

## The Radio Weather in January 2008

January brought confirmation of the first sunspot of cycle 24 the month but was otherwise uneventful. Flare activity was mostly 'very low', with only three small C-clas flares at the beginning of the month. The solar flux averaged 74 units, with lows of 70 on the 20<sup>th</sup> and 22<sup>nd</sup> and highs of 80 on the 5<sup>th</sup> and 21<sup>st</sup>. However, the 90-day average edged up from 72 to 74. The X-ray flux was recorded as A0 on 26 days, with the highest daily figure only A3.8 on the 1<sup>st</sup>.

Geomagnetic levels were the major short-term determinant of HF propagation. The Ap index was in single figures on no fewer than 21 days, with a high of 18 on the 5<sup>th</sup> and lows of only 1 on the 2<sup>nd</sup> and 3<sup>rd</sup>. There were no three-hour periods with a Kp figure exceeding 4, though 5s or 6s were reported at high latitudes between the 13<sup>th</sup> and 18<sup>th</sup>. Solar wind speeds ranged between 270km/sec on the 3<sup>rd</sup> and 770km/sec on the 15<sup>th</sup>.

### 50MHz

#### Propagation to and from Britain

'Dearie me!', was how G4UPS summed up January. 'Not even a G station heard', says G2ADR. 50MHz was 'rubbish', opines G3FPK. Even staunchest advocate of 'the magic band' could scarcely contend that it was in great shape. January, for many UK operators, was characterized by the 'sound of silence', with nodx', no auroral openings and no significantly extended tropo. This was, after all, the bottom of the cycle – the stage when things can only get better. Yet January does not deserve to be dismissed out of hand. Apart from the small dedicated coterie of ms/jt6m operators, who maintain a base level of activity while waiting for better things, as the next but one section shows, the band did have its moments when S9 signals were crashing through. Most of the sporadic-e events tabulated in a later section were strong and sustained. They did not extend to everyone, but they covered a substantial area. Sadly, we know of several Es events only through beacon reports, suggesting that some operators may well have missed the relatively small number of opportunities that did present themselves.

#### DX Propagation

No DX reports this month

#### Sporadic-E

A modest tally of countries heard or worked. On the other hand, Es contacts were credibly reported in the UK on no fewer than 10 days (4-6 11, 13,15-16 21-22 27). In particular, the events on the 13<sup>th</sup>, 15<sup>th</sup> and 27<sup>th</sup> produced strong signals over several hours. The figures in the table below indicate the strongest signal report, where known, with a '5' when none was given. Few contacts were made on northerly bearings, while CT and I - but not EA – were the most favoured. All contacts appear to have required only a single hop.

	CN	CT	DL	EA	EA9	F	HA	HB	I	IS	OE
Day	13	5 6 11 13 22 27	15 21 27	13	13		15	15	5 11 13 15 27	13	15
6											
9	9	7		9	9				5 9	9	
12		9 5 3	3								
15		9 9	9 9				5		9 9		9
18		7 9	9 5			5	9	5	5		
21											

	OK	OM	OY	S5	SM	SP	T7	YU/9A	
Day	15	15	16	15 22	13	15	5	4 15 27	
6									
9			5	5			5	9	
12								5	
15					5	5		9	
18	5	9		5		9		9	
21									

### Tropospheric Propagation

Few reports calling for comment: Contacts withing the UK or between stations in eastern England and the near (eg ON, PA) were essentially routine. No contacts were signaled as exceeding 500km. The best of a smallish and very routine bunch were:

17<sup>th</sup> 1554 LA7SIX(JP99)>MM0AMW(IO75) 539  
21<sup>st</sup> 1108 PA0AOT(JO32)>G3VYF(JO01) 465km  
25<sup>th</sup> 0938 LX0SIX(JN39)>G3VYF(JO01) 435km  
27<sup>th</sup> 1549 DL8PM(JO30)>G7RAU(IO90) 429  
28<sup>th</sup> 1726 LX0SIX(JO39)>G3VYF(JO01) S3  
30<sup>th</sup> 1645 GB3BUX>DH6JL(JO31) 419qsb  
1659 M5BXB(IO91)>DH6JL(JO31) 419

### Meteor Scatter

	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
QSOs	5	11	4	10	10	0	2	5	0	0	1	0	0	0	1	0	5	6	7	7	3	2	2	0	3	15	1	1	1	1	0

Table of UK ms/jt6m reports by hour

Hour	QSOs	Countries	Hours	QSOs	Countries
8	1	SM	16	9	I,LA,OY,PA,SP
9	10	EA,OE,OY,SP	17	4	HB,OE,SM
10	17	EA,HB,I,IS0,LA,OE OE,OZ,PA,SM,SP,S5,9A	18	2	OE
11	9	EA,I,LA,SM,S5	19	4	HA,LA,PA,9A
12	8	EA,I,LA,PA,S5	20	5	I,OE,PA,S5
13	11	EA,PA,SM,SP,S5	21	4	I,S5,SP
14	4	OZ,PA,S5	22	3	S5

15 11 LA,PA,SM,S5,9A 23 1 OE

It is difficult to see any pattern to the day-by-day reports, but a preference for morning (though not early morning) contacts is svident. HA features markedly less than last month, and LZ not at all, but otherwise the geographical distribution shows little change. There were one or two ms reports where JT6M was not in use, all relating to beacons. JT6M QSOs where Es or tropo were involved, or the propagation mode was unclear from the contest, have been excluded.

### **Auroral Propagation**

Given the low levels of geomagnetic activity there were, not surprisingly, no UK reports.

### **EME**

An unusually thin month, with the only report a contact between the tireless PE1BTX and G4IGO at 1604 on the 12<sup>th</sup>, when IGO's report was -26dB

## **Continental Europe, Africa and the Middle East**

### **Auroral-related Propagation**

Aurora on only three days: weak and fairly brief events confined to high latitudes.

Jan 5 1428 OH9SIX>SM3(au strong) 2154 JW9SIX>OY(53a) 2248 LA7SIX>OZ(579) 2300-42 OH9SIX>OZ(559) OH3>OH4(579) OH5RAC>OY(55a) OY6BEC>OH2(599)

Jan 10 2130 OH0>OH4(55a)

Jan 14 2013 OY6BEC>LA(51a)

### **Other Modes**

Broadly, propagation in continental Europe followed the same patterns as the UK – producing a similar reaction from Costas, SV1DH, to those of UK colleagues. The majority of reports relate to ms with JTSM. There was a relatively small number of unremarkable tropo reports, with several good sporadic-E events, notably on the 15<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup>. EA8 stations reported the CQ3SIX beacon on several days (mode?). The highlight was a contact between CT1FFV and ZD7VC on the 20<sup>th</sup>, which he credits to tep.

Jan 1 no reports received.

