



Long Path



Volume 22 Issue 8

SEMDXA NEWSLETTER

May, 2005



Greetings Fellow DXers!

For those of you that did not make last month's meeting it was hosted by Dr. Rick, **NE8Z**, and he put on a very nice presentation on his trip to PJ4/Bonaire. It was a great presentation as usual and I would like to thank Dr. Rick, as well as Uli for the use of the projector and his laptop.

Murphy followed Dr. Rick to Bonaire as they lost power due to a generator failure almost immediately after arriving. Seems he brought Murphy back with him as my laptop took a powder at the meeting and Uli was kind enough to let us use his. Thanks guys for all the help.

Our May meeting, will be hosted by Dennis Ward, **KT8X**, and he will be putting on a presentation on **FS/KT8X**, **LX/KT8X** and also **LX5A**. I am looking forward to this one and hope we have a good turnout.

With the weather warming up we now have a chance to step outside after the meetings to chit chat. About time too I might add so hope to see all of you on May 13th.

Speaking of warmer weather it is that

time of year again. Yep, time to do all our tower and antenna repairs. I have several of my own to do but I cannot stress safety enough. We at **SEMDXA** need your dues so by all means think twice, use common sense and check your equipment. Is it leather? Junk it and buy a new one. Sure it costs money, but not as much as the alternatives. Be smart, be safe. See you all at the meeting next month and until then 73 and DX.

K8SIX
SEMDXA President



KT8X Speaks!

SEMDXA member **KT8X** (Dennis Ward) is providing our May program. Dennis operated from FS (French St. Martin) and **LX5A** (Luxemburg) recently and will share his adventures with our membership.

Dennis tells us that St. Martin has "one of the foremost Naturalist beaches in the world". But he also tells us that his program will be "Gp Rated"! Dennis commented on the strength of South American signals from LX saying that they are loud, loud and loud. **SEM-**

DXA member **KK8I** made the initial suggestion that Dennis operate from **LX5A** for which Dennis is grateful. Dennis's number one beef from the DX end? Stations not listening to the DX operators instructions prior to calling!

This will be a very interesting and informative program. Bring along a friend to our May gathering and enjoy the program, your favorite libation and excellent meal service at the Elks Club with fellowship afterward. See you there on Friday evening, May 13.

SEMDXA CLUB OFFICERS

President: Al Bailey, **K8SIX**

Vice-president: Ken Schang, **W8LU**

Treasurer: Buck Switzer, **N8CQA**

Secretary: Stan Arnett, **AC8W**

Director: Ted Pauck, **K8NA**

Web Site Editor: Ken Schang, **W8LU**

DXCC Checker: Bill Jones, **N8KF**

DXCC Checker: S.Arnett, **AC8W**

VUCC Checker: Al Bailey, **K8SIX**

CQ Checker: Mike Rudzki, **N8MR**

CQ Checker: Al Bailey, **K8SIX**

Program Chairman: Vacant

LP Publisher: Gerry Fasse, **W8GF**

April Meeting Minutes

AC8W, our regular Secretary was unable to make the April meeting. Please excuse the abbreviated Minutes as submitted by our substitute scribe (**W8GF**).

The meeting was called to order at 7:45PM by **SEMDXA** President **K8SIX**. Thirty-one members and guests were present. Treasurer **N8CQA** noted the treasury balance as being \$279.86.

Several new business items were presented:

W1SKU announced that he had attained his official DXCC status with a country total of over 300! Congrats to Fred.

K1XN has offered **SEMDXA** membership free access to the venerable "GOLIST" for a period of one year. After this one year period, you may renew your **GOLIST** membership at the same time as your **SEMDXA** dues are paid for an additional \$10.00. Thus, you obtain **SEMDXA** membership (\$20.00) and the **GOLIST** for a \$30.00 fee. The important thing to remember is that you must pay your **SEMDXA** dues and the **GOLIST** fee at the same time in September of the new **SEMDXA** year. Of course, the **GOLIST** is optional upon renewal of your **SEMDXA** membership. All **SEMDXA** members have free access to the **GOLIST** beginning now through September, 2006. Thus your first **GOLIST** renewal will be due in September, 2006.

