

**THE
SIX AND TEN
REPORT
September
2004**

- Section 1. [Analysis of 28 MHz reports from the UK](#)**
- Section 2. [Analysis of 50 MHz reports from the UK](#)**
- Section 3. [Solar and Geomagnetic Data](#)**
- Section 4. [50 MHz outside Britain](#)**
- Section 5. [Beacon news and 28 MHz worldwide](#)**

Editors. Martin Harrison G3USF and Steve Reed G0AEV

Analysis of 28 MHz reports from the UK

28 MHz reports and logs for September 2004 from G2AHU, G3HBR, G3IMW, G3USF, G3YBT, G4UPS, G0AEV, G0IHF and packet cluster reports. Compilation and commentary by G0AEV.

There was some sporadic E (Es) in the first half of the month, mostly short-lived and somewhat patchy events, but virtually none in the second half (and there were many days without any Es propagation at all). Compared with 6m, however, the 10m band had significantly more hours of Es propagation on more days and to more areas.

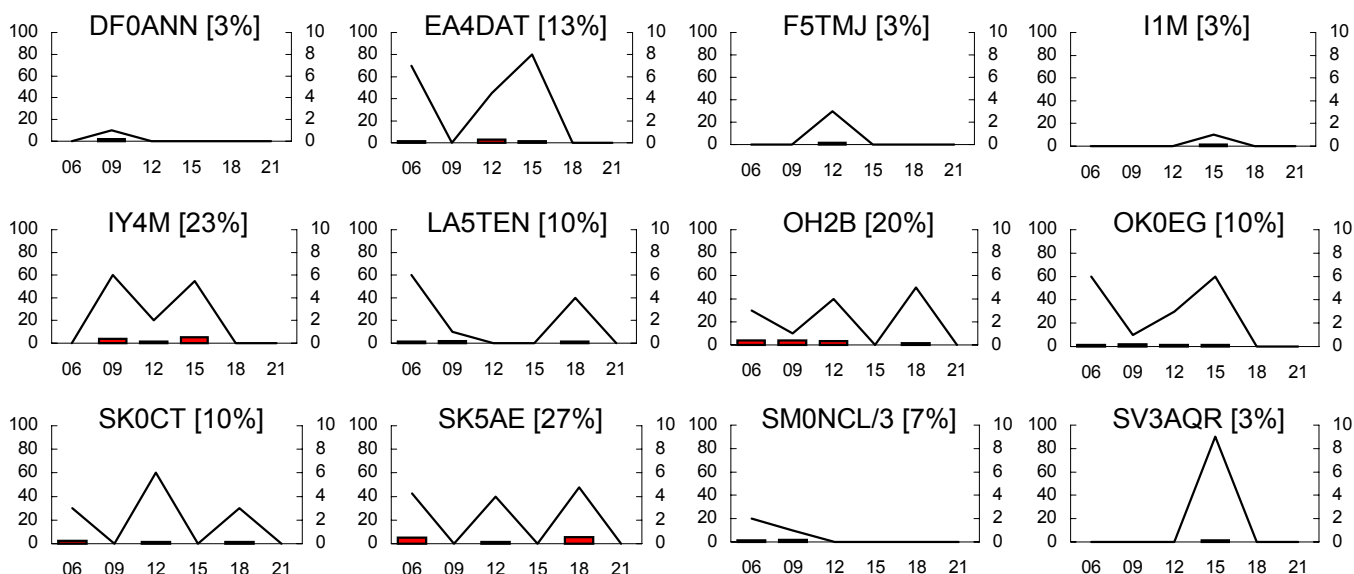
F2 in September showed only a slight improvement over that experienced in August, which was somewhat of a disappointment considering the proximity to the autumnal equinox. However some F2 propagation was detected (from beacon monitoring) on 90% of days and, with the end of the sporadic E season, F2 propagation was again responsible for the majority of 10m traffic to and from Britain.

One of the repercussions of some particularly poor propagation experienced on 6m has been a shift in listening patterns and an increase in the number of 10m reports at the expense of those for 6m. Brian G3HBR, a regular reporter on 6m, sent in one of his occasional 28 MHz beacon checks. Brian says he noted more signs of life on the band as the equinox approached. He writes "the 19th through to 23rd gave some interesting signals and then the band took a rest for a week. It livened up again on 30th and activity has continued into October. Most CW activity seems to be within a few kHz of 28025 and most SSB is close to 28500."

Beacon graphs legend

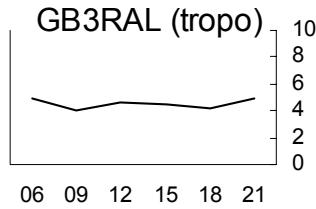
Legend for all beacon graphs in this section: - graph bars (left Y-axis): beacon reliability as the percentage of days a beacon was heard by any UK observer within each time band. Graph lines (right Y-axis): signal strength as the average of the daily maximum signal reported by any observer in each time 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.

European Propagation / Beacons



Propagation modes for European beacons.

Direct path sporadic E propagation accounts for all of the results of the beacons shown on the previous page with the exception of SV3AQR which was by direct-path F-layer. All the graphs show a very “spiky” signal strength response, which is a response characteristic of infrequent but strong signals and what one would expect at the tail end of the Es season.



Average signal strength via “tropo” from GB3RAL (IO91IN), as recorded at G0AEV (IO81WL) – distance of 58 km - is shown in the adjacent chart. No reliability figures are shown as this beacon is audible at all times except when there are transmit outages. GB3RAL was operating normally throughout September though there were problems in October.

European Beacon Notes.

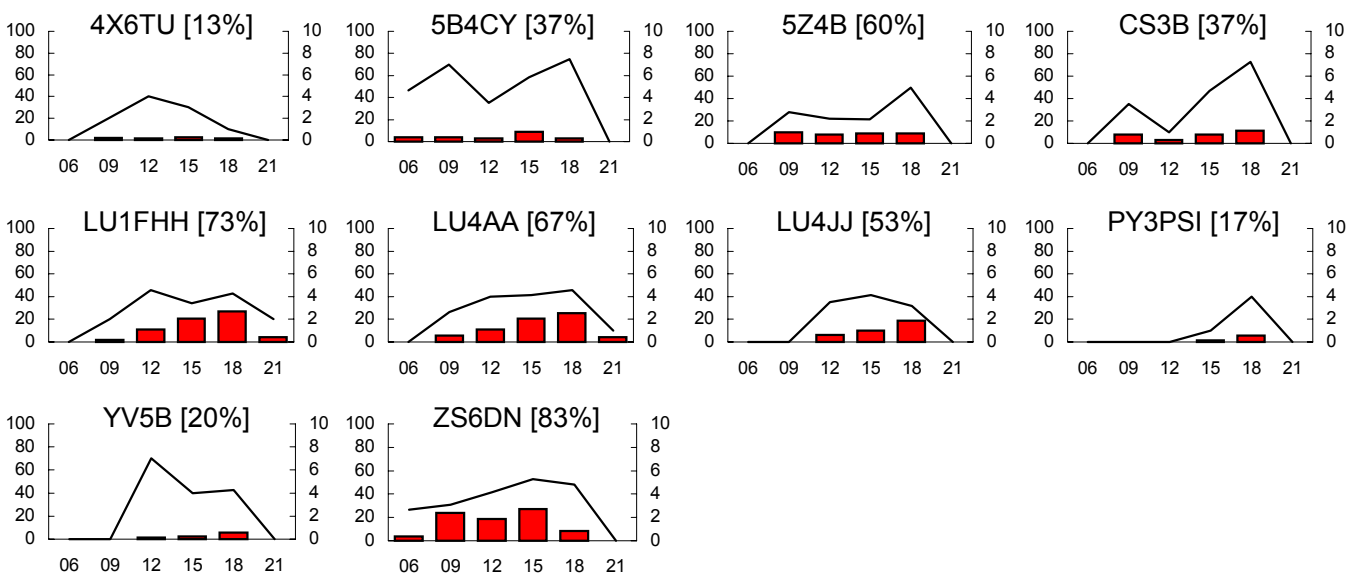
Many of the common European beacons known to be active were heard during September, the main exceptions being the German beacons. It is believed that all beacons are active apart from DL0IGI and LA4TEN.

