	OE1WHC	N4PY	W1YW
DK3WW	JE1BMJ	RN7F	SP3GTS	WA0MHJ
JA3ENN	K3WC	UA3LNM	SV3KH	WA4LOX
JN4MMO	K9NU	W8UV	W3IP	WC5N
K2EP	SM6DHU	W8VVG	W9EVI	166
N3OC	W2OR	WT8C	WA3AFS	4Z1UF
VE3OSZ	W5LT	173	169	DJ4SO
W9AJ	W7FI	5B4ALJ	IK0PEA	HB9FMN
180	WB7B	I1JQJ	JA1ADT	IV3TDM
DM2DXA	176	JA1PPW	JR1IZM	JA1FNA
DM3VL	CT1FPQ	JA9TWN	K1LI	JA9LJS
EA8JF	EU1AB	K1NTR	N1EN	K1KA
JA2BDR	I6FLD	K4XR	N4XX	K3KY
K6SSS	JA0DET	K9YC	N7US	K4JLD
K7BG	JA5IU	KA1J	UT8MM	K4PB
LA9AJA	JA6BJV	N5FG	UY5AA	K4ZYU
N1RR	JA8KSF	PY5EW	W6RW	OH2BLD
N4AH	JL1SAM	W8HC	W7YAQ	RM3DA
ON5FP	K8MN	172	WB3JFS	W1RR
UT2UB	N5OK	G0BLB	168	W8ILC
W1RM	OK1DWC	G3NKC	G3MXJ	WA8TXT
W7BEM	RL3FA	IZ5MOQ	IK2EGL	WP4U
W8TN	SM5FUG	JA3FGJ	JE2LPC	165
179	W4BP	JG0CQK	JE7JDL	DL7UCX
IT9ELD	W4GD	JG3IWL	JF2UPM	EA7TV
IW0SAF	YO7NE	K0DEQ	K5QY	I2ZGC
JR7BDQ	175	K1BD	K8RYU	IK0AGU
K8WK	JA1CHN	K6FG	KR4F	JE7RJS
N2PK	JA9NLE	KJ0M	N4QQ	K5JZ
OK1MG	JS3CTQ	W3JX	N8BJQ	KK4CB
S57UN	K4DLI	W4FQT	PA7F	N9FN
SM4DDE	K5GKC	WC4X	SP5GH	NY0V
SV3FUP	N7IR	171	W4SVO	RC9F
W8KEN	N7XR	AA9D	W6VX	SM4CTT
178	PE1L	DL6KR	W8OI	SP6EQZ
4Z5CX	SP1MGM	G0EHO	WA5YNB	W0DJC
EA3CJ	TF3SG	HA9PP	167	W5BN
JA4MRL	VE3FF	JA6HUG	DK5AD	164
JE2URF	WX0V	JR1TNE	JA6VQA	GU4YOX
K2UR	174	K1NU	JE3ENP	HA7UW
	4Z5MU	LA5LJA	K4XD	HB9BZA
		N0RN		JA1RTX

JA7ZP	IK0FUX	JA1GHH	YS1RR	S54A
JH2SON	IW2FND	JE2DZC		SP7AWG
K1NJ	IZ4DPV	JH2QMT	153	SV9AHZ
N4HB	JA2EPW	JH7IAJ	AA6AA	W7RH
N5WA	JE2OVG	LY5A	AJ9C	WA1Z
RA3ZH	JF2XGF	N5MOA	DL3ZA	WA2BCK
RN3OG	JR7MAZ	NE9Z	G3TJW	WP4G
SV2AEL	K3MSB	RU4UR	HL2CFY	
W4NS	NR4M	SM3PHM	JF1IRW	150
	RU6L	SV8ZS	JR9OPJ	EA1AF
163	UA0FZ	W2TA	K7SP	IV3RAV
9A2JK	UX5UO	W5GZ	K8VFN	JA2NQG
DJ9HX	W1BR	YV2IF	N4TV	K0RS
JE2LUN	W5XC		N5TW	K5TR
K7NN	WX0B	156	N8II	K7LV
K8TL		AB9V	R9OK	K8AJS
UR4CWQ	159	DL4MM	SM6CLU	KU4XO
VE3CFK	HB9TKS	F6HDH	SP5CCC	N3QE
