

Propagation Mode	Distance (km)	Stations (grid locators)	QSO Date
144 MHz			
Aurora	2,178	WA0TKJ (EM18ct) - KA1ZE (FN31tu)	08-Feb-86
Aurora	2,178	WB0DRL (EM18ct) - KA1ZE (FN31tu)	08-Feb-86
Aurora	2,145	K5CM (EM25ir) - WA1VTA (FN42am)	15-Jul-00
Aurora	2,106	K5CM (EM25ir) - W3EP (FN31vp)	15-Jul-00
Aurora E	2,446	NU7Z (CN87ts) - W9RPM (EN43jt)	10-Oct-03
Auroral E	2,295	WB7UZO (CN78qi) - VE3KNI (EN38hn)	15-Aug-89
Auroral E	2,236	VE4AQ (EN19lu) - K5MA (FN41qo)	09-Jun-91
Auroral E	2,128	W7FI (CN87ws) - VE3KNI (EN38hn)	15-Aug-89
Auroral E	2,044	W7MEM (DN17nt) - VE3KRP (EN58ij)	15-Aug-89
Auroral E	1,911	KB0ZQ (EN34it) - N1BUG (FN55mf)	14-Mar-89
FAI	2,370	W0LD (DM78pu) - W4CHA (EL88qa)	19-Jun-93
FAI	1,981	W5UN (DM82wa) - W5HUQ (EM90gc)	25-Jul-83
IFS	2,856	K5JL (EM15dp) - VE1ALQ (FN65vh)	08-Nov-99
IFS	2,587	K5JL (EM15dp) - W1REZ (FN55ea)	08-Nov-99
IFS	2,552	K5JL (EM15dp) - WA1JOF (FN44xw)	11-Nov-99
IFS	1,849	K0MQS (EN13uh) - WA1JOF (FN44xw)	31-Aug-00
Meteors	3,162	K5UR (EM35wa) - KP4EKG (FK68vg)	13-Dec-85
Meteors	2,528	N6RMJ (DM14cp) - K2DRH (EN41vr)	13-Aug-09
Meteors	2,496	KB5WMY (EM32dm) - W1REZ (FN55ea)	11-Aug-98
Meteors	2,406	VE4AMU (EN19kv) - AB4OO (EM81tg)	18-Nov-01
Meteors	2,364	W5ORH - K1ABR	12-Aug-68
Meteors	2,339	W2CRS (DM78lx) - KA2RDO (FN12ex)	12-Aug-96
Meteors	2,334	AF6O (DM14ej) - N0PB (EM39wo)	12-Aug-04
Meteors	2,192	XE2AT (DL81uu) - N0PB (EM39wo)	12-Aug-07
Sporadic E	3,635	WA7GSK (DN13so) - W4FF (EL96am)	29-May-98
Sporadic E	3,617	KF7UV (DM08dv) - W4UE (EM90gc)	29-May-98
Sporadic E	3,501	W7YOZ (CN87vr) - WA4CQG (EM72fo)	06-Jun-88
Sporadic E	3,389	W7FI (CN87ws) - KB4WM (EM63tg)	06-Jun-88
Sporadic E	3,223	KT6KT (DM26jg) - KD4ESV (EL87rl)	22-Jun-11
Sporadic E	2,719	N0KE (DM69em) - N3LL (EL86tx)	18-Jun-10
Sporadic E	2,688	K5DYY (EL07ws) - KA7SAG/7 (CN92cj)	15-Jun-05
TE	6,412	KP4EIT (FK68si) - LU8YYO (FF50)	05-Oct-91
TE	6,327	KP4EOR (FK78aj) - LU5DJZ (GF11lu)	12-Feb-78
TE	5,991	KP4EIT (FK68si) - CX1DDO (GF15xd)	26-Feb-89
TE	5,955	KP4EIT (FK68si) - LU2EG (GF05xd)	04-Jan-99
TE	5,750	WP4LNY - LU7FA	02-Feb-01
TE	5,555	KP3A (FK68ol) - LU5EJE (FF98jn)	04-Jan-99
TE	5,554	WP4IPM (FK68pl) - LU5EJU (FF98jn)	04-Jan-99
TE	4,267	J69DS (FK94ma) - PU2OAL (GG57ba)	01-Feb-13
Tropo (A)	2,365	W1JSM (FN43nc) - VP5D (FL31ut)	10-May-88
Tropo (A)	2,340	CO2OJ (EL83td) - W1LP (FN41sr)	15-May-98
Tropo (A)	2,148	N0JK (EM17jq) - CO2OJ (EL83td)	14-May-98
Tropo (A)	1,931	N3LL (EL86tx) - WP3UX (FK68we)	03-Apr-10