Vaino OH2LX hears OH2B regularly on 14 MHz but only occasionally on 28 MHz (distance about 48 km) as he only has an untuned sloping wire (for measuring purposes). Vaino writes “according to our studies the OH2B R7000 vertical does not produce observable 'ground wave' component but radiates 'VHF fashion' 'space wave' including all sorts of components: direct, reflected (many), diffracted, ionospheric etc. The situation in UK (for example) no doubt differ thanks to better soil...”

G0AEV’s reception of GB3RAL is over a similar distance to OH2X-OH2B and agree that the propagation is mainly 'VHF fashion' – for example I often detect signal enhancements at dusk/dawn-day and under high pressure (weather) conditions – but with other components, including ionospheric backscatter.

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

Beacon Graphs.



Suggested propagation modes.

Beacons showed a modest improvement in F2 propagation compared with the generally poor conditions seen last month. Openings on DX paths to a generally southerly direction were more frequent than in August but the biggest improvement was seen on single-hop paths. In August openings to 5B4CY, 4X6TU and most of the openings to CS3B were in the early part of the month and were interpreted as being via sporadic E. In September the propagation to these areas mostly occurred in the middle to end of the month and were clearly by F2 and indicating a shortening of F-layer skip distances (mainly a seasonal effect). On 22nd September F-layer skip distances were short enough to allow an opening as close as Greece - SV3AQR was heard by several 6&10 listeners.

Beacon Notes.

4X6TU was reported with weak signals on 4 days in early September but no more has been heard from this beacon subsequently – at some point the beacon was taken off-air for repairs. PY3PSI is believed to be irregular. ZS1J was QRT all month. Other beacons known to off include OA4B.

10m DX in September 2004

The following list of DX countries worked or heard in the UK comes mainly from packet cluster spots (DX Summit: <http://oh2aq.kolumbus.com/dxs/>) with additional data from Six and Ten reporters. The countries heard in the North Africa and continental North America are via Es. Compared with the previous month there was a net improvement in the number of countries heard/worked, mainly in African DX. There were fewer N American and Caribbean countries available as the F2 propagation to these areas in September was poorer than the Es to the same areas in August.

DX in September: 3DA0, 4L, 4X, 5B, 5N, 5X, 7Q, 9J, 9K, 9L, 9U, CP, CX, D4, EA8, JY, LU, PJ2, PY, ST, SU, TT, UN, VU, W, Z2, ZS.

DX in August (for comparison): 5U, 7P, 7Q, CE, D4, EA8, KP2, KP4, LU, PY, UA9/0, VE, W, YI, YV, YV0, Antarctica.

Propagation to North America

Some propagation to North America was reported on 11 and 17 September. Although not mentioned as such, the spots may have been of side-scatter signals. There were no reports of any North American beacons this month, and no other indications of direct-path F2 openings. This picture changed dramatically in the second half of October. At time of writing this I don't have all reception reports for October at hand but so far these include 62 different US and Canadian beacons – more on this next month.

Analysis of 50 MHz reports from the UK

UK 50 MHz reports for September 2004 from G2ADR, G2AHU, G3HBR, G4UPS and via packet cluster spots. Compilation and commentary by G0AEV.

September was a big disappointment. The tail of the summer sporadic E season fizzled out quite abruptly and sporadic E in September was limited to a couple of very mediocre openings only. I'd go so far as to say that September in 2004 was one of the poorest for 6m sporadic E recorded in these pages. 10m sporadic E was more extensive but was also poorer than average for the time of year.

There was no F2, which is hardly surprising considering the current levels of solar activity, but there were no aurora events of any significance and no major meteor showers either. This left the troposphere as the main potential source for contacts for most people most of the month. There was some good "tropo" on a couple of days (see the tropo section below) but interest in working "DX" using the mode seems to be limited. JT6M produced some activity, presumably mainly via meteor scatter, but even this, if the spots sent to the DX cluster are representative, appears to have been less than in recent months.

With this background of "nil" propagation and low activity levels it is not surprising that few of our reporters had much to say this time round. G2ADR sent a "nil return" (i.e. nothing to report, despite regular monitoring of the band). G2AHU heard one signal via Es, but that was from N Africa. G4UPS heard nothing outside of the UK. G3HBR said "most of Europe seems to have deserted the band. It has certainly been dead most of the time. Very few people were around to take advantage of the excellent tropo conditions on 7th." Apart from his tropo results, Brian had no other entries in the log for the entire month.

Sporadic E

Sporadic E results below are in tables grouped by country area and 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.

D	9H (3%)	CN (3%)	CT (3%)	CU (3%)	EA (7%)	I (3%)	OH (3%)	SP (3%)	YO (3%)	
D	10	10	27	27	10 27	10	4	10	10	
06							9			
09										
12			8	1	5					
15		5			9	5		9	9	
18	5									
21										

Sporadic E backscatter

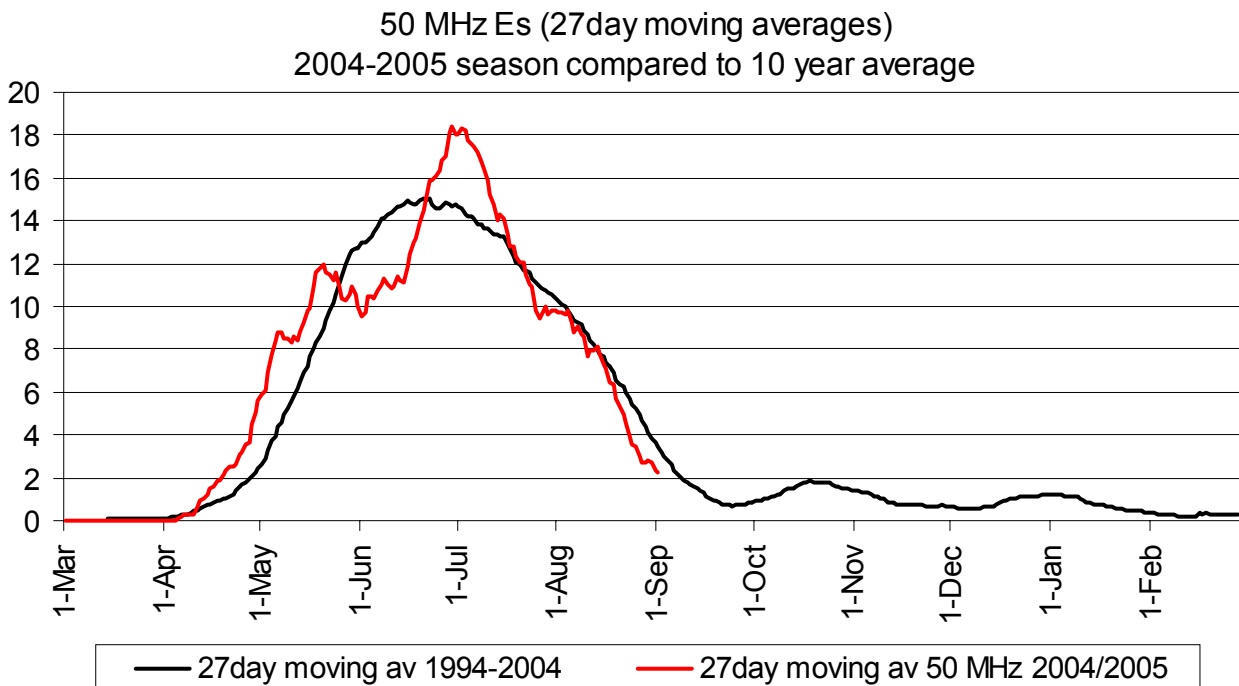
There was a single report of Es backscatter - G4VPD heard signals from G0JHC at 519 via backscatter on 10th at 16.43. The 10th was during the best of the September Es events with signals arriving in the UK from countries to both the south and east

DX (F2 and TEP) Propagation

There were no reports from Britain of any signals outside of the Europe with the exception of the reception of the CN8MC beacon on 10th by Ray G2AHU. This was, of course, via sporadic E.

Es Propagation Summary:

Continuing our monthly appraisal of the progress of sporadic E activity in 2004 compared with mean activity over the preceding 10 years, September results have been added to the graph below. The new data neatly illustrates the poor showing of this month's Es events with respect to the "norm". Overall or the distribution of Es for the 2004 summer season was shifted earlier in the year than usual – i.e. the season started earlier and ended earlier. The 2004 season peak in activity was in early July compared to the mid-June peak seen in the 10-year average data.



The graph above displays 27-day moving averages of the daily 6m country/area scores with a 10-year average of the same measure – details in the May 2004 Report

The table below displays total counts of country/areas heard/worked via sporadic E by UK stations, a summary of the detailed tables in the previous section. The 4th, 10th and 27th were the only days when Es was reported, and of these the 10th was the best.

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
06				1																										
09																														
12																														
15											5																			
18											1																			
21																														

Aurora

Aurora were restricted to a few weak "Scottish" type events. All aurora reports are listed below. There was no auroral E.

13 1957 EI7BMB > GM4NFC 51a
14 1813 GM8LFB (IO88) > GB3LER "just gone auroral"
14 1839 MM0AMW (IO75) > GB3LER 54a (also LA video signals)
14 2320 MM0AMW > OY6SMC 53a
14 2334 MM0BSM > GB3LER 53a
19 2252 MM0AMW reports hearing LA video on 48256 auroral
22 1418 GM8LFB > GB3LER "going auroral"
22 2100 MM0AMW > GB3LER 53a, OY6SMC 53a

Tropospheric propagation

Good "tropo" was noted on 3 days in September, the best of the reports being G3HBR (IO91QQ) to DF9OX (JO53HH), which I make a distance of 782 km. Any 50 MHz tropo QSO over 700 km (especially achieved without the advantage of digital modes) is significant. A pity more people didn't take advantage of the good conditions.

Brian G3HBR writes regarding the tropo on 7th "PI7SIX was a good signal with me and I do not usually hear that beacon at all. GB3BUX got to within 5db of GB3BAA which is quite amazing as the latter is very nearly line of sight with me "if it wasn't for the 'ouses in between" as the old music hall song goes, and a lot of trees. DF9OX was the only DX QSO but there must have been lots of others who would have been workable if they had been on. I guess they were all busy breaking records on 23, 13 etc."

1 1721 EI5FK > GB3MCB 529 "good tropo"
1 1825 G3SED (IO90) > GM4NFC 54 "good tropo"
7 0720 G4UPS (IO80) > GB3BAA 569 "do not normally hear this beacon"
7 2008 G4PCI > GM4NFC (*presumably tropo*)
7 2110 G3HBR > PI7SIX 579, GB3BUX 599+20
7 2121 G3HBR (IO91) > DF9OX (JO53) 539
8 0931 GM8LFB > GB3LER 569 tropo.
8 2117 G4VCJ > GB3BAA 52 "normally in the noise", G8PL 55

Meteor Scatter

Meteor scatter had little to offer. Even JT6M successes appeared to be lower than normal. The following show that, if nothing else, George G4PCI was active!

6 1955 G4PCI > MM0DQP JT6M "v weak pings"
13 1648 G4PCI > GB3LER 319+MS

Solar and Geomagnetic Data for September 2004

Data supplied by G0CAS (Sun Mag¹) and from Internet sources. Compilation by G0AEV.

Sunspot numbers (SEC)	Mean 50.0	Max 95 (7 th)	Min 12 (1 st)
Solar Flux (28 MHz)	Mean 103.1	Max 131 (9 th)	Min 88 (30 th)

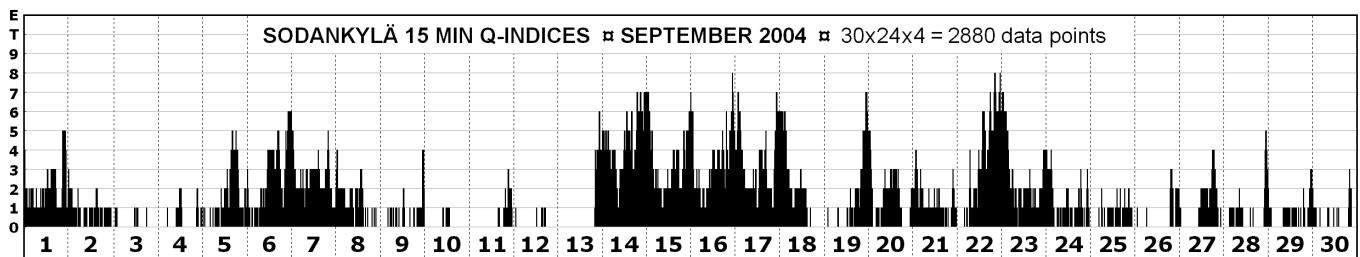
Solar data for September 2004 are presented in the table at the end of this section. Numbers in the 28 and 50 MHz columns of this table are the total daily “areas” worked/heard from the UK for each of several propagation modes and are a summary of the data presented in the first sections of this Report. 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, Aurora and Auroral E. F2 critical frequencies 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.

Solar X-ray events of M or X class recorded during the month included only 4 of M-class

12 th	0004-0133	M4.8 2n
	0136-0141	M3.2 Sn
14 th	0747-1000	M1.5 1f
19 th	1646-1739	M1.9

Q-indices

 from Sodankylä, Finland (Thanks to Vaïno, OH2LX)


September 2004 was another relatively quiet month. The Q-index graph from OH2LX above shows several disturbed periods, especially 14-18th and 22nd, but interspersed with quiet or very quiet days. This was also the picture last month and monthly average measures (for example A indices – see below for the data from Finland) were similar in August and September.

Geomagnetic data from Finnish observatories in September 2004:

Monthly averages for September:

Sodankylä:	monthly Ak average = 14.7 (15.3 in Aug)
Nurmijärvi:	monthly Ak average = 8.1 (9.7 in Aug)

Most disturbed September day:

Sodankylä:	14 th , Ak = 53 (Aug: 41 on 31 st)
Nurmijärvi:	14 th , Ak = 31 (Aug: 45 on 30 th)

¹ Sun Mag: Sunspot and Magnetic data compiled by Neil Clarke G0CAS. Email 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 shading K > 5. There were 7 disturbed days in September when one or more of the UK K indices or the planetary Kp index was 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	31
00	3	2	2	1	1	2	3	2	1	2	2	1	2	4	4	3	5	5	1	3	2	1	4	3	0	1	1	2	2	2
03	1	2	1	1	1	2	4	3	1	1	0	1	1	4	3	3	4	5	1	1	3	1	4	2	1	1	1	2	1	1
06	2	3	1	0	2	4	4	4	0	1	0	0	0	4	2	4	4	1	1	4	3	3	2	1	0	2	0	3	0	0
09	2	3	0	1	2	4	4	2	1	2	1	0	1	5	3	4	3	3	1	3	2	3	2	2	2	1	1	2	1	0
12	2	2	1	2	2	3	3	3	2	2	3	2	2	4	3	4	3	3	2	3	2	5	2	2	2	1	2	1	2	1
15	3	2	2	1	3	3	3	2	1	2	2	2	2	3	3	3	3	2	2	2	2	4	2	2	3	2	2	1	2	2
18	3	2	1	2	3	2	2	2	2	2	3	2	3	4	3	3	3	1	2	2	2	4	2	2	2	2	3	2	2	2
21	3	3	1	1	2	3	2	2	2	2	2	2	4	4	2	3	4	2	3	2	2	3	2	2	2	2	1	3	2	2
Σ	19	19	9	9	16	23	25	20	10	14	13	10	15	32	23	27	29	22	13	20	18	24	20	16	12	12	11	16	12	10

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
00	2	2	1	0	1	2	3	2	0	0	0	0	0	2	4	2	4	4	0	2	3	0	4	2	0	0	1	0	1	1
03	1	0	0	0	0	1	2	2	0	0	0	0	0	4	2	2	3	5	0	2	2	1	3	1	0	0	0	2	0	0
06	1	1	0	0	0	2	2	2	0	0	0	0	0	4	1	3	3	1	0	4	1	1	2	1	0	0	0	1	0	0
09	1	1	0	1	1	3	2	0	0	1	0	0	0	3	1	1	2	2	0	2	1	2	1	1	1	0	1	0	0	0
12	2	1	0	1	2	2	2	1	1	0	1	0	0	4	3	3	2	2	1	2	1	3	1	0	1	0	2	0	1	0
15	2	2	1	1	3	3	2	0	0	0	1	1	0	3	2	3	2	0	1	2	1	4	1	1	1	0	2	0	1	0
18	2	1	1	0	3	2	2	0	1	0	1	0	4	5	2	4	2	0	1	0	1	4	1	1	1	2	1	0	1	1
21	2	1	0	1	1	4	1	0	2	0	1	0	4	3	2	3	4	0	3	2	1	3	2	1	0	1	0	3	3	0
Σ	13	9	3	4	11	19	16	7	4	1	4	1	8	28	17	21	22	14	6	16	11	18	15	8	4	3	7	6	7	2

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
00	2	2	1	0	1	3	3	3	0	0	0	1	0	3	4	3	4	4	0	2	3	1	4	2	0	1	1	0	1	1
03	1	0	0	0	0	1	2	3	1	0	0	0	0	3	2	3	3	4	0	1	2	1	3	1	0	0	0	2	0	0
06	1	1	0	0	0	2	2	2	0	0	0	0	0	4	1	3	3	1	1	4	1	2	2	1	0	0	0	2	0	0
09	1	1	0	1	1	3	1	1	0	0	0	0	0	3	1	2	2	2	0	2	1	3	1	1	1	0	1	1	1	0
12	1	1	0	1	2	3	2	2	2	1	1	1	0	4	3	3	3	3	1	3	2	3	1	0	1	0	2	0	1	1
15	2	1	1	0	3	3	2	1	0	0	1	2	0	3	3	4	2	0	1	2	2	4	1	2	1	0	2	0	1	0
18	3	1	1	1	3	2	2	0	2	0	1	0	5	5	2	4	3	0	1	0	1	4	1	1	1	2	2	1	1	1
21	2	2	0	1	1	4	1	0	3	0	1	0	4	4	3	4	4	0	3	2	1	4	2	2	0	2	0	3	3	0
Σ	13	9	3	4	11	21	15	12	8	1	4	4	9	29	19	26	24	14	7	16	13	22	15	10	4	5	8	9	8	3

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
00	2	2	2	1	1	3	3	3	0	0	0	1	0	3	5	3	4	4	0	2	3	1	4	2	0	1	1	1	1	1
03	1	1	0	0	1	1	2	3	1	1	0	0	0	4	2	2	3	4	0	1	2	1	4	2	1	0	0	2	0	0
06	1	2	0	0	1	3	3	3	0	0	0	0	0	3	2	3	3	3	1	4	2	2	2	1	0	0	0	3	1	0
09	1	1	0	1	1	3	2	1	0	1	0	0	0	4	1	2	3	3	0	2	1	3	1	1	1	0	1	1	1	0
12	1	1	0	1	2	2	3	2	1	1	1	1	0	3	3	3	2	2	1	2	2	4	1	0	1	0	2	0	1	1
15	2	1	1	0	3	4	2	1	1	0	1	2	0	4	3	4	3	0	1	2	2	4	1	2	1	0	2	1	1	0
18	2	1	1	1	3	2	2	0	1	0	1	0	5	5	2	4	3	0	1	0	1	4	1	1	1	2	2	1	1	2
21	3	2	0	1	1	4	1	0	3	0	1	1	4	4	3	4	4	0	3	2	2	4	2	2	0	2	0	3	3	0
Σ	13	11	4	5	13	22	18	13	7	3	4	5	9	30	21	25	25	16	7	15	15	23	16	11	5	5	8	12	9	4

September 28 Areas		-- 50 Areas --				2800		- Spots -		Max		X-ray		Min foF2		-- Particle Fluences --				
2004	Es	F	Es	DX	A	AE	Flux	SEC	SIDC	Kp	Ap	Aa	b.gnd	Max foF2	Hour	2MEV Elec	1MEV Prot	10MEV Prot		
01-Sep	2	0	0	0	0	0	90	12	8	3	9	12	B1.9	5.7	19	2.3	05	2.4E+07	2.2E+05	1.3E+04
02-Sep	4	5	0	0	0	0	94	25	8	3	9	9	B1.9	7.1	10	2.5	04	1.1E+08	3.1E+05	1.3E+04
03-Sep	3	1	0	0	0	0	97	25	18	2	3	5	B1.5	6.8	20	3.1	05	1.8E+08	6.3E+05	1.5E+04
04-Sep	3	1	1	0	0	0	99	28	20	2	4	5	B1.5	7.0	19	3.3	03	1.8E+08	1.2E+06	1.4E+04
05-Sep	0	8	0	0	0	0	103	59	37	3	7	16	B1.7	7.4	15	3.3	04	2.2E+07	3.6E+05	1.4E+04
06-Sep	0	0	0	0	0	0	107	82	32	4	14	29	B1.7	6.1	15	2.9	04	5.4E+06	2.1E+05	1.4E+04
07-Sep	5	5	0	0	0	0	119	95	38	4	16	18	B3.2	7.1	11	2.7	05	1.2E+07	1.5E+05	1.4E+04
08-Sep	1	4	0	0	0	0	125	85	47	4	9	14	B4.0	6.9	18	3.0	05	2.1E+07	2.1E+05	1.5E+04
09-Sep	2	8	0	0	0	0	131	82	51	2	4	7	B5.3	7.8	19	3.7	04	4.7E+07	2.4E+05	1.4E+04
10-Sep	4	5	6	0	0	0	130	87	44	2	5	5	B4.3	7.9	19	3.7	05	2.8E+07	1.5E+05	1.4E+04
11-Sep	0	9	0	0	0	0	116	87	42	3	6	5	B3.1	8.1	18	3.7	03	2.7E+07	1.8E+05	1.4E+04
12-Sep	4	8	0	0	0	0	115	85	43	2	4	7	B2.8	7.7	13	3.0	05	1.5E+07	1.9E+05	1.9E+04
13-Sep	1	6	0	0	1	0	118	65	39	4	8	18	B3.0	7.7	19	3.7	03	2.1E+07	6.2E+07	1.9E+06
14-Sep	3	8	0	0	2	0	115	70	32	5	28	52	B4.7	7.1	18	3.1	05	3.5E+07	4.6E+08	8.5E+06
15-Sep	0	8	0	0	0	0	110	67	39	4	14	26	B3.2	7.5	13	3.1	03	1.5E+08	6.1E+07	7.4E+05
16-Sep	0	6	0	0	0	0	108	80	38	4	17	34	B1.9	6.3	14	3.1	05	3.0E+08	2.7E+07	1.5E+05
17-Sep	0	3	0	0	0	0	105	76	36	5	20	32	B1.8	5.7	18	2.5	05	1.6E+08	5.9E+06	3.7E+04
18-Sep	0	1	0	0	0	0	103	50	33	5	16	21	B1.9	6.5	14	2.0	04	9.8E+07	1.5E+06	1.7E+04
19-Sep	0	5	0	0	0	0	105	42	34	3	5	9	B1.4	7.4	14	2.5	05	2.0E+08	1.6E+06	6.0E+05
20-Sep	0	5	0	0	0	0	101	59	27	4	13	19	B1.9	7.0	11	3.0	05	1.8E+07	9.3E+06	1.0E+06
21-Sep	0	8	0	0	0	0	95	33	24	3	9	15	B1.4	7.7	18	2.7	04	9.0E+06	7.5E+06	9.6E+04
22-Sep	0	7	0	0	2	0	91	24	17	5	16	33	B1.4	5.0	15	3.2	23	3.0E+07	1.6E+06	2.3E+04
23-Sep	1	2	0	0	0	0	90	19	10	4	12	19	A9.8	n.a.	n.a.	n.a.	n.a.	6.6E+07	3.2E+06	1.4E+04
24-Sep	0	0	0	0	0	0	89	15	10	3	6	11	A8.1	6.1	12	2.2	05	3.7E+07	4.3E+05	1.5E+04
25-Sep	0	1	0	0	0	0	90	24	10	3	5	7	A6.1	6.6	15	3.0	05	7.6E+07	4.5E+05	1.4E+04
26-Sep	0	4	0	0	0	0	90	22	15	2	4	5	A5.9	7.2	11	2.5	05	9.1E+07	4.8E+05	1.4E+04
27-Sep	4	5	3	0	0	0	90	22	15	3	5	10	A6.2	7.6	16	2.5	05	4.5E+07	6.9E+05	1.4E+04
28-Sep	1	6	0	0	0	0	90	22	8	3	8	12	A8.1	7.3	15	2.3	05	1.9E+06	3.2E+05	1.5E+04
29-Sep	0	7	0	0	0	0	90	22	25	2	5	11	A6.1	7.6	16	2.7	05	1.1E+07	4.6E+05	1.4E+04
30-Sep	0	4	0	0	0	0	88	36	31	2	4	5	A5.4	7.5	11	2.5	05	1.3E+07	5.7E+05	1.4E+04
Sum	38	140	10	0	5	0														
Average	1.3	4.7	0.3	0.0	0.2	0.0	103.1	50.0	27.7	3.3	9.5	15.7		7.0	15	2.9	04	6.8E+07	2.2E+07	4.5E+05
Maximum	5	9	6	0	2	0	131	95	51	5	28	52		8.1	20	3.7	05	3.0E+08	4.6E+08	8.5E+06
Minimum	0	0	0	0	0	0	88	12	8	2	3	5		5.0	10	2.0	23	1.9E+06	1.5E+05	1.3E+04

50 MHz Outside Britain

Compilation and Commentary by G3USF

Europe

Auroral-Related Modes

After a quiet August an even quieter September during which there was only a solitary EI report from south of the Baltic/GM line, and there were scant few north of it! Even our indefatigable OH friends reported a mere 200 minutes. Since OH5IY is monitoring constant sources we can take it that the modest record below fairly reflects reality rather than the decline in activity that has been so evident elsewhere. Note that the assigning of a number of T9 reports from far-North sites to this section is inevitably tentative, especially when there is no 'a' activity around the relevant times

Sep 3 2001 JW7SIX>LA(JP99 529)(mode?)

Sep 5 1707 49750>OH6(KP02 52a) 1854 49750>SM5(56a)

Sep 11 2029-30 JW7SIX>SM2(KP15 579) OH9SIX>SM2(KP15 55a)

Sep 13 1957 GM>EI(51a)

Sep 14 1550 49750>SM0(56a) 1814 JW7SIX>LA(JP99 539)

Sep 16 2220-2300 Au>OH5IY

Sep 17 0130-50 Au>OH5 1531 OH5SIX>OH8 55a) 2112 OH9SIX>SM2(57a)

Sep 18 2027 OH6(KP26)>SM5(JO99 55a)

Sep 19 2250-2300 Au>OH5

Sep 22 1340-1500 Au>OH5 2000-040 Au>OH5 2230-40 Au>OH5

Other Modes

It can be said with little fear of contradiction that September was a quiet month. Even our Mediterranean colleagues, who were the beneficiaries of such longer-haul propagation as there was, had a fairly lean time. Nowhere reported any east-west F-layer propagation. North-south was a little more productive, with openings to Africa on 7 days, mostly presumably due to tep. SV1DH notes reception of 3Ctv or a new 9L tv station on 19 days, mainly in the second half of the month - so there was a path of sorts on most days, but possibly requiring more power than amateurs can command. However, in the absence of an active 3C operator we cannot be sure. CN, EA8, EA9, 7X, CT2 and CT3 are not included below because they lie within Es, or even tropo, range of stations in Europe.

Europe <> Southern(+) and West(*) Africa

	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	
S. Af					+				+		+										+										
W.Af															*							*	*		*						

Europe<>Africa

ZS 2 days 11(I,SV) 21(IS,SV,9H)
 9J 2 days 5(SV) 9(EA,IS,SV,9H)
 TR 4 days 15(EA,SV) 21(SV,9H) 22(EA) 24(EA)

There were no openings to the mainland of South America but the ZD8VHF beacon was received on 13 days, mostly in the late evening, presumably by tep. On several days the beacon was heard in North Africa but not reported from Europe. Regrettably, there was at that time no 50MHz activity from the island.

Ascension Island>Europe

ZD8VHF 13 days 2(EA) 4(EA) 9(EA) 10(9H) 11(SV,9H) 13(9H) 14(9H) 15(9H) 17(9H)
 20(9H) 21(9H) 23(9H) 24(EA)

Sporadic-E was not totally absent. Indeed, although G0AEV received reports for only three days in the UK, on the Continent it appears to have occurred on most days, though openings were brief and geographically highly restricted. While a substantial number of reports specifically mention JT6M and were probably attributable to meteor scatter, some may have been due to brief Es bursts.

As usual, in the detailed listing below call signs given in full below indicate either beacons or DX contacts.

Sep 1 1054-5 UU5SIX,UT5G>DL 1108 UU5SIX>DL 1721 GB3MCB>EI(t)

Sep 2 1425 I4>S5 1659 EH1DVY>IS0 1717 I2>I5 2131 ZD8VHF>EA7KW

Sep 3 11-1200 SV1SIX>I4 YO3KWJ>9H UT5G>I8(Es) LY0SIX>9A,I8(Es) SV1SIX>SP9 12-1300
 UT5G>I4,DL LY0SIX>I4 OH5RAC>9A

Sep 4 0657 I3>OZ(jt) G>I3(jt) 0936 IK5ZUL>I1 1447 SV3>SV1 2052 dicate either ZD8VHF>EA7KW

Sep 5 08-0900 I5>OZ(jt) T9>DL 2008 DL>SM5(Es/ms)

Sep 6 21-2200 DL>EI DL>SM5(ms)

Sep 7 2228 ZD8VHF>CN8LI

Sep 8 1 012 F>I2 2018 SP1>DL(t)

Sep 9 1017 CN8MC>I8 1548 3Ctv>SV1 16-1700 AFtv(unid)>SV1 9J2KC/b>IS0GQX 18-1900 9J2KC>EH3LL,9H1YZ,SV1DH,CN8LI,IK0FTA 19-2000 9J2KC>9H1YZ 2133 9J2KC>EH3LL 2204 ZD8VHF>EA7KW

Sep 10 09-1000 G>OZ(jt) OZ>DL YT1>9A(t) 16-1700 I2>I0 I0JX,I5,IQ4AD>OZ 17-1800 IZ1EPM,IK5ZUL>OZ CU3URA>EA1 G>I2 YU1>PA 18-1900 LZ1JH,9H1SIX>ON 1919 EH1DVY>I2 2057 ZD8VHF>9H1YZ

Sep 11 0652 SM6>OZ(jt) 0714 JA1AHS>IW5DHN(eme) 1053 I8>OZ(jt) 1508 3Ctv>SV1 1656 ZS6TWB>SV1DH 1720 ZS6TWB>IW5DHN 1856 3Ctv>SV1(E-tep) 20-2100 S5>I2 ZD8VHF>SV1DH 2142 ZD8VHF>9H1YZ

Sep 12 09-1000 TV>9A(tep) I5>9A(ms) 1610 3Ctv>SV1 1932 9J2KC>5B4AV

Sep 13 1438-52 3Ctv>SV1 SV1>5B(sc) 16-1700 SV1>EA7(sc) 2039 ZD8VHF>9H1YZ 2158 I5>OZ(jt)

Sep 14 17-1800 I9>IS0 1837 CN8MC>EA7(scSAm) 2053 DL>SM5(ms) 2117 ZD8VHF>9H1YZ

Sep 15 1440 TR0A,AFtv>SV1DH 1509 TR0A>EA7KW 2023 ZD8VHF>9H1YZ 2120 DL>SM5(ms)

Sep 16 1353 AFtv>SV1 21-2200 ZD8VHF>CN8MC I9>I8

Sep 17 14-1500 3Ctv>SV1 17-1800 CT>EA7(scSAm) 7X0AD>EA7(scSAm) 2102 ZD8VHF>9H1YZ 2133 DL>SM5(ms)

Sep 18 1438 AFtv>SV1 1842 OZ>SM5(jt) 2056 I4>SM5(jt) 2146 SM0>I4(jt)

Sep 19 (Italian contest) 07-0800 S5>I1(t) 09-1000 I5>I2 I4>PA(ms) I4>I8 I1>I0 I8>I0 10-1100 I8>I0 I1>I0(t) I6>I7 11-1200 I2>I3(t) I4,I3>I1 12-1300 I6>I4 I4>DL,PA(ms),I8 S5>DL13-1400 I7>I8 1416 I4>OE8 1650 CN>EA7(scSAm)

Sep 20 1448 9Ltv>SV1 2052 ZD8VHF>9H1YZ

Sep 21 14-1500 TR0A,9Ltv>SV1DH 18-1900 ZS6TWB>IS0GQX ZS6NK>9H1XT 20-2100 ZD8VHF>9H1YZ,CN8LI,IS0GQX TR0A>9H1YZ 2119 DL>SM(ms)

Sep 22 1557 I1>I5 1613 I1>I5 17-1800 TR0A>EA7KW 19-2000 CU3>EA7 EH7>CN

Sep 23 1731 CN8MC>IS0 2006 ZD8VHF>9H1YZ 2230 ZD8VHF>CN8LI

Sep 24 1644 TR0A>EA7KW 2229 ZD8VHF>EA7KW

Sep 25 13-1400 I6>I5 I5>ON 14-1500 I1>I5 1553 9Ltv>SV1 2137 I5>LA(eme)

Sep 26 0911 I5>EA3(jt) 10-110-0 I3>I5 15-1600 7X0AD>EA5,I9

Sep 27 1302 I5MXX>EI 1714 SP2>SP6 2121 DL>SM5(ms)

Sep 28 17-1800 I5>SM0 OZ>DL S5>I2 OH3>OH2 18-1900 SM7,OZ,LY>DL OH3>LY 19-2000 OZ>DL,LY S5,SP2>LY 20-2100 OH0>OZ,SP2,SP6 OZ>OH6 OH6,OH3>DL

Sep 29 0605 NL7Z>IW5DHN(eme) 0658 UR>HA9,9A

Sep 30 1432 9Ltv,3Ctv>SV1 20-2100 DL>SM5 2059 ZD8VHF>EA8EE

50MHz PROPAGATION REPORT FOR SEPTEMBER 2004 BY SV1DH

1. Data for all days (30), 1-6th internet data
2. Relatively good days on: 11,21
3. 48 MHz AF video (3C+9L) on: 9,11-23,25-28,30 (R=63%)
4. 55 MHz AF video (5N) on: NIL
5. Opening to ZS6 on: 5,11,21
6. " to 9J on: 9
7. " to TR on: 15,21
8. " to ZD8 on: 11
9. " to 5B on: 13(B)
10. " to EH on: 13(B)
11. " to I on: 3(E)
12. " to SP on: 3(E)
13. Special events on:
 - 2 (SFI=90,SSN=12)
 - 12 (0139 M3.2 flare)
 - 14 (0930 M1.5 flare+0915-1015 foF2>10,max 10.5, MUF=33Mhz)
 - 19 (1712 M1.9 flare)
 - 24 (SFI=89,SSN=15 min)

New 9L TV tx on 48248.6Khz after 1 Sept. Poor month.

14. DXCC entities heard/worked during Sept 2004 : 8 on 3 cont
15. DXCC entities heard/worked on 11th Sept 2004 : 2 on 1 cont.

73 COSTAS

The Americas

Auroral-Related Modes

Sep 5 1645 VE8BY>VE6(559a) 1655 VE8BY>VE6(599)

Sep 6 0014 VE8BY>W1(FN43)(mode?) 1333 VE8BY>VE6(53a)

Sep 18 01-0200 N8PUM>W9(EN44 51a) 0252 VE4ARM>W9(EN44 51a) 03-0400 VE8BY>VE6(DO33 53a)
VE4ARM>VE6(DO33 52a)

Other Modes

September was no more exciting for North Americans than for Europeans. Reported DX openings were limited to CN from W2 on the 7th, LU to W4 on the 18th and 19th and HC8 to W4, also on the 18th. On several days no reports were posted. The only days when a substantial number of reports were posted were the contest weekend of the 11th and 12th, which produced only modest amounts of distance working.

Caribbean stations had more success with South America. Indeed, from the 19th onwards openings were an almost daily occurrence, coinciding with the appearance on the band of FM5JC. Whether he arrived on the scene just as propagation factors favoured contacts, or whether there is some element of 'activity' effect here is unclear.

	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	
						+													+	+	+	+		+	+	+	+	+	+	+	

Sep 1 00-0100 W1>W0 VE2>W2 K0ETC>W1 0116 W5>W2 02-0300 W4,W5,VE3>W9 W0>W4 W6>W0
03-0400 XE2>W0 W0>W7 NOLL>XE2 04-0500 W0>W6 W7>W0 1432 W9VW>W4

Sep 2,3 no reports

Sep 4 0654 KL7>W7(eme) 0839 VA2MGL>W2 1720 W3>W1

Sep 5 0130 W0>W1(ms)

Sep 6 1319 W4>W4 1419 K0KP>VE6(ms) 16-1700 VE7FG>VE6 W6>W6 2202 HK3VFH>KP4 2348
N7LT>W0

Sep 7 02-0300 W0>W9,W0 1948 48.2(CE)>W4 2026 CN8MC>KB2WTB

Sep 8 0122 W1>VE9 2250 48.3(CE)>W4

Sep 9 0212 W5>W5 2204 48.3>W4

Sep 10 1403 NOLL>W0(t) 1548 W8>W4

Sep 11 1735 W4>W1 18-1900 contest W3,W2,W1>W1 W5>W5 VE3>W2 W6>W6 W9>W9 19-2000
W5,W3>W9 W0>W6 W3>W0 W2>VE2 20-2100 W4>W4,W0 W1,W3>W1 21-2200 W0>W6
W8,W0>W0 W1,W2>W1 W2>VE2 W2>W0(ms) W4>W8 22-2300 W4>W3 W1>W0,W1,W2 23-
2400 W2>W1,W4 W1>W1 W2,W3>W0 W3>W3

Sep 12 contest 00-0100 W2,W1,W9>W0 W2>W2 W8>W3 01-0200 W2>W0 OH7PI>K7AD(eme) W3>W3
W0>W6 02-0300 W4>W3 W9>W1 W3>W0 03-0400 W2,W4,W3>W0 04-0500 W8,W5>W0 W3>W2
0536 W9>W9 11-1200 W3>W1 W1>W4 12-1300 W2>W4 W5>W5 13-1400 W3>W0 W1>W8,W4
W2,W4>W4 W2,W9,W3,W4>W0 14-1500 W1>W1,W0,W8,W3 W3,W9,W0(sc)>W4 W3>W0
W8>W9 15-1600 W3,W4>W0 W6,W9>W9 16-1700 W7,W3,W1,W5>W0 W8,W9>W9 W2>W3
W1,W3>W9 17-1800 W1>W8,W9 W7>W7 W9,W5>W0 W1,W3>W1 W8>W9 18-1900
W1,W2,W8>W9 W3,W8,W0>W0 19-2000 W8,W9>W0 W9>W9 48.2(CE)>W4 20-2100 W6>XE2
W1,W2>W1 W4,W3>W0 W1>W4 48.3(CE)>W4 21-2200 W9>W9 W4,W8>W0 22-2300
W8,W5>W0 W9>W9 2302 W9>W4

Sep 13 00-0100 W7>W7 W2>W2,W0 W4>W4 W1>W0 01-0200 W4,W8>W4 W2,W8>W0 02-0300 W3>W0
W4>W4

Sep 14 0212 W4>W4 1952 VE3>W2 21-2200 47.9>W4

Sep 15 no reports

Sep 16 0007 VE1>W8 1641 VE1>W3(sc) 1802 VE1>W8 2340 VE1>W3(ms)

Sep 17 0149 OA4B>FM5JC 1054 VE1>VE2 1526 VE7FG>KL7 2032 VE1>W8 21-2200 W1>W3 VE1>W1

Sep 18 0136 VE1>W3(jt) 1034 VE1>VE2 1151 VE1>W2 19-2000 49.2(CE),LU5EGL,LU2EUZ>K4RX 2122
HC8GR>K4RX

- Sep 19 FM5JC>PY2RO 01-0200 OA4B>FM5JC 0306 K0KP>VE6(ms) 1224 W3>W1 1416 K0KP>VE6 20-2100 W4,LU2EUZ>K4RX 21-2200 LU3YC,NP3CW(bs 200)>K4RX 2202 XE1>W4 2304 LU8DIO>K4RX
- Sep 20 00-0100 LU2NI,PY2SRB,LU6QI,PY2VA,PY2WB>FM5JC 9Y4AT>PY2VA 01-0200 OA4B,PY2VA,PY2SFY>FM5JC 9Y4AT,OA4B>PY1WX TI2ALF>LU2NI 02-0300 47.9,48.3,49.2(CE),PU2WDX,PY2GR>FM5JC TI2ALF>PU2WDX
- Sep 21 000 FM5JX>PY5EW 0216-21 PY2SFY,PU2WDX>FM5JC 23-2400 W7>W4 PP5JD,PU2WDX,PY2XB>FM5JC V44KAI>PY5EW PY2SFY>FM5JC
- Sep 22 00-0100 9Y4AT>PY1WX,PP5JD YV4DYJ>PU2WDX,PP5JD W2,W4>W4 0219 PU2OCZ>FM5JC 1752 48250>FM5JC(skew)
- Sep 23 2236 47.9(CE)>W4
- Sep 24 00-0100 ZP5PT,ZP5AA,PY2SRB,47.9(CE)>FM5JC PY2BVU>LU2NI 01-0200 LU9EHF>FM5JC PJ2BVU,FM5AD>PU2WDX 02-0300 LU6QI>FM5JC OA4B>PY5EW 223-2400 PY2SFY,PY1FR,ZP5PT,ZP5AA>FM5JC
- Sep 25 00-0100 W8>W8 PY1FR,PY1USK,PP1CZ>FM5JC 01-0200 9Y4AT>PU2WDX PU2WDX>FM5JC 2032 48250>FM5JC(skew)
- Sep 26 00-0100 PY5EW,PY2SFY>FM5JC 9Y4AT>PY1WX 1229 W4>W4 1646 PJ4/K9MDO>K9DXR 19-2000 W5>W5 23-2400 PY5EW,PY2VA>FM5JC
- Sep 27 00-0400 V44KAI>PY5EW ZP6VT,PY5CG>FM5JC 0159 9Z4BM>PY5EW 2244 48.2(CE)>W4 23-2400 PY2SFY,LU7FA>FM5JC OA4B,9Y4AT>PU2OCZ
- Sep 28 00-0100 FM5JC,KP4ED>LU2NI ZP5AA,PY2SRB,PY2GR, LW1DZ,PU2WDX,49.2(CE)>FM5JC TI2NA>PY5EW 01-0200 PY2DSC,LU8MB,LW3EX,PU2OCZ>FM5JC 9Y4AT>PY5EW 02-0300 PY2BT>FM5JC 23-2400 FM5AD>PU2WDX LU3YC>FM5JC
- Sep 29 00-0100 LU8MB>FM5JC FM5AD>LU2NI 9Y4AT>PU2OCZ 01-0200 W3,W8>W0 VE2>W4,W5 02-0300 W4>W2 W0>W3 FM5AD>PU2OCZ W0>W0
- Sep 30 00-0100 LU76QI,LU8DRO,ZP5AA>FM5JC FM5JC>PY5EW VE1>W3 W4>VE9 W3CCX>W0 01-0200 W3,W4>W8 W8,VY2,W2>W0 W0,W3,W4,W5>W2 WR9L>W5 W4>VE2 PP5JD,LU4DFR>FM5JC W5,W0,W9>W3 02-0300 N0LL>VE6 W0,W5>W3 W4>W8,W9 W0,W5>W1 J69EN>FM5JC(t) 03-0400 KD4HLG,K4AHO,K4TQR>W0 23-2400 PY2WBH,PY2SFY>FM5JC

Asia/Pacific

Japan

With the equinox favouring north-south paths propagation between Japan and Australia (but not New Zealand) improved compared with August, though the first week was blank and only the three relatively easy states were heard. All reports came from the Japanese end, with VK and ZL posting no 'spots' at all during the entire month.

	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
VK4								+	+					+				+						+						+
VK6									+	+	+	+		+		+		+	+	+	+									
VK8								+	+	+						+			+		+					+				

6m DX results in JA during September from JA1VOK

DATE	TIME(UTC)	STATIONS
9/ 8	0930-1050	FK8SIX/B, VK4CXQ,4FNQ,4ZJR
9	0630-1330	DU1EV/B, FK8SIX/B, VK4PU,4ABW,4FNQ,4WDM,4ZJR,4ABP/b, VK4RGG/b,6RSX/b,8RAS/b, YB1MH
10	0820-1220	VK6JQ,6RSX/b,8MS
11	1015-1030	VK6RSX/b
12	1000-1200	VK6JQ,6RSX/b
14	1100-1300	VK4CXQ,6JQ,6RSX/b
16	0530-0700	C21SIX/b, V73SIX/B, VK6RSX/b,8RAS/b
18	0400-0630	V73SIX/B
	0830-1100	9M6SMC/b, FK/JM1YGG,FK8SIX/B, VK4DB,6JQ,6RSX/b
19	0315-0500	C21SIX/b, V73SIX/B
	0730-1100	9M6SMC/b, VK6RSX/b,8RAS/b
20	0350-0500	V73SIX/B
	0800-1100	VK6JQ,6RSX/b
21	0540-1000	9M6SMC/b, DU1EV/B, VK6RSX/b,8RAS/b, 3W8A,XV3AA
24	0355-0400	VK4BLK (JA7)
	0620-0700	DU1EV/B
25	0739-0800	YB7MF/0 (JA3-6)
26	1132-1140	VK8MS
29	0340-0350	VK4BLK

Elsewhere

Sep 9 1151-2 VR2SIX,JA6YBR>KG6DX

Sep 11 1148 VR2SIX>KG6DX 1203 DU1EV>KG6DX

Sep 12 1232 VR2SIX>KG6DX

Sep 14 1550 VR2SIX>KG6DX

Beacon News and 28 MHz Worldwide

Compilation and Commentary by G3USF

28 MHz Worldwide

Sporadic-E may have all but disappeared in Europe and North America at 50MHz, but it persisted at 28MHz, albeit less intensively and extensively and not wholly consistently. It was reported on 24 days in Europe. However, morning reports fell from 30 days in August to 16 in September - but bettered the 12 days of September 2003. Afternoon Es was down from 26 afternoons to 10 - but again bettered the 6 days of the previous year.

Reports of morning Es within North America were down from 22 days in August and also down on 2003's 18. By contrast, afternoons were up from 14 days in August's 14 to 22, (though down on September 2003's 24). No Es was reported in North America on the first four days in the month, but it occurred on all subsequent days.

Characteristic seasonal patterns asserted themselves, though not entirely neatly. North-South paths would be expected to do better. However, although Europe<->Africa contacts were reported every day except the 1st, only afternoons were more consistent than in August, with openings on 22 days compared with and actually improved on the 19 days for which propagation was reported in September 2003. South America, to which the path from Europe was open every day except the 1st and 24th, was more reliable at all four periods of the day, with afternoon openings up from 8 days to 20 (17 days in September 2003). Asia was reported in Europe on 19 days, mostly into Central and Southern Europe, with occasional openings further west, such as VU2XO<->G3JNB at the relatively late hour for this band/season of 1542UTC on the 12th. The 'contest factor' of WAE may have had something to do with this!

Within North America all four periods of the day improved on August but were down on 2003. Paths to Oceania improved markedly with openings reported on 23 days. In particular, afternoons were up from 2 days in August to 20. The comparable figure for September 2003 was 8 days. Activity by FK/KM9D and ZK3DX may well have had something to do with this. North America<->Africa also improved slightly on both August and September 2003. Europe<->Asia reports were received on 19 days, with morning openings increasing from 9 days to 16. Oceania remained difficult, with European mornings strongly favoured at 13 days compared with 3 in August and slightly bettering the 10 days of 2003. Most openings were to southern and central Europe, with only a couple making the extra hop to the western edge of Europe. Almost all featured the 'easier' VK6s. There were no reports of evening long-path.

The other major east-west path, between Europe and North America was never likely to feature strongly. Nevertheless, propagation was reported on new fewer than 11 days. Southern Europe was mainly favoured. Some openings appeared to have involved side-scatter on south-westerly bearings from Europe. During the WAE contest, G3MCS, DA0WAE and a clutch of HAs worked W0YR between 1417 and 1453, and PJ2P worked DL and S5 around 1725. The following day, PJ2P worked DLs around 1344. All these appeared to be by a direct path. KP4 was reported in I8 at 1635 on the 5th and 1918 on the 10th and into DL at 2015 in the 12th.

Paths to Asia are just that bit more difficult for North America and openings were reported on only five days. These included JE1LET into K6QG at 2338 on the 22nd and the JA2IGY beacon reached the vigilant ears of K0HA at 1515 on the 27th by the long path. The easier path between South America and Asia was reported on 16 days, mainly in the South American evening/Asian morning. This included the first 8 days of the month, when the LU1FHH or LU4AA beacons were reported into Japan every day around 00UTC, but few contacts resulted. Asia<->Oceania contacts were reported on 12 days, spread thinly through the day. 5H3HK into LU2NI at 0729 on the 2nd, reported as by long path was among the less routine reports.

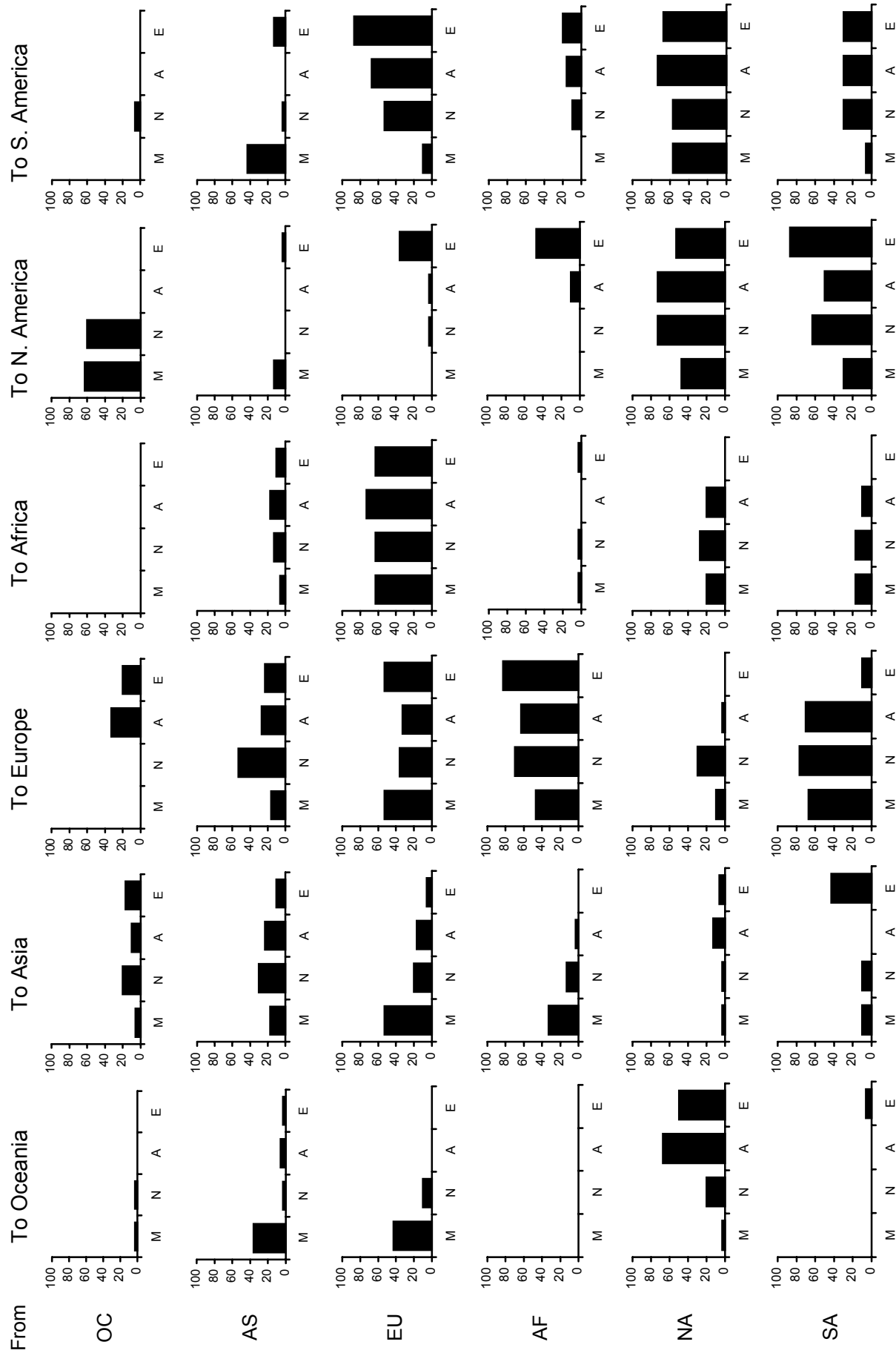
While the preceding remarks have noted that reports do not show a wholly consistent pattern, this is scarcely surprising. Although we were another year further down the cycle, the average daily solar flux had declined only about 9 points, from 112.3 in September 2003 to 103.1, while the average Ap figure was actually lower in 2003, at 10 units, compared with 18. To which we have to add the incidence of Es in the northern hemisphere, with its uncertain relationship with the solar cycle. Overall, the outcome this month was arguably a bit better than we might have expected.

(graphs of worldwide 28 MHz activity on the following page)

Beacon News

10.149.750	IZ8BZX	Torre Del Greco (AN)(JN70ES) new beacon sends call at 40wpm and QRSS3 with power levels of 100mW, 500mW and 1 watt. 15-second pause between messages. Antenna is a mobile whip on home QTH. (IZ8BZX Nov.)
28287	NQ2RP	now runs 2 watts (NQ2RP)
28296	W3VD	returned to service after refit. (Nov.)
50067.5	N3LL	Near Philadelphia (EN30) running 5 watts to loop at 25 feet A1 24/7 replaces W3HH (N3LL)

28 MHz Worldwide - September 2004



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