W7AL	JA4FKX	IZ8IEV	UT5UY	N9CO
WW3S	JH6QFJ	JO7HAM	WB8BPU	OE5RLM
	JH7CFX	K0QC		OE8SPW
162	K4RO	K8YSE	152	SQ5EBM
4O3A	OK2ZV	KS1J	EW2A	SV1CNS
9A4W	UN7JX	N3RC	HB0CC	UA6YW
F3AT	W3HKK	N3UA	JT1CO	W6DAO
JA6GIJ	W6BJH	UA3SAQ	KQ4AV	W7CT
LB6KC	W7SX	VA3LX	KS3F	
N8MR	W9RN	W1YIF	N9OY	149
RW3RN	WD5BJT	W4TV	S55ZZ	DL7CX
W0HT			UA6IGI	HB9HFN
W0TT	158	155	UN7LZ	IK4FNF
W1LW	DJ4PT	DL1RK	UT5AB	JA1SVP
W4DKS	DL1FKA	DL4SZB	VE6LB	JL1ARF
W8WEJ	IT9DSZ	JE3GRQ	W1SKU	JR5JAQ
WA9PIE	JA9APS	K2LS	W1VT	K3RA
	JH1TWT	K4RG	W6RLL	K3TN
161	JI1FXS	K4WA	W7AJ	K4YYL
DK2GZ	JI1NJC	NE0DX	WB3CQM	K8ME
DL6RAI	JR1GJP	NW7E		K8ROX
HB9DHK	K5TT	SM6VR	151	K9MK
JA1DOF	K9GA	WE1P	AA7G	R8TX
JH4CPC	OZ1HX	ZS6EZ	CU2AP	SM6CUK
K1USA	RU6M		DK2OY	UW7UA
K5GO	SM4EMO	154	EI9JF	W0GG
K8ND	W0SZ	3V8SF	F3SG	W7HPW
LB2TB	W1OX	GM3PPE	IZ3ENH	WB8B
N4GN	W2XL	HB9BUN	JA2VQF	WD5K
OH6RA	W3GQ	JA8NFV	JA6BEE	WS5W
VK3HJ	W4QN	JR3OEH	JH1NYM	WW2DX
YU2TW		K0KVR	JR1XIS	YO3DDZ
	157	N7WS	K2AX	
160	AA4H	NX8Y	K2FW	148
AD5Q	AC6DD	W1NA	KR2Q	CT1FCX
DK1WB	DL6MRS	W2XI	N5JB	DK2CC
DL1DA	EA5BY	W5DNT	OK1ATP	F5CQ
EC3A	G3TQZ	WB0TEV	RD3A	F5LVL
EI6FR	G4GIR	WS7L	RU3A	HB9SLO

JH1QDB	144	NY2NY	DL8OH	W1ITU
K5VWW	CU3EQ	OK1DO	JA1TMG	W5ODD
N2WB	DL5CW	W2OO	JH0BQX	WB5JID
NE3F	DL5KUA	W5ADD	JI1DCW	136
W2/CT1GIF	E70T	W5LUA	K3ANS	E72U
W5FKX	EI6IZ	W5VQ	K6AM	ER0FEO
W9JJB	GM3ITN	WA5POK	K8GI	HB9IQB
147	HB9BYQ	WB8CQV	K8RF	IK8CNT
EA3GP	I5MXX	141	KA8SYV	JH4HMG
F5PAC	IT9GSF	AC9S	KU0A	K0TV
IV3VBM	IZ4GWE	DL5MHQ	LA8WG	K7TM
JA1XQC	JA3GN	EW1BA	OK1MP*	KR6C
JH4ALY	JA5XAE	HB9FMT	OK2QA	N2ZN
K7HP	K0VSH	JA1PTJ	SM5CBM	OK1DW
K8UT	KD0PO	JA2ATE	SV8ZC	SM5OJH
KM1H	N1IX	JA9RRH	W0SD	SP2BMX
N1IBM	N3KK	JH1HHC	WA8WV	UT3UZ
PC3T	SM4OLL	JL1UXH	138	UW8SM
W1OP	SM5CLE	K2RW	DK8MCT	W2OIB
W2KKZ	W4GE	N8OC	DK8YY	WB7QXU