Other features of the **GOLIST** can be seen at: <http://golist.net/> The **GOLIST** has been available for QSL Manager data base use since 1980. At that time it was operated by **W6GO** and his **XYL**. In recent years it was acquired by **K1XN** during

which time it went from a printed statement to a 3-1/2" floppy disk to its present on-line format. Both Windows and DOS operating systems are presently supported.

The up-coming Michigan QSO Party was noted and all **SEMDXA** members were encouraged to participate in this one day event. Amateurs from all of Michigan's 83 Counties are expected to be QRV.

The evenings program was provided by **SEMDXA** member **NE8Z**. Rick operated from PJ4/Bonaire during the period February 4 through February 13, 2005. Rick provided a slide and video show of this operation. Unfortunately, one of the Island's power generating plants had a serious fire which greatly curtailed Rick's operation. In spite of this incident, Rick managed to work many stations world-wide including **SEMDXA** members. Six meters was a total bust however because not a single QSO was logged.

The video portion was especially interesting as it focused on the International Broadcast's Radio Netherlands. This is a very high power station with power output ranging up to the hundreds of Kilowatts! Also included is a steerable multi-element antenna array.

Two members were added to **SEMDXA**'s roster; **N8QGC** (John Sheets, Flat Rock) and **WZ8K** (Jim Brooker of Royal Oak). Former member **K8BB** (aka **WX3M**) Don Chisholm of Pontiac has rejoined. Welcome all! This brings our active roster to an all-time high total of 57 and increased our perpetual roster to 235.

The meeting was adjourned at 9:25 PM with general fellowship following.

W8GF
~~~~~



## HC1MD Radio Active!

**SEMDXA**'s roving ambassador, **NE8Z** will once again be operating from **HC1MD** (Tumbaco Equador). This QTH is just over the hill from **HCJB**'s massive antenna complex in Pifo, Ecquador. Rick will drag along his TS850/SB200 combination as well as a Carolina Windom antenna system. Activity is planned on Six Meters using his FT857 Yaesu Radio and Par Electronics loop. This operation will cover the period between April 25 through May 11.

Rick, in a follow-up communication, indicates he will operate from other HC areas including Mt Pinchincha, Banos, and Sierrazul near Baeza. These portable operations will be under battery power with more modest antennas. QSL via ex-**SEMDXA** member **K8LJG**. Keep a sharp ear out for Rick!

**W8GF**  
~~~~~

Help Help Help!

The Long Path is always on the lookout for articles from the membership. Put your word-processor to work and make a contribution to our Club Organ, The Long Path.



WN8UCI - 1954

This is the station setup at **WN8UCI** in October, 1954. The piece to the left is an 80 Meter Regenerative Receiver which was actually constructed in 1944 for the broadcast band. Coils were later wound to cover the 80 Meter CW band. It consisted of two type 30 vacuum tubes; one as a regenerative detector and the other a transformer coupled audio amplifier. A 4-1/2 Volt "C" battery for the tube filaments and a 45 Volt "B" battery supplied plate voltage. Batteries were extremely difficult to find during the war years but my father had access to them as a City of Detroit Civil Defense employee. The 1500 ohm impedance headphones were made by Kennedy - probably dating back to the early 1930s.

The vernier dial was added when the receiver was converted to 80 Meter operation. The type 30 vacuum tube in the regenerative detector stage had to be carefully selected for best receiver performance. I had a supply of six or eight and eventually settled on one which did the best job. In later years I discovered that gas content and impurities within the tube produced a contact bias at the grid which interfered with weak signal detection. No known tube tester -even the most sophisticated and expensive e. g., Hickok, were able to predict what level of performance one could obtain with a given vacuum tube in a circuit

such as this.