Tropo (A)	1,892 N3LL (EL86tx) - KP4EIT (FK68si)	02-Apr-10
Tropo (A)	1,624 WB4MJE (EL94hq) - WP4O (FK68km)	18-Jan-95
Tropo (C)	2,715 WB4MJE (EL94hq) - VE1KG (FN84cm)	05-Nov-94
Tropo (C)	2,567 KA5DWI (EM12ju) - K1WHS (FN43mj)	07-Sep-03
Tropo (C)	2,558 W5FKN (EM13gh) - K1WHS (FN43mj)	07-Sep-03
Tropo (C)	2,508 N5TIF (EM12hl) - K1CMF (FN42bq)	07-Sep-03
Tropo (P)	4,754 KH6HME (BK29go) - W1LP/MM (DL51ce)	21-Aug-99
Tropo (P)	4,333 KH6HME (BK29go) - W7FI (CN87ws)	01-Jul-95
Tropo (P)	4,325 KH6HME (BK29go) - N7MWV (CN87vr)	01-Jul-95
Tropo (P)	4,325 KH6HME (BK29go) - W7YOZ (CN87vr)	01-Jul-95
Tropo (P)	4,281 KH6HME (BK29go) - XE2/N6XQ (DL28uq)	13-Jul-89
Tropo (P)	4,047 KH6HME (BK29go) - NY7C (CN85ab)	12-Aug-87

222 MHz

Aurora	2,094 WB5LUA (EM13qc) - WC2K (FM29pt)	13-Mar-89
Meteors	2,203 ND0B (EN07gn) - N1RJX (FN32vo)	14-Dec-13
Meteors	2,178 W5UWB (EL17ax) - ND0B (EN07gn)	10-Dec-12
Meteors	2,153 K5VH (EM00xe) - VE3AX (FN02cw)	19-Nov-02
Meteors	2,102 K1WHS (FN43mj) - W7XU (EN13lm)	13-Dec-98
Meteors	2,089 K5LLL (EM10kf) - VE3AX (FN02cw)	18-Nov-01
Meteors	2,060 K0ALL (EN16ou) - W1JR (FN42hn)	13-Aug-88
Meteors	2,043 AF6O (DM14ej) - W7XU (EN13lm)	12-Aug-07
Sporadic E	2,195 W6QIW (DM04ck) - W5UWB (EL17ax)	14-Feb-00
Sporadic E	2,184 N6HKF (DM04fu) - W5UWB (EL17ax)	14-Feb-00
Sporadic E	2,099 K5LLL (EM10kf) - VE3AX (FN02cw)	08-Jul-01
Sporadic E	2,051 K5SW (EM25hr) - WZ1V (FN31mp)	06-Jul-04
Sporadic E	2,008 W4VC (EM81tg) - K0AWU (EN37ed)	06-Jul-04
TE	5,918 KP4EOR (FK78aj) - LU7DJZ (GF05rj)	09-Mar-83
Tropo (A)	1,950 KQ4PI (EL99hk) - KP4EIT (FK68si)	03-Apr-10
Tropo (A)	1,854 WA4LOX (EL87sk) - WP4O (FK68km)	26-Feb-98
Tropo (A)	1,707 KF4FWU (EL97st) - WP4O (FK68km)	26-Feb-98
Tropo (C)	2,421 WB5AFY (EM04id) - K1TEO (FN31jg)	07-Sep-03
Tropo (C)	2,279 K5VH (EM00xe) - K2AXX (FN12cs)	06-Sep-03
Tropo (C)	2,259 W5LUA (EM13qc) - K1TEO (FN31jg)	07-Sep-03
Tropo (C)	2,213 K5LLL (EM10kf) - K2AXX (FN12cs)	06-Sep-03
Tropo (P)	4,150 KH6HME (BK29go) - XE2/N6XQ (DL29cx)	15-Jul-89
Tropo (P)	4,087 KH6UK - W6NLZ	22-Jun-59
Tropo (P)	4,035 KH6HME (BK29go) - N6PEQ (DM13cr)	13-Jul-03

432 MHz

Aurora	1,909 WB5LUA (EM13qc) - W3IP (FM19pd)	08-Feb-86
Meteors	2,040 N6RMJ (DM14cp) - W7XU (EN13lm)	17-Nov-98
Meteors	1,999 WB5LUA (EM13qc) - KD5RO (FN13fb)	13-Dec-88
Meteors	1,641 W0LER - W2AZL	12-Aug-72
Tropo (A)	2,273 W1RIL (FN42ah) - VP5D (FL31ut)	10-May-88
Tropo (A)	1,707 KF4FWU (ELO97st) - WP4O (FK68km)	01-Oct-98
Tropo (A)	1,662 W4MOS (EL97te) - WP4O (FK68km)	01-Oct-98
Tropo (C)	2,201 KM1H (FN42hr) - WB4MJE (EL94hq)	16-Dec-92
Tropo (C)	2,166 W5UWB (EL17ax) - K2YAZ (EN74ax)	11-Oct-98

Tropo (C)	2,161 K0VXM (EL98pj) - NN5DX (DM80nv)	21-May-06
Tropo (C)	2,126 WA5VJB (EM12lq) - WB3CZG (FN21ax)	29-Nov-86
Tropo (C)	2,068 W5UWB (EL17ax) - K8MD (EN82bq)	11-Oct-98
Tropo (C)	2,063 W8CM (DM91rl) - K1FJM/4 (EL95rm)	22-Apr-88
Tropo (C)	2,053 WS5C (DM91sj) - K1FJM/4 (EL95rm)	22-Apr-88
Tropo (P)	4,150 KH6HME (BK29go) - XE2/N6XQ (DL29cx)	15-Jul-89
Tropo (P)	4,109 KH6IAA (BK29go) - KD6R (DM13ni)	28-Jul-80
Tropo (P)	4,035 KH6HME (BK29go) - N6PEQ (DM13cr)	13-Jul-03
Tropo (P)	4,013 KH6HME (BK29go) - K7JA (DM03xs)	11-Jul-99
903 MHz		
Aurora	86 K3HZO (FM18qp) - WA3NZL (FM19jg)	08-Nov-91
Rain Scatter	328 KM0T (EN13vc) - W0GHZ (EN34lx)	13-Sep-05
Tropo (C)	1,741 N5WS (EL09ru) - K0VXM (EL98pj)	22-May-98
Tropo (C)	1,730 WB5LUA (EM13qc) - W4WSR (EL96ww)	14-Mar-89
Tropo (C)	1,674 K5AND (EM00xh) - K8TQK (EM89je)	07-May-14
Tropo (C)	1,596 AA5C (EM13se) - K0VXM (EL98pj)	23-May-98
Tropo (P)	4,064 KH6HME (BK29go) - N6XQ (DM12jr)	13-Jul-94
Tropo (P)	3,982 KH6HME (BK29go) - N6CA (DM03tr)	23-Aug-93
1296 MHz		
Rain Scatter	580 W0ZQ (EN34it) - K2YAZ (EN74av)	17-Jun-07
Rain Scatter	328 KM0T (EN13vc) - W0GHZ (EN34lx)	13-Sep-05
Tropo (C)	2,079 KD5RO (EM13pa) - WB3CZG (FN21ax)	29-Nov-86
Tropo (C)	2,067 WB5LUA (EM13qc) - WB3CZG (FN21ax)	29-Nov-86
Tropo (C)	1,906 W3XO (EM00kb) - K2RTH (EL95tq1)	22-May-98
Tropo (C)	1,856 W1RIL (FN42ah) - WA4CHA (EL88qa)	16-Dec-92
Tropo (P)	4,150 KH6HME (BK29go) - XE2/N6XQ (DL29cx)	15-Jul-89
2304 MHz		
Rain Scatter	654 KM0T (EN13vc) - K3SIW (EN52ta)	19-Jul-06
Rain Scatter	580 W0ZQ (EN34it) - K2YAZ (EN74av)	17-Jun-07
Rain Scatter	328 KM0T (EN13vc) - W0GHZ (EN34lx)	13-Sep-05
Tropo (C)	1,716 W3XO (EM00kd) - KQ4PI (EL99hk)	21-May-06
Tropo (C)	1,609 W5LUA (EM13qc) - K0VXM (EL98pj)	01-May-02
Tropo (C)	1,596 AA5C (EM13se) - K0VXM (EL98pj)	01-May-02
Tropo (C)	1,553 K5VH (EM00xe) - KB4DFO (EL89xc)	12-Jan-00
Tropo (C)	1,553 K5VH (EM00xe) - K1YV (EL89xc)	17-Jul-00
Tropo (P)	4,024 KH6/N6NB (BK29hq) - W6IT (DM13cs)	19-Jun-15
Tropo (P)	3,982 KH6HME (BK29go) - N6CA (DM03tr)	14-Jul-94
3456 MHz		
Rain Scatter	654 KM0T (EN13vc) - K3SIW (EN52ta)	17-Jul-06
Rain Scatter	580 K2YAZ (EN74av) - W0ZQ (EN34it)	08-Jul-07
Rain Scatter	481 W0GHZ(EN34lx) - W9ZIH(EN51lv)	24-Jun-05
Rain Scatter	435 KM0T (EN13vc) - N0DQS (EN42nx)	28-Jun-03
Rain Scatter	328 KM0T (EN13vc) - W0GHZ (EN34lx)	13-Sep-05
Tropo (C)	1,798 W3XO (EM00kd) - K0VXM (EL98pj)	21-May-06
Tropo (C)	1,609 W5LUA (EM13qc) – K0VXM (EL98pj)	01-May-02
Tropo (C)	1,606 K5LLL (EM10kf) - K0VXM (EL98pj)	20-May-06
Tropo (C)	1,539 K5VH (EM00xe) - WA8TTM (EL98dp)	15-Apr-03

Tropo (C)	1,509 WW2R (EM13qd) - WA8TTM (EL98dp)	03-Feb-03
Tropo (C)	1,508 W5LUA (EM13qc) - WA8TTM (EL98dp)	03-Feb-03
Tropo (C)	1,507 W5LUA (EM13qc) - KQ4PI (EL99hk)	02-May-02
Tropo (P)	4,024 KH6/N6NB (BK29hq) - W6IT (DM13cs)	19-Jun-15
Tropo (P)	3,982 KH6HME (BK29go) - N6CA (DM03tr)	28-Jul-91

5760 MHz

Rain Scatter	848 KM0T (EN13vc) - K8EB (EN73cb)	22-Jun-07
Rain Scatter	654 KM0T (EN13vc) - K3SIW (EN52ta)	19-Jul-06
Rain Scatter	635 KCOIYT/O (EN34js) - VE4MA (EN19lu)	05-Jul-11
Rain Scatter	627 W0ZQ/O (EN34ju) - VE4MA (EN19lu)	17-Jun-10
Rain Scatter	617 KM0T (EN13vc) - W9ZIH (EN51nv)	24-May-04
Rain Scatter	517 W5ZN (EM45dh) - WW2R (EM13qd)	03-Aug-03
Rain Scatter	516 W5ZN (EM45dh) - W5LUA (EM13qc)	03-Aug-03
Rain Scatter	481 W0GHZ(EN34lx) - W9ZIH(EN51lv)	24-Jun-05
Tropo (C)	1,609 W5LUA (EM13qc) - K0VXM (EL98pj)	04-Jun-12
Tropo (C)	1,212 W4DEX (EM95tg) - K1WHS (FN43mj)	25-Sep-04
Tropo (C)	1,187 WB5LUA(EM13qc) - W9ZIH (EN51nv)	12-Nov-94
Tropo (C)	1,175 AA5C (EM13se) - W9ZIH (EN51nv)	12-Nov-94
Tropo (C)	1,005 AA5C (EN13se) - WB9OJR (EN50ej)	12-Nov-94
Tropo (C)	990 XE2/N6XQ (DL37ck) - N6CA (CM94xn)	23-Jul-89
Tropo (C)	915 W5LUA (EM13qc) - K4XR (EM64nl)	09-Aug-07
Tropo (P)	3,982 KH6HME (BK29go) - N6CA (DM03tr)	29-Jul-91