146	W7ZI	NJ3K	EI9FBB	135
EU4A	W8RLS	OE6VIE	F6DDR	5B4MF
G4FTC	WC5M	SV3FUO	IK8EPC	DJ9ZB
JA1HQG	WD5T	W2CG	JA3OOK	F6FXU
JA4DHN	YO3CD	W3BW	JF3LOP	IK8GYS
JH1GNU	143	W4JVN	JH7RXU	IV3DXW
K1CA	DL1DUO	W4VIC	K1RO	JA7LMZ
K5KV	DL6EN	W4WT	K2RET	JA8BNP
K5SM	HS0ZEE	W8HW	KJ6P	JA8JL
K6NR	K7CMZ	ZS1C	LB5WB	K1ZE
K7WP	K7CW	140	NA5C	K7FL
LA6OP	KJ9C	9A1CAL	ON6AA	NZ9R
N7BT	LZ2ZG	DF2RG	OZ8X	OH1JP
RU0SN	N2RJ	K5WK	RW4CY	R7LP
W1IZL	N2WM	K6KLY	V51B	RN3RQ
W1ZT	N5UW	KF8DX	W1GD	SM3LGO
145	N6PAT	N4XP	W2YE	SM5CZK
AF4HX	NN4R	N6PSE	W4YV	SP3XR
HI3T	W0IZ	OH6NIO	W7OM	W1DIG
I0JBL	W6QUV	ON7DR	137	W1EQ
JE6TSP	WB8ZRV	UN1L	DS1JFY	W2GD
JJ3HGJ	WD9DZV	VE6SV	EA1YO	W4BUW
JK1AJX	142	W0SEI	GM3YOR	W4MBD
JN1BMX	I5HOR	W4NU	IZ0RVI	W4RFZ
K1OA	IT9BLB	W7IV	IZ2FOS	W6JTI
K3VAT	JE1FQV	W8GNM	JA3APU	WE4S
K4OY	JR7WFC	W8LWU	JA4OK	134
K8BL	K3PP	WO2T	JH4JNG	CT3HF
KF6HI	K4WZ	YL2MU	JR2LJO	IK4DCS
N1CGP	KK1W	YO9FNP	K2QMF	JA7LGE
N4GG	LA9VFA	139	K6EME	K1TO
N5XZ	MM0SAJ	DF7EE	K8NS	K3OX
RT0F	N7QT	DJ4XA	RA3CO	K7XB
SM3DTR	NA4D	DL5EBE	RG7G	KX4TT
	NQ7R		UU1JA	

N9MR	W7AH	HB9AZZ	N1AC	K5KG
N9RS	W7CD	JA1NWD	N1GC	K8DV
NA5DX	W9FR	JA8JO	OE8HIK	KA6BIM
OE1TKW	WB3D	J14POR	S51NM	K14WCQ
PY5HOT	XE2S	K3NK	SK7AX	LA9GX
RG6G		K4TT	SP6A	LZ1XL
RX4HW	131	K6XM	SP7ASZ	N2KA
SM0BYD	DK7YY	N0YY	W0CP	N3EN
UA0ACG	G3UHU	N3KS	W0RT	N4JT
W4JKC	HS1NGR	N3RR	W0YVA	N9RD
YU1AM	IV3KFB	PY5EG	W3BG	ND5S
	JA2TBS	W7QHE	W3MF	NW6S
133	JJ1TEA	W8MET		OE1AZS
9K2NO	JM1FHL		126	OE3SGU
EU1U	K1UU	128	DJ8WD	RA0BA
HB9CQK	K5VIP	AA4SC	DL9FCY	UN7JID
IZ8DFO	KC2LSD	DM2RM	F8BPN	UU7JM
JA7GLB	KH2L	IT9ZZO	G4IUF	VE3UTT
JA9AGN	KM3V	IU0HDC	IZ7EVZ	W5DAW
JR7FRW	KM4H	JA2AHH	JA1XCZ	W8LMG
K1ZN	N3MK	JA2KSP	JA7KY	W9CG
K2CDJ	N4QWZ	JA9AA	JH3CUL	YO2RR
KS4YT	N5PHT	JE1LFX	JJ1DWT	
KU2A	N6RK	JH4GJR	JN1RQV	124