The Echophone EC-1 Receiver (middle of photograph) was probably manufactured by Hallicrafter in 1941. Echophone was acquired by Hallicrafter shortly before that. The receiver design was completed by Echophone otherwise. It was an impressive design effort. Like most equipment of that era, the chassis was not being connected to one side of the AC power line via a 0.1 mFd capacitor (or condenser as they were called then). But the outside enclosure was insulated from the chassis via a clever grommeting scheme. The EC-1 was a 6-tube design which included a 12K8 converter, 12SK7 IF amplifier, 12SQ7 detector/audio amplifier, 50L6 audio power amplifier, 35Z5 rectifier and a 12J5 BFO. Performance was head and shoulders above the regenerative receiver (called a "blooper" in those days). The Hallicrafter S38 series heritage can be traced to the EC-1. My EC-1 was recently rebuilt using the original tubes and performs pretty darn well at this late date.

The transmitter was an inspiration from a 1954 ARRL Handbook design. It consists of a 6J5 crystal oscillator and 6AG7 final amplifier. I modified the design slightly by adding a Pi-Network output circuit which covered 160, 80 and 40 Meters. It was quite advanced for its time having a break-in keying system which switched the antenna from receive to transmit with a relay salvaged from an ARC5 transmitter carcass. Many Novices from that era used a knife switch to change the antenna from receive to transmit and back again. I had only a single 3710 kHz crystal but managed many QSOs since the Novice band in those days and unlike today, was QRM city!

Transmitter power output is in the neighborhood of 8 to 10 Watts. The key is a Speed-X which eventually was replaced with a J38 since the J38 had a shorting lever for transmitter tuning and

the Speed-X did not. Keying was tricky if you wanted the best sounding signal. If the oscillator stage was keyed, some chirp was evident even with the best crystals. If the final was keyed with the oscillator running continuously, you usually heard a residual backwave at the other end of the QSO. I settled on the backwave rather than having a chirpy-sounding signal.

Me and life-long friend then **WN8SRK**, eventually **W8SRK** and now **W8KR** were DX minded even in those days. Jack had a Heathkit AT-1 transmitter, SX71 Hallicrafter Receiver and a full size 80 Meter dipole to work with. My equipment was feeble by comparison but I enjoyed the competition anyway. I worked a station in Spokane Washington - **W7OOF**- and Jack nearly flipped when I showed him the QSL a few days later. Shortly after, Jack worked a string of W6s which topped me by a bunch.

Brothers **WN8IRK** and **WN8IRY** (now **W8SJ**) used this setup early on before we advanced to a Hallicrafters S85 / Heathkit DX20 combination. Our antenna was upgraded to a 33' vertical which covered 15 as well as 40 meters. We didn't have radials, just a copper rod driven four or five feet into mother earth. That came just about the time that cycle 19 was surging which made 15 meter DX-ing a cinch.

Those were the days!

W8GF (ex **WN8UCI**, **W8UCI**, **W8PX**)

Paid up *SEMDXA* members in alphabetical order:

