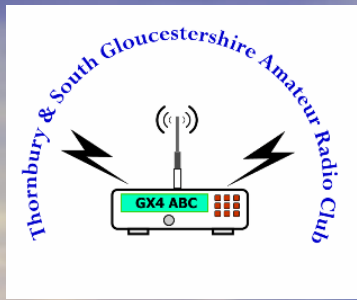




# Thornbury & S. Glos Amateur Radio Club

Interpreting propagation charts

G4OST



NOTICES TO READERS. © Radio Society of Great Britain, 2015. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Radio Society of Great Britain.

ERRORS AND OMISSIONS. Whilst the Radio Society of Great Britain (the publisher) takes all reasonable care in the production of RadCom, we can accept no responsibility for errors, inaccuracies or omissions contained within the magazine or any subsequent loss arising from any use thereof. Reliance placed on the contents of RadCom is at the reader's own risk. We urge any reader to take all precautions appropriate to avoid any loss or damage to equipment and ensure the personal safety of themselves and others when using material contained in RadCom. It should be also noted that patent or copyright protection may exist in relation to any items within this magazine. The RSGB does not accept any responsibility for failing to identify any such patents, copyright or any other protection. Readers are also reminded that the use of radio transmission and reception equipment (including scanning) is subject to licensing and the erection of external aerials may be subject to local authority planning regulations.

ADVERTISEMENTS. Although RSGB staff and the staff of Danby Advertising (its Advertising Agent) take reasonable precautions to protect the interests of readers by ensuring as far as practicable that advertisements in the pages of RadCom are bona fide, the magazine and its publisher, the RSGB, cannot accept any undertaking in respect of claims made by advertisers, whether these advertisements are printed as part of the magazine, or are in the form of inserts. Under no circumstances will the magazine accept liability for non-receipt of goods ordered, late delivery, or faults in manufacture. Legal remedies are available in respect of some of these circumstances, and readers who have complaints should address them to the advertiser or should consult a local Trading Standards Office, or a Citizens' Advice Bureau, or their own solicitors. The publishers make no representation, express or implied, that equipment advertised conforms with any legal requirements of the Electromagnetic Compatibility Regulations 1992. Reader should note that prices advertised may not be accurate due to currency exchange rate fluctuations, or tax changes.



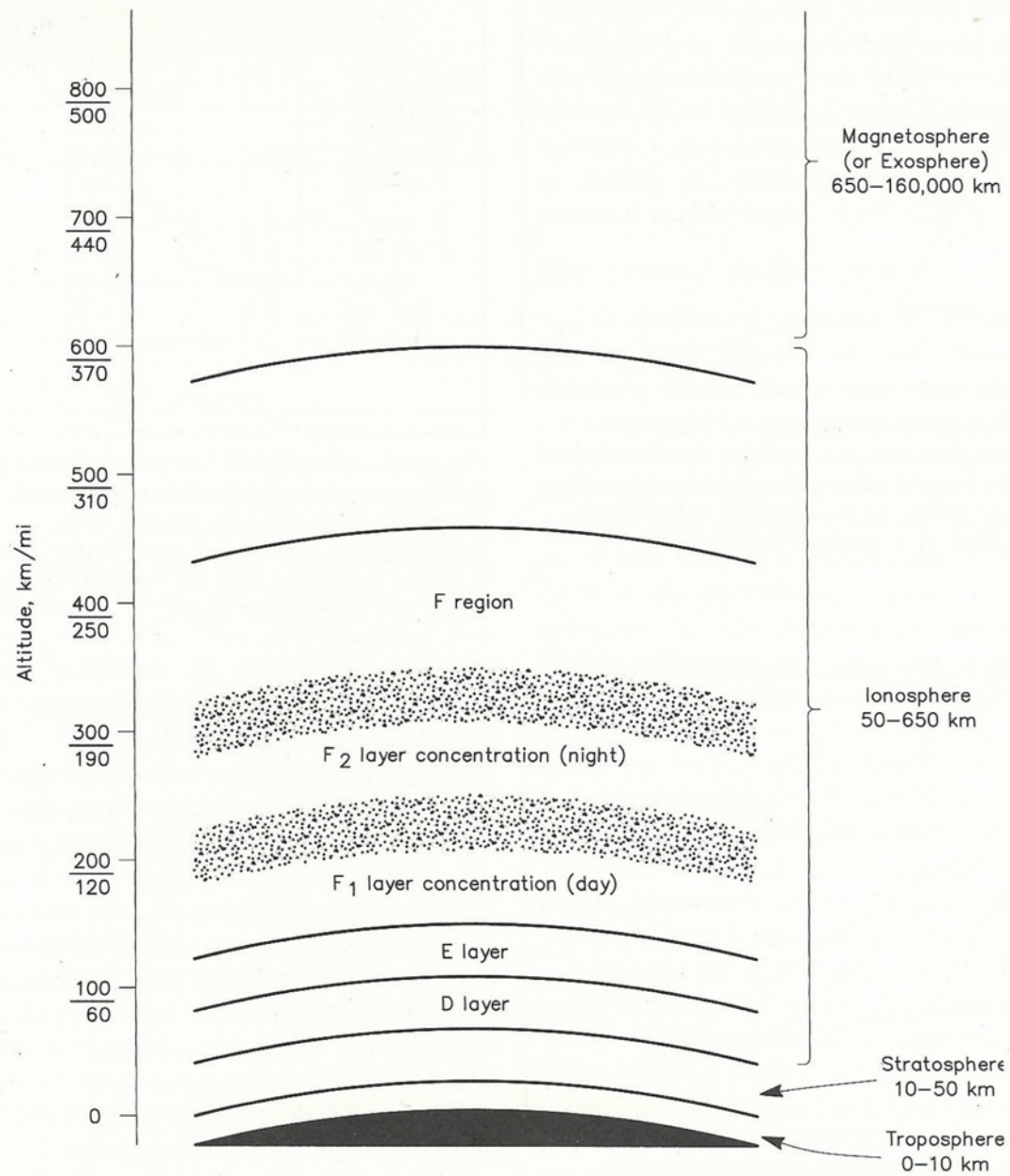
# HF F-Layer Propagation Predictions for January 2016