OE1KM	ON4ON	K0FF	K2ZD	AA7XT
RA5BM	R0SR	K3XA	K4JKB	IK3VBB
RV4LC	R9MJ	K4JAF	K4XU	J11DHY
SV5DKL	R9SA	K4SE	LB7ZG	K4ZO
UQ2PZ	W8DCH	K6LPO	N8NA	KD4POJ
VE3WT		KG7CW	OK3CQD	NA2U
W0NFL	130	N5KM	PA3EWP	PA0TCA
W2QO	DF9ZW	OH1ZK	PA5TT	UA0BA
W5AJ	E73M	OZ1IKY	VE3CX	VE1DUN
	E12JD	R9SG	VE7BV	W1OPD
132	G7VJR	S53X	W8MK	W2JU
AA4NC	HK0HEU	S55DX	W8REW	W2RIJ
AB9M	JA2FBC	SM3GQP	W9ILY	W3FM
AD6W	JG1DUZ	SV3DCX	WB0O	W6CYX
HB9RYZ	K2MYR	VQ9LA	WB2REM	
IT9RDG	K6SIK	W2WC	WD4LBR	123
JA2KVD	K7LFY	W4IS	XE1KK	AB1OC
JA6CBG	K8BCK	W6RKC	YU1EXY	AC4TO
JR6FC	K9GL	ZS1A		DL7JRD
K6YUI	NA4EA	ZS6UT		F4GTB
K9ZM	NO9E		125	G4WFQ
N6HY	OZ2ABI	127	9A1AD	G5LP
ON4CAS	R3VA	HK1MW	AG1A	HB0WR
OZ2RH	R5QA	JA1DDH	GW3TMP	IK2CHZ
SM4BZH	R9AB	JA1WLO	HK4SAN	IK3XJP
SM6BGG	RU1AO	JA8RJE	IK5DNF	JA0CRG
SP6M	TA1CM	JA9KRO	JA4IYL	JA1SJV
VE3CRG	VE3DO	JH3AIU	JA6VU	JA3MHA
W4AXL	W2MPK	JS2LHI	JE1TSD	JA6WJL
W4RBO	W9ZT	K0RW	JE6UWU	JR1EBE
W4WM		K3TRM	JF2WXS	K2PK
W5SL	129	KM3T	JH4ADK	K3XO
W6DR	HA1RB	KM4NS	JL1RUC	K4ZIN
			K1HAP	

K5GH	UQ1GWW	AE3T	TA2RC	IV3HYD
K7UT	UT4EO	AJ4A	VK4CAG	JA1WTI
K9CS	UU2JQ	DK3GG	W1KSZ	K1DC
KV4T	VA3AYA	EW4M	W4DAO	K1RI
N2ED	W0QQ	G4DJJ	W4NF	KT1V
N4DWK	W2GG	HB9AAQ	W4NJ	KV1J
N6MZ	W3RJW	HB9BCI	W5JMW	PA0JSE
N9JV	W6XI	I2TZK	WT4Q	RV3ID
N9LQ	W9XX	I4MKN	YO4AUL	TZ4AM
NA2P	W9YE	IU0LFQ		UA4PCM
S50B	WA1PMA	JA3AZD	117	VA7CRZ
UA3DK	WY1G	JA4XGC	9Y4VU	W1ENE
UT3QU	XE1VIC	JE2JMV	AE0P	W1WEF
W1AO		JH6CDI	BH4IGO	W7GG
W8NJR	120	JI4WAO	DL1DWT	W7OEV
WB8K	9A5F	K5UZ	IT9AAI	W8LRO
WV4TN	AC9EM	K7EG	IT9DAA	WP3R
XE1H	AL7TC	K8KWT	JA0AOO	WQ5L
	DL2VWR	K9SG	JA1HQT	
122	EI2GLB	N0KV	JA4FM	115
BA4RF	FG5FR	N8PW	JA7GYP	AA5JF
G3NDC	HB9BLQ	N9UA	JA7IC	C6AGU
JA1MRM	IZ0LKV	NT2A	JM3GXU	CU2CE
JH1AGU	IZ5NFD	NY7T	JR2UBS	DL9GOA
K1ESE	JK1EXO	OH5NG	K1BZ	G4XEE
K1YT	JR3UIC	OK1DT	K2BB	G8BCG