| <u>CALL SIGN</u> | <u>E-MAIL</u> | <u>CALL SIGN</u> | <u>E-MAIL</u> |
|------------------|------------------------|------------------|--------------------------|
| AC8W | AC8W@ARRL.NET | N8CQA | N8CQA@ARRL.NET |
| AD4UU | AD4VU@COMCAST.NET | N8HZM | MLS1@COMCAST.NET |
| K8BB | K8BB@COMCAST.NET | N8JV | N8JV@COMCAST.NET |
| K8CC | K8CC@COMCAST.NET | K8KF | N/A |
| *K8CW | K8CW@ARRL.NET | N8KIE | N8KIE@AOL.COM |
| K8DD | K8DD@ARRL.NET | N8LJ | N8LJ@USOL.COM |
| K8ESQ | K8ESQ@AOL.COM | N8MOJ | N8MOJ1@AOL.COM |
| K8FT | JIM.KUHNS@IEEE.ORG | N8MR | N8MR@ARRL.NET |
| K8GT | K8GT@ARRL.NET | N8OZ | N8OZ@ARRL.NET |
| K8IY | DFWOOD@OAKLANDCC.EDU | N8QGC | N8QGC@ARRL.NET |
| K8JM | K8JM@USOL.COM | N8SHZ | N8SHZ@COMCAST.NET |
| K8KHZ | K8KHZ@K8KHZ.COM | N8SNM | BNOWAK@SPEAKEASY.NET |
| K8MSU | K8MSU@JUNO.COM | N8ZX | N8ZX@TDS.COM |
| *K8NA | K8NA@ARRL.NET | NE8I | NE8I@ARRL.NET |
| K8NWD | K8NWD@ARRL.NET | NE8Z | NE8Z@YAHOO.NET |
| K8SIA | K8SIA@ARRL.NET | W1SKU | W1SKU@ARRL.NET |
| K8SIX | K8SIX@COMCAST.NET | W4CEO | SCAT42@EARTHLINK.NET |
| K8UP | JOHN@FLEMING-PHOTO.COM | W8AP | W8AP@GEOGBH@NETZEROL.COM |
| K8UT | K8UT@ARRL.NET | W8GF | W8GF@COMCAST.COM |
| K8ZE | K8ZE@CHARTER.NET | W8LU | W8LU@SCHANG.NET |
| K8ZZU | K8ZZU@SBCGLOBAL.NET | W8PP | W8PP@COMCAST.NET |
| KC8JAY | KC8JAY@ARRL.NET | W8SJ | W8SJ@AOL.COM |
| KC8OBH | KC8OBH@AOL.COM | W8UA | W8UA@MYVINE.COM |
| KC8PKY | KC8OBH@AOL.COM | WA8BIJ | WA8BIJ@ARRL.NET |
| KK8I | DL2HBX@DARC.DE | WD8S | WD8S@ARRL.NET |
| KP4E | KP4E@AMSAT.ORG | WQ8T | WQ8T@ARRL.NET |
| KQ8D | ROGER49201@YAHOO.COM | WZ8K | WZ8K@MIQRP.NET |
| KT8X | KT8X@PRODIGY.NET | | |
| LZ4GU | N/A | | |
| N4JQQ | STRUTLEDGE@OIL.NET | | |

*Indicates perpetual membership. 57 Total Call signs

Note: If your call sign does not appear on the above list, you will not receive further issues of the *Long Path* until your dues are brought up to date. Check with Buck, N8CQA *SEMDXA* Treasurer. If you have paid your 2005 dues and your call is not indicated, check with Buck to resolve any issues.

Our perpetual roster contains a total of 235 call signs. Of these 14 are Silent Keys (SK).

SEMDXA Membership Silent Keys include the following: **KB8IO, KC8OB, KM8Y, N8EOA, N8FGH, NG8S, W8BXM, W8KPL, W8KZM, W8LZV, W8QFR, W8URM, WB8OHO and WD8CRY**

SEMDXA MEMBERSHIP RENEWAL

South Eastern Michigan DX Association (SEMDXA)

Date: _____

Application for new membership _____ or Application for renewal _____ (check one)

Full membership _____ or Associate membership _____ (check one) Dues: \$20.00 annually

(See SEMDXA website for membership requirements)

Present Call Sign: _____ Previous Call Sign: _____

Name: _____

Address: _____

City: _____

State/Zip Code: _____

Telephone: _____

E-mail address: _____

MAKE CHECK PAYABLE TO SEMDXA

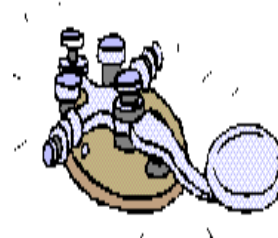
Make payment at next SEMDXA meeting or mail with remittance to:

Leon Switzer, Treasurer

427 Jeffrey Avenue

Royal Oak, Michigan 48073

NOTE: TO RECEIVE THE CLUB NEWSLETTER "THE LONG PATH" YOU MUST PROVIDE YOUR E-MAIL ADDRESS!