Compiled by Gwyn Williams, G4FKH

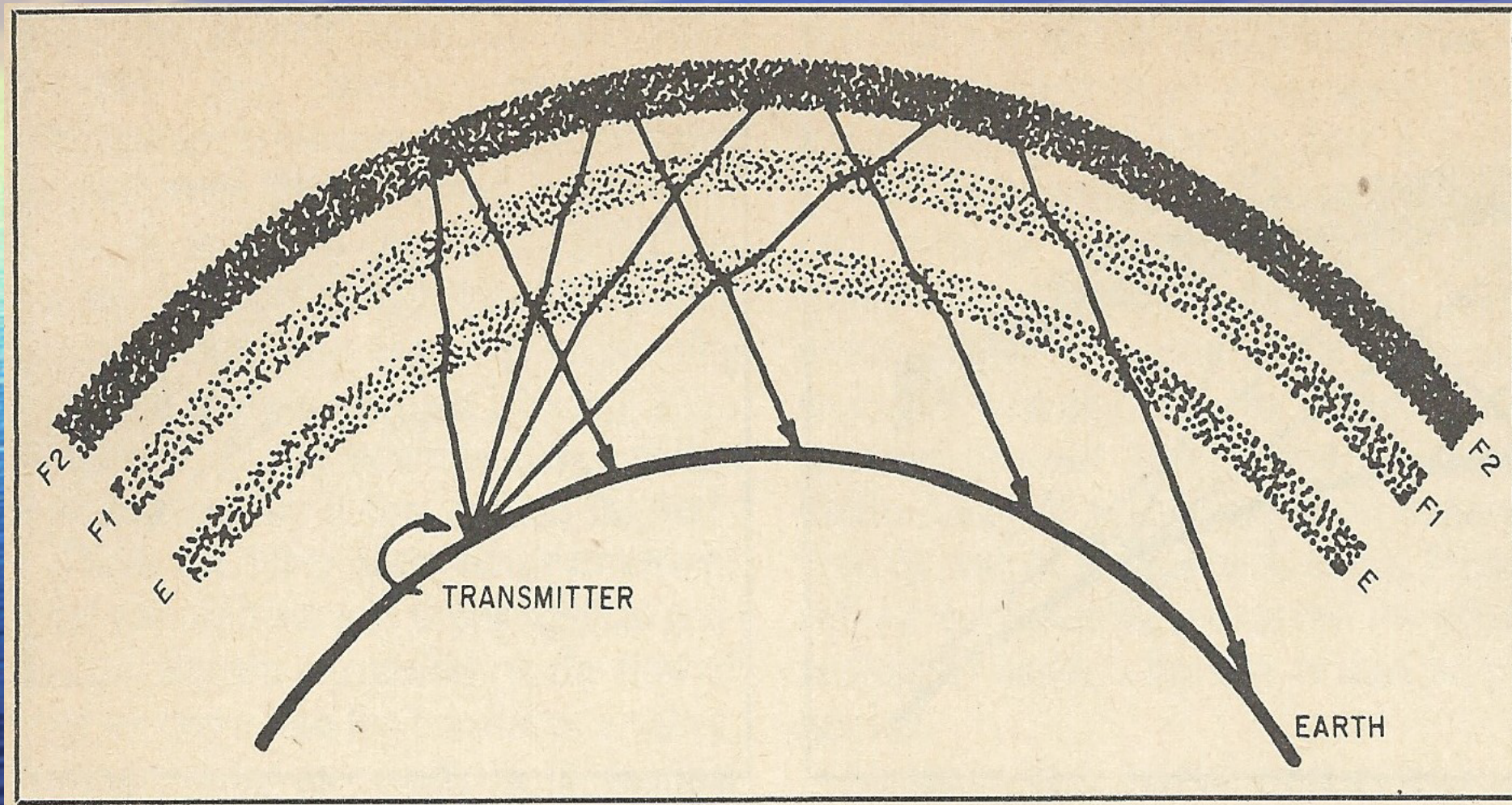
| Time (UTC)     | 3.5MHz       | 7.0MHz        | 10.1MHz      | 14.0MHz      | 18.1MHz      | 21.0MHz      | 24.9MHz      | 28.0MHz      |
|----------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 000011111220   | 000011111220 | 000011111220  | 000011111220 | 000011111220 | 000011111220 | 000011111220 | 000011111220 | 000011111220 |
| 246802468020   | 246802468020 | 246802468020  | 246802468020 | 246802468020 | 246802468020 | 246802468020 | 246802468020 | 246802468020 |
| *** Europe     |              |               |              |              |              |              |              |              |
| Moscow         | 666.....6666 | 6.6.....6666  | ...6...6...  | ..1666661... | ...66663...  | ...36662...  | ...26631...  | ...1442....  |
| *** Asia       |              |               |              |              |              |              |              |              |
| Yakutsk        | 332...34444  | 311321145444  | ...43...1... | ..1.....     | .....        | .....        | .....        | .....        |
| Tokyo          | .....3.2..   | ...32.34.33.  | ...33123..1. | ..31.....    | ..1.....     | .....        | .....        | .....        |
| Singapore      | .....3...    | .....4543.3   | .....5521.1  | .....253...  | .....331...  | .....122...  | .....11...   | .....        |
| Hyderabad      | .....3.33    | 4.....44443   | .....2441..  | .....34...   | ..2342...    | ..2233...    | .....232...  | .....11...   |
| Tel Aviv       | .....        | .....6666     | ..6.....6... | ..3544551..  | ..55552...   | ..5554...    | ..3322...    | .....121.... |
| *** Oceania    |              |               |              |              |              |              |              |              |
| Wellington     | .....2...    | ...35555...   | ..36665...   | ..25653...   | ..454.....   | ..343...     | ...131...    | .....1....   |
| Well (ZL) (LP) | .....        | .....         | .....        | .....        | ..1.....     | ..1.....     | .....        | .....        |
| Perth          | .....2...    | .....2443..   | .....45.2... | .....44...   | ..232...     | ..23...      | ...11...     | .....        |
| Sydney         | .....        | .....5532..   | .....454...  | ..2453...    | ..3441...    | ..233...     | ...121...    | .....        |
| Melbourne (LP) | .....        | .....2...     | ..24.....    | ..14.....    | ..3.....     | ..2.....     | ...1....     | .....        |
| Honolulu       | ..12...2...  | ..1.32223...  | ..112111...  | .....        | .....        | .....        | .....        | .....        |
| Honolulu (LP)  | .....        | .....         | .....        | .....        | .....        | .....        | .....        | .....        |
| W. Samoa       | ..1...2...   | ..34444...    | ..45431...   | ..3441...    | ..132...     | ..21...      | .....        | .....        |
| *** Africa     |              |               |              |              |              |              |              |              |
| Mauritius      | .....3...    | 4.....24434   | 2.....43312  | .....31...   | .....22...   | ...1111...   | ...111...    | .....        |
| Johannesburg   | 33.....33    | 54.....2455   | 32.....4433  | 1.....232..  | ..1..132..   | ..11122...   | ...1111...   | .....11....  |
| Ibadan         | 5552.....555 | 5554...4655   | 52352..25555 | ..5433453..  | ..554453...  | ..554451...  | ..25553...   | ...3321...   |
| Nairobi        | ..4.....344. | 543.....5555  | 2.3...25422  | ..3...133... | ..32224...   | ..2..32...   | .....        | .....        |
| Canary Isles   | 6666.....666 | 7766.....767  | 66.7.....766 | 22.655556632 | 1..65666631. | ..4366642..  | ...226662... | ...216442... |
| *** S. America |              |               |              |              |              |              |              |              |
| Buenos Aires   | 3323.....    | 4425.....23   | 22.5.....22  | ..3.....     | ..11.....    | .....        | .....        | .....        |
| Rio de Janeiro | 3334.....3   | 4435.....34   | 33.5.....233 | ..3.....2... | ..121.11...  | ..21.11...   | ...1..1...   | .....        |
| Lima           | 3323.....    | 3315.....2    | ..1.31...1.  | ..1.....     | ..1.....     | ..11.....    | ...1....     | .....        |
| Caracas        | 3333.....3   | 44.42.....34  | ..33...21.   | ..12.....    | ..322...     | ..332...     | ...331...    | .....11....  |
| *** N. America |              |               |              |              |              |              |              |              |
| Guatemala      | 3323.....    | 33143.....2   | 11.23.....   | ..1.....     | ..2.....     | ..21...      | ...1....     | .....        |
| New Orleans    | 3333.....2   | 44.43.....13  | ..1.1.....   | ..21.....    | ..32...      | ..32...      | ...1....     | .....        |
| Washington     | 44442.....24 | 45.432...245  | ..1..31113.  | ..3323...    | ..1442...    | ..44...      | ...42...     | ...21....    |
| Quebec         | ..4442...34  | 45.231...245  | ..21121...   | ..4333...    | ..441...     | ..44...      | ...21...     | ...1....     |
| Anchorage      | ..3.....1... | ..1...1242.2  | .....4...    | .....        | .....        | .....        | .....        | .....        |
| Vancouver      | ..3.....     | ..3.3...1.112 | .....22...   | .....11...   | .....        | .....        | .....        | .....        |
| San Francisco  | ..3.3.....   | ..3.33...2    | ..12.....    | ..21...      | ..1...       | .....        | .....        | .....        |
| San Fran (LP)  | .....        | .....         | .....        | ..2...       | ..2...       | ..2...       | ...1....     | .....        |

Key: The figures represent approximate S-meter readings, whilst the colours represent expected circuit reliability. **Black** equals low to very low probability, **Blue** equals good probability and **Red** equals a strong probability. No signal is expected when a '.' is shown. The RSGB Propagation Studies Committee provides propagation predictions on the internet at [www.rsgb.org.uk/propagation/index.php](http://www.rsgb.org.uk/propagation/index.php). An input power of 100W and a dipole aerial has been used in the preparation of these predictions; therefore a better equipped station should expect better results. The predicted smoothed sunspot numbers for January, February & March 2016 are respectively (SIDC classical method – Waldmeier's standard) 59, 55 & 52 and (combined method) 74, 73 & 72. The provisional mean sunspot number for November was 63.2. The daily maximum / minimum numbers were 105 on 4 November and 29 on 18 November.

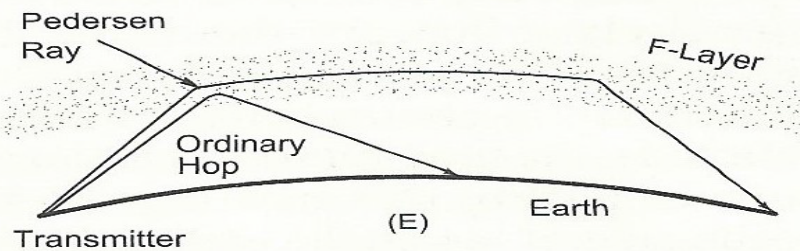
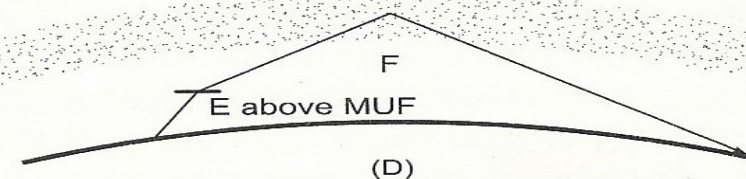
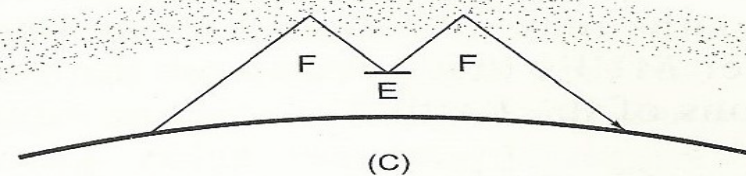
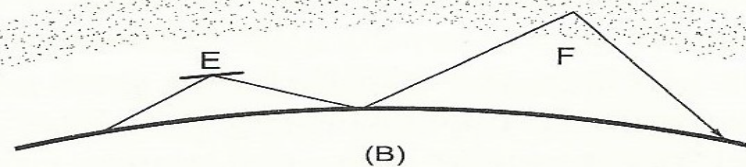
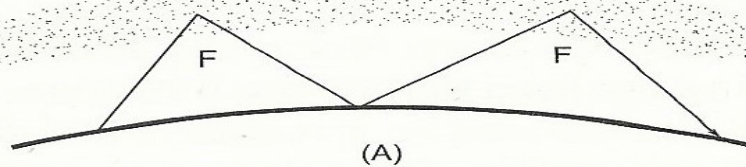














NOTICES TO READERS. © Radio Society of Great Britain, 2015. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Radio Society of Great Britain.

ERRORS AND OMISSIONS. Whilst the Radio Society of Great Britain (the publisher) takes all reasonable care in the production of RadCom, we can accept no responsibility for errors, inaccuracies or omissions contained within the magazine or any subsequent loss arising from any use thereof. Reliance placed on the contents of RadCom is at the reader's own risk. We urge any reader to take all precautions appropriate to avoid any loss or damage to equipment and ensure the personal safety of themselves and others when using material contained in RadCom. It should be also noted that patent or copyright protection may exist in relation to any items within this magazine. The RSGB does not accept any responsibility for failing to identify any such patents, copyright or any other protection. Readers are also reminded that the use of radio transmission and reception equipment (including scanning) is subject to licensing and the erection of external aerials may be subject to local authority planning regulations.

ADVERTISEMENTS. Although RSGB staff and the staff of Danby Advertising (its Advertising Agent) take reasonable precautions to protect the interests of readers by ensuring as far as practicable that advertisements in the pages of RadCom are bona fide, the magazine and its publisher, the RSGB, cannot accept any undertaking in respect of claims made by advertisers, whether these advertisements are printed as part of the magazine, or are in the form of inserts. Under no circumstances will the magazine accept liability for non-receipt of goods ordered, late delivery, or faults in manufacture. Legal remedies are available in respect of some of these circumstances, and readers who have complaints should address them to the advertiser or should consult a local Trading Standards Office, or a Citizens' Advice Bureau, or their own solicitors. The publishers make no representation, express or implied, that equipment advertised conforms with any legal requirements of the Electromagnetic Compatibility Regulations 1992. Reader should note that prices advertised may not be accurate due to currency exchange rate fluctuations, or tax changes.



# HF F-Layer Propagation Predictions for January 2016

Compiled by Gwyn Williams, G4FKH

| Time (UTC)     | 3.5MHz       | 7.0MHz        | 10.1MHz      | 14.0MHz      | 18.1MHz      | 21.0MHz      | 24.9MHz      | 28.0MHz      |
|----------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 000011111220   | 000011111220 | 000011111220  | 000011111220 | 000011111220 | 000011111220 | 000011111220 | 000011111220 | 000011111220 |
| 246802468020   | 246802468020 | 246802468020  | 246802468020 | 246802468020 | 246802468020 | 246802468020 | 246802468020 | 246802468020 |
| *** Europe     |              |               |              |              |              |              |              |              |
| Moscow         | 666.....6666 | 6.6.....6666  | ...6...6...  | ..1666661... | ...66663...  | ...36662...  | ...26631...  | ...1442....  |
| *** Asia       |              |               |              |              |              |              |              |              |
| Yakutsk        | 332...34444  | 311321145444  | ...43...1... | ..1.....     | .....        | .....        | .....        | .....        |
| Tokyo          | .....3.2..   | ...32.34.33.  | ...33123..1. | ..31.....    | ..1.....     | .....        | .....        | .....        |
| Singapore      | .....3...    | .....4543.3   | .....5521.1  | .....253...  | .....331...  | .....122...  | .....11...   | .....        |
| Hyderabad      | .....3.33    | 4.....44443   | .....2441..  | .....34...   | ..2342...    | ..2233...    | .....232...  | .....11...   |
| Tel Aviv       | .....        | .....6666     | ..6.....6... | ..3544551..  | ..55552...   | ..5554...    | ..3322...    | .....121.... |
| *** Oceania    |              |               |              |              |              |              |              |              |
| Wellington     | .....2...    | ...35555...   | ..36665...   | ..25653...   | ..454.....   | ..343...     | ...131...    | .....1....   |
| Well (ZL) (LP) | .....        | .....         | .....        | .....        | ..1.....     | ..1.....     | .....        | .....        |
| Perth          | .....2...    | .....2443..   | .....45.2... | .....44...   | ..232...     | ..23...      | ...11...     | .....        |
| Sydney         | .....        | .....5532..   | .....454...  | ..2453...    | ..3441...    | ..233...     | ...121...    | .....        |
| Melbourne (LP) | .....        | .....2...     | ..24.....    | ..14.....    | ..3.....     | ..2.....     | ...1....     | .....        |
| Honolulu       | ..12...2...  | ..1.32223...  | ..112111...  | .....        | .....        | .....        | .....        | .....        |
| Honolulu (LP)  | .....        | .....         | .....        | .....        | .....        | .....        | .....        | .....        |
| W. Samoa       | ..1...2...   | ..34444...    | ..45431...   | ..3441...    | ..132...     | ..21...      | .....        | .....        |
| *** Africa     |              |               |              |              |              |              |              |              |
| Mauritius      | .....3...    | 4.....24434   | 2.....43312  | .....31...   | .....22...   | ...1111...   | ...111...    | .....        |
| Johannesburg   | 33.....33    | 54.....2455   | 32.....4433  | 1.....232..  | ..1..132..   | ..11122...   | ...1111...   | .....11...   |
| Ibadan         | 5552.....555 | 5554...4655   | 52352..25555 | ..5433453..  | ..554453...  | ..554451...  | ..25553...   | ...3321...   |
| Nairobi        | ..4.....344. | 543.....5555  | 2.3...25422  | ..3...133... | ..32224...   | ..2..32...   | .....        | .....        |
| Canary Isles   | 6666.....666 | 7766.....767  | 66.7.....766 | 22.655556632 | 1..65666631. | ..4366642..  | ...226662... | ...216442... |
| *** S. America |              |               |              |              |              |              |              |              |
| Buenos Aires   | 3323.....    | 4425.....23   | 22.5.....22  | ..3.....     | ..11.....    | .....        | .....        | .....        |
| Rio de Janeiro | 3334.....3   | 4435.....34   | 33.5.....233 | ..3.....2... | ..121.11...  | ..21.11...   | ...1.1...    | .....        |
| Lima           | 3323.....    | 3315.....2    | ..1.31...1.  | ..1.....     | ..1.....     | ..11.....    | ...1....     | .....        |
| Caracas        | 3333.....3   | 44.42.....34  | ..33...21.   | ..12.....    | ..322...     | ..332...     | ...331...    | .....11...   |
| *** N. America |              |               |              |              |              |              |              |              |
| Guatemala      | 3323.....    | 33143.....2   | 11.23.....   | ..1.....     | ..2.....     | ..21...      | ...1....     | .....        |
| New Orleans    | 3333.....2   | 44.43.....13  | ..1.1.....   | ..21.....    | ..32...      | ..32...      | ...1....     | .....        |
| Washington     | 44442.....24 | 45.432...245  | ..1..31113.  | ..3323...    | ..1442...    | ..44...      | ...42...     | ...21...     |
| Quebec         | ..4442...34  | 45.231...245  | ..21121...   | ..4333...    | ..441...     | ..44...      | ...21...     | ...1....     |
| Anchorage      | ..3.....1... | ..1...1242.2  | .....4...    | .....        | .....        | .....        | .....        | .....        |
| Vancouver      | ..3.....     | ..3.3...1.112 | .....22...   | .....11...   | .....        | .....        | .....        | .....        |
| San Francisco  | ..3.3.....   | ..3.33...2    | ..12.....    | ..21...      | ..1...       | .....        | .....        | .....        |
| San Fran (LP)  | .....        | .....         | .....        | ..2...       | ..2...       | ..2...       | ...1....     | .....        |

Key: The figures represent approximate S-meter readings, whilst the colours represent expected circuit reliability. **Black** equals low to very low probability, **Blue** equals good probability and **Red** equals a strong probability. No signal is expected when a '.' is shown. The RSGB Propagation Studies Committee provides propagation predictions on the internet at [www.rsgb.org.uk/propagation/index.php](http://www.rsgb.org.uk/propagation/index.php). An input power of 100W and a dipole aerial has been used in the preparation of these predictions; therefore a better equipped station should expect better results. The predicted smoothed sunspot numbers for January, February & March 2016 are respectively (SIDC classical method – Waldmeier's standard) 59, 55 & 52 and (combined method) 74, 73 & 72. The provisional mean sunspot number for November was 63.2. The daily maximum / minimum numbers were 105 on 4 November and 29 on 18 November.



# HF F-Layer Propagation Predictions for January 2001

|                | 7.0MHz       | 10.1MHz      | 14.0MHz       | 18.1MHz      | 21.0MHz      | 24.9MHz      | 28.0MHz      |
|----------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|
| Time           | 000011111220 | 000011111220 | 000011111220  | 000011111220 | 000011111220 | 000011111220 | 000011111220 |
| (UTC)          | 246802468020 | 246802468020 | 246802468020  | 246802468020 | 246802468020 | 246802468020 | 246802468020 |
| *** Europe     |              |              |               |              |              |              |              |
| Moscow         | 999888999999 | 66999989877  | ..9899899...  | ..9976998... | ..8999996... | ...99999.... | ...99999.... |
| *** Asia       |              |              |               |              |              |              |              |
| Yakutsk        | 877...299888 | 754865899678 | 322998577235  | ...986243... | ...784.2.... | ...672.....  | ...56.....   |
| Tokyo          | ...85.89999. | ...986899887 | ...98.787...  | ...97.....   | ...8.....    | .....        | .....        |
| Singapore      | .....589876  | .....899665  | .....3997...  | .....799...  | .....2898... | ...34786.... | ...34672.... |
| Hyderabad      | 8.....99999  | 9.....999999 | 6.5...7999876 | ..6889998... | ..7999997... | ...99999.... | ...99999.... |
| Tel Aviv       | 414....67646 | .....86111   | ..422683...   | ...56667.... | ...45564.... | ...26542.... | ...332.....  |
| *** Oceania    |              |              |               |              |              |              |              |
| Wellington     | ....21261... | ...266771... | ...27886....  | ....7873.... | ....677..... | ....465..... | ....5.....   |
| Perth          | .....28888.  | .....89976.  | .....9972...  | ....5993...  | ....698....  | ....2686.... | ...23574.... |
| Sydney         | .....7886..  | .....79973.. | ....39993...  | ....8998.... | ....8996.... | ...3898....  | ...3788....  |
| Honolulu       | .8797679.... | 79.999999... | ..889.89...   | .....8...    | .....        | .....        | .....        |
| Samoa          | ..287679.... | ...99999.... | ...799998...  | ....9999.... | ....8998.... | ....12.....  | .....        |
| *** Africa     |              |              |               |              |              |              |              |
| Mauritius      | 9.....79999  | 9.....99999  | 8.....99988   | .....8998..  | ...778999... | ...89999.... | ...89999.... |
| Johannesburg   | 87.....1788  | 85.....7988  | 5.....38865   | .....786...  | ...3.23873.. | ...435586... | ...335573... |
| Ibadan         | 999.....9999 | 989....69999 | 7.7973799977  | ...9999998.. | ...9999997.. | ...999999... | ...999998... |
| Nairobi        | 98.....59999 | 99.....99999 | 889...799999  | 8.9899999977 | 8.9999999888 | ..89999998.. | ...9999998.. |
| Canary Isles   | 9865....9999 | 872952289977 | 32.988899763  | 1..688898621 | ...79999731. | ...4667772.. | ...2457751.. |
| *** S. America |              |              |               |              |              |              |              |
| Buenos Aires   | 7759.....36  | 55.9.....55  | ...9.....12.  | ...8.....1.. | ...62...2... | ....32.22... | ....32.3.... |
| Rio de Janeiro | 9999.....99  | 9999.....999 | 99.9.....999  | ..99...99..  | ...9999999.. | ...999999... | ....99999... |
| Lima           | 8859.....27  | 67194.....56 | .1.97....131  | ..664..22..  | ...47555...  | ....8765...  | ....8763...  |
| Caracas        | 9978.....89  | 78.9.....98  | ....8....86.  | ....88..8... | ....9889...  | ....9998...  | ....999....  |
| *** N. America |              |              |               |              |              |              |              |
| Guatemala      | 99999.....9  | 99.99.....99 | .9.999...88.  | ....9999...  | ....9999...  | ....9999...  | ....99.....  |
| New Orleans    | 7737.....7   | 44.72.....74 | ..2.4....1.   | ....2646...  | ....777...   | ....885...   | ....883...   |
| Washington     | 7889.....99  | 89492...899  | 46.638317876  | ....988965.  | ....89996..  | ....6999...  | ....6998...  |
| Quebec         | 8818.....988 | 11.71...8931 | ...2853793..  | ....87798... | ....78997... | ....69995... | ....48983... |
| Anchorage      | 9967...58658 | 762577789756 | 13.2553482..  | ....33.23... | .....1...    | .....        | .....        |
| Vancouver      | 99681.....8  | 87.77.172357 | 21.23..98212  | .....88...   | .....76...   | .....43...   | .....        |
| San Francisco  | 89795.....7  | 8838721...17 | 33.46..53..2  | .....76...   | .....75...   | .....62...   | .....5....   |

The provisional mean sunspot number for November 2000 issued by the Sunspot Data Centre, Brussels, was 106.5. The maximum daily sunspot number was 147 on 2 November and the minimum was 59 on 26 November. The predicted smoothed sunspot numbers for January, February and March are respectively: (SIDC classical method – Waldmeier's standard) 114, 113, 111 (combined method) 124, 125, 126.



