

## The Radio Weather in April 2008

Speculation continues over cycle 24 and beyond. Some commentators suggest that not only may cycle 24 be mediocre, but that we may be heading for a Dalton minimum – only a little better, it would seem than a Maunder minimum. Meanwhile, an interesting comment on where we are now comes from Jim, KH6/K6MIO. Writing on 13 April, Jim said, ‘We are definitely in the period when cycle 23 and cycle 24 are simultaneously producing visible effects on the Sun. I have noted ten instances of cycle 24 bipolar magnetic regions on the Sun since the 12 Dec 07 occurrence that appears to have signaled the beginning of cycle 24 (in the north). The first southern Cycle region I have seen occurred on 1 January 2008.’

“Ten of the twelve regions were in the northern hemisphere and only two were in the south. This is consistent with the cycle 23 observation that the southern hemisphere cycle is phased many months behind the north (the reason for the double maximum in cycle 23)”

“Most of these cycle 24 magnetic regions did NOT produce visible sunspots.

Nevertheless, they were clearly visible in the MDI and other magnetograms. The cycle 24 connection is determined by the fact that these regions occurred near latitude 30 north (or 30 south), with reversed magnetic polarity from cycle 23 regions. On the magnetograms, cycle 24 regions in the north have black on the right and white on the left. In the south it is white on the right and black on the left.”

April proved to be yet another month typical of solar minimum. Flare activity was very low throughout, apart from two small C-class flares on the 3<sup>rd</sup>. The solar flux ranged between 78 on the 1<sup>st</sup> and 67 on the 11<sup>th</sup> and 30<sup>th</sup>, averaging 70. The 90-day average was 73 at the start of the month, gradually declining to 71 by the end. The X-ray flux was relatively high at the start of the month, reaching A3.0 on the 3<sup>rd</sup>, but fell below the minimum recordable level from the 4<sup>th</sup> onwards. There was a succession of high-speed coronal streams, with 782km/sec recorded on the 9<sup>th</sup>, and these modestly boosted geomagnetic levels. The month began quietly, with an Ap figure of only 1 on the 2<sup>nd</sup>. The most disturbed day was the 23<sup>rd</sup>, with an Ap of 32. The average daily figure was a slightly unsettled Ap9.4. While there were quiet days there was a sufficient sprinkling of active periods to subdue HF MUFs, but the disturbance level was never high enough for sustained auroral events; indeed, none of the UK observatories reported a single 3-hour period with a K of 5 or more. So, while aurora was reported on 9 days, openings were brief, weak and confined to high latitudes.

### Daily sum of 3-hour K figures at British observatories and planetary level

	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
Lerw	7	0	1	13	15	24	16	14	15	15	6	15	13	1	7	21	9	9	11	5	3	8	26	19	13	15	11	14	10	7
Esk	7	1	2	14	20	24	21	17	21	19	9	19	13	1	10	22	11	13	13	6	6	11	26	23	14	17	14	15	11	10
Hart	7	1	2	14	21	25	21	20	19	17	10	20	15	1	10	22	14	12	13	9	6	9	29	24	15	20	13	20	12	10
Kp	8	1	3	14	<b>23</b>	<b>24</b>	19	17	19	16	9	15	19	15	8	24	14	12	11	8	8	10	<b>34</b>	24	17	19	18	20	15	

Emboldening indicates a day during which a K of 5 or more was recorded

### Missing data

One of the sources on which this Report draws heavily is the OH2AQ DX Summit. The site somehow dropped all 28 and 50MHz data from late on the 16<sup>th</sup> to early on 22nd April. Some

data was available via other sources but inevitably coverage is less comprehensive than usual for the period in question).

## 50MHz

## Propagation to and from Britain

Another, at best, 'spotty' month. Some reporters bemoaned a complete absence of signals; others were favoured with one or two good openings. But nobody could claim a satisfactory month. However, indications are that activity increased over recent months – admittedly from a very low level. A tireless few remained loyal, usually employing 'jt', with 'wspr' occasionally featuring at the end of the month. JT6M contacts were, in their great majority, made by MS or 'iono'. The few jt contacts where Es or tropo was acknowledged have been filed under those modes.

## Meteor Scatter/jtsm

Countries worked from the UK were: DL,EA,EA6,HA,I,IS0,LA,LZ,OE,OH,ON,OY,OZ,PA,SM,SP,S5,9A, with the greatest claimed distance 2013km between OH8A and G3VYF. While more MS contacts were reported the greatest number reported on a single day was only 12. In the table below 'w' indicates weekends and, by inference, the impact of greater operator availability on results.

April	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			
					w	w						w	w													w	w						
QSOs	0	0	4	0	3	5	0	3	0	4	1	10	12	2	3	3	n	a	n	a	n	a	n	a	7	3	3	1	3	9	4	0	1

The spread of reports through the day was as shown below. There were no reports for the period 00-0500UTC.

UTC	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
QSOs	1	8	17	4	9	5	1	2	4	7	2	5	6	6	2	2	0	2

## Sporadic-E

While there had been bits and pieces credited to sporadic-E earlier, as far as the UK was concerned the effective opening of the season came on the afternoon of the 22<sup>nd</sup> with, as often is the case, strong signals from central Italy and surrounding areas between roughly 1415 and 1510, featuring I0, I4, I6 and I7 plus 9A and favouring south-east England at the UK end. The second substantial opening on the 27<sup>th</sup> spread over three hours and was geographically more extensive, reaching DL, HA, I, IS0, S5, SV, YU and 9A at the continental end and the north-west Midlands and Wales as well as the south-east of the UK.

[illegible]

## Tropo

April produced the most substantial batch of tropo reports since this series resumed. In some measure this reflected contest working, notably the Dutch contest on the 8<sup>th</sup>, but there also appears to have been a very welcome underlying increase in activity (or reporting). The great majority of reports were routine, in the sense that they were within 'normal' tropo range, whether within the British Isles or with nearer countries like ON, PA, LX and F(JO10). Reports of ranges exceeding 400km included DH6JL with G3VYF (559 at 1510 on the 4<sup>th</sup> at 462km) and GB3BUX to DH6JL (1513 on the 4<sup>th</sup> and 1500 on the 28<sup>th</sup>) at 519. EI2IP worked DK1MAX at 1854 on the 15<sup>th</sup>. G4AON also claimed DK1MAX by tropo at 1521 on the 26<sup>th</sup>, which it doubtless was – but his suggestion that IS0SWW half an hour later was also attributable to tropo looks less certain, particularly as an Es opening was under way at that time.

## EME

Only a handful of eme reports, from the usual suspects: G4PCI made it with W7GJ on the 6<sup>th</sup> and W1JJ on the 8<sup>th</sup>. G5WQ reported W7GJ, also on the 8<sup>th</sup> and ZL3NW on the 13<sup>th</sup>, while G4IGO landed VK4ABW on the 13<sup>th</sup>.

## Aurora

Unsurprisingly, given the geomagnetic data reported above, there were UK reports.

### Continental Europe, Africa and the Middle East

#### Auroral-related Propagation

The table below indicates UTC days when radio aurora was reported, whether in Europe or elsewhere, and whether on 50 or 144MHz. As will be seen from the detailed listing all the continental 50MHz reports were from very high geomagnetic latitudes, where aurora is relatively commonplace even towards the bottom of the geomagnetic cycle.

April	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
Aurora				+	+	+	+	+		+													+	+						

Ap. 4 17-1800 OH9SIX>SM2(KP04 53a) OH9(KP36)>SM2(KP04)

Ap. 5 17-1800 OH9SIX>SM2(KP04 55a) OH5RAC>SM2(KP04 55a) SM4(JO79)>SM5  
SM4(JO79)>SM2(KP04) SA5(JO78)>SM2(KP04) SM2(KP04)>OH3(559a)

Ap. 6 2106-19 OH9SIX>SM2(55a)

Ap. 10 20-2100 OH7(KP33)>SM2(KP04) OH9SIX>SM2(53a) OH6>SM2 OH2>SM2 SK6>SM6 OH7>SK2  
SM2>SK2

Ap. 23 16-1700 OH9SIX>OH7 OH9SIX>SM2(KP04 55a) OH7(KP53)>SM2(KP04) SM2(KN04)>SM4  
1710 LA>SM21937 OH9SIX>SM2(57a)

Ap. 28 1330 OH9SIX>SM2(55a)

## Other Modes

As with Britain, on most days only a desultory handful of contact were reported on most days, with jt6m the default mode and a steady trickle of mostly fairly routine tropo reports. The odd sporadic-E contact was claimed on the 1<sup>st</sup> and 12<sup>th</sup>, followed by daily openings from the 22<sup>nd</sup> to the 27<sup>th</sup>. The 27<sup>th</sup> was the only day on which Es contacts came thick and fast – and since the 27<sup>th</sup> was a Sunday operator availability was clearly a factor. As it happened, the 27<sup>th</sup> was also a relatively good day for ms and tropo. It is interesting to note that, once again, what propagation there was did not favour Costas, SV1DH, who was again obliged to report a blank month in SV.

Ap. 1 1150 HG1BVB>DL(tr) 1328-39 DL>DL LX0SIX>DL(tr)

Ap. 2 1458 HG1BVB>SP6(tr) 1702 LX0SIX>ON(tr) 2018 CT1ART>EA7

Ap. 3 0937 HG1BVB>SP6(tr) 1433 IS0>I7 1856 EA6>9A 1940-2 OH8>LA(jt) F>ON 2310 EA6>9A

Ap. 4 1931-52 SP9>UT3(jt) CT1ART>ZB2

Ap. 5 0652 JR6EXN>OY3JE(eme -23dB) 0817-54 EA5>EA6(Es) EA1>EA5(ms) EA6,LA>ON(jt) 0938 OH8>SP9(jt) 1018-30 I1>I4(tr) 1157 LX0SIX>PA 1532-55 DL>9A OE5,S5>DL EA3>IS0 IS0>S5 16-1700 I5>IS0 IS0>DL EA3>EA6(Es) OE5>DL

Ap. 6 0541 ZL3NW>OY3JE(eme -21dB) 0731-56 F,PA,OZ>OY(jt) 08-0900 OZ>OY(jt) OY>LA(ms) 0933-39 EA7>EA8 9A>9A 1026 OE5>YO2(jt) 1102 OH3>UT3(jt) 1403 OH8>SM2(jt) 1611-44 W7GJ>OZ1DJJ(Eme -22dB) W7GJ>HB9QQ(eme -25dB)

Ap. 7 0559 ZL3NW>OY3JE(eme -22dB) 07-0800 VK7JG>OY3JE(eme -25dB) F>F 08-0900 F>ON 1952 W1JJ>OZ1P(eme -19dB) 2017-20 K6QXY>OZ1DJJ(eme -24dB) W7GJ>OY3JE(eme -21dB)

Ap. 8 0707-15 LX0SIX,DF0ANN,HG1BVB>OE5(tr) 1242 HB9SIX>DL(tr) 1325-47 LX0SIX>DL 1540-58 OZ>DL(jt) 18-1900 PA>PA 1900 PA>I1(ms) 2116-22 N5BLZ>OZ1DJJ(eme -25dB) W7GJ>OZ1DJJ(eme -17dB)

Ap.9 0821 F>F 14-1500 F>F,ON 1641 F>ON 1713 CT1ART>ZB2

Ap. 10 0914 F>F 1618-24 OH8>LA(jt) HB9SIX>DL(tr) 17-1800 SK6>SM6 LA>LA S5>9A DL>OZ(tr/iono) OH0>SK6 S5>HA8 SM2>SK2 ON>ON(jt) 18-1900 DL>9A SP9>LA(ms) SM6>S5(jt) 5Q>SK6 LA>SP9(ms) SM6>9A(ms) SM6>DL(tr) 5Q>DL OE5>LA(ms) OH8>LA(JT) OH8>SM2( ms) SM7>SK6 SM6>OZ SA6>OZ S5>I4 OH8,OH6>SK2 LA>LA(jt) PA>LA(ms) OH0>OH9 OZ>S5 19-2000 OH0,SM6 OH8>SK2 DL>DL OH2,OH7>OH7 OH0>DL OZ>9A(jt) I6>S5 OH6>SM2 SA7>SM6 20-2100 SP7>LA(ms) 9A>SM7(jt) SM3>S5 OH8>SM2(jt) OH7>LA(jt) SM6>LA OE>LA(ms) LA>OE5(jt) OH0>9A(ms) SA6>OH7(ms) LA>LA(jt)

Ap. 11 0603 LX0SIX>OR5(tr) 0756 K7CW>OY3JE(eme -22dB) 08-0900 F,ON>F 1903 I6>EB1(ms) 2002-12 OH8>SM0(jt)

Ap. 12 04-0500 HG7BVA,HG1BVB>HA5(tr) HA5,HA1>HA1(tr) 05-0600 HA7>HA5,HA1(tr) HA5>OG2(ms) 06-0700 HA6>HA5(tr) HA7>HA1(tr) EB1>EA3(jt) 07-0800 9A>OE5(ms) EA1>EA3(jt) EA6>EA2(jt) OZ>DL(tr) S5>EA3(jt) EA6>EA3(jt) 08-0900 HA3>EA3(jt) I0>EA3(jt) OE5>EB1(ms) EA6>OE5(jt/Es) 09-1000 HA2>YO2(jt/bs) ON>HA2(ms) 1038-58 HG1BVB>SP6 EA6>EB1(ms)

EA6>PA(jt) 1222 EA6>EB1(Ms) 1345-54 SP9>DL(jt) OZ>LX 1421 SP9>HA6(tr) 1608 S5>I4 17-1800  
EA6>CT(jt) DL>DL 1808-49 SM4>SP9(ms) 1921 EA3SIX>EA3

Ap. 13 06-0700 DL>SV2,SV8 S5>DL 07-0800 HB9SIX,LX0SIX,HG1BVB>OE5(tr) EA1>EA1(ms)  
IS0>EB1(ms) I2>SP9(ms) 08-0900 DL>9A(jt) DL>DL OZ>HA2(jt) DL>HA2(jt) SV8>IS0 1046  
VK4ABW>OY3JE(eme -19dB)1058 PA>EB1(ms) 1109 9H>IW9 1331 EA3SIX>EA3 1335-7 SV2>I3  
EA8>CU3 1609 I3>PA(jt) 2050 I2>SM7(ms)

Ap. 14 0901 9A>HB(jt) 1201 EA6>EB1(ms) 1431 CT1ART>EA7 15-1600 OM7>HA3 17-1800  
EA6>9A,ON(jt) 18-1900 9A>I4 LX>9A(ms) 2114 Z3>9A(jt)

Ap. 15 0640 EA6>EB1(ms) 08-0900 9A>OE5(jt) DL>DL 09-1000 LX0SIX>F OM7>HA6 HB9SIX>DL(tr)  
1655 DL>DL 1959 I2>YO2(jt) 2033 CN8MC>CT(bs)

Ap. 16 0836-47 HB9SIX>DL(tr) UU5SIX>DL 1406-49 EA6>F 1644 IQ4FA>9A 17-1800 IW3FZQ>9A  
1943 CT1ART>ZB 2022 LA>LA(jt) 2150 S55ZRS>9A

Ap 17-Ap.21 data not available

Ap. 22 0629 F>F 0753 F>F 0849 UT3>DL(jt) 0925-44 F>DL(jt) OH2>UT3(jt) 1038 HB9SIX>DL(tr) 14-  
1500 CT0SIX>DL IS0>DL ON>I0 EA3SIX>HA6 EA1>HA1,HA6(Es) PA>IS0 15-1600 EA1>HA1(Es)  
F>HA6(Es) DL>I0 SP9>EA1 OZ>IS0 DL>DL EA1>HA6 IS0>DL(Es) DL,SQ2>EA6(Es) SQ9>ON  
SV9>SV2 EA7>I8 IS0>OZ 17-1800 5Q6>OZ F>F OH5RAC>SP6(ms)

Ap. 23 07-0800 OH5RAC>SP6(tr./ms) SP5>SP6 08-0900 HB>HA6(ms) HB>SM7(ms) HB9SIX>DL(tr)  
UT4>SP6(ms) 09-1000 HG1BVB>SP6(tr) EA4>SP6(ms)UT3>UT4 F>HA2(ms) EA6>DL(Es) EA6>SP6  
EA6>OE5(Es) 10-1100 EA4Q>OE5(Es) DL>EA6SA EA4Q>HA6 EA6>ON 1101-2 PA>DL 1525 EA6>DL  
1635-48 S5>9A CT1ART>ZB 1722 IOJX>S5(tr) 18-1900 EA4>EA5 EA4>CU3(Es) 19-2000  
CU3URA>CT(Es)

Ap. 24 0640 F>F 0844-51 SV8>PA,OZ(Es) 0930-8 EA3SIX>HA6 HA6>I1 1023-59 PA>9A PA>DL  
EA6>F(ms) HB9SIX>DL 1349 HB>DL(tr) 1424-33 SV8>SV0 DL>ON 1557 F>ON

Ap. 25 09-1000 LX>DL IS0>I1 DL>DL(tr) 1118 LX>I2 1339 SP7>PA 16-1700 CT1ART>DL(Es) DL>SV3  
1710 DL>DL 1813 EA3>EA6

Ap. 26 06-0700 F>F DL>DL 07-0800 SV8>I2 SV8>SV2(jt) EA7>IS0(jt) 08-0900 SV8>SP9(jt)  
EA6>SP9(ms) EA6>SV8(ms) 09-1000 PA>EA3(jt) 1249-58 IS0>OK1(ms/Es) 14-1500 HB>I1 OE>S5  
LA>EA6(ms) S5>DL,I0 15-1600 EA6>EA3 F>LX EA1>EA6 1610 OE>DL(tr) 1849 EA7>EA3 1932  
EA6>SV2 20-2100 EA6>SV8(jt) OH8>LA(jt) OE2>SM7(jt) OE2>SV2(jt)

Ap. 27 0611-41 EA1>EA3(jt) OZ>I2(jt) 07-0800 I7,I8>I8 I5>EA5(ms) OE2>OE5 DL>DL(tr) IS0>DL(ms)  
08-0900 I8>I8 PA>EA6 I7>SV2 IS0>EA6(ms) I5>I5 I8>I8,I9 PA>EA6(Es) I3>I7,I3 IS0>I7 EA5>EA6(tr)  
I7>EA6 09-1000 I5>I5 I7>I7,I8 I3>EA6(ms) SV2>EA6 IS0>IS0,EA6,PA EA2>DL I3>I3,I5 I1>IS0  
EA5>EA6(tr) SV8,SV2>SV3 I8,I7>I8 OE5>DL(tr) 10-1100 I7>I7 EA3>EA3 IS0>IS0 I8>I8 I0,I50>DL  
I7>IS0 11-1200 I3>OE5 I3>I8(ms) OE5>DL(tr) I1>OE5(tr) 12-1300 I3>I4 I7>I8 OZ7IGY>YU1  
SA5>I5(Es) HA3>HA1(tr) LZ1>PA 13-1400 I7>PA(Es) I5MXX>DL OZ>I0(Es) EA6>DL(Es) LZ1JH>DL  
I1>I3 F>HA1(Es) SP3>EA6 F>HA6 OE1>F LX>I7 I7>I7,PA I5>OZ EH3>SP5 14-1500 F>HA6(Es)  
I7,ON>I7 F>HA8(Es) I7>S5(tr) I8>PA(Es),DL HG7BVA,I0>PA EA3>OK2 I8>ON(Es) DL>IS0 EA6>SP5  
IS0>DL(Es) I0>PA,ON(Es) EA1>HA5,HA8(Es) F>HA1(Es) I4>DL(tr) EA6>OE6(Es) RA3>OM3  
EH3>HA1(Es) I8>PA IS0>DL(Es) EA3>HA1 DL>HA1(tr) S5>PA 15-1600 EA3>HA6(Es) I4>I2  
S5>HA1(tr) DL>IS0 S5>9A(tr) OM3>EA6(Es) IS0>I2 I8,I0>LX(Es) EA6>HA1(Es) EA5>EA6(Es?) S5>PA  
ON>F 16-1700 ON,F>F 1753-6 DL>DL 1808-28 EA2B>EA3 DL>DL 2059 OY>LA(jt)

Ap. 28 0755 SR5FHX>SP6 F>SV8(wspr) 1515 LX0SIX>DL(tr) 1622 SR5FHX>SP3(tr) 1919 I6>9A(wspr) 2036 OE5>9A(wspr) 2216 LA>LA(jt)

Ap. 29 0744 HG8BVB>HA8 0820-38 EA7>EB1(ms) I4>EB1(ms) 09-1000 HG1BVB>SP6(tr) OZ>EB1(ms) F>I4(jt) 1037 CT1ART>EA8 12-1300 HG1BVB>PA SR2FHM>SP6(tr) PA>DL HG1BVB>SP6(tr) 13-1400 SR3FHB>SP6(tr) 14-1500 HG1BVB>DL(tr) HB9SIX>DL>tr) 1756 PA>DL(tr) 18-1900 DL>PA(iono) OY>OZ(jt) 2028 CU3>EA8 2124 LA>LA(jt)

Ap. 30 0636 HG1BVB>PA 08-0900 EA6>ON(jt) EA6>OZ(ms) OZ7IGY>PA DL>OZ LX0SIX>PA(tr) IE9N>I0 09-1000 PA>ON HG1BVB>DL(tr) 10-1100 4N1ZNI>YU1 HG1BVB>PA ON>OZ(jt) 1247-54 HA8,OM5>HA3 2058 LA>LA(jt)

## 50MHz PROPAGATION REPORT FOR APRIL 2008 BY SV1DH

1. Data for 23 days (24-30<sup>th</sup> INET data only)
2. Relatively good days on: NIL
3. 48 MHz AF video (9L+3C) on: NIL
4. 55 MHz AF video (5N) on: NIL
5. NO 6m openings
6. Special events on:
  - 1(1045 VK4 to I1 on 10m F2+1430 VP8 on 10m F2)
  - 2(1230 5Z/B to VR on 10m F2)
  - 3(0112 C1.2 + 0218 C1.2 flares)
  - 6(1700 VP8 on 10m F2+ZS1 to W4 on 10m F2)
  - 9(1630 VP8 on 10m F2)
  - 15(2015 D4/B to CT1 Es+CN8/B to CT1 Es bsc)
  - 16(0900 ZS1 to JA on 10m F2)
  - 17(0000 ZL1 to W6 on 10m F2)
7. DXCC entities heard/worked during April 2008: NIL

73 COSTAS

## The Americas

### Auroral-related Modes

Ap 5 2328 K0KP>K9MU(50%au)

Ap. 6 0518 K0KP>W8(EN84 53a) 0521 VE4VHF>W8(EN84 52a)

Ap. 7 0318 VE6EMU>W7(CN88 51a)

Ap. 23 2100 VE2>VE2(FN07>FN48 55a) 22-2300 VE2>VE3(FN07>FN15 55a) W8>VE3(EN84>FN15) 2319 VE3>VE2(FN07>FN15 55a)

Ap. 24 0614-5 VE4VHF>W8(EN84 53a)

## Other Modes

The notable feature of propagation in the Americas during the previous months had been the consistency of tep: 15 days in February and 17 in March. Now, this had all but disappeared. The only contacts reported were between XE3ARV and LU8DIO and LU6QI on the 7<sup>th</sup>, the same station with LU8DIO, CX2AQ and CE3AA on the 9<sup>th</sup>, and reception of the V44KAI beacon by PY5HOT on the 11<sup>th</sup>. US stations worked into Central America or the Caribbean on the 1<sup>st</sup>, 4<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 28<sup>th</sup>, probably by Es. There were very occasional reports of Es within the continental United States. The period from the 22<sup>nd</sup> onwards was particularly thin.

Ap 1 0041 W2>W9 1207-32 W3,W1>W4(Es) 13-1400 W9,W8IF>W4(Es) W4CHA,W3HH/4>W4(tr) K8JA,K9MU,WZ8D>W4(Es) 1756-8 W9DR/4,N0LL>W8(ms) 1927 W5>W5 2023 W9DR/4>W8 23-2400 VP5/W5CW>W5 HK1X>HK1PT

Ap 2 11-1200 W9DR/4,K0KP,N0LL>W8 1339 K8JA>W4 1934 VE2>VE2 2308 K0KP>VE2(ms)

Ap 3 0007 TF4M>N4CBS(eme) 2049 W5>W0

Ap 4 0149 VE3>W8 1127 W0>W4 21-2200 YN2N,TI5XP,TI8II,TI7/N5BEK>K4RX(ES?)

Ap 5 0041 W7>W9 12-1300 W4>W4(Es) W3HH/4>W4(tr) 1328-56 W1>W1 VE3>W8 14-1500 W8>VE2(ms) W8>W1 W4>VE2 15-1600 W9>W8(bs) VE2,VE3>W9 VE2>W8(ms) 16-1700 W4>W4(tr) G3FPQ>W7GJ(eme -27dB) 1839-40 WP4O>W8 W9DR/4>W8(Es) 2245 KD4WDG>W4 aurora

Ap 6 1155 W4>W9 12-1300 W4>W9 1526 W1JJ>W7GJ(eme -11dB) 1658 OY6FRA>W7GJ(-24dB) 1740 K4HMZ>W1 1821 G3EPQ>W7GJ(eme -19dB) 22-2300 W4>W3 FJ5DX>FG1GW

Ap 7 1154 W4>W8(ms) 1453 TI2NA>KE4WBO 1639 VE7FG>VE7 1851 W4>W4(Es) 2046-51 47.2,47.4,48.3>XE3 LU8DIO>XE3ARV 21-2200 XE3ARV>LU6QI 49.2>XE3

Ap 8 1533 TI2NA>KE4WBO 1631-49 YN2N>KE4WBO,N9HF/4 FJ5DX>K4SN TI2NA>N9HF/4 1711 FJ5DX>N9HF/4 1820-56 G5WQ>W7GJ(eme -19dB) N5BLZ>W7GJ(eme)

Ap 9 0454 W6>W7 2017 K4HMZ>W1 21-2200 47.4,47.3>XE3 CE3AA>XE3ARV 2216-30 LU8DIO,CX2AQ>XE3ARV 2322 W9DR/4>W8

Ap 10 1127 W4>W8(ms) 1317-43 VE3>VE3 W4>VE3 VE3>VE2 W3VD>VE2(Es) 2150 LU7FTF>PY5HOT 2252 VP8NO>W7GJ(-21dB)

Ap 11 0031 V44KAI>PY5HOT 0129 HL4GHT>W7GJ(eme -23dB)

Ap 12 1411-26 W9,W3>VE2(fsk441) 1538 W4>W9 1826 W1>W! 2258 W4>W9

Ap 13 0233-41 VE3,W0,W9>W8 0300-8 W9DR/4>W8 W8>W3 11-1200 W3>VE9(fsk441) W4>W8 1351 W4>W8 1452 W4>VE2 1612-22 W4>W8(ES) 1802-19 W5>W4 VA2FZN>VE2 2028 W9>VE2(fsk) 2322 W9DR/4>W8

Ap 14 1741 NA7XX>VE7

Ap 15 0042 W4>W3 12-1300 W8>W3(sc) VE3,W0,W5>W8 W8>W9 W9DR/4>W8(Es)

Ap. 16 – Ap 21 data not available

Ap. 22 0003 W1>W4 11-1200 W9DR/4,N0LL,K0KP>W8 V44KAI>KP2 1253 W1>W4(Es/sc) 1816-40 WZ8D>W4(Es) V44KAI>KP2 1944 W3>VE2 2119 V44KAI>KP2

Ap. 23 1431 W4>W4 2200> aurora

Ap. 24 1154 W4>W8(ms) 1310 W4>VE3 2022 W3>W4

Ap. 25 0148 W2>W4(Es/sc) 0248 W3DOG>W4(Es) 2323 W1>W4

Ap. 26 12-1300 W4>W9(ms) W5>VE3(Es) W5>W4 1306 W4>W3 1948 W1>W4 2314 C6AFP>W3

Ap. 27 11-1200 W4>W8 1241-57 W1>W1 W4,VE3>W8 W8>VE2 W1>W8 1322-31 W0>VE2 W5>VE2(ms) 14-1500 N0LL>W4(Es) W9AFB>VE2 VA2FZN>VE2(gw) 1721-9 W1>W9(sc) W2>W3 1938 W4>W8(ms) W4>W3(jt) 2357 WZ8D>W4

Ap. 28 0111-57 WP4O>W8 TI2NA>W5 1053 WZ8D>W4(sc) 1352 48250(EA)>W2 VK6KXW>W7GJ(eme -26dB)

Ap. 29 21-2200 VK6XKW>W7GJ(eme -26dB) 23-2400 PT7>PT7

Ap. 30 11-1200 WZ8D>W4 W0,W5,W4>W8 12-1300 W4>W8,W9

## **Asia and the Pacific**

### **Asia**

Propagation between Japan and Australia (mainly VK4, with a sprinkling of VK6s and a couple of reports of the VK8 beacon) was concentrated in the opening 8 days of April. FK, DU, BD, VR2, AH2 and T8 featured less prominently.

Ap. 1 0434-48 FK8SIX>JA2,JA3 0613 46172(VK)>JA1 0622 VK4FNQ>JA3

Ap. 2 0520-45 VK4BEG>JA3 VK4FNQ,VK4TL>JA1 0600 VK4KAY/M>JA6 0808-11 VK6RSX,VK6RPH>JA6 09-1000 DU7/PA0HIP,T88EM>JA3 10-1100 DU7>JA3,JA4

Ap. 3 0443-0500 VK4BLK,VK4FNQ,VK4BEG>JA1 0500-49 VK4SIX,VK4TL>JA1 VK4FNQ>JA7 VK8RAS>JA3 0604-13 VK6RSX>JA3 VK8RAS>JA1 0707-58 VK6RSX>JA1 DU7>JA3 08-0900 JE7YNQ,JA2IGY,JA1ZYK>DU7 DU7>JA5 AH2G>JA5 DU7>DS4,JA4 0904 DU7>JA7 10-1100 JA2IGY>BD4SI BD4SI>JA3 VK8MS>JA3 1141 VK6RSX>JA3(e-tep)

Ap. 4 1226-31 VK8MS>JA6

Ap. 5 0415 46171.7(VK4)>JA7 0501 VK4RTL>JA2

Ap. 6 0239 BA7>BG7 0317 BA7>BG7 0340 46171.8(VK4)>JA1 0523 VR2SIX>BG7

Ap. 7 0341 46171.7(QG53)>JE7 0509 VK6RSX>JA3 1147 VR2SIX>BG7

Ap. 10 0808 ZL3NW>JR6EXN(eme -23dB) 0956 VR2SIX>JA6

Ap. 11 0715 BV2NT>DU7



Ap. 12 0559 BV2NT>JA1

Ap. 13 1235 IW5DHN>JR6EXN(eme -23dB) 1327 G5WQ>JR6EXN(eme -23dB)

Ap. 14 0745 HR9BFS>JR6EXN(eme -23dB)

Ap. 16 0726 HL4GHT>JA6 0957 DU7>JA3 1507 OZ4VV>JR6EXN(eme -25dB)

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Ap. 19 0044 VK2EX>JA1

### **Australia and New Zealand**

In addition to JA contacts Chinese and Siberian television were reported in both VK and ZL at frequencies close to 50MHz and at ranges of 8000 or more kilometres.

Ap. 1 12155 ZL3SIX>ZL2

Ap. 2 05-0600 JA1VOK,JA1RJU,JA2IGY>VK4 0616 JA6DSG>VK4 0927 49750.0(BY,OM88)>ZL2

Ap. 3 0451-9 JA3EGE,JM1WBB,JA1ZYK,JA2IGY,JE7YNQ>VK4 0504-5 JA2LRE,JH0HZO>VK4

Ap. 5 04-0500 AH2G>VK4 49750.0(PN53)>VK4 0504 JE7YNQ>VK4

Ap. 6 0558-0624 49750(UA/BY)>VK5 also 49745.6, 49751.6,49739.2

Ap. 7 0702 OY3JE>VK7JG(eme) 0844 51740.0(QR35)>ZL2

Ap. 8 0920 JA2IGY>VK5 0915,1055 49750.2(UA)>VK5 0911 49748.9>VK5 0947,1054 49745.6>VK5 0948 49748.6>VK5 0950 49751>VK5

Ap. 9 0510 VK7>VK2

Ap. 10 0011 VK6RSX>VK6(1291km) 01-0200 VK5RBV,VK7,VK3>VK4 02-0300 VK7RAE>VK4 VK4>VK5 VK4ABP>VK1 0231,0300,0400 51670>VK5 0241,0347 57260(VK4)>VK5 0304 VK4RGG>VK5 0928 51670.0(QG53)>ZL2

Ap. 11 0005 FK8SIX>VK2 03-0400 VK4RGG,VK2RHV,VK2RSY>VK5 2338 FK8SIX>ZL2

Ap. 12 0107 VK2RSY>VK5 0559 FK8SIX>VK4 0748 FK8SIX>VK4 0859 VK2RHV>ZL2 2347 VK4>ZL2(3401km)

Ap. 13 00-0100 VK4>VK5,ZL2 57250(QF02)>VK4 VK2RHV>VK4 01-0200 VK4s>VK5 VK4RTL>ZL2,VK3 VK8RAS>VK3 VK2,VK3>VK4 0128,0154,0348 VK4ABP>VK5 02-0300 BYtv>ZL2 VK4>VK2,VK5 03-0400 VK4RTL>VK2 VK8RAS>VK5 49750(OM34 8382km)>VK4 05-0600 VK8RAS,VK2RHV,VK2RSY>VK4

Ap. 14 0019 51670.0(QG53)>ZL2

Ap. 16 0325 55260.4(RE54)>VK2

Ap. 18 0640 51740.0(QF35)>ZL2

Ap. 20 2359 VK4>VK7

Ap. 21 0041 VK2>VK5 0152 VK4>VK5

Ap. 24 2135 VK3>Vk3

Ap. 25 0045 Vk4>VK5

Ap. 26 0220 VK6RSX>VK6(1292km)

## 28MHz

While the April results are incomplete, sufficient information is to hand for it to be clear that this was a miserable month for UK aficionados of 28MHz. G4UPS reports 'truly dreadful' conditions, with no beacons heard despite much diligent scanning. More cheerfully, G0IHF notes an improvement over March - one beacon heard, compared to none! However, some monitors were a bit more fortunate, as demonstrated in the table below showing the number of days on which beacons were heard during each 3-hour period. Reception in all instances is understood to have been by sporadic-E. It is possible there were openings on the days for which the DX Summit information is missing, but that looks unlikely.

That said, the reluctance of some G operators to 'spot' contacts may have resulted in propagation seeming a bit worse than it actually was: there were several days when contacts were made from the near-Continent but comparable reports were not made in the UK. The only country outside the UK known for sure to have been worked this month was EA8.

UTC	6-9	9-12	12-15	15-18	18-21	21-24		6-9	9-12	12-15	15-18	18-21	21-24
Bcn													
C30P				1			IW3LCJ			1			
DL0IGI			1				I8EMG			1			
EA3TEN				1			OE3XAC			1			
F5ZWE				1			OK0EG			1			
IW3FZQ			1				SK0CT		1	1			

## 28 MHz Worldwide

Not all of Europe was as poorly served as the UK, though. DJ7KG's reports from JN39 showed the advantage to a well-equipped station with automatic beacon monitoring in a more southerly and central region. He reported beacon signals every day –though a substantial proportion of his loggings are of weak signals, credited to meteor scatter, which rarely featured in other European 'spots'. Through Georg we also know that signals from 5Z4B and Z21ANB reached Europe on occasion, contributing to the total of 17 days when African signals are known to have reached Europe. However, this was clearly a poorer result than March, when Africa was heard or worked every day but two.

Asia was worked from Europe on 7 days while South American contacts were recorded on 17 days: allowing for the missing data this was roughly on a par with March's 19 days. The most

notable contacts were on the evening of the 23<sup>rd</sup>, when EA7HIQ reported CA3ODZ at 2046 and IZ8FPK worked PU5OGD at 2110. There was a single Europe<>VK report, on the 1<sup>st</sup> and one trans-Atlantic contact with KP4, on the 1<sup>st</sup>.

North American operators faced circumstances similar to those in Europe: location, location, location was the crucial consideration. Or perhaps one should say: latitude, latitude, latitude. For, although all the USA lies to the south of the UK and most is south of southern Europe, several operators, mainly in northern states, reported a completely blank month despite regular monitoring. Meanwhile, veteran WJ5O in the more southern state of Alabama had some blank days, but he also had a fair proportion with some signals beyond ground wave range. Most southerly of all, KP3FT in Puerto Rico, also had 'nil' days but enjoyed substantially better propagation, with openings to Africa on 12 days in addition to reporting the most consistent reception of US and South American beacons. South America was received in North/Central America every day except the 21<sup>st</sup> and 25<sup>th</sup>, with a particularly good opening on the 25<sup>th</sup>. QSOs within the North/Central American area are known to have occurred on at least 25 days. Oceania was worked on 10 days and Asia on 2.

Results over other paths were too fragmentary to assess due to the loss of data.

For all the frustrations experienced by many operators, stations active and making contacts included 5U5U, A35RK, 9W6SUE, 6V7K and C91R.

Many thanks to, among others, SV1DH, G4UPS, G0IHF, SWL David/Vitek/VK5, G3YBT