May 2005

SEMDXA Monthly Planner

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|---|--|---|---|--|--|--|--|---|---|---|---|---|---|---|--|--|--|--|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|------|--|--|--|--|--|--|---|---|---|---|---|---|---|--|--|--|--|---|---|---|---|---|---|---|---|---|----|----|--|----|----|----|----|----|----|----|--|----|----|----|----|----|----|----|--|----|----|----|----|----|--|--|--|
| <p style="font-size: 2em; font-weight: bold;">1</p>  <p>Passover Ends Spring MS Rally (Aquarids, Entire Week)</p> | <p style="font-size: 2em; font-weight: bold;">2</p> | <p style="font-size: 2em; font-weight: bold;">3</p> | <p style="font-size: 2em; font-weight: bold;">4</p> | <p style="font-size: 2em; font-weight: bold;">5</p>  <p style="text-align: center;">Ascension Day</p> | <p style="font-size: 2em; font-weight: bold;">6</p> | <p style="font-size: 2em; font-weight: bold;">7</p> <p>IN QSO Party Microwave Sprint New England QSO Party NV QSO Party OR QSO Party</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="font-size: 2em; font-weight: bold;">8</p>  <p>Mother's Day</p>  <p>New Moon VE Day!</p> | <p style="font-size: 2em; font-weight: bold;">9</p> <p>Spring MS Rally (Aquarids, Entire Week)</p>  <p>WIAW Qualify- ing Run</p> | <p style="font-size: 2em; font-weight: bold;">10</p> | <p style="font-size: 2em; font-weight: bold;">11</p> <p>MARAC County Hunters CW Test</p> | <p style="font-size: 2em; font-weight: bold;">12</p> | <p style="font-size: 2em; font-weight: bold;">13</p>  <p>SEMDXA Meeting</p> | <p style="font-size: 2em; font-weight: bold;">14</p> <p>6M ETDXA Sprint</p>  <p>Armed Forces Rally EU EME Test FISTS Sprint</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="font-size: 2em; font-weight: bold;">15</p> | <p style="font-size: 2em; font-weight: bold;">16</p> | <p style="font-size: 2em; font-weight: bold;">17</p> | <p style="font-size: 2em; font-weight: bold;">18</p>  <p>West Coast K6YR Qualify- ing Run</p> | <p style="font-size: 2em; font-weight: bold;">19</p> | <p style="font-size: 2em; font-weight: bold;">20</p>  <p>Dayton Hamven- tion</p> | <p style="font-size: 2em; font-weight: bold;">21</p> <p>40th Annual Baltic Test</p>  <p>Armed Forces Day</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="font-size: 2em; font-weight: bold;">22</p> | <p style="font-size: 2em; font-weight: bold;">23</p>  <p>Full Moon Victoria Day</p> | <p style="font-size: 2em; font-weight: bold;">24</p> | <p style="font-size: 2em; font-weight: bold;">25</p> | <p style="font-size: 2em; font-weight: bold;">26</p> | <p style="font-size: 2em; font-weight: bold;">27</p>  <p>WIAW Qualify- ing Run</p> | <p style="font-size: 2em; font-weight: bold;">28</p> <p>CQ WW WPX CW Test MI QRP CW Sprint</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="font-size: 2em; font-weight: bold;">29</p> <p>QRP ARCI Hoot- owl CW Sprint</p> | <p style="font-size: 2em; font-weight: bold;">30</p>  <p>Memorial Day</p> | <p style="font-size: 2em; font-weight: bold;">31</p> | <table border="1" style="margin: auto; border-collapse: collapse;"> <tr><th colspan="7">April</th></tr> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> </table> | | April | | | | | | | S | M | T | W | T | F | S | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | <table border="1" style="margin: auto; border-collapse: collapse;"> <tr><th colspan="7">June</th></tr> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td></td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td></td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td></td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td><td></td></tr> </table> | June | | | | | | | S | M | T | W | T | F | S | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | 26 | 27 | 28 | 29 | 30 | | | |
| April | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | M | T | W | T | F | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| June | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | M | T | W | T | F | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 27 | 28 | 29 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |