

## Summary Propagation Tables for Hawaii (Honolulu)

| SSN<br>Ultra High         | SSN<br>Very High          | SSN<br>High               | SSN<br>Medium             | SSN<br>Low                | SSN<br>Very Low           |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <a href="#">January</a>   | <a href="#">January</a>   | <a href="#">January</a>   | <a href="#">January</a>   | <a href="#">January</a>   | <a href="#">January</a>   |
| <a href="#">February</a>  | <a href="#">February</a>  | <a href="#">February</a>  | <a href="#">February</a>  | <a href="#">February</a>  | <a href="#">February</a>  |
| <a href="#">March</a>     | <a href="#">March</a>     | <a href="#">March</a>     | <a href="#">March</a>     | <a href="#">March</a>     | <a href="#">March</a>     |
| <a href="#">April</a>     | <a href="#">April</a>     | <a href="#">April</a>     | <a href="#">April</a>     | <a href="#">April</a>     | <a href="#">April</a>     |
| <a href="#">May</a>       | <a href="#">May</a>       | <a href="#">May</a>       | <a href="#">May</a>       | <a href="#">May</a>       | <a href="#">May</a>       |
| <a href="#">June</a>      | <a href="#">June</a>      | <a href="#">June</a>      | <a href="#">June</a>      | <a href="#">June</a>      | <a href="#">June</a>      |
| <a href="#">July</a>      | <a href="#">July</a>      | <a href="#">July</a>      | <a href="#">July</a>      | <a href="#">July</a>      | <a href="#">July</a>      |
| <a href="#">August</a>    | <a href="#">August</a>    | <a href="#">August</a>    | <a href="#">August</a>    | <a href="#">August</a>    | <a href="#">August</a>    |
| <a href="#">September</a> | <a href="#">September</a> | <a href="#">September</a> | <a href="#">September</a> | <a href="#">September</a> | <a href="#">September</a> |
| <a href="#">October</a>   | <a href="#">October</a>   | <a href="#">October</a>   | <a href="#">October</a>   | <a href="#">October</a>   | <a href="#">October</a>   |
| <a href="#">November</a>  | <a href="#">November</a>  | <a href="#">November</a>  | <a href="#">November</a>  | <a href="#">November</a>  | <a href="#">November</a>  |
| <a href="#">December</a>  | <a href="#">December</a>  | <a href="#">December</a>  | <a href="#">December</a>  | <a href="#">December</a>  | <a href="#">December</a>  |

Each of the month names in the above table is a hyperlink to the corresponding page of this document. Click on the one you want to jump to.

Jan., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |   |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|---|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |   |
| 0   | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5         | 3  | 8  | 1* | 5  | 9+ | 9+ | -         | 9  | 9+ | 8  | 8  | 8  | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9+ | 0   |   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 6  | 7         | 5  | 9  | 5* | 7  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9  | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 1   |   |
| 2   | -         | -  | -  | -  | -  | 9+ | 3  | -         | -  | 6  | -  | -  | 9+ | 9  | 8         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9  | 9+ | 2   |   |
| 3   | -         | -  | 3  | -  | -  | 9+ | 8  | 8         | -  | 8  | 5  | 1  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 2  | 9+ | 9+ | -  | 9+ | 9+ | 9+        | -  | 9+ | 9+ | 9  | 9+ | 9  | 9   | 3 |
| 4   | -         | -  | 7  | -  | -  | 9+ | 9  | 8         | 3  | 9  | 8  | 1  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9  | 9+ | 9+        | 1  | 9+ | 9+ | -  | 9+ | 9+ | 9+        | -  | 9+ | 9+ | 9  | 9+ | 9  | 8   | 4 |
| 5   | 6         | -  | 8  | 2  | -  | 9+ | 9+ | 9         | 5  | 9  | 8  | 1  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9  | 9  | 9+ | 9+        | -  | 9+ | 9+ | 9  | 9+ | 9+ | 9+        | -  | 9+ | 9+ | 8  | 9  | 9+ | -   | 5 |
| 6   | 6         | -  | 8  | 2  | -  | 9+ | 9+ | 9         | 7  | 9  | 9  | 2  | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 4  | -         | 9  | 9+ | 6  | 5* | 9+ | -  | 6   |   |
| 7   | -         | 3  | 9  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 3*        | 9+ | 9+ | 5* | 9  | 9+ | 4  | 4*        | 9+ | 9  | 6* | 5* | 9+ | -  | 7   |   |
| 8   | -         | 9  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 2*        | 9+ | 9+ | 4  | 7  | 9+ | 1  | 4*        | 9+ | 8  | 8  | 3* | 9+ | -  | 8   |   |
| 9   | -         | 9  | 8  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 3         | 9+ | 9+ | 3  | 9+ | 9+ | 9+ | 1*        | 9+ | 9+ | 4  | 2  | 9+ | -  | 2*        | 9+ | 5  | 8  | 3* | 9+ | -  | 9   |   |
| 10  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 2         | 9+ | 9+ | 2  | 8  | 9+ | 7  | -         | 9+ | 9+ | 6  | 1* | 9+ | -  | 1*        | 9+ | 3  | 9  | 3* | 9  | -  | 10  |   |
| 11  | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 1         | 9+ | 9  | -  | 9  | 9+ | 9+ | 3         | 9+ | 9+ | 2  | 8  | 9+ | 9  | -         | 9+ | 9+ | 9  | 1* | 9+ | -  | -         | 9+ | 5  | 9  | -  | 9+ | -  | 11  |   |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5         | 9+ | 9+ | 9  | 8  | 9+ | 9  | 1*        | 9+ | 9+ | 7  | 1* | 9+ | -  | -         | 9  | 7  | 9  | -  | 9+ | -  | 12  |   |
| 13  | -         | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 8         | 9+ | 9  | 9  | 8  | 9+ | 8  | -         | 9+ | 7  | 9  | -  | 9+ | 1* | -         | 9  | -  | 8  | -  | 9+ | 1* | 13  |   |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | -  | 9+ | 9+ | 9+ | 7         | 9+ | 7  | 6  | 9  | 9+ | 1  | -         | 9  | -  | -  | -  | 9+ | -  | -         | 5  | -  | 8  | -  | 9  | -  | 14  |   |
| 15  | 1         | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | 1  | 6  | 9+ | 9+ | 9+ | 1         | 9+ | 6  | 9  | 6  | 9+ | 4  | -         | 6  | 1  | 9  | -  | 9+ | -  | -         | -  | -  | 6  | -  | 7  | -  | 15  |   |
| 16  | -         | 9+ | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | -  | 7  | 9  | 9+ | 9+ | 1         | 9  | 8  | 9  | 2  | 9+ | 9+ | -         | -  | 8  | 8  | -  | 6  | 2  | -         | -  | -  | -  | -  | 5  | -  | 16  |   |
| 17  | -         | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 5  | 9  | 9+ | 9+ | 9+        | 2  | 4  | 9  | -  | 9+ | 9+ | 2*        | -  | 9  | 9  | 2* | 8  | 9+ | -         | 4* | 9  | 4* | 4* | 5  | 9+ | 17  |   |
| 18  | -         | 7  | -  | -  | 5  | 9+ | 7  | 7         | 9  | -  | -  | 9  | 9+ | 9  | 9         | 9+ | 1  | 8  | 7  | 9+ | 9+ | 8         | 4  | 8  | 9+ | 2* | 9+ | 9+ | 5*        | 2* | 9  | 9  | 4* | 9  | 9+ | 18  |   |
| 19  | -         | 3  | -  | -  | 1  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9         | 9+ | 1  | 9  | 4  | 9+ | 9+ | 4*        | 9+ | 9  | 9  | 2* | 9+ | 9+ | 8*        | 8  | 9  | 8* | 3* | 5  | 9+ | 19  |   |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 6  | 9+ | 3  | 8         | 9+ | 1  | 9  | 2  | 9+ | 9+ | 3*        | 8  | 9  | 9  | 1* | 9+ | 9+ | 6*        | -  | 9  | 9  | 1* | 7  | 9+ | 20  |   |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | 1  | 9+ | -  | 8         | 9  | 1  | 2  | 3  | 9+ | 9  | 2*        | 9+ | 7  | 9  | -  | 9+ | 9+ | 6*        | 9  | 9  | 9  | 1* | 9  | 9+ | 21  |   |
| 22  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5         | 7  | 1  | -  | 6  | 9+ | 8  | -         | 9  | 8  | 7  | -  | 9  | 9+ | -         | 9  | 9  | 9  | -  | 9+ | 9+ | 22  |   |
| 23  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 4         | 4  | 4  | -  | 5  | 9+ | 9  | -         | 9  | 9  | 7  | 8  | 8  | 9+ | -         | 9  | 9  | 9  | -  | 9+ | 9+ | 23  |   |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |   |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Feb., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |     |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS  | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -   | 9+ | -  | 6  | 1         | 8  | -  | 1  | 9+ | 9  | -  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -   | 9+ | 3  | 8  | 4         | 9  | 7  | 4  | 9+ | 9+ | -  | 8  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 4  | -  | -   | 9+ | 8  | 9  | 7         | 9+ | 9  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 5  | 1         | -  | 8  | -  | -   | 9+ | 9  | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | -  | 9  | 7  | -   | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 8  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 9         | 4  | 9  | 8  | -   | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 5   |  |  |  |  |
| 6         | 6  | -  | 8  | -  | -  | 9+ | 9+ | 9         | 7  | 9  | 8  | 1   | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 3  | 6   |  |  |  |  |
| 7         | -  | 1  | 8  | -  | -  | 9+ | 9+ | 8         | 8  | 9+ | 8  | 3   | 9+ | 9+ | 9+ | 9+        | 9  | 8  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | 5* | 9+ | 9+ | 8         | 9  | 9+ | 1  | 7   |  |  |  |  |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 3  | 6   | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 5  | 9+ | 9+ | 8  | 6* | 9+ | 9+ | 8         | 4  | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 1  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 8   | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 2* | 9+ | 9+        | 3  | 9  | 9+ | 4  | 4* | 9+ | 9  | 8         | 3* | 9+ | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9   | 9+ | 9+ | 6  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 6  | 7  | 9+ | -  | 2* | 9+ | 8  | 9         | 3* | 9+ | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 9  | 9+ | 9+ | -         | 9+ | 9  | -  | 9   | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 6  | 9+ | 1  | 2* | 9+ | 7  | 9         | 2* | 9+ | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | -         | 9+ | 9  | -  | 9+  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 2  | 9+ | 4  | 1* | 9+ | 8  | 9         | 2* | 9+ | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | -  | 9+  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 9         | 9  | 4  | 9+ | 1* | -  | 9+ | 6  | 9         | -  | 9+ | 1* | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 4  | -  | 9+  | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9  | -  | 9+ | 2         | -  | 1  | 9+ | -  | -  | 8  | -  | 9         | -  | 9  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | 1  | 6  | 9+  | 9+ | 9+ | 8  | 9+        | 6  | 9  | 9  | 9+ | 9+ | -  | 9  | 1         | -  | -  | 9+ | -  | -  | 1  | -  | 9         | -  | 9  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 7  | 9   | 9+ | 9+ | 8  | 9+        | 8  | 6  | 8  | 9+ | 9+ | -  | 1  | 9         | 9  | -  | 9  | 9  | -  | -  | -  | 2         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 9  | -  | -  | 6  | 9+ | 8  | 7         | 9+ | -  | 4  | 9</ |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Mar., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |    |    |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|----|----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |    |    |
| 0   | -         | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2         | -  | 5  | -  | -  | 9+ | 9  | 3         | 7  | 9  | 7  | 7  | 9  | 9+ | -         | 9  | 9+ | 8  | 8  | 9  | 9+ | 0   |    |    |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 6         | -  | 9  | 6  | 1  | 9+ | 9+ | 2         | 8  | 9+ | 9  | 8  | 9  | 9+ | -         | 9  | 9+ | 9  | 8  | 9  | 9+ | 1   |    |    |
| 2   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 7  | 8         | 1  | 9+ | 9  | 5  | 9+ | 9+ | 2         | 9  | 9+ | 9+ | 8  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9  | 9+ | 2   |    |    |
| 3   | -         | -  | -  | -  | -  | 9+ | 3  | -         | -  | 7  | -  | -  | 9+ | 9  | 8         | 5  | 9+ | 9+ | 7  | 9+ | 9+ | 7         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9  | 9+ | 3   |    |    |
| 4   | -         | -  | 6  | -  | -  | 9+ | 7  | 7         | -  | 9  | 7  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9+ | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 4   |    |    |
| 5   | -         | -  | 8  | -  | -  | 9+ | 9  | 8         | 1  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 4         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 5   |    |    |
| 6   | -         | -  | 8  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9+        | 9+ | 9+ | 6  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 6   |    |    |
| 7   | -         | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9+ | 7  | 1  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 3  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 7   |    |    |
| 8   | -         | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | 2  | 5  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 5*        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 8   |    |    |
| 9   | -         | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 4         | 9+ | 9  | 8  | 9  | 9+ | 9  | 9   |    |    |
| 10  | -         | 9  | 9  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 2*        | 9+ | 8  | 9  | 9  | 9+ | 7  | 10  |    |    |
| 11  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 7  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 2*        | 9+ | 9  | 9  | 8  | 9+ | 4  | 11  |    |    |
| 12  | -         | 9  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 1* | 9+        | 9  | 9  | 6  | 9+ | -  | 12 |     |    |    |
| 13  | -         | 9  | 1  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 7  | -  | 9+        | 8  | 9  | 1  | 9+ | 3* | 13 |     |    |    |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 1         | 9+ | 5  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 7  | 6  | 9  | 9+ | 6         | -  | 9+ | -  | -  | 8  | 1* | 14  |    |    |
| 15  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | -  | 6  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 8  | 4  | 5  | 9+ | 9         | -  | 8  | 3  | 9  | -  | 9  | -   | 15 |    |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 8* | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 2  | 5  | 9+ | 9+        | -  | -  | 9  | 6  | -  | 6  | 9   | 16 |    |
| 17  | -         | 8  | -  | -  | 5  | 9+ | 5  | 6         | 9+ | -  | 2  | 9  | 9+ | 9  | 9         | 9+ | 2  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 3* | 9  | 3  | 7  | 9         | 9+ | 8  | 3* | 9  | 9  | 5* | 5   | 9+ | 17 |
| 18  | -         | 4  | -  | -  | 1  | 9+ | -  | -         | 9  | -  | -  | 8  | 9+ | 8  | 9         | 9+ | 1  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9  | 9  | 9+ | 9+        | 8  | 5* | 9  | 9  | 5* | 5  | 9+  | 18 |    |
| 19  | -         | -  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 6  | 9+ | 5  | 9         | 9+ | -  | 9  | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 8  | 8  | 9+ | 9+        | 7* | 9  | 9  | 7  | 5* | 9  | 9+  | 19 |    |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 2  | 9+ | -  | 8         | 9+ | -  | 8  | 9  | 9+ | 9  | 6         | 9+ | 9  | 9  | 7  | 9+ | 9+ | 6*        | 9  | 9  | 3  | 5* | 8  | 9+ | 20  |    |    |
| 21  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5         | 9  | -  | -  | 8  | 9+ | 7  | 6         | 9+ | 6  | 8  | 7  | 9+ | 9+ | 6*        | 9+ | 9  | 9  | 2* | 9  | 9+ | 21  |    |    |
| 22  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 5  | -  | -  | 4  | 9+ | 6  | 4         | 9  | 8  | 7  | 8  | 9  | 9+ | 5*        | 9+ | 9  | 8  | 6  | 9  | 9+ | 22  |    |    |
| 23  | -         | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 1  | 2  | -  | 1  | 9+ | 6  | 3         | 8  | 8  | 5  | 7  | 9  | 9+ | 4*        | 9  | 9  | 8  | 8  | 9+ | 9  | 23  |    |    |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |    |    |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Apr., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |   |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|---|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |   |  |  |  |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | -         | 5  | -  | 1  | 9+ | 8  | 5  | 8  | 9         | 7  | 8  | 9  | 9+ | 5* | 9  | 9+ | 9         | 9  | 9  | 9+ | 0   |   |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | -         | 8  | 5  | 2  | 9+ | 9+ | 5  | 8  | 9+        | 9  | 9  | 9+ | 9+ | 1* | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |   |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 8  | 3         | 9+ | 9  | 4  | 9+ | 9+ | 7  | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 2   |   |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 6         | 9+ | 9  | 5  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9+        | 9  | 9  | 9  | 9+  | 3 |  |  |  |
| 4         | -  | -  | 5  | -  | -  | 9+ | 7  | 5         | -  | 9  | 4  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 6  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 4   |   |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 6         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 6  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 5   |   |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9+ | 6         | 3  | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 6   |   |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | -         | 7  | 9+ | 5  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 7   |   |  |  |  |
| 8         | -  | 2  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 8   |   |  |  |  |
| 9         | -  | 8  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9   |   |  |  |  |
| 10        | -  | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 7  | 9         | 9  | 9+ | 9+ | 10  |   |  |  |  |
| 11        | -  | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 5  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9  | 9         | 9  | 9+ | 9+ | 11  |   |  |  |  |
| 12        | -  | 9  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 2* | 9+ | 9  | 6         | 9  | 9+ | 6  | 12  |   |  |  |  |
| 13        | -  | 9  | 1  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9  | 5         | 8  | 9+ | 4* | 13  |   |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 3  | 2  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 6* | 9+ | 9+ | 9+ | -  | 9+ | 7  | 2         | 6  | 9  | 1  | 14  |   |  |  |  |
| 15        | -  | 9+ | -  | -  | 8  | 9+ | 9+ | -         | 9+ | -  | 5  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | -  | 9  | 7  | -         | 1  | 9  | 8  | 15  |   |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9  | 9+ | 9+ | 2  | 6  | 9  | 8         | 2* | 7  | 9+ | 16  |   |  |  |  |
| 17        | -  | 7  | -  | -  | 2  | 9+ | 1  |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |   |  |  |  |

**May, Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |     |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|-----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA  | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -   | -  | -  | 9+ | -  | 1  | 1         | 4  | -  | 1  | 9+ | 8  | 5  | 8  | 9         | 8  | 8  | 7  | 9+ | 2  | 9  | 9+ | 8         | 7  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -   | -  | -  | 9+ | -  | 3  | 1         | 8  | -  | 1  | 9+ | 9  | 5  | 9  | 9+        | 8  | 8  | 9  | 9+ | 1  | 9  | 9+ | 9         | 8  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1   | -  | -  | 9+ | 4  | 8  | 3         | 9  | 8  | 2  | 9+ | 9+ | 6  | 9  | 9+        | 9  | 8  | 9  | 9+ | 2  | 9  | 9+ | 9         | 8  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6   | -  | -  | 9+ | 8  | 8  | 6         | 9+ | 9  | 4  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 4  | 9+ | 9+ | 9+        | 8  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 4         | -  | 8   | 1  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 4  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 4         | -  | 9   | 7  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 5  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9+ | 9         | 8  | 9+ | 9+ | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | 1  | 9   | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 6  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 8         | 8  | 9+ | 9+ | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 5  | 9   | 3  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9+  | -  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 8   |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+  | -  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9  | 9         | 9  | 9+ | 9+ | 9   |  |  |  |  |
| 10        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9+  | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 6  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 8  | 9         | 9  | 9+ | 9+ | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9   | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 9  | 7         | 9  | 9+ | 9  | 11  |  |  |  |  |
| 12        | -  | 8  | 5  | -  | 8  | 9+ | 9+ | -         | 9+ | 9   | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 2* | 9+ | 9  | 6         | 9  | 9+ | 4  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7   | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9  | 4         | 8  | 9  | 2  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 2   | 3  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 8  | 3         | 8  | 9  | 4  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 8  | -         | 9+ | -   | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | -  | 9  | 7  | 1         | 4  | 9  | 7  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 5  | -         | 9+ | -   | 6  | 9  | 9+ | 9  | 9  | 9+        | 6  | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9         | 9  | 9  | 9+ | 9  | -  | 8  | 8  | 1         | -  | 8  | 7  | 16  |  |  |  |  |
| 17        | -  | 4  | -  | -  | 1  | 9+ | -  | -         | 9  | -</ |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jun., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | -  | 1         | 3  | -  | -  | 9  | 8  | 3  | 7  | 9         | 8  | 7  | 6  | 9  | -  | 7  | 9  | 9         | 7  | 9+ | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 1         | 7  | -  | 1  | 9+ | 9  | 3  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 8  | 9  | 8         | 8  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 5  | 2         | 9  | 6  | 2  | 9+ | 9+ | 5  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 8  | 9+ | 9         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 6  | -  | -  | 9+ | 8  | 8  | 5         | 9+ | 9  | 2  | 9+ | 9+ | 7  | 9  | 9+        | 9+ | 8  | 9  | 9+ | -  | 8  | 9+ | 9         | 9  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 3  | -  | -  | 9+ | 5  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 7         | 9+ | 9+ | 4  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9+ | 9+ | 4   |  |  |  |  |
| 5         | -  | -  | 7  | -  | -  | 9+ | 7  | -         | -  | 9  | 5  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 4  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 8  | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | -  | 9  | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 5  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 7         | 8  | 9+ | 9  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 8  | -         | 4  | 9  | 2  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 2  | 9  | 9  | 5         | 8  | 9+ | 9  | 7   |  |  |  |  |
| 8         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | -  | -  | 9+ | 9+ | 8  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 3  | 9  | 9  | 9         | 8  | 9+ | 9  | 8   |  |  |  |  |
| 9         | -  | 3  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 1  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 4  | 9  | 8  | 9         | 8  | 9+ | 9  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 7  | 9+ | 9+ | 8  | 9+        | 9+ | 5  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 6  | 9         | 9  | 9  | 8  | 10  |  |  |  |  |
| 11        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 6  | 6         | 9  | 9  | 5  | 11  |  |  |  |  |
| 12        | -  | 8  | 4  | -  | 2  | 9+ | 9+ | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | -  | 9+ | 6  | 5         | 8  | 9  | 1  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 6  | 2  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9  | 5  | 2         | 7  | 8  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 1  | 6  | 9  | 9+ | 9+ | 7  | 9+        | 9  | 8  | 9+ | 9+ | 9+ | 8  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | 2  | 8  | 2  | 1         | 2  | 8  | 1  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 7  | 9+ | 5  | -         | 9+ | -  | 6  | 9  | 9+ | 9  | 8  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 8         | 9  | 9+ | 9+ | 9+ | -  | 5  | 5  | 2         | -  | 6  | 3  | 15  |  |  |  |  |
| 16        | -  | 7  | -  | -  | -  | 9+ | -  | -         | 9  | -  | 3  | 8  | 9+ | 8  | 8  | 9+        | 5  | 9  | 9+ | 9+ | 9+ | 9  | 9  | 9         | 9  | 9  | 9+ | -  | 1  | 7  | 4  | -         | 5  | 9  | 16 |     |  |  |  |  |
| 17        | -  | 2  | -  | -  | -  | 9+ | -  | -         | 9  | -  | -  | 7  | 9+ | 2  |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jul., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | 1         | 4  | -  | 1  | 9  | 8  | 5  | 7  | 9         | 8  | 8  | 9  | 9  | -  | 7  | 9  | 9         | 6  | 9+ | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 1         | 8  | -  | 1  | 9+ | 9  | 5  | 8  | 9+        | 8  | 8  | 9  | 9+ | -  | 7  | 9+ | 9         | 8  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | 7  | 2         | 9  | 7  | 2  | 9+ | 9+ | 7  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 8  | 9+ | 9         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | 8  | 5         | 9+ | 9  | 5  | 9+ | 9+ | 8  | 9  | 9+        | 9+ | 9  | 9  | 9+ | -  | 8  | 9+ | 9         | 9  | 9+ | 9  | 3   |  |  |  |  |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 3         | -  | 8  | 1  | -  | 9+ | 9  | 9  | 7         | 9+ | 9+ | 5  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9  | 9  | -  | 9  | 9+ | 9         | 9  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 6  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 8         | 8  | 9+ | 9+ | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | -  | 9  | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 7  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 8  | 9+ | 9  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 3  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 2  | 9+ | 9  | 6         | 8  | 9+ | 9  | 7   |  |  |  |  |
| 8         | -  | -  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9+ | -  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 4  | 9  | 8  | 9         | 9  | 9+ | 9  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 8  | 9         | 9  | 9+ | 9  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 6  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 6  | 9         | 9  | 9+ | 8  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 7  | 9         | 9  | 9+ | 6  | 11  |  |  |  |  |
| 12        | -  | 8  | 4  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 6  | 5         | 9  | 9  | 1  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9  | 8  | 8         | 6  | 9  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 1  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | -  | 9  | 4  | 6         | 1  | 9+ | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 8  | -         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 9  | 9  | 9+ | 9+ | -  | 7  | 4  | -         | -  | 6  | -  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 3  | 9+ | 2  | -         | 9+ | -  | 6  | 9  | 9+ | 9  | 8  | 9+        | 6  | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9         | 8  | 8  | 9  | 9  | -  | 2  | 6  | 2         | -  | 5  | 8  | 16  |  |  |  |  |
| 17        | -  | 3  | -  | -  | -  | 9+ | -  | -         | 9  | -  | -  | 8  | 9  |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |



**Aug., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | -         | 4  | -  | -  | 9+ | 8  | 3  | 8  | 9         | 7  | 8  | 7  | 9+ | -  | 8  | 9  | 9         | 4  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | 1         | 8  | 1  | 1  | 9+ | 9+ | 2  | 8  | 9+        | 9  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 7  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 8  | 2         | 9  | 9  | 2  | 9+ | 9+ | 4  | 9  | 9+        | 9+ | 8  | 9  | 9+ | -  | 9  | 9+ | 9         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 7  | -  | -  | 9+ | 8  | 8  | 6         | 9+ | 9  | 5  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 7         | 9  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 5  | -  | -  | 9+ | 5  | 5         | -  | 8  | 4  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 5  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | 2  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 4  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 4  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 4  | 9+ | 9  | 9         | 9  | 9+ | 7  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9+ | -  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 1  | 9+ | 8  | 9         | 8  | 9+ | 8  | 8   |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 1  | 9+ | 7  | 9  | 8         | 9+ | 8  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 6* | 9         | 8  | 9+ | 6  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 8  | 9         | 9  | 9+ | 2  | 11  |  |  |  |  |
| 12        | -  | 8  | 5  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 5  | 9         | 8  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 9+        | 8  | 9+ | 9+ | 9  | -  | 9+ | 7  | -         | 1  | 9  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 2  | 4  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 7         | 8  | 9  | 9+ | 9  | -  | 8  | -  | -         | -  | 6  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 8         | 5  | 8  | 9+ | 9+ | -  | 5  | 1  | 5         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 7  | 9+ | 5  | 4         | 9+ | -  | 6  | 9  | 9+ | 9  | 9  | 9+        | 6  | 9  | 9+ | 9+ | 9+ | 8  | 9  | 9         | 9  | 8  | 8  | 9  | -  | -  | 6  | 2         | -  | 5  | 9  | 16  |  |  |  |  |
| 17        | -  | 4  | -  | -  | -  | 9+ | -  | -         | 9  | -  | -  | 8  | 9+ |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Sep., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |     |
| 0         | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | -         | 6  | -  | -  | 9+ | 9  | 4  | 6  | 9         | 7  | 7  | 9  | 9+ | -  | 8  | 9  | 8         | 6  | 9  | 9  | 0   |  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | -         | 9  | 6  | 1  | 9+ | 9+ | 1  | 8  | 9+        | 9  | 7  | 9+ | 9+ | -  | 8  | 9+ | 8         | 8  | 8  | 9+ | 1   |  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 8  | 3         | 9+ | 9  | 4  | 9+ | 9+ | 2  | 9  | 9+        | 9+ | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 8  | 9  | 9+ | 2   |  |  |  |     |
| 3         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 6         | 9+ | 9+ | 6  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 9  | 9  | 9+ | 3   |  |  |  |     |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 6         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 5  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 4   |  |  |  |     |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | -  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 7  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 5   |  |  |  |     |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 6   |  |  |  |     |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 7   |  |  |  |     |
| 8         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 1  | 3  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 4* | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8   |  |  |  |     |
| 9         | -  | 8  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 3* | 9+ | 7  | 8         | 8  | 9+ | 9  | 9   |  |  |  |     |
| 10        | -  | 9  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 2* | 9+ | 5  | 9         | 8  | 9+ | 7  | 10  |  |  |  |     |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 6  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9  | 9         | 8  | 9+ | 4  | 11  |  |  |  |     |
| 12        | -  | 9  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 1* | 9+ | 9  | 9         | 7  | 9+ | -  | 12  |  |  |  |     |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 9+        | 8  | 9+ | 9+ | 8  | -  | 9+ | 8  | -         | 2  | 9  | 4* | 13  |  |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 2  | 2  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 2  | 9+ | 8         | 5  | 9  | 9+ | 8  | -  | 9  | 1  | -         | -  | 9+ | -  | 14  |  |  |  |     |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9         | 4  | 8  | 9+ | 9  | -  | 7  | 3  | 9         | -  | 8  | 1  | 15  |  |  |  |     |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 5  | 9  | 9+ | 9+ | 9+ | 9  | 9  | 9         | 9  | 6  | 9  | 9+ | -  | 1  | 8  | 3         | -  | 5  | 9  | 16  |  |  |  |     |
| 17        | -  | 6  | -  | -  | 2  | 9+ | 1  | 4         | 9  | -  | 2  | 9  | 9+ | 9  | 9  | 9+        | 1  | 9  | 9+ | 9+ | 9+ | 9+ | 5  | 8         | 9  | 8  | 8  | 9+ | 7  | 4* | 9  | 9         | 5* | 5  | 9  | 17  |  |  |  |     |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 7  | 9+ | 6  | 9  | 9+        | -  | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 8         | 9  | 9  | 9+ | 9+ | 8  | 5* | 9  | 9         | 5* | 5  | 9  | 18  |  |  |  |     |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 4  | 9+ | 1  | 8  | 9+        | 1* | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9         | 8  | 8  | 9+ | 9+ | 7  | 9  | 8  | 9         | 6* | 4  | 9  | 19  |  |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 9         | -  | 2  | 8  | 9  | 9  | 8  | 9+ | 6         | 9  | 7  | 9+ | 9+ | 6* | 9  | 8  | 9         | 3* | 7  | 9  | 20  |  |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 7         | -  | -  | 6  | 9  | 6  | 7  | 9+ | 5         | 8  | 8  | 9+ | 9+ | 5* | 9  | 9  | 9         | 1* | 9  | 9  | 21  |  |  |  |     |
| 22        | -  | -  | -  | -  | -  | 8  | -  | -         | -  | -  | -  | -  | 9+ | -  | -  | 2         | -  | -  | 1  | 9+ | 6  | 5  | 9  | 8         | 6  | 8  | 9  | 9+ | 4* | 9  | 9  | 8         | 6  | 9  | 9  | 22  |  |  |  |     |
| 23        | -  | -  | -  | -  | -  | 7  | -  | -         | -  | -  | -  | -  | 9+ | -  | -  | 1         | 1  | -  | -  | 9+ | 7  | 5  | 7  | 8         | 5  | 7  | 9  | 9+ | -  | 9  | 9  | 7         | 7  | 9  | 9  | 23  |  |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Oct., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |     |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|-----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE  | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -   | -  | -  | -  | 9+ | -  | 5  | 1         | 6  | -  | 1  | 9+ | 9  | 4  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 9  | 8  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -   | -  | -  | -  | 9+ | 3  | 8  | 3         | 9  | 7  | 4  | 9+ | 9+ | 3  | 8  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -   | 4  | -  | -  | 9+ | 8  | 9  | 6         | 9+ | 9  | 6  | 9+ | 9+ | 2  | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | -         | -   | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 7         | -   | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 4   |  |  |  |  |
| 5         | 1  | -  | 8  | 1  | -  | 9+ | 9  | 8         | 3   | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | 1  | -  | 9+ | 9+ | 8         | 7   | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | -  | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9   | 9  | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 6* | 9+ | 9+ | 9         | 9  | 9+ | 7  | 7   |  |  |  |  |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 7         | 9   | 9  | 2  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5* | 9+ | 9+ | 8         | 9  | 9+ | 4  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9+  | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 9+        | 7  | 9+ | 9+ | 9  | 4* | 9+ | 9  | 8         | 8  | 9+ | 1  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 6  | 9+ | 9+ | -         | 9+  | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 2  | 9+ | 9+        | 7  | 9+ | 9+ | 9  | 2* | 9+ | 9  | 9         | 5  | 9+ | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+  | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 3  | 9+ | 9+        | 9  | 9  | 9+ | 8  | 2* | 9+ | 8  | 9         | 3* | 9+ | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 7  | -  | 9  | 9+ | 9+ | -         | 9+  | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 9+        | 7  | 9  | 9+ | 4  | 2* | 9+ | 9  | 9         | 2* | 9+ | 1* | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 1         | 9+  | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 9  | 3  | 9+ | 1* | 1* | 9+ | 5  | -         | -  | 9+ | 3* | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+  | 4  | 1  | 9  | 9+ | 9+ | 9+ | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 1         | -  | 1  | 9+ | 2* | -  | 8  | -  | -         | -  | 9+ | 1* | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 7         | 9+  | -  | 5  | 9  | 9+ | 9+ | 9+ | 9+        | 8  | 9  | 9+ | 9+ | 9+ | -  | 9  | 6         | -  | -  | 9+ | 9  | -  | 2  | 2  | 9         | -  | 9  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+  | -  | 6  | 9  | 9+ | 9+ | 9+ | 9+        | 7  | 8* | 9+ | 9+ | 9+ | 9  | 2  | 9         | 2* | 2* | 9+ | 9+ | -  | -  | 9  | 8         | -  | 5  | 9+ | 16  |  |  |  |  |
| 17        | -  | 6  | -  | -  | 4  | 9+ | 5  | 5         | 9</ |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Nov., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | 3         | 8  | -  | 4  | 9+ | 9  | 1  | 8  | 9         | 9  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 8  | 5         | 9  | 5  | 6  | 9+ | 9+ | 3  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 8  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 5  | -  | -  | 9+ | 8  | 9  | 8         | 9+ | 9  | 7  | 9+ | 9+ | 4  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 2*        | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 4  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 2  | -  | 9+ | 9  | 9         | 5  | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 5   |  |  |  |  |
| 6         | 6  | -  | 8  | 1  | -  | 9+ | 9+ | 9         | 8  | 9  | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 6   |  |  |  |  |
| 7         | -  | 5  | 8  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 8  | 9+ | 9+ | 9  | 7* | 9+ | 9+ | 8         | 9  | 9+ | -  | 7   |  |  |  |  |
| 8         | -  | 8  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 4  | 7  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 4  | 9+ | 9+        | 7  | 9+ | 9+ | 9  | 5* | 9+ | 9+ | 8         | 8  | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 8  | -  | 1  | 9+ | 9+ | 7         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 4  | 9+ | 9+ | 6  | 4* | 9+ | 9  | 8         | 4  | 9+ | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 6  | 8  | 9+ | 4  | 2* | 9+ | 9  | 9         | 3* | 9+ | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9  | 1  | 9+ | 9+        | 9  | 3  | 9+ | 6  | 1* | 9+ | 9  | 9         | 2* | 9+ | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 7  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 8  | 9+ | 9+ | 9  | 1  | 9+ | 9+        | 9  | 2  | 9+ | 2  | -  | 9+ | 8  | 9         | 1* | 9+ | 1* | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 9  | 1* | 9+ | 1* | -  | 9+ | 4  | 9         | -  | 9+ | 2* | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 4  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9  | 1* | 9+ | 2         | -  | -  | 9+ | 2* | -  | 8  | -  | -         | -  | 9+ | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 6  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9  | 9+ | 9  | -  | 9  | 6         | -  | -  | 9+ | 3  | -  | 1  | -  | 9         | -  | 9  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9+        | 7  | 5  | 7  | 9+ | 9+ | 2  | 1  | 9         | 9  | 1* | 9  | 9+ | -  | -  | 9  | 5         | -  | 5  | 8  | 16  |  |  |  |  |
| 17        | -  | 8  | -  | -  | 6  | 9+ | 8  | 7         |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Dec., Hawaii (Honolulu), for SSN = Ultra High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |   |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|---|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |   |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 5         | 9  | 4  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 0   |   |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 9  | 7         | 9  | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 8         | 9  | 9  | 9+ | 1   |   |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 4  | -         | -  | 6  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 2   |   |  |  |  |
| 3         | -  | -  | 3  | -  | -  | 9+ | 7  | 8         | 1  | 8  | 7  | 1  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 6  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9  | 9   | 3 |  |  |  |
| 4         | 1  | -  | 8  | -  | -  | 9+ | 9  | 8         | 2  | 9  | 7  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 6  | 9+ | 9+        | 4  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9  | 4   |   |  |  |  |
| 5         | 6  | -  | 8  | 5  | -  | 9+ | 9  | 9         | 3  | 9  | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 7  | 9+ | 9+        | -  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9+ | 4  | 5   |   |  |  |  |
| 6         | 7  | 1  | 8  | 5  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 6         | 9  | 9+ | -  | 6   |   |  |  |  |
| 7         | 8  | 8  | 9  | -  | -  | 9+ | 9+ | 9         | 9+ | 9  | 8  | 6  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 7  | 9+ | 9+ | 9  | 6* | 9+ | 9+ | 6*        | 9  | 9+ | -  | 7   |   |  |  |  |
| 8         | -  | 8  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 7  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 5  | 9+ | 9+ | 7  | 4* | 9+ | 9  | 8         | 5  | 9+ | -  | 8   |   |  |  |  |
| 9         | -  | 8  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 4  | 9+ | 9+ | 3  | 2* | 9+ | 5  | 8         | 2  | 9+ | -  | 9   |   |  |  |  |
| 10        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 3  | 9+        | 9+ | 6  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 6  | 8  | 9+ | -  | 1* | 9  | 7  | 9         | 2* | 9+ | -  | 10  |   |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 3  | 9+        | 9+ | 2  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 6  | 9+ | -  | -  | 9  | 8  | 9         | 1* | 9+ | -  | 11  |   |  |  |  |
| 12        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 5  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 2  | 9+ | -  | -  | 9  | 6  | 9         | -  | 9+ | -  | 12  |   |  |  |  |
| 13        | -  | 9  | 2  | -  | 8  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9+ | 8         | 9  | 5  | 9+ | -  | -  | 9+ | 3  | 9         | -  | 9+ | -  | 13  |   |  |  |  |
| 14        | 6  | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | 5  | 2  | 9+ | 9+ | 9+ | 7  | 9+        | 7  | 2  | 9+ | 9+ | 7  | -  | 9+ | 2         | -  | 2  | 9+ | -  | -  | 9  | -  | 8         | -  | 9+ | -  | 14  |   |  |  |  |
| 15        | 6  | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | 1  | 6  | 9  | 9+ | 9+ | 6  | 9+        | 8  | 9  | 9  | 9+ | 9  | -  | 9  | 5         | -  | -  | 9+ | -  | -  | 6  | -  | 8         | -  | 9  | -  | 15  |   |  |  |  |
| 16        | 6  | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 8  | 5  | 8  | 9+ | 9+ | -  | 7  | 9         | 9  | -  | 9+ | 9+ | -  | -  | 4  | 4         | -  | 5  | -  | 16  |   |  |  |  |
| 17        | -  | 8  | -  | -  | 8  | 9+ | 9  | 8         | 9  |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |   |  |  |  |

Jan., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 4  | 5         | 9  | 4  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 8  | 9+ | -  | 9  | 9+ | 8         | 5  | 9+ | 9+ | 0   | 0  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 7  | 5  | 7         | 9  | 9  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9  | 9+ | 8         | 9  | 9+ | 9+ | 1   | 1  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | 4  | -         | -  | 6  | -  | -  | 9+ | 9  | 5  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | -  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 7         | 9+ | 9  | 4  | 2   | 2  |  |  |     |
| 3         | -  | -  | 2  | -  | -  | 9+ | 8  | 8         | 1  | 8  | 6  | 1  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | -  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 7         | 9+ | 9  | 9  | 3   | 3  |  |  |     |
| 4         | -  | -  | 7  | -  | -  | 9+ | 9  | 8         | 4  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9+ | 9  | 7         | 9  | 9  | -  | 4   | 4  |  |  |     |
| 5         | 6  | -  | 8  | 3  | -  | 9+ | 9+ | 9         | 4  | 9  | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 7  | -  | 9  | 9+ | 7         | 7  | 9  | -  | 5   | 5  |  |  |     |
| 6         | 6  | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9  | 9  | 4  | 9+ | 9+ | 9+ | 9+        | 9  | 8  | 9+ | 9+ | 9+ | 6  | 9+ | 9+        | 8  | 9  | 9+ | -  | -  | 8  | 9  | 8         | 4* | 9+ | -  | 6   | 6  |  |  |     |
| 7         | 4  | 1  | 9  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 7  | 9+ | 9+ | 9+ | 9+        | 9  | 8  | 9+ | 9+ | 9+ | 4* | 9+ | 9+        | 8  | 6  | 9+ | 1  | 4* | 9+ | 8  | 8         | 4* | 9+ | -  | 7   | 7  |  |  |     |
| 8         | -  | 9  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 4  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 5  | 2* | 9+ | -  | 1* | 9+ | 5  | 8         | 3* | 9+ | -  | 8   | 8  |  |  |     |
| 9         | -  | 9  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 2  | 9  | 9+ | 9  | 1* | 9+ | 9         | 5  | 1* | 9+ | -  | -  | 9+ | 2  | 8         | 2* | 9+ | -  | 9   | 9  |  |  |     |
| 10        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 1  | 8  | 9+ | 6  | 1* | 9+ | 9         | 9  | 1* | 9+ | -  | -  | 9  | -  | 9         | -  | 9+ | -  | 10  | 10 |  |  |     |
| 11        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 1  | 7  | 9+ | 8  | 1* | 9+ | 9+        | 9  | 1* | 9+ | -  | -  | 9  | 4  | 9         | -  | 9  | -  | 11  | 11 |  |  |     |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 4  | 9+        | 9+ | 9  | 8  | 9+ | 9  | -  | 9+ | 8         | 9  | -  | 9+ | -  | -  | 9  | 3  | 8         | -  | 9  | -  | 12  | 12 |  |  |     |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 9  | 8  | 9+ | 8  | -  | 9+ | 5         | 9  | -  | 9+ | -  | -  | 8  | -  | 6         | -  | 9  | -  | 13  | 13 |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 1  | 9+ | 9+ | 9+ | 6  | 9+        | 5  | 9  | 8  | 9+ | 1  | -  | 9  | -         | -  | -  | 9+ | -  | -  | 3  | -  | 6         | -  | 8  | -  | 14  | 14 |  |  |     |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 1  | 6  | 9  | 9+ | 9+ | -  | 9+        | 5  | 9  | 6  | 9+ | 3  | -  | 6  | -         | 8  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 15  | 15 |  |  |     |
| 16        | 6  | 9+ | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 1  | 9         | 9  | -  | 1  | 9+ | 9+ | -  | -  | 5         | 2  | -  | 5  | -  | -  | -  | -  | -         | -  | 5  | -  | 16  | 16 |  |  |     |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | -         | 6  | -  | -  | 9+ | 9+ | -  | 2* | 9         | 9  | 3* | 5  | 9+ | -  | 2* | 9  | -         | 1* | 5  | 8  | 17  | 17 |  |  |     |
| 18        | -  | 7  | -  | -  | 5  | 9+ | 7  | 7         | 9  | -  | 2  | 9  | 9+ | 9  | 9  | 9+        | 2  | 8  | 8  | 9+ | 9+ | 7  | 3* | 9         | 9+ | 2* | 9  | 9+ | -  | -  | 9  | 9         | 3* | 8  | 9+ | 18  | 18 |  |  |     |
| 19        | -  | 3  | -  | -  | 1  | 9+ | 1  | -         | 9  | -  | -  | 8  | 9+ | 8  | 8  | 9+        | 1  | 7  | 5  | 9+ | 9+ | 4* | 9  | 8         | 9  | 1* | 9+ | 9+ | 7* | 2  | 9  | 9         | 1* | 5  | 9+ | 19  | 19 |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 4  | 8  | 9+        | 2  | 9  | 2  | 9+ | 9+ | 4* | 1* | 9         | 9  | 1* | 9+ | 9+ | 7* | -  | 9  | 9         | -  | 5  | 9+ | 20  | 20 |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | 1  | 9+ | -  | 7  | 9         | 2  | 5  | 5  | 9+ | 9  | 1* | 9+ | 9         | 9  | -  | 9  | 9+ | 1* | 2  | 9  | 9         | -  | 9  | 9  | 21  | 21 |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 8         | 5  | -  | 6  | 9+ | 9  | -  | 9+ | 9         | 8  | -  | 9  | 9+ | -  | 9  | 9  | 9         | -  | 9+ | 9+ | 22  | 22 |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 5         | 5  | -  | 5  | 9+ | 9  | -  | 9  | 9         | 8  | 4  | 8  | 9+ | -  | 8  | 9+ | 9         | -  | 9  | 9+ | 23  | 23 |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Feb., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | 3         | 8  | 5  | 4  | 9+ | 9+ | -  | 9  | 9         | 8  | 8  | 8  | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 6  | 5         | 9  | 5  | 5  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 8  | 8         | 9+ | 9  | 7  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 6  | 7         | -  | 8  | 1  | -  | 9+ | 9  | 8  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | -  | 9+ | 9+        | 2  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 8         | 9+ | 9  | 5  | 4   |  |  |  |  |
| 5         | 1  | -  | 8  | -  | -  | 9+ | 9  | 9         | 5  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9+ | 6  | 5   |  |  |  |  |
| 6         | 6  | -  | 8  | 2  | -  | 9+ | 9+ | 9         | 6  | 9+ | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 5* | 9+ | 9+        | 8  | 9+ | 9+ | 8  | 4* | 9  | 9+ | 9         | 5  | 9+ | -  | 7   |  |  |  |  |
| 8         | -  | 8  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 7  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 6  | 9  | 9+ | 5  | 5* | 9+ | 9  | 9         | 3* | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 1  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 2* | 9+ | 9+        | 5  | 7  | 9+ | 1  | 3* | 9+ | 6  | 9         | 2* | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 1* | 9+ | -  | 2* | 9+ | 3  | 9         | 2* | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 9  | 9+ | 9+ | -         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 7  | 9+        | 9+ | 5  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 1* | 9+ | -  | 1* | 9+ | 3  | 9         | 1* | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 1         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 1* | 9+ | 9+        | 9  | 1* | 9+ | 1  | -  | 9+ | 4  | 9         | -  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9+ | 8         | 9  | 1  | 9+ | 1* | -  | 9  | 1  | 9         | -  | 9  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 1  | 9+ | 9+ | 9+ | 9  | 9+        | 7  | 9  | 9  | 9+ | 8  | -  | 9+ | -         | -  | -  | 9+ | -  | -  | 5  | -  | 9         | -  | 9  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 5  | 9+ | 9+ | 9+ | 6  | 9+        | 5  | 6  | 9  | 9+ | 9  | -  | 8  | -         | -  | -  | 9+ | -  | -  | -  | -  | 7         | -  | 6  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 8  | 9         | 8  | 5  | 8  | 9+ | 9+ | -  | -  | 8         | 5  | -  | 8  | 5  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 8  | 7         | 9+ | -  | 5  | 9  |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Mar., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 1         | 6  | -  | 1  | 9+ | 9  | -  | 8  | 9         | 8  | 7  | 9  | 9+ | -  | 9  | 9+ | 6         | 8  | 9  | 9+ | 0   |    |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 8  | 1         | 9  | 7  | 3  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |    |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 8  | 8  | 5         | 9+ | 9  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 2   |    |  |  |     |
| 3         | -  | -  | 1  | -  | -  | 9+ | 5  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 2  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 3   |    |  |  |     |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 7         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 4   |    |  |  |     |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 1  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 5   |    |  |  |     |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9+ | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 6   |    |  |  |     |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9  | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9         | 9  | 9+ | 6  | 7   |    |  |  |     |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 7         | 9+ | 9+ | 3  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | 4* | 9+ | 9  | 9         | 9  | 9+ | 6  | 8   |    |  |  |     |
| 9         | -  | 9  | 9  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 3* | 9+ | 8  | 9         | 8  | 9+ | 4  | 9   |    |  |  |     |
| 10        | -  | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 9+        | 8  | 9+ | 9+ | 9  | 2* | 9+ | 2  | 9         | 7  | 9+ | 1  | 10  |    |  |  |     |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 1* | 9+ | 9  | 9         | 3  | 9+ | -  | 11  |    |  |  |     |
| 12        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 9+        | 9  | 9  | 9+ | 7  | -  | 9+ | 6  | 9         | 2  | 9  | -  | 12  |    |  |  |     |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 2  | 9  | 9+ | 1  | -  | 9+ | 5  | 9         | -  | 8  | 4* | 13  |    |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 5  | 1  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9+ | 3         | 2  | 7  | 9+ | -  | -  | 9  | -  | -         | -  | 8  | -  | 14  |    |  |  |     |
| 15        | -  | 9+ | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 1  | 5  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9  | 5         | -  | 3  | 9+ | 7  | -  | 4  | -  | 8         | -  | 6  | -  | 15  |    |  |  |     |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 9+ | 6  | 4         | 9  | 9  | -  | 9  | 9  | -  | -  | 3         | 2  | -  | 5  | 1   | 16 |  |  |     |
| 17        | -  | 8  | -  | -  | 5  | 9+ | 7  | 6         | 9+ | -  | 4  | 9  | 9+ | 9  | 9  | 9+        | 4  | 8  | 9+ | 9+ | 9+ | 9+ | 1* | 9         | 9  | 2* | 5  | 9+ | -  | 4* | 9  | 8         | 5* | 5  | 9  | 17  |    |  |  |     |
| 18        | -  | 5  | -  | -  | 2  | 9+ | 1  | -         | 9  | -  | -  | 8  | 9+ | 8  | 9  | 9+        | 1  | 8* | 9+ | 9+ | 9+ | 9+ | 9  | 9         | 8  | 9  | 8  | 9+ | 9+ | 5* | 5* | 9         | 9  | 5* | 5  | 9+  | 18 |  |  |     |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 6  | 9+ | 5  | 9  | 9+        | -  | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 8         | 9  | 7  | 9+ | 9+ | 8* | 9  | 9  | 9         | 6* | 5  | 9  | 19  |    |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 3  | -  | -  | 2  | 9+ | 1  | 8  | 9+        | 1* | 8  | 9  | 9  | 9  | 5  | 9  | 9         | 9  | 1  | 9+ | 9+ | 7* | 2* | 9  | 3         | 4* | 5  | 9  | 20  |    |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 9         | 1* | 2  | 8  | 9+ | 8  | 4  | 9+ | 8         | 8  | 3  | 9+ | 9+ | 6* | 9  | 9  | 9         | 2* | 9  | 9  | 21  |    |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 6         | 1  | -  | 5  | 9+ | 7  | 2* | 9  | 8         | 7  | 8  | 9  | 9+ | 5* | 9+ | 9  | 8         | 2  | 9  | 9  | 22  |    |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 2         | 6  | -  | 2  | 9+ | 8  | 1  | 8  | 9         | 6  | 8  | 9  | 9+ | -  | 9  | 9  | 7         | 6  | 9  | 9+ | 23  |    |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA



**Apr., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | -         | 6  | -  | 1  | 9+ | 9  | 3  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 8  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 6  | 1         | 9  | 6  | 3  | 9+ | 9+ | 1  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 8  | 5         | 9+ | 9  | 5  | 9+ | 9+ | 6  | 9  | 9+        | 9+ | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 7         | 9+ | 9+ | 6  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 9  | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 7  | 6         | -  | 8  | 4  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 3  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 4  | 4  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 4  | 9+ | 8  | 9         | 9  | 9+ | 9  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 6* | 9         | 8  | 9+ | 9  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 2* | 9+ | 9  | 9         | 9  | 9+ | 8  | 11  |  |  |  |  |
| 12        | -  | 9  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 8  | 3         | 7  | 9+ | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9+ | 8  | -         | 4  | 9  | 5* | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 4  | 3  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 8         | 8  | 9+ | 9+ | 9  | -  | 9  | 1  | -         | 1  | 8  | -  | 14  |  |  |  |  |
| 15        | -  | 9+ | -  | -  | 8  | 9+ | 9+ | 6         | 9+ | -  | 7  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 6  | 9  | 9+ | 9  | -  | 7  | 4  | 9         | -  | 6  | 1  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 5  | 9  | 9+ | 9+ | 9+ | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 9  | 9  | 9+        | 5  | 8  | 9  | 9+ | -  | 1  | 9  | 6         | -  | 5  | 8  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 4  | 9+ | 5  | 4         | 9  |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**May, Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |     |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|-----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF  | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -   | -  | 9+ | -  | 2  | 1         | 5  | -  | 1  | 9+ | 9  | 4  | 8  | 9         | 8  | 8  | 7  | 9+ | -  | 8  | 9+ | 9         | 6  | 9+ | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -   | -  | 9+ | 1  | 5  | 2         | 8  | 5  | 2  | 9+ | 9+ | 4  | 9  | 9+        | 9  | 8  | 8  | 9+ | -  | 9  | 9+ | 9         | 9  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -   | -  | 9+ | 5  | 7  | 4         | 9  | 9  | 3  | 9+ | 9+ | 6  | 9  | 9+        | 9+ | 9  | 8  | 9+ | -  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 7  | -   | -  | 9+ | 8  | 8  | 7         | 9+ | 9  | 6  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 4         | -  | 8  | 4   | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 7  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 2  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7   | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 4  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 6         | 1  | 9  | 7   | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 4   | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9+ | 7         | 9  | 9+ | 8  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9  | -   | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 9  | 9         | 7  | 9+ | 9  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -   | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 8  | 9         | 8  | 9  | 9  | 9   |  |  |  |  |
| 10        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -   | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 6  | 9         | 8  | 9  | 8  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9  | -   | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 5  | 4         | 8  | 9  | 6  | 11  |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -   | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 8  | 2         | 8  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 8  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | -   | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9  | 8  | -         | 4  | 8  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 3  | 6   | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 9  | 9+ | 9+ | 9  | -  | 8  | 2  | -         | 1  | 9  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | -  | 7   | 9  | 9+ | 9+ | 9  | 9+        | 9  | 6* | 9+ | 9+ | 9+ | 6  | 9+ | 9         | 6  | 9  | 9+ | 9+ | -  | 8  | 5  | 5         | -  | 5  | 1  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 6  | 4         | 9  | -  | 6   | 9  | 9+ | 9  | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 8  | 9  | 9         | 8  | 8  | 9  | 9  | -  | 4  | 6  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 5  | -  | -  | -  | 9+ | 1  | 3         | 9  | -  | 2</ |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jun., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | 1         | 5  | -  | 2  | 9  | 9  | 2  | 7  | 9         | 8  | 8  | 9  | 9  | -  | 8  | 9  | 6         | 7  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 2         | 8  | 4  | 4  | 9  | 9  | 2  | 8  | 9+        | 9  | 7  | 8  | 9+ | -  | 7  | 9+ | 7         | 8  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 4  | 6  | 4         | 9  | 8  | 4  | 9+ | 9+ | 5  | 9  | 9+        | 9+ | 9  | 8  | 9+ | -  | 8  | 9  | 5         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | 9  | 6         | 9+ | 9  | 5  | 9+ | 9+ | 6  | 9  | 9+        | 9+ | 8  | 9  | 9+ | -  | 9  | 9  | 8         | 9  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 2         | -  | 8  | 1  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 6  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 8  | 9  | 9         | 9  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 7  | -  | -  | 9+ | 8  | -         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 8         | 9+ | 9+ | 7  | 9+ | 9+ | 7  | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 8  | 8         | 9  | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | -  | 9  | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | -  | 9  | 8  | 6  | 9         | 9+ | 8  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 5  | 9  | 3  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 1  | 9  | 7  | 4  | 8         | 9+ | 6  | 7  |     |  |  |  |  |
| 8         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | -  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 6  | 2         | 7  | 9+ | 6  | 8   |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9  | 2  | 8  | 3  | 9         | 7  | 9+ | 6  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 7  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9  | 2  | 8  | 1  | 4         | 7  | 9+ | 3  | 10  |  |  |  |  |
| 11        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9         | 8  | 9+ | 9+ | 9+ | 1  | 8  | 2  | 4         | 7  | 9+ | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 4  | -  | 7  | 9+ | 9+ | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 9  | 9+ | 9+ | 9  | 1  | 8  | 1  | 1         | 4  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 8  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | 2  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9         | 9  | 9+ | 9+ | 9  | -  | 8  | 1  | 9         | -  | 8  | -  | 13  |  |  |  |  |
| 14        | -  | 8  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 2  | 5  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 8         | 9  | 9  | 9  | 9  | -  | 5  | -  | 5         | -  | 6  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 7  | 9+ | 7  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 7  | 9  | 9         | 9  | 9  | 9  | 9+ | -  | 1  | 1  | 1         | -  | 5  | 1  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 2  | 9+ | 1  | -         | 9+ | -  | 6  | 8  | 9+ | 9  | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 7  | 9  | 9         | 8  | 8  | 7  | 9+ | -  | -  | 4  | 2         | -  | 5  | 8  | 16  |  |  |  |  |
| 17        | -  | 2  | -  | -  | -  | 9+ | -  | -         | 9  | -  | -  | 7  | 9+ | 4  | 8  |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jul., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 1         | 6  | -  | 3  | 9  | 9  | 2  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 8  | 9  | 6         | 6  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 2         | 8  | 5  | 4  | 9+ | 9  | 3  | 8  | 9+        | 9  | 7  | 8  | 9+ | -  | 8  | 9+ | 8         | 8  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 8  | 4         | 9  | 8  | 4  | 9+ | 9+ | 6  | 9  | 9+        | 9+ | 9  | 8  | 9+ | -  | 8  | 9+ | 7         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 7  | -  | -  | 9+ | 8  | 9  | 6         | 9+ | 9  | 6  | 9+ | 9+ | 7  | 9  | 9+        | 9+ | 9  | 9  | 9+ | -  | 9  | 9  | 6         | 9  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 5         | -  | 8  | 4  | -  | 9+ | 9  | 9+ | 8         | 9+ | 9+ | 6  | 9+ | 9+ | 8  | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 8  | 9  | 9         | 9  | 9+ | 9+ | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 7  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9  | 9         | 9  | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 8  | 8         | 9  | 9+ | 7  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 4  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 7  | 2         | 8  | 9+ | 5  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9  | -  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 1  | 9  | 4  | 1         | 7  | 9  | 6  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 3  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9+ | 9+ | 9  | 2  | 9  | 2  | 1  | 7         | 9+ | 5  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 2  | 9  | 1  | 4  | 8         | 9+ | 2  | 10 |     |  |  |  |  |
| 11        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | -  | 8  | 2  | 5         | 7  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 5  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 8  | 5  | 8         | 4  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | 2  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 2  | 9+ | 9+        | 9  | 9+ | 9+ | 8  | -  | 7  | 6  | 5         | -  | 8  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 2  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 8         | 6  | 9  | 9+ | 6  | -  | 6  | -  | 1         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 8  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 6* | 9+ | 9+ | 9+ | 1  | 9+ | 8         | 8  | 8  | 9  | 9  | -  | 3  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 4  | 3         | 9  | -  | 6  | 9  | 9+ | 9  | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 5  | 9  | 9         | 6  | 5  | 7  | 9  | -  | -  | 2  | 1         | -  | 5  | 5  | 16  |  |  |  |  |
| 17        | -  | 4  | -  | -  | -  | 9+ | -  | -         | 9  | -  | 2  | 8  | 9+ | 7  | 9  |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Aug., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 1         | 5  | -  | 1  | 9  | 9  | 1  | 8  | 9         | 8  | 8  | 6  | 9+ | -  | 8  | 9  | 6         | 5  | 9+ | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 7  | 1         | 8  | 6  | 3  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 8  | 9+ | 7         | 6  | 9+ | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 8  | 4         | 9+ | 9  | 5  | 9+ | 9+ | 4  | 9  | 9+        | 9+ | 9  | 8  | 9+ | -  | 9  | 9+ | 4         | 9  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 6         | 9+ | 9+ | 6  | 9+ | 9+ | 6  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9+ | 9  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 6         | -  | 8  | 7  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 7  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9  | 8         | 9  | 9+ | 9  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 6         | 3  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 8  | 9  | 9+ | 9+ | 1  | 9+ | 9  | 9         | 9  | 9+ | 6  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1  | 9  | 8  | 5         | 9  | 9+ | 1  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9  | 1  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9  | 6  | 9         | 7  | 9+ | 1  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9         | 9  | 9+ | 9+ | 9  | -  | 9  | 1  | 9         | 6  | 9  | 1  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9  | 9+ | 8         | 9  | 9+ | 9+ | 9+ | 1  | 9  | -  | 9         | 6  | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9  | 6  | -         | 5  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 9         | 8  | 9+ | 9+ | 8  | -  | 9  | 3  | -         | 1  | 8  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 5  | 9  | 9+ | 4  | -  | 7  | 1  | 9         | -  | 7  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 3  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9+ | 4         | 2  | 8  | 9+ | 3  | -  | 4  | -  | 6         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 6* | 9+ | 9+ | 9+ | -  | 9  | 7         | -  | 4  | 8  | 8  | -  | 1  | -  | 1         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 7  | 4         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | 5  | 8  | 9         | 7  | 1  | 5  | 9  | -  | -  | 4  | 1         | -  | 5  | 6  | 16  |  |  |  |  |
| 17        | -  | 6  | -  | -  | -  | 9+ | 1  | 4         | 9  | -  | 1  | 8  | 9+ |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Sep., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 2         | 6  | -  | 1  | 9+ | 9  | 2  | 8  | 9         | 8  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 6  | 9  | 9  | 0   |    |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 8  | 1         | 9  | 7  | 2  | 9  | 9+ | -  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 9+ | 1   |    |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 8  | 4         | 9+ | 9  | 6  | 9+ | 9+ | 1  | 9  | 9+        | 9+ | 8  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 9+ | 2   |    |  |  |     |
| 3         | -  | -  | 1  | -  | -  | 9+ | 4  | -         | -  | 8  | -  | -  | 9+ | 9  | 8  | 7         | 9+ | 9+ | 6  | 9+ | 9+ | 6  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+ | 8         | 9  | 9  | 9  | 3   |    |  |  |     |
| 4         | -  | -  | 6  | -  | -  | 9+ | 7  | 6         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 2  | 9+ | 9+ | 8         | 9  | 9  | 8  | 4   |    |  |  |     |
| 5         | -  | -  | 8  | 1  | -  | 9+ | 9  | 7         | 2  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 5   |    |  |  |     |
| 6         | -  | -  | 9  | 1  | -  | 9+ | 9+ | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 9+ | 9+        | 6  | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9         | 9  | 9+ | 5  | 6   |    |  |  |     |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9  | 8  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9         | 8  | 9+ | 3  | 7   |    |  |  |     |
| 8         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 3  | 4  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 9  | 9         | 6  | 9+ | 5  | 8   |    |  |  |     |
| 9         | -  | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 7  | 9+ | 9+ | 9+ | 2* | 9+ | 4* | 9         | 5  | 9+ | 4  | 9   |    |  |  |     |
| 10        | -  | 9  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 2* | 9+ | 2  | 9         | 5  | 9  | 1  | 10  |    |  |  |     |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 1* | 9+ | 8  | 9         | 5  | 9  | -  | 11  |    |  |  |     |
| 12        | -  | 9  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9  | 9+ | 6  | -  | 9+ | 5  | 9         | 3  | 9  | -  | 12  |    |  |  |     |
| 13        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 3  | 9  | 9+ | 1  | -  | 9+ | 5  | 9         | -  | 7  | -  | 13  |    |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 3  | 6  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9+ | 5         | 1  | 7  | 9+ | 1  | -  | 8  | -  | 9         | -  | 6  | -  | 14  |    |  |  |     |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 6         | 9+ | -  | 7  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 6* | 9+ | 9+ | 9+ | 1  | 9  | 7         | -  | 2  | 9+ | 9  | -  | 3  | 1  | 7         | -  | 5  | -  | 15  |    |  |  |     |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 7  | 9  | 9+ | 9+ | 9+ | 9+ | 7         | 9  | 8  | 1* | 7  | 9  | -  | -  | 5         | -  | -  | 5  | 2   | 16 |  |  |     |
| 17        | -  | 7  | -  | -  | 3  | 9+ | 3  | 4         | 9  | -  | 2  | 9  | 9+ | 9  | 9  | 9+        | 2  | 9  | 9+ | 9+ | 9+ | 9+ | 2* | 9         | 9  | 5  | 9  | 9+ | 5  | 4* | 9  | 6         | 4* | 5  | 9+ | 17  |    |  |  |     |
| 18        | -  | 2  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 7  | 9  | 9+        | 1  | 7* | 9+ | 9+ | 9+ | 9+ | 9+ | 8         | 9  | 8  | 9  | 9+ | 4  | 3* | 9  | 9         | 2* | 9  | 9  | 18  |    |  |  |     |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 4  | 8  | 9+        | 1* | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9         | 9  | 7  | 9+ | 9+ | 5* | 8  | 9  | 9         | 2* | 5  | 9  | 19  |    |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | -  | 9+ | -  | 7  | 9         | 1* | 3  | 9  | 9+ | 9  | 7  | 9+ | 9         | 9  | 5  | 9+ | 9+ | 4* | 1  | 9  | 9         | 1* | 4  | 9  | 20  |    |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 8         | -  | -  | 7  | 9  | 8  | 5  | 9+ | 8         | 9  | 7  | 9+ | 9+ | 5* | 9  | 9  | 9         | -  | 9  | 9  | 21  |    |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 4         | 1  | -  | 2  | 9  | 7  | 3  | 9  | 8         | 5  | 8  | 9  | 9+ | -  | 9  | 9  | 8         | 4  | 9  | 9  | 22  |    |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | 2         | 5  | -  | 1  | 9+ | 8  | 2  | 8  | 9         | 6  | 8  | 9  | 9+ | -  | 9  | 9  | 6         | 5  | 9  | 9  | 23  |    |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Oct., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | 3         | 8  | 7  | 2  | 9+ | 9+ | 1  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 9  | 9+ | 7         | 9  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 9  | 5         | 9  | 8  | 5  | 9+ | 9+ | 1  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 8  | 8         | 9+ | 9  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | 6         | -  | 8  | 1  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 8         | 9  | 9  | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 8  | 8         | 1  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | -  | -  | 9+ | 9  | 8         | 4  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 5  |     |  |  |  |  |
| 6         | -  | -  | 8  | 2  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 2  | 9+ | 9+ | 9  | 9         | 9+ | 2  | 6  |     |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 3  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | 5* | 9+ | 9+ | 9         | 8  | 9+ | 1  | 7   |  |  |  |  |
| 8         | -  | 3  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9  | 4  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 4* | 9+ | 9+        | 7* | 9+ | 9+ | 9  | 4* | 9+ | 9  | 9         | 5  | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 6  | 9  | 9+ | 8  | 3* | 9+ | 4  | 9         | 4* | 9+ | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 8  | 9+ | 6  | 2* | 9+ | 5  | 9         | 3* | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 8  | 9+ | 6  | 1* | 9+ | 7  | 9         | 2* | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 7  | -  | 9  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 1  | 9+ | 9+        | 9  | 6  | 9+ | 1  | -  | 9+ | 8  | 9         | -  | 9  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9+ | 9+        | 9  | 5  | 9+ | 9+ | 9+ | 1* | 9+ | 8         | -  | 1  | 9+ | 1* | -  | 9  | 1  | -         | -  | 8  | 1* | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 3  | 9+ | 9+ | 9+ | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | -  | 9+ | -         | -  | -  | 9+ | 2* | -  | 7  | -  | -         | -  | 9  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9  | 9+ | 9  | -  | 8  | 5         | -  | -  | 9+ | 6  | -  | -  | -  | 8         | -  | 8  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9         | 8  | 9  | 9+ | 9+ | 9+ | 7  | 1* | 9         | 9  | 2* | 9  | 9+ | -  | -  | 6  | 2         | -  | 5  | 6  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 6  | 9+ | 7  | 6         | 9  | -  | 4  | 9  |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Nov., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 7  | 5         | 9  | 4  | 5  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 9+ | 9+ | 8         | 9  | 9  | 9+ | 0   | 0  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 9  | 6         | 9  | 9  | 7  | 9+ | 9+ | 1  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 1   | 1  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 8         | 9+ | 9  | 8  | 9+ | 9+ | 1  | 9+ | 9+        | 6  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9  | 9  | 9+ | 2   | 2  |  |  |     |
| 3         | -  | -  | 3  | -  | -  | 9+ | 6  | 7         | -  | 8  | 5  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 7  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9  | 9  | 3   | 3  |  |  |     |
| 4         | -  | -  | 7  | -  | -  | 9+ | 9  | 8         | 3  | 9  | 7  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 4  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 4   | 4  |  |  |     |
| 5         | 6  | -  | 8  | 5  | -  | 9+ | 9  | 9         | 6  | 9  | 8  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 4  | 5  | 5   |    |  |  |     |
| 6         | 6  | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 9  | 9  | 8  | 3  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 1* | 9+ | 9+ | 8         | 9  | 9+ | -  | 6   | 6  |  |  |     |
| 7         | -  | 6  | 9  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 8  | 9+ | 9+ | 8  | 6* | 9+ | 9+ | 9         | 7  | 9+ | -  | 7   | 7  |  |  |     |
| 8         | -  | 9  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 7  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 2  | 9+ | 9+        | 5* | 9  | 9+ | 6  | 4* | 9+ | 9  | 9         | 3* | 9+ | -  | 8   | 8  |  |  |     |
| 9         | -  | 9  | 9  | -  | 6  | 9+ | 9+ | 7         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 5  | 8  | 9+ | 2  | 2* | 9+ | 8  | 9         | 3* | 9+ | -  | 9   | 9  |  |  |     |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 5  | 9+ | 1  | 1* | 9+ | 8  | 9         | 2* | 9  | -  | 10  | 10 |  |  |     |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 1* | 9+ | 2  | -  | 9+ | 8  | 9         | 1* | 9+ | -  | 11  | 11 |  |  |     |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 7  | 1  | 9+ | 9+        | 9  | 1* | 9+ | 1* | -  | 9+ | 7  | 9         | -  | 9+ | -  | 12  | 12 |  |  |     |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 8         | 9  | -  | 9+ | 1* | -  | 8  | 1  | 9         | -  | 9+ | -  | 13  | 13 |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 1  | 9+ | 9+ | 9+ | 8  | 9+        | 7  | 9  | 9+ | 9+ | 8  | -  | 9+ | -         | -  | -  | 9+ | 1* | -  | 5  | -  | -         | -  | 9  | -  | 14  | 14 |  |  |     |
| 15        | 1  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | 1  | 6  | 9+ | 9+ | 9+ | 7  | 9+        | 8  | 5  | 8  | 9+ | 9  | -  | 5  | 5         | -  | -  | 9+ | -  | -  | -  | -  | 7         | -  | 5  | -  | 15  | 15 |  |  |     |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9         | 8  | 2  | 6  | 9+ | 9+ | 2  | 1* | 9         | 8  | 1* | 8  | 9  | -  | -  | 6  | 1         | -  | 5  | -  | 16  | 16 |  |  |     |
| 17        | -  | 8  | -  | -  | 7  | 9+ | 9  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9         | 5  | 9+ | 9+ | 9+ | 9+ | 9+ | 2* | 9         | 9+ | 2* | 7  | 9+ | -  | 5* | 9  | 9         | 5* | 5  | 9+ | 17  | 17 |  |  |     |
| 18        | -  | 5  | -  | -  | 3  | 9+ | 5  | 7         | 9  | -  | -  | 9  | 9+ | 9  | 9  | 9+        | 1  | 8* | 9  | 9+ | 9+ | 9  | 9+ | 8         | 9  | 1* | 9+ | 9+ | 7* | 4* | 9  | 9         | 4* | 5  | 9+ | 18  | 18 |  |  |     |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 7  | 9+ | 7  | 8  | 9+        | 3* | 9  | 9  | 9+ | 9+ | 5  | 9+ | 9         | 9  | 1* | 9+ | 9+ | 7* | 9  | 9  | 7         | 3* | 5  | 9+ | 19  | 19 |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 3  | 9+ | 3  | 9  | 9+        | 1  | 8  | 7  | 9+ | 9+ | 3* | 9+ | 9         | 9  | 1* | 9+ | 9+ | 7* | 1* | 9  | 9         | 1* | 5  | 9+ | 20  | 20 |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8  | 9         | 1  | 4  | 8  | 9+ | 9  | 2* | 9+ | 8         | 9  | -  | 9+ | 9+ | 6* | 9  | 9  | 9         | -  | 8  | 9+ | 21  | 21 |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 7         | 5  | 1* | 7  | 9+ | 9  | -  | 9+ | 9         | 7  | 5  | 9  | 9+ | -  | 9+ | 9  | 8         | 1  | 9  | 9+ | 22  | 22 |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 5         | 7  | 1* | 5  | 9+ | 9  | -  | 9  | 9         | 7  | 8  | 9  | 9+ | -  | 9+ | 9+ | 8         | 7  | 9  | 9+ | 23  | 23 |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA



**Dec., Hawaii (Honolulu), for SSN = Very High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 7  | 6         | 9  | 3  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9+ | 9+ | 5         | 6  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 5  | -  | -  | 9+ | 7  | 8  | 8         | 9  | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+ | 5         | 9  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 4  | 1         | -  | 8  | -  | 1  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 5  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 8         | 9+ | 9  | 6  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 8  | 7  | 2  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 3  | 9+ | 9+        | 4  | 9+ | 9+ | 9+ | -  | 9+ | 9+ | 8         | 9+ | 9  | 8  | 3   |  |  |  |  |
| 4         | 1  | -  | 8  | -  | -  | 9+ | 9  | 8         | 3  | 9  | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 2  | 9+ | 9+ | 9+ | -  | 9+ | 9  | 9         | 9+ | 9  | 1  | 4   |  |  |  |  |
| 5         | 7  | -  | 8  | 5  | -  | 9+ | 9  | 9         | 6  | 9  | 9  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9  | 7         | 9  | 9+ | -  | 5   |  |  |  |  |
| 6         | 8  | 1  | 9  | 5  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 5  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 8  | 9+ | 9+ | 5  | -  | 9  | 9  | 7         | 5  | 9+ | -  | 6   |  |  |  |  |
| 7         | 8  | 8  | 9  | 2  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 4* | 9+ | 9+        | 5  | 9  | 9+ | 5  | 4* | 9  | 8  | 8         | 4* | 9+ | -  | 7   |  |  |  |  |
| 8         | 1  | 8  | 9  | -  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 2* | 9+ | 9+        | 4  | 9  | 9+ | 2  | 2* | 9  | 4  | 8         | 2* | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 9+ | 9         | 5  | 7  | 9+ | -  | -  | 9  | 2  | 9         | 2* | 9+ | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 2  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 1  | 9+ | -  | -  | 9  | 3  | 9         | 1* | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 1  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 1  | 9+ | -  | -  | 9+ | 4  | 9         | -  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 7  | 1  | 9+ | -  | -  | 9+ | 7  | 9         | -  | 9  | -  | 12  |  |  |  |  |
| 13        | 1  | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9+ | 8         | 9  | 1  | 9+ | -  | -  | 9  | -  | 9         | -  | 9+ | -  | 13  |  |  |  |  |
| 14        | 7  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 5  | 3  | 9+ | 9+ | 9+ | 8  | 9+        | 6  | 8  | 9+ | 9+ | 5  | -  | 9+ | -         | -  | -  | 9+ | -  | -  | 7  | -  | 7         | -  | 9  | -  | 14  |  |  |  |  |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 1  | 6  | 9+ | 9+ | 9+ | 4  | 9+        | 7  | 9  | 9  | 9+ | 9  | -  | 7  | 1         | 9  | -  | 9  | -  | -  | 1  | -  | 3         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | 7  | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 9  | 6  | 9+ | 9+ | -  | 3  | 9         | 8  | -  | 8  | 9  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 8  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Jan., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 4         | 6  | 9  | 3* | 7  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 9  | 9+ | -         | 9  | 9+ | 7  | 2  | 9  | 9+ | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 5         | 8  | 9  | 9  | 8  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9  | 9+ | -         | 9  | 9  | 6  | 9  | 9  | 8  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 4  | -         | -  | 7  | -  | -  | 9+ | 9  | 5         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | -         | 9+ | 9  | 4  | 9  | 9  | 9+ | 2   |
| 3   | -         | -  | 5  | -  | -  | 9+ | 8  | 8         | 1  | 8  | 8  | 1  | 9+ | 9+ | 8         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | -         | 9+ | 9  | 5  | 9  | 9  | 5  | 3   |
| 4   | -         | -  | 8  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | 2  | 9+ | 9+ | 8         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 8  | -         | 9+ | 9  | 6  | 9  | 9  | 2  | 4   |
| 5   | 6         | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 4  | 9  | 9  | 2  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 6  | -         | 9  | 9  | 5  | 5  | 9  | -  | 5   |
| 6   | 7         | 1  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 5  | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 9+ | 2         | 9  | 9+ | 9  | 8  | 9+ | 2  | -         | 9  | 9  | 8  | 3* | 9  | -  | 6   |
| 7   | 8         | 2  | 9  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 7  | 9+ | 9+ | 7         | 9+ | 9+ | 5  | 9+ | 9+ | 9+ | 5*        | 9  | 9+ | 8  | 5  | 9+ | -  | 1*        | 9  | 7  | 8  | 1* | 9+ | -  | 7   |
| 8   | -         | 9  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 7         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 2*        | 9+ | 9  | 7  | 4  | 9+ | -  | -         | 9  | -  | 8  | -  | 9  | -  | 8   |
| 9   | -         | 9  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 9  | 9+ | 9+ | 2         | 9+ | 9+ | 3  | 9  | 9+ | 8  | 1*        | 9+ | 8  | 8  | 1* | 9+ | -  | -         | 9  | 1  | 8  | -  | 8  | -  | 9   |
| 10  | -         | 9  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 2         | 9+ | 9+ | 1  | 8  | 9+ | 7  | -         | 9+ | 9  | 8  | -  | 9+ | -  | -         | 8  | 2  | 7  | -  | 8  | -  | 10  |
| 11  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 4         | 9+ | 9+ | 5  | 7  | 9+ | 8  | -         | 9+ | 8  | 9  | -  | 9+ | -  | -         | 8  | 1  | 6  | -  | 7  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 6         | 9+ | 9+ | 9  | 8  | 9+ | 9  | -         | 9+ | 6  | 9  | -  | 9+ | -  | -         | 5  | -  | 6  | -  | 8  | -  | 12  |
| 13  | -         | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | 5  | 9  | 9+ | 8  | -         | 9  | 3  | -  | -  | 9+ | -  | -         | 3  | -  | 5  | -  | 7  | -  | 13  |
| 14  | 1         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 2  | 9+ | 9+ | 9+ | 5         | 9+ | 3  | 8  | 8  | 9+ | 2  | -         | 8  | -  | 8  | -  | 9  | -  | -         | -  | -  | 2  | -  | 5  | -  | 14  |
| 15  | 6         | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 2  | 7  | 9  | 9+ | 9+ | 1         | 9+ | 4  | 9  | 6  | 9+ | 4  | -         | 5  | -  | 6  | -  | 7  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16  | 6         | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9  | -  | 8  | 9  | 9+ | 9+ | 1         | 8  | 8  | 7  | 2  | 9  | 9  | -         | -  | 2  | -  | -  | 5  | -  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | -         | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+        | -  | 7  | 9  | -  | 7  | 9+ | -         | 2* | 9  | 9  | 2* | 5  | 9  | -         | -  | 8  | -  | -  | 5  | 2  | 17  |
| 18  | -         | 7  | -  | -  | 5  | 9+ | 7  | 8         | 9  | -  | 2  | 9  | 9+ | 9+ | 9+        | 9+ | 5  | 9  | 7  | 9+ | 9+ | 6*        | 1* | 9  | 9  | 1* | 8  | 9+ | -         | -  | 9  | 9  | -  | 5  | 9  | 18  |
| 19  | -         | 2  | -  | -  | 1  | 9+ | 1  | -         | 9  | -  | -  | 8  | 9+ | 8  | 8         | 9+ | 4* | 7  | 7  | 9+ | 9+ | 5*        | 8  | 9  | 9  | 1* | 9+ | 9+ | 4*        | -  | 9  | 9  | -  | 5  | 9  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 5  | 7         | 9+ | 3  | 9  | 2  | 9+ | 9+ | 2*        | -  | 8  | 9  | -  | 9+ | 9+ | 1*        | -  | 9  | 9  | -  | 8  | 9  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 6         | 9  | 5  | 4  | 5  | 9  | 9+ | 1*        | 9  | 9  | 9  | -  | 9  | 9+ | -         | -  | 9  | 6  | -  | 9  | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5         | 8  | 6  | 1  | 5  | 9  | 9  | -         | 9+ | 9  | 9  | -  | 9  | 9+ | -         | 9  | 9  | 8  | -  | 8  | 9  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 3         | 7  | 8  | 1  | 7  | 9+ | 9  | -         | 9  | 9  | 9  | 1  | 9  | 9+ | -         | 9  | 9  | 8  | -  | 9  | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

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**Feb., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 4  | 5         | 9  | 4  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 9  | 9+ | 8         | 7  | 9+ | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 6  | 7         | 9  | 8  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9  | 9+ | 6         | 9  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 5  | 7         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 9  | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 5  | -  | 9+ | 9+ | 8  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 8         | 9+ | 9  | 7  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 8  | 8         | 2  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 8  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 2  | -  | 9+ | 9  | 9         | 6  | 9  | 8  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | -  | 9  | 9+ | 9  | 9         | 9  | 5  | 5  |     |  |  |  |  |
| 6         | 6  | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 2  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 2  | 9  | 9+ | 8  | 7         | 9  | 1  | 6  |     |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 5  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9+ | 9         | 9  | 9+ | 5  | 1* | 9  | 8  | 8  | 5         | 9  | -  | 7  |     |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 3* | 9+ | 9+ | 8         | 7  | 9+ | 2  | 1* | 9+ | 7  | 8  | 1*        | 9  | -  | 8  |     |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9+ | 9+ | 2* | 9+ | 9  | 7         | 4  | 9+ | 1  | 1* | 9+ | 2  | 9  | 1*        | 8  | -  | 9  |     |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 6  | 9  | 9+ | 9+ | 1* | 9+ | 9         | 8  | 2  | 9+ | -  | -  | 9  | 5  | 9         | -  | 7  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9  | 9+ | 9  | -  | 9+ | 8         | 9  | 1  | 9+ | -  | -  | 9  | 2  | 9         | -  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9+ | 8         | 9  | 1  | 9+ | 1  | -  | 9  | 4  | 9         | -  | 7  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9  | 9+ | 9  | -  | 9+ | 7         | 9  | 1  | 9+ | 1* | -  | 8  | -  | 8         | -  | 6  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 3  | 9+ | 9+ | 9+ | 8  | 9+        | 5  | 9  | 9  | 9+ | 8  | -  | 9  | -         | -  | -  | 9+ | -  | -  | 3  | -  | 5         | -  | 7  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 7  | 9+ | 9+ | 9+ | 7  | 9+        | 5  | 7  | 8  | 9+ | 9  | -  | 4  | -         | 8  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8  | 9         | 8  | 4  | 7  | 9+ | 9+ | -  | -  | 4         | 2  | -  | 5  | 3  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9  | 9+ | 9+ | -         | 6  |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Mar., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 4         | 2  | 8  | 5  | 4  | 9+ | 9+ | -         | 9  | 9  | 8  | 8  | 8  | 9+ | -         | 9  | 9+ | 4  | 6  | 9  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 4  | 6         | 3  | 9  | 7  | 5  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 8  | 8  | 9  | 9  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 8  | 6         | 7  | 9+ | 9  | 7  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 8  | 9  | 9  | 9+ | 2   |
| 3   | -         | -  | 1  | -  | -  | 9+ | 5  | -         | -  | 8  | -  | -  | 9+ | 9  | 9         | 8  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | -         | 9  | 9+ | 8  | 9  | 9  | 9  | 3   |
| 4   | -         | -  | 6  | -  | -  | 9+ | 8  | 8         | -  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9  | 8  | 4   |
| 5   | -         | -  | 8  | -  | -  | 9+ | 9  | 8         | 4  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 7         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9  | 8  | 5   |
| 6   | -         | -  | 9  | 2  | -  | 9+ | 9+ | 8         | 7  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 4         | 9  | 9+ | 9  | 9  | 9+ | 5  | 6   |
| 7   | -         | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 3  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 1         | 9  | 9  | 9  | 7  | 9  | 1  | 7   |
| 8   | -         | 4  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 5  | 6  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 7         | 9+ | 9+ | 8  | 9  | 9+ | 9  | 1*        | 9  | 7  | 9  | 5  | 9  | -  | 8   |
| 9   | -         | 8  | 9  | -  | 1  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 5         | 9+ | 9+ | 8  | 9  | 9+ | 8  | 1*        | 9+ | 1  | 9  | 2* | 9  | -  | 9   |
| 10  | -         | 9  | 9  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 1*        | 9+ | 9  | 9  | 8  | 9+ | 7  | 1*        | 9+ | 3  | 9  | 1* | 9  | -  | 10  |
| 11  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 1*        | 9+ | 9+ | 9  | 8  | 9+ | 5  | -         | 9+ | 6  | 9  | -  | 7  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | -         | 9+ | 9+ | 9  | 7  | 9+ | 3  | -         | 9+ | 3  | 9  | -  | 6  | -  | 12  |
| 13  | -         | 9  | 2  | -  | 9  | 9+ | 9+ | 1         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9  | 9  | 9+ | 9+ | 9  | -         | 9+ | 8  | -  | 6  | 9+ | -  | -         | 9  | -  | 9  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 6  | 3  | 9+ | 9+ | 9+ | 9         | 9+ | 8  | 9  | 9+ | 9+ | 9+ | -         | 9+ | -  | -  | 4  | 9+ | -  | -         | 6  | -  | 8  | -  | 5  | -  | 14  |
| 15  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 7  | 9+ | 9+ | 9+ | 9         | 9+ | 8  | 5  | 9+ | 9+ | 9  | -         | 9  | 2  | -  | 1  | 9  | 2  | -         | -  | -  | 4  | -  | 5  | -  | 15  |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9         | 9  | 8  | 9  | 9  | 9+ | 9+ | 2         | -  | 9  | 7  | -  | 8  | 9  | -         | -  | -  | -  | -  | 5  | -  | 16  |
| 17  | -         | 9  | -  | -  | 7  | 9+ | 7  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+        | 9+ | 5  | 8  | 9+ | 9+ | 9+ | 8         | 2* | 9  | 9  | 3* | 5  | 9+ | -         | -  | 9  | 6  | -  | 5  | 9  | 17  |
| 18  | -         | 5  | -  | -  | 2  | 9+ | 1  | 6         | 9  | -  | -  | 9  | 9+ | 9  | 9         | 9+ | 2  | 8  | 9+ | 9+ | 9+ | 9         | 5  | 8  | 9  | 4* | 9+ | 9+ | 2         | -  | 9  | 9  | 1* | 9  | 9  | 18  |
| 19  | -         | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 7  | 9+ | 6  | 8         | 9+ | 4* | 9  | 9  | 9+ | 9+ | 7         | 9+ | 8  | 9  | 3* | 9+ | 9+ | 6*        | 4  | 9  | 9  | 2* | 5  | 9  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 3  | 9+ | 1  | 7         | 9+ | 1  | 8  | 9  | 9+ | 9  | 4*        | 9  | 8  | 9  | 2* | 9+ | 9+ | 5*        | -  | 9  | 9  | 1* | 5  | 9  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7         | 9  | 1  | 4  | 8  | 9  | 8  | 4*        | 9+ | 8  | 9  | 1* | 9  | 9+ | 4*        | 9  | 9  | 9  | -  | 9  | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 4         | 7  | 5  | -  | 6  | 9  | 9  | -         | 9  | 9  | 7  | 4  | 9  | 9+ | -         | 8  | 9  | 8  | -  | 9+ | 9  | 22  |
| 23  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2         | 4  | 7  | -  | 5  | 9+ | 9  | -         | 9  | 9  | 7  | 7  | 8  | 9+ | -         | 9  | 9  | 7  | 2  | 9+ | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

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Apr., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5         | 2  | 7  | 5  | 3  | 9+ | 9  | -         | 9  | 9  | 7  | 8  | 8  | 9+ | -         | 9  | 9+ | 8  | 6  | 9+ | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 6         | 2  | 9  | 7  | 5  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 9  | 9+ | -         | 9  | 9+ | 8  | 9  | 9  | 9  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 8         | 6  | 9+ | 9  | 6  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 8  | 9  | 9  | 9+ | 2   |
| 3   | -         | -  | 1  | -  | -  | 9+ | 3  | -         | -  | 7  | -  | -  | 9+ | 9  | 8         | 8  | 9+ | 9+ | 8  | 9+ | 9+ | 4         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 9+ | 8  | 9  | 9  | 9+ | 3   |
| 4   | -         | -  | 6  | -  | -  | 9+ | 7  | 6         | -  | 8  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | 7         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 8  | 4   |
| 5   | -         | -  | 8  | -  | -  | 9+ | 9  | 7         | 1  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9  | 5   |
| 6   | -         | -  | 9  | -  | -  | 9+ | 9+ | 7         | 5  | 9  | 8  | -  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 5         | 9  | 9+ | 9  | 9  | 9+ | 8  | 6   |
| 7   | -         | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9  | 7  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 6         | 9  | 9  | 9  | 9  | 9+ | 6  | 7   |
| 8   | -         | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | 3  | 5  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 2         | 9  | 8  | 9  | 7  | 9+ | 5  | 8   |
| 9   | -         | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 1         | 9+ | 3  | 9  | 5  | 9+ | 5  | 9   |
| 10  | -         | 9  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 8         | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 3         | 9+ | 2  | 9  | 4  | 9  | 2  | 10  |
| 11  | -         | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 7         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | -         | 9+ | 9  | 9  | 4  | 9  | -  | 11  |
| 12  | -         | 9  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 5         | 9+ | 9+ | 9  | 9  | 9+ | 8  | -         | 9+ | 7  | 9  | 2  | 9  | -  | 12  |
| 13  | -         | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 4         | 9+ | 9  | 5  | 9  | 9+ | 6  | -         | 9  | 2  | -  | -  | 6  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 5  | 6  | 9+ | 9+ | 9+ | 9         | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 3         | 9+ | 5  | 4  | 8  | 9+ | 6  | -         | 7  | -  | 9  | -  | 5  | -  | 14  |
| 15  | -         | 9+ | -  | -  | 8  | 9+ | 9+ | 6         | 9+ | 1  | 7  | 9+ | 9+ | 9+ | 9         | 9+ | 9  | 4* | 9+ | 9+ | 9+ | 3         | 9  | 8  | 2  | 7  | 9  | 9  | -         | 1  | 1  | 7  | -  | 5  | -  | 15  |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9         | 9+ | 8  | 9  | 9+ | 9+ | 9+ | 6         | 4  | 9  | 8  | 4  | 8  | 9  | -         | -  | 5  | -  | -  | 5  | 3  | 16  |
| 17  | -         | 7  | -  | -  | 4  | 9+ | 5  | 5         | 9+ | -  | 4  | 9  | 9+ | 9  | 9         | 9+ | 5  | 9* | 9+ | 9+ | 9+ | 9         | 3* | 9  | 9  | 6  | 8  | 9+ | -         | 1* | 9  | 5  | 4* | 5  | 9  | 17  |
| 18  | -         | 3  | -  | -  | -  | 9+ | 1  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9         | 9+ | 2  | 8* | 9+ | 9+ | 9+ | 9         | 9+ | 8  | 9  | 9  | 9+ | 9+ | 4         | 5* | 9  | 8  | -  | 5  | 9+ | 18  |
| 19  | -         | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 5  | 9+ | 3  | 8         | 9+ | 1  | 9  | 9  | 9+ | 9+ | 9         | 9+ | 8  | 9  | 8  | 9+ | 9+ | 5*        | 7  | 9  | 9  | -  | 5  | 9+ | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 1  | 9+ | -  | 8         | 9+ | 1  | 8  | 9  | 9+ | 9+ | 7         | 9  | 8  | 8  | 6  | 9+ | 9+ | 3*        | -  | 9  | 9  | -  | 4  | 9  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7         | 9  | 1  | 3  | 8  | 9  | 9  | 5*        | 9+ | 8  | 9  | 3  | 9  | 9+ | 1*        | 9  | 9  | 9  | -  | 9+ | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 3         | 7  | 2  | -  | 6  | 9+ | 8  | 3*        | 9  | 8  | 7  | 8  | 9  | 9+ | 1*        | 9  | 9  | 8  | 1  | 9+ | 9  | 22  |
| 23  | -         | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5         | 3  | 6  | -  | 3  | 8  | 9  | -         | 9  | 9  | 7  | 8  | 8  | 9+ | -         | 9  | 9  | 8  | 3  | 9+ | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

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May, Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 4         | 7  | 4  | 4  | 9  | 9  | 1  | 8  | 9         | 8  | 8  | 8  | 9+ | -  | 9  | 9+ | 5         | 5  | 9  | 9  | 0   |  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 5         | 9  | 6  | 4  | 9+ | 9+ | 3  | 9  | 9+        | 9  | 9  | 8  | 9+ | -  | 9  | 9+ | 5         | 9  | 9  | 9+ | 1   |  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 8  | 6         | 9+ | 9  | 6  | 9+ | 9+ | 5  | 9  | 9+        | 9  | 9  | 8  | 9+ | -  | 9  | 9  | 5         | 9  | 9+ | 9+ | 2   |  |  |  |     |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 8         | 9+ | 9+ | 7  | 9+ | 9+ | 7  | 9+ | 9+        | 9+ | 9  | 9  | 9+ | -  | 9  | 9  | 7         | 9  | 9+ | 9  | 3   |  |  |  |     |
| 4         | -  | -  | 5  | -  | -  | 9+ | 5  | 5         | -  | 8  | 3  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 7  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9+ | 8  | 9         | 9  | 9+ | 8  | 4   |  |  |  |     |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 8  | 9         | 9  | 9+ | 9  | 5   |  |  |  |     |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 6         | 1  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9  | 3  | 9  | 8  | 8         | 9  | 9+ | 8  | 6   |  |  |  |     |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 4  | 9  | 7  | 7         | 8  | 9+ | 7  | 7   |  |  |  |     |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 1  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9+ | 9+ | 9  | 5  | 9  | 5  | 4         | 7  | 9+ | 6  | 8   |  |  |  |     |
| 9         | -  | 6  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 7  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 5  | 9  | 4  | 9         | 6  | 9+ | 5  | 9   |  |  |  |     |
| 10        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 9         | 9  | 9+ | 9+ | 9+ | 5  | 8  | 2  | 9         | 6  | 8  | 2  | 10  |  |  |  |     |
| 11        | -  | 8  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9  | 6  | 9         | 5  | 8  | -  | 11  |  |  |  |     |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 9         | 7  | 9  | 9+ | 8  | -  | 8  | 5  | -         | 2  | 9  | -  | 12  |  |  |  |     |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 1  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 9         | 5  | 9  | 9+ | 7  | -  | 8  | 3  | -         | -  | 5  | -  | 13  |  |  |  |     |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 4  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 3  | 9+ | 8         | 5  | 8  | 9+ | 8  | -  | 7  | -  | 7         | -  | 5  | -  | 14  |  |  |  |     |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 4* | 9+ | 9+ | 9+ | 3  | 9  | 7         | 3  | 8  | 8  | 9  | -  | 5  | 1  | 1         | -  | 5  | -  | 15  |  |  |  |     |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 7  | 4         | 9+ | -  | 5  | 9  | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 6  | 9  | 9         | 6  | 6  | 6  | 9  | -  | -  | 1  | -         | -  | 5  | -  | 16  |  |  |  |     |
| 17        | -  | 5  | -  | -  | 1  | 9+ | 1  | 4         | 9  | -  | 2  | 8  | 9+ | 9  | 9  | 9+        | 5  | 9  | 9+ | 9+ | 9+ | 8  | 4  | 9         | 9  | 6* | 6  | 9  | -  | -  | 8  | -         | -  | 5  | 5  | 17  |  |  |  |     |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 7  | 9+ | 4  | 9  | 9+        | 2  | 5  | 9+ | 9+ | 9+ | 9  | 9+ | 8         | 9  | 9+ | 8  | 8  | 1  | -  | 9  | 4         | -  | 5  | 8  | 18  |  |  |  |     |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 3  | 9+ | 1  | 8  | 9+        | 1  | 9  | 9  | 9+ | 9+ | 9  | 9+ | 8         | 8  | 9  | 9+ | 9  | 1  | 6  | 8  | 7         | -  | 9  | 8  | 19  |  |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | -  | 9+ | -  | 7  | 9         | 2* | 8  | 9  | 9  | 9  | 8  | 9  | 8         | 8  | 8  | 8  | 9+ | -  | -  | 9  | 5         | -  | 9+ | 9  | 20  |  |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 8         | 1  | 2  | 8  | 9  | 9  | 6  | 9  | 8         | 9  | 7  | 9  | 9  | -  | 1  | 9  | 7         | -  | 9+ | 9+ | 21  |  |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 7         | 2  | -  | 5  | 9  | 8  | 2  | 8  | 9         | 7  | 8  | 9  | 9+ | -  | 5  | 9  | 7         | -  | 9  | 9+ | 22  |  |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 5         | 4  | -  | 3  | 9  | 8  | 1  | 8  | 9         | 7  | 8  | 8  | 9  | -  | 8  | 9  | 6         | -  | 9  | 9+ | 23  |  |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Jun., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0         | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3         | 3  | 6  | -  | 3  | 9  | 9  | 1         | 8  | 9  | 8  | 8  | 8  | 9+ | -         | 8  | 9  | 2  | 3  | 9  | 9  | 0   |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7         | 4  | 9  | 6  | 6  | 9  | 9+ | 1         | 8  | 9+ | 9  | 8  | 9  | 9+ | -         | 9  | 9  | 2  | 6  | 9  | 9+ | 1   |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 6  | 8         | 6  | 9  | 9  | 6  | 9+ | 9+ | 2         | 9  | 9+ | 9  | 9  | 9  | 9+ | -         | 8  | 9  | 1  | 7  | 9  | 9  | 2   |
| 3         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 8  | 9         | 7  | 9+ | 9+ | 7  | 9+ | 9+ | 3         | 9  | 9+ | 9+ | 9  | 9  | 9+ | -         | 8  | 8  | 4  | 8  | 9+ | 9  | 3   |
| 4         | -  | -  | 4  | -  | -  | 9+ | 5  | 2         | -  | 8  | 1  | -  | 9+ | 9  | 9         | 8  | 9+ | 9+ | 7  | 9+ | 9+ | 4         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 8  | 8  | 8  | 9+ | 9  | 4   |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 4         | -  | 9  | 7  | -  | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 5         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 7  | 8  | 8  | 9+ | 8  | 5   |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | -  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 8  | 9+ | 9+ | 6         | 9  | 9+ | 8  | 9  | 9+ | 9+ | -         | 9  | 5  | 8  | 8  | 9+ | 6  | 6   |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 5  | -  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 6  | 9+        | 9+ | 8  | 9  | 9+ | 9  | -  | 9         | 3  | 9  | 7  | 9+ | 3  | 7  |     |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9  | -  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 7         | 9+ | 9  | 9+ | 9  | 9+ | 9  | -         | 9  | 1  | 9  | 5  | 8  | 4  | 8   |
| 9         | -  | 3  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 3  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 7         | 9+ | 9  | 6  | 9+ | 9+ | 9  | -         | 8  | -  | 9  | 4  | 9  | 3  | 9   |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 8         | 9+ | 8  | 6  | 9+ | 9+ | 9+ | -         | 8  | 2  | 9  | 4  | 8  | 1  | 10  |
| 11        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 5         | 9+ | 8  | 8  | 9+ | 9+ | 9  | -         | 8  | 2  | 8  | 3  | 8  | -  | 11  |
| 12        | -  | 8  | 5  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 6         | 9+ | 9  | 8  | 9  | 9+ | 9  | -         | 6  | 3  | 7  | -  | 6  | 1  | 12  |
| 13        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | 4  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 6         | 9+ | 8  | 7  | 9  | 9  | 8  | -         | 7  | 1  | 5  | 2  | 5  | -  | 13  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 3  | 7  | 9  | 9+ | 9+ | 9         | 9+ | 9  | 9  | 9+ | 9+ | 9  | 6         | 9  | 8  | 5  | 9  | 8  | 8  | -         | 5  | 1  | 1  | 1  | 5  | -  | 14  |
| 15        | -  | 8  | -  | -  | 7  | 9+ | 8  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9         | 9+ | 9  | 3  | 9+ | 9+ | 9  | 5         | 9  | 8  | 7  | 8  | 8  | 9  | -         | 2  | 2  | -  | -  | 5  | 1  | 15  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 2  | -         | 9  | -  | 6  | 8  | 9+ | 9  | 9         | 9+ | 8  | 9  | 9+ | 9+ | 9+ | 6         | 9  | 9  | 7  | 8  | 6  | 9+ | -         | -  | 1  | -  | -  | 5  | 2  | 16  |
| 17        | -  | 3  | -  | -  | -  | 9+ | -  | -         | 9  | -  | 2  | 8  | 9+ | 5  | 9         |    |    |    |    |    |    |           |    |    |    |    |    |    |           |    |    |    |    |    |    |     |

**Jul., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 3         | 7  | 4  | 5  | 9  | 9  | 1  | 8  | 9         | 8  | 8  | 7  | 9+ | -  | 9  | 9  | 1         | 2  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 4         | 9  | 7  | 6  | 9  | 9+ | 1  | 8  | 9+        | 9  | 9  | 9  | 9+ | -  | 8  | 9  | 1         | 5  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 6  | 9  | 6         | 9+ | 9  | 7  | 9+ | 9+ | 1  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 8  | 9  | 1         | 7  | 9  | 9  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 9  | 7         | 9+ | 9+ | 8  | 9+ | 9+ | 2  | 9  | 9+        | 9  | 9  | 9  | 9  | -  | 8  | 8  | 4         | 7  | 9+ | 9  | 3   |  |  |  |  |
| 4         | -  | -  | 5  | -  | -  | 9+ | 5  | 5         | -  | 8  | 4  | -  | 9+ | 9  | 9+ | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 3  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 7  | 8         | 8  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 4  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 6  | 9         | 8  | 9  | 8  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 6         | 1  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 6  | 9  | 9+ | 8         | 9  | 9+ | 9  | -  | 9  | 4  | 8  | 8         | 9  | 5  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9  | 8         | 9  | 9+ | 9  | -  | 9  | 2  | 8  | 7         | 9  | 1  | 7  |     |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9  | 1  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 9  | 9         | 9  | 9+ | 9  | -  | 9  | 1  | 8  | 3         | 8  | 2  | 8  |     |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 5  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 8  | 9         | 9+ | 9+ | 9+ | -  | 8  | -  | 7  | 2         | 8  | 1  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 8  | 9         | 9+ | 9+ | 9  | -  | 8  | 1  | 7  | 2         | 8  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 1  | 9+ | 9+ | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 7  | 9+ | 8  | 8         | 9+ | 9+ | 9  | -  | 7  | -  | 6  | 2         | 7  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9  | 6         | 9  | 9+ | 9  | -  | 6  | 5  | 6  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 7  | 2  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9  | 5         | 9  | 9  | 7  | -  | 7  | 4  | 2  | 1         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 3  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 3  | 9  | 8  | 8         | 8  | 8  | 7  | -  | 6  | 1  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 2* | 9+ | 9+ | 3  | 9  | 8  | 4         | 7  | 7  | 8  | -  | 3  | 1  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 5  | 4         | 9  | -  | 6  | 9  | 9+ | 9  | 9  | 9+        | 8  | 8  | 9+ | 9+ | 5  | 8  | 9  | 6         | 6  | 6  | 9  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 5  | -  | -  | -  | 9+ | -  | 3         | 9  | -  | 2  | 8  | 9+ | 8  | 9  | 9+        | 5  | 9  | 9+ | 9+ | 8  | 1  | 9  | 8         |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |



**Aug., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 4         | 7  | 5  | 4  | 9  | 9  | -  | 8  | 9         | 8  | 7  | 9  | 9+ | -  | 8  | 9  | -         | 2  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | 7  | 5         | 9  | 8  | 5  | 9+ | 9+ | -  | 8  | 9+        | 9  | 8  | 9  | 9+ | -  | 8  | 9  | -         | 5  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 8  | 8  | 6         | 9+ | 9  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 8  | 9  | -         | 6  | 9+ | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 3  | -         | -  | 8  | -  | -  | 9+ | 9  | 8  | 8         | 9+ | 9  | 7  | 9+ | 9+ | 1  | 9  | 9+        | 8  | 9  | 9  | 9  | -  | 9  | 8  | 4         | 7  | 9+ | 9+ | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 6         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 7  | 9         | 7  | 9+ | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | -  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 6  | 8         | 8  | 9+ | 8  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 5  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 5  | 8         | 8  | 9  | 3  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 8  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9         | 9  | 9  | 9+ | 9  | -  | 9  | 2  | 9         | 6  | 9  | -  | 7   |  |  |  |  |
| 8         | -  | 3  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 2  | 3  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 8         | 9  | 9  | 9+ | 9  | -  | 9  | -  | 9         | 3  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 6  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 8         | 9  | 9  | 9+ | 9  | -  | 8  | -  | 8         | 2  | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 7  | 9+ | 6         | 9  | 9  | 9+ | 9  | -  | 8  | -  | 8         | 1  | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 8         | 9  | 9  | 9+ | 8  | -  | 8  | 2  | 8         | -  | 8  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1  | 9+ | 9         | 3  | 9  | 9  | 8  | -  | 6  | 3  | 8         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 1  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 2  | 9+ | 8         | 3  | 8  | 9  | 5  | -  | 7  | 1  | 7         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 4  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 1  | 9  | 5         | 2  | 8  | 8  | 5  | -  | 6  | -  | 4         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 4  | 9+ | 9+ | 9  | 2  | 9  | 7         | 8  | 5  | 7  | 8  | -  | 2  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9+ | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 5  | 7  | 9         | 6  | 4  | 5  | 9  | -  | -  | -  | -         | -  | 5  | 1  | 16  |  |  |  |  |
| 17        | -  | 6  | -  | -  | 1  | 9+ | 2  | 4         | 9  | -  | 3  | 8  | 9+ | 9  |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Sep., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | 2         | 8  | 7  | 3  | 9+ | 9+ | -  | 9  | 9         | 8  | 8  | 8  | 9+ | -  | 9  | 9  | 6         | 5  | 9  | 9  | 0   |  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 6  | 2         | 9  | 8  | 4  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 7         | 8  | 9  | 9  | 1   |  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 5  | -  | -  | 9+ | 8  | 7  | 7         | 9+ | 9  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 7         | 9  | 9  | 9+ | 2   |  |  |  |     |
| 3         | -  | -  | 2  | -  | -  | 9+ | 5  | 5         | -  | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 8  | 3   |  |  |  |     |
| 4         | -  | -  | 7  | -  | -  | 9+ | 7  | 7         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 8  | 9  | 9+ | 9  | -  | 9+ | 9+ | 9         | 9  | 9  | 9  | 4   |  |  |  |     |
| 5         | -  | -  | 8  | 1  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 9+ | 9         | 9  | 9  | 7  | 5   |  |  |  |     |
| 6         | -  | -  | 8  | 1  | -  | 9+ | 9+ | 8         | 7  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 4  | 9  | 9  | 9         | 9  | 9  | 2  | 6   |  |  |  |     |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9  | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9  | 9+ | 9  | 2  | 9  | 6  | 9         | 7  | 9+ | -  | 7   |  |  |  |     |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 4  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | 9+        | 8  | 9  | 9+ | 9  | -  | 9  | 1  | 9         | 4  | 9+ | -  | 8   |  |  |  |     |
| 9         | -  | 9  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4  | 9+ | 8         | 8  | 9  | 9+ | 8  | -  | 9  | -  | 9         | 1* | 9  | -  | 9   |  |  |  |     |
| 10        | -  | 9  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 3  | 9+ | 9         | 9  | 8  | 9+ | 7  | -  | 9  | 4  | 9         | -  | 8  | -  | 10  |  |  |  |     |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 8  | 8  | 9+ | 6  | -  | 8  | 4  | 9         | -  | 6  | -  | 11  |  |  |  |     |
| 12        | -  | 9  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 9  | 7  | 9+ | 2  | -  | 8  | 2  | -         | -  | 5  | -  | 12  |  |  |  |     |
| 13        | -  | 9  | 1  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | 1  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9+ | 8         | 1  | 6  | 9+ | -  | -  | 7  | -  | 9         | -  | 5  | -  | 13  |  |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 4  | 6  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9+ | 1         | -  | 4  | 9  | -  | -  | 5  | -  | 6         | -  | 5  | -  | 14  |  |  |  |     |
| 15        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 8  | 4         | 8  | -  | 8  | 6  | -  | -  | -  | 1         | -  | 5  | -  | 15  |  |  |  |     |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 2  | 1  | 9         | 6  | -  | 5  | 9  | -  | -  | 1  | -         | -  | 5  | -  | 16  |  |  |  |     |
| 17        | -  | 7  | -  | -  | 3  | 9+ | 5  | 5         | 9  | -  | 4  | 9  | 9+ | 9  | 9+ | 9+        | 5  | 8  | 9+ | 9+ | 9+ | 7  | 3* | 9         | 9  | 4* | 5  | 9+ | -  | -  | 9  | 3         | -  | 5  | 8  | 17  |  |  |  |     |
| 18        | -  | 2  | -  | -  | 1  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9  | 9+        | 2  | 8* | 9+ | 9+ | 9+ | 9  | 8  | 8         | 9  | 4  | 7  | 9  | 2  | -  | 9  | 5         | -  | 5  | 9  | 18  |  |  |  |     |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 5  | 9  | 9+        | 1  | 9  | 9  | 9+ | 9+ | 8  | 9  | 8         | 9  | 4  | 9+ | 9  | 1  | 1  | 8  | 6         | -  | 8  | 9+ | 19  |  |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 8  | 9+        | 1  | 7  | 9  | 9+ | 8  | 6  | 9  | 8         | 9  | 1* | 9+ | 9  | -  | -  | 9  | 8         | -  | 9  | 9+ | 20  |  |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 8         | 1  | -  | 8  | 8  | 9  | 1  | 9+ | 8         | 9  | 1  | 9  | 9  | -  | 7  | 9  | 8         | -  | 9+ | 9+ | 21  |  |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 6         | 5  | -  | 5  | 9  | 9  | -  | 9  | 9         | 8  | 7  | 9  | 9  | -  | 9  | 9  | 5         | -  | 9+ | 9+ | 22  |  |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9  | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 4         | 7  | -  | 3  | 9  | 8  | -  | 9  | 9         | 7  | 7  | 8  | 9+ | -  | 9  | 9+ | 6         | 4  | 9  | 9  | 23  |  |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Oct., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 6  | 5         | 9  | 5  | 5  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 8  | 9+ | 5         | 9  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 5  | 7  | 7         | 9  | 9  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 6         | 9  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 6  | -  | -  | 9+ | 9  | 6  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 5  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | 9+ | -  | 9  | 9+ | 8         | 9  | 9  | 8  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 8  | 8         | 1  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 8  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 2  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 5  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | 2  | -  | 9+ | 9+ | 9         | 8  | 9  | 8  | 2  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9  | 9+ | 9+ | 9  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 9+ | 9         | 8  | 9  | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 4  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 6* | 9+ | 9+        | 9  | 9  | 9+ | 8  | 2* | 9  | 8  | 9         | 3  | 9  | -  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 5  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 4* | 9+ | 9+        | 8  | 8  | 9+ | 6  | 1* | 9  | 5  | 9         | 2* | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 6  | 9  | -  | 1  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 2* | 9+ | 9         | 7  | 7  | 9+ | 5  | 1* | 9+ | 2  | 9         | 2* | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 5  | 9+ | 2  | 1* | 9+ | 7  | 9         | 1* | 9  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 1* | 9+ | 9+        | 9  | 1  | 9+ | 1  | -  | 9+ | 3  | 9         | -  | 8  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 6         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 1* | 9+ | 1  | -  | 9  | 5  | 9         | -  | 7  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9+ | 9+ | 9+ | -  | 9+ | 5         | 9  | 1  | 9+ | 1* | -  | 7  | -  | 9         | -  | 6  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 6  | 9+ | 9+ | 9+ | 9  | 9+        | 6  | 9  | 9+ | 9+ | 9  | -  | 9  | -         | -  | -  | 9+ | -  | -  | 2  | -  | 9         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 6  | 9  | 9+ | 9  | -  | 2  | 2         | 9  | -  | 9  | 3  | -  | -  | -  | 3         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9+ | 8         | 8  | 6  | 9  | 9+ | 9+ | 5  | -  | 9         | 8  | -  | 7  | 9  | -  | -  | 2  | -         | -  | 5  | 2  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 6  | 9+ | 7  | 6         | 9+ | -  | 6  |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Nov., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  | UTC |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |     |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 6  | 6         | 9  | 3  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9+ | 9+ | -  | 9  | 9+ | 7         | 8  | 9  | 9+ | 0   | 0  |  |  |     |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 6  | 8         | 9  | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 7         | 9  | 9  | 9  | 1   | 1  |  |  |     |
| 2         | -  | -  | -  | -  | -  | 9+ | 3  | -         | -  | 8  | -  | -  | 9+ | 9  | 8  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 1* | 9  | 9+ | 9+ | -  | 9  | 9+ | 9         | 9  | 9  | 7  | 2   | 2  |  |  |     |
| 3         | -  | -  | 5  | -  | -  | 9+ | 7  | 7         | 1  | 8  | 7  | 1  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 2  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 8         | 9+ | 9  | 8  | 3   | 3  |  |  |     |
| 4         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 4  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9  | 9+ | 9         | 9+ | 9  | 5  | 4   | 4  |  |  |     |
| 5         | 6  | -  | 8  | 5  | -  | 9+ | 9  | 9         | 3  | 9  | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 9+ | 8         | 9  | 9+ | -  | 5   | 5  |  |  |     |
| 6         | 6  | -  | 8  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 8  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9  | 9+ | 7  | -  | 9  | 9+ | 8         | 5  | 9  | -  | 6   | 6  |  |  |     |
| 7         | 1  | 7  | 9  | -  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 5* | 9+ | 9+        | 8  | 9  | 9+ | 4  | 3* | 9  | 9  | 8         | 2* | 9  | -  | 7   | 7  |  |  |     |
| 8         | -  | 9  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 7  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 2* | 9+ | 9+        | 7  | 7  | 9+ | 1  | 1* | 9  | 7  | 8         | 3* | 9  | -  | 8   | 8  |  |  |     |
| 9         | -  | 9  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 2* | 9+ | 9+        | 7  | 3  | 9+ | -  | -  | 9+ | 5  | 9         | 1* | 9  | -  | 9   | 9  |  |  |     |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 6  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 9  | 1* | 9+ | -  | -  | 9+ | 5  | 9         | -  | 9  | -  | 10  | 10 |  |  |     |
| 11        | -  | 9  | 9  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 7  | 9  | 9+ | 9  | -  | 9+ | 9+        | 9  | 1* | 9+ | -  | -  | 9  | 5  | 9         | -  | 9  | -  | 11  | 11 |  |  |     |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 8  | -  | 9+ | 9         | 9  | -  | 9+ | -  | -  | 8  | 2  | 9         | -  | 9  | -  | 12  | 12 |  |  |     |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9+ | 9+ | 9  | -  | 9+ | 4         | 9  | -  | 9+ | -  | -  | 6  | -  | 9         | -  | 9  | -  | 13  | 13 |  |  |     |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 3  | 9  | 9+ | 9+ | 8  | 9+        | 4  | 9  | 9  | 9+ | 7  | -  | 9  | -         | -  | -  | 9+ | -  | -  | 1  | -  | 7         | -  | 8  | -  | 14  | 14 |  |  |     |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 4  | 9+        | 8  | 6  | 8  | 9+ | 9  | -  | 1  | 2         | 8  | -  | 9  | -  | -  | -  | -  | -         | 5  | -  | 15 | 15  |    |  |  |     |
| 16        | 5  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9+ | 8         | 9  | 2  | 7  | 9+ | 9+ | 1  | -  | 9         | 7  | -  | 6  | 9  | -  | -  | -  | -         | 5  | -  | 16 | 16  |    |  |  |     |
| 17        | -  | 8  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 5         | 6  | 7  | 9  | 9+ | 9+ | 9  | 3* | 9         | 9  | 1  | 5  | 9+ | -  | -  | 9  | 9         | 3* | 5  | 9  | 17  | 17 |  |  |     |
| 18        | -  | 5  | -  | -  | 4  | 9+ | 5  | 7         | 9  | -  | 2  | 9  | 9+ | 9  | 9  | 9+        | 2  | 8  | 9  | 9+ | 9+ | 8* | 8  | 9         | 8  | 2* | 9+ | 9+ | 5* | -  | 9  | 9         | 1* | 5  | 9+ | 18  | 18 |  |  |     |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9  | 9+        | 4* | 9  | 8  | 9+ | 9+ | 4* | 9+ | 8         | 9  | 1* | 9+ | 9+ | 1* | 8  | 9  | 9         | -  | 5  | 9+ | 19  | 19 |  |  |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 4  | 9+ | 4  | 7  | 9+        | 4* | 8  | 6  | 9+ | 9+ | 2* | 9  | 9         | 9  | 1* | 9+ | 9+ | -  | -  | 9  | 9         | -  | 5  | 9  | 20  | 20 |  |  |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | 9         | 5  | 7  | 8  | 9+ | 9  | 1* | 9+ | 9         | 9  | -  | 9+ | 9+ | -  | 9  | 9  | 8         | -  | 8  | 9+ | 21  | 21 |  |  |     |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 8         | 6  | 2  | 8  | 9+ | 9  | -  | 9+ | 9         | 8  | 2  | 9  | 9+ | -  | 9+ | 9  | 5         | -  | 9  | 9+ | 22  | 22 |  |  |     |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 6         | 8  | 1  | 6  | 9+ | 9  | -  | 9  | 9         | 8  | 8  | 9  | 9+ | -  | 9+ | 9  | 6         | 5  | 9  | 9+ | 23  | 23 |  |  |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Dec., Hawaii (Honolulu), for SSN = High, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 4  | 5  | 7         | 9  | 5  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 8  | 9  | 9+ | -  | 9  | 9+ | 6         | 2  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 7  | 8         | 9+ | 8  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 5         | 9  | 9  | 7  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 4  | 7         | -  | 8  | 1  | 1  | 9+ | 9  | 8  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 5  | 9+ | 9+ | 9+ | -  | 9  | 9+ | 4         | 9  | 9  | 8  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 9  | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | -  | 9+ | 9  | 8         | 9+ | 9  | 2  | 3   |  |  |  |  |
| 4         | 7  | -  | 8  | 1  | -  | 9+ | 9  | 9         | 4  | 9  | 8  | 3  | 9+ | 9+ | 8  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9+ | 9+ | 8  | -  | 9  | 9  | 7         | 9  | 9  | 2  | 4   |  |  |  |  |
| 5         | 7  | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 4  | 9+ | 9+ | 8  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | -  | 9  | 9+        | 9  | 9+ | 9+ | 7  | -  | 9  | 9  | 8         | 6  | 9  | -  | 5   |  |  |  |  |
| 6         | 8  | 1  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 7  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 5  | 9  | 9+        | 8  | 9  | 9+ | 5  | -  | 9  | 9  | 8         | 4* | 9  | -  | 6   |  |  |  |  |
| 7         | 8  | 8  | 9  | 6  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 3* | 9+ | 9+        | 7  | 8  | 9+ | 2  | 5* | 9  | 7  | 8         | 2* | 9  | -  | 7   |  |  |  |  |
| 8         | 4  | 8  | 9  | -  | 5  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 2* | 9+ | 9         | 7  | 6  | 9+ | -  | -  | 9  | 2  | 8         | -  | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 6  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 7  | 9+ | 9+ | 9+ | 1* | 9+ | 9         | 7  | 4  | 9+ | -  | -  | 9  | 3  | 8         | -  | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 3  | 9+        | 9+ | 4  | 9  | 9+ | 9  | -  | 9+ | 9         | 8  | 1  | 9+ | -  | -  | 9  | 3  | 9         | -  | 8  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 4  | 9  | 9+ | 8  | -  | 9+ | 9         | 9  | -  | 9+ | -  | -  | 9  | 5  | 8         | -  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9+ | 9         | 9  | -  | 9+ | -  | -  | 8  | 3  | 8         | -  | 9  | -  | 12  |  |  |  |  |
| 13        | 4  | 9  | 3  | -  | 9  | 9+ | 9+ | 9         | 9+ | 8  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9  | 9+ | 8  | -  | 9+ | 5         | -  | -  | 9+ | -  | -  | 7  | -  | 8         | -  | 8  | -  | 13  |  |  |  |  |
| 14        | 7  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 5  | 9+ | 9+ | 9+ | 6  | 9+        | 5  | 8  | 9  | 9+ | 4  | -  | 9  | -         | 9  | -  | 9+ | -  | -  | 3  | -  | 4         | -  | 6  | -  | 14  |  |  |  |  |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 2  | 7  | 9  | 9+ | 9+ | 4  | 9+        | 6  | 9  | 8  | 9+ | 8  | -  | 7  | -         | 8  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | 7  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8  | 9         | 9  | 2  | 5  | 9+ | 9+ | -  | -  | 7         | 5  | -  | 5  | 4  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 8  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 7  | 9  | 9+ |    |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jan., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | 1  | 8         | 9  | 5  | 8  | 9  | 9+ | -  | 9  | 9+        | 8  | 8  | 8  | 9+ | -  | 9  | 9  | 1         | -  | 8  | 6  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 4  | -  | -  | 9+ | 8  | 1  | 8         | 9+ | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 7  | 9  | 8  | 9+ | -  | 9  | 9  | -         | 3  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 5  | 7         | -  | 7  | 1  | 1  | 9+ | 9  | 1  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9+ | 9  | 7  | -  | 9  | 7  | -         | 8  | 9+ | -  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 2  | 8  | 7  | 1  | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9+ | 9+ | 9  | -  | 9  | 6  | 1         | 6  | 9  | -  | 3   |  |  |  |  |
| 4         | 1  | -  | 8  | -  | -  | 9+ | 9  | 8         | 2  | 9  | 8  | 2  | 9+ | 9+ | 6  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | 4  | -  | 9  | 7  | 1         | 1  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 3  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 8  | 8  | 9+ | 1  | -  | 9  | 6  | 3         | 1  | 8  | -  | 5   |  |  |  |  |
| 6         | 7  | 1  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9  | 9+        | 9  | 6* | 9+ | -  | -  | 8  | 2  | 7         | -  | 9  | -  | 6   |  |  |  |  |
| 7         | 8  | 2  | 9  | 3  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 5  | 9  | 9+ | 9  | 5* | 9+ | 9         | 9  | 2* | 9+ | -  | -  | 8  | -  | 7         | -  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 9  | 9  | -  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 5  | 9+        | 9+ | 6  | 8  | 9+ | 9  | 3* | 9+ | 4         | 9  | -  | 9+ | -  | -  | 7  | -  | 6         | -  | 7  | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 1  | 8  | 9+ | 7  | -  | 9  | 2         | 9  | -  | 9+ | -  | -  | 6  | -  | 3         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | -  | 9+        | 9+ | 1  | 6  | 9+ | 5  | -  | 8  | 4         | 9  | -  | 9+ | -  | -  | 3  | -  | 2         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 8  | 6  | 9+ | 7  | -  | 9  | 6         | 9  | -  | 9+ | -  | -  | 1  | -  | 4         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 8  | 9+ | 8  | -  | 8  | 2         | 8  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 5  | 9+        | 8  | 8  | 8  | 9+ | 7  | -  | 8  | -         | 7  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | 4  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 3  | 9  | 9+ | 9+ | 3  | 9+        | 1  | 8  | 8  | 9+ | 1  | -  | 6  | -         | 5  | -  | 7  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 2  | 7  | 9+ | 9+ | 9+ | -  | 9         | 5  | 9  | 5  | 9  | 2  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 6  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9  | 9+ | 2  | 6         | 9  | 3  | 1  | 4  | 9+ | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 7  | 9  | 9+ | 9+ | 9  | -         | 8  | 9  | 2* | 2  | 9+ | -  |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Feb., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | -         | 6  | 9  | 2  | 7  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 8  | 9+ | -         | 8  | 9+ | 5  | -  | 8  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 7  | 1         | 7  | 9  | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 8  | 9+ | -         | 9  | 9+ | 4  | 5  | 9  | 8  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | -         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 8  | 9+ | -         | 9  | 9  | 1  | 8  | 9  | 2  | 2   |
| 3   | -         | -  | 2  | -  | -  | 9+ | 7  | 8         | -  | 8  | 7  | -  | 9+ | 9+ | 1         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9+ | 9+ | 8  | -         | 9  | 9  | 4  | 9  | 9  | -  | 3   |
| 4   | -         | -  | 7  | -  | -  | 9+ | 9  | 8         | 4  | 9  | 8  | 1  | 9+ | 9+ | 6         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 5  | -         | 9  | 9  | 4  | 9  | 9  | 2  | 4   |
| 5   | 6         | -  | 8  | 3  | -  | 9+ | 9+ | 9         | 4  | 9  | 8  | 1  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 6  | -         | 9  | 9  | 6  | 8  | 9  | -  | 5   |
| 6   | 6         | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 7  | 9+ | 8  | 4  | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9  | 9+ | 9+ | 4         | 9  | 9+ | 9  | 9  | 9+ | 2  | -         | 9  | 8  | 8  | 2  | 9  | -  | 6   |
| 7   | -         | 2  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 9         | 9+ | 9+ | 7  | 9+ | 9+ | 9+ | 6*        | 9+ | 9+ | 9  | 6  | 9+ | -  | -         | 9  | 3  | 8  | 1* | 8  | -  | 7   |
| 8   | -         | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 7         | 9+ | 9+ | 7  | 9  | 9+ | 9+ | 4*        | 9+ | 9  | 9  | 4* | 9+ | -  | -         | 9  | -  | 5  | -  | 9  | -  | 8   |
| 9   | -         | 8  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 4         | 9+ | 9+ | 8  | 8  | 9+ | 9  | 3*        | 9+ | 6  | 9  | -  | 9+ | -  | -         | 8  | -  | 5  | -  | 8  | -  | 9   |
| 10  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 5         | 9+ | 9+ | 6  | 8  | 9+ | 9  | -         | 9+ | 6  | 9  | -  | 9+ | -  | -         | 8  | -  | 5  | -  | 5  | -  | 10  |
| 11  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 6         | 9+ | 9+ | 8  | 8  | 9+ | 9  | -         | 9+ | 7  | 9  | -  | 9+ | -  | -         | 7  | -  | 4  | -  | 5  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 7         | 9+ | 9+ | 9  | 9  | 9+ | 9  | -         | 8  | 6  | -  | -  | 9  | -  | -         | 4  | -  | 4  | -  | 5  | -  | 12  |
| 13  | -         | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 8         | 9+ | 9  | 8  | 9  | 9+ | 9  | -         | 8  | 2  | 9  | -  | 9  | -  | -         | 1  | -  | 2  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 6  | 9+ | 9+ | 9+ | 7         | 9+ | 3  | 9  | 9  | 9+ | 6  | -         | 7  | -  | 8  | -  | 8  | -  | -         | -  | -  | 1  | -  | 5  | -  | 14  |
| 15  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 7  | 9  | 9+ | 9+ | 4         | 9  | 4  | 5  | 8  | 9+ | 7  | -         | 2  | -  | 5  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16  | 5         | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 8  | 9  | 9  | 9+ | 6         | 5  | 8  | 8  | 5  | 8  | 9  | -         | -  | 2  | -  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | -         | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+        | -  | 7  | 9  | 2* | 7  | 9+ | -         | 1* | 9  | 8  | 1* | 5  | 9  | -         | -  | 5  | -  | -  | 5  | 1  | 17  |
| 18  | -         | 5  | -  | -  | 4  | 9+ | 6  | 7         | 9  | -  | 2  | 9  | 9+ | 9  | 9+        | 9  | 6  | 9  | 8  | 9+ | 9+ | 5         | -  | 9  | 9+ | 4* | 5  | 9+ | -         | -  | 9  | 7  | -  | 5  | 9  | 18  |
| 19  | -         | 2  | -  | -  | 1  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 8         | 9+ | 5* | 7  | 8  | 9+ | 9+ | 2*        | 6  | 9  | 9  | 2* | 9+ | 9+ | -         | -  | 9  | 9  | -  | 9  | 9  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 5  | 9+ | 4  | 6         | 8  | 4  | 9  | 6  | 9+ | 9+ | -         | -  | 8  | 9  | 1* | 7  | 9+ | -         | -  | 9  | 7  | -  | 9+ | 8  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 4         | 9+ | 6  | 7  | 5  | 9  | 9+ | -         | 8  | 9  | 9  | -  | 9  | 9+ | -         | -  | 9  | 6  | -  | 9  | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 8  | 7  | 2  | 8  | 9  | 9  | -         | 9+ | 9  | 8  | -  | 9  | 9+ | -         | 7  | 9  | 6  | -  | 8  | 8  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | -         | 7  | 8  | 3  | 8  | 9  | 9+ | -         | 9  | 9  | 9  | 4  | 9  | 9+ | -         | 8  | 9+ | 6  | -  | 8  | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

Mar., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 2         | 5  | 9  | 4  | 6  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 8  | 9+ | -         | 9  | 9+ | 7  | 2  | 9  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 3         | 5  | 9  | 8  | 6  | 9+ | 9+ | -         | 9  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 7  | 4  | 9  | 9  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 2         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 5  | 9  | 9+ | 9+ | -         | 9  | 9  | 6  | 8  | 9  | 7  | 2   |
| 3   | -         | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 1  | -  | 9+ | 9  | 7         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9  | 4  | 9  | 9  | 9  | 3   |
| 4   | -         | -  | 7  | -  | -  | 9+ | 8  | 8         | -  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 9  | 9  | 9+ | 9  | -         | 9  | 9  | 8  | 9  | 9  | 7  | 4   |
| 5   | -         | -  | 8  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | -  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 4         | 9+ | 9+ | 9  | 9+ | 9+ | 6  | -         | 9  | 9  | 9  | 9  | 9  | 4  | 5   |
| 6   | 6         | -  | 8  | 2  | -  | 9+ | 9+ | 9         | 5  | 9  | 8  | 1  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 7         | 9+ | 9+ | 9  | 9  | 9+ | 8  | 1         | 9  | 9  | 8  | 7  | 9  | -  | 6   |
| 7   | -         | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 4  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 5         | 9+ | 9+ | 9  | 9  | 9+ | 6  | -         | 9  | 7  | 8  | 4  | 9+ | -  | 7   |
| 8   | -         | 5  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 2*        | 9+ | 9+ | 9  | 8  | 9+ | 1  | -         | 9  | 2  | 8  | 1  | 9  | -  | 8   |
| 9   | -         | 8  | 9  | -  | 2  | 9+ | 9+ | 7         | 9+ | 9+ | 1  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 2*        | 9+ | 8  | 9  | 4  | 9+ | 1  | -         | 9  | -  | 8  | -  | 8  | -  | 9   |
| 10  | -         | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 1*        | 9+ | 6  | 9  | 2  | 9+ | -  | -         | 8  | -  | 7  | -  | 5  | -  | 10  |
| 11  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | -         | 9+ | 8  | 9  | 1  | 9+ | -  | -         | 8  | -  | 8  | -  | 5  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | -         | 9+ | 8  | 9  | 1  | 9  | 1  | -         | 8  | 1  | 8  | -  | 5  | -  | 12  |
| 13  | -         | 9  | 3  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | -         | 9+ | 4  | -  | 1  | 9  | -  | -         | 6  | -  | 7  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 8         | 9+ | 5  | 9  | 9+ | 9+ | 9  | -         | 9  | -  | -  | -  | 8  | -  | -         | 2  | -  | 4  | -  | 5  | -  | 14  |
| 15  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 7  | 9+ | 9+ | 9+ | 8         | 9+ | 7  | 9  | 9  | 9+ | 9  | -         | 2  | 1  | 8  | -  | 8  | -  | -         | -  | -  | -  | -  | 5  | -  | 15  |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9         | 8  | 9  | 8  | 8  | 9+ | 9+ | -         | -  | 6  | 1  | -  | 5  | 6  | -         | -  | -  | -  | -  | 5  | -  | 16  |
| 17  | -         | 9  | -  | -  | 8  | 9+ | 8  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9         | 5  | 7  | 9+ | 9  | 9+ | 9+ | 3         | 3* | 9  | 8  | 4* | 5  | 9  | -         | -  | 8  | -  | -  | 5  | 4  | 17  |
| 18  | -         | 4  | -  | -  | 2  | 9+ | 2  | 6         | 9  | -  | 2  | 9  | 9+ | 9  | 9         | 9+ | 4  | 8  | 9+ | 9+ | 9+ | 8         | 2* | 9  | 9  | 4* | 7  | 9+ | -         | -  | 9  | 5  | -  | 5  | 8  | 18  |
| 19  | -         | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 7  | 9         | 9+ | 5* | 9  | 9+ | 9+ | 9+ | 4         | 9  | 8  | 9  | 3* | 9+ | 9+ | -         | 2  | 9  | 9  | -  | 5  | 9  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 3  | -  | -  | 4  | 9+ | 2  | 8         | 9+ | 2  | 9  | 9  | 9+ | 9  | 1         | 6  | 9  | 9  | 2* | 9+ | 9+ | -         | -  | 9  | 9  | -  | 9  | 9  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6         | 9  | 4  | 5  | 8  | 9  | 9  | -         | 8  | 9  | 9  | 1* | 9  | 9+ | -         | 2  | 9  | 8  | -  | 9  | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 3         | 8  | 6  | 5  | 8  | 9  | 9  | -         | 9+ | 9  | 9  | 2  | 9  | 9+ | -         | 9  | 9  | 6  | -  | 8  | 9  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2         | 6  | 8  | 5  | 6  | 9  | 9  | -         | 9  | 9  | 8  | 8  | 9  | 9+ | -         | 8  | 9  | 7  | -  | 9  | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

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**Apr., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 6         | 9  | 5  | 5  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 8  | 9+ | -  | 9  | 9+ | 6         | 2  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 4  | 7         | 9  | 8  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 8  | 9+ | -  | 9  | 9+ | 5         | 5  | 9+ | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 8  | 5  | 8         | 9+ | 8  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9  | 2         | 9  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 4  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 9         | 9+ | 9  | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 8  | 9  | 9+ | 9+ | -  | 9  | 9  | 8         | 9  | 9  | 7  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 7  | 7         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 2  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9+ | 8  | 9         | 9  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | -  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 8  | -  | 9+ | 9  | 9         | 9  | 9+ | 8  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9+ | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 2  | 9  | 6  | 9         | 9  | 9+ | 4  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 3  | 9  | 4  | 5         | 7  | 9+ | 1  | 7   |  |  |  |  |
| 8         | -  | 2  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 5  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 9+        | 9  | 9  | 9+ | 8  | 1  | 9  | 1  | 9         | 5  | 9+ | -  | 8   |  |  |  |  |
| 9         | -  | 7  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 5  | 9+ | 8         | 9  | 8  | 9+ | 8  | -  | 8  | -  | 9         | -  | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 7         | 9  | 7  | 9+ | 8  | -  | 7  | -  | 9         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 8         | 9  | 7  | 9+ | 5  | -  | 7  | 2  | 9         | -  | 9  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9+ | 8         | -  | 6  | 9  | 3  | -  | 7  | 3  | 9         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9+ | 6         | 1  | 6  | 9  | 1  | -  | 6  | -  | 8         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 5  | 6  | 9+ | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9  | -  | 9  | 2         | 1  | 5  | 8  | 1  | -  | 2  | -  | 5         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 8  | 9+ | 9+ | 7         | 9+ | 1  | 7  | 9+ | 9+ | 9+ | 9  | 9+        | 9  | 4  | 9+ | 9+ | 9  | -  | 6  | 6         | 8  | 1  | 8  | 6  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 9         | 9  | 9  | 9+ | 9+ | 9+ | 3  | 1  | 9         | 6  | -  | 5  | 9+ | -  | -  | 1  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 8  | -  | -  | 6  | 9+ | 6  | 5         | 9+ | -  | 6  | 9  | 9+ | 9  |    |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**May, Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 5         | 8  | 6  | 6  | 9  | 9  | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9+ | 1         | 2  | 9  | 9+ | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 7  | 6         | 9  | 8  | 6  | 9  | 9+ | -  | 9  | 9+        | 8  | 9  | 9  | 9+ | -  | 9  | 9+ | 1         | 6  | 9  | 9+ | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 9  | 8         | 9+ | 9  | 7  | 9+ | 9+ | 2  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 8  | 9  | 9+ | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 8  | 9         | 9+ | 9  | 9  | 9+ | 9+ | 5  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9  | 7  | 3         | 8  | 9+ | 8  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 8  | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 5  | 9         | 8  | 9+ | 9+ | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 6  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9  | 4  | 9         | 9  | 9+ | 8  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 9  | 9         | 9  | 9+ | 7  | 1  | 9  | 1  | 9  | 9         | 9+ | 7  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 8  | 9         | 9  | 9+ | 9  | 2  | 9  | -  | 9  | 8         | 9  | 4  | 7  |     |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | 3  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 8  | 9         | 9+ | 9+ | 9  | 2  | 8  | -  | 9  | 6         | 7  | -  | 8  |     |  |  |  |  |
| 9         | -  | 6  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 8  | 9+ | 7  | 9         | 9  | 9+ | 9  | 2  | 6  | -  | 8  | 2         | 8  | -  | 9  |     |  |  |  |  |
| 10        | -  | 8  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 8  | 9+ | 6  | 9         | 9  | 9  | 8  | 2  | 6  | -  | 8  | 1         | 7  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 4  | 9+ | 8  | 2         | 8  | 9  | 6  | -  | 6  | 3  | 7  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 8  | 1         | 7  | 8  | 4  | -  | 4  | 1  | 6  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 4  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 7  | 3         | 7  | 8  | 2  | -  | 2  | -  | 3  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 5  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | 9+ | 4  | 1         | 5  | 7  | 3  | -  | 1  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | -  | 8  | 9+ | 9  | 5         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 4  | 9+ | 9+ | 1  | 8  | 7  | 2         | 2  | 5  | 7  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 8  | 5         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 4  | 5  | 9  | 5         | 1  | 5  | 9  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 5  | -  | -  | 1  | 9+ | 3  | 4         | 9  | -  | 4  | 8  | 9+ | 9  | 9+ | 9+        | 7  | 9  | 9+ | 9+ | 8  | 1* | 9  | 8         | 4  |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jun., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 5         | 8  | 5  | 7  | 9  | 9  | -  | 9  | 9         | 8  | 9  | 8  | 9+ | -  | 9  | 9  | -         | -  | 8  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 6         | 9  | 7  | 6  | 9  | 9+ | -  | 9  | 9+        | 8  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 2  | 8  | 8  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 6  | 8  | 7         | 9+ | 9  | 7  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 4  | 9  | 8  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 8  | -  | -  | 9+ | 9  | 9+ | 8         | 9+ | 9+ | 8  | 9+ | 9+ | 1  | 9  | 9+        | 8  | 9  | 9  | 9  | -  | 9  | 7  | 2         | 4  | 9  | 9  | 3   |  |  |  |  |
| 4         | -  | -  | 5  | -  | -  | 9+ | 5  | 4         | -  | 8  | 3  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9  | 9         | 9  | 9  | 9+ | 9  | -  | 9  | 4  | 8         | 4  | 9  | 9  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 7  | 4         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9  | 9         | 9  | 9  | 9+ | 9  | -  | 9  | 1  | 9         | 4  | 9  | 8  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | -         | 1  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 8  | 9+ | 9+ | 3  | 9  | 8  | 9         | 9  | 9+ | 8  | -  | 9  | -  | 9  | 6         | 9  | 4  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 7  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 3  | 9+ | 8  | 9         | 9  | 9+ | 9  | -  | 9  | -  | 8  | 4         | 9  | -  | 7  |     |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9  | 3  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 5  | 8         | 9  | 9+ | 9  | -  | 8  | -  | 6  | 2         | 5  | -  | 8  |     |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 4  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 7  | 9+ | 2  | 9         | 9  | 9+ | 9  | -  | 2  | -  | 7  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 5  | 9  | 4  | 9         | 9  | 9  | 8  | -  | -  | -  | 3  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 1  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 5  | 9  | 7  | 9         | 9  | 8  | 5  | -  | -  | -  | 1  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 5  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 8  | 9         | 8  | 5  | 6  | -  | -  | -  | 1  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9  | -         | 9+ | 8  | 3  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 3  | 9  | 5  | 7         | 8  | 8  | 4  | -  | 1  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 4  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 2  | 8  | 4  | 5         | 7  | 8  | 4  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 8  | -  | -  | 7  | 9+ | 8  | -         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 2  | 9+ | 9+ | 1  | 6  | 7  | 1         | 5  | 5  | 7  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 4  | 1         | 9  | -  | 6  | 9  | 9+ | 9  | 9  | 9+        | 9  | 9  | 9+ | 9+ | 4  | 3  | 8  | 5         | 3  | 5  | 8  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 3  | -  | -  | -  | 9+ | -  | 2         | 9  | -  | 2  | 8  | 9+ | 6  | 9  | 9+        | 8  | 9  | 9+ | 9+ | 2  | -  | 9  | 8         | 1  | 5  | 9  | -  | -  |    |    |           |    |    |    |     |  |  |  |  |

**Jul., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |     |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|-----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU  | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 5         | 8  | 6  | 7  | 8  | 9+ | -   | 9  | 9         | 7  | 9  | 9+ | 9  | -  | 8  | 9  | -         | -  | 8  | 6  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 8  | 6         | 9  | 7  | 8  | 9  | 9+ | -   | 9  | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 9  | -         | 1  | 8  | 6  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 7  | 9  | 7         | 9+ | 9  | 7  | 9+ | 9+ | -   | 9  | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 8  | -         | 2  | 8  | 7  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 3  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 9  | 9+ | 9+ | -   | 9  | 9+        | 8  | 9  | 9  | 9  | -  | 9  | 5  | 3         | 4  | 9  | 8  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 8  | 6  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -   | 9  | 9         | 9  | 9  | 9  | 9+ | -  | 9  | 1  | 6         | 4  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -   | 9  | 8         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 7         | 5  | 9  | 6  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 6         | 2  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1   | 9  | 7         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 6         | 5  | 9  | 1  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9  | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9+  | 5  | 9         | 9  | 9+ | 9  | -  | 9  | -  | 7  | 2         | 8  | -  | 7  |     |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 9  | 9+ | 3  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 6   | 9+ | 2         | 6  | 9  | 9+ | 8  | -  | 8  | -  | 6         | 1  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 6  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 7   | 9  | 1         | 5  | 9  | 9  | 8  | -  | 1  | -  | 2         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5  | 9   | 2  | 9         | 8  | 8  | 7  | -  | -  | -  | 2  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 5   | 9  | 6         | 9  | 8  | 8  | 2  | -  | -  | -  | -         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 8   | 8  | 8         | 6  | 5  | 4  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 4  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1   | 9  | 5         | 6  | 7  | 5  | 1  | -  | 1  | -  | -         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 4  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 2* | 9+ | 9+ | 9  | -   | 8  | 3         | 1  | 5  | 5  | 1  | -  | -  | -  | -         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 8  | -  | 1  | 8  | 9+ | 8  | 4         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -   | 6  | 5         | -  | 2  | 5  | 4  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 5  | 4         | 9  | -  | 6  | 9  | 9+ | 9  | 9+ | 9+        | 8  | 9  | 9+ | 9  | 9  | 2   | 2  | 5         | 4  | 1  | 5  | 6  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 5  | -  | -  | -  | 9+ | 1  | 3         | 9  | -  | 4  | 8  | 9  | 8  | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 2</ |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Aug., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 5         | 9  | 6  | 6  | 9  | 9+ | -  | 8  | 9+        | 5  | 8  | 9  | 9+ | -  | 9  | 9  | -         | -  | 8  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 5  | 7         | 9  | 8  | 7  | 9  | 9+ | -  | 9  | 9+        | 4  | 9  | 9  | 9+ | -  | 9  | 9  | -         | -  | 9  | 8  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 8  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 2  | 9  | 9  | 9+ | -  | 9  | 8  | -         | 3  | 9  | 8  | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 4  | 5         | -  | 8  | 1  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 3  | 3         | 5  | 9  | 9  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 6         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9         | 9  | 9  | 9  | 9  | -  | 9  | -  | 5         | 5  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 7         | -  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9  | 9         | 9  | 9  | 9+ | 5  | -  | 9  | 1  | 8         | 4  | 9  | 5  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 2  | 9  | 8         | 9  | 9  | 9+ | 9  | -  | 9  | -  | 8         | 5  | 9  | -  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 4  | 9+ | 4         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 7         | 2  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | 4  | 5  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 1         | 9  | 9  | 9+ | 6  | -  | 8  | -  | 7         | -  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 5  | 9  | -  | 9         | 8  | 9+ | 5  | -  | 1  | -  | 4  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | 1  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 3  | 9  | 1         | 9  | 7  | 8  | 2  | -  | -  | -  | 4         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | -  | 8  | 3  | 9         | 5  | 6  | -  | -  | -  | -  | 1  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 7  | 7         | 8  | 2  | 5  | 2  | -  | -  | -  | -         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 4  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 8  | 4         | 8  | 5  | 5  | -  | -  | -  | -  | 2         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | -         | 9+ | 5  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 7  | 9  | 9+ | 9+ | 9  | -  | 8  | 1         | 5  | 2  | 5  | -  | -  | -  | -  | -         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 8  | 9+ | 9+ | 6         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9  | 9+ | 9  | -  | 6  | 3         | 2  | -  | 6  | 3  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 9         | 8  | 9  | 9  | 9  | 9  | 2  | 1  | 8         | 3  | -  | 6  | 6  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 1  | 9+ | 5  | 4         | 9  | -  | 4  | 9  | 9+ | 9  | 9+ | 9+        | 8  | 9  | 9+ | 9  | 9+ | 1  | -  | 9         | 6  | -  | 5  | 9+ | -  | -  | 3  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 7  | 9  | 9+        | 5  | 9  | 9+ | 9+ | 9+ | 6  | 5  | 9         | 8  | 4  | 5  | 9  | -  | -  | 3  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 3  | 9  | 9+        | 5  | 9  | 9  | 9+ | 9+ | 5  | 7  | 9         | 7  | 4  | 5  | 9+ | -  | -  | 1  | -         | -  | 5  | -  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | -  | 8  | 9         | 5  | 8  | 9  | 9+ | 9  | 5  | 2  | 9         | 8  | 1  | 5  | 9+ | -  | -  | 6  | -         | -  | 5  | 1  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 9         | 5  | 4  | 8  | 9  | 9  | 1  | 7  | 9         | 9  | -  | 9  | 9  | -  | -  | 9  | -         | -  | 8  | 4  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 7         | 5  | 4  | 8  | 8  | 9  | -  | 9  | 9         | 8  | 2  | 9  | 9  | -  | -  | 9  | -         | -  | 8  | 6  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 6         | 7  | 5  | 5  | 8  | 9  | -  | 9  | 9         | 7  | 6  | 9  | 9  | -  | 1  | 9  | -         | -  | 8  | 8  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Sep., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |    |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|----|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |    |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 3  | 5         | 9  | 2  | 6  | 9  | 9+ | -  | 8  | 9+        | 8  | 8  | 9  | 9+ | -  | 9  | 9+ | 3         | -  | 9  | 9+ | 0   |    |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 3  | 6         | 9  | 8  | 7  | 9+ | 9+ | -  | 8  | 9+        | 9  | 8  | 8  | 9+ | -  | 9  | 9+ | 2         | 2  | 9+ | 9  | 1   |    |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | 4  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9  | 1         | 5  | 9  | 6  | 2   |    |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 5  | 6         | -  | 8  | 4  | -  | 9+ | 9  | 6  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9  | 9+ | 9+ | -  | 9  | 8  | 7         | 8  | 9  | 9  | 3   |    |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 8  | 7         | -  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9+ | 9+        | 9  | 9  | 9+ | 8  | -  | 9  | 8  | 9         | 9  | 9  | 7  | 4   |    |  |  |  |
| 5         | 4  | -  | 8  | 1  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 5  | 9+ | 9+        | 9  | 9  | 9+ | 4  | -  | 9  | 7  | 9         | 9  | 9  | 3  | 5   |    |  |  |  |
| 6         | -  | -  | 9  | 2  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9  | 9+ | 8  | 1  | 9  | 3  | 9         | 6  | 9+ | -  | 6   |    |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 3  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 6  | 9+ | 8         | 9  | 9  | 9+ | 5  | -  | 9  | -  | 9         | 3  | 9  | -  | 7   |    |  |  |  |
| 8         | -  | 3  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 6  | 7  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 1  | 9+ | 6         | 9  | 7  | 9+ | 2  | -  | 9  | -  | 8         | -  | 8  | -  | 8   |    |  |  |  |
| 9         | -  | 6  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 1* | 9+ | 2         | 9  | 4  | 9+ | 1  | -  | 6  | -  | 6         | -  | 8  | -  | 9   |    |  |  |  |
| 10        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9  | 8         | 9  | 2  | 9  | 1  | -  | 5  | 1  | 6         | -  | 8  | -  | 10  |    |  |  |  |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9  | 7         | 9  | 1  | 9  | -  | -  | 4  | -  | 6         | -  | 5  | -  | 11  |    |  |  |  |
| 12        | -  | 9  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9  | 7         | -  | 1  | 8  | -  | -  | 2  | -  | 6         | -  | 5  | -  | 12  |    |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 1         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 9  | 2         | -  | 1  | 8  | -  | -  | 1  | -  | 5         | -  | 5  | -  | 13  |    |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 5  | 5  | 9+ | 9+ | 9+ | 8  | 9+        | 6  | 9  | 9+ | 9+ | 9  | -  | 7  | -         | -  | -  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 14  |    |  |  |  |
| 15        | -  | 9  | -  | 1  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 7  | 9  | 9+ | 9  | -  | 2  | 3         | 4  | -  | 6  | 1  | -  | -  | -  | -         | -  | 5  | -  | 15  |    |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9  | 8         | 8  | 8  | 8  | 9  | 9  | 9+ | 1  | -         | 8  | 4  | -  | 5  | 8  | -  | -  | -         | -  | -  | 5  | -   | 16 |  |  |  |
| 17        | -  | 8  | -  | -  | 6  | 9+ | 7  | 6         | 9  | -  | 4  | 9  | 9+ | 9  | 9+ |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |    |  |  |  |

**Oct., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 4  | 7         | 9  | 6  | 6  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 6         | 8  | 9  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 5  | 8         | 9  | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 6         | 8  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 2  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 1  | 9  | 9+ | 9+ | -  | 9  | 9  | 5         | 9  | 9  | 4  | 2   |  |  |  |  |
| 3         | -  | -  | 5  | -  | -  | 9+ | 6  | 7         | 1  | 8  | 7  | -  | 9+ | 9+ | 7  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | 9+ | -  | 9  | 9  | 7         | 9  | 9  | 7  | 3   |  |  |  |  |
| 4         | -  | -  | 8  | -  | -  | 9+ | 8  | 8         | 4  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 6  | -  | 9  | 9  | 9         | 9+ | 9  | 4  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 5  | -  | 9+ | 9  | 8         | 6  | 9+ | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 4  | 9+ | 9+        | 9  | 9  | 9+ | 8  | -  | 9  | 9  | 9         | 8  | 9  | -  | 5   |  |  |  |  |
| 6         | 1  | -  | 9  | 2  | -  | 9+ | 9+ | 9         | 7  | 9+ | 9  | 3  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 4  | 9  | 9+        | 9  | 9  | 9+ | 6  | -  | 9  | 8  | 9         | 5  | 9  | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4* | 9+ | 9+        | 9  | 8  | 9+ | 2  | -  | 9  | 5  | 8         | 2* | 9  | -  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3* | 9+ | 9         | 9  | 4  | 9+ | -  | -  | 9  | -  | 8         | -  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 6  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 2* | 9+ | 6         | 9  | 1* | 9+ | -  | -  | 9  | -  | 8         | -  | 8  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 5  | 9  | 9+ | 9+ | 2* | 9+ | 7         | 9  | 1* | 9+ | -  | -  | 7  | -  | 8         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9  | 9+ | 9  | -  | 9+ | 9         | 9  | -  | 9+ | -  | -  | 7  | 4  | 8         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9  | 8         | -  | -  | 9  | -  | -  | 5  | -  | 7         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 8  | 9  | 9+ | 9  | -  | 9  | 1         | -  | -  | 9+ | -  | -  | 2  | -  | 5         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 8  | 9+        | 6  | 8  | 9  | 9+ | 9  | -  | 8  | -         | 9  | -  | 8  | -  | -  | -  | -  | 2         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 8  | 9+ | 9+ | 9+ | 8  | 9         | 8  | 6  | 8  | 9+ | 9  | -  | -  | 2         | 6  | -  | 7  | 1  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | 5  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9+ | 6         | 9  | 9  | 8  | 9  | 9+ | 1  | -  | 9         | 5  | -  | 5  | 9  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 7  | 9+ | 8  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ |           |    |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Nov., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 4  | 4         | 7  | 9  | 5  | 8  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 6  | 6  | 9  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 8  | 5         | 8  | 9+ | 8  | 8  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 5  | 9  | 9  | 6  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 4  | 6         | -  | 8  | -  | 1  | 9+ | 9  | 6         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | -         | 9  | 9  | 2  | 9  | 9  | -  | 2   |
| 3   | -         | -  | 6  | -  | -  | 9+ | 7  | 8         | 1  | 8  | 7  | 1  | 9+ | 9+ | 8         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9+ | 9+ | 7  | -         | 9  | 9  | 5  | 9  | 9  | -  | 3   |
| 4   | 1         | -  | 8  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | 1  | 9+ | 9+ | 7         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 7  | -         | 9  | 9  | 7  | 8  | 9  | -  | 4   |
| 5   | 6         | -  | 8  | 6  | -  | 9+ | 9  | 9         | 5  | 9+ | 9  | 3  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 9+ | 5  | -         | 9  | 9  | 8  | 5  | 9  | -  | 5   |
| 6   | 7         | 1  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 5  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 1*        | 9  | 9+ | 9  | 8  | 9+ | 1  | -         | 9  | 8  | 8  | 1* | 9  | -  | 6   |
| 7   | 4         | 2  | 9  | 1  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9+ | 3*        | 9  | 9+ | 9  | 5* | 9+ | -  | -         | 9  | 6  | 8  | -  | 9  | -  | 7   |
| 8   | -         | 9  | 9  | -  | 1  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 2*        | 9+ | 9  | 9  | 1  | 9+ | -  | -         | 9  | 1  | 6  | -  | 9  | -  | 8   |
| 9   | -         | 8  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 9  | 9+ | 9+ | 4         | 9+ | 9+ | 7  | 9  | 9+ | 8  | 2*        | 9+ | 8  | 8  | 1* | 9+ | -  | -         | 8  | 1  | 8  | -  | 9+ | -  | 9   |
| 10  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 4         | 9+ | 9+ | 5  | 8  | 9+ | 8  | -         | 9+ | 8  | 9  | -  | 9+ | -  | -         | 7  | 1  | 8  | -  | 8  | -  | 10  |
| 11  | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5         | 9+ | 9+ | 8  | 8  | 9+ | 9  | -         | 9  | 8  | 9  | -  | 9+ | -  | -         | 5  | 1  | 7  | -  | 6  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 8  | 9+ | 9  | -         | 9  | 6  | 9  | -  | 9+ | -  | -         | 1  | -  | 5  | -  | 8  | -  | 12  |
| 13  | -         | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 8  | 8  | 9+ | 8  | -         | 6  | -  | 9  | -  | 9+ | -  | -         | -  | -  | 4  | -  | 8  | -  | 13  |
| 14  | 1         | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 6  | 9+ | 9+ | 9+ | 6         | 9+ | 2  | 9  | 8  | 9+ | 6  | -         | 5  | -  | 8  | -  | 9  | -  | -         | -  | -  | 1  | -  | 5  | -  | 14  |
| 15  | 6         | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 2  | 7  | 9  | 9+ | 9+ | 4         | 9  | 7  | 4  | 7  | 9+ | 9  | -         | -  | -  | 2  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16  | 5         | 9  | -  | -  | 8  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9         | 2  | 9  | 9  | 5  | 9  | 9+ | -         | -  | 8  | 4  | -  | 5  | 7  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | -         | 8  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 6  | 9  | 9+ | 9+ | 9+        | -  | 7  | 8  | 9  | 9+ | 9+ | 4         | 2* | 9  | 9  | 3* | 5  | 9+ | -         | -  | 9  | 6  | -  | 5  | 8  | 17  |
| 18  | -         | 5  | -  | -  | 5  | 9+ | 6  | 8         | 9  | -  | 3  | 9  | 9+ | 9  | 9+        | 9+ | 6  | 8  | 8  | 9+ | 9+ | 8*        | 2* | 9  | 9  | 1* | 9  | 9+ | -         | -  | 9  | 9  | -  | 7  | 8  | 18  |
| 19  | -         | 2  | -  | -  | 1  | 9+ | 1  | -         | 9  | -  | -  | 8  | 9+ | 8  | 8         | 9+ | 4* | 9  | 7  | 9+ | 9+ | 1*        | 8  | 8  | 9  | 1* | 9+ | 9+ | -         | 1  | 9  | 7  | -  | 5  | 9  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 5  | 5         | 9+ | 4  | 9  | 5  | 9+ | 9+ | -         | 8  | 9  | 9  | -  | 9+ | 9+ | -         | -  | 9  | 7  | -  | 5  | 9  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 2         | 9  | 6  | 8  | 5  | 9  | 9+ | -         | 9+ | 9  | 9  | -  | 9  | 9+ | -         | 5  | 9  | 3  | -  | 9+ | 9  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 8  | 7  | 2  | 8  | 9  | 9  | -         | 9+ | 9  | 9  | 1  | 9  | 9+ | -         | 8  | 9  | 7  | -  | 9+ | 8  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 2         | 7  | 8  | 2  | 7  | 9  | 9+ | -         | 9  | 9  | 8  | 8  | 9  | 9+ | -         | 8  | 9  | 6  | -  | 9+ | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA



**Dec., Hawaii (Honolulu), for SSN = Medium, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 8  | 8  | 8  | 9+ | -  | 9  | 9+ | 2         | -  | 9  | 6  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 1  | 9         | 9+ | 9  | 9  | 9  | 9+ | -  | 9+ | 9+        | 7  | 9  | 9+ | 9+ | -  | 9  | 9  | -         | 3  | 9  | -  | 1   |  |  |  |  |
| 2         | -  | -  | 1  | -  | -  | 9+ | 5  | 8         | 1  | 8  | 5  | 1  | 9+ | 9  | 1  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | 7  | -  | 9  | 8  | 1         | 8  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 7  | -  | -  | 9+ | 7  | 8         | 4  | 8  | 8  | 4  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9+ | 9+ | 2  | -  | 9  | 8  | 5         | 9  | 9  | -  | 3   |  |  |  |  |
| 4         | 7  | -  | 8  | 3  | -  | 9+ | 9  | 9         | 4  | 9  | 8  | 3  | 9+ | 9+ | 5  | 9+        | 9+ | 9+ | 9+ | 9+ | 9  | -  | 9+ | 9+        | 9  | 9+ | 9+ | 2  | -  | 9  | 8  | 5         | 1  | 9  | -  | 4   |  |  |  |  |
| 5         | 8  | -  | 8  | 6  | -  | 9+ | 9+ | 9         | 7  | 9+ | 9  | 6  | 9+ | 9+ | 5  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9+ | -  | -  | 9  | 7  | 6         | 1  | 9  | -  | 5   |  |  |  |  |
| 6         | 8  | 2  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 7  | 9+        | 9+ | 8  | 9  | 9+ | 9  | -  | 9  | 9+        | 9  | 6* | 9+ | -  | -  | 8  | 5  | 8         | -  | 9  | -  | 6   |  |  |  |  |
| 7         | 8  | 5  | 9  | 6  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 8  | 9+        | 9+ | 6  | 9  | 9+ | 9  | 4* | 9+ | 9         | 9  | 4* | 9+ | -  | -  | 8  | -  | 7         | -  | 9+ | -  | 7   |  |  |  |  |
| 8         | 5  | 9  | 9  | -  | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 6  | 8  | 9+ | 9  | 2* | 9+ | 8         | 9  | 1* | 9+ | -  | -  | 8  | -  | 6         | -  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 4  | 9+        | 9+ | 1  | 7  | 9+ | 6  | -  | 9+ | 6         | 8  | -  | 9+ | -  | -  | 8  | -  | 5         | -  | 8  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 1  | 6  | 9+ | 4  | -  | 9+ | 5         | 9  | -  | 9+ | -  | -  | 5  | -  | 4         | -  | 7  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 2  | 9+        | 9+ | 8  | 6  | 9+ | 6  | -  | 9  | 8         | 9  | -  | 9+ | -  | -  | 4  | 1  | 5         | -  | 8  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 8  | 8  | 9+ | 8  | -  | 9  | 7         | 9  | -  | 9+ | -  | -  | 2  | -  | 3         | -  | 6  | -  | 12  |  |  |  |  |
| 13        | 7  | 9  | 4  | -  | 9  | 9+ | 9+ | 9         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 6  | 9+        | 8  | 9  | 8  | 9+ | 7  | -  | 8  | 1         | 8  | -  | 9  | -  | -  | 1  | -  | 1         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | 8  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 7  | 9+ | 9+ | 9+ | 1  | 9+        | 1  | 9  | 8  | 9+ | 1  | -  | 7  | -         | 6  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | 8  | 8  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 3  | 8  | 9+ | 9+ | 9+ | 1  | 9         | 4  | 9  | 5  | 9+ | 5  | -  | 1  | -         | 2  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | 7  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9  | -  | 8  | 9  | 9+ | 9+ | 7  | 4         | 9  | 8  | 2  | 8  | 9+ | -  | -  | 4         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | 1  | 9  | -  | -  | 8  | 9+ | 9  | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9+ | -         | 8  | 9+ |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Jan., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 8  | 9+ | -  | 9  | 9+        | 6  | 6  | 8  | 9+ | -  | 6  | 9  | -         | -  | 7  | 7  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 8  | -  | 9         | 9  | 8  | 9  | 9  | 9+ | -  | 9+ | 9+        | 4  | 9  | 8  | 8  | -  | 9  | 7  | -         | -  | 8  | -  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 5  | 7         | -  | 8  | 1  | 1  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 2  | 9+ | 9  | 2  | -  | 9  | 4  | -         | 3  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 8  | 8  | 1  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | -  | -  | 9  | 2  | -         | 1  | 9  | -  | 3   |  |  |  |  |
| 4         | 1  | -  | 8  | 1  | -  | 9+ | 9  | 8         | 2  | 9  | 8  | 2  | 9+ | 9+ | 4  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 9+ | -  | -  | 8  | 2  | 1         | -  | 8  | -  | 4   |  |  |  |  |
| 5         | 7  | -  | 8  | 5  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 3  | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 9  | 9+ | 8  | -  | 9  | 9+        | 8  | 6  | 9+ | -  | -  | 8  | 1  | 1         | -  | 8  | -  | 5   |  |  |  |  |
| 6         | 7  | 1  | 8  | 7  | -  | 9+ | 9+ | 8         | 8  | 9+ | 9  | 6  | 9+ | 9+ | 6  | 9+        | 9+ | 8  | 9  | 9+ | 8  | -  | 9  | 9         | 8  | 2* | 9+ | -  | -  | 6  | -  | 5         | -  | 8  | -  | 6   |  |  |  |  |
| 7         | 8  | 2  | 9  | 3  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 6  | 9         | 9+ | 4  | 8  | 9+ | 8  | 5* | 9+ | 4         | 8  | -  | 9+ | -  | -  | 4  | -  | 5         | -  | 7  | -  | 7   |  |  |  |  |
| 8         | 1  | 9  | 9  | -  | 5  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 4  | 9+        | 9+ | 3  | 8  | 9+ | 8  | 2* | 8  | -         | 8  | -  | 9+ | -  | -  | 2  | -  | 2         | -  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 3  | 6  | 9+ | 5  | -  | 8  | -         | 9  | -  | 9+ | -  | -  | 1  | -  | 1         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | -  | 9+        | 9+ | 5  | 5  | 9+ | 4  | -  | 8  | 1         | 9  | -  | 9+ | -  | -  | -  | 2  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 1  | 9+        | 9+ | 8  | 6  | 9+ | 7  | -  | 7  | 2         | 7  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 4  | 9+        | 9  | 9  | 8  | 9+ | 7  | -  | 6  | 1         | 5  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 4  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 4  | 9+        | 8  | 9  | 8  | 9+ | 6  | -  | 5  | -         | 3  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | 4  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 6  | 9  | 9+ | 9+ | 2  | 9+        | 1  | 9  | 7  | 9+ | 1  | -  | 2  | -         | 2  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 14 |     |  |  |  |  |
| 15        | 7  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 4  | 8  | 9+ | 9+ | 9+ | -  | 9         | 4  | 8  | 4  | 8  | 1  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 6  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9  | -  | 8  | 9  | 9  | 9+ | 2  | 5         | 8  | 2  | 1  | 3  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 7  | 9  | 9+ | 9+ | 8  | 1*        | 8  | 9  | 2* | 2  | 9+ | -  | -  | 9         | 3  | -  | 5  | 9  | -  | -  | 1  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 6  | -  | -  | 6  | 9+ | 8  | 8         | 9  | -  | 4  | 9  | 9+ | 9+ | 8  | 6         | 7  | 7  | 7  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 5  | 9+ | -  | -  | 9  | -         | -  | 5  | 5  | 18  |  |  |  |  |
| 19        | -  | 2  | -  | -  | 1  | 9+ | 2  | 6         | 9  | -  | -  | 8  | 9+ | 9  | 5  | 7         | 5  | 8  | 7  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 5  | 9  | -  | -  | 9  | 1         | -  | 5  | 7  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 7  | 9+ | 6  | 4  | 9         | 4  | 9  | 2  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 5  | 9+ | -  | -  | 9  | 4         | -  | 7  | 7  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 2  | 9+ | 2  | 4  | 9         | 7  | 8  | 5  | 9  | 9+ | -  | 5  | 9         | 9  | -  | 9  | 9+ | -  | -  | 9  | -         | -  | 5  | 7  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 1  | 9         | 8  | 2  | 5  | 8  | 9+ | -  | 7  | 9         | 8  | -  | 9  | 9+ | -  | -  | 9  | 1         | -  | 5  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | -  | 8         | 8  | 2  | 8  | 8  | 9+ | -  | 9  | 9         | 7  | -  | 9  | 9+ | -  | 3  | 9  | -         | -  | 5  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Feb., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | -  | 7         | 9  | 5  | 8  | 9  | 9+ | -  | 9  | 9+        | 9  | 8  | 8  | 9+ | -  | 8  | 9  | 1         | -  | 6  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 7  | -  | 8         | 9  | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 8  | 9+ | -  | 9  | 9  | -         | -  | 8  | 5  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 3  | 1         | -  | 7  | -  | -  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 9  | -         | 4  | 9+ | -  | 2   |  |  |  |  |
| 3         | -  | -  | 5  | -  | -  | 9+ | 7  | 8         | 1  | 8  | 7  | 1  | 9+ | 9+ | -  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9+ | 9+ | 4  | -  | 9  | 8  | -         | 8  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | 1  | 9+ | 9+ | 2  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9+ | 9+ | -  | -  | 9  | 8  | -         | 6  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 4  | -  | 9+ | 9+ | 8         | 4  | 9+ | 8  | 2  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 2  | -  | 8  | 6  | 2         | 4  | 8  | -  | 5   |  |  |  |  |
| 6         | 6  | -  | 8  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 4  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 1  | 9  | 9+        | 8  | 7  | 9+ | -  | -  | 9  | 2  | 5         | -  | 8  | -  | 6   |  |  |  |  |
| 7         | 1  | 2  | 9  | 1  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 8  | 9+        | 9+ | 6  | 9  | 9+ | 9  | 6* | 9  | 9         | 9  | 2* | 9+ | -  | -  | 8  | -  | 7         | -  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 5  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 5  | 9+        | 9+ | 6  | 8  | 9+ | 9  | 4* | 9+ | 5         | 9  | 1* | 9+ | -  | -  | 7  | -  | 5         | -  | 7  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 9  | 9+ | 9+ | 4  | 9+        | 9+ | 7  | 7  | 9+ | 8  | 4* | 9  | -         | 9  | -  | 9+ | -  | -  | 5  | -  | 4         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 4  | 6  | 9+ | 8  | -  | 9  | 2         | 9  | -  | 9+ | -  | -  | 2  | -  | 1         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 8  | 6  | 9+ | 8  | -  | 9  | 4         | 9  | -  | 9  | -  | -  | 1  | -  | 1         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 8  | 9+ | 9  | -  | 8  | 4         | 9  | -  | 8  | -  | -  | -  | -  | 1         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 5  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 7  | 9+        | 8  | 9  | 8  | 9+ | 8  | -  | 7  | -         | 7  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 6  | 9  | 9+ | 9+ | 5  | 9+        | 2  | 9  | 8  | 9+ | 5  | -  | 5  | -         | 5  | -  | 7  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | 1  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 4  | 7  | 9+ | 9+ | 9+ | 2  | 9         | 4  | 9  | 6  | 9+ | 6  | -  | -  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 5  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9  | -  | 8  | 9  | 9  | 9+ | 6  | 5         | 9  | 7  | 4  | 6  | 9  | -  | -  | 1         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9+ | 1*        | 8  | 9  | 3* | 2  | 9+ | -  | 1* |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

Mar., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 1         | 7  | 9  | 2  | 7  | 9  | 9+ | -         | 9  | 9+ | 9  | 8  | 8  | 9+ | -         | 8  | 9+ | 5  | -  | 8  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 6  | 1         | 7  | 9  | 8  | 7  | 9+ | 9+ | -         | 9  | 9+ | 9  | 9  | 8  | 9+ | -         | 9  | 9+ | 4  | 2  | 9+ | 8  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 2  | -         | -  | 6  | -  | -  | 9+ | 9  | -         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9  | 1  | 5  | 9  | 1  | 2   |
| 3   | -         | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 5  | -  | 9+ | 9  | 5         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 7  | 9  | 9+ | 9  | -         | 9  | 9  | -  | 8  | 9  | -  | 3   |
| 4   | -         | -  | 7  | -  | -  | 9+ | 9  | 8         | 1  | 9  | 7  | -  | 9+ | 9+ | 7         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 4  | -         | 9  | 9  | 5  | 9  | 9  | 3  | 4   |
| 5   | 1         | -  | 8  | 1  | -  | 9+ | 9+ | 8         | 5  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9+ | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 8  | 9  | 9+ | 7  | -         | 9  | 8  | 7  | 6  | 9  | -  | 5   |
| 6   | 6         | -  | 9  | 2  | -  | 9+ | 9+ | 8         | 6  | 9+ | 8  | 1  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 5         | 9  | 9+ | 9  | 9  | 9+ | 4  | -         | 9  | 6  | 9  | 5  | 9  | -  | 6   |
| 7   | -         | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 4  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 3         | 9+ | 9+ | 9  | 8  | 9+ | 1  | -         | 9  | 1  | 8  | -  | 9  | -  | 7   |
| 8   | -         | 5  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 2*        | 9+ | 8  | 9  | 4  | 9+ | -  | -         | 8  | -  | 5  | -  | 9  | -  | 8   |
| 9   | -         | 8  | 9  | -  | 2  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 6         | 9+ | 9+ | 8  | 9  | 9+ | 9  | 1*        | 9+ | 3  | 9  | 1* | 9+ | -  | -         | 6  | -  | 6  | -  | 8  | -  | 9   |
| 10  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 7         | 9+ | 9+ | 8  | 8  | 9+ | 9  | 1*        | 9  | 3  | 9  | -  | 9+ | -  | -         | 5  | -  | 6  | -  | 5  | -  | 10  |
| 11  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 6         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | -         | 9  | 5  | 9  | -  | 9  | -  | -         | 4  | -  | 6  | -  | 5  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 1         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 7         | 9+ | 9+ | 9  | 9  | 9+ | 9  | -         | 9  | 6  | 9  | -  | 8  | -  | -         | 2  | -  | 5  | -  | 5  | -  | 12  |
| 13  | -         | 9  | 3  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 8         | 9+ | 9  | 9  | 9  | 9+ | 8  | -         | 8  | -  | -  | -  | 6  | -  | -         | 1  | -  | 3  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 6  | 9+ | 9+ | 9+ | 8         | 9+ | 3  | 9  | 9  | 9+ | 6  | -         | 7  | -  | 9  | -  | 6  | -  | -         | -  | -  | 1  | -  | 5  | -  | 14  |
| 15  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 7  | 9+ | 9+ | 9+ | 7         | 9  | 6  | 8  | 8  | 9+ | 8  | -         | 1  | -  | 4  | -  | 7  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16  | 5         | 9  | -  | -  | 9  | 9+ | 9  | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8         | 4  | 9  | 9  | 7  | 9  | 9+ | -         | -  | 3  | -  | -  | 6  | 1  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | -         | 9  | -  | -  | 8  | 9+ | 8  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+        | -  | 8  | 9  | 8  | 8  | 9+ | -         | 1* | 9  | 7  | 3* | 5  | 8  | -         | -  | 6  | -  | -  | 5  | -  | 17  |
| 18  | -         | 4  | -  | -  | 3  | 9+ | 3  | 6         | 9  | -  | 2  | 9  | 9+ | 9  | 9         | 9+ | 6  | 8* | 9+ | 9+ | 9+ | 6*        | 1* | 9  | 9  | 4* | 5  | 9  | -         | -  | 9  | 3  | -  | 5  | 5  | 18  |
| 19  | -         | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9         | 9+ | 5* | 7  | 9  | 9+ | 9+ | 1         | 7  | 8  | 9  | 2* | 9  | 9  | -         | -  | 9  | 6  | -  | 9  | 7  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 2  | 8         | 9+ | 3  | 9  | 8  | 9+ | 9  | -         | 1  | 8  | 9  | 1* | 5  | 9  | -         | -  | 9  | 5  | -  | 9  | 8  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | -  | 9+ | -  | 5         | 9  | 6  | 5  | 6  | 9  | 9  | -         | 8  | 9  | 9  | -  | 9  | 9  | -         | -  | 9  | 5  | -  | 7  | 9+ | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 8  | 7  | 4  | 8  | 8  | 9  | -         | 9  | 9  | 9  | 1  | 9  | 9+ | -         | 4  | 9  | 5  | -  | 5  | 9  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 7  | 8  | 2  | 7  | 9  | 9  | -         | 9  | 9  | 8  | 5  | 9  | 9+ | -         | 7  | 9  | 5  | -  | 7  | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Apr., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 1  | 7         | 9  | 2  | 6  | 9+ | 9+ | -  | 8  | 9+        | 8  | 8  | 8  | 9+ | -  | 9  | 9+ | 2         | -  | 9  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 3  | 8         | 9  | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 8  | 8  | 8  | 9+ | -  | 9  | 9+ | 1         | 3  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 6  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 3  | 9+ | 8  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 4  | 6         | -  | 8  | 1  | -  | 9+ | 9  | 7  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9+ | 9+ | -  | 9  | 7  | 5         | 6  | 9  | 4  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 8  | 7         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9  | -  | 9+ | 5  | 9         | 9  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | 2  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 3  | 9+ | 9+        | 9  | 9  | 9+ | 5  | -  | 9+ | 6  | 9         | 9  | 9+ | 5  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9+ | 8         | 7  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 7  | 9+ | 9+        | 9  | 9+ | 9+ | 8  | -  | 9  | 2  | 9         | 9  | 9  | -  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 7  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 7  | 9+ | 8         | 9  | 9  | 9+ | 7  | 1  | 9  | -  | 9         | 5  | 9+ | -  | 7   |  |  |  |  |
| 8         | -  | 3  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 6  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 7  | 9+ | 8         | 9  | 8  | 9+ | 4  | -  | 8  | -  | 8         | 1  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 2  | 9  | 2         | 9  | 5  | 9+ | 4  | -  | 3  | -  | 5         | -  | 9  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 4  | 9  | 4         | 9  | 3  | 9  | 2  | -  | 1  | -  | 5         | -  | 8  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 9  | 7         | 9  | 2  | 9  | -  | -  | 2  | -  | 6         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9  | 8         | -  | 1  | 8  | -  | -  | 1  | 1  | 5         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 8  | 1         | -  | 2  | 8  | -  | -  | 1  | -  | 4         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9  | -  | 7  | -         | 9  | 1  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 9  | 9+ | 9+ | 7         | 9+ | 1  | 7  | 9+ | 9+ | 9+ | 9  | 9         | 9  | 7  | 9  | 9+ | 9  | -  | 1  | 4         | 2  | -  | 7  | 2  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 6         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9  | 8         | 9  | 9  | 9  | 9  | 9+ | 1  | -  | 8         | 4  | -  | 6  | 7  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 8  | -  | -  | 6  | 9+ | 7  | 5         | 9  | -  | 7  | 9  | 9+ | 9+ | 9  | 8         | 7  | 8  | 9+ | 9+ | 9+ | 2  | 3* | 9         | 8  | 5* | 5  | 8  | -  | -  | 7  | -         | -  | 5  | 1  | 17  |  |  |  |  |
| 18        | -  | 4  | -  | -  | 1  | 9+ | 2  | 5         | 9  | -  | -  | 8  | 9+ | 9  | 9  | 9+        | 5  | 8  | 9+ | 9+ | 9+ | 6  | 2  | 9         | 9  | 4* | 6  | 8  | -  | -  | 8  | 1         | -  | 5  | 2  | 18  |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 6  | 9+ | 5  | 9  | 9+        | 5  | 9  | 9  | 9+ | 9+ | 4  | 5  | 9         | 9  | 2* | 8  | 9  | -  | -  | 8  | 1         | -  | 8  | 3  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 3  | -  | -  | 2  | 9+ | 2  | 9  | 9+        | 4  | 8  | 9  | 9+ | 9+ | 1  | 5  | 9         | 8  | -  | 6  | 9  | -  | -  | 9  | 1         | -  | 8  | 4  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 9         | 4  | 5  | 9  | 9  | 9+ | -  | 8  | 9         | 9  | -  | 9  | 9  | -  | -  | 9  | 4         | -  | 6  | 9  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 4  | 8         | 7  | 4  | 8  | 8  | 9  | -  | 9  | 9         | 8  | 5  | 9  | 9  | -  | -  | 9  | 5         | -  | 7  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 7         | 8  | 4  | 7  | 9  | 9  | -  | 9  | 9         | 8  | 6  | 9  | 9+ | -  | 6  | 9  | 4         | -  | 9  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

May, Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |   |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|---|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |   |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 6         | 8  | 6  | 7  | 8  | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9+ | -         | -  | 6  | 9  | 0   |   |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 7  | 7         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9+ | -         | 1  | 8  | 9  | 1   |   |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 5  | -  | -  | 9+ | 8  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | 1  | 9  | 9+        | 4  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 5  | 8  | 9  | 2   |   |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 3  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9  | 9  | 9+ | 9+ | 2  | 9  | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 6  | -         | 6  | 9  | 9+ | 3   |   |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 8  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 3  | 9  | 8         | 9  | 9  | 9+ | 9+ | -  | 9  | 2  | 6         | 6  | 9  | 9  | 4   |   |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 8  | 9+ | 9+ | 4  | 9+ | 8         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 8         | 7  | 9  | 8  | 5   |   |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 7  | 9+ | 7         | 9  | 9  | 9+ | 7  | -  | 9  | -  | 8         | 8  | 9  | 4  | 6   |   |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9+ | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 7  | 9+        | 5  | 9  | 9  | 9+ | 9  | 1  | 9  | -         | 8  | 6  | 8  | 1   | 7 |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | 4  | 3  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 8  | 9+ | 3         | 9  | 9  | 9+ | 8  | 1  | 8  | -  | 6         | 3  | 6  | -  | 8   |   |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 8  | 9  | 2         | 5  | 8  | 8  | 7  | 2  | 2  | -  | 7         | -  | 5  | -  | 9   |   |  |  |  |
| 10        | -  | 6  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 7  | 9  | 1         | 2  | 8  | 6  | 5  | 1  | 1  | -  | 4         | -  | 5  | -  | 10  |   |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9  | 1  | 8  | 6         | 9  | 6  | 7  | 1  | -  | -  | -  | 3         | -  | 5  | -  | 11  |   |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 8  | 6         | -  | 4  | 6  | 1  | -  | -  | -  | 2         | -  | 5  | -  | 12  |   |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 4  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 8  | 3         | 8  | 2  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |   |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 5  | 7  | 9  | 9+ | 9+ | 7  | 9+        | 8  | 9  | 9+ | 9+ | 9  | -  | 7  | 1         | 2  | 1  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |   |  |  |  |
| 15        | -  | 9  | -  | 1  | 8  | 9+ | 9  | 6         | 9+ | 1  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9  | 9+ | 9  | -  | 2  | 5         | -  | -  | 6  | 4  | -  | -  | -  | -         | 5  | -  | 15 |     |   |  |  |  |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 7  | 5         | 9+ | -  | 7  | 9  | 9+ | 9  | 9+ | 9         | 9  | 9  | 9  | 9+ | 9+ | 2  | -  | 8         | 4  | -  | 6  | 8  | -  | -  | -  | -         | 5  | -  | 16 |     |   |  |  |  |
| 17        | -  | 6  | -  | -  | 4  | 9+ | 4  | 5         | 9  | -  | 4  | 8  | 9+ | 9  | 9  | 9+        | 8  | 8  | 9+ | 9+ | 9+ | 7  | -  | 9         | 7  | 1* | 5  | 9+ | -  | -  | 3  | -         | -  | 5  | -  | 17  |   |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 6  | 9  | 9+        | 7  | 8  | 9+ | 9+ | 9+ | 5  | 6  | 9         | 8  | 6  | 5  | 9  | -  | -  | 4  | -         | -  | 5  | 1  | 18  |   |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 3  | 9  | 9+        | 5  | 9  | 9  | 9+ | 9+ | 5  | 5  | 9         | 8  | 7  | 5  | 9+ | -  | -  | 3  | -         | -  | 5  | -  | 19  |   |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 9  | 9         | 6  | 8  | 9  | 9+ | 9+ | 5  | 5  | 9         | 8  | 2  | 5  | 9+ | -  | -  | 5  | 1         | -  | 5  | -  | 20  |   |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8  | 9         | 5  | 5  | 8  | 9  | 9  | 3  | 8  | 9         | 8  | 2  | 9  | 9  | -  | -  | 9  | -         | -  | 4  | 1  | 21  |   |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 8         | 5  | 4  | 8  | 8  | 9  | 1  | 9  | 9         | 9  | 5  | 9  | 9  | -  | -  | 9  | 1         | -  | 4  | 6  | 22  |   |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 6         | 8  | 5  | 6  | 8  | 9  | -  | 9  | 9         | 6  | 7  | 9  | 9+ | -  | 2  | 9  | -         | -  | 4  | 9  | 23  |   |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |   |  |  |  |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

**Jun., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 5         | 8  | 6  | 7  | 8  | 9+ | -  | 9  | 9         | 7  | 9  | 9+ | 9  | -  | 7  | 9  | -         | -  | 6  | 6  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 8  | 6         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 1  | 6  | 7  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 5  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 2  | 8  | 7  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 2  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 8         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9  | -  | 9  | 5  | 2         | 2  | 8  | 8  | 3   |  |  |  |  |
| 4         | -  | -  | 5  | -  | -  | 9+ | 5  | 4         | -  | 8  | 6  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9         | 9  | 9  | 9  | 9  | -  | 9  | 1  | 5         | 2  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 4         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9  | 8         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 7         | 2  | 8  | 6  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 8  | 4         | 2  | 9  | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 2  | 9  | 6  | 9         | 9  | 9+ | 8  | -  | 9  | -  | 6  | 4         | 9  | 1  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 5  | 9+ | 2         | 9  | 9  | 9+ | 9  | -  | 9  | -  | 6         | 3  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9  | 2  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9+ | -  | 9         | 9  | 9+ | 8  | -  | 7  | -  | 5  | 1         | 5  | -  | 8  |     |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9  | -         | 9  | 9  | -  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 6  | 9  | -  | 8         | 9  | 7  | 7  | -  | -  | -  | 2  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | -  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 6  | 8  | 1  | 9         | 8  | 8  | 5  | -  | -  | -  | 2  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 1  | 9+ | 9+ | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 4  | 8  | 5  | 7         | 8  | 6  | 1  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | -  | 7  | 5  | 8         | 5  | 6  | 2  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9  | -         | 9+ | 8  | 6  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 7  | 2  | 4         | 6  | 6  | 1  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 5  | 7  | 9  | 9+ | 9+ | 9  | 9+        | 8  | 3  | 9+ | 9+ | 9  | 9+ | 6  | 1         | 1  | 4  | 6  | 1  | -  | -  | -  | -         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 8  | -  | -  | 7  | 9+ | 8  | -         | 9+ | 1  | 7  | 9  | 9+ | 9  | 8  | 9+        | 9  | 8  | 9+ | 9+ | 9  | 9+ | 3  | 4         | -  | 1  | 6  | 5  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 4  | 2         | 9  | -  | 6  | 9  | 9+ | 9  | 9  | 9         | 8  | 9  | 9  | 8  | 9  | 2  | 1  | 6         | 4  | -  | 6  | 6  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 2  | -  | -  | -  | 9+ | -  | 2         | 8  | -  | 4  | 8  | 9+ | 7  | 9  | 9+        | 8  | 9  | 9+ | 8  | 9+ | 1  | -  | 9         | 7  | -  | 5  | 9  | -  | -  | -  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | -  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 6  | 9+ | 4  | 9+ | 9+        | 6  | 9+ | 9+ | 9+ | 9+ | 1  | 5  | 9         | 8  | 5  | 5  | 9+ | -  | -  | -  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 2  | 9+ | 1  | 9  | 9+        | 5  | 8  | 9+ | 9+ | 9+ | 2  | 2  | 8         | 7  | 7  | 5  | 9  | -  | -  | -  | -         | -  | 5  | -  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | -  | 9+ | -  | 9  | 9         | 5  | 8  | 9  | 9+ | 9  | 4  | 2  | 9         | 7  | 4  | 7  | 9  | -  | -  | 4  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 8         | 5  | 4  | 8  | 9  | 9  | 2  | 6  | 9         | 8  | -  | 9  | 9+ | -  | -  | 8  | -         | -  | 7  | 2  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 8         | 5  | 4  | 6  | 9  | 9  | -  | 8  | 9         | 9  | 2  | 9+ | 8  | -  | -  | 9  | 1         | -  | 7  | 6  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 6         | 7  | 4  | 7  | 8  | 9  | -  | 9  | 9         | 8  | 4  | 9+ | 8  | -  | -  | 9  | -         | -  | 6  | 7  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Jul., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | 5         | 9  | 6  | 8  | 8  | 9+ | -  | 9  | 9+        | 3  | 8  | 9+ | 8  | -  | 7  | 8  | -         | -  | 5  | 4  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 3  | 8  | 6         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 1  | 9  | 9+ | 9  | -  | 8  | 9  | -         | -  | 5  | 4  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 5  | -  | -  | 9+ | 8  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 8  | 9+        | 1  | 9+ | 9  | 9  | -  | 9  | 7  | -         | 1  | 7  | 4  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 3  | 2         | -  | 8  | -  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9         | 6  | 9+ | 9  | 9  | -  | 9  | 2  | 1         | 1  | 8  | 6  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 7         | 9  | 9  | 9  | 9  | -  | 9  | -  | 5         | 2  | 8  | 6  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 5         | 9  | 9  | 9+ | 4  | -  | 9  | -  | 5         | 2  | 8  | 4  | 5   |  |  |  |  |
| 6         | -  | -  | 8  | -  | -  | 9+ | 9  | 7         | 4  | 9+ | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 2         | 9  | 9  | 9+ | 9+ | -  | 9  | -  | 6         | 3  | 8  | -  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | 5         | 8  | 9+ | 7  | 1  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | 3  | 9+ | -         | 9  | 9  | 9+ | 8  | -  | 8  | -  | 4         | 1  | 6  | -  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9+ | 3  | 3  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 4  | 9+ | -         | 9  | 9  | 9  | 6  | -  | 4  | -  | 4         | -  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 7  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 5  | 8  | -         | 9  | 7  | 7  | 5  | -  | -  | -  | 1         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 6  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 2  | 5  | -         | 9  | 6  | 5  | 2  | -  | -  | -  | 1         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9+ | 9+ | 9  | 9+ | -  | 4  | 4         | 5  | 4  | 6  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 2  | 4         | 2  | 1  | 6  | 1  | -  | -  | -  | -         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 4  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 5  | 1         | 2  | 3  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 5  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 8  | 8  | 9+ | 9+ | 9  | -  | 4  | -         | -  | 1  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 8  | -  | 1  | 8  | 9+ | 8  | 4         | 9+ | 1  | 8  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9  | 9  | 8  | -  | 2  | 2         | -  | -  | 6  | 1  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 5  | 4         | 9  | -  | 7  | 9  | 9+ | 9  | 9  | 9         | 9  | 9  | 8  | 9  | 1  | -  | 5  | 2         | -  | 6  | 2  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 6  | -  | -  | 1  | 9+ | 1  | 4         | 9  | -  | 4  | 8  | 9  | 8  | 9+ | 9         | 8  | 9+ | 9+ | 8  | 9+ | -  | -  | 9         | 6  | -  | 5  | 8  | -  | -  | -  | -         | 5  | -  | 17 |     |  |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 7  | 9+ | 6  | 9  | 9+        | 7  | 9  | 9+ | 9+ | 9+ | -  | 1  | 9         | 7  | 2  | 5  | 9  | -  | -  | -  | -         | 5  | -  | 18 |     |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 2  | 9  | 9+        | 5  | 8  | 9+ | 9+ | 9+ | 2  | 1  | 7         | 6  | 5  | 8  | 8  | -  | -  | -  | -         | 5  | -  | 19 |     |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | -  | 8  | 9         | 4  | 8  | 9  | 9+ | 9  | 2  | -  | 8         | 6  | 1  | 9  | 8  | -  | -  | 1  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 9         | 6  | 5  | 8  | 8  | 8  | 1  | 2  | 9         | 7  | -  | 9  | 9  | -  | -  | 8  | -         | -  | 6  | 1  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 7         | 6  | 5  | 7  | 8  | 9  | -  | 3  | 9         | 9  | 1  | 9+ | 9  | -  | -  | 8  | -         | -  | 5  | 2  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 5         | 8  | 5  | 7  | 7  | 9  | -  | 9  | 9         | 6  | 3  | 9  | 8  | -  | -  | 8  | -         | -  | 5  | 4  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |



Aug., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 2         | 6  | 9  | 7  | 6  | 9  | 9+ | -         | 9  | 9+ | -  | 5  | 9  | 9+ | -         | 6  | 9  | -  | -  | 7  | 7  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 5  | 5         | 7  | 9  | 8  | 8  | 9  | 9+ | -         | 9  | 9+ | -  | 9  | 9  | 9+ | -         | 9  | 9  | -  | -  | 8  | 6  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 2  | -         | -  | 6  | -  | -  | 9+ | 8  | 6         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 1  | 9  | 9  | 9  | -         | 9  | 8  | -  | 1  | 8  | 6  | 2   |
| 3   | -         | -  | 2  | -  | -  | 9+ | 5  | 5         | -  | 8  | 4  | -  | 9+ | 9  | 8         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 9  | 8  | 9  | 9  | 9  | -         | 8  | -  | 1  | 1  | 9  | 7  | 3   |
| 4   | -         | -  | 7  | -  | -  | 9+ | 7  | 6         | -  | 9  | 8  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9  | 7  | 9  | 9  | 9  | 7  | -         | 9  | -  | 4  | 1  | 9  | 6  | 4   |
| 5   | -         | -  | 8  | -  | -  | 9+ | 8  | 7         | 2  | 9  | 8  | -  | 9+ | 9+ | 9+        | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 7  | 9  | 9  | 9  | 1  | -         | 9  | -  | 4  | 2  | 9  | 2  | 5   |
| 6   | -         | -  | 9  | 2  | -  | 9+ | 9  | 8         | 7  | 9+ | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9+ | 4  | 9  | 9  | 9+ | 8  | -         | 9  | -  | 6  | 2  | 9  | -  | 6   |
| 7   | -         | -  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 2  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | 1         | 9+ | -  | 8  | 9  | 9+ | 5  | -         | 8  | -  | 5  | 1  | 7  | -  | 7   |
| 8   | -         | 4  | 9  | -  | -  | 9+ | 9+ | 1         | 9  | 9+ | 5  | 6  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 9+ | 5         | 9+ | -  | 6  | 7  | 9+ | 2  | -         | 3  | -  | 5  | -  | 5  | -  | 8   |
| 9   | -         | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 9  | 9  | 2         | 7  | -  | 9  | 5  | 8  | 1  | -         | -  | -  | 1  | -  | 5  | -  | 9   |
| 10  | -         | 7  | 8  | -  | 6  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9  | 1         | 2  | -  | 8  | 2  | 5  | -  | -         | -  | -  | 1  | -  | 5  | -  | 10  |
| 11  | -         | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 9  | -         | -  | -  | 6  | -  | 5  | -  | -         | -  | -  | -  | -  | 5  | -  | 11  |
| 12  | -         | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9  | -         | -  | 3  | 4  | -  | 6  | -  | -         | -  | -  | -  | -  | 5  | -  | 12  |
| 13  | -         | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | 5  | 9  | 9+ | 9+ | 7         | 9+ | 9  | 8  | 9+ | 9+ | 9  | -         | 5  | 1  | 5  | 1  | 6  | -  | -         | -  | -  | -  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 6  | 7  | 9+ | 9+ | 9+ | 8         | 9+ | 7  | 9  | 9  | 9+ | 8  | -         | 5  | -  | 1  | -  | 6  | -  | -         | -  | -  | -  | -  | 5  | -  | 14  |
| 15  | -         | 9  | -  | 2  | 8  | 9+ | 9  | 6         | 9+ | 1  | 8  | 9  | 9+ | 9+ | 8         | 9+ | 9  | 6  | 9  | 9  | 8  | -         | 1  | 1  | -  | -  | 6  | 1  | -         | -  | -  | -  | -  | 5  | -  | 15  |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 8  | 6         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9         | 9  | 8  | 8  | 9  | 8  | 9  | -         | -  | 6  | 1  | -  | 6  | 2  | -         | -  | -  | -  | -  | 5  | -  | 16  |
| 17  | -         | 6  | -  | -  | 6  | 9+ | 6  | 5         | 9  | -  | 4  | 9  | 9  | 9  | 9+        | 9  | 7  | 9+ | 9  | 8  | 9+ | -         | -  | 9  | 4  | -  | 5  | 8  | -         | -  | 1  | -  | -  | 5  | -  | 17  |
| 18  | -         | 1  | -  | -  | -  | 9+ | -  | 4         | 8  | -  | -  | 8  | 9+ | 7  | 9         | 9+ | 6  | 9  | 9+ | 9+ | 9+ | 2         | 2  | 9  | 6  | 1  | 5  | 8  | -         | -  | 1  | -  | -  | 5  | -  | 18  |
| 19  | -         | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 5  | 9+ | 4  | 9         | 9+ | 5  | 9  | 9  | 9+ | 9+ | 5         | 2  | 8  | 6  | 1  | 5  | 8  | -         | -  | -  | -  | -  | 5  | -  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 8         | 9  | 5  | 8  | 9  | 9+ | 9  | 3         | -  | 9  | 5  | -  | 7  | 8  | -         | -  | 4  | -  | -  | 5  | -  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8         | 9  | 6  | 5  | 8  | 9  | 8  | -         | 2  | 9  | 5  | -  | 9+ | 9  | -         | -  | 8  | -  | -  | 7  | -  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7         | 8  | 7  | 5  | 7  | 8  | 9  | -         | 7  | 9  | 8  | -  | 9+ | 9+ | -         | -  | 9  | -  | -  | 7  | 2  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2         | 6  | 8  | 5  | 6  | 8  | 9  | -         | 9  | 9  | 2  | 4  | 9+ | 9  | -         | -  | 8  | -  | -  | 7  | 7  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA

Sep., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 1         | 6  | 9  | 5  | 7  | 9  | 9+ | -         | 8  | 9+ | 8  | 8  | 8  | 9+ | -         | 9  | 9  | 1  | -  | 7  | 9  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 1         | 8  | 9  | 8  | 8  | 9  | 9+ | -         | 8  | 9+ | 8  | 9  | 9  | 9+ | -         | 9  | 9+ | 1  | -  | 9  | 8  | 1   |
| 2   | -         | -  | -  | -  | -  | 9+ | 2  | -         | -  | 6  | -  | -  | 9+ | 9  | 1         | 8  | 9+ | 9  | 8  | 9+ | 9+ | -         | 9  | 9+ | 7  | 9  | 9  | 9  | -         | 9  | 8  | -  | 3  | 9+ | 8  | 2   |
| 3   | -         | -  | 3  | -  | -  | 9+ | 5  | 7         | -  | 8  | 5  | -  | 9+ | 9  | 6         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | 7  | 9  | 9+ | 9  | -         | 9  | 5  | 3  | 5  | 9  | 7  | 3   |
| 4   | -         | -  | 7  | -  | -  | 9+ | 8  | 7         | 1  | 9  | 8  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9+ | 9  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9  | 9+ | 8  | -         | 9  | 4  | 6  | 6  | 9  | 5  | 4   |
| 5   | 4         | -  | 8  | 2  | -  | 9+ | 9  | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 9  | 9  | 9+ | 8  | -         | 9  | -  | 6  | 7  | 9  | 1  | 5   |
| 6   | -         | -  | 9  | 1  | -  | 9+ | 9+ | 8         | 8  | 9+ | 8  | 1  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9  | 5         | 9  | 8  | 9  | 9  | 9+ | 4  | -         | 9  | -  | 8  | 1  | 9+ | -  | 6   |
| 7   | -         | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 4  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9  | 4         | 9+ | 2  | 9  | 7  | 9+ | 1  | -         | 9  | -  | 9  | -  | 8  | -  | 7   |
| 8   | -         | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 6  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | -         | 9+ | -  | 9  | 5  | 9+ | -  | -         | 7  | -  | 4  | -  | 5  | -  | 8   |
| 9   | -         | 6  | 9  | -  | -  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 8         | 9+ | 9  | 8  | 9  | 9+ | 9+ | -         | 9  | -  | 9  | -  | 9  | -  | -         | 1  | -  | 4  | -  | 7  | -  | 9   |
| 10  | -         | 8  | 9  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 7  | 9  | 9+ | 9+ | -         | 7  | 2  | 9  | -  | 8  | -  | -         | -  | -  | 4  | -  | 5  | -  | 10  |
| 11  | -         | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | 8  | 9  | 9+ | 9  | -         | 7  | 2  | 9  | -  | 6  | -  | -         | -  | -  | 4  | -  | 5  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | 9  | 9  | 9+ | 9  | -         | 4  | 4  | -  | -  | 6  | -  | -         | -  | -  | 3  | -  | 5  | -  | 12  |
| 13  | -         | 9  | 2  | -  | 9  | 9+ | 9+ | 7         | 9+ | 8  | 3  | 9+ | 9+ | 9+ | 8         | 9+ | 8  | 9  | 9  | 9+ | 8  | -         | 5  | -  | 9  | -  | 6  | -  | -         | -  | -  | 1  | -  | 5  | -  | 13  |
| 14  | -         | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 7  | 9+ | 9+ | 9+ | 7         | 9+ | 4  | 8  | 9  | 9+ | 8  | -         | 2  | -  | 6  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 14 |     |
| 15  | -         | 9  | -  | 2  | 9  | 9+ | 9+ | 8         | 9+ | 1  | 8  | 9  | 9+ | 9+ | 7         | 8  | 8  | 7  | 8  | 9+ | 9  | -         | -  | 1  | -  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16  | -         | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 8  | 9  | 9  | 9+ | 9         | 5  | 9  | 8  | 7  | 7  | 9+ | -         | -  | 6  | -  | -  | 6  | 4  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | -         | 8  | -  | -  | 6  | 9+ | 7  | 6         | 9+ | -  | 6  | 9  | 9+ | 9+ | 9         | 4  | 7  | 9+ | 9  | 7  | 9+ | 2         | 1* | 9  | 7  | 2* | 5  | 9  | -         | -  | 5  | -  | -  | 5  | -  | 17  |
| 18  | -         | 3  | -  | -  | 1  | 9+ | 2  | 5         | 9  | -  | -  | 8  | 9+ | 9  | 9         | 9+ | 5  | 9+ | 9+ | 9+ | 9+ | 6         | -  | 9  | 8  | 2* | 5  | 8  | -         | -  | 6  | -  | -  | 5  | 1  | 18  |
| 19  | -         | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 7  | 9+ | 7  | 9         | 9  | 5  | 9  | 9+ | 9+ | 9+ | -         | 1  | 9  | 9  | -  | 5  | 9  | -         | -  | 5  | -  | -  | 5  | 1  | 19  |
| 20  | -         | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 2  | 9+ | 1  | 9         | 9+ | 5  | 9  | 8  | 9+ | 9+ | -         | 4  | 9  | 9  | -  | 5  | 9  | -         | -  | 8  | -  | -  | 6  | 1  | 20  |
| 21  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6         | 9  | 5  | 6  | 8  | 8  | 9  | -         | 8  | 9  | 9  | -  | 9  | 8  | -         | -  | 9  | 1  | -  | 5  | 5  | 21  |
| 22  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2         | 8  | 7  | 6  | 8  | 7  | 9  | -         | 9  | 9  | 8  | 2  | 9  | 9  | -         | -  | 9  | -  | -  | 5  | 8  | 22  |
| 23  | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1         | 6  | 8  | 3  | 7  | 7  | 9  | -         | 9  | 9  | 9  | 6  | 9  | 9+ | -         | 6  | 9  | 3  | -  | 6  | 9  | 23  |
|     | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

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**Oct., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | 2  | 7         | 9  | 5  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9  | 9+ | -  | 9  | 9+ | 5         | 6  | 9  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 2  | 8         | 9+ | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9+ | 3         | 6  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 1  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 9+ | -  | 9  | 9  | -         | 9  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 5  | -  | -  | 9+ | 6  | 8         | 1  | 8  | 7  | -  | 9+ | 9+ | 3  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9+ | 8  | -  | 9  | 8  | 2         | 9  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 8  | -  | -  | 9+ | 8  | 8         | 4  | 9  | 8  | 1  | 9+ | 9+ | 8  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 1  | -  | 9  | 8  | 8         | 9  | 9  | -  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 6  | -  | 9+ | 9  | 8         | 7  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | 5  | -  | 9  | 7  | 8         | 7  | 9  | -  | 5   |  |  |  |  |
| 6         | 6  | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 7  | 9+ | 9  | 3  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9  | 9+ | 9  | 1  | 9  | 9+        | 9  | 8  | 9+ | 1  | -  | 9  | 4  | 9         | 2  | 8  | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | 1  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 6  | 9+ | 9+ | 8  | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 3* | 9+ | 9         | 9  | 4  | 9+ | -  | -  | 9  | -  | 8         | -  | 9+ | -  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 6  | 9+        | 9+ | 8  | 9  | 9+ | 9  | 2* | 9+ | 6         | 9  | 1* | 9+ | -  | -  | 7  | -  | 6         | -  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 6  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 7  | 8  | 9+ | 9  | 2* | 9+ | 4         | 9  | 1* | 9+ | -  | -  | 6  | -  | 7         | -  | 8  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 6  | 9+        | 9+ | 6  | 8  | 9+ | 9  | 2* | 9  | 4         | 9  | -  | 9+ | -  | -  | 4  | -  | 8         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 8  | 8  | 9+ | 9+ | -  | 9  | 8         | 9  | -  | 9  | -  | -  | 1  | 1  | 6         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 8  | 9+ | 9+ | -  | 8  | 5         | -  | -  | 9  | -  | -  | -  | -  | 3         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | 1  | 9+ | 9+ | 9+ | 8  | 9+        | 8  | 9  | 9  | 9+ | 9  | -  | 7  | -         | -  | -  | 8  | -  | -  | -  | -  | 1         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 5  | 9+        | 5  | 8  | 9  | 9+ | 8  | -  | 3  | -         | 7  | -  | 8  | -  | -  | -  | -  | -         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 8  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 8  | 9  | 9+ | 9+ | 5  | 8         | 9  | 5  | 8  | 9+ | 9  | -  | -  | 2         | 1  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | 5  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 9  | 4         | 9  | 9  | 8  | 8  | 9+ | -  | -  | 8         | 4  | -  | 6  | 8  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 7  | -  | -  | 7  | 9+ | 8  | 7         | 9+ | -  | 7  | 9  | 9+ | 9+ | 9+ | 3         | 7  |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Nov., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |     |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|-----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF  | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 1  | 8         | 9  | 8   | 8  | 9  | 9+ | -  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 9  | 9  | 2         | 3  | 9  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 2  | 8         | 9+ | 9   | 8  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 9+ | 9+ | -  | 9  | 9  | -         | 8  | 9  | -  | 1   |  |  |  |  |
| 2         | -  | -  | 1  | -  | -  | 9+ | 4  | 7         | -  | 8  | 4  | 1  | 9+ | 9  | 3  | 9         | 9+ | 9   | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | 8  | -  | 9  | 8  | -         | 9  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 2  | 8  | 7  | 1  | 9+ | 9+ | 6  | 9+        | 9+ | 9   | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | 1  | -  | 9  | 7  | 2         | 9  | 9  | -  | 3   |  |  |  |  |
| 4         | 1  | -  | 8  | 1  | -  | 9+ | 9  | 8         | 2  | 9  | 8  | 2  | 9+ | 9+ | 4  | 9+        | 9+ | 9+  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | 2  | -  | 9  | 7  | 2         | 5  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 6  | -  | 9+ | 9+ | 8         | 5  | 9+ | 9  | 4  | 9+ | 9+ | 8  | 9+        | 9+ | 9   | 9  | 9+ | 9  | -  | 9  | 9+        | 9  | 8  | 9+ | -  | -  | 9  | 8  | 6         | 1  | 9  | -  | 5   |  |  |  |  |
| 6         | 7  | 1  | 9  | 6  | -  | 9+ | 9+ | 8         | 8  | 9+ | 9  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9   | 9  | 9+ | 9  | -  | 9  | 9+        | 9  | 5* | 9+ | -  | -  | 8  | 7  | 7         | -  | 9  | -  | 6   |  |  |  |  |
| 7         | 8  | 2  | 9  | 3  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 7  | 9         | 9+ | 6   | 8  | 9+ | 9  | 3* | 9+ | 9         | 9  | 2* | 9+ | -  | -  | 8  | 1  | 6         | -  | 9  | -  | 7   |  |  |  |  |
| 8         | -  | 9  | 9  | -  | 5  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 6  | 9+        | 9+ | 7   | 8  | 9+ | 8  | 2* | 9+ | 7         | 9  | 1* | 9+ | -  | -  | 7  | -  | 5         | -  | 9  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 4   | 5  | 9+ | 6  | 1* | 9  | 3         | 9  | -  | 9+ | -  | -  | 4  | -  | 7         | -  | 8  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 2   | 5  | 9+ | 6  | -  | 9  | 7         | 9  | -  | 9+ | -  | -  | 1  | -  | 6         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 8   | 6  | 9+ | 8  | -  | 8  | 5         | 9  | -  | 9+ | -  | -  | -  | -  | 4         | -  | 6  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 6  | 9+        | 9+ | 9   | 7  | 9+ | 9  | -  | 6  | 2         | 9  | -  | 9+ | -  | -  | -  | -  | 1         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 4  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | 1  | 9  | 9+ | 9+ | 7  | 9+        | 8  | 8   | 8  | 9+ | 8  | -  | 5  | -         | 8  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | 4  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 2  | 9+        | 1  | 9   | 8  | 9+ | 4  | -  | 1  | -         | 6  | -  | 7  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | 6  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 3  | 8  | 9  | 9+ | 9+ | 3  | 8         | 6  | 2   | 5  | 9+ | 8  | -  | -  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | 5  | 9  | -  | 1  | 8  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8  | 2         | 9  | 9   | 5  | 8  | 9+ | -  | -  | 5         | 1  | -  | 6  | 4  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 6  | 9  | 9+ | 9+ | 9+ | 1*        | 8  | 4</ |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |  |  |  |  |

**Dec., Hawaii (Honolulu), for SSN = Low, Sigs in S-Units. By N6BV, ARRL.**

|     | 80 Meters |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0   | -         | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 6  | -         | 9  | 9  | 8  | 8  | 9  | 9+ | -         | 9  | 9+ | 8  | 4  | 9  | 9+ | -         | 8  | 9  | -  | -  | 9  | 2  | 0   |
| 1   | -         | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | -         | 9  | 9+ | 9  | 9  | 9  | 9+ | -         | 9+ | 9+ | 4  | 9  | 9  | 9  | -         | 9  | 8  | -  | -  | 9  | -  | 1   |
| 2   | -         | -  | 1  | -  | -  | 9+ | 5  | 8         | 2  | 8  | 6  | 2  | 9+ | 9  | -         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9+ | 9+ | -  | -         | 9  | 5  | -  | 2  | 9  | -  | 2   |
| 3   | -         | -  | 7  | -  | -  | 9+ | 8  | 8         | 4  | 9  | 8  | 4  | 9+ | 9+ | 2         | 9+ | 9+ | 9  | 9+ | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9+ | 9+ | -  | -         | 9  | 5  | 2  | 3  | 9  | -  | 3   |
| 4   | 7         | -  | 8  | 5  | -  | 9+ | 9  | 9         | 4  | 9  | 8  | 5  | 9+ | 9+ | -         | 9+ | 9+ | 9  | 9+ | 9+ | 8  | -         | 9  | 9+ | 8  | 9  | 9+ | -  | -         | 8  | 4  | 3  | -  | 9  | -  | 4   |
| 5   | 8         | -  | 8  | 6  | -  | 9+ | 9+ | 9         | 7  | 9  | 9  | 7  | 9+ | 9+ | -         | 9+ | 9+ | 8  | 9  | 9+ | 8  | -         | 9  | 9+ | 8  | 6  | 9+ | -  | -         | 8  | 7  | 5  | -  | 9  | -  | 5   |
| 6   | 8         | 2  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 3         | 9  | 9+ | 6  | 8  | 9+ | 6  | -         | 9  | 9+ | 9  | 6* | 9+ | -  | -         | 5  | 5  | 7  | -  | 9  | -  | 6   |
| 7   | 8         | 5  | 9  | 6  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 6         | 9  | 9+ | 2* | 7  | 9+ | 6  | 5*        | 9  | 8  | 9  | 4* | 9+ | -  | -         | 4  | -  | 4  | -  | 9  | -  | 7   |
| 8   | 8         | 9  | 9  | 1  | 7  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | 2         | 9+ | 9+ | 3  | 5  | 9+ | 5  | 2*        | 9  | 2  | 9  | -  | 9+ | -  | -         | 3  | -  | 2  | -  | 7  | -  | 8   |
| 9   | 1         | 8  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 1  | 4  | 9+ | 2  | -         | 9  | 1  | 9  | -  | 9+ | -  | -         | 1  | -  | 2  | -  | 7  | -  | 9   |
| 10  | -         | 8  | 9  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9+ | 1  | 9+ | 9+ | 9+ | -         | 9+ | 9+ | 1  | 1  | 9+ | 1  | -         | 8  | 3  | 9  | -  | 9+ | -  | -         | -  | -  | 4  | -  | 7  | -  | 10  |
| 11  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 1         | 9+ | 9+ | 8  | 3  | 9+ | 4  | -         | 8  | 5  | 8  | -  | 9+ | -  | -         | -  | -  | 1  | -  | 5  | -  | 11  |
| 12  | -         | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5         | 9+ | 9+ | 9  | 5  | 9+ | 7  | -         | 7  | 3  | 5  | -  | 9  | -  | -         | -  | -  | -  | 5  | -  | 12 |     |
| 13  | 8         | 9  | 4  | -  | 9  | 9+ | 9+ | 9         | 9+ | 8  | -  | 9+ | 9+ | 9+ | 5         | 9+ | 6  | 9  | 7  | 9+ | 5  | -         | 5  | -  | 5  | -  | 8  | -  | -         | -  | -  | -  | 5  | -  | 13 |     |
| 14  | 8         | 9  | 1  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 7  | 9+ | 9+ | 9+ | 2         | 9+ | -  | 9  | 7  | 9+ | 1  | -         | 2  | -  | 3  | -  | 6  | -  | -         | -  | -  | -  | 6  | -  | 14 |     |
| 15  | 8         | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 5  | 8  | 9+ | 9+ | 9+ | 1         | 8  | 3  | 8  | 3  | 9  | 3  | -         | -  | -  | -  | -  | 6  | -  | -         | -  | -  | -  | 6  | -  | 15 |     |
| 16  | 7         | 9  | -  | 4  | 9  | 9+ | 9+ | 9         | 9  | -  | 8  | 9  | 9  | 9+ | 5         | 2  | 9  | 6  | 1  | 3  | 9  | -         | -  | 1  | -  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17  | 7         | 9  | -  | -  | 8  | 9+ | 9  | 9         | 9  | -  | 8  | 9+ | 9+ | 9+ | 9         | 1* | 8  | 9+ | 2* | 6  | 9+ | -         | 1  |    |    |    |    |    |           |    |    |    |    |    |    |     |

**Jan., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |   |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|---|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |   |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 8  | 8  | 9+ | -  | 9         | 9  | 2  | 1  | 9  | 8  | -  | 2  | 8         | -  | -  | 5  | -   | 0 |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | -  | 9         | 9  | 9  | 9  | 9  | 9  | 9+ | -  | 9         | 9+ | -  | 9  | 9  | 2  | -  | 8  | 7         | -  | -  | 5  | -   | 1 |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 5  | 7         | 1  | 8  | 5  | 1  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9  | 9+ | 9+ | -  | 9         | 9  | 1  | 9  | 9  | -  | -  | 9  | 1         | -  | -  | 8  | -   | 2 |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 8  | 8         | 1  | 8  | 7  | 1  | 9+ | 9+ | 2  | 9+        | 9+ | 9  | 9  | 9  | 9+ | 9  | -  | 9         | 9  | 7  | 9  | 9+ | -  | -  | 8  | -         | -  | -  | 9  | -   | 3 |  |  |  |
| 4         | 7  | -  | 8  | 1  | -  | 9+ | 9  | 8         | 3  | 9  | 8  | 2  | 9+ | 9+ | 1  | 9+        | 9+ | 8  | 9  | 9  | 9+ | 7  | -  | 9         | 9  | 8  | 6  | 9+ | -  | -  | 6  | -         | -  | -  | 7  | -   | 4 |  |  |  |
| 5         | 7  | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 4  | 9+ | 9+ | 2  | 9+        | 9+ | 9  | 9  | 9  | 9+ | 5  | -  | 9         | 8  | 8  | 4  | 9+ | -  | -  | 5  | 1         | -  | -  | 9  | -   | 5 |  |  |  |
| 6         | 8  | 1  | 9  | 7  | -  | 9+ | 9+ | 8         | 8  | 9+ | 9  | 7  | 9+ | 9+ | 3* | 9         | 9+ | 6  | 8  | 9  | 9+ | 6  | -  | 9         | 6  | 8  | -  | 9+ | -  | -  | 2  | -         | 2  | -  | 5  | -   | 6 |  |  |  |
| 7         | 8  | 4  | 9  | 7  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 5  | 9+        | 9+ | 4  | 8  | 9  | 9+ | 6  | 1* | 7         | -  | 5  | -  | 9+ | -  | -  | -  | 1         | -  | 5  | -  | 7   |   |  |  |  |
| 8         | 1  | 9  | 9  | -  | 6  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 2  | 9+        | 9  | 1  | 6  | 9  | 9+ | 5  | -  | 6         | -  | 7  | -  | 9+ | -  | -  | -  | -         | -  | 5  | -  | 8   |   |  |  |  |
| 9         | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 9         | 9+ | 9+ | 8  | 9  | 9+ | 9+ | 1  | 9+        | 8  | 2  | 4  | 9  | 9+ | 4  | -  | 5         | -  | 7  | -  | 8  | -  | -  | -  | 1         | -  | 5  | -  | 9   |   |  |  |  |
| 10        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | -  | 9+        | 8  | 2  | 4  | 9  | 9+ | 3  | -  | 3         | -  | 5  | -  | 8  | -  | -  | -  | -         | -  | 5  | -  | 10  |   |  |  |  |
| 11        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | -  | 9         | 9  | 7  | 6  | 9  | 9+ | 6  | -  | 2         | -  | 2  | -  | 6  | -  | -  | -  | -         | -  | 5  | -  | 11  |   |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 3  | 9         | 9  | 8  | 7  | 9  | 9+ | 6  | -  | 1         | -  | -  | -  | 6  | -  | -  | -  | -         | -  | 5  | -  | 12  |   |  |  |  |
| 13        | -  | 9  | 5  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | 2  | 9+ | 9+ | 9+ | 4  | 9         | 8  | 7  | 7  | 9  | 5  | -  | 1  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | -  | 6  | -  | 13  |   |  |  |  |
| 14        | 7  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 6  | 9+ | 9+ | 9+ | -  | 9         | 2  | 9  | 7  | 9  | 1  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | -  | 6  | -  | 14  |   |  |  |  |
| 15        | 7  | 9  | -  | -  | 9  | 9+ | 9+ | 9         | 9+ | 4  | 7  | 9+ | 9+ | 9  | -  | 8         | 2  | 7  | 4  | 8  | 1  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | -  | 6  | -  | 15  |   |  |  |  |
| 16        | 6  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9  | 9+ | 1  | 3         | 8  | 1  | -  | 3  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | -  | 6  | -  | 16  |   |  |  |  |
| 17        | 1  | 9  | -  | -  | 8  | 9+ | 9  | 9         | 9+ | -  | 8  | 9  | 9  | 9+ | 8  | 1*        | 8  |    |    |    |    |    |    |           |    |    |    |    |    |    |    |           |    |    |    |     |   |  |  |  |

**Feb., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 6  | 1  | 8  | 9+ | -  | 3  | 9  | -         | -  | 5  | 6  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 8  | -  | 8         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 6  | 8  | 8  | 8  | -  | 7  | 8  | -         | -  | 5  | -  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 4  | 1         | -  | 7  | -  | -  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 5  | 9  | 9  | 4  | -  | 9  | 6  | -         | -  | 8  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 5  | -  | -  | 9+ | 7  | 8         | 1  | 9  | 8  | 1  | 9+ | 9+ | -  | 9+        | 9+ | 8  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | -  | -  | 9  | 4  | -         | 1  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 2  | 9  | 8  | 1  | 9+ | 9+ | -  | 9+        | 9+ | 9  | 9+ | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 9+ | -  | -  | 9  | 1  | -         | -  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 6  | -  | 9+ | 9+ | 7         | 5  | 9  | 8  | 2  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 9  | 9+ | 8  | -  | 9  | 9         | 8  | 7  | 9+ | -  | -  | 8  | -  | -         | -  | 7  | -  | 5   |  |  |  |  |
| 6         | 6  | 1  | 9  | 6  | -  | 9+ | 9+ | 7         | 8  | 9+ | 9  | 4  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9  | 9+ | 8  | -  | 9  | 8         | 8  | 5* | 9+ | -  | -  | 6  | 1  | 6         | -  | 7  | -  | 6   |  |  |  |  |
| 7         | 4  | 1  | 9  | 1  | -  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 7  | 9+ | 9+ | 8  | 9         | 9+ | 5* | 8  | 9+ | 7  | 3* | 9  | 4         | 8  | 1* | 9+ | -  | -  | 5  | -  | 2         | -  | 6  | -  | 7   |  |  |  |  |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 8         | 9+ | 9+ | 8  | 8  | 9+ | 9+ | 5  | 9+        | 9+ | 4  | 6  | 9+ | 7  | 2* | 8  | -         | 6  | -  | 9+ | -  | -  | 1  | -  | 1         | -  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 6  | 9  | 9+ | 9+ | 4  | 9+        | 9  | 5  | 5  | 9+ | 7  | 2* | 7  | -         | 8  | -  | 9  | -  | -  | -  | -  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 2  | 9+        | 8  | 3  | 4  | 9+ | 6  | -  | 5  | -         | 8  | -  | 9  | -  | -  | -  | -  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 3  | 9+        | 9  | 8  | 5  | 9+ | 7  | -  | 4  | 1         | 2  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9  | 8  | 6  | 9+ | 8  | -  | 2  | 1         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 5  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | 2  | 9+ | 9+ | 9+ | 5  | 9         | 8  | 8  | 8  | 9+ | 7  | -  | 2  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 6  | 9+ | 9+ | 9+ | 3  | 9         | 2  | 9  | 7  | 9+ | 3  | -  | 1  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 14 |     |  |  |  |  |
| 15        | 6  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9+ | 4  | 7  | 9+ | 9+ | 9+ | 1  | 8         | 3  | 8  | 5  | 8  | 4  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 5  | 9  | -  | 1  | 8  | 9+ | 9+ | 9         | 9+ | -  | 8  | 9  | 9  | 9+ | 5  | 3         | 9  | 5  | 2  | 3  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 6  | 9  | 9+ | 9+ | 9  | 1*        | 8  | 9  | 4* | 2  | 9+ | 2  | -  | 8         | 3  | -  | 6  | 7  | -  | -  |    |           |    |    |    |     |  |  |  |  |

Mar., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 4  | -  | 8         | 9  | 1  | 7  | 9  | 9+ | -  | 9  | 9         | 9  | 6  | 9  | 9+ | -  | 5  | 9+ | 2         | -  | 6  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 7  | -  | 8         | 9  | 8  | 7  | 9+ | 9+ | -  | 9  | 9+        | 9  | 8  | 9  | 9+ | -  | 6  | 9  | 1         | -  | 9  | 9  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 6  | -  | -  | 9+ | 9  | -  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 6  | 9  | 9+ | 9  | -  | 8  | 8  | -         | 1  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 6  | 7         | -  | 8  | 5  | -  | 9+ | 9+ | 2  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | 5  | -  | 9  | 7  | -         | 4  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 9  | 7         | 1  | 9  | 8  | -  | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9  | 9+ | -  | -  | 9  | 6  | 1         | 3  | 9  | -  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 1  | -  | 9+ | 9+ | 8         | 6  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 9  | 9  | 9+ | 3  | -  | 9  | 5  | 1         | 5  | 9  | -  | 5   |  |  |  |  |
| 6         | 5  | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 6  | 9+ | 9  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 3  | 9  | 9         | 9  | 8  | 9+ | -  | -  | 9  | -  | 5         | 1  | 9  | -  | 6   |  |  |  |  |
| 7         | -  | 2  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 5  | 9+ | 9+ | 9  | 9+        | 9+ | 7  | 9  | 9+ | 9  | 1  | 9+ | 7         | 9  | 4  | 9+ | -  | -  | 8  | -  | 6         | -  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 7  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 8  | 9+ | 9+ | 6  | 9+        | 9+ | 6  | 8  | 9+ | 7  | 4* | 9+ | 1         | 9  | -  | 9+ | -  | -  | 5  | -  | 5         | -  | 7  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 6  | 9+ | 9+ | 8         | 9+ | 9+ | 4  | 9  | 9+ | 9+ | 2  | 9+        | 9+ | 5  | 3  | 9+ | 7  | 1* | 8  | -         | 9  | -  | 9+ | -  | -  | 1  | -  | 2         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | 1         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 4  | 9+        | 9  | 8  | 2  | 9+ | 7  | -  | 8  | 1         | 9  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9  | 8  | 4  | 9+ | 8  | -  | 7  | -         | 9  | -  | 7  | -  | -  | -  | -  | 1         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9  | 9  | 6  | 9+ | 8  | -  | 3  | 2         | -  | -  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | 1  | 9+ | 9+ | 9+ | 6  | 9+        | 6  | 9  | 8  | 9+ | 6  | -  | 4  | -         | 9  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 6  | 9+ | 9+ | 9+ | 4  | 9+        | -  | 4  | 8  | 9+ | 2  | -  | 2  | -         | 5  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 9  | 9+ | 9+ | 8         | 9+ | 4  | 7  | 9+ | 9+ | 9+ | 3  | 8         | 3  | 2  | 5  | 9+ | 6  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | 5  | 9  | -  | -  | 9  | 9+ | 9  | 8         | 9  | -  | 8  | 9  | 9  | 9+ | 7  | 1         | 9  | 7  | 3  | 7  | 8  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 8  | 7         | 9  | -  | 7  | 9  | 9+ | 9+ | 9+ | 1*        | 8  | 8  | 4* | 2  | 9+ | -  | -  | 9         | 4  | -  | 6  | 9  | -  | -  | 3  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 4  | -  | -  | 3  | 9+ | 4  | 7         | 9  | -  | 3  | 9  | 9+ | 9  | 9  | 8         | 6  | 9  | 7  | 9+ | 9+ | 3* | -  | 9         | 8  | 3* | 5  | 8  | -  | -  | 8  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9  | 9         | 6  | 7  | 8  | 9+ | 9+ | -  | 2  | 9         | 9  | 1* | 5  | 8  | -  | -  | 9  | 1         | -  | 6  | 2  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 3  | 5  | 8         | 5  | 9  | 6  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 5  | 9  | -  | -  | 9  | 1         | -  | 6  | 4  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 3  | 9         | 6  | 8  | 4  | 9  | 9  | -  | 7  | 9         | 9  | -  | 9  | 9  | -  | -  | 9  | 1         | -  | 5  | 9  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | -  | 9         | 7  | 2  | 8  | 9  | 9  | -  | 8  | 9         | 9  | -  | 9  | 9  | -  | -  | 9  | 1         | -  | 5  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | -  | 7         | 8  | 1  | 7  | 8  | 9+ | -  | 9  | 9         | 8  | 4  | 9  | 9+ | -  | -  | 9  | 4         | -  | 5  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA EU FE SA AF AS OC NA



**Apr., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | -  | 7         | 9  | 4  | 8  | 9  | 9+ | -  | 9  | 9+        | 7  | 5  | 9  | 9+ | -  | 6  | 9+ | -         | -  | 8  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 6  | 1  | 8         | 9  | 8  | 7  | 9+ | 9+ | -  | 9  | 9+        | 6  | 8  | 9  | 9+ | -  | 8  | 9+ | -         | -  | 8  | 8  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | 2  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 4  | 9  | 9  | 8  | -  | 8  | 8  | -         | 2  | 9+ | 8  | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 5  | 7         | -  | 8  | 1  | -  | 9+ | 9  | 5  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | 9  | -  | 8  | 1  | -         | 2  | 9  | 7  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 8  | 7         | 1  | 9  | 8  | -  | 9+ | 9+ | 7  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 5         | 3  | 9  | 6  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 3  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9         | 9  | 9  | 9+ | 1  | -  | 9  | -  | 8         | 6  | 9  | 2  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | 2  | -  | 9+ | 9+ | 8         | 8  | 9  | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 5  | 9  | 9+ | 9+ | 4  | 9+ | 8         | 9  | 9  | 9+ | 5  | -  | 9+ | -  | 8         | 6  | 9+ | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | 5  | 9+ | 2         | 9  | 9  | 9+ | 1  | -  | 9  | -  | 8         | 1  | 9  | -  | 7   |  |  |  |  |
| 8         | -  | 3  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 6  | 6  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9+ | 9+ | 9+ | 5  | 9  | -         | 9  | 5  | 9+ | -  | -  | 5  | -  | 2         | -  | 7  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 1  | 9+ | 9+ | 1         | 9+ | 9+ | 1  | 8  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9  | 9+ | 9+ | 1* | 6  | -         | 9  | -  | 9  | -  | -  | -  | -  | 1         | -  | 7  | -  | 9   |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9  | 9+ | 9  | 2  | 1  | 1         | 9  | -  | 9  | -  | -  | -  | -  | 1         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 7  | 9+        | 9  | 9  | 9  | 9+ | 9  | -  | 1  | -         | -  | -  | 8  | -  | -  | -  | -  | 1         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 1  | 1         | 9  | -  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 1         | 9+ | 8  | 3  | 9+ | 9+ | 9+ | 7  | 9+        | 7  | 9  | 9  | 9+ | 8  | -  | 4  | -         | 7  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 6  | 7  | 9+ | 9+ | 9+ | 7  | 9         | 6  | 8  | 9  | 9+ | 8  | -  | 1  | -         | 6  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 9  | 9+ | 9+ | 7         | 9+ | 2  | 8  | 9+ | 9+ | 9+ | 7  | 8         | 8  | 6  | 8  | 9  | 8  | -  | -  | 1         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9  | -  | 8  | 9  | 9+ | 9+ | 9  | 5         | 9  | 9  | 8  | 8  | 9+ | -  | -  | 5         | -  | -  | 6  | 3  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 7  | -  | -  | 6  | 9+ | 8  | 6         | 9  | -  | 7  | 9  | 9+ | 9+ | 9  | 2         | 8  | 9+ | 9  | 9  | 9+ | 1  | -  | 9         | 5  | 3* | 6  | 9  | -  | -  | 4  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 4  | -  | -  | 1  | 9+ | 2  | 5         | 9  | -  | 4  | 8  | 9+ | 9  | 9  | 9+        | 6  | 9+ | 9+ | 9+ | 9+ | 4  | -  | 9         | 6  | 2* | 5  | 9  | -  | -  | 5  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 6  | 9+ | 6  | 9  | 9         | 7  | 6  | 9  | 9+ | 9+ | 1  | -  | 9         | 7  | -  | 5  | 9  | -  | -  | 5  | -         | -  | 5  | -  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 3  | -  | -  | 2  | 9+ | 3  | 8  | 9         | 6  | 9  | 8  | 9+ | 9  | -  | -  | 9         | 7  | -  | 5  | 9+ | -  | -  | 9  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 6  | 9         | 6  | 6  | 8  | 9+ | 9  | -  | 5  | 9         | 9  | -  | 9  | 8  | -  | -  | 9  | -         | -  | 5  | 4  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 3  | 8         | 7  | 5  | 8  | 8  | 9  | -  | 8  | 9         | 9  | 1  | 9  | 9  | -  | -  | 9  | -         | -  | 4  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | 8         | 8  | 2  | 8  | 8  | 9+ | -  | 9  | 9         | 8  | 2  | 9  | 9+ | -  | 1  | 9  | 1         | -  | 4  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**May, Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | 6         | 9  | 7  | 8  | 8  | 9+ | -  | 9  | 9+        | 4  | 8  | 9  | 9+ | -  | 6  | 9  | -         | -  | 4  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 4  | 7  | 7         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 2  | 9  | 9  | 9+ | -  | 6  | 9+ | -         | -  | 5  | 8  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | -  | 9  | 9  | 9+ | -  | 6  | 8  | -         | 1  | 7  | 7  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 4  | 4         | -  | 8  | 1  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | 1  | 9  | 9         | 8  | 9  | 9  | 9  | -  | 8  | 4  | -         | 2  | 8  | 8  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9         | 9+ | 9+ | 8  | 9+ | 9+ | 1  | 9  | 6         | 9  | 9  | 9+ | 9  | -  | 9  | -  | 3         | 3  | 9  | 8  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | 2  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | 3  | 9  | 4         | 9  | 9  | 9+ | 7  | -  | 9  | -  | 7         | 4  | 9  | 6  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 5  | 9+ | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 5  | 9  | 1         | 9  | 9  | 9+ | 8  | -  | 9  | -  | 6         | 4  | 9  | 1  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 7         | 8  | 9+ | 8  | 1  | 9+ | 9+ | 9  | 9+        | 9  | 9+ | 9  | 9+ | 9+ | 6  | 9+ | -         | 9  | 9  | 9+ | 7  | -  | 9  | -  | 4         | 2  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9+ | -         | 8  | 9+ | 5  | 5  | 9+ | 9+ | 9  | 9+        | 9  | 9+ | 9+ | 9+ | 9+ | 7  | 9  | -         | 6  | 9  | 9  | 4  | -  | 5  | -  | 1         | 1  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 7  | 7  | -         | 9  | 8  | 5  | 2  | 1  | -  | -  | 3         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 6  | 8  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9  | 5  | 4  | -         | 9  | 4  | 5  | -  | -  | -  | -  | 2         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 2  | 1         | 8  | 2  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9+ | 9+ | 9  | -  | 1  | 3         | 4  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | -         | 9+ | 8  | 5  | 9  | 9+ | 9+ | 7  | 9+        | 8  | 8  | 9  | 9+ | 8  | -  | 1  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9+ | -         | 9+ | 6  | 7  | 9+ | 9+ | 9+ | 6  | 9         | 7  | 8  | 9  | 9  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 8  | -  | 2  | 8  | 9+ | 9  | 6         | 9+ | 1  | 8  | 9  | 9+ | 9+ | 8  | 9         | 9  | 8  | 8  | 9  | 9  | -  | -  | 1         | -  | -  | 6  | 1  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 8  | 9+ | 7  | 5         | 9  | -  | 7  | 9  | 9+ | 9  | 9  | 9         | 9  | 9  | 8  | 8  | 9+ | 1  | -  | 6         | 2  | -  | 6  | 5  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 6  | -  | -  | 5  | 9+ | 5  | 4         | 9  | -  | 6  | 8  | 9+ | 9  | 9+ | 9         | 8  | 8  | 9+ | 8  | 9+ | 5  | -  | 9         | 4  | -  | 5  | 8  | -  | -  | -  | -         | 5  | -  | 17 |     |  |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | 4         | 8  | -  | -  | 8  | 9+ | 7  | 9  | 9+        | 8  | 9  | 9+ | 9+ | 9+ | 5  | 1  | 9         | 6  | 3  | 5  | 8  | -  | -  | 1  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 4  | 9+ | 4  | 9  | 9         | 7  | 9  | 9+ | 9+ | 9+ | 4  | -  | 8         | 6  | 4  | 5  | 8  | -  | -  | -  | -         | 5  | -  | 19 |     |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 9  | 9         | 6  | 9  | 9  | 9+ | 9  | 4  | 1  | 9         | 6  | -  | 8  | 8  | -  | -  | 1  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8  | 8         | 6  | 6  | 9  | 9+ | 9  | 2  | 5  | 9         | 6  | 1  | 9+ | 9+ | -  | -  | 9  | -         | -  | 4  | -  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 8         | 7  | 5  | 8  | 9  | 9  | -  | 8  | 9         | 9  | 2  | 9  | 9  | -  | -  | 9  | -         | -  | 4  | 1  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 5  | 7         | 8  | 6  | 7  | 8  | 9  | -  | 9  | 9         | 5  | 4  | 9  | 9+ | -  | -  | 9  | -         | -  | 4  | 8  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Jun., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 6         | 9  | 7  | 7  | 8  | 9+ | -  | 9  | 9+        | 5  | 5  | 9  | 8  | -  | 6  | 9  | -         | -  | 4  | 5  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | 8  | 7         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 2  | 9  | 9+ | 8  | -  | 7  | 9  | -         | -  | 5  | 5  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | 9  | 8         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 1  | 9  | 9  | 9  | -  | 8  | 8  | -         | -  | 6  | 5  | 2   |  |  |  |  |
| 3         | -  | -  | 1  | -  | -  | 9+ | 3  | -         | -  | 8  | -  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 9+        | 4  | 9+ | 9  | 9  | -  | 9  | 3  | -         | 1  | 7  | 7  | 3   |  |  |  |  |
| 4         | -  | -  | 6  | -  | -  | 9+ | 5  | 4         | -  | 9  | 6  | -  | 9+ | 9  | 9  | 9         | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 6         | 9  | 9  | 9  | 9  | -  | 8  | -  | 3         | -  | 8  | 7  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9+ | 9  | 9+ | 9+ | -  | 9  | 5         | 9  | 9  | 9  | 5  | -  | 8  | -  | 5         | -  | 7  | 5  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 4         | 2  | 9+ | 8  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 1  | 9  | 1  | 9         | 9  | 9+ | 9+ | -  | 9  | -  | 5  | 1         | 8  | -  | 6  |     |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | -         | 6  | 9+ | 7  | -  | 9+ | 9+ | 9+ | 9+        | 9+ | 9  | 9+ | 9+ | 3  | 9+ | -  | 9         | 9+ | 9+ | 8  | -  | 9  | -  | 2  | 1         | 6  | -  | 7  |     |  |  |  |  |
| 8         | -  | 1  | 9  | -  | -  | 9+ | 9  | -         | 9  | 9+ | 3  | 2  | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 9+ | 5  | 9+ | -  | 9         | 9  | 9  | 5  | -  | 5  | -  | 2  | -         | 5  | -  | 8  |     |  |  |  |  |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9  | -         | 9  | 9+ | -  | 6  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 5  | 8  | -  | 7  | 8         | 6  | 4  | 9  |     |  |  |  |  |
| 10        | -  | 6  | 9  | -  | -  | 9+ | 9  | -         | 9  | 9  | -  | 8  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | 9+ | 9+ | 9+        | 9+ | 9+ | 9+ | 5  | 5  | -  | 7  | 6         | 5  | 1  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 6  | 9+ | 9  | -         | 9  | 9  | -  | 9  | 9+ | 9+ | 9+ | 9+        | 9  | 9  | 9+ | 9+ | 8  | -  | 4  | 1         | 2  | 4  | 6  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 6  | -  | 8  | 9+ | 9  | -         | 9+ | 9  | 2  | 9  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9  | -  | 1  | 2         | -  | 1  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 1  | -  | 8  | 9+ | 9  | -         | 9+ | 8  | 6  | 9  | 9+ | 9+ | 8  | 9+        | 9  | 9  | 9+ | 9  | 9  | -  | 4  | -         | -  | 2  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 5  | 7  | 9  | 9+ | 9+ | 8  | 9+        | 8  | 8  | 9+ | 9  | 9  | -  | 2  | -         | -  | 1  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 8  | -  | -  | 7  | 9+ | 8  | -         | 9+ | 1  | 8  | 9  | 9+ | 9  | 8  | 9+        | 9  | 8  | 9  | 8  | 9  | -  | -  | 2         | -  | -  | 6  | 1  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 8  | -  | -  | 6  | 9+ | 4  | 2         | 9  | -  | 8  | 9  | 9+ | 9  | 9  | 9         | 9  | 9  | 8  | 9  | 1  | -  | 4  | 1         | -  | 6  | 2  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 5  | -  | -  | -  | 9+ | 1  | 2         | 9  | -  | 4  | 8  | 9+ | 8  | 9  | 9         | 8  | 8  | 9+ | 5  | 9+ | -  | -  | 9         | 6  | -  | 6  | 8  | -  | -  | -  | -         | 5  | -  | 17 |     |  |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 7  | 9+ | 5  | 9+ | 9+        | 8  | 8  | 9+ | 9+ | 9+ | -  | 1  | 9         | 6  | 2  | 6  | 8  | -  | -  | -  | -         | 5  | 1  | 18 |     |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 3  | 9+ | 2  | 9  | 8         | 6  | 9  | 9+ | 9+ | 9  | 2  | -  | 8         | 6  | 2  | 9  | 8  | -  | -  | -  | -         | 5  | 1  | 19 |     |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | -  | 9+ | 1  | 9  | 9         | 5  | 7  | 9  | 9+ | 9  | 2  | -  | 9         | 5  | 1  | 9  | 8  | -  | -  | 2  | -         | -  | 5  | 1  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8  | 9         | 7  | 5  | 9  | 9  | 8  | 1  | 2  | 9         | 5  | -  | 9  | 9  | -  | -  | 6  | -         | -  | 4  | -  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8  | 8         | 7  | 5  | 8  | 8  | 9  | -  | 5  | 9         | 9  | -  | 9  | 9  | -  | -  | 7  | -         | -  | 4  | 3  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7  | 6         | 8  | 5  | 8  | 7  | 9  | -  | 8  | 9         | 7  | 2  | 9  | 9  | -  | -  | 8  | -         | -  | 4  | 5  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Jul., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    | 10 Meters |    |    |    |    |    |    |     |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----------|----|----|----|----|----|----|-----|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | UTC |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5         | 6  | 9  | 8  | 8  | 6  | 9+ | -         | 9  | 9+ | -  | 5  | 8  | 9  | -         | 5  | 8  | -  | -  | 4  | 1  | 0   |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | 5         | 6  | 9  | 9  | 8  | 6  | 9+ | -         | 9  | 9+ | -  | 9  | 9  | 9  | -         | 7  | 8  | -  | -  | 5  | 1  | 1   |
| 2         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 5  | -  | -  | 9+ | 8  | 8         | 8  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 9+ | -  | 9  | 9+ | 9  | -         | 7  | 3  | -  | -  | 5  | 1  | 2   |
| 3         | -  | -  | 2  | -  | -  | 9+ | 4  | 3         | -  | 8  | 1  | -  | 9+ | 9  | 9         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 8  | 4  | 9+ | 9  | 9  | -         | 8  | -  | -  | -  | 6  | 2  | 3   |
| 4         | -  | -  | 6  | -  | -  | 9+ | 6  | 5         | -  | 9  | 7  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | 3  | 9  | 9  | 9  | 6  | -         | 8  | -  | 2  | -  | 7  | 4  | 4   |
| 5         | -  | -  | 8  | -  | -  | 9+ | 8  | 6         | 2  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9+ | 9  | 9  | 9+ | 9+ | -         | 9  | -  | 9  | 9  | 9  | 1  | -         | 8  | -  | 4  | -  | 6  | 1  | 5   |
| 6         | -  | -  | 9  | -  | -  | 9+ | 9  | 7         | 4  | 9  | 8  | -  | 9+ | 9+ | 9         | 9+ | 9  | 9  | 9  | 9+ | 9+ | -         | 9+ | -  | 9  | 9+ | 9+ | 8  | -         | 8  | -  | 3  | 1  | 6  | -  | 6   |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9  | 6         | 8  | 9+ | 8  | 1  | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9+ | 1         | 9+ | -  | 9  | 9  | 9+ | 5  | -         | 7  | -  | 1  | -  | 5  | -  | 7   |
| 8         | -  | 2  | 9  | -  | -  | 9+ | 9  | -         | 8  | 9+ | 5  | 5  | 9+ | 9+ | 9+        | 9+ | 8  | 9+ | 9+ | 9+ | 9+ | -         | 9  | -  | 8  | 7  | 7  | 1  | -         | -  | -  | 1  | -  | 5  | -  | 8   |
| 9         | -  | 4  | 9  | -  | -  | 9+ | 9+ | -         | 9  | 9+ | -  | 7  | 9+ | 9+ | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 9+ | -         | 3  | -  | 6  | 3  | 5  | 1  | -         | -  | -  | -  | -  | 5  | -  | 9   |
| 10        | -  | 6  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9  | -  | 8  | 9+ | 9+ | 9+        | 9+ | 8  | 9  | 9+ | 9+ | 9  | 1         | -  | -  | -  | 1  | 5  | -  | -         | -  | -  | -  | 5  | -  | 10 |     |
| 11        | -  | 8  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 9+        | 9+ | 9  | 9  | 9+ | 9+ | 9  | -         | -  | 1  | -  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 11 |     |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | 9  | 8  | 9  | -  | -         | -  | -  | -  | 6  | -  | -  | -         | -  | -  | -  | 5  | -  | 12 |     |
| 13        | -  | 9  | 2  | -  | 8  | 9+ | 9+ | -         | 9+ | 8  | 6  | 9  | 9+ | 9+ | 7         | 9+ | 9  | 6  | 9  | 8  | 8  | -         | 1  | -  | 1  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 13 |     |
| 14        | -  | 9  | -  | -  | 8  | 9+ | 9  | -         | 9+ | 6  | 8  | 9  | 9+ | 9+ | 7         | 9  | 6  | 9  | 9  | 8  | 8  | -         | -  | -  | -  | 6  | -  | -  | -         | -  | -  | -  | 5  | -  | 14 |     |
| 15        | -  | 8  | -  | -  | 8  | 9+ | 8  | 5         | 9+ | 1  | 8  | 9+ | 9  | 9+ | 7         | 9  | 5  | 7  | 8  | 8  | 9  | -         | -  | -  | -  | 6  | -  | -  | -         | -  | -  | -  | 5  | -  | 15 |     |
| 16        | -  | 8  | -  | -  | 7  | 9+ | 5  | 5         | 9  | -  | 7  | 9  | 9  | 9  | 9         | 8  | 9  | 9  | 8  | 7  | 9  | -         | -  | 2  | 1  | -  | 6  | -  | -         | -  | -  | -  | 5  | -  | 16 |     |
| 17        | -  | 6  | -  | -  | 5  | 9+ | 1  | 4         | 9  | -  | 6  | 8  | 9  | 8  | 9         | 7  | 8  | 9+ | 9  | 8  | 9+ | -         | -  | 9  | 5  | -  | 6  | 6  | -         | -  | -  | -  | 5  | -  | 17 |     |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | 2         | 8  | -  | -  | 8  | 9+ | 6  | 9         | 9+ | 7  | 9  | 9+ | 9+ | 9+ | -         | -  | 8  | 6  | -  | 6  | 8  | -         | -  | -  | -  | 5  | -  | 18 |     |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 5  | 9+ | 3  | 9         | 8  | 6  | 8  | 9+ | 9+ | 9+ | 1         | -  | 5  | 6  | 1  | 7  | 7  | -         | -  | -  | -  | 5  | -  | 19 |     |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 1  | 9+ | 1  | 9         | 7  | 6  | 8  | 9  | 9  | 9  | 1         | -  | 7  | 5  | -  | 8  | 7  | -         | -  | -  | -  | 5  | -  | 20 |     |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 9         | 8  | 6  | 6  | 8  | 9  | 8  | -         | -  | 9  | 6  | -  | 9  | 8  | -         | -  | 2  | -  | -  | 5  | -  | 21  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 8         | 8  | 8  | 6  | 8  | 8  | 9  | -         | 3  | 9  | 5  | -  | 8  | 9  | -         | -  | 5  | -  | -  | 4  | -  | 22  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 7         | 5  | 8  | 6  | 8  | 7  | 9  | -         | 8  | 9+ | 1  | 1  | 8  | 9+ | -         | -  | 6  | -  | -  | 4  | 1  | 23  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA |     |

**Aug., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | 1  | 6         | 9  | 4  | 8  | 8  | 9+ | -  | 9  | 9+        | -  | 4  | 9+ | 9  | -  | 6  | 8  | -         | -  | 5  | 5  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 3  | -  | -  | 9+ | 6  | 2  | 7         | 9+ | 6  | 8  | 9  | 9+ | -  | 9  | 9+        | -  | 8  | 9+ | 8  | -  | 7  | 9  | -         | -  | 5  | 4  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | -         | -  | 7  | -  | -  | 9+ | 9  | 3  | 8         | 9+ | 8  | 9  | 9+ | 9+ | -  | 9  | 9+        | -  | 9  | 9  | 9  | -  | 8  | 5  | -         | -  | 7  | 2  | 2   |  |  |  |  |
| 3         | -  | -  | 2  | -  | -  | 9+ | 5  | 6         | -  | 8  | 5  | -  | 9+ | 9  | 5  | 9         | 9+ | 8  | 9  | 9+ | 9+ | -  | 9  | 6         | 5  | 9  | 9  | 9  | -  | 8  | -  | 1         | -  | 8  | 4  | 3   |  |  |  |  |
| 4         | -  | -  | 7  | -  | -  | 9+ | 7  | 6         | 1  | 9  | 8  | -  | 9+ | 9+ | 8  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | -         | 9  | 9  | 9  | 5  | -  | 8  | -  | 3         | -  | 8  | 4  | 4   |  |  |  |  |
| 5         | -  | -  | 8  | 1  | -  | 9+ | 8  | 7         | 3  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 1         | 9  | 9  | 9  | -  | -  | 9  | -  | 4         | -  | 8  | -  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | 2  | -  | 9+ | 9  | 8         | 7  | 9+ | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 7  | 9  | 9+ | 9+ | -  | 9+ | -         | 9  | 9  | 9+ | 6  | -  | 9  | -  | 4         | 1  | 8  | -  | 6   |  |  |  |  |
| 7         | -  | -  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 2  | 9+ | 9+ | 9  | 9+        | 9  | 9  | 9+ | 9+ | 9+ | -  | 9+ | -         | 9  | 9  | 9+ | 1  | -  | 7  | -  | 2         | -  | 5  | -  | 7   |  |  |  |  |
| 8         | -  | 5  | 9  | -  | -  | 9+ | 9+ | 7         | 9  | 9+ | 6  | 6  | 9+ | 9+ | 9  | 9+        | 8  | 9+ | 9+ | 9+ | 9  | 3  | 8  | -         | 9  | 5  | 9  | -  | -  | -  | -  | -         | 5  | -  | 8  |     |  |  |  |  |
| 9         | -  | 5  | 9  | -  | -  | 9+ | 9+ | -         | 9+ | 9+ | -  | 8  | 9+ | 9+ | 9+ | 9+        | 6  | 9  | 9+ | 9+ | 9  | -  | 1  | -         | 7  | -  | 5  | -  | -  | -  | -  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 7  | 8  | -  | 7  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 9  | 9+        | 7  | 6  | 9+ | 9+ | 9  | -  | -  | -         | 1  | -  | 5  | -  | -  | -  | -  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 8  | 8         | 9  | 7  | 9  | 9+ | 8  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 8  | 7  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 3  | 9         | 9  | 8  | 8  | 8  | 8  | -  | -  | 1         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 2  | -  | 9  | 9+ | 9+ | 1         | 9+ | 8  | 7  | 9+ | 9+ | 9+ | 6  | 9         | 8  | 7  | 9  | 9  | 6  | -  | -  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 7         | 9+ | 6  | 8  | 9+ | 9+ | 9+ | 5  | 9         | 5  | 7  | 8  | 9  | 6  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | 2  | 9  | 9+ | 9  | 7         | 9+ | 2  | 8  | 9+ | 9  | 9+ | 6  | 9         | 8  | 8  | 7  | 8  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 8  | 6         | 9  | -  | 8  | 9  | 9  | 9+ | 8  | 8         | 9  | 9  | 7  | 3  | 9  | -  | -  | 4         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 7  | -  | -  | 6  | 9+ | 7  | 5         | 9  | -  | 6  | 9  | 9  | 9  | 9+ | 3         | 8  | 9  | 8  | 4  | 9  | -  | -  | 9         | 1  | -  | 6  | 5  | -  | -  | -  | -         | 5  | -  | 17 |     |  |  |  |  |
| 18        | -  | 1  | -  | -  | -  | 9+ | -  | 4         | 8  | -  | -  | 9  | 9+ | 8  | 9  | 9         | 8  | 9  | 9+ | 9+ | 9  | -  | -  | 9         | 5  | -  | 5  | 6  | -  | -  | -  | -         | 5  | -  | 18 |     |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 6  | 9+ | 5  | 9  | 8         | 6  | 9  | 9  | 9+ | 9  | 2  | -  | 6         | 3  | -  | 5  | 5  | -  | -  | -  | -         | 5  | -  | 19 |     |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 1  | 9+ | 2  | 9  | 7         | 6  | 8  | 8  | 9+ | 8  | 1  | -  | 8         | 3  | -  | 9  | 6  | -  | -  | 1  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 8  | 8         | 6  | 6  | 8  | 9  | 8  | -  | -  | 9         | -  | -  | 9  | 8  | -  | -  | 5  | -         | -  | 5  | -  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 6  | 8         | 8  | 6  | 8  | 8  | 8  | -  | 4  | 9         | 4  | -  | 9  | 9  | -  | -  | 7  | -         | -  | 4  | -  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 7         | 8  | 7  | 8  | 8  | 9  | -  | 8  | 9         | -  | 2  | 9  | 9+ | -  | -  | 7  | -         | -  | 5  | 4  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Sep., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 2  | -  | 7         | 9  | 5  | 8  | 8  | 9+ | -  | 9  | 9+        | 7  | 6  | 9  | 9+ | -  | 6  | 9+ | -         | -  | 5  | 9  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | -  | 8         | 9+ | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 7  | 8  | 9  | 9+ | -  | 7  | 9  | -         | -  | 8  | 6  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 3  | -         | -  | 7  | -  | -  | 9+ | 9  | -  | 9         | 9+ | 9  | 8  | 9+ | 9+ | -  | 9  | 9+        | 5  | 9  | 9  | 9  | -  | 6  | 5  | -         | -  | 9  | 6  | 2   |  |  |  |  |
| 3         | -  | -  | 5  | -  | -  | 9+ | 6  | 7         | 1  | 8  | 7  | -  | 9+ | 9  | 3  | 9         | 9+ | 8  | 9  | 9+ | 9+ | -  | 9  | 9         | 8  | 9  | 9+ | 8  | -  | 8  | -  | -         | 1  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 8  | -  | -  | 9+ | 8  | 8         | 2  | 9  | 8  | -  | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 8         | 9  | 9  | 9+ | 6  | -  | 9+ | -  | 1         | 1  | 9  | -  | 4   |  |  |  |  |
| 5         | 5  | -  | 8  | 3  | -  | 9+ | 9  | 8         | 6  | 9  | 8  | -  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 7         | 9  | 9  | 9+ | 5  | -  | 9  | -  | 3         | 6  | 9  | -  | 5   |  |  |  |  |
| 6         | -  | -  | 9  | 2  | -  | 9+ | 9+ | 8         | 9  | 9  | 9  | 1  | 9+ | 9+ | 9  | 9+        | 9+ | 4  | 9  | 9+ | 9  | 3  | 9  | 4         | 8  | 8  | 9  | -  | -  | 9  | -  | 6         | 1  | 8  | -  | 6   |  |  |  |  |
| 7         | -  | 1  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 4  | 9+ | 9+ | 9  | 9+        | 9  | 8  | 9  | 9+ | 9  | 1  | 9+ | -         | 9  | 5  | 9+ | -  | -  | 8  | -  | 7         | -  | 5  | -  | 7   |  |  |  |  |
| 8         | -  | 4  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 6  | 8  | 9+ | 9+ | 8  | 9+        | 8  | 8  | 9  | 9+ | 8  | -  | 9  | -         | 9  | 1  | 8  | -  | -  | 2  | -  | -         | -  | 5  | -  | 8   |  |  |  |  |
| 9         | -  | 6  | 9  | -  | 1  | 9+ | 9+ | 7         | 9+ | 9+ | 1  | 8  | 9+ | 9+ | 5  | 9+        | 8  | 7  | 7  | 9+ | 8  | -  | 1  | -         | 9  | -  | 5  | -  | -  | -  | -  | 1         | -  | 5  | -  | 9   |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 8  | 9+ | 9+ | -         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 6  | 9         | 8  | 5  | 7  | 9+ | 8  | -  | -  | -         | 9  | -  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 10  |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 8  | 9+ | 9+ | -         | 9+ | 9  | -  | 9  | 9+ | 9+ | 6  | 9         | 9  | 4  | 7  | 9+ | 8  | -  | -  | -         | 8  | -  | 6  | -  | -  | -  | -  | 1         | -  | 5  | -  | 11  |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 1         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9         | 8  | 9  | 7  | 9+ | 8  | -  | -  | -         | 7  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 12  |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | 4  | 9+ | 9+ | 9+ | 5  | 9         | 5  | 9  | 8  | 9+ | 5  | -  | -  | -         | 5  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 13  |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 6  | 7  | 9+ | 9+ | 9+ | 4  | 8         | 1  | 6  | 8  | 9+ | 4  | -  | -  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 14  |  |  |  |  |
| 15        | -  | 9  | -  | 2  | 9  | 9+ | 9+ | 8         | 9+ | 2  | 8  | 9  | 9  | 9+ | 4  | 4         | 6  | 7  | 5  | 8  | 8  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 15  |  |  |  |  |
| 16        | -  | 9  | -  | -  | 8  | 9+ | 9  | 7         | 9+ | -  | 8  | 9  | 9  | 9+ | 8  | 1*        | 9  | 9  | 4  | 3  | 9  | -  | -  | 2         | -  | -  | 6  | -  | -  | -  | -  | -         | -  | 5  | -  | 16  |  |  |  |  |
| 17        | -  | 8  | -  | -  | 6  | 9+ | 8  | 7         | 9  | -  | 7  | 9  | 9+ | 9+ | 9+ | -         | 8  | 9  | 8  | 4  | 9+ | -  | -  | 9         | 4  | -  | 6  | 7  | -  | -  | 1  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 4  | -  | -  | 1  | 9+ | 2  | 6         | 9  | -  | -  | 8  | 9+ | 9  | 9  | 9+        | 6  | 8  | 9+ | 9+ | 9+ | 2  | 2  | 9         | 5  | 1* | 5  | 8  | -  | -  | 3  | -         | -  | 5  | -  | 18  |  |  |  |  |
| 19        | -  | -  | -  | -  | -  | 9+ | -  | -         | 7  | -  | -  | 6  | 9+ | 7  | 9  | 9         | 6  | 6  | 9  | 9+ | 9+ | -  | -  | 9         | 6  | -  | 5  | 9  | -  | -  | 2  | -         | -  | 5  | -  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 5  | -  | -  | 4  | 9+ | 2  | 8  | 9         | 7  | 8  | 6  | 9+ | 9+ | -  | -  | 9         | 7  | -  | 5  | 9  | -  | -  | 4  | -         | -  | 5  | -  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 5  | 9         | 5  | 6  | 5  | 9  | 9  | -  | 5  | 9         | 9  | -  | 7  | 9  | -  | -  | 8  | -         | -  | 5  | -  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 2  | 8         | 8  | 5  | 7  | 8  | 9  | -  | 6  | 9         | 7  | -  | 8  | 9  | -  | -  | 9  | -         | -  | 4  | 6  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | -  | 1  | 6         | 8  | 1  | 8  | 8  | 9+ | -  | 9  | 9         | 8  | 4  | 9  | 9+ | -  | 1  | 9  | -         | -  | 4  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Oct., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 9  | 9+ | -  | 9  | 9+        | 8  | 9  | 9  | 9+ | -  | 9  | 9+ | 1         | 2  | 8  | 8  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 4  | -  | -  | 9+ | 7  | -  | 8         | 9+ | 8  | 8  | 9+ | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 9  | 9  | -         | 4  | 9  | 5  | 1   |  |  |  |  |
| 2         | -  | -  | -  | -  | -  | 9+ | 2  | 6         | -  | 8  | 1  | -  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 6  | 9  | 9+ | 9+ | -  | 9  | 7  | -         | 8  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 6  | -  | -  | 9+ | 6  | 8         | 1  | 9  | 7  | 1  | 9+ | 9+ | 1  | 9+        | 9+ | 8  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9  | 9+ | 2  | -  | 9  | 4  | -         | 9  | 9  | -  | 3   |  |  |  |  |
| 4         | -  | -  | 8  | -  | -  | 9+ | 9  | 8         | 5  | 9  | 8  | 1  | 9+ | 9+ | 4  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 9  | 9+ | 9+ | -  | -  | 9  | 7  | 4         | 5  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 8  | 6  | -  | 9+ | 9+ | 8         | 7  | 9  | 8  | 2  | 9+ | 9+ | 8  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9  | 9         | 8  | 9  | 9+ | -  | -  | 9  | 1  | 2         | 4  | 9  | -  | 5   |  |  |  |  |
| 6         | 6  | -  | 9  | 6  | -  | 9+ | 9+ | 9         | 7  | 9+ | 9  | 4  | 9+ | 9+ | 9  | 9+        | 9+ | 9  | 9  | 9+ | 9  | -  | 9  | 8         | 9  | 6  | 9+ | -  | -  | 9  | -  | 9         | -  | 7  | -  | 6   |  |  |  |  |
| 7         | -  | 2  | 9  | 1  | -  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 7  | 9+ | 9+ | 6  | 9         | 9+ | 6  | 8  | 9+ | 8  | 2* | 9+ | 5         | 9  | 2* | 9+ | -  | -  | 8  | -  | 8         | -  | 8  | -  | 7   |  |  |  |  |
| 8         | -  | 8  | 9  | -  | -  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 8  | 9+ | 9+ | 4  | 9+        | 9+ | 5  | 6  | 9+ | 7  | 1* | 9  | -         | 9  | 1* | 9+ | -  | -  | 4  | -  | 4         | -  | 7  | -  | 8   |  |  |  |  |
| 9         | -  | 7  | 9  | -  | 7  | 9+ | 9+ | 8         | 9+ | 9+ | 5  | 9  | 9+ | 9+ | 2  | 9+        | 9  | 4  | 2  | 9+ | 7  | 1* | 8  | 1         | 9  | -  | 9+ | -  | -  | -  | 5  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | 4  | 9+        | 9  | 8  | 3  | 9+ | 8  | 1* | 7  | 1         | 9  | -  | 9  | -  | -  | -  | 4  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 9  | 9  | -  | 8  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 5  | 9+        | 9+ | 8  | 4  | 9+ | 9  | -  | 2  | 2         | 9  | -  | 8  | -  | -  | -  | 4  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 7         | 9+ | 9  | -  | 9  | 9+ | 9+ | 6  | 9+        | 9+ | 9  | 7  | 9+ | 9  | -  | 1  | 1         | 9  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 3  | -  | 9  | 9+ | 9+ | 8         | 9+ | 8  | 4  | 9+ | 9+ | 9+ | 5  | 9         | 6  | 9  | 8  | 9+ | 8  | -  | 1  | -         | 6  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | -  | 9  | -  | -  | 9  | 9+ | 9+ | 8         | 9+ | 7  | 7  | 9+ | 9+ | 9+ | 3  | 9         | 4  | 7  | 8  | 9+ | 6  | -  | -  | -         | 3  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | -  | 9  | -  | 1  | 9  | 9+ | 9+ | 8         | 9+ | 3  | 8  | 9+ | 9+ | 9+ | 3  | 6         | 8  | 7  | 6  | 9  | 8  | -  | -  | 1         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 5  | 9  | -  | -  | 8  | 9+ | 9+ | 8         | 9+ | -  | 8  | 9  | 9+ | 9+ | 8  | 2         | 9  | 9  | 5  | 5  | 9+ | -  | -  | 7         | -  | -  | 6  | 4  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 7  | 9+ | 9  | 8         | 9  | -  | 7  | 9  | 9+ | 9+ | 9+ | 1         | 8  | 9+ | 8  | 9  | 9+ | 3  | -  | 9         | 9  | 3* | 6  | 7  | -  | -  | 7  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 3  | -  | -  | 2  | 9+ | 4  | 7         | 9  | -  | 3  | 9  | 9+ | 9  | 9  | 9+        | 7  | 8  | 9  | 9+ | 9+ | 6* | 1  | 9         | 9  | 4* | 5  | 9+ | -  | -  | 9  | 4         | -  | 5  | 6  | 18  |  |  |  |  |
| 19        | -  | 1  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 8  | 9+ | 8  | 9  | 9         | 5  | 9  | 8  | 9+ | 9+ | -  | 2  | 9         | 9  | 2* | 9+ | 9+ | -  | -  | 9  | 5         | -  | 9  | 7  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 4  | -  | -  | 4  | 9+ | 4  | 5  | 9+        | 5  | 9  | 5  | 9  | 9+ | -  | 6  | 9         | 9  | -  | 5  | 9  | -  | -  | 9  | 3         | -  | 8  | 8  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | 1  | 9+ | 1  | 3  | 9         | 7  | 8  | 6  | 9  | 9+ | -  | 7  | 9         | 9  | -  | 8  | 9+ | -  | 1  | 9  | 4         | -  | 7  | 9  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 1  | 9         | 8  | 2  | 8  | 8  | 9+ | -  | 9+ | 9         | 9  | 2  | 9  | 9+ | -  | 6  | 9  | 3         | -  | 6  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | 1  | 8         | 8  | 1  | 8  | 9  | 9+ | -  | 9  | 9         | 9  | 8  | 9  | 9+ | -  | 8  | 9+ | 4         | -  | 7  | 8  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |

**Nov., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 1  | -  | -  | 9+ | 5  | -  | 8         | 9  | 8  | 8  | 8  | 9+ | -  | 9  | 9+        | 7  | 9  | 9  | 9+ | -  | 6  | 9  | -         | -  | 8  | 2  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | -         | -  | 6  | -  | -  | 9+ | 8  | -  | 9         | 9  | 9  | 8  | 9  | 9+ | -  | 9  | 9+        | 6  | 9  | 9+ | 9  | -  | 9  | 8  | -         | 5  | 7  | -  | 1   |  |  |  |  |
| 2         | -  | -  | 1  | -  | -  | 9+ | 4  | 7         | 1  | 8  | 5  | 1  | 9+ | 9  | -  | 9         | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 7  | 9  | 9+ | -  | -  | 9  | 5  | -         | 6  | 9  | -  | 2   |  |  |  |  |
| 3         | -  | -  | 7  | -  | -  | 9+ | 8  | 8         | 2  | 8  | 7  | 2  | 9+ | 9+ | 4  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+ | 9+        | 8  | 9+ | 9+ | -  | -  | 9  | 1  | -         | 6  | 9  | -  | 3   |  |  |  |  |
| 4         | 6  | -  | 8  | 3  | -  | 9+ | 9  | 8         | 2  | 9  | 8  | 2  | 9+ | 9+ | 1  | 9+        | 9+ | 9  | 9  | 9+ | 8  | -  | 9  | 9+        | 9  | 9  | 9+ | -  | -  | 7  | 1  | -         | -  | 9  | -  | 4   |  |  |  |  |
| 5         | 6  | -  | 9  | 6  | -  | 9+ | 9+ | 7         | 6  | 9+ | 8  | 4  | 9+ | 9+ | 5  | 9+        | 9+ | 9  | 9  | 9+ | 7  | -  | 9  | 9         | 8  | 5  | 9+ | -  | -  | 7  | 3  | 2         | -  | 9  | -  | 5   |  |  |  |  |
| 6         | 7  | 1  | 9  | 7  | -  | 9+ | 9+ | 8         | 8  | 9+ | 9  | 6  | 9+ | 9+ | 4  | 8         | 9+ | 9  | 8  | 9+ | 6  | -  | 9  | 6         | 8  | 3* | 9+ | -  | -  | 6  | 1  | 6         | -  | 8  | -  | 6   |  |  |  |  |
| 7         | 8  | 5  | 9  | 3  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 3  | 9         | 9+ | 5  | 5  | 9+ | 6  | 1* | 8  | 5         | 9  | 1* | 9+ | -  | -  | 3  | -  | 2         | -  | 8  | -  | 7   |  |  |  |  |
| 8         | 1  | 8  | 9  | -  | 6  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 9  | 9+ | 9+ | 4  | 9+        | 9+ | 4  | 3  | 9+ | 5  | 1* | 8  | 1         | 9  | -  | 9+ | -  | -  | 1  | -  | 1         | -  | 6  | -  | 8   |  |  |  |  |
| 9         | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 8         | 9  | 9+ | 8  | 9  | 9+ | 9+ | -  | 9+        | 9+ | 1  | -  | 9+ | 2  | -  | 6  | -         | 9  | -  | 9+ | -  | -  | -  | 4  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 8  | 9+ | 9+ | 8         | 9+ | 9+ | 1  | 9  | 9+ | 9+ | -  | 9+        | 9  | 3  | 1  | 9+ | 2  | -  | 4  | 1         | 9  | -  | 9+ | -  | -  | -  | 3  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9+ | 9+ | 9+ | 2  | 9+        | 9+ | 8  | 2  | 9+ | 6  | -  | 2  | -         | 9  | -  | 9  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | -  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9  | 9+ | 9+ | 6  | 9         | 9  | 8  | 4  | 9+ | 8  | -  | -  | -         | 6  | -  | 7  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | -  | 9  | 4  | -  | 9  | 9+ | 9+ | 9         | 9+ | 9  | 1  | 9  | 9+ | 9+ | 5  | 9         | 6  | 9  | 6  | 9+ | 6  | -  | -  | -         | 6  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 13 |     |  |  |  |  |
| 14        | 8  | 9  | 1  | -  | 9  | 9+ | 9+ | 9         | 9+ | 7  | 6  | 9  | 9+ | 9+ | 2  | 8         | -  | 3  | 6  | 9+ | 2  | -  | -  | -         | 4  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 14 |     |  |  |  |  |
| 15        | 7  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9+ | 4  | 8  | 9+ | 9+ | 9+ | 2  | 5         | 5  | 7  | 4  | 9  | 7  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 15 |     |  |  |  |  |
| 16        | 6  | 9  | -  | 1  | 9  | 9+ | 9+ | 9         | 9  | -  | 8  | 9+ | 9+ | 9+ | 8  | 1*        | 8  | 8  | 3  | 8  | 9+ | -  | -  | 2         | -  | -  | 6  | 1  | -  | -  | -  | -         | 5  | -  | 16 |     |  |  |  |  |
| 17        | -  | 9  | -  | -  | 8  | 9+ | 9  | 9         | 9  | -  | 8  | 9  | 9+ | 9+ | 9  | 1*        | 8  | 9  | 6  | 9  | 9+ | -  | -  | 9         | 9  | 2* | 6  | 8  | -  | -  | 4  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 5  | -  | -  | 6  | 9+ | 7  | 8         | 9  | -  | 5  | 9  | 9+ | 9  | 7  | 8         | 7  | 8  | 5  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 5  | 9+ | -  | -  | 8  | 2         | -  | 5  | 4  | 18  |  |  |  |  |
| 19        | -  | 1  | -  | -  | 1  | 9+ | 2  | 7         | 9  | -  | -  | 8  | 9+ | 8  | 3  | 8         | 5  | 8  | 5  | 9+ | 9+ | -  | -  | 9         | 8  | -  | 8  | 9+ | -  | -  | 9  | 2         | -  | 8  | 7  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 6  | -  | -  | 5  | 9+ | 6  | 1  | 9+        | 7  | 9  | 1  | 9  | 9+ | -  | -  | 9         | 9  | -  | 5  | 9+ | -  | -  | 9  | -         | -  | 8  | 9  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | 1  | -  | -  | 3  | 9+ | 2  | -  | 9+        | 7  | 8  | 4  | 9  | 9+ | -  | 7  | 9         | 9  | -  | 9  | 9+ | -  | -  | 9  | -         | -  | 7  | 9  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 1  | -  | 9         | 8  | 4  | 8  | 8  | 9+ | -  | 9  | 9         | 9  | -  | 8  | 9+ | -  | 2  | 9  | 2         | -  | 6  | 9  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | -  | 9+ | 3  | -  | 8         | 8  | 5  | 8  | 8  | 9+ | -  | 9  | 9         | 8  | 5  | 9  | 9+ | -  | 5  | 9  | 1         | -  | 7  | 9  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |



**Dec., Hawaii (Honolulu), for SSN = Very Low, Sigs in S-Units. By N6BV, ARRL.**

| 80 Meters |    |    |    |    |    |    |    | 40 Meters |    |    |    |    |    |    |    | 20 Meters |    |    |    |    |    |    |    | 15 Meters |    |    |    |    |    |    |    | 10 Meters |    |    |    |     |  |  |  |  |
|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|-----------|----|----|----|-----|--|--|--|--|
| UTC       | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA | UTC |  |  |  |  |
| 0         | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | 2  | -  | -  | 9+ | 6  | -  | 9         | 9  | 8  | 8  | 8  | 9+ | -  | 9  | 9+        | 6  | -  | 9  | 9  | -  | 5  | 9  | -         | -  | 7  | -  | 0   |  |  |  |  |
| 1         | -  | -  | -  | -  | -  | 9+ | 1  | 1         | -  | 7  | -  | 1  | 9+ | 8  | -  | 9         | 9+ | 9  | 9  | 9  | 9+ | -  | 9  | 9+        | 1  | 7  | 9  | 5  | -  | 9  | 7  | -         | -  | 8  | -  | 1   |  |  |  |  |
| 2         | -  | -  | 1  | -  | -  | 9+ | 5  | 8         | 2  | 8  | 8  | 2  | 9+ | 9+ | -  | 9+        | 9+ | 9  | 9  | 9+ | 9+ | -  | 9  | 9+        | 8  | 9  | 9+ | -  | -  | 9  | 4  | -         | -  | 8  | -  | 2   |  |  |  |  |
| 3         | 1  | -  | 8  | -  | -  | 9+ | 8  | 8         | 5  | 9  | 8  | 5  | 9+ | 9+ | -  | 9+        | 9+ | 9  | 9+ | 9+ | 7  | -  | 9  | 9+        | 8  | 9  | 9+ | -  | -  | 9  | 2  | 1         | -  | 9  | -  | 3   |  |  |  |  |
| 4         | 7  | -  | 8  | 6  | -  | 9+ | 9  | 8         | 5  | 9+ | 9  | 5  | 9+ | 9+ | -  | 9+        | 9+ | 9  | 9+ | 9+ | 2  | -  | 9  | 9+        | 8  | 6  | 9+ | -  | -  | 6  | 7  | 1         | -  | 8  | -  | 4   |  |  |  |  |
| 5         | 8  | 1  | 9  | 6  | -  | 9+ | 9+ | 9         | 8  | 9+ | 9  | 7  | 9+ | 9+ | -  | 9         | 9+ | 9  | 8  | 9+ | 2  | -  | 9  | 9         | 8  | 1  | 9+ | -  | -  | 5  | 2  | 6         | -  | 9  | -  | 5   |  |  |  |  |
| 6         | 8  | 2  | 9  | 8  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 8  | 9+ | 9+ | 2* | 9         | 9+ | 5* | 4  | 9+ | 1  | -  | 9  | 8         | 8  | 4* | 9+ | -  | -  | 2  | -  | 2         | -  | 9  | -  | 6   |  |  |  |  |
| 7         | 8  | 6  | 9  | 6  | -  | 9+ | 9+ | 9         | 9  | 9+ | 9  | 9  | 9+ | 9+ | 2  | 9         | 9+ | 4  | 1* | 9+ | 1  | 3* | 7  | 6         | 9  | -  | 9+ | -  | -  | -  | 1  | -         | 7  | -  | 7  |     |  |  |  |  |
| 8         | 8  | 7  | 9  | 1  | 7  | 9+ | 9+ | 8         | 9  | 9+ | 9  | 9  | 9+ | 9+ | -  | 9+        | 9+ | -  | 1  | 9+ | 1  | -  | 6  | -         | 9  | -  | 9+ | -  | -  | -  | -  | -         | 6  | -  | 8  |     |  |  |  |  |
| 9         | 1  | 8  | 9  | -  | 8  | 9+ | 9+ | 9         | 9  | 9+ | 8  | 9  | 9+ | 9+ | -  | 9+        | 9  | 1  | -  | 9+ | -  | 1* | 5  | -         | 9  | -  | 9+ | -  | -  | -  | 4  | -         | 5  | -  | 9  |     |  |  |  |  |
| 10        | -  | 8  | 9  | -  | 9  | 9+ | 9+ | 8         | 9  | 9+ | 7  | 9  | 9+ | 9  | -  | 9+        | 9  | 2  | -  | 9+ | -  | -  | 2  | 1         | 8  | -  | 9  | -  | -  | -  | 1  | -         | 5  | -  | 10 |     |  |  |  |  |
| 11        | -  | 8  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9+ | -  | 9  | 9+ | 9+ | -  | 9         | 9  | 5  | -  | 9+ | 2  | -  | 1  | 1         | 5  | -  | 8  | -  | -  | -  | -  | -         | 5  | -  | 11 |     |  |  |  |  |
| 12        | 1  | 9  | 8  | -  | 9  | 9+ | 9+ | 8         | 9+ | 9  | -  | 9+ | 9+ | 9+ | 3  | 9         | 8  | 8  | 2  | 9+ | 5  | -  | -  | -         | 2  | -  | 6  | -  | -  | -  | -  | -         | 5  | -  | 12 |     |  |  |  |  |
| 13        | 8  | 9  | 4  | -  | 9  | 9+ | 9+ | 9         | 9+ | 8  | 3  | 9+ | 9+ | 9+ | 5  | 9         | 4  | 8  | 6  | 9+ | 4  | -  | -  | -         | 1  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 13 |     |  |  |  |  |
| 14        | 8  | 9  | 2  | -  | 9  | 9+ | 9+ | 9         | 9+ | 6  | 7  | 9+ | 9+ | 9+ | 2  | 8         | -  | 8  | 4  | 9  | -  | -  | -  | -         | -  | 6  | -  | -  | -  | -  | -  | -         | 6  | -  | 14 |     |  |  |  |  |
| 15        | 8  | 9  | -  | 1  | 9  | 9+ | 9+ | 8         | 9+ | 5  | 8  | 9+ | 9  | 9+ | -  | 4         | 2  | 2  | 1  | 6  | 1  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 15 |     |  |  |  |  |
| 16        | 8  | 9  | -  | 4  | 9  | 9+ | 9+ | 8         | 9  | -  | 8  | 9  | 9  | 9+ | 2  | -         | 8  | 5  | -  | 3  | 9  | -  | -  | -         | -  | -  | 6  | -  | -  | -  | -  | -         | 6  | -  | 16 |     |  |  |  |  |
| 17        | 8  | 9  | -  | -  | 8  | 9+ | 9  | 8         | 9  | -  | 8  | 9+ | 9+ | 9+ | 5  | 1*        | 8  | 9+ | 2* | 2  | 9+ | -  | -  | 9         | 2  | -  | 6  | 7  | -  | -  | 3  | -         | -  | 5  | -  | 17  |  |  |  |  |
| 18        | -  | 7  | -  | -  | 7  | 9+ | 8  | 8         | 9  | -  | 7  | 9  | 9+ | 9+ | 6  | 5         | 8  | 6  | 2  | 9+ | 9+ | -  | -  | 9         | 9  | -  | 8  | 8  | -  | -  | 9  | -         | -  | 5  | 1  | 18  |  |  |  |  |
| 19        | -  | 4  | -  | -  | 2  | 9+ | 5  | 8         | 9  | -  | 2  | 8  | 9+ | 9  | 1  | 6         | 6  | 9  | 4  | 9+ | 9+ | -  | -  | 9         | 3  | -  | 5  | 9  | -  | -  | 9  | -         | -  | 5  | 3  | 19  |  |  |  |  |
| 20        | -  | -  | -  | -  | -  | 9+ | -  | -         | 8  | -  | -  | 7  | 9+ | 7  | -  | 9         | 7  | 9  | 1  | 9+ | 9+ | -  | -  | 9         | 3* | -  | 5  | 9  | -  | -  | 9  | 2         | -  | 7  | 5  | 20  |  |  |  |  |
| 21        | -  | -  | -  | -  | -  | 9+ | -  | -         | 2  | -  | -  | 3  | 9+ | 5  | -  | 9+        | 8  | 8  | 4  | 9  | 9+ | -  | 1  | 9         | 1* | -  | 8  | 9  | -  | -  | 9  | 1         | -  | 5  | 6  | 21  |  |  |  |  |
| 22        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | 1  | 9+ | 2  | -  | 9         | 8  | 8  | 5  | 8  | 9+ | -  | 7  | 9         | 9  | -  | 8  | 9  | -  | -  | 9  | 1         | -  | 5  | 5  | 22  |  |  |  |  |
| 23        | -  | -  | -  | -  | -  | 9+ | -  | -         | -  | -  | -  | 1  | 9+ | 4  | -  | 9         | 9  | 8  | 8  | 7  | 9+ | -  | 8  | 9         | 8  | -  | 9  | 8  | -  | -  | 9+ | 1         | -  | 5  | 3  | 23  |  |  |  |  |
|           | EU | FE | SA | AF | AS | OC | NA | EU        | FE | SA | AF | AS | OC | NA | EU | FE        | SA | AF | AS | OC | NA | EU | FE | SA        | AF | AS | OC | NA | EU | FE | SA | AF        | AS | OC | NA |     |  |  |  |  |