10 GHz Zero

Rain Scatter	848 KM0T (EN13vc) - K8EB (EN73cb)	22-Jun-07
Rain Scatter	791 KM0T (EN13vc) - VE3KRP (EN58gk)	14-Aug-07
Rain Scatter	753 KM0T (EN13vc) - VE4MA (EN19lu)	25-Aug-05
Rain Scatter	704 W7XU (EN13lm) - VE4MA (EN19lu)	17-Jun-10
Rain Scatter	695 K0AWU (EN37ed) - W9ZIH (EN51nv)	23-Jul-05
Rain Scatter	676 KCOIYT (EN34nl) - VE4MA (EN91lu)	24-Jun-05
Rain Scatter	676 W0ZQ (EN34it) - VE4MA (EN19lu)	24-Jun-05
Rain Scatter	654 K0AWU (EN37ed) - N4PZ (EN52gb)	19-Jul-06
Rain Scatter	644 K0AWU (EN37ed) - K2YAZ (EN74av)	26-Jun-07
Rain Scatter	641 W7XU (EN13lm) - N4PZ (EN52gb)	17-Jun-10
Rain Scatter	617 KM0T (EN13vc) - W9ZIH (EN51nv)	24-May-04
Rain Scatter	590 NTOV (EN08oc) - KM0T (EN13vc)	18-Aug-05
Tropo (C)	765 W7XU (EN15lj) - W9ZIH (EN51nv)	22-Aug-10
Tropo (C)	714 W7XU (EN15lj) - N4PZ (EN52gb)	22-Aug-10

10 GHz 9th

Rain Scatter	738 WB9SNR (EN62ac) - W2DRZ (FN02la)	16-Aug-97
Rain Scatter	727 W9ZIH (EN51nv) - VE3KRP (EN58jk)	08-Jul-07
Rain Scatter	709 N4PZ (EN52gb) - VE3KRP (EN58jk)	08-Jul-07
Rain Scatter	695 W9ZIH (EN51nv) - K0AWU (EN37ed)	23-Jul-05
Rain Scatter	654 N4PZ (EN52gb) - K0AWU (EN37ed)	19-Jul-06
Rain Scatter	641 N4PZ (EN52gb) - W7XU (EN13lm)	17-Jun-10
Rain Scatter	617 W9ZIH (EN51nv) - KM0T (EN13vc)	24-May-04
Tropo (C)	1,086 W9ZIH (EN51nv) - WA2FGK (FN21bf)	25-Aug-09
Tropo (C)	1,046 N4PZ (EN52gb) - VE4MA (EN19lu)	22-Aug-10

Tropo (C)	765 W9ZIH (EN51nv) - W7XU (EN15lj)	22-Aug-10
Tropo (C)	714 N4PZ (EN52gb) - W7XU (EN15lj)	22-Aug-10
Tropo (C)	465 N4PZ (EN52gb) - K8MD (EN82bq)	21-Sep-08
10 GHz 8th		
Rain Scatter	848 K8EB (EN73cb) - KM0T (EN13vc)	22-Jun-07
Rain Scatter	763 WA8TTM (EL98cl) - W4DEX (EM95tg)	22-Aug-05
Rain Scatter	644 K2YAZ (EN74av) - K0AWU (EN37ed)	26-Jun-07
Rain Scatter	573 K2YAZ (EN74av) - N0UK/0 (EN34jv)	26-Jun-07
Rain Scatter	558 N8PUM (EN66dl) - KB8U (EN82em)	04-Sep-11
Rain Scatter	547 N8PUM (EN66dl) - WA8VPD (EN82em)	04-Sep-11
Tropo (C)	1,039 WA8WZG (EN81om) - W5ZN (EM45dh)	17-Aug-99
Tropo (C)	919 KB8U (EN71sw) - W4ZRZ (EM63st)	13-Nov-06
Tropo (C)	465 K8MD (EN82bq) - N4PZ (EN52gb)	21-Sep-08
10 GHz 7th		
Rain Scatter	79 W7GLF (CN87vr) - W7LHL (CN87ua)	17-Feb-03
Tropo (C)	315 W7PUA (CN84io) - KD7TS (CN87ui)	30-Jan-03
10 GHz 6th		
Rain Scatter	660 W6OYJ (DM12mq) - WB6CWN (DM08pk)	06-Sep-96
Tropo (C)	1,460 AD6FP (CM96wa) - 4C2WH (DL34wt)	19-Aug-07
Tropo (C)	1,448 KH6WZ (DM05ax) - 4C2WH (DL34wt)	19-Aug-07
Tropo (C)	1,448 N6CA (DM05ax) - 4C2WH (DL34wt)	19-Aug-07
Tropo (C)	1,315 KN6VR (DM04am) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,315 W6QIW (DM04am) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,303 WA6QYR (DM04bk) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,290 AA6IW (DM04ek) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,290 KE6HPZ (DM04ek) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,286 KB8VAO (DM04ms) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,286 N6DN (DM04ms) - 4C2WH (DL34wt)	18-Aug-07
Tropo (C)	1,286 WT6K (DM04ms) - 4C2WH (DL34wt)	18-Aug-07
Tropo (P)	1,282 W1LP/mm (DL34ja) - WB6CWN (DM04eg)	20-Sep-01
10 GHz 5th		
Rain Scatter	515 W5LUA (EM13qc) - W5ZN (EM45dh)	17-Jun-00
Tropo (C)	1,609 W5LUA (EM13qc) - K0VXM (EL98pj)	04-Jun-12
Tropo (C)	1,039 W5ZN (EM45dh) - WA8WZG (EN81om)	17-Aug-99
Tropo (C)	915 W5LUA (EM13qc) - K4XR (EM64nl)	09-Aug-07
10 GHz 4th		
Rain Scatter	1,008 W4DEX (EM95tg) - AF1T (FN41ee)	21-Aug-05
Rain Scatter	763 W4DEX (EM95tg) - WA8TTM (EL98cl)	22-Aug-05
Rain Scatter	710 W4DEX (EM95tg) - K2TXB (FM29pt)	21-Aug-04
Tropo (C)	1,609 K0VXM (EL98pj) - W5LUA (EM13qc)	04-Jun-12
Tropo (C)	1,212 W4DEX (EM95tg) - K1WHS (FN43mj)	25-Sep-04
Tropo (C)	1,041 K1MAP/4 (FM14ux) - K1WHS (FN43mj)	22-Sep-09
Tropo (C)	919 W4ZRZ (EM63st) - KB8U (EN71sw)	13-Nov-06
Tropo (C)	917 W4DEX (EM95tg) - K1TEO (FN31jh)	03-Oct-05
Tropo (C)	915 K4XR (EM64nl) - W5LUA (EM13qc)	09-Aug-07
Tropo (C)	845 NA4M (FM08us) - N1JEZ/1 (FN44ig)	18-Sep-10
Tropo (C)	802 K1MAP/4 (FM14ux) - W1AIM/1 (FN41ee)	21-Sep-09

Tropo (C)	802 K1MAP/4 (FM14ux) - W1GHZ/1 (FN41ee)	21-Sep-09
Tropo (C)	797 K1MAP/4 (FM15ua) - W1AIM/1 (FN41ee)	21-Sep-09
Tropo (C)	797 K1MAP/4 (FM15ua) - W1GHZ/1 (FN41ee)	21-Sep-09
Tropo (C)	704 K1MAP/4 (FM26aq) - K2TXB/1 (FN41ql)	20-Sep-09
Tropo (C)	704 K1MAP/4 (FM26aq) - W1MKY/1 (FN41ql)	20-Sep-09
Tropo (C)	704 K1MAP/4 (FM26qa) - AF1T/1 (FN41ql)	20-Sep-09
Tropo (C)	537 ND3F (FM26aw) - K1TEO (FN31jg)	
10 GHz 3rd		
Rain Scatter	593 KB8VAO/3 (FN00rg) - AF1T/1 (FN41ee)	17-Aug-03
Tropo (C)	1,086 WA2FGK (FN21bf) - W9ZIH (EN51nv)	25-Aug-09
10 GHz 2nd		
Rain Scatter	738 W2DRZ (FN02la) - WB9SNR (EN62ac)	16-Aug-97
Rain Scatter	710 K2TXB (FM29pt) - W4DEX (EM95tg)	21-Aug-04
10 GHz 1st		
Rain Scatter	1,008 AF1T/1 (FN41ee) - W4DEX (EM95tg)	21-Aug-05
Rain Scatter	593 AF1T/1 (FN41ee) - KB8VAO/3 (FN00rg)	17-Aug-03
Tropo (C)	1,212 K1WHS (FN43mj) - W4DEX (EM95tg)	25-Sep-04
Tropo (C)	917 K1TEO (FN31jh) - W4DEX (EM95tg)	03-Oct-05
Tropo (C)	845 N1JEZ/1 (FN44ig) - NA4N (FM08us)	18-Sep-10
Tropo (C)	537 K1TEO (FN31jg) - ND3F (FM26aw)	
10 GHz XE		
Tropo (C)	1,460 4C2WH (DL34wt) - AD6FP (CM96wa)	19-Aug-07
Tropo (C)	1,448 4C2WH (DL34wt) - KH6WZ (DM05ax)	19-Aug-07
Tropo (C)	1,448 4C2WH (DL34wt) - N6CA (DM05ax)	19-Aug-07
Tropo (C)	1,315 4C2WH (DL34wt) - W6QIW (DM04am)	18-Aug-07
Tropo (C)	1,303 4C2WH (DL34wt) - WA6QYR (DM04bk)	18-Aug-07
Tropo (C)	1,290 4C2WH (DL34wt) - AA6IW (DM04ek)	18-Aug-07
Tropo (C)	1,290 4C2WH (DL34wt) - KE6HPZ (DM04ek)	18-Aug-07
Tropo (C)	1,286 4C2WH (DL34wt) - KB8VAO (DM04ms)	18-Aug-07
Tropo (C)	1,286 4C2WH (DL34wt) - N6DN (DM04ms)	18-Aug-07
Tropo (C)	1,286 4C2WH (DL34wt) - WT6K (DM04ms)	18-Aug-07
10 GHz VE		
Rain Scatter	791 VE3KRP (EN58gk) - KM0T (EN13vc)	14-Aug-07
Rain Scatter	753 VE4MA (EN19lu) - KM0T (EN13vc)	25-Aug-05
Rain Scatter	727 VE3KRP (EN58jk) - W9ZIH (EN51nv)	08-Jul-07
Rain Scatter	709 VE3KRP (EN58jk) - N4PZ (EN52gb)	08-Jul-07
Rain Scatter	704 VE4MA (EN19lu) - W7XU (EN13lm)	17-Jun-10
Rain Scatter	676 VE4MA (EN19lu) - KC0IYT/0 (EN34nl)	24-Jun-05
Rain Scatter	676 VE4MA (EN19lu) - W0ZQ/0 (EN34nl)	24-Jun-05
Tropo (C)	1,046 VE4MA (EN19lu) - N4PZ (EN52gb)	22-Aug-10
24 GHz		
Rain Scatter	283 KM0T (EN13vc) - W0ZQ/0 (EN35ab)	31-Dec-05
Rain Scatter	218 KM0T (EN13vc) - W0ZQ/0 (EN15wb)	02-Apr-06
Rain Scatter	195 KD7TS (CN87ui) - W7SZ (CN85uo)	28-Sep-07
Rain Scatter	119 KM0T (EN13vc) - N0DQS (EN22ge)	26-Aug-03
Tropo (C)	543 W5LUA (EM13qc) - WW2R/5 (EM41hc)	07-Sep-02
Tropo (C)	526 WB6CWN/6 (DM04ms) - AD6FP/6 (CM88ws)	21-Aug-10