Jan 2 0741 OY6BEC>OZ 10-1100 OE5>EB1(ms) OE5>EC3(jt) 11-1200 HB9SIX,LX0SIX>DL(tr) UU5>LZ1 13-1400 PA>>LZ1(jt) PA>SP9(jt) 18-1900 I2>PA(jT) PA>I9(jt) 2142 SM6>LA(jt) 2250 OY>LA(jt) 2315 LX>DL

Jan 3 0849 I0>LZ1(ms) 10-1100 SM7>LZ1(jt) JB9SIX>DL(tr) 1843 S5>PA(ms) 1905 OZ>S5(jt) 20-2100 LX>9A(jt) OE9>PA(ms) PE9>I2(jt) 21-2200 PA>9A(jt) SM0>SP9(jt) O0>9A>jt) PA>9A(jt) 22-2300 PA>I0(ms) EB1>5Q7(ms) PA>EB1(ms) 23-2400 PA>SO5(jt) I3>EB1(ms) 5Q>I0(ms) PA>EB1(ms) I2>LA(jt)

Jan 4 09-1000 OY>OZ(jt) OH9SIX>OZ(Es) PA>EB1(ms) 10-1100 EA3>EB1(ms) CT>EB1(ms) 11-1200 DL>9A PA>IS0 IS0>DL(ms) 12-1300 SP9>9A(jt) IS0>SP9(ms) 14-1500 I3>IS0(jt) HB>SM7(ms) LZ1>IT9(jt) 15-1600 SP9>IT9(jt) LZ2>IT9(jt) 1658 LX>SP9(jt) 1710 LX>SM7(jt) 2055 OH8>LA(jt) 2120 SM0>LA(jt) 22-2300 SM0>LX(jt) LX>PA(jt) S5>5Q(ms) LX>5Q(ms) 23-2400 LA>5Q(ms) LA>LA(jt) I3>5Q(ms)

Jan 5 contest 09-1000 EA7>EB1(ms) I4>9A S5>9A I5>I3 OY>LA(jt) S5>I3 S5>IS0(ms) I3>LZ1(jt) 10-1100 I5>EB1(ms) I5>I0 F>EB1(ms) I3>PA(ms) OE2>I3 OH8>LA(jt) I0>ON OH8>LA(ms) S5,I4>DL 11-1200 I0>I1 EI>EB1(ms) EA2>PA(jt) I3,I0>I1 I5>DL T7>OE5(tr) T7>DL(59+ tr) I4,I5>I1 12-1300 I0>EI I0>I8(tr) I5,I4>I1 I2>I8 I0>F(iono+ms) S5>OZ I4,T7>I2 T7>OE2(tr) 13-1400 T7>YU7(Es) T7>PA(Es+ms) S5>OE2(tr) I0>I8 T7>OZ(ms) I0>I7 OE5>I3 14-1500 I5>I0 EI0SIX>CT(Es) I3>I1 SR1RLA>EI 15-1600 T7>S5 I4>OE2 CT0SIX>EI(Es) EI>EA4 S5>OZ OE7>OE2 1859 F>PA(jt) 23-2400 OH8,LA>LA(ms)

Jan 6 10-1100 OZ7IGY>I4(ms/Es) S5>EB1(ms) LX>OZ OE5>EB1(ms) CT0SIX,CS1RLA>EI(Es) 11-1200 SP9>PA(ms) OY>PA(JT) F>SP9(ms)

Jan 7 10-1100 EB1>OE5(ms) LX0SIX>DL(tr) 11-1200 HB9SIX>DL(tr) F>EB1(ms) 1819 9A>OZ(jt)

Jan 8 0946 HB9SIX>DL(tr) 1022 F>S5(jt)

Jan 9 2120 SM0>SP9(jt)

Jan 10 NAC 18-1900 LA>S5 OZ7IGY>DL(tr) SM6>S5 SM6>OZ SK2>SM3 5Q>OZ SM5>DL OH6>SK2 I1>I4 OH8>OH4 PA>LA(ms) 19-2000 SK2>PA(ms) OY>LA(ms) I3>S5 SM2>LA 20-2100 OH8>LA(jt) SP9>LA(jt) SM3>SP9(jt) SM6>LA(jt) S5>SM3 SM6>SP9(jt) SA6>S5(ms) 21-2200 SM2>LA(ms) SM3>DL(jt) OH0>PA(ms) OH3>SM3

Jan 11 11-1200 EA2>PA(jt) 1633 IT9>DL 17-1800 IT9>ON(bs) PE1BTX>ON4LGS(eme)

Jan 12 1013 JW5SIX,JW7SIX>SM2 1139 HB9SIX>DL(tr) 1208 OY3JE>PE1BTX(eme) 1438-46 W1JJ>PE1BTX(eme -16dB) 1535 K2ZD>PE1BTX(eme) 17-1800 OH8>LA(jt) 1846 OE9>LA(jt)

Jan 13 09-1000 CS1RLA>DL(Es) CT1ART,CT0SIX,CS1RLA>OE5(Es) CT0SIX>I4 CT0SIX,CT1ART>S5(Es) IS0>DL(ms) EA67>DL,OE5(Es) EA4>OE5(Es) CN>PA,DL 10-1100 CN>DL EA9IB>OE5(Es) HB9SIX>DL(tr) I7>F(tr) CN8IG>OE5(Es) F>ON CN,EA7,CT1ART>PA EA4>OE5 CN>ON HB>DL(tr) EA7>EB1(ms) 11-1200 EA4Q>OE5(Es) EH3,EA4Q,EA7,EA2B>DL(Es) CT0SIX>I1 CT1ART>OE5(Es) EA5>SP6 CT>SM7(jt) HG7BVA>EB1,F(Es) UT3>OZ(jt) IS0>EI EI0SIX>SQ1 EA3>OZ LY0SIX>DL(Es) I0JX>EI DL>EB1(Es) OZ7IGY>EA5 EB1>OE1 12-1300 CT1ART>DL(Es) EA5>OZ(Es) DL,OZ>EB1(Es) SM7>EA5(Es) EA4Q>F I4>EI(Es) 5Q>EB1(Es) EA3Q>OZ I5MXX>EI(Es) I4>9A 2025 W7GJ>LA(-22dB) 21-2200 DL>PA(tr) LA>LA(jt) W7GJ>PE1BTX(-16dB)

Jan 14 1839 EA4Q>EA5(tr) 1951 PA>9A(jt) 2038 LA7SIX>OH2 CT1ART>CU3

Jan 15 17-1800 F5TND>DL(Es) HB9SIX>EI EI0SIX>I2 EI>OE2 18-1900 OZ7IGY>EA6(Es) OK1,HG7BVA>EI(Es) OZ>EB1(Es) IQ4AD>LA(Es) EB1>PA(Es) LA>EB1(Es) 19-2000 EI>DL,OK1(Es) F5TND>DL OM>ON LA>EB1(Es) ON>9A EI0SIX>SP8 EI>OE1,OK1,OE2(Es) LA>I1(ES) 20-2100 I5>LA(Es) OZ7IGY>I1 EI>HA1 EI>OE1 I1,I2,I5>LA(Es) EI0SIX>OE1

Jan 16 10-1100 OY6BEC>DL,ON(Es) 11-1200 OY6BEC>DL(Es+ms) HB9SIX>DL(tr) LX0SIX>DL(tr) 19-2000 PA>9A(jt)

Jan 17 0855 HB9SIX>DL(tr) 09-1000 OZ7IGY>ON(tr+ms) 1001 HB>SM7(ms) 1155 PA>SM0(jt) 12-1300 UT>PA(jt) 1518 CT1ART>EA8 1624 OY6BEC>OZ 20-2100 CT1ART>EA8

Jan 18 1210 HB9SIX>DL(tr) 1430 CQ3SIX>EA8

Jan 19 08-0900 OY>PA(jt) I4>PA(jt) CT1ART>EA8 0928 OY>LA(ms) 12-1300 EA43Q>EA5(tr) JR6EXN>PE1BTZ(eme -29) CT1ART>EA7 15-1600 48250(Waf)>CT 19-2000 OH8>LA(jt) S5>PA(jt) 2024 IK5ZUL>S5

Jan 20 08-0900 CQ3SIX>EA8 CT1ART>CT3 1129 OE5>PA(jt) 1315 CT1ART>CN 16-1700 LY0SIX>DL(Es),I4 17-1800 UA1,UA3tv(R1)>DL ZD7VC>CT1FFU(tep) 2034 OH8>LA(jt)

Jan 21 0834 HG7>HA5 1327 UT4>PA(jt) 21-2200 PA>9A(jt) 2210 9A>SM7(ms)

Jan 22 0858 CQ3SIX>EA8 1512 HB9SIX>DL(tr) 17-1800 IOJX>EI 18-1900 5Q>OZ EI0SIX>CT 19-2000 OE9>5Q(jt) 20-2100 OY>PA(jt) 5Q>S5(jt) 21-2200 CQ3SIX>EA8 S5>LA(jt)

Jan 23 0923 CQ3SIX>EA8 12-1300 S5>PA(jt) 13-1400 HB>PA(jt) 14-1500 SM2>OZ(jt) OH2>SM2(jt) 2156 OY>LA(ms)

Jan 24 08-0900 CT1ART,CQ3SIX>EA8 0932 HB9SIX>DL(tr) 2247 CQ3SIX>EA8

Jan 25 0859 HB9SIX>OE5(tr) 0900 DF0ANN>OE5(tr)

Jan 26 09-1000 CQ3SIX>EA8 EA2>PA(jt) 16-1700 IQ1SP>S5(tr) IQ4AD,IQ1SP>9A IK5ZUL,I0ICR>S5 17-1800 SV1SIX>DL(Es) SV9SIX>DL,9A,S5,I4(Es) CQ3SIX>EA8 18-1900 SV9SIX>DL(Es) CT1ART>CU3 19-2000 SV9SIX>I4(Es) EA8>CU3 2224 CQ3SIX>EA8

Jan 27 0924 CS3SIX>EA8 10-1100 PA>EA2(jt) OH8>LA(jt) OH5>LA(jt) LA>OE5(ms) 1113 PA>HA2(jt) 15-1600 OZ7IGY>EA3,EA4(Es) EA3>DL(Es) SM7>EA3 16-1700 OZ>EA6 EA6>SM7,DL EI>EA4 EI0SIX>CT(Es) F>DL(Es) CT>PA,F(Es) F>OZ EA4>DL(Es) PA>DL(tr) 17-1800 EA1>DL,F 2054 HA2>SM7(ms)

Jan 28 0436 OZ7IGY>DL(tr) 1630 HA2>PA(jt) 17-1800 DF0ANN>DL(tr) 18-1900 HA2>PA(jt) 21-2200 CQ3SIX>EA8 SM7>HA2(ms) 22-2300 LA>PA(jt) 23-2400 PA>HA2(ms)

Jan 29 08-0900 HB9SIX>DL(tr) HG7BVA>HA5 1533 CQ3SIX>EA8

Jan 30 16-1700 LX0SIX,OZ7IGY,ON0SIX>DL(tr) 17-1800 HB9SIX>DL(tr) CT1ART>EA8 2132 CQ3SIX>EA8

Jan 31 11-1200 HB9SIX>DL(tr) DL>S5 I5MXX,9A0BHH>S5

## 50MHz PROPAGATION REPORT FOR JANUARY 2008 BY SV1DH

1. Data for all days (31)
2. Relatively good days on: 26
3. 48 MHz AF video (9L+3C) on: NIL
4. 55 MHz AF video (5N) on: NIL
5. Opening to DL on: 26(E)
6. Special events on:
  - 1(1537 C1.1 flare)
  - 2(1000 C1.2 flare)
  - 4(First 24<sup>th</sup> solar cycle spot! +1000 VK4,8 to DL on 10m)
  - 5(1515 CT to G on 4m Es)
  - 6(0845 VK8 to F on 10m)
  - 7(1527 C1.4 flare)
  - 9(0815 VK8 to S5+I7 +0900 ZL to S5+I4 on 10m)
  - 10(0900 VK4,8 to I0 on 10m)
  - 13(1000 VK4 to DL+CT on 10m)
  - 15(0100 W4 to ZL2 on 10m)
  - 16(1245 VK6 to 48Mhz AS video)
  - 20(1730 ZD7/B to CT1)
  - 27(0800 VK4 to I1 on 10m)
7. DXCC entities heard/worked during January 2008: 1 on 1 cont.
8. DXCC entities heard/worked during 26thJan 2008: 1 on 1 cont.

## The Americas

### Auroral-related Modes

Jan 13 0014 W0(EN38)>W9(EN46)(55a) 0036 VE4ARM>W9(EN46 52a)

### Other Modes

As in December, evening-type tep was an almost daily occurrence, being reported on no fewer than 26 days, compared with 28. On most days paths – usually from PY5 to the Caribbean or the northern fringe of South America, began weakly shortly after 2100UTC, continuing after 0000 and lasting occasionally until after 0300. Often weak as paths opened, signals at times reached S9. Activity in most parts of the Caribbean is somewhat erratic, but the 9Y beacon, heard on 25 days, V44KAI reported on 22 days and the YV beacon, heard on 15 days, are now highly useful 24/7 propagation indicators for the South Americans. (Sadly, none of the southern hemisphere beacons appear to be ideally located to provide information on the northward path.) Propagation privileged PY (particularly PY5 and PY2). There were only two days (10 and 30) when openings are known to have penetrated as far as LU, or CX (on the 12<sup>th</sup>). The number of active operators appears to be increasing, but as the listings below show, there are still many times when openings go unexploited. Some PY<>LU contacts were reported and there was one reported of OA<>YV working.

#### Trans-equatorial Propagation to South America

	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
TEP	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+		+	+		+		+	+	+	+	+	+	+

#### Trans-equatorial Propagation by Country

9Y>PY 25 days 1,3-11 14-18 20-21 23 25-31  
V4>PY 22 days 2-11 15-18 20-21 25-29 31  
YV>PY 15 days 6-8 10-11 15-18 22-23 25-27 30  
FJ>PY 4 days 27-30  
FM>PY 4 days 8-9 15 30  
FY>PY 3 days 3-5  
FG>PY 3 days 1 7-8

P4>PY 1 day 10  
KP4>PY 2 days 7-8  
PZ>PY 1 day 11  
ZF>PY 1 day 15  
YV>LU 2 days 10 30  
PJ>LU 1 day 30  
P4>LU 1 day 10  
YV>CX 1 day 12

For the most part, the North America log looks less exciting. Few reports came from the West Coast of the US or Canada, but eastern Canada fared better than in December, featuring in several of the better openings. In one of the better events, on the 9<sup>th</sup>, VE1YX worked down the east coast and into the Midwest for several hours by sporadic-E. More interesting for prefix hunters, though mainly unremarkable in propagation terms, were openings to the Bahamas and Caribbean, which at one time or other reached C6, V4, FS, PJ, HI, 9V, KP2, KP4, ZF and FJ, with extensions to PZ on the 7<sup>th</sup> and YV on the 25<sup>th</sup> and 27<sup>th</sup>. Many of these were spotted by KE4WBO, ideally situated on the most southerly tip of Florida, though W3 and W8 also featured. Most of these events appear to have been by way of sporadic-E, though tropo looked possible for some of the shorter distances. Regrettably few

North American operators give any indication of the propagation mode. However, JTSM/ms operating appears to be very limited, possibly for reasons of geography.

Jan 1 00-0100 W0,W9>W8 1256 W5>W8 13-1400 W3>W8 16-1700 W3>W1 W9>W7(eme) 21-2200 W4,C6AFP>W4 W5>W8 23-2400 FG5FP>PY2XAT 9Y4AT>PY3

Jan 2 01-0200 W9DR/4,C6AFP>W8 03-0400 VO2FUN>W1,W3 VE1SMU>W8 04-0500 VO2FUN,VE1SMU,W2,W3,VE3>W8 2140 W1>W1 2349 V44KAI>PY2REK

Jan 3 00-0100 V44KAI>PP5AR 2356 9Y4AT,FY7THF>PY5HOT

Jan 4 00-0100 V44KAI>PY5HOT W0MTK,NA7XX>W7 9Y4AT,FY7THF>PY5HOT 0255-7 W4CHA,K4HRS>W4 03-0400 W9DR/4>W8 9Y4AT>PY5HOT 1232-50 K4HRS,C6AFP>W4 1633-51 W1,WZ8D>W1 2314 W4CHA,K4HRS>W4

Jan 5 00-0100 9Y4AT,V44KAI>PY5EW 02-0300 9Y4AT>PY5EW V44KAI>PY5EW,PY2REK 0434 VE7>W7(sc) 13-1400 WZ8D>W8 W1>W3 14-1500 WZ8D,W4>W1 W3>W5 1729-30 W5>W8(Es) W8>W5 1818-19 K0KP>W8 W7>W5 20-2100 C6AFP>W4 W4>W8 23-2400 NA7XX>W7 W9DR/4>W8 V44KAI,9Y4AT>PY5HOT

Jan 6 0109 W9DR/4>W8 02-0300 9Y4AT,V44KAI>PY5HOT 0318 V44KAI,9Y4AT>PY5HOT 11-1200 W8,W5(sc)>W8 12-1300 C6AFP,W4>W8 13-1400 W4>W8,W1 W0>W8 15-1600 W1>W9(sc) W0,W8>W3 W1>W8 16-1700 W2>W9,W3(Es) VE3,W1,W3>W9 W4>W9(ms) 17-1800 W1>W9 W4>W1 1950 W1>W8 2252-5 PY0FF>PY5 23-2400 9Y4AT,V44KAI,YV4AB>PY5EW V44KAI>PY5HOT

Jan 7 00-0100 V44KAI>PY2NQ NP3CW,V44KAI,YV4AB>PY2REK NP3CW,V44KAI,9Y4AT,YV4AB,FY7THF,PR8ZIX>PY5HOT W9DR/4>W8 0144 PZ5YV>WZ8D 0200 PZ5YV>W5 0543 VO2FUN>VE2 1251 W5>W8 1519 W5>W4 1811 W5>W7 19-2000 W4>VE3,W1 W5GPM>W7 W2>W4 20-2100 VE2,VE3>W4 W4>W3,W1 W5>VE2 W9,W0>W5 W9DR/4>W8 23-2400 9Z4CT,9Z4BM>PY1NB V44KAI,9Y4AT,9Z4BM>PY5EW V44KAI>PY2REK PY1NB>YV4DDK FG/FR1AN>PY2DA,PP5AR PY2>PY5 NP3CW>PY5EW,PY1ZV NOLL>W8

Jan 8 00-0100 NP3CW>PY2DA 9Y4AT>PY3KN,PY1ZV FG/FR1AN>PY5EW,PT9PA N6XQ/OA>PY2NQ,PY5EW,PY2RDS FM1HM>PY5EW YV5IAL>PY5EW FM5LD>PY5EW PT9PA>YV5ESN W3>W3 W5>W5 0230 WZ8D>W1 03-0400 W9DR/4,K5AB,K0KP(ms),C6AFP>W8 17-1800 W9DR/4,C6AFP,K5AB,NOLL>W8 KP4EIT>W4 V44KAI,C6AFP>KE4WBO(Es) W5,VE3>W3 W3>W9 18-1900 W3DOG>W5 W8>W0 W5,VE3>W3 W9DR/4>W9 W2>VE2 W1,W4>W9 FS5GL,V44KAI,NP4AM,K0KP>KE4WBO W0>W0 W8>W5 W2>W3 W0,W8,W4,W9>VE1 W3DOG>W5,W0 W5>W8,W4 W4>W2 19-2000 VE2,W3>W9 W8,W4,W9>VE1 NOLL,W3,W2>W4 K8EB>W5 K5AB,W4>W9,W8 W1,W2>W4 VE3>W0 NP4AM>K0ECR W5,W0>W2 W1>W0(bs) W8IF>W5 W8>W8 VO2FUN>W8 20-2100 W0>W2 VE3>W3 W5>W8 W4,W3>W9 W4>W0 W5HN,VE4VHF,K0GUV,K0KP>W3 V44KAI>KE4WBO W5HN>VE3 K0KP>W2 21-2200 W4,W4,W8,W9>W9 W0>W2 W5,W3>W3 W0>W4 W5>W8 VE4VHF>W5 22-2300 NOLL>W3 W0>,W4,W2 W8 K0KP,W9>W5 NOLL>W3,W9 W0,VE3>W0 W2>W2 23-2400 W9>W3 V44KAI,9Y4AT>PY5HOT

Jan 9 0057 9Y4AT>PY5HOT 0135 V44KAI>PY5HOT 02-0300 FM1HM,FM5AA,YV5IAL,9Y4AT,V44KAI,9Z4CT>PY5HOT 15-1600 K1MS>W4 C6AGN>W2,W1,VE2,W3 16-1700 K2ZD>W4 W2,W3CCX,W3DOG,VO2FUN,W5>W4 W2,K4HRS,W4CHA,W1,W4CLM,KD4AOZ>VE1 VE1>W3 W4CHA>W0 W9DR/4>W0 W3>W2 W5>W8 17-1800 W9DR/4>W0 W4>VE2 W3>W5 W4,W5,W9>VE1 W0>W8 W5>W4 1942 XE1>W0 20-2100 VE1>W9 W8,W0,VE3>VE1 K0KP>W2 W1,W4>W9 W1,W2>W0 W3,W2>W4

(Exc opening - VE1YX string of 8s and 9s and 0s but no west) VE2YAT>W8 VA2FZN>W3  
VE2>W2 21-2200 W0>W2,W4 N0LL>W3 VE2,K8EB>W4 W9>VE9 VE3,W2>W9 W1,W3,W2>W0  
W9,W0,W8>VE1 W8,W9>W2 K0KP>W8 W1>W9 22-2300 W9>W3 W8,W9,VA2ZFN,W2>VE1  
W1,W2>W0 W2,W9,W1,K0KP>W1 VE9,VE2,W2>W9 VE2>W4 VE1,VE3>W5 23-2400 W0>VE1,W3  
W1,W0>W1 W2,VE2,W4,W1,W3,W8>W9 W9FVW,W0>W3 W2,VE3>W5 9Y4AT,V44KAI>PY5HOT

Jan 10 00-0100 YV4AB>PY5HOT VE1SMU>W8 PY5HOT,LU7FTF>P43A YY4ACU>CX4CR  
LU2MCA>YY4ACU YV4AB>LU5FCI 01-0200 W5GPM,W0>W3 W0>W4 V44KAI,9Y4AT>PY5HOT  
W4>W4 0305 W9DR/4>W8 49748.6(R1)>W4 23-2400 9Y4AT,V44KAI>PY5HOT

Jan 11 00-0100 PZ5YV>PY5HOT,PY5EW 9Y4AT,YV4AB>PY5HOT 01-0200  
9Y4AB,V44KAI>PY5HOT 1233-41>W5(ms),W1 1641 W2>W2 22-2300 WZ8D,W9VW,W8IF>VE1  
VE1SMU>W8 23-2400 VE2,W4>W3 23-2400 9Y4AT,V44KAI>PY5EW W1>W8 W8>VE9 W2>W1,W8  
9Y4CT,YV4AB,V44KAI,9Y4AT>PY5EW

Jan 12 0106 OA/N6XQ>YV4DDK N0LL,W9DR/4>W8 03-0400 W9,K0KP,W5>W3  
K0KP,VE4VHF,K0GUV>W4 VE2>W5 04-0500 K0KP>W4 W4>VE2 1226 W4>W8 18-1900 W0>W8  
W9>W4 19-2000 P43JB,C6AFP>KE4WBO 2146 WP4B>W4 22-2300 W2,W4>W4

Jan 13 1730 W2>W9 1939 V44KAI>KE4WBO 2037 W9DR/4>W8

Jan 14 1247 W4>W8(ms) 16-1700 W1,W3CCX,V44KAI,C6AFP>KE4WBO NL7XM,W3DOG>W4(Es)  
2058 C6AFP>KE4WBO 21-2200 C6AGN>N3DB 23-2400 9Y4AT>PY5HOT XE3>W5

Jan 15 0050-2 V44KAI,9Y4AT>PY5EW 01-0200 YV4AB>PY5EW,PY5HOT  
9Y4AT,V44KAI,FM1HM,PT9>PY5HOT 03-0400 9Y4AT,V44KAI,ZF1EJ>PY5HOT 04-0500  
C6AFP,W9DR/4>W8 W5>W1(ms) W4>W1 W5GPM,W9>W3 1610 W4CHA>W4 21-2200  
C6AFP>W8IF,K3FM W9DR/4>W8 W4CHA>W1 W4>W3 22-2300 W4CHA,W2>W3 23-2400  
TI2NA>KE4WBO W9DR/4>W4,W9 W2>W9

Jan 16 00-0100 V44KAI,9Y4AT,YV5ESN>PY5HOT 01-0200 9Y4AT,YV4AB,PR8ZIX>PY5HOT  
YV5ESN>PY2DS,PT9PA 0230 9Y4AT>PY5HOT 14-1500 W9DR/4>W9

Jan 17 01-0200 V44KAI>PY5HOT 9Y4AT>PY5HOT,PY2REK 03-0400 W0>W4 K5AB,W5GPM>W3  
W9DR/4>W 04-0500 W4,W5GPM>W9 W4>W5(Es) W3>W5,W0 1728 NA7XX>W7 22-2300  
VE3,W1>W4 W4>VE1 23-2400 W4>VE1 W1>W4 W4CLM>VE2(Es) VE2>W8(Es) VE3>W5

Jan 18 00-011 9Y4AT,V44KAI,LU5EGY,YV5ESN>PY5HOT 15-1600 W7>W7 W1>W1 1950  
W6>W7(Es) 2102299 W7,VE7>W7 2335 W5>W5

Jan 19 0014 W2>W4 0102 W2>W4 0330 VE7>W7(tr) 1259 W4>W4(Es) 1334 W4>W4 16-1700  
W1>W2 W4>W5(Es) WR9L>W4 W0>W4 WP4Q>W1,W4,W0(Es) W4>W1 1701 W9DR/4>W0(Es) 19-  
2000 VE7>W7 W5,W0>W4 W9>W9 W9DR/4>W2 W3>W3 W4>W3,W1 20-2100 W5,W3,W1>W4  
C6AFP>VE3FGU W8>W8,W3,W9 W9>W9,W2 W7>W7 21-2200 W8>W4 W4>W2 W6>W6 W7>W7  
VP9GE>N4SZ,W4GCB 22-2300 VP9GE>K4WS

Jan 20 00-0100 W1,W4>W4 W1>VE9 01-0200 W3>W3 9Y4AT>PY5HOT 02-0300 W2>W2,W1  
W3,W8>W8 W5,W3>W5 9Y4AT,V44KAI>PY5HOT 03-0400 9Y4AT,V44KAI>PY5HOT 06-0700  
W7>W6(ms) W9>W9 13-1400 W1>W4(sc),W9 W8,VE3>W4 14-1500 W8>W5(ms) W2,W3>W3  
W7>W7(ms) 15-1600 W1>W2,VE1 W0>W0 W9>W9 16-1700 W8>W1 W3,W2>W3 W5>W4 W4>W9  
18-1900 W5>W4 W1>W1 21-2200 W8>W9 W7>W7 22-2300 W8>W9 W1>W2 23-2400 VE3,W9>W4  
W6>W6 V44KAI>PY5HOT

Jan 21 00-0100 W0>W6 01-0200 W8,W9>W9 02-0300 W9>W2 9Y4AT,V44KAI>PY5EW



Jan 22 00-0100 YV4AB>PY5EW 01-0200 YV5ESN>PY2REK W0DR/4>W8 1756 W0>W0 18-1900 NOLL>W8 W8>W9,W8

Jan 23 01-0200 9Y4AT,V44KAI,YV4AB>PY5EW 2038 YV4AB>KE4WBP(Es)

Jan 24

Jan 25 01-0200 V44KAI,9Y4AT,YV4AB>PY5HOT 1837 K4TQR>VE2 19-2000 V44KAI,YV4AB>KE4WBO(Es) 2019 TI2NA>KE4WBO 23-2400 V44KAI,TI2NA>KE4WBO 9Y4AT,V44KAI,YV4AB>PY5EW

Jan 26 00-0100 9Y4AT,V44KAI,YV4AB>PY5HOT V44KAI>KE4WBO 0340 K0KP>W1 0421 W0>W1 16-1700 W3HH,K4KRS>KP2M TI2NA>KE4WBO(Es) 17-1800 K5AB,W7,W5HN,C6AFP>W4 18-1900 W5>W4,W9,W3 W7>W4 LU3DHH,LU5EGY,LW8EMS>PY5HOT NP3CW>W4 20-2100 V44KAI>KE4WBO(Es) W9DR/4>WP4NIX 47.6(CE)>KE4WBO 21-2200 XE2>W9,W5 22-2300 W7,W5>W4 NP3CW,WP4CNU>K5YG 23-2400 XE3>W4

Jan 27 00-0100 WB5LLI,9Y4AT,HI3TEJ,TI2NA,P43A>KE4WBO 9Y4AT>PY5HOT PJ4NX>N3DB,WZ8D,K5YG W4CHA,C6AFP,W3HH>XE3ARV P43A>N3DB W4ETN>HI3TEJ ZF1EJ>KE4WBO,W4AVY V44KAI,FJ5DX>PY5HOT ZF2BJ>KG4NZR YV4AB>W4AVY 02-0300 9Y4AT>PY5HOT WP4O>N5NA,KE4WBO K5AB,W5RP>W4 TI2NA>K4QI 16-1700 W8>W0(ms) XE2>W5,W0 17-1800 XE2>W3,W0 18-1900 XE2>W5 WP4O>N0JK 19-2000 YV4AB>K4PG W9DR/4>PJ4NX XE1,W9>W5 W5>W4 C6ANM>NE1B W9>W1 PJ4NX>N5ZM W7FNK>C6ANM 20-2100 PJ4NX,WP4ALC>K4PG KP4EIT>K4PG,PJ4NX XE1>,W5,XE2 W5>W4 P43A>K4PG,N0JK,N8PR XE2>W0,W5 W7>W7 21-2200 W5>W4 WP4ALC>N5ZM XE3,C6AFP>W8 23-2400 W6>W7 NOLL>W8

Jan 28 00-0100 W6>W6 W7>W7 01-0200 W5>W6 9Y4AT,V44KAI>PY5EW FJ5DX>PY5EW,YV5ANF,PY2RO W5GPM,W5HN,W0>W4(Es) W4CHA>W9 XE2>W3 02-0300 W4,W5>W5 W4>W0 XE2>W9,W4 03-0400 W6>W7(Es) 9Y4AT,V44KAI>PY5EW W7>W6 1654-8 LU5EGY,LU2ETU>PY5 17-1800 LU1DMA>PY5 V44KAI,W5GPM>KE4WBO LU4DFZ,LU8DIO,LU8EMH>PY5EW 1807 K5AB>W4 2328 K5AB>W4

Jan 29 0008 TI2NA>KE4WBO 01-0200 K4PG>W4 V44KAI,9Y4AT,FJ5DX>PY5EW WB5LLI,K4TQR,W3>W3 W1>W4 FJ5DX>PY2REK K5AB>W4 1624 FY7THF>FJ5DX 22-2300 W7>W7 23-2400 9Y4AT,V44KAI>PY5EW FJ5DX>PY2DA,PP5AR,PY5HOT.PY2DUN

Jan 30 00-0100 9Y4AT>PY2REK FJ5DX>PY2SM,PY5EW FM1HM>PY5EW YV4AB,PJ4NX>LU3EE 01-0200 LU7FA>YV5JF YV4AB>PY5EW YV5DRN>LU3EE FJ5DX>PY2RDS 03-0400 YV4AB,9Y4AT>PY5EW 17-1800 LU5EGY>PY5EW 18-1900 LU5EGY,LW2ETU>PY5EW 1950 LU1EEP,LU9DFN>PY5EW

Jan 31 00-0100 V44KAI,9Y4AT>PY5HOT 01-0200 9Y4D,9Y4AT 22-2300 LU5EGY,PY0FF>PY5HOT W8IF>W8

## Asia and the Pacific

### Asia

While it is clear that some Japanese operators were assiduously monitoring sub-50MHz TV channels for signs that paths to Australasia were opening up, their efforts were unproductive and only a small number of two-way contacts within Asia are known to have occurred.

Jan 6 0410 45250>JA1 0430 46170(VK)>JA5  
Jan 7 0208 56260(UA0)>JA7  
Jan 9 0245 45250(ZL)>JA1  
Jan 12 0911 9H1PA>JR6EXN(eme -19dB)  
Jan 15 0340 46240(VK2)>JA1 0350 45250(ZL)>JA1 0412 JR6YAG>BG7NWF  
Jan 16 0330 45250,45239(ZL)>JA1  
Jan 17 0408-35 45240,250,260(ZL)>JA3 46172, 46240(VK)>JA3 45260.4(ZL)>JA7  
Jan 19 0255 46240(VK2)>JA1 0845 51247(BY)>JA3  
Jan 20 0205 46240(VK2)>JA1 0230 45240(ZL)>JA1 04-0500 DU1EV>BG7 BG7NWF>DU7 05-0600  
 KG6DX,JR6YAG,VR2SIX>DU7  
Jan 21 0423 56250(BY)>JA7(Es) 0811 JR6YAG>BG7  
Jan 28 0350 45240, 45250 45260(ZL)>JA3 0401 46172,46240(VK)>JA3 0914-35 VR2SIX,VR1OUW>JA3  
Jan 30 07-0800 VR2SIX>9M6XRO 9M6XRO>BG7NWF  
Jan 31 0410 VR2SIX>JA3 0545 VK3SIX>JR6EXN 0710 JR6YAG>BD9

## VK/NZ and Pacific Islands

January is of course part of the southern hemisphere sporadic-E season. The listing below reflects that. However, we have never seen a VK/ZL report on anything remotely like this scale. This appears to reflect a better-than-average January, an increase in the number of operators (though numbers remain small) and enhanced reporting levels via the excellent vklogger website. The arrival of A35RK, an enthusiastic 6m operator also added interest. Most reports are unremarkable in propagation terms. Even FK8SIX is within comfortable Es range for parts of Australia and New Zealand. One reporter lamented hearing nothing but FK8SIX for hours on end: none of the resident FK operators could be coaxed on to the band for live QSOs. However, there was a substantial sprinkling of reports appearing to arise from multihop Es. There were several of TV from Siberia and China. Whether these should be credited to multihop Es or tep/Es is unclear. Note that the listings below give preference to beacon reports; QSOs between the same call areas during a given hourly slot are not usually included.

Jan 1 0119 VK6RPH>VK5  
Jan 2 2304 VK4>ZL3  
Jan 4 0300 VK2>ZL3,ZL4  
Jan 6 0037, 0108 VK4RGG>VK5  
Jan 7 00-0100 VK2RHV,VK2RSY,VK4RGG,VK4ABP,VK3RMH>VK5 0418 VK4RTL>VK5 2359 VK4RTL>VK5  
Jan 8 23-2400 VK2RHV,VK2RSY>VK5  
Jan 9 00-0100 VK4RTL,VK2RSY>VK5 01-0200 VK7RAE,VK6RHP,VK2RHV,VK2RSY>VK5 03-0400  
 VK3RMH,VK7RST>VK5 04-0500 VK7RST,VK3RMH>VK5 23-2400 VK2RHV,VK2RSY,VK4RGG>VK5  
Jan 10 00-0100 VK2RHV>VK5 01-0200 VK4RTL>VK5 03-0400 VK4RTL,VK4ABP>VK5 VK2>ZL3 08-0900  
 VK4ABP,VK2RHV,VK4RGG,VK4RTL>VK5 10-1100 VK4ABP,VK2RHV,VK4RTL>VK5 23-2400  
 VK4RTL,VK4ABP>VK5  
Jan 11 00-100 VK6RPH,VK4RGG,FK8SIX,VK6RBU>VK5 01-0200 VK6RPH,VK4RGG,VK4RTL,VK4ABP>VK5  
 02-0300 VK6RHP,VK4RGG,VK4RTL 03-0400 VK6RPH,FK8SIX,VK4RTL,VK4ABP,VK2RHV 04-0500  
 FK8SIX,VK4RTL,VK4ABP,VK2RSY>VK5 05-0600 VK4RTL,VK2RSY>VK5 0615 49750.6(BY)>VK3  
Jan 12 00-0100 VK4RTL,VK6RPH,VK4ABP>VK5 01-0200 VK4RTL,VK4ABP>VK5 02-0300  
 VK4RTL,VK4ABP,VK4RGG>VK5 03-0400 VK4RTL,VK4RGG>VK5 04-0500 VK4RTL,VK4ABP>VK5 0654  
 VK4RGG>VK5 07-0800 VK4RTL,VK2RSY,VK2RHV,VK8RAS>VK5 0837 VK2RHV,VK2RSY>VK5 09-1000  
 FK8SIX,VK2RHV,VK2RSY>VK5 10-1100 VK4RTL,VK4RGG>VK5  
Jan 13 00-0100 VK4RTL,VK4RGG,VK4ABP>VK5 01-0200 VK4RTL,VK4RGG,FK8SIX,VK8RAS>VK5 03-0400  
 VK4RTL,VK4ABP>VK5 2359 VK4RTL>VK5  
Jan 14 1021 VK7RAE>VK5  
Jan 15 00-0100 VK2RHV,VK2RSY>VK5 01-0200 VK2RSY,VK6RPH>VK5 0430 49750(UA0)>VK3 0427  
 VK8RAS>VK3 07-0800 VK8RAS,VK4ABP>VK5 08-0900 VK8VF,VK8RAS>VK5 0935 VK8RAS>VK5 1000  
 VK8VF>VK5  
Jan 16 0000 VK7RAE>VK5 1245 48239.6,48250>VK6 1330 YB1EHR>VK6 23-2400 VK7RST,VK8RAS>VK5  
Jan 17 0004 YB1EHR>VK6(Es) 0205 FK8SIX>VK2 0345 ZL1>VK4 1035 VK4RGG>VK5

Jan 18 00-0100 VK7RAE,VK2RSY,VK2RHV,VK7RST,ZL2MHF>VK5 01-0200  
 VK7RAE,VK7RST,VK3RMH,VK3RMV>VK5 02-0300 VK7RAE,VK2RHV,VK7RST,VK4RGG>VK5 03-0400  
 VK2RHV,ZL3SIX,VK4RGG,VK2RSY>VK5 04-0500 VK3RMH>VK5  
Jan 19 23-2400 VK8RAS,VK4RGG,FK8SIX,VK2RSY>VK5 00-0100 VK6RBU>VK5 01-0200  
 VK4RGG,FK8SIX,VK6RPH,VK4ABP>VK5 02-0300 VK4RGG,FK8SIX,VK2RHV>VK5 03-0400  
 FK8SIX,VK2RSY,ZL3SIX>VK5 05-0600 VK6RPH,ZL3SIX>VK5  
Jan 20 00-0100 VK2RSY,VK4ABP,VK4RGG,FK8SIX>VK5 01-0200  
 VK4ABP,VK4RGG,VK7RAE,ZL2MHF,VK2RSY>VK5 02-0300 FK8SIX>VK5 03-0400 VK4ABP,FK8SIX>VK5 04-  
 0500 VK6RSX,VK8RAS>VK5 05-0600 VK8RAS>VK5 KG6DX>VK2,VK6 VK4>VK6 0600 VK8RAS>VK5 0730  
 VK8RAS>VK5 0915 49750(BY)>VK4 2145 VK9NS>VK3 2200 FK8SIX>VK3 2359 VK2RHV>VK5  
Jan 21 00-0100 VK2RHV,VK2RSY>VK5 10-1100 VK4RGG,VK4ABP>VK5 2245 A35RK>VK3  
Jan 22 01-0200 VK7RST,VK8RAS>VK5 02-0300 VK2RHV,VK2RSY,VK8RAS,VK7RAE,FK8SIX>VK5 03-0400  
 VK8RAS>VK5 06-0700 VK4ABP,VK8RAS>VK5 08-0900 VK4ABP,VK8RAS>VK5 09-1000 VK2RSY>VK5 10-  
 1100 VK7RST,ZL3SIX>VK5 1113 VK7RAE>VK5 23-2400 VK2RHV,VK2RSY>VK5  
Jan 23 0014 VK6RPH>VK5  
Jan 24 23-2400 VK8RAS,VK2RSY,VK4ABP,VK2RHV>VK5 00-0100 VK2RSY>VK5 01-0200 VK6RPH>VK5  
 0258 VK4RGG>VK5 0653 VK4ABP>VK5  
Jan 25 23-2400 VK4RGG>A35,VK5 FK8SIX>A35RK FK8SIX>VK2  
Jan 26 00-0100 45259(NZ),VK4>VK3 01-0200 VK4RGG,FK8SIX>A35 02-0200 VK4,FK8SIX>A35 03-0400  
 A35RK>ZL3 VK4RGG,ZL3SIX,FK8SIX>A35 06-0700 VK8MS,FK8SIX>VK4 07-0800 VK2RHV,FK8SIX>ZL2  
 VK3>VK5 08-0900 VK7RAE>VK5 VK2RHV,FK8SIX>ZL2 10-1100 FK8SIX>ZL2 45260.4(NZ)>VK2 2206  
 A35RK>ZL3,VK  
Jan 27 03-0400 VK6RPH,FK8SIX>VK5 FK8SIX,VK2RHV>ZL2 VK8VF>VK4 FK8SIX>VK3 04-0500  
 VK4RBP>VK8 VK8VF>ZL2 VK6RSX>VK6 VK5RBV>ZL2 VK2RHV,VK2RSY>VK5 VK4>VK1 05-0600  
 VK4,VK2>ZL2 VK2>VK5 VK5>VK1 VK6>VK2 ZL3SIX>A35RK 06-0700 VK5RBV,FK8SIX,VK4>ZL2 VK4>VK1  
 VK3>VK4 VK4RGG>VK5 VK5RBV>VK4 07-0800 VK4>VK5,VK3 50760(NZ).ZL2MHF>VK4 VK4RGG>VK5  
 50750(NZ)>VK4 ZL2>VK4 08-0900 ZL3>VK5 VK2RHV>ZL2 VK2>ZL2 09-1000 VK4RGG>VK5  
 VK2RHV,VK5RBV>ZL2 50750(NZ)>VK4 VK7RST,VK7RAE>VK4 10-1100 VK5>ZL2 VK3>VK2  
  
Jan 28 0658 BYtv>VK3 07-0800 49750(OK59),49759.1(OM92),VK8RAS>VK3 VK3, VK8RAS>VK4,VK5  
 VK8VF>VK5 49755.5(PP42)>VK3 FK8SIX>VK3,VK5 VK5>VK4 49748.6,49750.6(BY)>VK6 VK8RAS>VK2  
 VK7RST,VK6RBU>VK4 08-0900 VK5RBV,VK6>VK4 VK4>VK7 VK4RBP>VK8 VK8RAS>VK3,VK6 VK4>VK3  
 VK4ABP>VK5 FK8SIX>VK3 VK7RST>VK4 57250.0(PF96BV)>VK6 09-1000 VK8RAS>VK5,VK3  
 VK6RSX>VK2,VK3,VK5 49748.7(PH01)>VK3 VK6>VK4 FK8SIX>VK5 VK6RPH,  
 VK2RSY,VK2RHV,VK6RBU>VK5 10-1100 VK8RAS>VK2,VK3 VK4,VK6>VK5 VK6>VK4  
 VK5RBV,57260.0(QF23DA)>VK6 VK8V,FK8SIXF>VK6 11-1200 VK8RAS,VK6RSX>VK6 VK6>VK4 12-1300  
 VK5RBV,VK6RPH>VK4 45260.3(RF64WL)>VK2 13-1400 57350.0(PF96BV)>VK6SIX 45239.6(NZ)>VK2  
  
Jan 29 02-0300 VK4>VK2 VK6>VK5 FK8SIX>VK4,A35 VK2RSY>A35 A35>VK4 03-0400 VK2RHV>A35  
 VK8NS>VK2 49750(BY PN53 PN49)>VK3 VK4ABP,VK8RAS,VK8VF,49501.1(OM92)>VK3 04-0500  
 VK8RAS,VK3,VK2RHV,VK7RAE>A35 VK8RAS>ZL3,VK4 48250(NZ)>VK6 VK5RBV>VK3  
 VK9NS>VK3,VK2,A35 FK8SIX>VK4 05-0600 VK7RAE,VK2RHV,VK2RSY,VK6,FK8SIX,49750.0(PM00)>A35RK  
 A35>VK2 49750(BY)>VK3 06-0700 VK2RHV,FK8SIX>A35 0807 FK8SIX>VK2 1101 FK8SIX>VK2  
  
Jan 30 0029 VK9NS>VK2HV 0424 A35RK>VK2HV 05-0600 VK2RHV>VK3 45250,45240(NZ)>VK6 90MHz(A35  
 bc)>VK2 VK6RSX(5716),VK6RPH(5035km)>ZL3NW ZL3ADT>VK5,VK3 ZKL3SIX>VK3 VK8VF>VK6  
 FK8SIX>VK7 VK5RBV>ZL3 VK4ABP>VK8 VK5>VK7 VK5RBV>VK4 50740(NZ)>VK3 50750(NZ)>VK4 06-0700  
 90MHz(A35b/c)>VK2 VK7>VK4 ZL4>VK4(3912km),VK5(2924km) FK8SIX>VK3,VK7 VK6RPH,VK6RSX>ZL3  
 VK2>VK3 VK2RHV>A35(3671km) FK8SIX>A35 ZL3>VK3 A35RK>VK3SIX(4649km) FK8SIX>VK3(2831km)  
 ZL4>VK4 VK8VF>ZL3NW(5263km) VK7>ZL4 ZL3SIX>VK3(2688km) 07-0800 VK4RGG>A35RK(3388km)  
 VK4>VK3 FK8SIX>VK5(3052km) ZL3SIX>VK5(2991km) VK4RGG>VK5 FK8SIX>A35 ZL3>VK5(3008km)  
 A35RK>VK5(4876km),VK2(3474km) VK2>VK7 VK6,VK2,FK8SIX(2906km),VK4RGG>VK3 FK8SIX>VK4  
 VK2RSY,VK2RHV>VK5 VK6RSX>ZL3 VK6,VK2RSY,VK2RHV,FK8SIX>VK3 08-0900  
 VK6RSX>ZL3,VK3(3073km) VK3>VK2 ZL3SIX>VK3 ZL3,VK5RBV>VK4 VK4>VK8 FK8SIX>VK4 09-1000  
 FK8SIX>VK3,VK4 VK8RAS.VK5RBV,VK2RHV>VK4 VK2RSY,VK4RGG,FK8SIX>VK5 10-1100  
 FK8SIX>VK2,VK3,VK4 VK2RHV,VK5RBV,VK2>VK4 11-1200 FK8SIX,VK5RBV,VK3RMH>VK3 21-2200  
 45260.3(RF64),46170(QF53)>ZL3 46240(QF35)>ZL2 VK2RHV>ZL2



IQ1SP		3	3	10	3								
IY4M		10		6	3								

### 28 MHz Worldwide

This column is always intrigued by happenings at unusual hours, like the one just cited. Another interesting event occurred between 0351 and 0445UTC on the 30<sup>th</sup>. SM2LIY heard DL0IGI and DK0TEN (599Es), followed by DB0FKP, DF0ANN, OK0EG(599), PI7ETE and DM0AAB, OK2FB reported LA5TEN and OH9TEN, again 599, while SM5HUA was heard by DL5LBY. At that hour, it is not surprising that no 'warm-blooded' contacts were reported.

Despite all the glum comments one hears about the parlous state of 28MHz, we have reports of propagation within Europe (excluding groundwave) every day except the 2<sup>nd</sup>, 7<sup>th</sup> and 25<sup>th</sup> – days when there were no known contacts outside Europe either. Mention has been made of the REF contest: the DARC contest on the 12<sup>th</sup> and 13<sup>th</sup> and the NAC contest also demonstrated that possibilities on 28 MHz were somewhat greater than generally thought. The best reported contacts were between southern Europe and VK or ZL on 8 mornings. There was a second hand report of W3RJ working Europeans at 1236 on the 20<sup>th</sup>, but this remains unconfirmed. Only one contact was reported between Europe and South America, and three with Asia. Africa was worked daily between the 12<sup>th</sup> and 21<sup>st</sup> but scarcely at all on other days.

Other continents present a similar picture. No contacts were reported between North America and Asia, Africa and Europe (with the exception noted above), and there were only half a dozen contacts with Oceania. There was propagation to South America, particularly from southern states, on 19 days. Within North America (including the Caribbean and Central America) contacts were reported every day except the 3<sup>rd</sup> and 29<sup>th</sup>. Particularly strong/widespread Es occurred on the local afternoon and evening of the 9<sup>th</sup>, with tep to LU following until 0000UTC. Sporadic-E was also prominent from 2236 on the 22<sup>nd</sup>, with the last known contact at 0143UTC on the 23<sup>rd</sup>. The event on the 9<sup>th</sup> was paralleled on 6 metres, but the one on the 22<sup>nd</sup> was not.

Africa worked into South American on several evenings, but was not reported in other contacts apart from Europe. Paths from Asia to Oceania are known to have been worked on at least 17 days. Mid-winter in Oceania brought many seasonal Es openings which may well have been under-reported.

### 28 MHz Worldwide

	OC				AS				EU				AF				NA				SA			
	M	N	A	E	M	N	A	E	M	N	A	E	M	N	A	E	M	N	A	E	M	N	A	E
OC	68	58	39	52	19	23	26	32	00	00	00	26	00	00	00	03	03	10	10	00	03	00	00	00
AS	26	26	26	10	00	13	06	00	06	00	03	00	00	00	00	00	00	00	00	00	00	00	00	03
EU	26	00	00	00	06	03	00	00	61	58	29	68	03	35	19	03	00	03	00	00	00	00	00	03
AF	00	03	00	00	00	00	00	00	00	35	19	00	00	06	03	00	00	00	00	00	00	00	03	16
NA	00	03	03	13	00	00	00	00	03	00	00	00	00	00	00	00	52	71	77	65	16	26	32	23
SA	00	00	00	06	00	03	00	00	00	03	00	00	00	13	10	00	06	19	39	29	10	16	26	26

Table shows percent reliability for paths between continents for four periods of the day (local standard time)