



# Long Path



Volume 21 Issue 3 5

SEMDXA NEWSLETTER

November, 2003



## President's Report

Greetings everyone!

The presentation everybody has been waiting for is next month, but it will be tough for Dr. Rick to surpass his last presentation. His next presentation is on the Arecibo Observatory in Puerto Rico. In 1997 Jodi Foster filmed the movie "Contact" at the Observatory and in the beginning of the movie has flashbacks of her deceased father who was a Ham. Who remembers what the rig was? If you haven't seen this movie it would make a good weekend rental.

Since the last meeting I have uploaded all my data to LOTW and for those that are squeamish about it, don't be. Since 1974 I have had 5 calls. I had to get my password thru the mail and once I got my certificate for **K8SIX** it was simple. Once that was done I had to get a certificate for the other 4 calls and upload the data. Using DXBase made it simple as I have my operator call sign for each entry and the wizard builds a ADI file for whichever call I select. Once I uploaded all five ADI files it is just a matter of sitting back and waiting for the confirmations. To date I have 9309 QSL entries and so far I have

8 hits. Give a try gang as it is not as hard as it seems. Well that's all from here folks. I'll see ya'll at the meeting and 'till then best 73 and DX.

P.S. I am Arachnidphobic so I hope he doesn't have any more surprises for us. My heart still hasn't slowed down.

**K8SIX**

## New Call Sign

Congratulations to Jack Kesterson! Jack, long-time holder of **K8OLG** has a new call sign, **W8PP**.

Also, Jack has some interesting items for sale: Hy-Gain Tailtwister rotator, unused in original carton and a Hy-Gain TH7DXX Yagi. Price \$400.00 lot. Sounds like a great deal.

## Holiday Season

There will be not be a **SEMDXA** meeting during December and the **Long Path** will not be published. The next **SEMDXA** meeting will be on January 9, 2004. The next **Long Path** issue will be published for the month of January, 2004.

A calendar of Amateur Radio events will be available for the month of December as usual. Check the **SEMDXA** website toward the end of November, 2003.

**SEMDXA** club officers extend best wishes to all members and hope you enjoy a pleasant and joyous holiday season.

**W8GF**

*Long Path* Editor, Publisher

## Membership Dues

If you have not already done so, please bring your membership dues up to date ASAP.

## SEMDXA CLUB OFFICERS

*President:* Al Bailey, **K8SIX**

*Vice-president:* John Millet, **K8JM**

*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**

## October SEMDXA Minutes

Meeting called to order at 7:50 p.m. by President **K8SIX**. Twenty-six members and guests present.

Introductions included Dr. Rick Dorsch and his nephew Phillipe from Ecuador.

Buck, **N8CQA**, reports a September 30 balance of \$849.64 in the treasury.

See **K8KHZ** if you are interested in **SEMDXA** badges...\$15.00 each in advance.

Stan, **AC8W** announced that he and Hank, **K8DD**, would be joining the Team Zone 2 gang for the CQWW SSB test from a lumber camp up near James Bay. The call will be **VB2C**... look for them.

Dave, **K8CC**, and some other Mad River Radio Club members will be operating from **VE1JF** for the CQWW SSB test as well.

Ken, **W8LU** reports having problems with the web page, but hopes to have it working well soon. He is going to be operating from IS0 for the CQWW SSB test.

Tonight's program features Rick, **NE8Z**, and his pictures and video of his March, 2003 trip to Argentina. Lots of interesting sights in Buenos Aires. While Maria was visiting a church Rick found a flea market and picked up some old CW keys. Operating was done as **LU/NE8Z** using TS-50 barefoot with an Outbacker Plus antenna. He visited the Radio Club of Argentina, **LU4AA**, and saw the QSL bureau as well as some older equipment, most still in use.

He met with many of the local hams including Arturo, **LU6ETB**, Jose Luis, **LU1ZA**, Henry, **LU4DXU** and Reynaldo, **LU2AH**.

A visit to the a museum ship that carried supplies to Argentine Antarctica bases provided an opportunity to meet **LU2CN** who was on the 1952 Expedition to Antarctica and operated **LU7ZD**.

A ferry ride across the river took them to Coloma, Uruguay, CX5. Very quaint little town.

Perhaps the highlight of the trip was a flight north to Iguacu Falls where Maria and Rick spent lots of time exploring the huge falls and seeing the wildlife that included parrots and lots of butterflies, including ones that had "88" on their wings. Rick took a helicopter ride over the falls and when the pilot found he was a Ham as well, Rick got the preferred seat.

Altogether it was a great trip that included Ham radio, gauchos and Samba dancers.

Esta muy bueno!

**K8SIX**, reports that the equipment of Earl Roberts, **N8AES**, is for sale.

Among other items is a Heights 80' fold-over tower and base, a KT-34XA beam, a 3 element 12/17M beam, and a delta loop. Equipment includes an IC-781, an IC-970H and Mirage amps. Call **K8SIX** for details.

Meeting adjourned at 9:55 p.m.

Stan, **AC8W**  
Secretary

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**The following item is from The ARRL Letter, Volume 22, No. 42 dated October 24, 2003**

### **VIRGINIA BPL STARTUP**

*The ARRL this week put officials in Manassas, Virginia, on notice that the League will act on behalf of its members to ensure full compliance with FCC regulations when the city's Broadband over Power Line (BPL) system*

*starts up in a few months. The League was responding to media reports that Manassas--a Washington, DC, suburb--has approved plans for a city-wide BPL*

*rollout. Manassas City Council reportedly voted unanimously October 16 to grant a 10-year franchise to Prospect Street Broadband to expand a BPL field trial and offer high-speed Internet service to the entire community over municipal power lines. ARRL CEO David Sumner, K1ZZ, on October 22 faxed Manassas Mayor Marvin L. Gillum to point out BPL's dark side--the potential for RF interference from and to any BPL system.*

*"Your advisors no doubt have made the Council fully aware of the great potential for radio interference from such a system," Sumner said. "In particular, you are no doubt well aware that Title 47 CFR 5 requires that no harmful interference is caused to any radiocommunication service, and that the operator shall be required to cease operation upon notification by a Federal Communications Commission representative that the device is causing harmful interference." Sumner noted that the same FCC Part 15 rule also provides no protection against interference from the operation of an authorized radio station.*

*"Tests conducted by ARRL technical personnel have shown that the system planned to be deployed in Manassas causes harmful interference to the Amateur Radio service," Sumner said. "We also have reason to believe that the system will be susceptible to interference from normal amateur station*

operations."

An article in *Potomac News.com* touted the impending Manassas BPL rollout as the first of its type in the US. Sumner said he was writing to alert the City of Manassas "on behalf of its members who live in and use the public thoroughfares of Manassas" that the ARRL "will ensure that there is full compliance with the FCC regulations" once the city's BPL system is in operation.

Prospect Street Broadband reportedly will offer the BPL service for \$29.95 a month. One estimate predicts the city stands to gain up to \$4.5 million over the 10-year life of the contract, due to be signed this week.

The Manassas BPL field trial is one of the smallest now under way and involves fewer than a dozen homes and businesses. It was installed in an area that has underground utility wiring and no Amateur Radio licensees nearby.

BPL articles in major media have proliferated in recent weeks, many of them painting the service in rosy hues and neglecting to point out the potential for radio interference to and from BPL by other HF spectrum occupants. An October 13 article in *The Wall Street Journal*, "A New Outlet," by Walin Wong, quotes one trial user who calls the service "fantastic." But Wong also notes that one "Achilles' heel" of BPL is that serving rural areas would require installing costly repeaters every mile or so along the power line. The article also deals with the reluctance on the part of some electric utilities to embrace the technology.

Sumner also reacted to the WSJ article. In a letter to the editor not yet published, he pointed out that BPL "amounts to sending a wideband radio signal over unshielded wires that were

not designed for the purpose" and that do not work well for the 2 to 80 MHz signals common in BPL systems. Instead, "they function as antennas," he said, and that can lead to interference to radio services, including some involved with public safety.

Sumner said potential broadband technology and delivery investors would be far better off considering fiber in densely populated areas and adaptations of wireless LAN technology in rural areas.

Additional information on BPL and video clips from field trial sites are on the ARRL "Power Line Communications (PLC) and Amateur Radio" page <<http://www.arrl.org/tis/info/HTML/plc/>>. To support the League's efforts in the BPL fight, visit the ARRL's secure BPL Web site <<https://www.arrl.org/forms/development/donations/bpl/>>.

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**Following item excerpted from ARRL Letter dated October 24, 2003**

### ***PRB-1 in Texas***

A Texas amateur antenna case has affirmed again that the limited federal preemption known as PRB-1 has teeth when it comes to compelling municipalities to reasonably accommodate Amateur Radio communication. It took some time, persistence and considerable aggravation, but in the end the US District Court for the Southern District of Texas-Houston Division ruled in favor of Orin Snook, KB5F, of Missouri City. The court determined in late August that Snook could keep his 114-foot antenna structure.

In a 63-page Findings of Fact and Conclusions of Law that Snook has posted on

his Web site, US District Judge David Hittner said the city "failed to meet the FCC's requirement of reasonably accommodating Snook's amateur communication needs in accordance with PRB-1." Missouri City had attempted to limit Snook's tower to 65 feet, limit the size of his antenna array and required removal of the 100-foot structure for which it already had granted him a building permit. Snook, who is ARRL Fort Bend County Emergency Coordinator and an Official Emergency Station, argued that he needed the higher structure to permit him to operate VHF and UHF effectively in an emergency.

The court declared the city's height restrictions, antenna array restrictions and structure removal requirement "preempted, void and unenforceable." Hittner ordered the city to grant Snook a specific use permit allowing his tower and antennas to remain, although Snook must maintain an existing screening of mature trees surrounding the tower.

Although Texas adopted a PRB-1 statute in 1999, it was Snook who made the city council aware of PRB-1. Even so, the city rejected the recommendation of its planner and building inspector to issue Snook whatever permit was necessary under the relevant federal law.

The court found the city "failed to attempt to negotiate a satisfactory compromise with Snook" and rejected consideration of any height extending above the trees. Snook secured the services of professional engineer Kent Marshall, W5TXV, who testified to Snook's need for a 100-foot structure instead of the compromise 65 footer.

**In defending himself, Snook's legal fees exceeded \$35,000.00!**

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# 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: \$15.00 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***

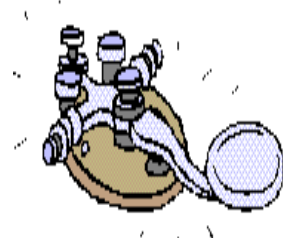
***Make payment at next SEMDXA meeting or mail with remittance to:***

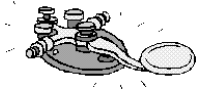
***Leon Switzer, Treasurer***

***427 Jeffrey Avenue***

***Royal Oak, Michigan 48073***

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





# November 2003

## SEMDXA Monthly Planner



| Sunday                         | Monday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tuesday                        | Wednesday                                       | Thursday                          | Friday                          | Saturday                                                                              |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
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| <b>2</b>                       | <b>3</b><br><br>W1AW Qualifying Run                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>4</b><br><br>Election Day   | <b>5</b>                                        | <b>6</b>                          | <b>7</b>                        | <b>8</b><br>European RTTY Test<br><b>Japan SSB DX Test</b><br>OK/OM DX CW Test        |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>9</b><br><br>New Moon       | <b>10</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>11</b><br><br>Armistice Day | <b>12</b><br><br>West Coast Qualifying Run K6YR | <b>13</b>                         | <b>14</b><br><br>SEMDXA Meeting | <b>15</b><br>ARRL EME Test<br><b>RSGB 160M CW Test</b><br><b>Sweepstakes SSB Test</b> |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>16</b>                      | <b>17</b><br><br>W1AW Qualifying Run                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>18</b>                      | <b>19</b>                                       | <b>20</b>                         | <b>21</b>                       | <b>22</b><br>LZ DX CW/SSB Test                                                        |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>23</b><br><br>Full Moon     | <b>24</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>25</b>                      | <b>26</b>                                       | <b>27</b><br><br>Thanksgiving Day | <b>28</b>                       | <b>29</b><br>CQ WW DX CW Test                                                         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>30</b><br>1st Sunday Advent | <table border="1" style="margin: auto;"> <thead> <tr> <th colspan="7">October</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> </thead> <tbody> <tr> <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> </tr> <tr> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> </tr> <tr> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> </tr> <tr> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td>31</td> <td></td> </tr> </tbody> </table> <table border="1" style="margin: auto;"> <thead> <tr> <th colspan="7">December</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> </thead> <tbody> <tr> <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> </tr> <tr> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> </tr> <tr> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> </tr> <tr> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td>31</td> <td></td> </tr> </tbody> </table> |                                |                                                 |                                   |                                 | October                                                                               |  |  |  |  |  |  | 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 | 31 |  | December |  |  |  |  |  |  | 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 | 31 |  |
| October                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |                                                 |                                   |                                 |                                                                                       |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| S                              | M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | T                              | W                                               | T                                 | F                               | S                                                                                     |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
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| 5                              | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7                              | 8                                               | 9                                 | 10                              | 11                                                                                    |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 12                             | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 14                             | 15                                              | 16                                | 17                              | 18                                                                                    |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 19                             | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 21                             | 22                                              | 23                                | 24                              | 25                                                                                    |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 26                             | 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 28                             | 29                                              | 30                                | 31                              |                                                                                       |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| December                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |                                                 |                                   |                                 |                                                                                       |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 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                                | 31                              |                                                                                       |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |