

**THE  
SIX AND TEN  
REPORT  
August  
2005**

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## Analysis of 28 MHz reports from the UK

28 MHz reports and logs for August 2005 from G2AHU, G3IMW, G3USF, G3YBT, G4JCC, G4TMV, G4UPS, G0AEV, G0IHF and packet cluster reports. Compilation and commentary by G0AEV.

Sporadic E continued to dominate 28 MHz propagation available to UK stations. As expected, there were fewer Es openings in August than in June or July but there appeared to be more than seen in most August months. This opinion was reinforced by a period of relatively strong sporadic E in the last week of the month.

F-layer propagation was very poor throughout August. There were many days when no one reported hearing 10m beacons outside of Europe and the Middle East.

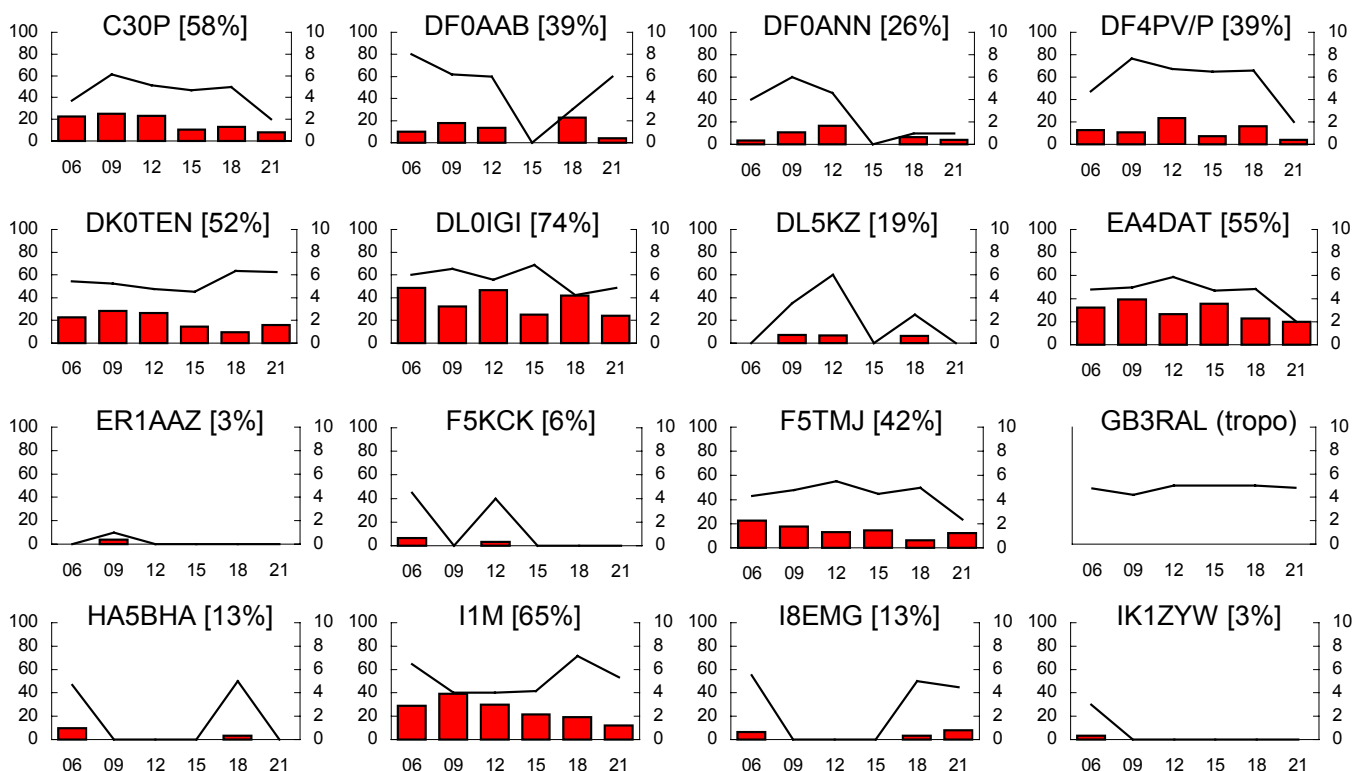
### Beacon graphs legend

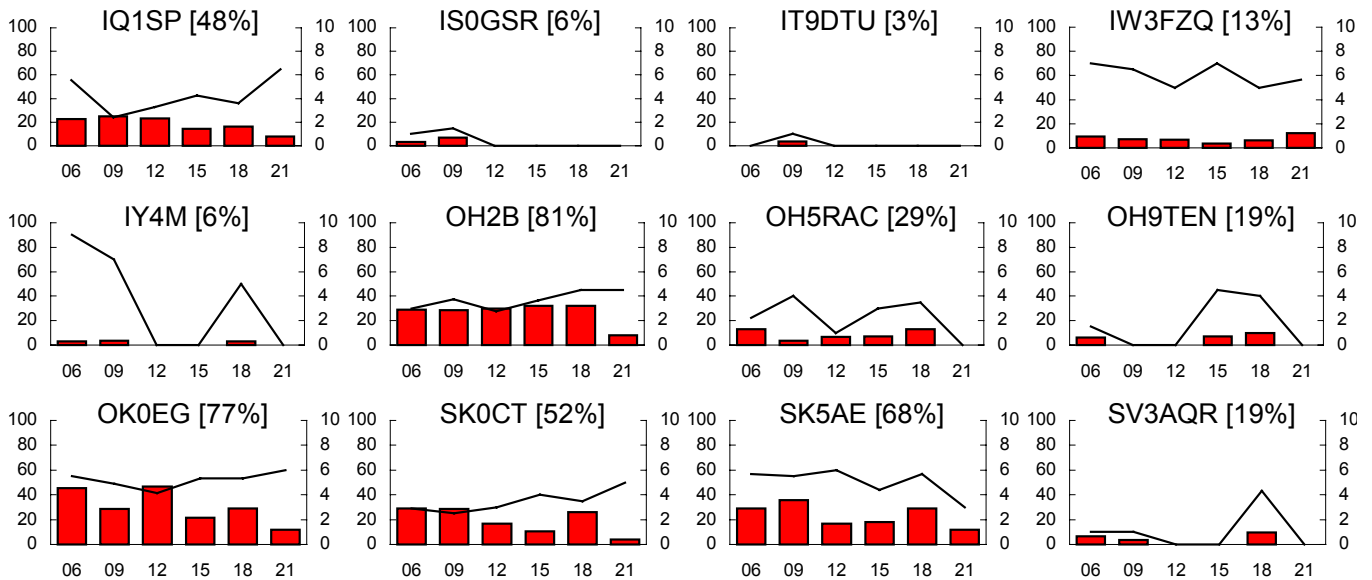
Legend for all beacon graphs in this Section: - graph bars (left Y-axis): beacon reliability as the percentage of days a beacon was heard by any UK observer within each time band. Graph lines (right Y-axis): Signal Strength as the average of the daily maximum Signal reported by any observer in each time band. Time band codes (X-axis): 6=0600-0900, 9=0900-1200, 12=1200-1500, etc. Callsigns are followed by daily reliability figures, the percentage of days per month when the beacon was reported.

Forms for reporting beacons on paper are at [http://www.explore.plus.com/6and10/beacon\\_forms.htm](http://www.explore.plus.com/6and10/beacon_forms.htm).

A reminder that from October we will also be looking at 20m propagation (and comparing with that on 10m) from an analysis of the NCDXF/IARU beacons on 14.100 MHz. If you listen to the beacons please send us your reception reports in whatever form is convenient (but including as a minimum the date, time, and signal strength of observations). Copies of forms that can be used to report beacons on paper can be found at [http://www.explore.plus.com/6and10/beacon\\_forms.htm](http://www.explore.plus.com/6and10/beacon_forms.htm)

### European Propagation / Beacons





Propagation modes for European beacons.

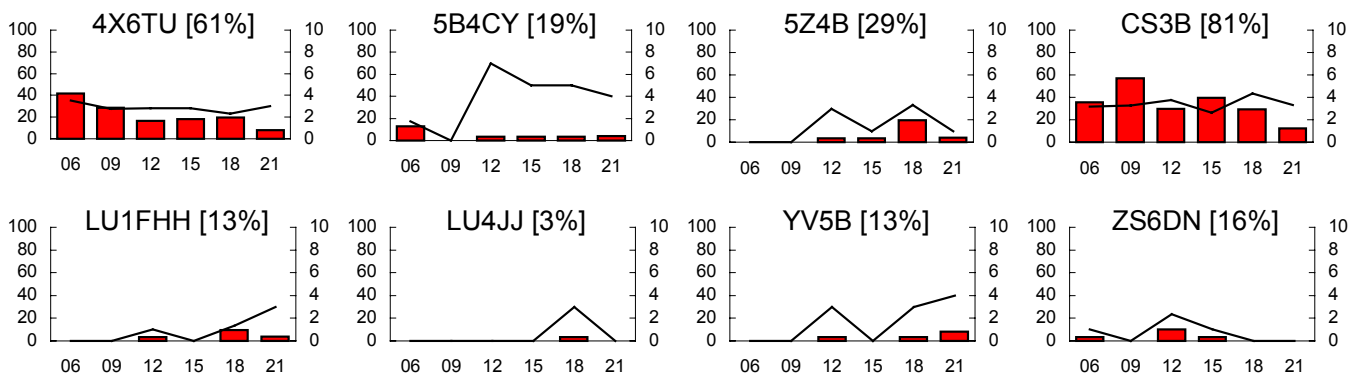
As expected, all inter-European propagation was by Sporadic E. There were no reports indicating reception via Es backscatter or very short skip. Propagation by modes other than Es was restricted to some meteor scatter, mainly early in the morning in the period around the Perseids meteor shower. Several beacons were heard via MS but most of the reports were for the QRO beacon DL0IGI. No aurora reports were received. Some propagation to SM and OH in the evening of 31<sup>st</sup> may have been auroral E. Troposcatter propagation is represented by the reception of GB3RAL at G0AEV.

European Beacon Notes.

Es propagation generated another fine crop of European beacons this month. Nearly all the active beacons were heard at some time or other – only PI7ETE (too close for normal Es), SM0NCL (QRT?) and DA5MMB (out-of-band at 28.702 MHz) were obvious absentees. LA6TEN was spotted again on the DX cluster (1<sup>st</sup> August at 1745) but is not included in the charts because no signal strength was reported. This high-Arctic beacon is the only 10m beacon operational in Norway at the moment – a pity it isn't being heard very often.

**Propagation to Asia, Africa, Oceania, South and Central America**

Beacon Graphs.



## Suggested propagation modes for beacons in Asia, Africa, Oceania, South and Central America.

F2 propagation was very poor all month. ZS6DN only returned a daily reliability of 16% - although this doesn't take into account outages that are believed to have interrupted beacon service on some days at the end of the month. Other normally reliable beacons in Argentina (LU1FFH and LU4JJ) also gave very poor results, and the list of DX worked this month is very short. Poor F2 is due to the combination of low solar activity and summer ionospheric conditions, but even taking into account these controlling factors the extent of the poor F layer propagation is a bit surprising. Geomagnetic activity may have played a part, but of the two significant storms this month one (on 31<sup>st</sup>) appeared to have no impact or even enhanced F conditions. August is a month when there is less beacon monitoring coverage than normal as reporters are away on holiday. However, beacon reliabilities are calculated as ratios of heard to not heard so value of this measure is independent of the quantity of reports.

The results from the 4X6TU, 5B4CY and CS3B beacons are believed to be due to sporadic E. The contribution from F2 on these paths at this time of the year is always difficult to evaluate. In years of high solar activity F2 to the Middle East becomes an important factor by late August. Under current conditions, especially considering the very poor propagation to southern Africa, it is probable that the proportion of propagation due to F2 on these paths is small throughout August.

### Beacon Notes.

LU4AA and OA4B are still QRT. ZS6DN was reported (from ZS) to be off from 22<sup>nd</sup> August, but several 6&10 observers reported hearing this beacon on 25<sup>th</sup> August. ZS6DN was clearly operational again in the second half of September. 5Z4B has a minor problem with a broken transmission of the callsign. Listeners in North America continue to report several other LU beacons in addition to the two heard here as well as beacons in PY and HP. Z21ANB is also still active. These represent the beacons that are within likely range under present conditions.

### 10m DX in August 2005

The following list of DX countries worked or heard in the UK comes from packet cluster Spots (DX Summit: <http://oh2aq.kolumbus.com/dxs/>) and from the logs of Six and Ten reporters. As discussed above, this list is very short and a reflection of the poor state of 10m DX propagation. This view is more striking when taking the areas covered by Es (4L, 4X, 7X, EA8 and possibly – TI) are taken out of the equation.

DX in August: 4L, 4X, 7X, CE, CX, EA8, LU, PY, TI, TZ, UN.

DX in July for comparison: 4X, 5B, 5N, 9G, 9K, CN, CX, CY9, EA8, EA9, KP2, LU, PY, VE, VU, YI, YV, ZP.

### Propagation to North America

Not a single report of anything from North America – beacon or amateur signal. There was propagation via sporadic E on 6m on a couple of days but nothing was detected on the 10m band. Rest assured, the status of beacon coverage in the US and in Canada remains healthy and some of these will be occasionally audible in the UK during the autumn and winter months.

## Analysis of 50 MHz reports from the UK

UK 50 MHz reports for August 2005 from G2ADR, G2AHU, G3HBR, G3IMW, G3USF, G4UPS and via packet cluster spots. Compilation and commentary by G0AEV.

Sporadic E in August appears to have been quite extensive - not as much as at mid-summer, of course, but perhaps more than usually seen at this time of the year. There were several very good days for Es at the start of August (as one might expect), but some of the best propagation occurred at the end of the month at a time when most summer seasons are drawing to a close.

A lot of attention was paid to working HA operators, who had permits to transmit on 6m for this month only. The resulting sustained effort in working Hungarians showed that Es propagation was available from Britain to this part of Europe on two-thirds of August days, and this sort of reliability was probably present to much of southern and south central Europe. Multi-hop Es to W or VE was available on a few days, which was about as good as the July showing and better than June.

Two reasonable auroras, the Perseids meteor shower and some good tropo provided attentive (or perhaps just lucky) operators with some propagation variety.

G2ADR was off the air for most of August rebuilding his station: Eric wonders what he had missed. Our reporters all found things of note, and most mentioned the high levels of HA activity and how that had helped to sustain interest in the band. Ted G4UPS thought August was an "interesting month, made more interesting by some very good operating from HA" while Brian G3HBR said "the experimental allocation of six to HA amateurs for one month greatly improved activity and so conditions seemed to take a turn for the better. I fear that September will appear much quieter."

G3IMW noticed that some of the Es openings this month were particularly localised. As an example Jeremy cites the opening on the 16th when there was only a small area of Hungary and Slovakia involved on 50 MHz." Jeremy reports that there were more areas available at the time on 28 MHz. Other reports show that UK operators overall had propagation to a wider area than Jeremy – which just goes to show that individual results will always be less extensive than for the country as a whole.

G3HBR noted much weaker signals from 5B4CY compared with 5B8AV on 5<sup>th</sup>. Brian thinks this indicated that the MUF just about made it above 50 MHz. "On the 13<sup>th</sup>", G3HBR writes, "stations were just flipping between AEs and Au". This was in the evening and related to signals from Scandinavia. Brian thought CW and SSB showings in the Perseids were disappointing, although he detected very noticeable enhancements on 48250 and 49750 TV signals.

### Sporadic E

Sporadic E results tabulated below ordered alphabetically by country prefix. Percentages following the country name are the daily reliability values (the number of days when propagation was reported). The first row of each table, "D" is the day of the month, subsequent rows give the maximum signal strength reported from the UK in each of three hour time bands ("06" for the band 0600 - 0900, "09" for the band 0900 - 1200, etc.). A figure of "0" indicates that signal strength was not reported.

	4X Israel (6%)	5B Cyprus (13%)	5T Mauritania (3%)	9H Malta (13%)	A6 UAE (6%)
D	5 8	3 5 13 31	13	16 23 26 27	13 25
06	8	3 9			9
09	0	9	7		
12				0 5	
15	6	9		0	
18				1	2
21				0	

	CN Morocco (52%)														CT Portugal (39%)													
D	1	4	5	7	8	9	10	13	14	16	18	20	25	26	28	29	1	2	3	4	5	10	13	20	26	27	28	30
06	7	9	5					4	2						5	5	8	7	4	9							9	
09			7			5		6							9				9			4			5	9		
12			6				9	7													9			9				
15	0		1		9							5	7	5										7				
18	9			4	9					4	7	9	7	7						0			9		9	0		
21																					5							

	CT3 (3%)	CU Azores (19%)	DL Germany (39%)	EA8 (3%)	EA9 (10%)
D	16	1 3 5 9 13 16	1 3 8 10 11 13 15 16 25 26 27 28	16	15 25 28
06			7		
09			9 9		7 9
12	0	9 1	8 0	0 7	
15			9 9		
18		9	2 0	9 9	
21		9			7

	EI (10%)	ES Estonia (19%)	F France (48%)	G<>GM (16%)
D	1 3 27	1 2 11 27 30 31	3 4 7 8 10 11 15 16 24 25 26 27 28 30 31	1 3 4 10 12
06			7	5
09	9	0	6 7 8	9 9
12			0	
15		7 9 9	9 9	5
18	9		0	9 7
21			5 2	

	HA Hungary (68%)	HB Switzerland (26%)
D	1 2 3 4 6 8 10 11 12 13 14 15 16 23 24 25 26 27 28 29 30	3 7 8 10 13 25 26 28
00		
03		
06	9 1 9	9
09	3	9 9
12	0 9 5	7 9 9
15	9 9	9
18	9 5 7	5
21		

	I/IS/IT Italy (71%)	JW Svarlbad (3%)
D	1 3 4 5 6 7 8 9 10 11 12 13 15 16 23 24 25 26 27 28 30 31	1
06	7 7 3 9	
09	7 7 5 6 5 9 5 7 4 0 9 9 9	
12	9 8 0	
15	0	5
18	6	
21	7	

	JX Jan Mayen (29%)	LA Norway (26%)	LX (3%)	LY Lithuania (13%)
D	1 3 4 5 8 9 10 13 30	1 3 7 9 11 25 27 30	30	3 27 29 30
06	9	7	9	5
09		0 9		9 0
12		9		9
15				9 9
18	7	0 2		5 9
21	7 4 9	9		

	LZ Bulgaria (39%)	OD (13%)	OH Finland (39%)
D	3 4 5 6 12 16 24 25 26 27 30 31	3 8 13 25	1 2 3 4 8 9 11 23 26 27 30 31
06	0 9 0 3	7	2 9
09	7	6 7	4 9 9 3 7 9
12	4		
15	5 2		5 0 9
18	5 5 7 7		0 9 9 5 9
21	5 9 9	5	9

	OE Austria (16%)	OK/OM Czech & Slovak republics (42%)	OX (10%)	OY Faeroe Is (10%)
D	1 3 8 25 27	1 3 4 5 6 8 13 15 25 26 27 28 30	1 3 4	1 3 27
06	9 9 4 9 7	9 7 9		
09	9	5 9 9 9		9
12		0 9 9 9 9 9		9
15		0 9 9		
18			9	9
21			6 7 7	

	OZ Denmark (29%)	PA Netherlands (16%)	SM Sweden (29%)
D	1 4 7 8 11 13 14 15 30	3 4 7 13 16	1 3 4 10 11 12 27 30 31
06	7 7 5 4		5 9
09	9 5 5	9 5 0	0 9 0 7 8
12	5 9	0 9	0
15	9		9 0 0 0
18	0 5 5 2		9 0 5 9
21		5	

	SP Poland (52%)	SV Greece (16%)	SV9 Crete (3%)
D	1 2 3 4 6 8 13 14 15 16 18 25 26 27 30 31	3 10 15 27 28	28
03	5		
06	9 5 5	5	1
09	9 4 9 9 9 9 7 0	5 0 0	
12	0 7 0 9 9	6	
15	3 9		
18	5 7 9 7	7 7	
21	9 0		

	TF Iceland (23%)	UR Ukraine (26%)	VE (3%)	W USA (13%)	YI Iraq (3%)
D	3 4 8 10 13 27 31	3 4 11 15 16 26 27 30	9	3 9 12 16	8
06	8				0
09	0	9 9 9 0			
12	0 5	5 9 9		5	
15	3	5 0 5		9	
18	9 8	9	7	1 1	
21	9	0			

	YL Latvia (10%)	YO Romania (29%)	ZA Albania (6%)	ZB Gibraltar (6%)
D	1 11 27	1 3 6 8 12 13 16 26 27	25 27	5 10
06		9 9		
09		9 7	7	6
12	9	6 0 6		
15		9 0		0
18	8 0	7 9	5	
21		7		

YU/9A/S5/T9/Z3 Former Yugoslavia (68%)																														
D	1	2	3	4	6	7	8	9	10	11	12	13	14	15	16	24	25	26	27	28	30									
06	9				9		9				0						9		9	0										
09	5		9		6	9	9		4			0	4	9	0		5		9	9										
12			0				0	9						5	0				9	9										
15	0	0												6		0			9											
18			4	9			9			9		5						9	9	4										
21										0									9											

**Es Propagation Summary.**

The table below displays total counts of country/areas heard/worked via sporadic E by UK amateurs, a summary of the detailed tables presented above. 3-hourly periods in which 20 or more country/areas were heard or worked are shaded grey, and shaded yellow (or a pale grey if you read this in monochrome!) for 10-19 country/areas.

Es Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
00																																		1
03			1			1																			1									
06	11	3	13	6	3	3		5				6	2	3	1									9		4	5	2	7	6				
09	7	1	13	2	3	6	6	12	3	2	3	1	8	1	10	6								4	6	11	6		7	4				
12	5		8	5	4			6	1	7		2	9		4	12								3	4	14	7							
15	8	1	4		5		1	9		4	7		4		3	4									5	1	3	11	1	1	2			
18	10	1	4	10			2	9	2	4	7		2	3		2		1		2				3	1	4	4	9	2	3	12			
21	2	1	4	2	1				3	1	3		2					1						2	1	5	7	1				1		

Best days for sporadic E in August were 1<sup>st</sup>, 3<sup>rd</sup> and 27<sup>th</sup> – on each of these days more than 20 different country/areas were heard/worked by UK stations. Days like this are relatively common at mid summer but unusual for late August. The propagation experienced in the last week of August 2005 stands out as worthy of note – include 5 days with more than 10 country/areas heard/worked. In previous years there have been individual good Es days (with at least 10 country/areas worked) as late as the end of first week of September. For interest here are the dates of the latest “significant” Es opening over the last decade or so.

- |      |             |      |                               |
|------|-------------|------|-------------------------------|
| 1994 | 28 August   | 2000 | 2 September                   |
| 1995 | 7 September | 2001 | 2 September                   |
| 1996 | 20 August   | 2002 | 3 September                   |
| 1997 | 26 August   | 2003 | 23 August                     |
| 1998 | 6 September | 2004 | 25 August                     |
| 1999 | 22 August   | 2005 | (wait for September results!) |

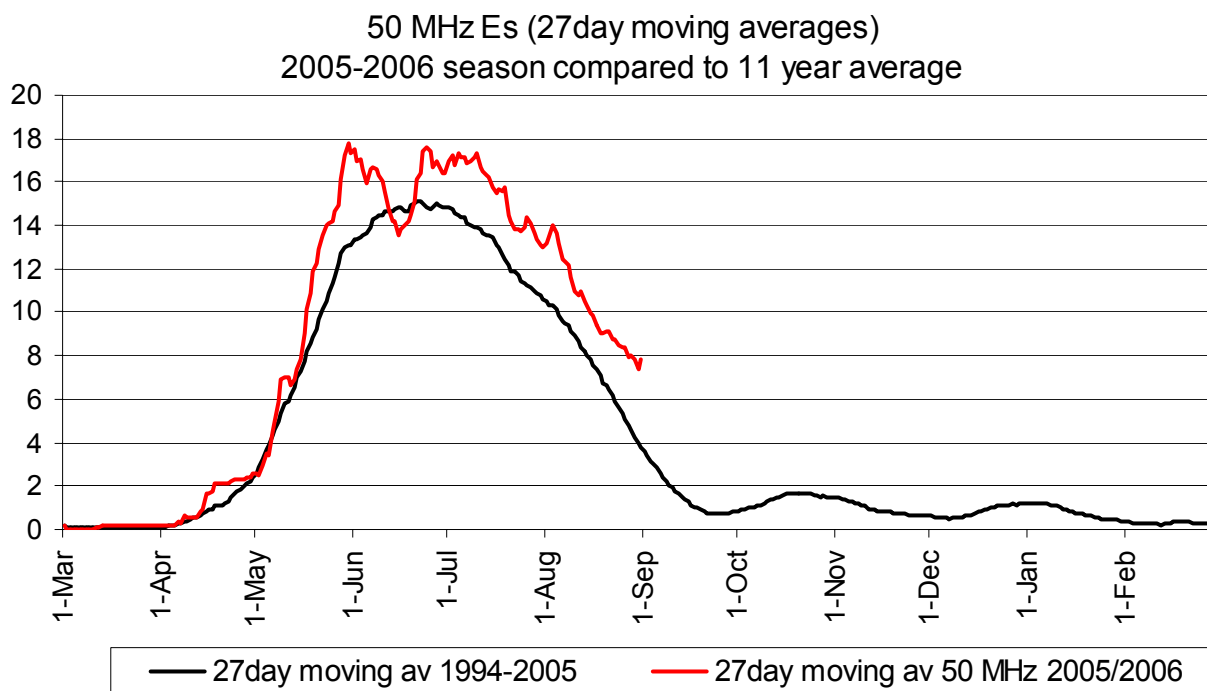
The period 17<sup>th</sup>-22<sup>nd</sup> was clearly the worst spell for sporadic E in August. Geomagnetic activity – the first place to check for negative influences on Es – was unsettled to disturbed but Kp was less than 5 at all times and on 20<sup>th</sup> maximum Kp was only 2. On the other hand, the period of low Es activity came to an end on 24<sup>th</sup> – a day of strong magnetic storming with Kp peaking at 9 and UK K indices at 7 or 8. Es on 24<sup>th</sup> came from southern Europe and not to be confused with auroral E (also present but to TF and JX much later in the evening). Sporadic E was then good for the week following the magnetic storm of the 24<sup>th</sup> terminated (apparently) by another severe magnetic storm on 31<sup>st</sup>. There was no sporadic E during this second period of storming. As we often see, the relationships between Es and geomagnetic activity are never straightforward!



General trends for August Es are shown in the graph of 27-day moving averages of the daily 6m country/area counts (as calculated from the Es data tabulated each month in these pages). An explanation of this graph was given in the May 2004 Six and Ten Report.

The line representing August 2005 sporadic E is considerably higher than the line of the average of the previous 11 years, suggesting that this month was much “better” than average. This may be so, but as the measure used is not constant from year to year it is difficult to make absolute statements of this kind. As an example, the presence of Hungarian amateurs on the 6m band will have had an effect on the country counts for this month. One might expect the country counts to be higher by up to 1 as a consequence, but in practice the concentration of effort on working HA stations actually left other parts of Europe under reported.

If the strong Es of the last week of August 2005 is removed from the data set, the 2005 moving average line for August becomes much close to the 11 year average. However, no form of data manipulation (nor the addition of September data, when available) alters the general trend that indicates Es continuing at higher “levels” later into the season. This late season extension and the double mid summer peak identified last month are clearly the prominent broad-scale characteristics of this year’s sporadic E season – although autumnal and winter Es may yet provide some interesting features. I indicated some months ago that I felt that this year would be for the “tail” and first indications are that there have been some spells of good autumnal/winter Es. More on this, no doubt, in future Reports!



**Sporadic E backscatter**

Backscatter distribution matched that of direct path Es. The scatter between G0JHC and EH7KW occurred during a weak opening to CT and CN, but perhaps with stronger ionisation in the Atlantic.

- 3 1322 G8BCG > CU4/CT3FN 559 backscatter QTF 280
- 5 835 G3IMW > EI3IO 52 (b/s?)
- 8 1253 EI7BMB > GW3XRM 51 scatter
- 16 1610 G0JHC > EH7KW 559 QTF 260
- 20 1948 F8OP (JN26) > G0JJL QTF 230
- 28 0854 G3IBI (IO90) > G0JHC 57 “backscatter” QTF 180.
- 28 0947 EI3IO > G0JHC “Scatter” QTF 240
- 30 1112 G-SWL (IO93) > GW3XRM (IO73) 53 QTF 090

## DX Propagation

Zero DX propagation this time – except, of course, via multi-hop sporadic E, as described previously. Poor F2 conditions generally (see section 1, 28 MHz) indicate a very low probability for TEP so the absence of this mode (despite suitable linking Es events) is not surprising.

## Tropospheric propagation

Once again I have calculated the distances between stations making DX tropo contacts, where this has been possible without going to the extent of tracking down missing locators. The list below includes reports of contacts (or reception reports) over distances greater than 400 Km or where tropospheric propagation was noted in some way as indicating enhanced conditions.

The best distance reported in the July Report was G7RAU > DH6JL at 592 Km. These two stations feature again in this month's list. In particular DH6JL has reported some very long distance tropo this month. As troposcatter is "erp-dependent" – the higher the power the greater the distance covered - DH6JL must either have very high gain antennas and/or very low noise floor to hear GB3LER - or perhaps some (low loss) ducting was involved? Reception of a beacon over a distance of 1106 Km would appear to be outside of the "normal" range expected from troposcatter. At 0524 and at around a distance of 1000 Km, "ionoscatter" (probably meteor scatter related E-layer ionisation) would be an alternative candidate, and one that is very difficult to distinguish from "weak tropo".

2 1919 G4IFX (IO91) > EI3IO (IO63) 589 - 431 Km  
2 2206 G7RAU (IO90) > PA0RDY (JO22) - 465 Km  
6 0524 DH6JL (JO31) > GB3LER "weak tropo" - 1106 Km (*is this really tropo? G0AEV*)  
6 0526 DH6JL > GB3BUX - 646 Km  
7 0704 DH6JL > GB3BUX 419 - 646 Km  
8 0831 ON4GG > G8BCG/P (IO70)  
8 1719 PC5C > MU0FAL  
8 1837 G7RAU > DH6JL 579 QSB - 592 Km  
10 1639 DH6JL > GB3BUX 529 - 646 Km  
11 0700 G4UPS (IO80) > GB3BAA "unusually strong 569"  
11 1030 G4UPS > GB3BAA 579, GB3BUX 559  
11 1824 G7RAU > PG9W (JO22) 549 - 435 Km  
17 1339 PE1MZS > GW3LEW JT6M - 670 Km  
22 1440 DH6JL > GB3BUX 519 - 646 Km, > GB3IOJ 419 deep QSB - 700 Km  
23 2020 DH6JL > GX7VHF 59 tropo - 413 Km  
30 0605 OZ1MAX (JO57) > GB3LER - 744 Km

## Aurora

UK K-indices reached 8 during storming on 24<sup>th</sup> and 31<sup>st</sup>, and on both days significant radio aurora were generated. The event of 31<sup>st</sup> was the better of the two on the basis of volume of reported contacts and on the numbers of different countries worked. Mid to late evening Auroral E was associated with both events.

There were also other aurora during the month, as can be seen from the lists on the following page. Although these were all relatively minor events and largely restricted to GM, the best Auroral E was associated with the "minor" events of 13<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> (the associated aurora for the last of these being after midnight, i.e. on 18<sup>th</sup>).

The most interesting report this month was MM0AMW hearing VE8BY on 13<sup>th</sup> with 54a signals. This was at time when Scandinavia and Iceland were being heard via auroral E by stations in other parts of UK. VE8BY was presumably heard via an aurora and auroral E mixed mode.

Aurora data for the UK:

6 <sup>th</sup>	00z	0039-0052	MM0AMW (IO75) > GB3LER 53a; SM3EVR (JP82) > GB3LER 55a
7 <sup>th</sup>	00z	0010	MM0AMW > GB3LER "weak aurora"
13 <sup>th</sup>	21z	2213	MM0AMW > VE8BY 54a
		2258-2307	GM7PBB (IO68) > GB3LER 57a, G4DEZ 55a; G3HBR > OH3BHL 55a.
16 <sup>th</sup>	21z	2228	MM0AMW > GB3LER 54a
18 <sup>th</sup>	00z	0030	MM0AMW > GB3LER 52a
24 <sup>th</sup>	09z	1028-1040	MM0BSM < 55a G3NVO, 57a GD7JQI, 55a PA0FRE.
		1046-1052	SM7AED (JO65) > G4DEZ; G3NVO > SM7AED 55a
		1105-1118	GM4ISM > OY6SMC 52a; OZ4LP (JO55) > GB3LER 55a; GM4JYB > LA5YJ (IO88) 57a
	12z	1304	MM0CEZ (IO75) > DL7CM 51a
	15z	1519-15.38	GB3LER < 51a DH6JL (JO31), < OZ1DJJ (JO65) QTF 350, < 54a G0JHC, < 55a LA6PV; MM0CEZ > G4DEZ 59a.
	21z	2216	MM0AMW > GB3LER 53a
25 <sup>th</sup>	15z	1527	MM0AMW > GB3LER 54a
31 <sup>st</sup>	12z	1446	MM0BSM (IO86) > GB3LER 55a
	15z	1534-1600	G <> GM QSOs (furthest south: IO91); GM <> GM; G0JHC > LA4LN 59a; G4UZN > ES1CW 55a
		1600-1630	Many G <> GM QSOs (furthest south: IO80); GM <> GM; MM0BSM > LA4LN (JP50) 55a; G0JHC > ES1CW 59a; SM0BSO > MM0CEZ 59a; G4PCI > OZ7IGY 52a; F5GTR (IN96) > GM4NFC (IO75) 53a/58a
		1630-1642	G <> G, GM; G4PCI > OZ6VHF 51a; F5GTR > MM0AMW 55a; OH2RF > GB3JER 55a
		1648-1557	DJ6XV (JO31) > GM7PBB (IO68) 59a, GM4ILS (IO87) 55a
		1715	GW3MFY > SM0ERV ( <i>presumably via aurora</i> )
		1738-1800	PA0KDV (JO33) > G4IGO (IO80) 53a/54a QTF 000; MM0CEZ (IO75) > OZ8ZS 53a; DK1MAX (JN58) > MM0CEZ 59a QTF 000, G4DEZ (JO03) 59a QTF 000; SM0BSO (JO99) > G4DEZ 55a/59a QTF 330; PA0KDV (JO33) > G4DEZ ; F5HRY > G4DEZ 55a; EI7BMB > MM0DQP 57a
	18z	1800-1824	Many G <> G and G <> GM; DL2DR (JO31) > GM7PBB 57a; OZ8ZS (JO55) > G4DEZ 55a; F1NNI (IN88) > GW3LEW 55a; G7CNF (IO81) > GI6ATZ (IO74)
		1838	F1NNI > GM4NFC 55a
	21z	2129	MM0AMW > GM4ILS 55a;
		2202	MM0AMW > K7BV/1 53a

**Auroral E**

13 <sup>th</sup>	18z	2037-2056	OH8MBN > GB3LER s9; MM0CWJ > JX7SIX 599; MM5AJW > OH8MBN
	21z	2220-2225	MM0AMW > LA4SI 579, OH9SIX 539; LA4SI > GM4SFW 599
		2230-2300	GM > LA4SI, TF3SIX, TF8GX; G3HBR > OH3BHL 579
		2308	OH3UW > GM4ILS 59+20 QTF 330
16 <sup>th</sup>	21z	2141	LA7SP (JP99) > GB3LER 579
		2204-2215	GM4JYB > JX7SIX 59; MM0AMW > LA7SP 559; G4FVP > JX7SIX 569
		2226-2233	MM0AMW > LA7SIX 529; LB6YD > GM4WJA; GM7PBB > OH9SIX 59
17 <sup>th</sup>	18z	1951	GM4JYB > TF3SIX 589
		2001-2006	MM0AMW > TF8GX 57; MM5AJW > TF8GX 57; G0JHC > TF8GX 55 flutter
	21z	2351	MM0AMW > VE8BY 539
24 <sup>th</sup>	18z	2056	MM0AMW > TF3SIX 539
	21z	2209	MM0AMW > JX7SIX 599, TF3SIX 599
31 <sup>st</sup>	21z	2117-2119	GM7PBB > OH9SIX 569, JX7SIX 524
		2155	GM7PBB > OY6SMC 524

## Meteor Scatter

Last month we reported reception of signals from CY9 via meteor scatter and postulated these were mixed mode, probably MS + Es. This month, on the 3<sup>rd</sup> at 1408, G8BCG spotted CY0AA “bursting to 55”, which might suggest a similar instance. There was sporadic E to the Azores at about the same time, and later that same afternoon the band did open via Es to the US East Coast, so it is likely that Es was present along the G-CY0 path at the time of this spot.

The Perseids meteor shower peaks on 12<sup>th</sup> August. The effect of this shower on MS QSOs is revealed in the MS heard/worked tabulation below. Both the “MS QSO” and “ALL JT6M” counts are noticeably elevated for the 12<sup>th</sup>. The 45 reports for “All JT6M”, although not explicitly identified as such, must be meteor scatter. I am sure the bulk of JT6M spots for other days are also via MS.

MS heard/worked (mostly via JT6M) in August by day. Weekend days (when activity is likely to be greater) are highlighted.

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MS QSOs	1	2	1	0	2	2	5	1	2	3	5	14	1	1	2	1	1	1	2	0	2	3	0	0	0	2	0	0	2	0	0
All JT6M	2	3	1	5	3	10	8	3	6	2	11	45	15	9	12	1	4	1	3	10	16	6	9	2	0	4	5	3	9	4	0

MS QSOs = all QSOs where MS mode indicated or inferred: mainly digital modes.

All JT6M = all JT6M QSOs/reception reports less those explicitly identified as tropo or Es

Outside of the Perseids, MS activity – very largely via JT6M – was higher than in June or July, which I presume is a response to the reduction in availability of sporadic E.

MS heard/worked (mainly via JT6M) in August 2005 by hour

Hour	QSOs	Countries	Hour	QSOs	Countries
05z	0		15z	2	CU (mixed mode?), F
06z	2	F, LA	16z	3	F, HA
07z	10	F, HA, HB, I, LA, OE, S5	17z	1	OZ
08z	0		18z	2	JX, TF (mixed mode?)
09z	4	I, ON, YO	19z	3	EA, HA, YO
10z	4	HA, OK, PA, SP	20z	1	LY
11z	2	OK, SP	21z	4	G<>GM, HA, I, PA
12z	2	OZ, SM	22z	4	HB, OK, PA, SM
13z	3	HA, HB	23z	4	G<>GM, OK, OM, SP.
14z	2	CY0 (mixed mode), HA			

## EME

For the record, these are the August (JT65A) moon-bounce reports from the DX cluster.

5<sup>th</sup> 1923 G4PCI > K7BV -27 dB  
 27<sup>th</sup> 1110 G4PCI > W7GJ -27 dB

## Solar and Geomagnetic Data for August 2005

Data supplied by G0CAS (Sun Mag<sup>1</sup>) and from Internet sources. Compilation by G0AEV.

Sunspot numbers (SEC)	Mean 65.6	Max 112 (2 <sup>nd</sup> )	Min 33 (13 <sup>th</sup> )
Solar Flux (28 MHz)	Mean 90.7	Max 112 (23 <sup>rd</sup> )	Min 75 (13-14 <sup>th</sup> )

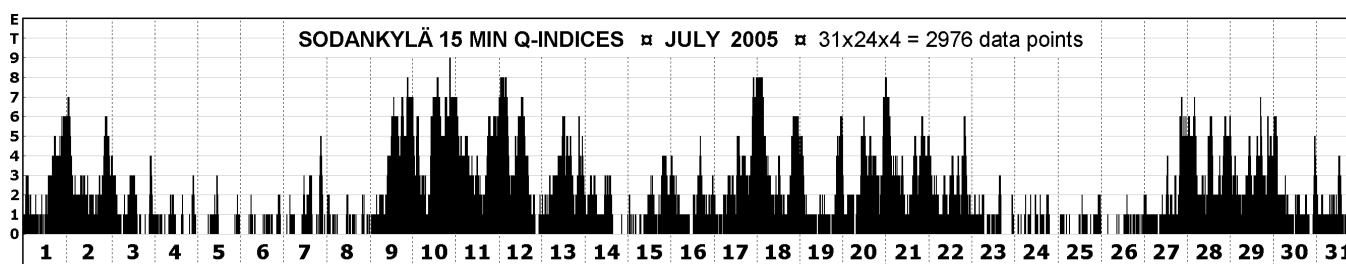
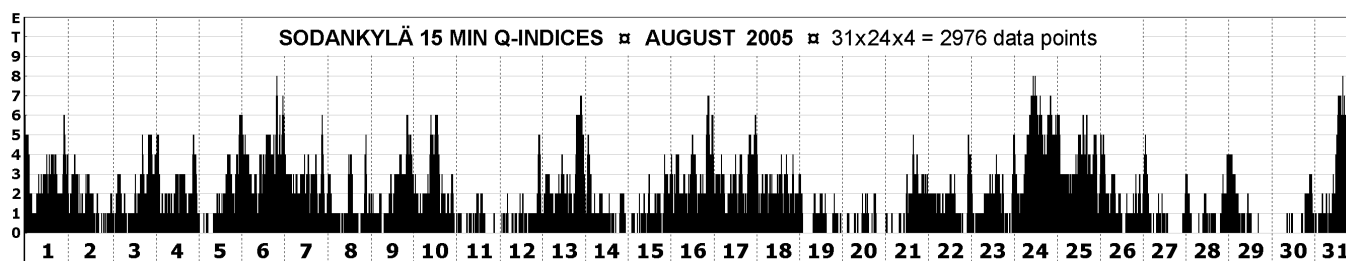
Solar data for August 2005 are presented in the table at the end of this section. Numbers in the 28 and 50 MHz columns of this table are the total daily "areas" worked/heard from the UK for each of several propagation modes and are a summary of the data presented in the first sections of this Report. On 28 MHz "areas" refer to the number of beacons reported via Es and F-layer; on 50 MHz the number of countries via Es, F-layer modes (including TEP), Aurora and Auroral E. F2 critical frequencies are from Chilton in Oxfordshire. SIDC spots are from SIDC, and other solar data from the joint USAF/NOAA daily summaries or directly from SEC.

### Energetic Events.

The SEC/NOAA summaries of solar data sometimes fail to report all (or any) energetic solar events and as a consequence there may have been missing data in some previous 6&10 Reports this year. I now check more than one source for these data. There were 8 M class X-ray solar events in August.

1 <sup>st</sup>	1337-1439	M1.0 1f	22 <sup>nd</sup>	0109-0213	M2.6 1n	25 <sup>th</sup>	0437-0502	M6.4 1n
2 <sup>nd</sup>	1825-1903	M4.2 1n		1652-1845	M5.6 1n	28 <sup>th</sup>	1023-1035	M1.6 Sf
3 <sup>rd</sup>	0458-0533	M3.4 1n	23 <sup>rd</sup>	1435-1602	M2.7 Sf			

### Q-indices

 from Sodankylä, Finland (Thanks to OH2LX)


Q-indices for August (top) with data from the previous month (below)

Geomagnetic data from the Finnish observatories for August are:

#### Monthly averages

Sodankylä: monthly Ak average = 21.0 (25.3 in July)  
 Nurmijärvi: monthly Ak average = 17.7 (16.1 in July)

#### Most disturbed August days:

Sodankylä: 24<sup>th</sup>, Ak = 89 (July 10<sup>th</sup> Ak = 114)  
 Nurmijärvi: 24<sup>th</sup>, Ak = 127 (July 10<sup>th</sup> Ak = 94)

<sup>1</sup> Sun Mag: Sunspot and Magnetic data compiled by Neil Clarke G0CAS. Email [neil@g0cas.demon.co.uk](mailto:neil@g0cas.demon.co.uk)

**K-indices.**

The following four tables present the Kp index (from SEC) and the Lerwick ("KL"), Eskdalemuir ("KE"), and Hartland ("KH") K-indices (from the British Geological Survey). Each table is set out with the day of the month in the top row followed by rows containing the K-values or each 3-hour period. The bottom row of each table is the sum of the K-values for the day. Pale (yellow) shading indicates K = 5, darker (grey) when K > 5. There were 6 days in August when Kp or the UK K-indices reached 5 or higher.

**Planetary K (Kp)**

KP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00	4	3	2	3	2	5	3	2	3	3	1	1	3	4	1	3	4	3	2	2	1	3	3	3	5	3	3	2	2	1	2
03	1	3	3	3	2	5	5	2	3	2	1	1	4	4	1	4	4	3	1	1	1	4	2	3	4	4	1	2	4	0	2
06	3	2	2	4	1	5	4	3	2	4	2	1	2	2	1	4	3	4	2	1	1	1	2	7	3	4	2	0	2	0	2
09	4	3	1	3	1	5	4	1	2	5	1	1	3	2	1	4	2	4	3	0	1	2	2	9	3	2	2	1	1	0	3
12	3	3	2	2	2	4	2	2	2	5	2	2	3	2	2	3	3	3	2	2	2	2	2	8	4	2	2	1	2	1	5
15	3	2	3	2	3	3	2	2	2	3	2	2	2	2	3	3	3	2	2	2	4	3	3	5	5	2	2	1	1	1	6
18	3	2	3	2	3	4	2	1	3	2	2	2	3	2	2	3	3	3	1	2	2	3	2	6	3	2	1	2	1	3	6
21	3	2	3	3	3	3	3	3	3	2	2	3	3	2	3	3	4	3	2	2	2	3	2	5	2	2	1	3	1	2	5
Σ	24	20	19	22	17	34	25	16	20	26	13	13	23	20	14	27	26	25	15	12	14	21	18	46	29	21	14	12	14	8	31

**Lerwick K (Shetlands)**

KL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00	3	1	1	2	1	3	3	1	2	2	1	1	2	3	0	2	2	2	2	1	0	2	2	2	5	2	2	2	3	0	1
03	2	2	2	2	0	3	2	1	2	2	0	0	2	3	0	3	2	1	0	0	0	2	0	3	3	2	1	1	2	0	1
06	2	1	1	2	1	3	2	0	0	3	0	0	2	1	1	2	1	2	0	0	1	1	1	4	2	2	1	0	2	0	1
09	3	2	1	1	1	3	3	0	1	3	0	0	3	1	1	1	1	2	1	0	0	1	1	7	2	1	1	0	0	0	3
12	3	2	2	3	1	4	2	3	2	4	1	1	3	1	2	3	3	2	2	1	2	2	3	5	3	0	1	0	0	0	4
15	3	2	2	3	3	4	2	2	2	3	0	1	2	1	2	3	3	3	1	1	4	2	2	6	5	2	0	1	1	1	8
18	2	1	3	1	3	4	3	1	3	1	0	1	4	1	2	2	3	3	2	1	3	1	2	6	3	2	0	1	0	2	8
21	3	0	3	2	2	3	3	2	3	1	0	2	4	2	3	4	3	2	1	0	3	2	1	4	2	2	1	2	0	1	7
Σ	21	11	15	16	12	27	20	10	15	19	2	6	22	13	11	20	18	17	9	4	13	13	12	37	25	13	7	7	8	4	33

**Eskdalemuir K (southern Scotland)**

KE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00	3	2	1	2	1	4	3	2	2	3	1	1	3	3	0	3	3	2	2	1	1	3	2	3	4	2	2	2	3	0	1
03	2	3	2	1	0	3	3	1	2	2	0	1	3	4	0	3	2	2	1	0	1	3	1	3	3	2	1	1	3	0	2
06	2	1	1	1	1	3	3	1	1	4	1	0	2	1	1	2	2	3	0	0	1	1	1	4	2	2	1	0	2	0	2
09	3	3	1	1	1	3	3	0	1	3	1	0	3	1	1	2	2	2	1	0	0	1	1	8	2	1	1	1	1	0	2
12	3	3	2	2	1	4	3	3	2	3	2	1	3	2	2	4	3	3	2	1	2	2	3	6	4	1	1	1	1	0	3
15	4	3	3	3	3	4	2	2	3	2	1	2	2	1	3	3	3	3	1	1	5	2	3	6	5	2	0	1	1	0	6
18	3	2	3	2	3	4	3	1	3	1	1	2	4	2	2	2	3	3	2	1	3	2	2	5	3	2	1	1	0	3	6
21	3	0	3	3	2	3	3	2	3	1	0	3	4	2	3	3	4	3	2	0	3	3	1	4	3	2	1	3	0	1	5
Σ	23	17	16	15	12	28	23	12	17	19	7	10	24	16	12	22	22	21	11	4	16	17	14	39	26	14	8	10	11	4	27

**Hartland K (SW England)**

KH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00	3	2	2	2	1	4	3	2	2	2	1	1	3	4	0	3	3	2	3	2	1	3	2	3	4	3	3	2	3	0	1
03	3	3	2	1	1	3	3	2	2	2	1	1	3	4	1	3	2	2	1	1	1	4	1	4	3	3	2	1	3	0	2
06	2	2	2	2	1	3	3	1	1	4	1	1	2	1	1	2	2	3	1	0	1	2	1	5	2	2	1	0	2	0	2
09	3	3	1	1	1	4	3	1	1	2	1	0	3	1	1	2	2	3	1	0	0	1	1	8	2	1	1	1	1	0	2
12	3	3	2	2	1	4	3	3	2	3	1	1	3	2	2	3	3	3	1	1	2	2	2	6	3	1	1	1	1	0	4
15	3	3	3	2	3	4	2	2	2	2	1	1	2	1	3	3	3	3	1	1	5	3	3	5	4	2	0	1	1	0	6
18	3	3	3	2	3	5	3	1	3	1	1	2	4	2	2	3	3	3	2	1	3	1	2	6	3	2	1	2	0	3	5
21	3	1	3	3	2	3	3	3	3	1	1	3	4	2	3	4	4	3	2	0	3	3	1	4	3	2	1	3	1	2	5
Σ	23	20	18	15	13	30	23	15	16	17	8	10	24	17	13	23	22	22	12	6	16	19	13	41	24	16	10	11	12	5	27

August 2005	28 Areas			-- 50 Areas --			2800			- Spots -			Max			X-ray			Min foF2			-- Particle Fluences --				
	Es	F	Es	F	Es	DX	A	AE	Flux	SEC	SIDC	Kp	Ap	Aa	b.gnd	MHz	Hour	MHz	Hour	2MEV Elec	1MEV Prot	10MEV Prot	2MEV Elec	1MEV Prot	10MEV Prot	
01-Aug	19	1	23	0	0	0	0	0	111	102	63	4	16	28	B2.0	7.0	21	2.4	23	1.6E+07	5.9E+07	9.3E+05	1.6E+07	5.9E+07	9.3E+05	
02-Aug	9	1	6	0	0	0	0	110	112	69	3	12	21	21	B2.4	7.2	20	3.2	04	1.0E+07	5.3E+07	2.1E+05	1.0E+07	5.3E+07	2.1E+05	
03-Aug	16	1	29	0	0	0	0	109	102	48	3	11	16	16	B1.8	6.3	21	3.6	04	2.8E+07	6.7E+06	3.8E+04	2.8E+07	6.7E+06	3.8E+04	
04-Aug	11	3	18	0	0	0	0	106	85	40	4	14	15	15	B1.8	6.3	21	3.2	04	1.3E+07	4.7E+06	3.6E+04	1.3E+07	4.7E+06	3.6E+04	
05-Aug	13	0	10	0	0	0	0	99	74	40	3	9	14	14	B1.4	7.0	20	3.6	04	1.5E+07	2.1E+06	2.5E+04	1.5E+07	2.1E+06	2.5E+04	
06-Aug	2	0	7	0	2	0	0	93	54	33	5	34	50	50	B1.2	5.8	20	2.7	04	4.6E+07	3.9E+06	1.6E+04	4.6E+07	3.9E+06	1.6E+04	
07-Aug	7	1	8	0	1	0	0	92	67	39	5	18	27	27	B1.5	9.8	11	2.8	03	8.8E+08	1.4E+06	1.1E+04	8.8E+08	1.4E+06	1.1E+04	
08-Aug	16	0	18	0	0	0	0	86	56	37	3	8	13	13	B1.0	9.6	15	2.8	04	1.6E+09	6.4E+05	1.2E+04	1.6E+09	6.4E+05	1.2E+04	
09-Aug	6	0	9	0	0	0	0	83	51	34	3	10	16	16	A8.1	5.8	20	2.3	04	1.4E+09	5.0E+05	1.2E+04	1.4E+09	5.0E+05	1.2E+04	
10-Aug	13	1	14	0	0	0	0	76	34	16	5	22	34	34	A5.5	6.4	13	2.8	03	4.9E+07	8.1E+05	1.3E+04	4.9E+07	8.1E+05	1.3E+04	
11-Aug	14	0	11	0	0	0	0	76	35	22	2	6	7	7	A4.0	5.7	19	2.5	04	3.8E+07	2.0E+05	1.3E+04	3.8E+07	2.0E+05	1.3E+04	
12-Aug	6	1	8	0	0	0	0	76	47	27	3	6	8	8	A4.3	5.8	20	2.7	04	7.8E+07	2.5E+05	1.3E+04	7.8E+07	2.5E+05	1.3E+04	
13-Aug	11	2	18	0	4	4	0	75	33	22	4	16	27	27	A3.4	5.4	19	2.4	05	5.4E+06	3.2E+05	1.3E+04	5.4E+06	3.2E+05	1.3E+04	
14-Aug	10	0	5	0	0	0	0	75	34	26	4	10	17	17	A3.6	5.7	20	2.3	04	9.0E+06	3.2E+05	1.3E+04	9.0E+06	3.2E+05	1.3E+04	
15-Aug	21	0	11	0	0	0	0	76	49	27	3	8	12	12	A3.7	6.2	20	3.0	03	1.1E+07	4.5E+05	1.3E+04	1.1E+07	4.5E+05	1.3E+04	
16-Aug	20	3	16	0	1	3	0	76	48	24	4	19	26	26	A3.3	11.3	19	3.1	05	1.4E+07	7.7E+05	1.4E+04	1.4E+07	7.7E+05	1.4E+04	
17-Aug	2	0	0	0	0	0	0	77	42	20	4	18	26	26	A3.6	5.8	20	2.9	04	2.4E+07	7.9E+05	1.6E+04	2.4E+07	7.9E+05	1.6E+04	
18-Aug	3	0	2	0	1	0	0	83	42	19	4	16	26	26	A6.1	6.9	20	2.9	04	1.2E+08	1.2E+06	1.6E+04	1.2E+08	1.2E+06	1.6E+04	
19-Aug	3	0	0	0	0	0	0	93	61	44	3	7	13	13	B1.0	5.9	20	2.4	04	1.8E+08	1.2E+06	1.6E+04	1.8E+08	1.2E+06	1.6E+04	
20-Aug	7	0	2	0	0	0	0	98	74	48	2	5	6	6	B1.4	6.6	20	3.0	04	2.3E+08	1.1E+06	1.6E+04	2.3E+08	1.1E+06	1.6E+04	
21-Aug	7	0	0	0	0	0	0	99	77	39	4	8	20	20	B1.8	7.3	20	3.0	04	1.6E+08	1.1E+06	1.6E+04	1.6E+08	1.1E+06	1.6E+04	
22-Aug	1	0	0	0	0	0	0	105	85	38	4	12	21	21	B1.7	5.3	20	2.6	04	2.9E+07	1.0E+07	7.2E+05	2.9E+07	1.0E+07	7.2E+05	
23-Aug	4	1	4	0	0	0	0	112	55	36	3	9	14	14	B5.5	6.8	20	3.1	04	5.2E+07	1.4E+08	1.7E+07	5.2E+07	1.4E+08	1.7E+07	
24-Aug	7	0	5	0	8	2	0	99	87	42	9	110	137	137	B3.5	6.1	11	2.7	22	1.8E+07	2.6E+08	5.1E+06	1.8E+07	2.6E+08	5.1E+06	
25-Aug	21	2	16	0	1	0	0	92	76	41	5	24	39	39	B1.9	8.3	23	2.5	05	5.7E+08	3.2E+07	2.9E+05	5.7E+08	3.2E+07	2.9E+05	
26-Aug	21	1	15	0	0	0	0	93	57	37	4	11	14	14	B1.8	7.5	21	2.6	02	6.8E+08	2.7E+06	4.6E+04	6.8E+08	2.7E+06	4.6E+04	
27-Aug	18	1	24	0	0	0	0	92	91	42	3	7	10	10	B1.1	6.5	20	3.5	04	7.3E+08	2.3E+06	2.2E+04	7.3E+08	2.3E+06	2.2E+04	
28-Aug	16	2	12	0	0	0	0	90	99	46	3	7	9	9	A8.7	7.0	19	3.1	04	1.1E+09	2.8E+06	1.7E+04	1.1E+09	2.8E+06	1.7E+04	
29-Aug	11	0	4	0	0	0	0	89	88	43	4	9	10	10	A9.1	7.1	19	3.2	04	2.3E+07	6.0E+05	2.5E+04	2.3E+07	6.0E+05	2.5E+04	
30-Aug	16	0	17	0	0	0	0	86	68	37	3	4	7	7	A8.5	6.7	20	3.4	04	1.4E+08	1.7E+06	5.5E+04	1.4E+08	1.7E+06	5.5E+04	
31-Aug	7	2	9	0	11	3	0	84	48	29	6	36	62	62	A7.1	8.1	17	3.3	22	1.1E+07	1.2E+06	2.4E+04	1.1E+07	1.2E+06	2.4E+04	
Sum	338	23	321	0	29	14																				
Average	10.9	0.7	10.4	0.0	0.9	0.5		90.7	65.6	36.4	3.8	16.2	36.4	36.4	B1.3	6.9	20	2.9	04	2.7E+08	1.9E+07	8.0E+05	2.7E+08	1.9E+07	8.0E+05	
Maximum	21	3	29	0	11	4		112	112	69	9	110	69	69	B5.5	11.3	23	3.6	05	1.6E+09	2.6E+08	1.7E+07	1.6E+09	2.6E+08	1.7E+07	
Minimum	1	0	0	0	0	0		75	33	16	2	4	16	16	A3.3	5.3	11	2.3	22	5.4E+06	2.0E+05	1.1E+04	5.4E+06	2.0E+05	1.1E+04	

## 50 MHz Outside Britain

Compilation and Commentary by G3USF

### Continental Europe and Africa and the Middle East

#### Auroral-Related Propagation

As usual, much of this month's information about auroras in continental Europe comes from OH5IY (with additional input from OH2HK), and as usual it is relayed by OH2LX. Many thanks to all of them. A reminder that OH5IY's data derive from monitoring of auroral backscatter from the 2m SK4MPI beacon (30 seconds every 10 minutes) and FM transmissions on 88.7 and 107.9MHz (1.2min every 10 mins.) Also a reminder that, particularly during periods when 'normal' sporadic-E may reach high latitudes, inclusion of reports here, rather than in the 'other modes' section can be a matter of judgment rather than certainty. August 3 is a case in point. Aurora was certainly present during the late afternoon at high latitudes (College K=6) but by late evening the geomagnetic field had quietened to K1-2, so the status of beacon reports during that period must be considered speculative..

Most auroral events were relatively brief, weak and confined to high latitudes. Were it not for our OH colleagues (or MM0AMW for listings presented earlier by G0AEV), they would barely have been noticed. On only five of the fourteen days on which auroral backscatter or auroral-E was reported somewhere in Europe, did propagation reach south of the Baltic-Scotland 'boundary'. Interestingly enough, although the 24<sup>th</sup> was much the more disturbed day (with an Ap of 110 and K-9 for 0900), the 31<sup>st</sup> (Ap36 and maximum 3-hour K of 6) produced a greater number of contacts. This may have been because the disturbance peaked earlier in the day on the 24<sup>th</sup>, while the event on the 31<sup>st</sup> ran into the evening when more operators may have been to hand. The event on the 31<sup>st</sup> appears to have favoured the UK, which produced an above-average proportion of reports. The most southerly ones noted by G0AEV were from IO80; the most southerly on the continent was from JO31. The mode for an isolated contact between OH and S5 on the 30<sup>th</sup> is speculative.

As the event on the 24<sup>th</sup> died down, with geomagnetic activity still fairly high (K6-ish), there was a good contact between SM1TDE and UR5EDU. We have occasionally seen similar openings in the wake of aurora both on this band and 144MHz, but it is unclear quite how they should be categorised, other than they appear to be in some sense auroral-related.

Aug 1 1740-1810 Au>OH5IY

Aug 3 1700-10 Au>OH5 1720-40 Au>OH5 1750-1800 Au>OH5 21-2200 OH9SIX(579),JX7SIX (579)>OX 22-2300 VE8BY>OX(559 mode?) VE8BY>OH2(529 mode?) UAtv>OX(599) JX7SIX(529),OH9SIX(569)>LA(mode?) OY6SMC>OX(579 AE?) 23-2400 GB3LER>OX(579 mode?)

Aug 6 00-0100 OH9SIX>SM3(JP82) GB3LER>SM3(JP82 55a) 1540-1600 Au>OH5 2040-2110 Au>OH5

Aug 9 2315 JX7SIX>SM6(599 AE)

Aug 10 0057 JX7SIX>SM6(still in 599 AE) 1320-1440 Au>OH5 1610-20 Au>OH5 1700-10 Au>OH5

Aug 13 2213 VE8BY>MM0AMW(54a) 2308 GM>OH3(599AuE 330)

Aug 17 2351 VE8BY>MM0AMW(539)

Aug 24 10-1100 48242>EI GM>PA(57a) 1010-1130 AuFM>OH511-1200 GB3LER>OZ(JO55 55a) LA(JO59)>DL SM7>DL 1200-40 AuFM>OH5 12-1300 DL(JO62)>DL(JO51 55a) 1300-20



AuFM>OH5 1340-1410 Au>OH5 1340-1430 AuFM>OH5 1440-1630 Au>OH5 15-1600  
 LA>SM3(55a) LA(JO65)>OZ(JO59 59a) GB3LER>DL(JO31) LA(JO59)>DL(JO53) SM7>DL(JO53)  
 OZ7IGY>LA(53a) GB3LER>LA(55a) SM6(JO57)>PA(JO22 57a) LA>PA(55a)  
 SM6(JO57)>DL(JO53) SM6(JO57)>SM1(JO97) SM1(JO97)>DL(JO53) OZ7IGY>EI(54) 1510-40  
 AuFM>OH5 16-1700 LA>EI(mode?) 1730-40 Au>OH5 1930-2000 Au>OH5

Aug 30 1905 JX7SIX>OH2 AE?) 1908 S51UF>OH2(AE?)

Aug 31 1330-1550 Au>OH5 1350-1540 AuFM>OH5 15-1600 SM0(JO89)>OZ(JO65 58a)  
 LA(JO59)>OZ(JO65 57a) ES0>SM0(59a) 1600-30 Au>OH5 1600-30 AuFM>OH5 16-1700  
 LA>SM0(57a) GM>SM0(59a) GJ>OH2(55a) GM(IO68)>DL(JO31 59a) GM(IO87)>DL(JO31 55a)  
 1640-1710 AuFM>OH5 1645 JW9SIX>OH2(599 AE) 1648 OH9SIX>OH2(599 AE) 1646  
 JW7SIX>OH2(599 AE) 1647 JW5SIX>OH2(589 AE) 1650-1710 Au>OH5 17-1800  
 OH7(KP42)>PA(JO33 57a) SM0(JO89)>PA(JO33 57a 030) DL(JO31)>PA(JO33 57a 020)  
 LA>SM0(59a) 18-1900 GM(IO68)>DL(JO31 NW) G(JO03)>OZ(JO55 55a) JX7SIX>SM0(JO99  
 519) JW9SIX>SM0(JO99 549) JX7SIX>OH2(mode?) JW7SIX>SM0(JO99 529)  
 JW5SIX>SM0(JO99 529) JW9SIX>OH2(599 AE) JW7SIX>OH2(579 AE) JW5SIX>OH2(549 AE)  
 OH1SIX>OH2 53a) OH9SIX>OH2(55a) LA7SIX>OH2(599 AE) GW>F(IN88 55a) TF3SIX>OH2  
 TF3SIX>OH3(KP11 529) DL>SM0(JO99 55a) DL(JO43)>SM0(JO99) GM(IO75)>F(IN88) 2050  
 Au>OH5 2202 K7BV/1>MM0AMW(53a) 2250-2310 Au>OH5

**Other Modes**

The predominant propagation mode in continental Europe, as from Britain, was of course sporadic-E. As was to be expected, the summary table below has rather more boxes filled than G0AEV's earlier UK table. There are, for example, no completely blank days when no identifiable Es was reported anywhere across the continent. However, the basic pattern is very similar, with the same weakening for no obvious reason between the 17<sup>th</sup> and a strong finish (apart from the stormy 31<sup>st</sup>) - when one might have expected a tail-off. More expectedly, there were fewer days than in June-July when the band was open particularly late or early.

Es Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
UTC																	+											+	+			
00-03																																
03-06				+		+																			+							
06-09	+		+	+	+	+	+	+				+	+	+	+	+					+				+	+	+	+	+	+	+	+
09-12	+	+	+		+	+	+				+	+	+	+	+	+				+	+		+		+	+	+	+		+	+	
12-15	+	+	+	+	+	+	+		+	+	+	+	+		+	+		+		+	+			+	+	+	+					
15-18	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		+		+	+		+	+	+	+	+	+	+	+	+	
18-21	+	+	+	+	+		+		+	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	
21-24	+	+	+				+		+		+		+		+	+			+				+	+	+	+	+	+	+	+	+	

This was, in any case, a unique August by reason of the Hungarians having access to the band for a month-long experiment. And they made the most of it, as the detailed listings below show. HA operators could be found at almost any hour of the day or night, whether exploiting Es or using jt6m for meteor scatter, or making tropo contacts with near-neighbours or within Hungary itself. Collectively, they accounted for a significant fraction of the month's reports. They undoubtedly helped make this the busiest August one can remember, with even the most jaded operators keen to score a legitimate new country/mode. It may be that the better than average figures for Es in August in some measure reflect an 'HA effect' rather than 'propagation' alone.

Such 'DX' as there was, in the absence of F2, must be almost wholly attributable to multihop Es. Contacts with the Gulf region, though mostly made from south-east Europe, would have required at least two Es

hops. (The detailed listings also record many more within Europe that would have needed a second hop, such as Scandinavia to Greece or 4X/OD.) There was only one report of signals from Africa, apart from CN, EA9 and CT3 (which in some cases also required 2xEs)> This was for the 5T5DUB beacon in EI on the 1<sup>st</sup> and G and the HB0/PA6TUE expedition on the 9<sup>th</sup>.

### Europe<>Middle East

A4 1 day 18(HA,I,Z3,9A)  
 A7 2 days 7(DL,HA,I,SV) 18(HA,YU,Z3,9A)  
 YK 1 day 7(I,LZ,SV)

A6 5 days 3(I,OZ) 7(I,SV) 13(G,HA,PA,9A) 25(9)  
 YI 3 days 7 (I9,SV,9H) 8(DL,G) 12(UR)  
 9K 1 day 25(DL,LZ)

This has not been a notable year for trans-Atlantic openings, but this month's results were rather better than August 2004, even discounting events attributable to aurora and/or auroral E (starred in the box below). The majority of openings were limited to the western edge of Europe (and the eastern fringe of the US and Canada), apart from DL on the 16<sup>th</sup> and a questionable 9A<>W3 report on the 3<sup>rd</sup>, and VE8<>OH on the 3<sup>rd</sup> and 16<sup>th</sup> - but the path geometry there is quite different. There was a gap in trans-Atlantic working between the 18<sup>th</sup> and the 27<sup>th</sup> (apart from reception of 48MHz TV from Europe in W2 on the 19<sup>th</sup> and by FM5JC on the 20<sup>th</sup>) Unlike earlier summer months there were no reported contacts with the Caribbean or South America.

### Europe<>North America

VE1 3 days 9(CT,EA,EI,F,G) 16(CT,EA) 27(CT,PA)  
 VE3 1 days 16(CT)  
 VE8 4 days 3(OH) 13(G)\* 16(OH) 17(G)\*  
 VE9 1 day 9(ZB)  
 VO1 3 days 2(EA) 9(EA,EI,F,G) 16(F)  
 W1 7 days 3(DL,EI,G,PA) 9(CT,EA,EI,G,ZB) 12(CT,EI,G) 16(CT,DL,EA,F,G) 18(JX) 28(CT) 31(G)\*  
 W2 2 days 9(CT) 16(CT)  
 W3 2? days 2(EA) 4(9A??)  
 W4 3 days 2(EA) 9(EA) 27(F)  
 W8 1 day 27(F)

JT6M was widely used during when Es was not available - and occasionally reported in combination with Es or even tropo. So the addition of (jt) after listings cannot invariably be taken to indication MS working. The Perseids period was particularly active. There were also some reports of backscatter working or extended tropo, although distances were mentioned only infrequently.

Throughout, call signs are given in full only in the case of beacons or DX working.

Aug 1 00-0100 HA5>HA7 HA1,HA5>PA YO7>HA7,HA1 04-0500 LZ2>HA4 HA1>OE3 OE6>HA1  
 HA0>I0(ms) 9A>HA0 05-0600 YU7,DL>HA0 SV8>I3,HA0 HA1,HA7>OE3 HA0>S5,9A,YO2 06-  
 0700 GB3LER>HA2,OE3,9A,HA1 EI,SV3,LZ1,LZ2CC>DL HA0>ON I0JX>OZ  
 SR5SIX,LZ2CC>EH3 LA>I5 S5>YO2 G,F>HA0 LZ1>SM7 07-0800 3A,UT5G>DL HA5>F,EA6  
 LA>EA3 HA6>LZ1 GM>9A YO7,LZ4,3A>OZ OY6SMC>DL UT5G>I2 F>HA6  
 UR,HA5,YO3KWJ>PA HA3>SP4,OH2,EA6 HA7>F GM>HA5,HA1 LA>9A OH3>9A,EA7 PA>I2

LY>I5 I9>OH2,PA HA3>PA,OZ,EH3 08-0900 PA>SV1,HA4 HA3>EI,LZ2,OZ,DL  
UR,LZ1,YO3KWJ>DL G,GI>HA1 HA7>EA3 HA5>PA HA1>9A F>OZ GM,G>HA6 HA5>EA5,EH3  
G>HA5,SP9 EH6>SP9 EH1DVY,OH6>EI SM1>I0 EH3>HA5 09-1000 LZ2>OZ EH3>HA1  
UT5G,HA7,YO2,IS0,LA>DL HA5>OK1,PA LA>EA7 HA1>EA5 PA,EH8>HA7 IY9X>S5 UR>PA  
5T5DUB>EI I7,LZ2,9H>F I9>HA5,HA1 HA8>OZ IS0,OZ>HA5 10-1100 PA,HA1>9H LA>OZ  
OY>SP2 IS0>HA7,DL F>I4 EH1DVY>HA5,DL EH5>HA5 S5,OE4>EA5 9H>DL,HA7,HA1,HA5  
OH9SIX>SM1 LA7SIX>OZ,DL S5>F,EB1,EB4 I9>HA7,DL OE4>EB1 I3>I4 HA3>EB1,F OY>ES1  
I0JX>F 11-1200 S5,I3>EB1 PA,HA3,S5>F I9,LA>DL EH3,F>HA577 LA>PA,ON HB>EA4  
JX7SIX>DL,LA I0>PA F>HA4 DL>EB1 CU3URA>DL 12-1300 HA3>OZ,DL HA1,HA7>OE3  
9H>HA4 LA,SV1>DL EI>S5 GU>HA1 13-1400 G>HA5 GB3LER,OY6SMC,JX7SIX>OZ  
OH9SIX>SM1 HA1>OE3 HB9SIX,SV1SIX,I0JX>ON 14-1500 EA5>HA0 OY>OZ YO7>HA5  
HA7>9A 15-1600 HA0>OH3 OH3>HA5 OH1>9A OH6>HA4 16-1700 HA3>OK2,DL  
OH1,OH3,OH7,ES1>HA5 HA4>OH3 OH1,SM3,OH5,ES6,ES9>I4 LA>OM7,HA9 ES2>HA1,DL  
OH6>HA4,DL LZ2>HA0,HA8 OH5,LZ2>PA YU1>SM7 ES1>HA1 UT5G>I9 SM1,UR>DL SP2>OZ  
G>HA9 17-1800 HB>SM7,DL UR,OY,SM6,HA3,LA,LZ1, I9,S5>DL HA9,OH7,HA0>I9 LZ2>PA  
I9,G,OH1,OH5>HA4 SR5SIX>EI GM>9A,I4 HA7>OH5 HA5>9H G>HA9 GD>SQ9  
OH1,OH3,CT3>EA7 G>CN,OH5 18-1900 SM0,EH6>HA4 HA1,SV3,I9,HA3>DL OH5,EH6>HA1  
LA>CN F,HA7,HA8,ES2,OK1>9H OH3>9A HA8>I5 EI>OZ HA0>EA6,PA G>PA,SM5 GM>OZ  
GB3LER>EI UT5G>EH3 SNM7>HA4 19-2000 HA3>PA S5,I0>HA5 F>HA0 EI>SM0 CT0SIX,LY>EI  
UR>EH3 ZB2>CN CU4>EA3,I5,I0 S5,CU4,YU1,HA1>DL HA0>9A,I0,I1,PA HA7>9A SM7>EA7  
LY>EI OK2>HA4 GM>HA1 20-2100 OY6SMC,G>EI S5,CU4>DL HA8>S5 HA6>OK1 I9>F YU1>S5  
K1TOL>CT3DL HA0>9A 21-2200 OZ7IGY>SM7(t) G>HA6 CU4>F GW>I3(jt) JX7SIX,TF3SIX>OX  
22-2300 OY6SMC>OX GB3LER>OX,EA3 OX>OZ LA,OY>OX JX7SIX>SM7 GM>OX 23-2400  
GB3LER>OX

Aug 2 03-0400 HA5,HA0>HA4 HA0>HA5,HA2,HA6 04-0500 YO7>OE3 HA2>HA5 05-0600 HA5>HA8  
HA8>9A 07-0800 UU5SIX>DL LZ2CC>I5,DL HA7>SM7 08-0900 GB3LER>EA3 UR>DL,PA  
TA2,LA>HA5 SR9FHA>OZ HA8>UR 9A>SM7 LA>YO4 SM1,ES2,OH1,SM5,SM3,LY0SIX>DL  
TA2>LZ2,OZ UU5SIX>EA7 09-1000 SM3,OH1,HA3,LZ1JH>DL UR>EA7,9A,LZ2,HA1  
SP6,LZ4>OZ OH1>PA UU5SIX>LZ2 10-1100 LZ1>HA7,DL UT5G>DL,9A,HA0,SM0 UU5SIX>HA5  
UR>I4,9A G>PA HA3>SP6,DL OH7>HA0 HA0>OH5 LZ2>LA LZ4,YO8>SM0 YO8>DL UU5SIX>LA  
12-1300 UR,SM7>LA HA3>DL VO1ZA>EA7 13-1400 UR>LA,DL CU3URA>EA7 N3DB>EA7RM  
15-1600 CU3URA,EA8>EA7 LX0SIX>DL(t 410km) 16-1700 G>9A HA0>I9 HA3>DL UR>SP1 17-  
1800 S5>YO5(t),HA0,HA5 18-1900 HA4>HA5,HA7 HA0>SP6 EI>PA(jt) HA8>YU7 19-2000  
OH3>LZ2 OH1,OH9SIX>DL HA1>9A ES2>HA1 OH3>HA5 HA3>LA,PA I4,OH2>HA1 HA0>OH3  
OZ>LA(t) OH6,SM5>HA0 HA5>SM0 20-2100 OH3,SM5>HA1 S5>OH3 ES2,SM0>HA5 UR>PA  
OH0>HA0 HA0>LA HA1,ES6,ES2,HA3,SM5>9A HA3>YU7 SM3,OH0,OH3>HA5 HA8>SM7,SM0  
HA3,HA1,HA5>SM5 21-2200 HA0>SM5 YU1>SM7 HA5,HA0>LA HA3>PA(ms) OE3XLB>SM0  
SM4,SM0,SM3>HA1 SM6>HA5 SM7>9A 22-2300 OZ>HA5 I4>HA1 LX0SIX>PA(t) SP2>PA

Aug 3 02-0300 OE3XLB>HA7 03-0400 YU7>HA4(t),JA6 04-0500 HA8,HA1>9A 05-0600 YU7>HA6 06-  
0700 SV1SIX>HA0 OH9SIX>DL LY>YO2,HA5 LZ2>OH7 HA5>SV1 ES4>HA5UT5G>LA 07-0800  
I3>LA OH2,OH5,SV1>HA5 UU5SIX,HA5>DL UR>OK1 GB3MCB>I2 HA0>YO5,OM7 I2>LA  
LZ2>SM1 GB3BUX,HA7>EA3 UT5G>PA 08-0900 UT5G>ON,OH6,DL HA0>SM1,EI EH1,I9>PA  
SM2>SM0 HA1>SV1 HA5>EA5 HA0,LZ2CC>EA3 UR>SM3 HA7>I9 EH3>DL GB3LER,I7>F  
HA5,SP6>EI EH5>HA7 4N1ZNI>OZ DL>LZ2 I7>I2 09-1000 EH5>HA7 I7>I2 GB3LER>PA,DL  
HA0>OZ,DL,EA5 ES0SIX,SV1SIX>EI YU1>DL OY>DL,PA ES1>I5 LA>ON,PA,F  
LZ1JH,GB3BAA>F LA,OY>PA HA2>SM7 I8EMG,HA1>F SV1SIX,IT9X>DL 10-1100 OY>ON  
OE6>EA5 CT>PA LA>I5 OY>EI,EH3,DL,EA5 I0>OM7 GB3LER>EI I0,EH1DVY,SM3,I9,4X4SIX>F  
SV1SIX>F,EH3 I9>HA7 IT9X>OE3 11-1200 EA6>DL,OE3 I9>DL,PA,HA7 PA>I0 I8>DL,HA5  
YU1,LZ2,GU>I5 I6,I8EMG>DL GU>T9 LZ2CC>I2 HA7>I4,I5 OE3XLB>F IS0>OZ HA1>S5 HB>EI  
12-1300 YU6,I6,T9>DL HA1>F,EI,EA7,OE3 S5,9A1CAL>F G,9A>DL LZ2>I2 I9>OZ,DL I1>HA5  
F,GU,I1,G,GW>HA6 HA0,HA1>EI 13-1400 F,G,HA3>DL G,OM3>HA1 OM3>EA3 JX7SIX>I5  
HA1,HA3>EI EI>DL,F HA3>S5 GD>HA0 9A,S5>LA HA0>DL,HA6 LA>F 14-1500 HA1>S5(t),DL

9A>LA 15-1600 HA1>DL UU5SIX>OZ,HA6 UT5G>OZ  
K1TOL>G4FUF,PA0WRS,G0JHC,G4IGO,G0GMS WA1T>G4FUF HA1>9A UR>DL A61Q>OZ4LP  
OH9SIX>DL UU5SIX>HA4 16-1700 K1TOL>EI3IO,DF9OX HA0>OH6,OH2 OH3>YO2 LY,UR>HA4  
OH5RAC>S5 IW0HEX>A61Q OH8,OH1,UR>9A SV1,S5>I4 LZ2>RK3,OH6 LY>HA9,PA  
SM2>DL,9A UR>PA,HA1,LA YL2>PA SM3>LZ2 OH3,OH7>HA1 ES8,HA1>9A HA7>OH3 17-1800  
HA5,HA7,HA4>LA YO4>OZ UR>I4,HA4,HA5,LA SM5>HA4,HA5  
ES1,ES0,9H,OH2,OH3,ES2>HA4 HA8>OH2 LZ2CC,SV1SIX>EA3 HA7>PA HA0>PA HA1>OE3  
18-1900 OH2,G,ON>HA4 HA1,HA4>9H HA7,TA2,HA3,UR,OD5SIX>DL OM3,HA0,LZ2,LZ1>LA  
G>HA1 HA1>9H OH3,UR>I5 HA2>ON CT>HA0 LZ3>HA8 LZ1>PA,I5 19-2000 UR>DL HA1>I4  
HA0>YU7,I0 OZ7IGY>LA 20-2100 G,EI>HA1 HA7,SP8,HA6>EA3 HA0,HA6>F YO7,HB9SIX>EI  
HA1>SM6 HA0>I1 OZ7IGY>LA 21-2200 OE3XLB,GB3LER>EH3 JW9SIX>SM5,LA IZ1EPM>EI  
EH3>I3(jt) SM3>OH2 22-2300 LA>SP2 EH3>PA JX7SIX>DL 23-2400 LA7SIX>DL  
GB3LER>PA,DL

Aug 4 04-0500 YO7>9H 05-0600 S5,YU7>HA1 06-0700 HA0>F OZ7IGY>EI 08-0900 Om3>HA1  
SM2>SP6 I3>I4 CN8MC>F SP6>DL CT3,EH3>EA8 LX0SIX>PA(t) 10-1100 GM>PA 1150  
HA6>OM7 12-1300 HA6,SR89FHA>EI G>ON I1>I2 14-1500 YO2>HA0 15-1600 HA1>S5  
OH8>ES1 I3>I4 17-1800 OH6>OZ(ms) TF3SIX>SM0 LA7SIX>DL S5>HA1 18-1900 TF3SIX>LA,EI  
TF>OZ SM0,HA3,UR>DL OH1>EI LA>I0,CT,PA G>CT EI>I4 I2>SM0 F,ON>HA0 S5>LA UR>I2,EI  
G>HA1 19-2000 PA>9H LZ2>F G>I7,HA0 SM2>DL F>HA0,HA1,HA3,HA4,HA5  
HA1,OH1,F,OZ7IGY>EI YO3KWJ,I0>PA S5>UR UR>I5 EA2>HA1 I0>HA0,HA8 HA4>SP2 20-  
2100 LZ1>PA HA0>I1,I9 JX7SIX>OZ CU3URA>F UR>EA2 TF3SIX,HA1>EI OZ>LA HB,I5,I4>HA0  
HA1>I0 HA7>SP5,PA HA8>EA3 YU1>PA 21-2200 HA1>I4(t) I0>HA0 I5>HA4 22-2300 G>CN(jt)  
OH1,JX7SIX,GB3LER>OX LA7SIX>LA

Aug 5 0048 VE8BY>OX 0649 HA1>S5(t) 07-0800 EH3>S5,9A,HA5,YO2 IS0>DL HA7>EA3  
OH1,LX0SIX(t),EH6CC>DL OM5>HA6 HA1>9A 08-0900 EH6>DL,PA F>I5,OK1,I2,9A,HB  
HA1>OE8,9A S5>EI GM>OK1 EH6>OK1,DL HA4>DL 09-1000 EH5>HA7,DL I9>DL F,EA7>HA1  
HA1>EH3 HA7>F EA7>HA7,HA5 DL>OK1 10-1100 I7,EH4>PA  
I8EMG,HA1,I9,CT0SIX,I0JX,YU7>F CN8MC>PA EH1DVY>PA,9A,F EI>HA7 DL>HA1 I0JX>EB1  
HA5,HA7(jt) EH6>EI,OE3 11-1200 EH4>PA,HA1 EH1DVY>9A EH3,EH5,EH2,SV1>HA5 HA1>CT  
I0>DL EH3,CN8MC>EI 9A>EB1 12-1300 SV1,EH1,OK1>HA1 EH1DVY>EI HA2>OM3,EA3  
SP8>HA6 13-1400 I0>CT HA0>EH1 1455 CU3URA>EI 15-1600 5B>HA7,DL 16-1700 LZ1JH>I0  
UR>SM0 SV1SIX>OE6 YO9>PA YZ1,YO7>9H 9A>HA1 17-1800 YO2,SV3>PA S5>HA1  
SV1>OZ,DL,PA,OK1 PA>DL,4X SV3>HA5 OZ7IGY>IS0 I0JX,I9>HA7 YO8,UR>I0 YO3KWJ>F  
YO7>SP5 UR>DL 18-1900 SV1>9A UR>I1 DL>PA I9>HA5 SV3>DL 9H>HA5,HA6,OK1  
HA5>I1,PA SM7>9H HA1>PA,OE3 HB>F(t) 21-2200 I3>HA6(ms) LX0SIX>PA(t) 22-2300  
OY6SMC>LA JX7SIX>OZ 2358 GB3LER>DL(ms)

Aug 6 00-0100 aurora 05-0600 S5>HA4 YO5>HA0 GB3LER>DL(t) G,YO2>DL HA3>PA 0659  
HA3>PA(ms) 07-0800 F>PA(jt) SM7>YO2(ms) I1>I2 HA3>DL OK2>I3(jt) ON>HA0 08-0900  
HA1>DL,OK1 UR>I0 OZ7IGY>I6 I0>OZ OH1,9A,ES4(ms)>LA G>HA0,HA7,HA4 UR,OE2>HA1  
OH1>OH3 LZ1>HA4 09-1000 UR>SV1,4X,OE3,HA1,PA OD5SIX>HA0 LZ1JH>PA HA1>OE3  
YO3KWJ,EH4,I0>PA G>HA5,HA4 HA5>4X OZ>YO2 UT5G>DL 10-1100 CU3URA>EH8 4X>OZ  
G>9A,HA5 UT5G>DL S5>9A I4>LA 4X>HA0 I5>LA,PA GW>HA4 G>I0 PA>HA5 HB0>S5 11-1200  
DL,EH8>CT HB0>PA(ms) 12-1300 PA>CN G>PA(t) HA5,HA3>PA(jt) HA1>DL,OE3 14-1500  
PA>HA4 IS0>I0 15-1600 HB0>HA3,CN(jt) CT0SIX>I5 18-1900 EA3>EA5 OZ7IGY>9A(ms)  
HB0>9A(ms) 1928 HA3>SP2(jt) 21-2200 HB0>PA(jt) HB0>DL(t) HB0>ON(jt) S5>PA(t)

Aug 7 0555 YO7>HA5(ms) 06-0700 GB3LER,GB3BAA>F(ms) 07-0800 4X4SIX,A7A,A71EM,  
A61Q>SV1DH(2xEs) HA9>HA6 S5>HA6(jt) 08-0900 HA7>S5 A61Q>IW4BET,IK5YJY S5,4X>9H  
OD5SIX>SV1 S5>9A 09-1000 PA>HA6(ms) OK2>I1 LA>OH6(jt) GB3LER>I5 A7A>4X4SIX  
OD5SIX>SV1 HA1>DL 10-1100 GM>HB0 HB0>OH3 I5>CN 12-1300  
YI/N5JEH,ODSIX,4X4SIX,5B4CY>SV1DG YI9LZ>SV1DGH 13-1400 EI>DL 4X4SIX,OD5SIX>9H

A71A>SV1DH HA0>DL(ms) G>PA(jt) 14-1500 YI/N5JEH>IW9GUR,9H1XT,IT9GRR HA3>PA(jt) SV1>9H SV5>9A,I5 HA3>S5 15-1600 SV5>9A,I0,I9,HA0,HA1,YO2 A71EM>IW0HEX A71A>SV1 HA1,4X>9A HA3>S5 YI9LZ>9H1YZ YK1AO>SV1DH S5>4X 4X>HA8 UR>OZ 16-1700 4X,Z3,LZ1>9A A71EM>SV1CRX,HA0DU,DL9USA CU3URA>EI YK1AO>LZ2PB,SV1DH OD5SIX>S5 SV1SIX>I5 LZ2>HA0 4X>HA4,DL SV3>HA0 4>HA1 4X4SIX>HA8 LZ1>Z3 I8EMG,UR>DL I1>LZ2 17-1800 4X>I9,HA0,PA YK1AO>I4YSS SV8,I0JX,S5,4X4SIX>9A A71EM>I0JX,HA0DU SV3>PA,DL EA4>HA4(jt) I9>SQ6 UT5G,OD5SIX>I5 I9>OK1 HB>SV1 SV8>LZ2,HA4 LA>OZ,OH1 4X>I5,HA5 HB0>SV1 I7>DL,PA OK1>IS0 18-1900 A61Q>HA0DU SV8>HA7 I0>HA5 SV1SIX>PA,DL HA0>EA5 I8EMG>DL HA5>S5 HA1,HA0>9A ON>HA4(ms) OH4>DL 19-2000 HB0>F(jt) HA4>ON(ms) HB0>ON(jt) YO7>9A(ms) YO7>ON(ms) HA1>9A OD5SIX>HA8 G>YO7(ms) 2043 YO7>I3(jt) 21-2200 HA3>OZ(jt) GB3LER>F

Aug 8 0200 OE3XLB>HA7 06-0700 HA3>PA,YO2(bs),DL 07-0800 HA3>ON,DL,OE1 LZ2>DL,PA G>YO7 HA1>EI YI/N5JEH>G3NVO,DF4PL I0JX,I5>OZ 9A>DL 08-0900 I0>OZ I5MXX>LA OZ7IGY,HA6>F HA7>ON 9A>PA EH6>OZ HA3>LA G,T9,S5>ON YI/N5EJH>G3WOS PA>HA1 LA>I2 HB0>I2,DL,I4 I3,I5>DL DL>I0 HA5>OZ 0840-1116 data missing 1116-1200 OH4>DL,PA GU,LZ1,LZ2>HA1 EH3>EH8 HA5>PA LZ1JH,LZ2CC>OE5 LX0SIX,GB3BAA>OH5 S5,OK1,OE6>EB1 HA3,G,GM>T9 PA>I4 G>HA5 SM7>SV1 T9>LZ1 LZ2CC>DL 12-1300 LZ1JH,LZ2,EI,CU3URA,HB0,F>DL GU>T9,OK1,S5,SP2 I1,HB0>PA LZ2>HA5 HA5,HA7>EA7 IW3FZQ>UR S5,I6>EB1 I0JX>F EH7>HA5,SP9 HA7>CT UR>I5 G>HA1 13-1400 LZ2,YO3KWJ>SQ6 HA5,HA7,GW(sc)>EI LZ2>OZ EH5,UT5G>DL HB>HA1 HA5,HA7,UR>EA7 EH6>SP9 I5MXX,IW3FZQ,OE3XLB>F GI>HA5 9A,IW3FZQ,HA7>EA3 EH5>OM4 PA>I8 EH1DVY>OH5 HA4>I1 EH1DVY,F>HA5 OK1>EA8 UT5G>PA HA0>DL FX4SIX>I7 SV1SIX>I5 G>HA4 14-1500 EH1DVY>HA7,DL G>I5 LZ2>F PA>EA3 F>HA1,HA4,HA7 CT>DL,HA5,HA7 EH5>DL LZ9,HB>F 15-1600 I1>EI G>HA4<I0 EH1DVY,I1,EH3,F,EH5,EH7,CT>DL EH1>OK1 CT,HB0,GB3LER,I0,9A>F F>HA1,HA2,HA3,HA4,HA7,I5,OK1,OM4 CT,HA0>F 9H>I9 EH6>PA EH5>LA HB0>EA1 16-1700 EA6>PA EH1DVY>DL,LX F>HA4,HA5,SP5 GU>HA1,HA5,HA0,DL,OK1 GB3LER>F OK1>DL 9A>EI EH1,CT0SIX,CN8MC>PA GB3MCB,F>DL EI>I3,SP5 DL>HA5 17-1800 GM>OK1 DL>HA5 I0>I1 OZ7IGY>EB1 F>EI,PA,LA,DL,SM0,CN 9A>HA0 GU>DL,PA G>DL 18-1900 CN8MC>EB1 UT5G>I4 JX7SIX>OH5 GM>DL OH8>SM5 HA1,UU5SIX,UT5G>S5 S5>HA5 OY6SMC,GB3LER>SP9 UR>I3 19-2000 UR>HA5,EA3 I3>UR GB3MCB>OH5 HA0>9A SV1SIX>S5 EH3>CN,OZ,EA4(mS) 20-2100 EI,G>S5 SV1SIX>I5,EI I3>HA0(jt) GB3MCB>9A DL>YO7 GM>I5 21-2200 I4>HA0 OK2>PA(jt) 220-2300 PA>HA6(ms)

Aug 9 08-0900 I3>I4 09-1000 CN8MC>EH3,F CT0SIX>EH3,CU2 HB9SIX>F 10-1100 ZB>F,EH1 CU3URA>EH3 JX7SIX>SM7 EH1>EH7 11-1200 CN8MC>EA1 JX7SIX>PA ZB2>CT W1JJ>EA4SV 12-1300 JX7SIX,DL,PA CN8MC>I0,EA7 CU3URA>EA7 W1JJ>CT1EPC 14-1500 CU3URA>EI 15-1600 EH7>CN VO1ZA>EA7KW 16-1700 DL>HA0 ON>OE5(ms) 17-1800 OE5>HA0 EA7,EA8>EA4 EH8>CT 18-1900 I4>HA0 19-2000 VO1ZA>F6HRP,EI5FK CU3URA>F SO5>HA0 VE1YX>G7CNF W1JJ>G4PCI HA0>SO5 JW9SIX,JW5SIX>SM0 20-2100 DL>YO7 JW9SIX>SM0,LA VE1ZZ>G4IFX VO1ZA>G4PCI VE1YX>EI7IX GI>EI SO5>HA0(jt) HA0>S5(ms) LA>OH6 21-2200 LA>SM6 OH8>OH3,SM6,SM3,SQ2,OZ LA>SP2 I4>HA1(t) PI7SIX>HA0 22-2300 LA7SIX>DL LA>OZ,DL LA7SIX>PA OZ>DL(bs)

Aug 10 06-0700 EH3>F(jt) EH3>OE5(ms) 07-0800 G>OM5 HB0>HA0,HA0 08-0900 GB3LER>F(ms) HB0>I7,I0 I4>HB0 99-1000 GB3LER>F(ms) HB0>I3 EH3>F(jt,t) 10-1100 EH3>EA1(jt) OZ7IGY>F F>OZ LZ2CC,SV1SIX,LZ1JH,IT9X,9H1SIX>DL HB0>PA,ON GI>PA 11-1200 GB3LER>DL UT5G>I0 I3,PI7SIX>EI EH3>EH1(jt) EI>DL,PA GB3MCB,CN8MC>I0 GB3IOJ>I5 IS0,SV1SIX,GB3MCB>I5 UR>I7 9H>I3 G>I5 I8>HA8 HB>F 12-1300 CN8MC,LZ1>I5 HA3,HA7,HA8,HA0>I9 HA8,HA9m9A,PA>EA3 G>I1,EA3 I9>DL,I5 HA7>CT F,GB3MCB>DL HB0>ON,PA HA8>I9,CT GM>OZ(jt) SV1SIX>EI,SP6,SP9 CT>SV1 E,EH1DVY>OZ GJ>I1 PA>I5 CN>HA8,I0 I1,I3>EI GU>SV1,OK1 9A>9H,I9 EH7>HA713-1400 G>HA7 I0>I9 HB0>PA HA1,HA3,I9>ON 9H>OK1 I9>SP6 HA0>I0 HA1>EA7,9A,EA3 GW>HA6 I1>OZ 9A,GB3LER>EA3 HA7>I4 GM>I8 F>OZ,LA 14-1500 HA2>EA7 GW>HA0 HA1>I9,EA7 G>I5 EH6>HA8 HA2>I9 I9>F

DL>EA5 I8EMG,CT0SIX,EH1,CN>F CT>I8,9A EI,G>DL S5,I2>EA4 I3>HA1(t) 15-1600 EH2>EH4  
EH4,EH5,GB3LER>F CN8MC>F,DL CT>HA0 HB0,PA,HA1>EA7 I9>HA7 EI>SP9  
OY6SMC,CT0SIX,EH1DVY,LX0SIX(t)>DL EH5>I4 YO5,I9>HA0 F>I8,I5 HA1>I4 16-1700  
G,EH1>SM1 9A,I9>HA0 ZB2>I5 I0,CU3URA>F CT,EH1>I2 F,HA3>9A HA1>S5,9A EH4>DL 17-  
1800 JX7SIX>EI HA1>9A ZB2>I4 CT0SIX,JX7SIX,TF3SIX>PA CN8MC>I5 GM>YO7 CN>I3 18-  
1900 EI,HA1,HA8>F LA>I4 EH1DVY>I2 CT0SIX>I5 19-2000 EH1DVY,G>I5 HA1>I4,F OM3>HA1  
9A>HA0 F>HA7 I3>PA 20-2100 JW9SIX>SM0 21-2200 OZ>YO7(jt)

Aug 11 06-0700 OM7>HA8 HA3>I3(jt) SM0>HA0 07-0800 F,LZ2>HA0 HA3>I0 9A>DL 08-0900  
UR,LY>SM3 HA3>I5(jt) HA3>S5(jt) 09-1000 F>HA5 HA5>SQ6 UR>I4 4X4SIX>SV1 9A>OZ EI>DL  
10-1100 LA>EH3 EH3>SM5(jt) G>PA I3>EI 11-1200 GW,9A>OZ SM7>HA5 GB3LER>F HA3>9A  
DL>HA5 12-1300 HA5>CT(ms) UT5G>IS0 HB0>HA 13-1400 4X4SIX>HA8 14-1500 OK1>HA8(jt)  
SV1SIX>PA OD5SIX>HA1,OE6,HA0,9A 15-1600 F>ON(jt) 4X>9A,HA5,HA7,HA4 UT5G>I0 DL>9A  
OZ7IGY>RX3 16-1700 GB3LER>F(ms) UR>I5,LA,HA1,I0,RX3 UU5SIX>I0 UT5G>DL  
4X>9A,OH3,OE6,DL LZ1>I4,I5 OD5SIX>HA0 OH6,LA7SIX,OH9SIX>DL HA5>SV1 SV1>HA1  
SV8>HB0 17-1800 YO2,G>PA UR>SP5,LA,DL,HA4,HA7,OZ SV1>HA1 OH3>YO2  
OH0>I1,HA8,DL,HA0 SM0>I9 OH6>HA5 SV8>YO2 OZ>DL SV1>OH3,HA0 LZ2>OK1 18-1900  
SV1SIX,YU1,OH4 OH3>HA0 YO3,9H,UR>HA1 YO5,I8>OZ EA3>HB OH6,OH8>HA4 OH0>EI  
OH4>HA7 19-2000 OH3>HA7,HA4 OH0,OH8>HA7 LA>I5 YL2,OH0>EI OH0,HA8>EA3  
OH4>HA4,HA5 OH0>SM6 HA7>CT,EA3 GB3LER,OH1,SK4,OH0>F HA3>PA,DL G>SM6  
HA8>OZ,EA5 OZ>HA4 HA0>LX HA1>SM1 20-2100 SM1,OH5RAC,LA,SK6,SM3,OH0,GB3RMK>F  
LA,SK6,OZ>EH3 F>OZ LA>HA4 OZ>HA0,YO6 LA>OM5 HA3,HA0>EA5 OH6>PA  
OZ>HA5,HA4,HA7 OH3,OH0>DL SK6>S5,HA4,I8 SM7>HA0 DL,G>OZ OH0>9H OK1>HA0 21-  
2200 LZ2>PA GW>HA6(ms) 9A>I1 HA0>YO7 PA,SM7,DL>HA0 SP8,DL,OE3XLB>HA7 SP2>HA8  
SP2>EH3 22-2300 I1>HA6(ms) YO7>EH3(ms) GW>PA(jt),SP5(jt) 9A>HA0 OK7>YO7(jt) 9A>HA7  
GB3LER>F HA0>SP5

Aug 12 06-0700 EH3>I0(ms/es) G>F(jt) EH3>HA1 PA,9A,I4,I0>HA0 UU5SIX>RX3 07-0800 I4>HA0  
HA3>9A,EA3,SM5 OK2>I3 PA>HA1 HA7>OM7 OK2>I5(jt) HA3>Z3,DL SM7>I4 SP8>DL 08-0900  
SM7>HA6,I0 I7>PA I5>SP5 LZ2>F HA7>I4,EA3 HA3>I5,DL OM3>I3 ON>OM7(jt) HA1>EA3  
9A>DL ON>I8 HA6>EA3,DL 09-1000 HA3>DL,PA,I8 OK2>I4 G>I8(jt) OK2>F(jt) 10-1100  
I4>SP5(jt) S5>SP5(jt) 11-1200 I0>I5 12-1300 W1JJ>G4IGO,EI3IO,GW3LEW YI9LZ>US5I1 13-  
1400 GW>F(jt) 15-1600 SM7>OM7(ms) I4>HA0 16-1700 DL>I5 CN8MC>F 17-1800 GB3LER>OZ  
YO2>HA0 18-1900 GW>PA(jt) HA1>9A 19-2000 F>EA4(ms) F>PA(ms) EH3>PA(ms) G>EA5(jt)  
20-2100 SP9>SM5(jt) I5>HA0(ms) HA0>DL(ms) HA4>YO7(jt) 21-2200 SM5>LX(jt) DL>HA0(ms)  
9A>HA0(ms) SM5>EA4(ms) S5>EA4(jt) 9A>HA0(ms) EH5>PA(jt) 22-2300 HA6>SM5(jt) G>PA(jt)  
EH3>OK1(jt) OK2>EA4(ms) SM5>OM5(jt) YO7>PA(jt) G>OM5(jt) 23-2400 PA>EA4(ms)  
HA6>PA(jt) GM>OM5(jt)

Aug 13 00-0100 HA1>DL(ms) PA>OM5(jt) 01-0200 SM7>F(jt) PA>F(jt) F>DL(ms/Es?) 05-0600 S5>I4 06-  
0700 S5>HA4,HA5 EH3>F(jt) HA3>I4 I2>I4 07-0800 HA2>9A 4X4SIX>HA0 I3,OD5SIX>9A  
S5,SM7>I4 HA8>4X EH3>OZ 4X>HA0 5B4CY>9A(ms) SV1SIX>LY HA1>LY(jt) HA8>YO5 08-0900  
CN8MC>F HA0>4X UR,OH5RAC>RX3 HA4>YO5 4X>HA7 HA1>PA(jt) HA3>DL UT5G>I8  
A71EM>A61Q SV9SIX,UR,I2,9H>HA0 SV8>I2 09-1000 9H>HA0 HA3>I5,I4,I8,4X I9>HA7  
IS0>HA8 HA8>SM6 I8,IS0>HA4 OD5SIX,LZ2>I5 F>PA(jt) SV3,I9>DL LZ1>I4 IQ4AD>EI  
I8EMG,S5>F HA1,HA3,I7>9A 10-1100 OM1>9H CN8MC>HA4>EH3 UR,9H>DL 5B>I5,HA8  
HA0>F OM7>HA8 G>9A 5B>PA,EI,HA4,I3,EA7 HA8>EA6 HA2>EI I9,DL>EA3 11-1200  
HA0.OM3>F S5>EI,SV1 PA>SM0 OK1>F EH7>I5 F>SM0 5T5DUB>G4PCI,PA6TUE G>OK1  
GB3LER>I0 I6,GM>I5 SV1>HA1 F>OZ HA8>SV1 12-1300 SV1SIX>EH3,9A,PA,I5  
SV9SIX>I5,HA8,EH3 HAS8>Z3 SV1>HA2 4X,GM>I4 9A>SV1 SP9>EA3 GW>CN ZB2>DL,F  
GI>PA 13-1400 CN>I5 I9>HA4,HA0 I3>SV1(jt) CN>PA,I1 SV3>HA4,HA2 SV9SIX,SV1SIX>9A  
F,LZ2>I8 CT>I1 4N>HA0 ZB2,CN8MC,CT0SIX>F 14-1500 LZ2>I8 I9>HA2 9H>HA0 HA1>I4  
HA4,LZ1,LZ2>Z3 LZ1>I5 I6>I5 EH3>OM5 16-1700 EH3>I2,PA,I1(ms) UT5G>I0,HA4 UR>HA7  
EH1DVY>DL UU5SIX>HA4 17-1800 UT5G>PA,I0 CT0SIX>DL S5,HA1>EA1

EH1DVY>DL,SP6,HA5 LZ1JH>RX3 UU5SIX>HA5 RX3>HA8 UR,YO8>DL PA>HA0,HA7  
A61Q>HA0DU,PA0KDV F>HA1,HA5 PA>HA7 18-1900 A61Q>G3SED,9A7V,9A4K LZ1,HA3>DL  
DL>HA5 UR>F LZ1>PA,DL,OZ G,PA>HA4 HA1>9A G>DL OE3XLB>EA3 S5>HA1 GB3MCB>I8  
CU3URA>I5 HB0>CT EH1DVY>OM7 CT,HA1>9A 19-2000 HA1,OK2,HA6>EA3 I9>9A,HA1,HA5  
EH3>HA0 YO7>I0 EH4>I5 CN>F(jt) HA8>EA5 EH3>PA(jt) 20-2100 SV9SIX>SV1 JW9SIX>SM5  
22-2300 JX7SIX,TF>PA 23-2400 TF>EI,OZ(mode?) OY6SMC>OZ(mode?)

Aug 14 06-0700 SV9SIX>I5 07-0800 S5>HA7,9A HA3>S5(jt).OZ(jt),I2(jt) 4X4SIX,SV9SIX>SV1 08-0900  
CN8MC>I5,F 9A,S5>HA2 I9>4X G>OZ S5>I9 09-1000 S5>PA(jt) GW>ON(ms) HA8>I0 HA6>S5  
HB>ON(jt),I6(jt),PA(jt) 10-1100 HA6>9A EB1>CN HA6>PA(ms),DL(ms) 1156 HA6>9A OZ>S5(jt)  
13-1400 HA8>9A(t) I7>S5 HA8>S5 14-1500 I6>S5 15-1600 PA>F(jt) I6>S5 S5>HA1,9A HA4>9A(t)  
16-1700 OD5SIX>9H 9A>HA2,HA4 4N>9A 9A>S5 4X4SIX>9H OZ>F(jt) CN>F(jt) EH3>F(jt) 17-  
1800 EH3>S5 HA8>9A,DL HA0,HA4,YU1,S5>9A 18-1900 F>I1(ms) DL>EA4 4N>HA5 HA0>PA  
G>HA1,HA4 GM>HA4 HA0>PA HA8>9A 19-2000 F,S5>HA1 CU3URA>EI F>SM5 HA8>PA  
HA3>I1,DL 20-2100 HB0>PA(jt) I2>I5(jt)

Aug 15 06-0700 YO7>S5 UR>I4 07-0800 SV9SIX>S5 G>S5 UR>9H 08-0900 I9>HA6 YO3>I9  
ES6>9A 9H,I9>SP9 HA6,HA7>9H OH2>HA7,HA9 ES0SIX,OH5RAC,OH0>9A CU3URA>EI  
I9>HA9 HA6>I9 YO2>DL 08-0900 HA7,HA6>9H I9,HA7>F HA3>9A,I9 LZ1JH,9H>F,DL  
OH3,SP6>I9 EH9>DL 09-1000 EH7>I4 YO4,ES1,HA3,9A>DL I9,CN8MC,YO2, HA6,SP8, EH9>F  
HA8>9H HA3,UU5SIX>9A UR>CT I0>EA1 I3,HA7>I9 EH7>I2 LZ2>PA YO4,YO7,UR>ON EH9>S5  
CT>I5 ES1>S5 10-1100 EH3>I9 SV3,I8>I2 I0>OZ HA6>PA ES1>HA7 SM6>I5(jt)  
HA6,HA8,EH9>DL LY,I9>F OM3,LY>9A HA5,HA7,I1>OZ UT5G>I0 HA4,HA2>9H SP7>HA7  
GM,SP3>I5 HA7>EA5,DL UR>PA,DL,HA7 SP9>PA 11-1200 HA3>9A,CT,I4 EH5>SP9  
LZ2CC,UR,YO7,YO3KWJ,HA8>DL HA0>I0,ON,PA,CT EH7>EA9,DL EH1>OZ UR>OK1,DL  
HA8,UT5G>PA G>HA7 CT>S5 LZ2,LZ1JH>PA,DL 14-1500 HA4>9A,DL GM>DL HA1>9A 15-1600  
EH1DVY>9A,OE6 HA3>9A G>I5 I5MXX>EA4 GW>I8 S5>YO7,HA7 GB3MCB>S5 EA3>SP9 16-  
1700 HA8,HA2>F ON>YO7 S5,OE6,I1>HA8 OM3>9A F>DL,PA 17-1800 G>PA I3>I5 19-2000  
UT5G>I5 HB0>PA(jt) 20-2100 HB0>PA(jt) SV1SIX>I4,I4 OD5SIX,SV9SIX,5B4CY>I5 UT5G>I1 21-  
2200 CN8MC,CT,OZ7IGY>I5 SV1SIX>OK1 HA9>YO7 2244 PI7SIX,G,ON>I8

Aug 16 09-1000 GB3LER>I4 10-1100 5B>4X OY>HA8 G,GB3LER>HA1 G>HA9 EI,F,GW>HA1 SP3>PA  
GU>HA7 EI>OE1,HA1 GM,GW>HA5 HA3>PA 11-1200 OH3,OH5,G>HA1 HA5>I9 UR>DL,G  
UR>PA GI>HA8 GB3LER,G,GU>I5 GW,G,OH5,EI>HA5 G>EH4,I8 GI>9A I6>OZ GU>DL 12-1300  
EI>DL,OE5,I5,IS0 F>DL,OH2,OZ UR,GW>DL GB3LER>I0 GM>I5 13-1400 EI>DL,HA5  
9A,HA5,HA3,HA6,HA8,HA7>DL GD,EI,HA8>9A HA0,HA5>EI GW>HA7 YU7,GB3MCB>PA  
LX>HA6 G>HA5 14-1500 PA,HA3,HA9,EI>9A F,HA4,HA8,GB3LER>DL OZ6VHF,GB3LER>I1  
SM6>F(jt) EI>I4 4N>ON,DL HA3,HA9>EI SM0>LZ2 OZ>F OH3>HA1,HA4 LA>LZ3 EI>I2 I7>OH2  
OE3>9H 15-1600 CU3URA>DL,EA7,PA I2>EI ES0>I8 HA8>OZ,OH2 GM>CT LX0SIX>EI  
I4>HA1,EI VE1ZZ>CT1EPC UR>HA1 16-1700 VO1ZA>F6FHP W1JJ>F6FHP,DK1MAX,F5JNX  
HA1>OE6 S5>HA4 EI>I5,HA1 HA8>T9 VE1ZZ>EA4SV 17-1800 G>EI(t) EI>OE5 OE5>HA1  
HA1>T9 W1JJ>F6KHM VE1YX>CT1EEB,EA7RU 18-1900 K1TOL>G8BCG DL>OE5(t) ON>EI  
F>EI 19-2000 CU3URA>EI VE8BY>OH2AVP(579) JW9SIX>OH2 20-2100 JW5SIX>OH3,OH2  
JW9SIX>OH1,OH3 UT5G,LZ2CC>I1 21-2200 LZ2CC>IK1EGC(fai 270) HA3>LX(jt) JX7SIX>SM6  
LA>OZ(t,Es) GB3LER>LA JX7SIX>OZ(t) 22-2300 JX7SIX>OZ TF3SIX>SM6 K1TOL>CT1FFU 23-  
2400 K1GUN>CT1EPC,CT1QP K7BV/1>CT1EPC

Aug 17 00-0100 K7BV/1>CN8KD CU3URA>EI 05-0600 OE3XLB 08-0900 I5MXX>I2 1026 GB3LER>PA  
11-1200 OM3>HA6 13-1400 I6>I3 GW>PA(jt) 14-1500 SP3>HA6(ms) 1656 HA8>YU7 GM>LX(jt)  
17-1800 S5>I9 1854 HA3>9A 19-2000 HA8>9A I4>I0 HA5>YU7 20-2100 TF3SIX>EI

Aug 18 07-0800 HA6>YO2 0844 I6>HA6(ms) 09-1000 OM3>HA6 11-1200 I9>I0 12-1300 LX>PA(jt)  
HA6>PA(jt) UR>HA6(ms) OZ>HA6(ms) 1305 HA6>OZ(jt) 14-1500 4X>9A,HA7 OD5SIX>9A,HA7  
A71EM>YU7EF 15-1600 A71EM>Z3Z2M,9A1Z,HA4XG HA8>LZ2(bs) S5>DL(ms) 4X>HA7

UU5SIX>SV1 5B4CY>9A,HA8 A45XR>Z32ZM,HA8DZ,9A8A, HA0DU,HA7UG 9H>HA8 IS0>I9  
SV9SIX>9A 16-1700 CN8MC>I5 5B>HA0,I5,HA1,DL,I8,HA4 4X>HA1 A45XR>IK0FTA,HA7UG  
I4>I2 4X>HA5,I4,HA7,I7,HA4 SV9>I1 18-1900 I4>HA8 5B>I5,HA5,HA7 CN8MC>I5,EI YU1>HA4  
18-1900 CN8MC>I5,F,HA8 19-2000 CN>I5,EI OM3>HA6 I9>I3 5T5DUB>IK0FTA CN8MC>I0  
S5>HA4 HA8>YO2 20-2100 HA1>YO2 YO2>HA7

Aug 19 0322 OE3XLB>HA7(t) 06-0700 YO7>HA6,HA1 08-0900 SP8>UR 1352 SP3>OZ(jt) 1544 S5>HA4  
16-1700 S5>HA4 18-1900 S5>HA6 21-2200 SP9>PA 22-2300 G>PA(ms)

Aug 20 0147 OE3XLB>HA4 06-0700 YU7>HA0(t) Z3>HA0(ms) 0732 OE3XLB>HA7 08-0900  
OE3XLB>HA2 HA0>I0 I0>HA6,HA1 HA5>I4 I4>HA6 I5>HA5 09-1000 PA>OE5(ms) HA1>SP9  
I4>HA1 S5>F,PA(jt) G>OE5(ms) HA0>YO5 EH3>S5(jt) 10-1100 UT5G>I0  
SV1SIX>I5,HA1,I1,OE6,DL SV9SIX>I5 EH3>S5(jt) 11-1200 SV9SIX>DL 5B>I0,I5 HA0>9H  
S5>HA4(t) LZ1>I5 12-1300 HA8>YO7 13-1400 I9>SP5 HA7,HA8>9H HA8>YO2 I8>I5 14-1500  
YT7>HA7 4N,S5>HA0 15-1600 F>HA0,HA8 9A>HA0 ON>HA7 DL,HA1,OK2>9A OZ7IGY>I8  
HA3,HA6>F HA4,HA0>PA CN8MC>EA3 OM3>HA8 OK2>HA8 16-1700 EH9>I2,F,I5 F>HA4  
CN8MC>I5 HA4>DL EH9>DL F>I2(jt) EH4>I1,9H G>EA7 EH7>I5 17-1800 CT0SIX>I5 EH5>DL  
EH4>I1,I5 S5>HA7 CU3URA>I5 F>CT 18-1900 CT>DL,EA3,I9 CT0SIX,CN8MC>PA OM3>HA6  
CN>CT 19-2000 EH1>PA G>F SP3>PA(jt) 2158 OE3XLB>HA2(t) 2210 OE3XLB>HA7

Aug 21 06-0700 G>SP9(jt) Z3>HA0(ms) 07-0800 G>OE5(ms) EH3>OZ(jt) I8>OE5(jt) 08-0900 I8,T7>HA0  
T7,S5>I4 S5>I2 OH3>OH2 UR>OZ,OH1 LZ4,LZ2>OH3 09-1000 I8>F(jt) UR>OZ,SM5 I8>9H S5>I2  
YU1>HA4 UT5G>OH3 HA3>9H UU5SIX>SM0 YO2>HA4 SP9>HA6(ms) 10-1100 PA>HA6(jt)  
YO2>HA6 LZ4>OH2 G>I5(jt) UR>OZ S5>HA0 OH1>S5 11-1200 OH1>HA1 HA1>PA S5>HA1,OH3  
OH2,ES2>HA0 OH6,ES5,YL2>HA1 LA>I5 DL>HA1(t) 12-1300 YU7>HA1 ES8>HA7 Z3>HA6  
SP9,OK2>HA1 OK2>HA6 ES1>YO2 OH1>YU7,HA7 HA1>PA 13-1400 OH4>HA0 HA1>9A,SP9  
ES4>OK1 HA6,ES4,HA3,G,OK2>SP9 OK2>HA1 14-1500 HA1>I4 YU7,GM>HA1  
DL,OK1,YT4>HA1(t) S5>9A HA8,HA6>SP9 15-1600 SP7,T9,DL>HA1 HA8>SP9 CU3URA>CT  
HA1,HA6,HA4>S5 16-1700 OM3>HA1 I2>I4 I4>HA1(t) 17-1800 I4>HA1(t) CN8MC>EI 18-1900  
SP3>HA1(t) HA1>I4 HA1>SP3 HA6>SP9

Aug 22 06-0700 EA3>HA6(ms) 08-0900 ON>OE5(t/ms) HA3>ON(jt) 09-1000 HA3>DL(jt) EI>S5(jt) 10-  
1100 HA2>ON(jt) 14-1500 G>EA7(jt) OZ7IGY(t),GB3BUX(t),GB3IOJ(t)>DL 16-1700 S5>HA6,HA7  
20-2100 YO3KWJ>I2 2133 JX7SIX>LA

Aug 23 05-0600 S5>HA6 08-0900 HA3>S5,I2 I8>S5(jt) 9H>DL 1048 I8>HA6(ms) 1459 IQ1SP>S5 17-1800  
OZ>DL OH9SIX>HA8,DL,PA UR>OZ 1859 G>PA(jt) 19-2000 OZ>PA(jt) ON>PA GW,G>HA7 20-  
2100 OZ6VHF,GM>I5 G>HA8,DL,I2,I4,ON GM>I4 21-2200 G>I0 23-2400 CT>HA2(jt)

Aug 24 0505 HA0>9A 0738 I5>HA2(ms) aurora 13-1400 S5>HA1 15-1600 UR5EDU(KN78)>SM1(JO97  
mode?) 16-1700 I4>OE6 UR>9A,HA9 EI>HA0,HA1 G>HA6,HA0,I5 ON,F>HA0 EI>DL GW>HA6  
LZ4>PA EI>SP9 S5>EI I1>I2 17-1800 LZ2>PA GM>LZ2 F>HA1 SR9FHA,LZ2>F EI,F,UR,I6>DL  
9A>OE6 DL,OZ>I0 I7,9H,I8EMG,DL>PA GW>I5 UR>9A,HA7,PA,I4 I9>F DL>I8 18-1900  
YO8>DL,LA A61Q>HA8DZ,OZ1BNN,  
OM5RW.DG5YIL,OH3XR,DL3WJ,SM0KAK,DG1CMZ,PF7M,SQ6F,OZ0JD YO8>HA5 4X>OH3  
UR>SM0,SM1,HA5,HA8,HA1,DL,I4,I8 F>HA1 Z3>HA0 LZ2>HA2 UR>EI LZ1>HA5,HA4 HA8>SP5  
19-2000 UR>HA5,I3,ON,HA2,I4,I5,9H,I8,I3 HA3>OH2 YO3KWJ>PA,DL,SM7 LZ4>SP9  
HA0,HA8>DL LZ1,LZ4>HA5 Z3>HA0 A61Q>HA7UG,PA0KDV HA0>PA LZ2>HA2,PA TA2>OM3  
20-2100 4X>DL,OZ UR>I1,DL,HA2,9H,OZ OK1,LZ1,LZ2,5B4CY,SV1SIX,Z3,SV9SIX,HA3>DL  
UT5G>PA HA0>9H,4X A61Q>DL4MP,HA1FV OH2>I8 JX7SIX>OH3 OM5>HA8 ZA>OH5,4X,PA  
LY>I2 4X>SP9 HA6>9H,PA HA3,HA1>OZ SV1SIX>OZ,SP6 9H>HA5 SP7>9H HA3>I2,PA LZ1>I5  
21-2200 LZ1>DL S55ZRS,SV1,LZ1>OZ LZ2>I0 4X>HA5,PA LZ2>DL,HA5,PA,I5 ZA,4X>DL  
UR>9A,YO2,I4 LZ1>HA6 SV3,ZA>HA5 LZ2>I5,PA,HA5,I4 Z3>9A,HA5,HA4 9A>I4 SP3,SQ7>I7



HA6>SV1 HA0>I8 I8>HA4 22-2300 HA1>Z3 I9,SV1>SP6 I5>HA4 I4,F>YO2 LZ1,I8>DL HA8>I1 DL>OE1 SV9SIX>I3 LZ2>I2 LZ1JH,SV1SIX>PA 23-2400 I5>HA6 F>HA7

Aug 25 0001 SV1SIX>I8(850km) 05-0600 HA0>9A OH9SIX>OZ 5B4FL>A61Q UT5G>9A 06-0700 OH5RAC>PA A61Q>HA6NL,HA1FV,HA0DU,HA5XXA,HA5DI,HA5UK,G7RAU,HA8DZ,PF7X GB3LER>9A,HA1,HA2 OH3,UR,HA3>PA PA>OZ 5B>HA7,OK1 G>HA6 HA2>YO7 ON>HA5 OK1>HA7 HA3>9A 07-0800 LZ1>OZ 5B>HA5 F>OH6 A61Q>DL3WJ LX0SIX>HA6 G,HA8,HA5,HA5 OE6,G>DL UR,PA>9A I8>OZ F>OK1,HA7 HA5,HA6,HA7,YO2 DL,HA1>I2 SM7>HB HA6>F HA5>I3 HA3>DL 08-0900 EH6,HA7,SP6,OY,SP9,I8,HA6,LX>DL YU1>HB DL,S5,SP2>EB1 HA6,HA8>I4 G>S5,HA5 YU7>HA6,DL,OZ HA5>SP2 OZ>I0 IQ4AD>HA5 I9>ON 9A>F GM>HA4 I0>DL,OK1 09-1000 LZ2>DL I1,HA3,HA8,YU7>9A SV2,I8EMG>DL G,I0>HB0 HA8,IK5ZUL,9A,HA3,HA5>EB1 G>YO7 9K2YM>DL3LFA,LZ2HM EH1>HA5 I5,EH5>HA7 I0>PA I1>HA6 10-1100 CT>HA8 I9,I8EMG,EH1DVY,SV1,9H,EH6,I0>DL DL,S5>EB1 9H>PA EH6>HA7,HA6 EA3>HA5 5B>9A I9>I5 PI7SIX,4X>F LZ2,I9>4X I1>I8 11-1200 EH6>HA6 S5,I0,I3,HA7,DL,EH6>EB1 PA>EA3 I9>4X EH6>PA F>I8 HA2>EH3 HA1,HA6,EH1DVY>9A EI>ON EH3,EH4>I5 12-1300 I0>EA3 HA1>OE6 PA,GM,HA1,I4,G>EB1 EH4>EI EI>DL FX4SIX,GB3MCB>IS0 EH9>OE5,HA1,DL,HA5 EI>ON,OZ ON,PA,G,GM>EB1 SV5SIX>I0 EH1,EB4>PA SV9SIX>I5 GM>EA5 HA0>CT 13-1400 4X4SIX>I5 HA2>9A GB3BAA,I0JX>EB1 EH1>PA S5>HA6,HA5 14-1500 S5>YO5 SV1SIX>I5,I1 1544 HA4>F 16-1700 CN8MC>I5 HA1>F(ms) 17-1800 EH7>I5,I2,9A UU5SIX>OH1 18-1900 SP9>HA1 HA1>9A EH7>EH2 PA>EH5(jt) OH3>HA5,HA7,HA1 OH2>HA1,LZ2 SQ8,OH6>HA7 I0>EA1 OH5,OH6>HA5 OH0,S5>HA1 CN8MC>F HA8BS>OH1 19-2000 OH0>HA4 SM0,T9>HA5 HA6,OH1>T9,HA1 CT>I5 F>HA1(jt) LZ1>PA 20-2100 HA0>CT LZ4>I5 HA8>PA CT>HA1 SP8>F I0,CT>HA0 YU1>YO2 IT9X,SV9SIX>OE5 21-2200 CN8MC,EH9>HA0 LZ2,EH9,YU7,I9>PA 9H,HA8,F>T9 HA6>EA3 9H,I9>HA5 SV1SIX>DL EH1>I1 HA5>EB1 HA8,YU7>CT EH9>OE1 22-2300 CT,9H,EA7>HA5 HA8>EA7 EH8>CT3,EA7,HA0,HA5,HA3 HA3>9H I9>HA1 I9>DL 23-2400 LX0SIX>I8 GB3BAA>IS0 EH1DVY>HA6

Aug 26 0403 S5>YO7(jt) 06-0700 HA6>YO7(jt) LZ2,5B>HA0 HA3>OZ(ms) 07-0800 4X4SIX>HA7 OD5SIX>9A,HA7 OZ>YO7(jt) HA3>DL SV9SIX>I2,I3 HA0,HA3,HA8BS>4X HA3>SP9 08-0900 OD5SIX,UU5SIX,HA3,S5,4X>9A OD5SIX,9H1SIX>HA4 HA3>I9 09-1000 HA4,HA3>9A GB3LER>HA5 EH1DVY>DL 10-1100 DL,S55ZRS,IW3FZQ>EB1 I4>9A,EB1 UT5G>DL,PA GM>SP7 GB3LER>OK1 EH6,EH3>PA LA>DL SM7>HA0 11-1200 HB9SIX,ON>EB1 LA>SP5 G>HA6,I1,F UR>ON,PA GJ>I1 GB3LER>OK1,SP9 GB3BUX>F OH3>I0 EH9>OH2,EA7 HA3>SP9 LA>DL SM5>EI OH0>9A OH2>HA5 UR>PA 12-1300 OH0,UR>PA GM,LA,OH3>HA5 EI,CT>OH2 CT>DL,PA YU7,CT>SM3 G,PI7SIX,OZ7IGY,CT>EB1 UR>DL I0>SM0 LA>HA6 EI>SP9,I1 I0>EI OH3>I1 HA8>YO5 OH5RAC>DL 13-1400 9H,SM0,OH4>HA6 OK2>SP9 OH3>DL,HA5 UR>OZ OK2,SP7,SP8,HA6>LA OH5RAC>F,DL OH3,SM3>SP6 HA5,DL>OH2 S5>OH2 9H,SP3,SP6>DL OH7,OH3,HA1>9A HA1>9H,OZ2>ES1 OH6>HA1 15-1600 9A,SP7,OH7,OH3,OH9SIX>HA1 ES6,OH1,OH3,ES3>SP9 SQ8>SM0 SM2,OH3,ES1,ES3>HA5 ES6>DL ES3>OK1 HA1>SV1 16-1700 HA3>ES1 ES0>SP9 OH3>HA1,S5,HA6,HA5 SP9>HA0 HA1>S5 S5>SQ6 OH2>HA5 OH7>HA1 17-1800 OH0>PA(Jt) 18-1900 CT>I1 ES0>HA7 ES4,OH2>HA1 ES3,ES6,,OH3,YL2,OH4>HA5 LY>DL,HA0 OH5>HA6 UR>LA HA7>9A 19-2000 OH0,LY>HA0 S5>OH3 SM5,LA>HA1 OH2>HA2 20-2100 G,OH2,PA>HA5 EI>HA1 PA>HA0 GD>HA6 LA>HA5,9A,HA0 GB3BUX>I2 G,PA>HA6 21-2200 OH1,HA0,HA1>PA PA>OH2,HA5,HA7 G>HA0 GU>HA1 EI>9A YO2>EI 22-2300 LZ2>PA GW>HA5 G>HA7 YO2,HA6,HA1,HA8BS>EI GU>HA0,HA7 YU1>DL PA>I4 23-2400 HA1>GW F>HA6 GJ>HA1 I0JX,HA1,EH5>DL

Aug 27 0023 I8>PA 07-0800 OH5RAC>I2 UU5SIX>9A IOY6SMC>OE5 OZ6VHF>HA6 GB3LER>HA5 SV9SIX>DL SV1SIX>I3 08-0900 YO7>I8 LZ2>OH2 I8,IT9X,I0JX,SV1SIX>HA0 GB3LER>9A SV9SIX>9A,OE5 I8>HA6 SV1SIX>OE5 UT5G>I4,I3 GM>I1 9A>GM YO3KWJ>I2 09-1000 UT5G>I1 I1>YO2,LZ4 UR>PA GJ,EH5>HA0 ON,PI7SIX>F HV0>9A,DL,I4,YO2,OZ,SM5 G>HA6 UR>I7,I5 F>EA1,HA1 SV8>DL PA>EA1 GM>HA1 10-1100 LZ4>HA1 C3>EA1 SV9>SP9 PA>LZ4 HA1>EI,DL GM>HA5,SP2 OH1,HB>OH2 SV8,F,GU>HA1 F>HA5 ON>I8 HA6>EI 11-1200

LZ2,I2>DL HA7>EI HA1>YO2 GU>HA7,DL LA,LZ2,LZ1,HA3>PA G>HA6 GM>9A LA,OZ6VHF>F  
YO2>HA7 HA6>ON,DL GB3MCB,HA5,LZ1,GM,GU>DL EI>OH2,9A 12-1300  
9A,HA2,ZA,G,GW,GU,GI,I0,GM,SV3,LZ1JH>DL YO6,HA7,9A,SV3,HA6,LY>PA G>I4,HA1,F ZA>I0  
LA>I4,9H UR,9A>LA OZ>I4 SM5,HA3>F,9A GM>I2 G>SP9(jt) LY>OE2 13-1400 GB3LER>EI,DL  
SQ9,SP8,LY,OK2>PA ES6>I3 HA2,OY6SMC,GB3LER>EI F>9A GB3IOJ>HA0 3A>SP4  
9A>DL,PA G>HA5 SV1SIX>F OZ>HB HA1>LA OY>S5,9A GU>SP6 I7>PA EH3>HA2 I6>DL 14-  
1500 UT5G,IS0,I8,9A,LZ3,LZ2,I0>DL DL>I7 OY>F,S5,HA1,ON HA3>OZ ON>HA5 HB>I4  
HA2,YU1EO>PA 15-1600 OY>ON,HA1,9A I7,HA7,HA8>PA LA>IS0 F>OH2 HA0,GB3LER>F  
GU>SP6 EH3,F>HA2 HA8>EI 14-1500 I8,9A,LZ3,LZ2,I0,IS0, UT5G>DL ON>HA5  
OY>F,HA,PA1,ON HA3>OZ HB>I4 YU1EO,HA2>PA 15-1600 OY>ON,HA1  
HA7,HA8,OH4,OH3,OH2>PA F>OH2 GB3LER,HA0,YT1>F LA>IS0,HA1,HA7 16-1700  
GB3BAA,GB3RMK>OH2 OH2,OH5RAC,ES2>PA LA>OM5,HA5,SP5 GM>OH2  
SM5,OH2,ES2,LA,OZ7IGY,OH3>DL OH3>F HA2>LA HA3>SP9 HA2,HA3,LA>9A LY,OZ>HA0 17-  
1800 LA>I3,SP5,S5,HA7 YO4,ZA,SM5>DL HA1>SP6,LA LY>F OH3,HA6>ON GB3LER>YU1  
OH1>HA0 OH9,SP5>PA ES3>I3 PA>HA7 18-1900 DL,GB3LER>S5 GM>HA2 ON>SP9  
HA0,YU7,HA8,9A,LA,LZ4,HA6,SV1SIX,OH5,I8EMG,HB9SIX(t),HA1>DL SP8>F HA7>SM0 19-  
2000 ON>HA2 F>DL(t) OH3,HA3>F YU7>F,I5,IS0 I8EMG>DL GM>HA5 DL>PA 20-2100  
HA7,SV1SIX>IS0 F>HA6 IS0>HA1 LA>F 2055 PI7SIX,GB3IOJ>9H 2310-22  
VE1YX>CT1FFU,PB0AHX

Aug 28 0030 K1TOL>CT1FFU 0058 OY9JD>PA 07-0800 EH1DVY>HA7,HA2,HA5,DL F>I0 08-0900  
EH6>PA I0>EA5 SV1SIX,SV9SIX>OE5 I5>I2 CT0SIX,EH1>DL DL,G>EA7 EH7>PA ,DL,F  
LZ1JH>I0 HA3>OE5(jt) I9>HA0,PA LZ1>I1 09-1000 EH1,EH9,EH7,EH4,CT,CN8MC>PA I9>HA2  
G>EB1 I2>I1 EH1>F EH9>EI SV1>S5 IT9X>OE1 SV8>HA1 I9>HA2 HA3,HA8,SR9FHA >IS0 G>EI  
10-1100 I9,I8EMG,I4,IS0,EH1,9H,I9>DL IS0>HA7,PA I3>I0 G>I0 CT>GM 11-1200 I9>DL  
SV1SIX>HA1,SP6 S5>HA1 12-1300 I0(t),G>I8 EI,GW>HA1 G>I2 EI>S5,DL,9A,HA5 F,GW>DL  
EH9>PA 13-1400 F>PA I3>I6 CT,F,EH1>DL I0>EB1 14-1500 CT>OZ,PA,DL 9A>HA6 I0>I8  
HA3>9A I1>I0 15-1600 I4>DL 16-1700 I4>HA6 OH0>PA 17-1800 OH0>OE5,SM5,SO5,HA2 19-  
2000 GW,GB3MCB>CT 21-2200 PA>I4

Aug 29 05-0600 HA0>9A OE6>HA1 15-1600 JW9SIX>SM1 17-1800 OH9>LY 18-1900 HA2>PA(ms)  
OH5RAC>I4 ON>LY LA>OK1 GB3LER>HA0 LY>PA T9>SM0 LY>HA0(ms) 19-2000 IZ1EPM>OH5  
LZ2,OH9>OZ I9>I8 LY>HA8(ms) JX7SIX>OH5 LA>YO2 20-2100 SP3>SP9 UT5G>I2 LA7SIX>OZ  
21-2200 OK1>HA2 LY>HA6(jt) EA3>HA2(jt)

Aug 30 06-0700 YU7>HA8 GB3LER>OZ,I4,I2 EH1DVY>I2 HA3>EA3 07-0800 G>F GM,GB3BAA>OH5  
EH6>OE5,HA6,HA5 I0,OH9SIX,OH6,OH0>DL F>YO7 EH1DVY>9A,HA8 HA8,UR>9A EH3>HA0  
08-0900 LA>DL,OK1,SP6,HA6 HA6,UT5G>DL OH9SIX>PA,DL,OE5 HA8>OH5,YO2,SM6  
OH5RAC>HA0 S55ZRS>EA4 OH0>YO7 I8>I0 09-1000 UT5G>SM6 HA7,HA8>EA4 EH4>OE5  
SR5SIX,LA,EH6>DL OH5>HA5 T7,9A>OH5 HA8>EA7,SM6 EH6>HA0,HA7 ES2>I5 YO7>HA2  
SM7,SM6,OZ>HA0 10-1100 LY,UR>DL SM7>HA6,HA5 OZ>HA0,OK1 SM1>HA5 SK0>I2,HA5,9A  
LA>HA7 OE6>HA1 FX4SIX>I8 LY>F GB3LER>HA6 HA8,HA3>OZ OZ6VHF>YO2 11-1200  
HA0>OZ OH5RAC>DL LY>PA SM6>HA0 HA2,HA3,HA8>9A HA2>SP6 GB3LER,GB3RMK>OH5  
EH1DVY>S5 14-1500 HA3>DL(jt) OE3>YO7(jt) 16-1700 OH9SIX,OH5RAC>SP6 TF3SIX>EI  
9A>HA1 YU1>5B HA3,4X,5B>9A 17-1800 OH5RAC,JX7SIX,TF3SIX,OH4>PA S5>4X 4X>HA7  
OH9>HA1,OK,S5 OH8>HA7,DL OH4,OH8,OH9SIX>DL TF>OZ 9A>I0 OH3>ON 18-1900  
SP3>OH6 OH9>ON OH4>EA7 GB3LER,DL,IT9X,SP3,GB3BAA>EA4 OH3>OZ DL>HA7  
YO8>5B,DL DL,OH8>HA1 UR,JX7SIX>PA LZ2>SM1,HA1,PA,5B EH9,LZ4>DL 5B,HA3>YO2  
S5>HA0 HA3,LZ2,HA8>4X G>SP6,HA4 EH1>SP6 19-2000 ON>HA0 GW,PA>HA4  
HA8,LZ2,YO4,UR>PA G,SM0,EH7>HA7 LY,EH9>HA1 UR,9A>DL 4N>SM0 CT>YU7,HA1  
SM0>HA5 HA6>CT SP6>HA6 SP9>YO7 LA,HA4,HA7,SP8,SP2>9A YO7>HA6 OH1>EI PA>HA2  
OH5>DL 20-2100 ZA,HA8,HA6,OH5,OH7,OH9SIX,9A>DL LA,SM3,HA4,HA1>9A  
SP9,HA0,9A,I0>CN G>HA7,HA2 HA1,HA4,HA5,HA6,HA0,HA0>PA SP5,HA3,HA1>F CT,CN>HA1

ON>HA5 PA>ER1 OY>LY OH5>CT GW>SM0 DL>HA5 21-2200 I0,HA3>CN PA>HA5 I8>OZ  
EH3>HA2 SM7>I0 HA0,HA8,YO7>ON 22-2300 GW>HA5

Aug 31 0613 UU5SIX>OH5 07-0800 9A,OM7,G>5B LA>YO2,HA1 OH5>ON I8>OZ 08-0900 LZ2,OM7>F  
SV1SIX>OE5,DL SV9SIX>OE5 GM>SP2 OE2>ON OH5>DL LZ1JH>I2 SM3>DL,OE5,SP6  
OH6,OH5RAC,OH1SIX>SP6 ES4>DL 09-1000 ES0>SP6 GB3BAA>OH5  
OH5RAC,OH6,ES6,ES3>DL OH3,OH1SIX>OE5 CN8MC>I2 ES6>PA,ON I9>SM5 OH5>LX 10-  
1100 aurora

### 50MHz PROPAGATION REPORT FOR AUGUST 2005 BY SV1DH

1. Data for 19 days, 1-3 and 20-27 Internet data only.
2. Relatively good days on: 7,8,11
3. 48 MHz AF video (9L+3C) on: NIL
4. 55 MHz AF video (5N) on: NIL
5. " A6 on: 7 (2E)
6. " A7 on: 7(07-16z!) (2E)
7. " 4X on: 5,7,11,14,24
8. " OD on: 7,8,11,14
9. " 5B on: 7,8,11
10. " YI on: 7
11. " YK on: 7 232<sup>nd</sup> DXCC entity worked
12. " CT on: 10 (2E)
13. " EH on: 3
14. " IS on: 27
15. " 9H on: 7
16. " I on: 3,5,7,8,10,11,13,15,20,24,25,27,28
17. " F on: 3,5,7,10,16,27,28
18. " HB on: 10,15
19. " OE on: 8,11,13,20,25,27,28,31
20. " G on: 3,10,11,28
21. " GM on: 10 (2E)
22. " EI on: 3,8,10(2E)
23. " PA on: 1,10,11,25
24. " ON on: 1,4,15
25. " LX on: 27
26. " OZ on: 4,12,24,25
27. " DL on: 1,3,4,7,10,11,15,20,24,25,27,28,31
28. " SP on: 3,4,8,10,11,13,24,25,27,28
29. " OK on: 5,11,15
30. " OM on: 5,8,10
31. " HA on: 3,11,13,20,24,26-28
33. " LY on: 11
34. " OH on: 11 (2E)
35. " SM on: 3,8,11,27
36. " LA on: 11,31 (2E)
37. " S5 on: 7,11,13,15,28
38. " 9A on: 13,28
39. " YU on: 7
40. " UA on: 12
41. " UR on: 6,7,12,14,18,24,26,31
42. " Z3 on: 7
43. " YO on: 15
44. " LZ on: 7

45. Special events on:

- 4 (0800 JA to ME 48Mhz video+1030 W2 to EU video)
- 5 (0930-1030 Sun noise waves up 20db)
- 8 (0730 G to YI)
- 9 (0900-1300 EH+CT to W1+VE1 +1600 EH to VE1 + 1900 F to VE1 +2000 G+GI+EI to VE1)
- 12 (1145 G+CT to W1)
- 15 (1100 SP to CU/B)
- 16 (1500 EH7 to W1+1730 EH7+F to W1+CT to VE1+ 1815 G to W1 + 2300-2400 CT to W1,2)
- 18 (0040 W1 to JX/B)
- 19 (1300 W2 to EA video)
- 29 (1345 W2 to EA video)

46. DXCC entities heard/worked during Aug 2005 : 39 on 2 cont

47. DXCC entities heard/worked on 7th Aug 2005 : 16 on 2 cont.

73 COSTAS

### The Americas

#### Auroral-Related Propagation

With the United States lying well to the south of the UK, it takes a major aurora to make much impact outside the northern states. August was no exception; although the openings were well trailed, neither the August 24 nor the August 31 event attracted many reports. (However, neither event was at optimum time for local operators.)

Aug 24 07-0800 VE6EMU>W7(CN87 51a) N0UD>W9(EN44 57a) 09-1000 W0(EN11)>W9(EN44 57a) VE3UBL>W2(57a) 10-1100 VE2YAT>W2(57a) VA2MGL>W2(55a) VE4VHF>W2(59a) VE4ARM>W2(57a) W3>W8(EN83 59a) VE3(FN37)>W8(EN83 54a) VE3UBL>W3(53a) VE7(CO88)>W9(EN44 57) 11-1200 W8(EN80)>W9(EN44 55a) W3>W1(52a FN42) W1>VE2(FN46 56a) 12-1300 VE3(FN14)>W4(EN80 55a) VE2YKT>W2(FN13) VE3(FN25)>VE3(FN25)>W1(FN42 55a) W2(FN21)>W1(FN42 57a) W1>W1(FN42) VE9>W1(FN42) VE2(FN07)>VE2(FN46 57a) 13-1400 W0(EN17)>W0(EN42) 21-2200 W1>W1 W2>W1 23-2400 VE2YKT>W2 W1(FN45 55a)>VE2(FN35 59) W1(FN53)>VE2(FN35 53a)

Aug 25 0138 VE8BY>W0(EN36 mode?) 0216 VE8BY>W3(FM29 mode?)

Aug 26 0536-7 VE4ARM>W9(EN44 41a) VE4VHF>W9(EN44 51a)

Aug 31 18-1900 VE3(FN25)>W1(FN42) VE3(FN25)>W2(56a) 19-2000 VE1>W1 VE3(FN25)>W1(FN42) VE2>W2 W2(FN34)>VE2(FN46) W1(FN34)>W1(FN42) 21-2200 VA2MGL>W1(FN41 51a) W2>W1 VE3(FN03)>W1(FN32) W8>W3(57a) 22-2300 W1>W1 W8(EN91)>W3(FM29) VE3>W3(FM29 55a)

#### Other Modes

As in the earlier summer months there were a number of openings between the US and, occasionally, VE and Central America and the Caribbean islands - 9Y, FM, FJ, VP2, P4, CO, TG, TI, FG and so on. These continued, though less plentifully, by means of multihop Es. As in Europe, the month started well; there was then a steep dip in the middle, followed by a strong period towards the end (26<sup>th</sup>-28<sup>th</sup>), with the 26<sup>th</sup> a particularly good day for openings to the Caribbean. However, the various phases were by no means in synch on the two sides of the Atlantic.

Most reports of South American contacts seem, as in earlier months, to be attributable to multihop Es taking signals to the northern fringe of the continent. However, contacts with CX on the 25<sup>th</sup> and LU on the 27<sup>th</sup> presumably required TEP or a mixed mode. South American operators reported numerous CQs but no contacts.

### North<>South America

CX 1 day 25(W5)	FY 1 day 26(W4)	HC 1 day 27(W5)
HK 1 day 7(W3,W4,W5)	HP 1 day 27(W5)	LU 1 day 27(W4,W5,W9)
YV 5 days 19(W4) 22(W0) 23(W4) 26(W3,W4,W8,W0) 27(W2,W3)		

Other long-distance contacts included W1<>CT3 on the 1<sup>st</sup>, VE1>CT3 on the 7<sup>th</sup>, W1<>CN on the 17<sup>th</sup> and VE1,VO1<>EA8 on the 2<sup>nd</sup>. The West Coast had slimmer pickings but KH6 was worked from W7 on the 4<sup>th</sup> and KL7 was into W7 on the 2<sup>nd</sup>. Also Japanese TV was reported into KL7 on the 11<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> and into W4 on the 2<sup>nd</sup> and 3<sup>rd</sup>. 48250, usually EA, was copied on trans-Atlantic on August 1, 2,4,7,9,11,20,21,28.

The Perseids appear to have made very little impression (though 'sc' reports may actually indicate MS). JT6M received only a handful of mentions, and if there was any extended tropo, it was not reported as such. While a small number of operators industriously reported in detail, many 'spots' were more unrevealing than they could have been.

Aug 1 00-0100 W0>W4,W6 K8UK>W0 WB5LLI>W3 K0KP>W5,W0 W5>W2,W4,W9 W8>W5 01-0200 K0UO>W2 W5>W9(short),W8 W2,W0>W4 W4>W5 W9>W9 VE8BY>VO1 02-0300 W5>W3,W8 W9,W0>W4 CY0AA>W3 W4,W9>W5 W0>W0 03-0400 W9>W9,W7 W0>W5 0457 W5>W9 08-0900 CY9AA>W2 0929 CY9AA>W2 10-1100 CY9AA,48250>W2 11-1200 W8>W2 12-1300 CY9AA>W2 13-1400 CY9AA>W3,W2 14-1500 KD4HLG>W9 CY9AA>W3 W5>W3 15-1600 W9>VE3 W2>W5 W9>W7 W5>W4 16-1700 W5>W3 K0HA>FM5JC 17-1800 KP4,W4>W0 18-1900 VP2E>K0HA W9>W9 K9MU>FM5JC KP4>W0 19-2000 KP4>W0 20-2100 9Y4AT>K0HA W9,W0,W8>W7 XE1>W5 W5>W9 21-2200 XE1>W5,W9 XE2>W9 22-2300 XE1,XE2>W0 W7>W7 W9>VE3 VY0>OX W7>W8,W4 23-2400 XE2,VE4>W9 W9,W4>W5

Aug 2 00-0100 W5>W2 XE2>W5 VO1>W3 N0LL>W4,W7 W6>W7 VE2YAT>W0,W8 VE7>W4 W0>W2,W3 W2,W6,W1,W4>W7 VE4>W0 01-0200 K0KP>W4 VE8BY>W0 W8,W5>W4 VO1>W9,W0 W4>W9 W4CBX,K8UK,KE4SIX,W6,W7>W4 W7>W2 VO1ZA>VE2 02-0300 VO1>W2,VE3 W4,W6>W5 K0KP>W4 W3DOG>W5 06-0700 KL7NO,NL7Z>N9JIM/7 11-1200 48250>VE1 EH8BPX>VO1AU 12-1300 CY0AA>W1 EH8BPX>VE1ZZ CY9AA>W3 EH7KW>NW5E/4 CN8MC>VO1AU C6AFP>W3JO 13-1400 W1>VE1 49750(UA)>W4 W2,KP4>W1 WB5LLI,W4>W4 CY0AA>VE1 14-1500 EH7RM,EA7KW>N3DB W4>W3 CT0AA>W2,W3 VP2E>N8LGP,K4CIA,N9IW 15-1600 W4>W3 CT0AA>W2,W1,W3 16-1700 P43JB>VO1AU 21-2200 VP2E>AF9R,K8MD,K4QMG W4,W5>W1 W5>W3 W4>W2 22-2300 K4AHO>W2,W3 VP2E>K9RJ,N9SZV W8,W9,VE3,4U1WB>W4 VE9>W9 23-2400 VO1ZA,W2,W0,VE3UBL>W4 W4>W3,W4 4U1WB,W5>W3 CY0AA>W2

Aug 3 00-0100 W4>W3,W8,W9,W2 N3LL>W4 W8>W5 W5>W2,W3,W4 VO1>W1,W5 01-0200 W4>W8,W2 VO1>W5 WB0RMO,W4,W8>W4 W5,W0>W2 CY0AA>W5,W3,W8,W9 49750(JA)>W3 49749.7,49745(JA)>FM5JC 02-0300 CY0AA>W4,W0 1158 CY9AA>VE1 12-1300 W1>VE1 13-1400 W1,CY0AA,N3LL,K2ZD>W4 14-1500 CY0AA>W4,W1 W9,W0>W4 W0>W3 W4,W8>W1 49740,49750(UA)>W4 15-1600 K4AHO>W3 KE4SIX>W0 CY0AA>W2,W3,W4,W8 KD4HLG>W0 W4>W2,W4,W3 W9>W5 VA2MGL,WA1OJB>VO1 16-1700 VE1,W4>W4 CY0AA>W3 VO1>W1 W4>W9 17-1800 W4>W0 W8>W4 18-1900 W5>W8,W4 W4>W1 KS5V>W8 CY0AA>W4 1955 W5>W7(ms) 20-2100 W0>W5 22-2300 W4>W8 23-2400 W5SIX>W4

- Aug 4 00-0100 K0UO,KA0CDN>W4 W1,W3>W3 01-0200 VE8BY>VO1 W7>W8,W0 KH6QAI>W7RC W0>W0 10-1100 CY9AA>W1,W8 48250>W2 1131 CY0AA>W1 1325 W3DOG>W3 1455 9A8RR>N3HS(?) 15-1600 K5AB>XE2 1615 CY0AA>W1(ms) 17-1800 48250,W2>W1 48242(CT)>W4 21-2200 W5>W4 22-2300 K0UO>W4 W5>W4 2348 W4CHA>W5
- Aug 5 00-0100 W7>W4 W4>W5 CY0AA>W3 VE8BY>VE9 W4>W4 01-0200 XE1>W5 W6>W7 XE2>W7 02-0300 W5>W5 0621 VE7>W6 1021 CY9AA>W2 12-1300 CY0AA>W1 W4CHA>W4 13-1400 CO8DM>N3DB 14-1500 W1>VE1 15-1600 CY0AA,W1>W1 21-2200 VP2E>N4GM,W7RV(3xEs) 22-2300 TG9AFX>W4SO W4>KP4 HI3TEJ>N3II 23-2400 W3DOG>W3 W3>W1 W4>KP4
- Aug 6 0056 VE8BY>W3 W4>W4 12-1300 W4>W4 S1>W4(ms)14-1500 W9>W4 17-1800 W3>W5 18-1900 IW5DHN>K7BV(eme) W9>W4 21-2200 W9>W4 22-2300 W6>W6 23-2400 W4>W5 W9>W4 W2>W1 W0>W8 VE4SPT>W2
- Aug 7 0006 W6>W4 W9>W1 12-1300 W8>W1 CU3URA>VE1ZZ 13-1400 48250>VE1 W4>W4 EA tv>W4 14-1500 W1>W9 W4>W1,W9 15-1600 VE3>VE3 WR9L>W1 W9>W8 17-1800 XE2ED>W7 W7>W7 18-1900 W6>W7,VE7 W7>XE2 19-2000 KP4>W4 W6>W7 VP2E>KP2L,K4CIA 2050 K8UK>W4 21-2200 W0>W2 W4>W8 K5UO>HK0CC W6>W7 KP4>W4 HI3TEJ>K4RX 22-2300 KP4>W4 W3DOG>HK0CC HK3JRL>NW5E/4 PJ2BVU>YV1DIG KA7BGR>W0 K6FV>W7 W4>W9,W4,W8 W6,W7>W7 W0>W3 23-2400 W9,W0>W4 W7>W3,W7 W3>W6,W9,W0 W0>W8,W1 KA7BGR>W0 W5,W0>W7 PJ2BVU>YV1DIG W6>W0
- Aug 8 00-0100 K0KP>W1 VE2,W0,W4,W5,W6,W9>W4 W7>W0 WB0RMO>W2 W5>W8 W3>W6,W9 KA0CDN,W7,VE7,W9>W7 W0>W3 W9>W1 W5,K6FV>W8 01-0200 W4,W9,W5>W4 W6>W0 W3>W5,W0,W9 NM7D,W5SIX,W0MTK,W5,VE7>W7 VE4SPT>W8 W8,W3,W9>W6 W9>W1,W4 K6FV,W5>W8 W8>W9 W8>W3 02-0300 W6,W7>W6 0441 XE2ED>W7 W7>W6 13-1400 W4>W0 W5,W4>W5 W4CHA,W3DOG>VE2 W4>W1,W2 KE4SIX>VE3 14-1500 KD4HLG>VE2 W5>W2 NOLL,W1,W2,VE3>W4 15-1600 W3>W5 48260>W2 W1,W2,VE3>W4 16-1700 VE3,K2ZD>W4 W4,W5>W1 17-1800 W3>W3,W4 W4>W1 22-2300 W7>W5 23-2400 W9,W4>W4 W3>W9 WB0RMO>W2
- Aug 9 00-0100 W3,W9,W0>W3 W2>W9 K5AB,W5HN,W9>W0 W1,W4>W4 W0>W2,W3 WR9L>W4 W4,W8>W8 01-0200 W5>VE2 W4,W7>W4 W7,W8>W8 W7>W1,W5 W0,W7>W7 02-0300 W3,W0>W5 W4>W8 W7,WB0RMO,NOLL,W4>W7 W0>W5,W9 W7>W6 W3>W3 03-0400 W7>W7 VE2>VE2 VE7>W6 04-0500 VE7FG>NL7Z 05-0600 W6>W7 08-0900 CT tv>VE9 09-1000 ZB2FK>VE9AA CT0SIX>VE1YX,K2MUB 48239>W2 CN8MC,ZB2FK>K1TOL VO1ZA>W1 W1>VE1 11-1200 VE1ZA>W1 CT1EEB>VE1YX,WA1NYV EH5HT>VE1YX EH1GAR>W1JJ CN8MC>K1TOL ZB2EO>K1DAT,K1TOL ZB3B>VE1YX 12-1300 ZB2EO,EH7RM>VE1YX EH7KW>VE1YX,N4XD 15-1600 W3>W3 KA0CDN>W7 EH7KW,CT0SIX>VE1YX C6AFP>N8UUP CN8MC>K2MUB 16-1700 48250>W2 KE4SIX>W0 17-1800 W8,W9,VE3>W5 KD4HLG>W0 KS5V>W8 W0>W4 18-1900 VE7>W6,W7,VE7 W9>W5 W4>W4 K5AB>W8 19-2000 F6HRP>VE1YX KD4HLG>W0 W1>VE1,W1 W5>VE7 EH1MX>K1TOL EI5FK>W1JJ,VE1YX,K1SG 20-2100 W2>W3 21-2200 VP2E>K4UTE,W1MU FM5JC>K1SG,W1MU,K2WE 9Y4AT>W2AJM FG5FR>K2WE 22-2300 48250(EA)>W4 9Y4AT>K1DAT PJ2MI>K1SAT 23-2400 FG1GW>K1GUP W2IB,VE3KKL >FG1GW FM5JC>K2MUB,K1GUN HI3TEJ>VE2DC,K4RX,K0HA,KI4RO,TI8CBT,VE2DC VP9GE>K2MUB,WA1NYV KP4>W1 VP2E>K0HA
- Aug 10 00-0100 VP2E>KB4XK,W3UR,W4RCC,WA1NYV,N4BAA,N2WM,W2YC W1>W4 FG5FR>W3UR HI3TEJ>AG4ZE,K4QXX CO8LY>K4MS 01-0200 HI3TEJ>K0HA W4>W5 W5>W8 W3,W4CHA>W3 W3>W0 02-0300 W4,W5>W4 13-1400 W4>W0 15-1600 K0AHO>W4,W0 W8>W4 W4CHA>W0 16-1700 W4>W5,W4,W0 C6AFP>K0HA 17-1800 W5>W8 W4>W5 18-1900 WB5LLI>W4,W9 W5RP>W4 19-2000 W9>W5 K5AB>W9 KD4HLG,KE4SIX>W0 20-2100 W4>W0 W8>W5 W3DOG>W3 W6,W9VW>W6 21-2200 W8>W5,W0 W0>W4 WR9L,K6FV>W6

Aug 11 0131 W3DOG>W3 0219 W5>W6 1328 W4>W5 1201 48250>W2 1330 W4>W5 1456 W5>W3 1539 W3>W5 17-1800 W3,W7>W4 W0MTK,W7>W9 W0>W8 K0KP>W3,W0 18-1900 VE4,VE5,W0>W5 W0>W9 1945 W0>W7 2158 VE5>W5 23-2400 VO1>W1 W3DOG>W3 49746(JA)>KL7

Aug 12 00-0100 W3>W3 01-0200 W1>W3 02-0300 W1>W3 W9,W8>W4 0328 W9>W4 0424 W0>W3 0544 VE3>W9 06-0700 VE4SPT>W9 K0KP>W3 10-1100 VE2>W9(sc) W1>W9(ms) W1>W8(sc) W4>W8 11-1200 W4>W5 W1>W4 W0,W3,W1>W9 W4>W3 12-1300 W1>W8 W2>VE1 1337 W1>W8 14-1500 W8>W1 15-1600 W0>W7,W3 W1>W1 17-1800 W7>W0 W3>W8(sc) XE2ED>W0 W5,W0>W6 W1>W4 W5>W5 18-1900 W6>W8 W2>W4 WA1OHJB>W9 W7>W0 VO1>VE3,W1 W9,W0>VE3 19-2000 W1,W0>W8 W1>W9 W3>W3 W5>W7 20-2100 W5>W6 FY1FL>8P6SH NOLL,WR9L,WB0RMO>W3 21-2200 V44KAI>FY1FL 22-2300 W3>W9 23-2400 V44KAI>FY1FL(2 hours) JAtv>KL7

Aug 13 00-0100 W1>W4 01-0200 W9>W7 VE2>W4 02-0300 VE2,W2>W4 03-0400 VE2MGL,VE9>W4 05-0600 VE3>W8 09-1000 N3LL>W4 11-1200 W1>W1 12-1300 CTtv>W4 W9>W4 W0>W4 13-1400 W0>W9 W2>W4 14-1500 W4>W4,W1 W1>W5 W3>W2 VE3,VE2,VE1>W4 W8>W0 W0,VE3>W9 15-1600 W4>W0 VE1>W3 W9VW>W1 W1>W4 16-1700 W5RP,W0>W9 KA0CDN>W7 W0>W0 17-1800 W5>W7,W4 W6>W6 18-1900 W6,W0>W6 WR9L,W8>W7 W6>W5 19-2000 VE1,W3>W3 K5AB>W7 W7>W7 20-2100 XE2ED>W0,W7 W6>W7 W0>W6 21-2200 W4>W4 W7>W6 W5>W7 K6FV>W5 23-2400 W1>W0 VE2,W1>W4,W1 K9MU>W3

Aug 14 00-0100 K1QVR>W0 VE2KYT,W1,VE3>W4 W0>W1,W3 W1>W5 01-0200 W4>W3,W2,VE2 W9>W3 W0>W1 02-0300 W5>W8 03-0400 VE8BY>W5 W0>W0 0555 VE4SPT>W9 11-1200 W2>VE2 W4>W4 12-1300 W1>W3(t) W4>W4 W0>W3 14-1500 W3>W3 W2>W4,W5 W4,VE3>W4 15-1600 W4>W4(ms) W3>W4 VE4SPT>W0 VE4VHF,W4>W5 KD4NMI>W4 16-1700 W5,W7,W4>W6 17-1800 WB5LLI>W0 W7>W5 20-2100 VE7>W6 VE7FG>W7 KD4NMI>W4

Aug 15 0110 W0>W3(ms) 16-1700 W5>W6 W89JN>W2 17-1800 W7>W6 W6>W5 NOLL>W6 21-2200 EAAtv>W2 W4>W5 22-2300 W4>W5 23-2400 W4,XE2>W5,W4

Aug 16 0018 W5>W4 1454 CU3URA>K2MUB CT1FFU>W1JJ 16-1700 EH7KW>VE1ZZ,K2MUB EH5AAJ,EH5FKX>W1JJ KP4>W4 F6FHP>W1JJ EH7KW>K1TTT W1>W1 CT1FIJ>K1DAT 17-1800 EH7KW>VE1ZZ 18-1900 EH7RU,EH7BYM>VE1ZZ 2257 48250,48242>W1 48242(CT)>W2 23-2400 VO1ZA>W1 CT1EPC>K2MUB CT1APE>VE3NE,K2MUB,WA1NYV VO1>W2 CT1FFU>K2MUB

Aug 17 01-0200 VE1SMU,VO1>W3 48242,48250>W3 02-0300 VO1>W3 KP4>W4 VE8>W7 0325 VE8>W7 1442 C6AFP>K8WW 17-1800 W4>W4,W5 2029 W9>W0

Aug 18 00-0100 9Y4AT>N3DB W3DOG>W3

Aug 19 0059 W1>W4 0115 W3>W4 13-1400 48250(EA)>W2 20-2100 W2>W3 V44KAI>KE4WBO,K9ES/4,KA3DQD YV4AB>KE4WBO 21-2200 KP4>W4 2229 KE4WBO>FM5JC

Aug 20 00-0100 W5,W4>W4 0308 W5>W4 12-1300 W5,W4>W4 14-1500 W4>W8(ms) W5>W4 W1>W8 1645 48242,48250,49750(EU)>FM5JC 17-1800 WP4,W4>W4 21-2200 FY1FL,FY7THF>FM5JC 22-2300 W4>W4

Aug 21 00-0100 W8>W8 W3>W4 0827 48250(EA)>K2MUB 1146 W9>W4 1202 W5>W4 1506 C6AFP>WZ8D 16-1700 W4>W4 CO8DM>KB4ZGO 19-2000 VE7>W6 2253 W2>W4

Aug 22 00-0100 W4CHA>W3 0247 NOLL>W7 1833 XE1>W5 19-2000 XE1>W0 20-2100 W4>W7 KP4>W4 21-2200 KS5V,K5AB,W5HN>W4 W5>KP4 W4>W0 22-2300 W4>W7,KP4 W8,W1>W4

W6ZI/5>FM5JC C6AFP>W5DN W5>W5,W4 YV4DYJ>N0JK 23-2400 W5>W4,W3  
V44KAI>KE4WBO 6Y5/YO3YB>KI4RO,YY5FRD,K5WPN,K4RX W1,KP4>W4

Aug 23 00-0100 YV4AB,6Y5RC>KE4WBO 6Y5/YO3YB>K5CM W6,N0LL,KD4HLG,W7>W5 KP4>W0  
K5AB>W4 W9>W6 W5>W8 01-0200 W7,W9,W0>W5 KD4HLG,WB5LLI,W4CHA>W0 02-0300  
W7>W4,W5 W5>W5 W4>W8 1041 W4>W4 2342 K5AB>W4

Aug 24 00-0100 W0>W6,W7 W7>W5 0527 VE4SPT>W9(sc) aurora 1116 W1>W4 1324 KD4NMI>W4  
1637 W3DOG>W3 2952 XE1>W4

Aug 25 0343 W9>W9 14-1500 KP4,W3>W4 C6AFP>K1DAT W3DOG>.W4 1832 W3>W3 1932 W4>W4  
2045 KD4NMI>W4 21-2200 KP4>W3 22-2300 VP5VAC>KI4IHX,K4RX KP4>VE2,W3,W4 23-2400  
KP4>W3,W4

Aug 26 00-0100 KP4>W4 01-0200 KP4>W4 12-1300 KP4>W3 9Y4AT>N3DB 13-1400  
9Y4AT,TG9SO>W1JJ W4>W4 14-1500 YV1DIG>K3TKJ W4>W4 KP4>W3 15-1600  
TG9SO>W3HH W3DOG>W4 8P6SH>W1JJ,N5ORT,WP4NIX 16-1700 W4>KP4 YV4AB>W5UC  
8P9SH>W5DN 17-1800 XE1>W5 W5>W4 W5,W8>KP4 8P9SH>NA4M,WB9Z 4U1WB>W2,W3  
YV4DYJ>K8LEE FY7THF>KE4WBO 9Y4AT>W5UC W9>W9 TG9SO>N3DB  
W9,W5,W9,CO8LY>KP4 C6AFP>N3DB 18-1900 YV4DYJ>W3UR,K4QI W4,W8>W3 KP4>W3  
XE1>W5,W4 9Y4AT>K0HA W3DOG>W4 W4>W1 19-2000 W5>KP4 9Y4AT>K5CM W4>W9  
FM5JC>K0HA,W4SO,KI4RO K5AB>FM5JC KP4>W0 YV4AB>K0HA WR9L,W0,XE1>W4  
V44KAI>K0HA W3>W9 K4AHO>W9,W4 C6AFP>N4DB 20-2100 FM5JC>AB5K,K0HA  
W9,W4>KP4 KF4ODI,N0PB>FM5JC KP4>W0 XE1>W3 W4>W4,W8 21-2200 W3DOG>W5  
W3,W4,XE1,W5>W4 V44KAI>K0HA W4>W1 9Y4BM>K4CIA KD4NMI,K8UK,KC8ORP,  
KY5R,WR9L,W9VW,K4KWK,N3LL,K0HA>FM5JC KP4>W9 FM5JC>N4BH 9Y4AT>K4MWB 22-  
2300 KP2BH>W0,W2 KP4>W0,W3 W4>W3,W1 FM1BY>K5CM VE1>KP4 W4CHA>W2 23-2400  
CO8LY>W3UR W4,VO1>W2 FJ5DX>W3UR,KP2L,W4WA 9Y4AT>N3DB W4>W3 FM1BY>N4BAA  
VE2YAT>W4 VA2MGL>W0 VE>W2 XE3,W0>W4

Aug 27 00-0100 VE9BEA,VE1SMU>W8 VE2>W4,W3 W1>W5,W9,W8 W0>W9 C6AFP>K5AB 01-0200  
W4CHA>W5 K0KP>W3(bs) VE2>W4 W9,W0>W3 02-0300 W4>W4,W3 K0GUV>W3 03-0400  
W0>W3,W4 W1>W5 04-0500 K8PLF,W3DOG,WR9L,VE2RCS>W0 VE3>W5 K0KP>W4  
K0UO>W3 04-0500 W0>W3 VE3>W0 14-1500 K0KP>W4 KD4NMI,WB5LLI>W3 W5>W8 15-1600  
W6>W6 W0>W3 W9>W4 16-1700 W0>W3 KD4HLG,KQ4E,KF4ODI>W9 17-1800 W0>W3 W9>W0  
9Y4AT>N3DB 9Z4BM>WP4NIX FJ5DX>W4TJ WR9L>W0 18-1900 FJ5DX>N3DB,K4RX  
FM5JC>K7BV/1 W9>W8,W0 VE4VHF>W3 K0KP>W4 19-2000 K0KP>W3 N0LL>W9  
VE4VHF>W3,W0 W4CHA,VE5>W9 K9MU>W0 KP2BH>W1 W8>W5 20-2100 V44KAI>W3JO  
VA2KYT>W0 PJ2BVU>K7BV/1 KP4>W2 FJ5DX>K7BV/1,N3DB,  
W1FC,K3OO,VE2DC,WV2V,N1VMJ CO8DM>K4KWK,N5BO,W5DN, K2PLF W9>W8 KP2BH>W5  
VE4VHF>W8,W4 K0KP>W4 YN4SU>KE4WBO VE4>W9 W0>W2 W4>W5 TI7WAM>W4TJ  
TI2ALF>K4YYL,K4KWK 21-2200 YV4AB>N3DB KP4>W2 YS2MRL>W5DN WR9L,W2,VE9>W9  
YV4DYJ>WV2V XE1,VE2,XE3>W4 VE1SMU,VE2>W0 W7>W3 HP3XUG,TI2ALF,TI5XP>WQ5W  
KP2A>W2,W3 9Z4BM>AK3E,K4AU YN4SU>K4UTE W8,VE2>W3 TG9SO>KE4WBO  
FM5JC>K4UTE VE2>W8 22-2300 VE2,W2,W3>KP4 9Z4BM>K4PI XE3>W4  
YN4SU>KI4RO,WQ5W,K4CIA TI5XP>K4PI VE9>W3,W8,W9 W9>W1 FM5JC>K4PI,K4JAF  
VE3>W1,W2,W3 W2>W3 VE1>W8 HI8ROX>AG4ZE,K9HMB VE3UBL>W0  
LU8DIO>W5DN,K4RX,AG5DU LW3EWZ,LU6EF>AG4ZE LU6DRV>WQ5W,W4TJ  
HC2FG>WQ5W 47,49(CE)>W4 23-2400 CX2AQ>WQ5W LU6DRV>N4BH,K9HMB VE3>W4  
CO8DM>K4PI XE3>W5 XE3>W2,W5 CO8LY>KI4RO,K4PI,N5BO W1>W4  
VP9/K3TRM>W3UR,KA3DQD,K8MD,N2NRD W1>W8 F6KHM>K4PI,N4BAA,WZ8D KP4,W1>W1

Aug 28 00-0100 W9,VE3,W3DOG>W9 VA2YAT>W8 KP4>W2,VE3 VP9/K3TRM>N3LL W0>W5  
48250>VE3 K0KP>W3 VE3,VE2>W4 W1,VE2>KP4 01-0200 W3,W8>W9 TG9SO>N5BO VE3>W4



W1,W3>W5 02-0300 VE5>W9,W0 W0>W4 W4>W9 W9>W5 03-0400 VE5>W6  
K8PLF,K8UK,KQ4E,WR9L,VE7FG,K0KP,W9JN>W0 W7>W9 13-1400 W4>W4 1457 KD4NMI>W4  
16-1700 W5,W7>W6 18-1900 XE2ED>W0 W6>W5 19-2000 W6>W0 W7>W6 W4>W4 22-2300  
K0KP>W1 K9MU>W2 2338 W5>W7 W1>W0

Aug 29 00-0100 W5,W0,W4>W6 XE2ED,KD4HLG,KE4SIX,KQ4E>W0 W3>W4 01-0200  
W6,WB5LLI,W4CHA,C6AFP>K0GU W5SIX>W4 W8>W6 02-0300 W7>W5,W0 W2,W5>W0 1655  
JM1SZY>K1SG(eme)

Aug 30, 31 no reports

## Asia/Pacific

### Japan

A quiet month in Japan, though it should be remembered that JA1VOK does not list contacts within Japan itself.

### 6m DX results in JA during August from JA1VOK

DATE	TIME(UTC)	STATIONS
8/ 1	0745-0750	9A2DS (JA8)
2	0644-0650	NL7Z (JA7)
	0813-0820	BA6JW,BD9BA
3	0125-0200	DS1PDF, HL50
	0630-0700	VR2SIX/b
	0800-1050	DS1MFC,HL1JV
7	0456-0510	KG6DX
	0745-0830	BU2/JJ1TBB
8	0200-0230	VR2SIX/b
9	0110-0120	DS1PDF
	0810-0820	DS1PDF
11	0450-0500	DS1LBT
	0920-0930	DS1PDF
12	0300-0430	DS1PDF, V73SIX/B, VR2SIX/b
13	0050-0300	DS1PDF,1PQR,HL2ST,2SU,5BMX
14	0029-0330	6L0NJ/4,DS1MFC,2OUR
17	0719-1000	KG6DX
19	0200-0340	BD4XA
	0540-0600	DS1PDF
21	0100-0130	VR2SIX/b
	0900-0930	VR2SIX/b
22	0040-0100	VR2SIX/b
	0415-0430	VR2SIX/b
23	1000-1030	VR2XMT,SIX/b
29	1120-1130	9M2TO/B, VR2SIX/b
31	0000-0100	DU1EV/B

### Elsewhere

If Japan was 'quiet', what can one say about the remainder of the Asia-Pacific area?

## Beacon News and 28 MHz Worldwide

Compilation and Commentary by G3USF

### Beacon News

28224.5 N4LEM new beacon in Cocoa Beach FL runs 5Watts (HP1AC Dec.)  
28240.2 KC8HZM Harrisburg PA reported by HP1AC. No further information (Oct.)  
28265 VK3RMH has resumed transmissions (VK3BYY Nov.)  
28275 KG4GVV Summerville SC in EM93 (Oct.)  
50002 PY2LDF GG67 reported here by FM5JC (Dec.). It is not as yet known whether there is any connection between this and the next entry....  
50003 PY2WFG new 5 watt beacon reported by PY2NB (Dec.)  
50051 KO9FTR reported to be in KN25YG testing with 3 watts to 1/2 vertical (Nov.)  
50057 VK7RAE operational soon  
50077 VK4BRG QRT  
50082.5 KL1IF (EM37=Missouri) reported by K0HA (Nov.)> No further details  
50293 VK3RMV operates 0100-1300UT beaming VK6  
52420 VK2RSY QRT  
52438 VK3FGN Mildura, Victoria reported operational  
52445 VK4RIK QRT

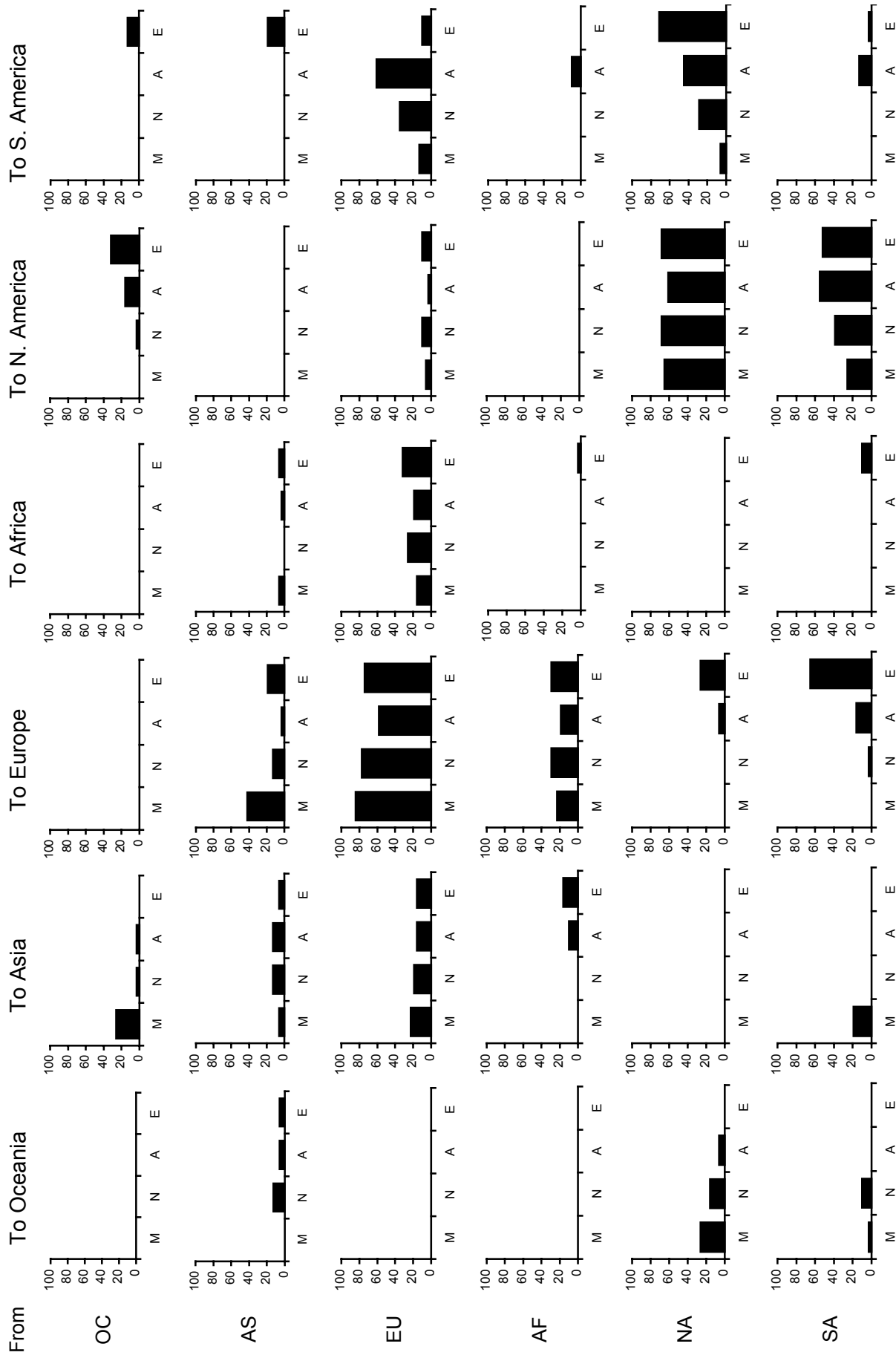
### 28 MHz Worldwide

August propagation was in general down on the same month last year, but not dramatically so, and while sporadic-E accounted for the bulk of propagation reported in Europe and North America, unlike 50MHz 28MHz did offer some F2. Thus there were reported openings between Europe and South America on 22 days (27 in 2004). Europe<->Africa openings are known to have occurred on 21 days (30). Asia (predominantly the Middle East) was into Europe on 21 days, but a sizeable fraction was attributable to Es. North America was heard or worked in Europe on 9 days, mainly from the Mediterranean and almost wholly in the course of the evening, with the most noteworthy report (if correct) being PD2MRX's reception of KW7Y at 1817 on the 13<sup>th</sup>. IK4GRO heard N8II at 0001 on the 26<sup>th</sup>, while he was copied by KC2NMZ at 2325 on the 26<sup>th</sup>. KF4DDJ reported the SK0CT beacon from EM73 on the (local) evening of the 21<sup>st</sup>. Multihop Es may well have been the mode.

Propagation within Europe was reported every day except the 22<sup>nd</sup> - interestingly, the period between the 17<sup>th</sup> and 22<sup>nd</sup> produced the least Es in the month, a similar pattern to the one G0AEV discussed with reference to 50MHz. Es was reported on the two most disturbed days, the 24<sup>th</sup> and 31<sup>st</sup>. There were reports of auroral propagation on the 3<sup>th</sup>, between 1304 and 1706, between SM2ILY and OH5, OH6 and the OH9TEN beacon. Aurora was also reported on the 16<sup>th</sup> (OH7TEN>SM2LIY at 1432 and the same stations at 2106 on the 24<sup>th</sup> and 1225 on the 25<sup>th</sup>. The only other 10-metre auroral report was of VE4TEN being received by NL7Z at 1337 on the 31<sup>st</sup>, reported as a mix of au and Es (or AE?)

There were reported openings within North America every day except, readily understandably, the 24<sup>th</sup>. Openings between North and South America are known to have occurred on all but two days - an improvement in 2004 (24 days). However, Africa, which was worked from the States on ten days in 2004 was not reported at all this month - nor was Asia (as in 2004). However, the evening path from South America to Japan fared rather better, with openings on five days, although we only know this because JG2TKH reported the LU1FHH beacon at times varying between 2236 and 0023UTC. If a 10-watt can be beacon could be heard in this way we may reasonably assume that there were unexploited propagation possibilities on all these days, and conceivably more. The path between North America and Oceania was reported open on eleven days (10 days in 2004).

## 28 MHz Worldwide - August 2005



Time bands: M=Morning, N=Noon, A=Afternoon, E=Evening - used for the "To" continent