K2MP	JR6LLN	R6FFB	K6PJ	G8DX
K7ZA	K2BA	SV1ACK	K7PI	HA5UK
KR0P	K2HK	SV1IW	K8OOK	IZ7JVR
LA7WCA	K3QIA	W0RX	K8QM	JA2KNW
LA8PT	K5JC	W4HZ	N2BJ	JA5FDJ
N9AW	K6FW	W8FIB	N3ND	JH1RFM
NA9RB	KA8ZPE	XE1RCS	N4IR	K0GD
NN7X	N3NR		N6MB	K0SD
OZ3Y	N4BAF	118	N8AA	K4CMS
RD4A	N4LR	5T5PA	N8XI	K4GHS
UU4JMG	N4TB	AA4DD	NY4G	K4GK
VE6AX	N4TL	AB2E	SM7BIC	K5XM
W2TB	N4UFP	DL5OCE	SP8HKT	K8YTO
WA3I	OE3EVA	JA4FHE	UA6J	KO8SCA
WA7BNG	OZ2A	JI8DGO	UB3A	LY4T
	PZ5RA	K3FRK	UR9IDX	N0IRM
121	RL3BZ	K3WGR	US1CT	N4OA
AA6RR	SP6JIU	K4CNW	W4ZRZ	N5BO
CT3KN	SP7ITB	K8LN	W6SL	N8KOL
DF1DB	UR5IKN	K8WVA	W8ZR	PA3AXU
DK1EI	UR9QQ	K9DR	WA2USA	RZ6MJ
DK6CQ	US0YA	KD2T	WC2K	UA1ANA
HB9DHG	W2YR	KD6UO		UA1CGS
IK2SGB	W3OA	KG8CW	116	UA6XT
JA2HYD	W4PRO	KV4AA	AJ4F	UN6T
KD8RQE	W6RFL	LZ2HM	DL7URH	VE3YF
KG9Z	W7RN	N2MM	EA5BRE	W4UCK
N0OK	ZL4AS	N4DJ	HA7PF	YL2CZ
N1JP		PY2PA	IK0EIE	
N6HC	119	RN3TT	IK2OHG	114
SV1AHX	AA3AZ	SV9COL	IT9TQH	BA4DW

BA7IO	N7KO	KM1C	N9HF	NY4I
CT3FN	NA3F	LA8HGA	NA1DX	OZ1LCG
CU3AK	NG0G	N5ZC	UR6QA	RD9M
DL6NB	NI5F	N6MA	UT1UY	SM5BHW
F6CWA	NK5B	N6PE	VE6KC	SV1VS
G3SDL	ON5UE	NA9Q	VE7CT	UA3O
HK3PJ	R7NA	RU4SU	VE7UF	US7MM
HP3TA	RA4UN	SM3DMP	W0VHF	W0UY
I5OYY	RZ3AUL	UA1ACG	W1FO	W3XY
IK7YZG	SM5ARL	UA1CEI	W3FOX	W4DC
IW0HEX	SP3EPG	UT6UD	W4HOG	W4NE
JA4KDT	SV1FKZ	VE7XF	W4OX	W5ZPA
JA5WIZ	SV1JFV	W1HEO	W5AQ	WL7E
JH6WMJ	SV2AVP	W2CVW	W7VS	XE1FAS
K1RV	UN7TW	W2SKI	W8KA	YU7AU
K2DC	VE3KI	W3MR	W8MIL	ZL3NW
K3MD	W2GW	W3UL	W9RB	
K3NF	W6BK	W4VHF	WA2BOT	109
K3OSX	W8FAX	W5VX	WA2MUA	DF1KG
K5RJ	W9DX	W6TC	WB4TDH	EA3GHZ
KB8U	W9VNE	W8GEX	WB9EEE	EU4T
KZ4V	WA4DOU	W8HMK	YL3DQ	F8EZE
N1QY	WB2HJV	W9SE	YO6HOY	G3SVD
N2JJ	WB2UFF	WA8MCD		J68HZ
N3MN	WS4C	WA8OLN	110	JA2CXF
N4IQ	WX3P	WT9U	BA4MY	K2ONP
NU8Z	XE1RBV	ZP6CW	DG7RO	K4RDU
UA3FT	ZL1BYZ		DL1VDL	K5FZ