Tropo (C)	412 KC6QHP/6 (DM04ms) - AD6FP/6 (CM98qf)	22-Aug-10
Tropo (C)	375 K6GZA/6 (CM97hm) - AD6FP/6 (DM04ms)	16-Sep-00
Tropo (C)	375 AD6FP/6 (CM97hm) - W6QI/6 (DM04ms)	20-Aug-05
Tropo (C)	313 W6QI/6 (DM04ms) - AD6FP/6 (DM07dm)	21-Aug-05
Tropo (C)	311 N1JEZ/1 (FN44ig) - KA1OJ/1 (FN41II)	19-Aug-12
Tropo (C)	290 KB8VAO/6 (DM04ms) - W6QI/6 (DM07gi)	20-Sep-04
Tropo (C)	285 N1JEZ/1 (FN44ig) - KA1OJ/1 (FN51av)	17-Sep-06
Tropo (C)	266 WA6EXV (DM06wl) - K6OW (DM14kf)	05-Jul-97
Tropo (C)	257 KK6TG (CM98mr) - WB7ABP (CN80on)	12-Sep-92
47 GHz		
Tropo (C)	344.8 AD6FP /6 (DM07as) - W6QIW/6 (DM04ms)	19-Sep-15
Tropo (C)	343 W6QI/6 (DM04ms) - AD6FP/6 (DM07bs)	30-Oct-05
Tropo (C)	246 W0EOM/6 (CM97ei) - KF6KVG/6 (DM06ms)	09-Feb-03
Tropo (C)	232 KB8VAO/6 (CM96qi) - AD6FP/6 (DM04ms)	18-Sep-04
Tropo (C)	205 N1JEZ/1 (FN44ig) - WA1MBA/1 (FN42bl)	03-Jul-05
Tropo (C)	174 W3IY/4 (FN10ff) - W4SW/4 (FM08us)	14-Nov-01
Tropo (C)	120 NU7Z (CN87ms) - KD7TS (CN96aw)	04-Oct-03
75 GHz		
LOS	289 AD6IW (CN90fl) - KF6KVG (CM97av)	23-Jun-14
LOS	289 AD6IW (CN90fl) - K6GZA (CM97av)	23-Jun-14
LOS	205 N1JEZ/1 (FN44ig) - WA1MBA/1 (FN42bl)	19-Sep-14
LOS	177 AD6FP/6 (CM88qp) - KF6KVG/6 (CM97ad)	01-Mar-02
LOS	177 W0EOM/6 (CM88qp) - KF6KVG/6 (CM97ad)	01-Mar-02
LOS	110 K2AD (EM96ur) - W2SZ (FM07fm)	20-May-99
LOS	60 W2SZ (FM07fm) - WA4RTS (FM08ia)	01-May-99
120 GHz		
LOS	30 WA1ZMS/4 (FM07fm) - W4WWQ/4 (FM07ji)	02-Apr-03
LOS	24.8 KF6KVG/6 (CM87wj) - W0EOM/6 (CM97cj)	29-Mar-03
LOS	20.7 W4WWQ/4 (FM07hj) - WA1ZMS/4 (FM07fl)	11-Mar-03
LOS	1.1 WA1MBA (FN32ri) - WB2BYW (FN32rj)	11-Jul-94
122 GHz		
LOS	114 WA1ZMS/4 (EM96ur) - W4WWQ/4 (FM07fm)	18-Jan-05
LOS	24.8 W0EOM/6 (CM97cj) - KF6KVG/6 (CM87xh)	27-Aug-04
LOS	1 N1JEZ/1 (FN34ha) - KT1J (FN34ha)	23-Aug-08
134 GHz		
LOS	114.4 WA1ZMS/4 (EM96ur) - W4WWQ/4 (FM07fm)	26-Feb-06
142 GHz		
LOS	79.7 W2SZ/4 (FM07fm) - WA1ZMS/4 (EM96wx)	12-Jan-03
LOS	61.6 W2SZ/4 (FM07fm) - WA4RTS/4 (FM08ib)	01-Jan-01
LOS	34 WA1ZMS (FM05fm) - WA4RTS (FM05ji)	06-Nov-00
LOS	11.7 KF6KVG (CM87uk) - W0EOM (CM87wj)	19-Oct-99
241 GHz		
LOS	114 WA1ZMS/4 (FM07fm) - W4WWQ/4 (EM96ur)	21-Jan-08
LOS	79.7 WA1ZMS/4 (EM96wx) - W2SZ/4 (FM07fm)	17-Feb-04
LOS	61.8 W2SZ/4 (FM07fm) - W4WWQ/4 (EM97xe)	03-Dec-03
LOS	11.4 WA1ZMS/4 (FM07ln) - W4WWQ/4 (FM07jn)	11-Mar-02
LOS	7.3 WA1ZMS (FM07jj) - W4WWQ (FM07ji)	23-Feb-02

Micrometer Radio

322 GHz	1.4 WA1ZMS/4 (FM07ji) - W4WWQ/4 (FM07ji)	04-Mar-03
322 GHz	0.5 WA1ZMS/4 (FM07ji) - W4WWQ/4 (FM07ji)	01-Mar-02
322 GHz	0.05 W2SZ (FM07ji) - WA4RTS (FM07ji)	15-Dec-01
403 GHz	1.42 WA1ZMS/4 (FM07ji) - W4WWQ/4 (FM07ji)	21-Dec-04
403 GHz	0.52 WA1ZMS/4 (FM07ji) - W4WWQ/4 (FM07ji)	11-Apr-03

Light

474 THz	192.6 WB7VVD (DM34hb) - KC7AED (DM43iq)	21-Sep-97
474 THz	81.6 XE2AT (DL81vq) - XE2ZB (DL80vx)	25-Aug-05
678 THz	248 WA7LYI (DM34tf) - KY7B (DM42ok)	08-Jun-91