W0VX		111	EA5BYP	K5KA
W4TUN	112	AA4U	F5BAR	K5KPE
W5VY	A92IO	AB4GE	G3LNS	K6MW
WA1FCN	DJ1RL	AF4OX	G8AJM	KE1F
WA9YYY	DK5RL	CU3AN	HC1BI	KZ5DX
WN9O	DL5CL	DK2WH	I2BBJ	N1BZ
XE3ARV	EA1JO	DK6ED	IK5RUN	N7TY
	EI8IU	DL1HRN	IK8UHA	N8NN
	EW1DO	EV1R	IZ0CKJ	N9ISN
	G3XGC	F6ECI	JA7EPO	ND4V
	HB9CEX	G3PLP	JE2UFF	NN4RR
	HB9CRV	G4DBN	JH1VHU	NU4I
	HB9EFK	HL3GOB	K1EO	NX7U
	HB9G	IK2ANI	K2BLA	PY5CC
	IU8FRE	JA1AUD	K3JRR	RW4UU
	IZ4DIW	JA1FGB	K3PH	RW9QA
	JA1SXR	JA1NCZ	K4WW	RX3AGD
	JA4BXL	JA1OVD	K6MI	TG9NX
	JA7BXS	JE2EHP	K6VKO	UB5ZAL
	JG3LGD	JE8TGI	KB4MRX	UT7KF
	JR7TEQ	JF2WGN	KC2STA	VU2CPL
	K0JPL	K5WAF	LZ1PM	W5WP
	K1EDG	K7ORK	N2CG	W9FI
	K1KO	K9AJ	N3HBX	W9HBH
	K2HAT	KM1R	N3IQ	WB5TUF
	K4UAS	KZ0X	N3JB	WN0L
	K8CC	LA0CX	N4KE	YV3AGT
	KB2FCV	N4WJ	NC6K	
	KI4DLS	N7BD	NK7C	

108	DO4DXA	IK0ZIO	DJ6KH	W5KI
AI2Q	EA5AT	IW3GJF	DL4ZAB	W6FF
AL7R	EA7QW	JA1VLK	DL6XK	WQ5W
DL6CNG	FG8OJ	JA2MNB	DO1CTL	YU1NR
ER1LW	G4AKY	JE6IGP	ES1GO	
G3VAO	G4RGK	JG3HBO	G3YUV	104
HB9BAT	HI8R	JG5RVQ	HA8FW	9K2OD
HB9FAN	I5IHE	JH2KKW	IZ2EWR	9M2AX
IK0PRG	IT9XTP	JJ0NCC	JA1BWA	AD1C
IZ0BTV	JA5EY	JR0EQQ	JA1TAA	AG4Q
JA2MOG	JA8JTH	K0DEW	JA4EVN	AH0U
JA3NHL	JH9DRL	K1PX	JA6VA	CP8HD
JJ2PIK	K0MD	K4DSE	JA7BME	CX3CE
JK1MZT	K3SW	K4SAF	JA8RRF	DK3BK
K1EP	K3YBN	K5AM	JA9APM	DL4FAP
K1XM	K8LBT	K5ZQ	JF1RYU	DL7UPN
K2CJ	KE2R	K8JJC	JH6PFY	E73D
K2KQ	KZ1W	KK8X	JO4CFV	EA8ZS
K2MK	N2RR	KP4AA	JR1BAS	EI9E
K4WY	N3DAP	KQ3F	K1DJ	F6AJA
K6UT	N4RF	N0JZ	K2XF	F8GB
K8OM	N6EE	N2CW	K4MS	G3BRD
KM8AM	N8AGU	N2SQW	K4YJ	HB9CIP
KN4JX	NA5Q	N2WLG	K5AV	HK3O
LU2DKT	OE1CP	N3XM	K7OX	IK0DWN
N4MEC	OK2BUZ	N8AID	K7PO	JA1SDV
N6RFM	OK3CQR	NA5Z	K9RO	JA2FGL
N9TF	R0FA	NI5M	KI5T	JF1EGO
NU4Y	RN4AA	NS3L	KK9H	JF6WTY
PA0ZH	RV6ARZ	OE5CSP	KT2E	JK1BSM
R5FY	SP3BQD	OH2OT	KX2A	JO1WXO
R7LA	SP6AXW	OK1AYU	LZ1JZ	K0WK
RX6DX	US5CB	OK2BVG	N2DPF	K1BG
S57J	VE3OI	S57AL	N4JI	K3FM
SM6AOU	VK3NX	UR3CRO	N4NW	K4KEW
SP9WZS	W3KB	UT7UU	N4PL	K4MF
UX7UN	W6TDX	UU5WW	N4SC	K4VIG
UZ6LWZ	W8IW	V73AZ	N4VN	K5HK
W2UB	W8VK	VQ9SS	N6NU	K6UM
W3NRJ	W9CPV	W1CWU	ON7PQ	K7TJR
W4ZYT	WB6CJT	W2EQ	OZ4AAL	K9EA
W6KK	WB8ART	W2LE	PF7M	KA2BZS
W7ACD	WS1L	W2NO	PJ2/K8ND	KH6KG/W5
WA2ALY	XE2YWH	W3ICM	PY2DS	KI0KB
WA4CEM	YL1XZ	W4IR	R6YY	KW0A
WA8MOA	ZL3RJ	W5JAY	RA6AF	LZ2XF
WB8BZK		W8OP	RD4WM	N3ER
WC1M	106	WA4MYO	SP5JXK	N3TR
WD9EQU	AA4FL	WA6TLA	UA6LCN	N4GU
WW1WW	AE2U	WC6DX	UR1RWX	N4TTE
	DJ6OZ	YL2GN	UR2RGN	N6PF
107	DL1QQ	YU3EF	VE1PZ	N8MZ
4Z5LA	DL2NOM		VR2MY	N9DR
DJ8ES	DL3JSW	105	VY2ZM	NJ9C
DK3FB	DL6JZ	DF2PI	W1LE	NN3Q
DL2CHN	EA3CCN	DF8AA	W1LY	RA1QX
DL5XU	HA8DZ	DJ3XD	W4OWY	RU3UR

RZ6DX	K9MUG	ES5RW	W4ALF	KE1VT
RZ6LB	K9XJ	F6BWO	W5TO	KE4S
SM5CCE	KE1IU	FM5WD	W7IUUV	KF7NN
SM7CQY	KJ4R	HB9AHL	WA0IDK	KN6J
SO5AS	KJ7WY	I8LWL	WA1S	KQ1F
UA9FGJ	KM9E	IT9SFT	WD8DSB	KS4XQ
US5CAO	LX1DA	IZ4MJP	WS4Y	LA2GV
UT4EK	N0RU	JA0HXV	WW5G	LZ1XZ
UT7EC	N1HOQ	JA6OXT	YO2IS	N0STL
UX4UM	N9BBQ	JA8OW		N2AJ
UY0MM	N9SF	K0YN	101	N5AQ
VE3VHB	ND3L	K1PTF	AA2VG	N6WM
W0YBS	OH3GD	K2LP	AA3LX	N8AG
W1QA	OH4UI	K2TK	AA4NU	N9JCS
W3DRY	OK1DQT	K3KG	AC5O	N9PGG
W3TMZ	OK2BQU	K4AQQ	CT1JGA	NE1F
W5CWQ	OK3BRK	K4KAY	D44BC	NX2X
W5GJ	OZ7JZ	K5ZO	DH2FW	OA4TT
W5ZO	PA0GMM	K6DJ	DK9WI	OE3WQB
W6PH	R9GM	K7BHM	DL1KS	OH3TY
W7DR	RA0FA	K7UA	DL3ANK	OK1PGF
WA0I	RA4HT	K8BHZ	DL5JS	OK2BOB
WA0RVK	RK3QY	KB9DAK	DM3ML	OK3EY
WA9ETW	RU3OW	KJ6NZ	EA1WX	OK4MM
YC0LOW	SM3CBR	KN4KL	EU1TT	ON4LG
YO5ODE	SM6EHY	KW4BY	G3ZFC	OZ5HP
	SM7BHH	KY6R	G4FJK	PA4WM
103	UA3PFN	LA3ANA	GM3WTA	RA3AH
AG1I	US2WU	N5RZ	HB9NL	RA4P
AI3Q	UT2AB	NZ3M	IV3GOW	RA4SD
DJ1MM	VA2ZO	OH2EA	IV3KCB	RB7GG
DJ3GZ	VA3IC	OK1DTN	JA1VVX	RK9F
DJ7PI	VE3EDY	OK1JDX	JA2VMU	RY6M
DL2HX	VE3MFA	OK3CSQ	JA6TMU	SM2DMU
DL8YRM	VE3VV	PA7TWO	JA7SFD	SM7NDX
DM5TI	W0QC	PV8ABC	JE1SYN	SP7JLH
DS3HWS	W0UVC	PY2DO	JF1RPZ	SV1PL
EA7SG	W1CTN	R2AB	JH3HGH	UA0FDX
EU6MM	W4AVY	R3IS	JH3PRR	UG6GAW
EW3LB	W4MZ	RU3UN	JI3KDH	UR7CQ
G3BDQ	W5THT	S59DJK	K0LW	UT1CC
G4AAW	W5VU	SM6WET	K1YR	UT4IS
G4PUQ	W6SZN	SP5MXZ	K2BX	UT7HA
G4VGO	YO7APA	T77V	K2TER	VE2OJ
I0OSI		UA1AIR	K3SEW	VE3XB
JA2GQO	102	UA1CKC	K4NNX	VK2GR
JA2OLJ	A6/RV6LNA	UA6HOF	K5DNL	W1AW
JA3FHL	CT4BD	UA9MR	K6AAW	W1FC
JA8EJO	DK3QM	UA9UCO	K6XJ	W1GF
JH1DGQ	DL3DXX	UW7CN	K7AR	W2SF
JM2RUV	DL3NCR	VE2FYR	K7IA	W3WH
K0EOO	DL4CW	W0JMP	K8BN	W4BUE
K2UVV	DL4KUG	W1MRH	K8ZR	W4PM
K4LQ	DL5RDI	W1PV	K9JU	W7AV
K5JUC	EA8AKN	W2LW	K9PG	W7CB
K7BTW	EI4DQ	W2TX	KC4PX	W8GB
K8CCV	EI6GF	W3EKT	KD3UY	W9MAF

W9ZCL	K4FT	RA6XB
WA3EKL	K4KSY	RC2A
WB3HLH	K4QS	RN1A
WC4H	K4UQC	RT5A
WK9U	K7VIC	RU3GF
WR2G	K8BZ	S53MJ
YO2OXD	K8CR	S59SV
YO6BHN	K8CS	SV1VJ
YV4DYJ	K8LE	SV2DSJ
	K9NZ	UA3AKI
100	KB0EL	UA4PAY
9M6YBG	KC0V	UA6CEY
A41ZZ	KC4D	UN6P
AA4AK	KC5LT	UR4CW
AB4VV	KD8BZY	UR4LRG
AC4VM	KD9HL	UR8IDX
AI2S	KP4N	US8UW
DJ6OI	KQ5M	VE1RGB
DL1TPY	LA6UL	VE3OAT
DL1TRK	LA8W	VE7JKZ
DL9GTB	LU5OM	VP2VA
DU7ET	LU5YF	VR2PX
EA1CP	LZ3YY	W0GYH
EA2AAZ	MM0SJH	W0MU
EA3ALD	N0AH	W1AN
EA8AXT	N1KI	W1YRC
EC5A	N1MD	W2CCC
ES5NC	N2SG	W3BBO
FM5GU	N2XQM	W4HHN
G0VXE	N3AF	W4MAY
G3OIL	N4CRI	W4OEP
G4CGG	N4ZR	W4OV
GM3ZSP	N7DED	W5BK
I2VGW	N7TK	W7DT
IK0HFO	N8IL	W7JET
IK4MSV	N8NB	W8CNL
IS0/YO3RA	N9ADG	W8FN
IW0BYL	NA6O	W8GDQ
IW0HQE	NB3R	WB4SON
JA1BRK	NG7A	WU2M
JA1CPU	NJ3I	YB1TJ
JA1ILA	NN4SS	YL2SM
JA1JAT	NU1T	YO2CMI
JA4FSH	OE5JDL	YO9FLD
JA5DQH	OK1DXD	ZP9MCE
JA9CGW	OK2PAZ	ZS2DL
JF3DRI	ON4ANN	
JH7BKN	ON7EH	
K0FLY	ON7GB	
K0LB	ON9CC	
K0XM	OZ1ZD	
K1NA	PA0INA	
K1NZ	PA7RA	
K1TZQ	R3PJN	
K2CBI	R9JX	
K2CYE	RA3SD	
K3TZV	RA4LW	