



Long Path



Volume 22 Issue 3

SEMDXA NEWSLETTER

November, 2004



President's Report

Greetings fellow DXers! I will not be at the November meeting, as it happens to fall on November 14th, which is the day before opening day of deer season. I do not want to fight the traffic Friday night so Vice-President **W8LU** will oversee the meeting.

Last month's presentation on **SØ7L** was very fascinating and loaded with information. The one thing that comes to mind is the lack of a decent ground plane because of the soil being all sand. I would like to thank **N8SHZ** for taking the time to drive from Benton Harbor to put on an excellent presentation. He is now a member of **SEMDXA** and I hope he gets an opportunity to drop in when over on our side of the state.

I will not get to see most of you 'till after the holidays, so I will take this opportunity to wish you all the best for the coming holiday season. Please drive safely and I hope to see each and every one of you at the January meeting. Until then 73 and let's pray for the VU gang applying for the VU7 license that it works out. It is my only hope of catching up to the big guns.

K8SIX

October Meeting Minutes

Meeting called to order at 7:45 p.m. by President **K8SIX**. Thirty members and guests present **K8SIX** announced that he had worked **K8NA** on 6M, giving Ted his first ever band QSO as well as his first Grid Square! (**W8LU** must be looking over his shoulder now)

Treasurer **N8CQA**, reports a September 1 balance of \$740.32. We spent \$60.00 and deposited \$120 leaving an September 30 balance of \$832.32, less the service charge. **W8LU**, has heard from **N8GZ** (formerly **W8JBI**) and now living in AZ...he has macular degeneration and recently had an operation on his "good"eye. We wish him the best. **K8KHZ** tells us he is working on a January visit from **W3LP** who operated from **T33C**.

Tonight's program featured **N8SHZ**, and his trip to SØ, Western Sahara. **N8SHZ**, who drove over from Benton Harbor to tell the story of his part in the **SØ7L**, Western Sahara operation. He has been a Ham for twelve years and his passion is DX. He is fluent in Spanish and has visited **XE1L** while in Mexico.

When the invite from **XE1L** came and the XYL said OK, he joined this two person DX-pedition to one of the most desolate parts of the world. They paid their own way and carried all their equipment. He met **XE1L** in Chicago and flew to Madrid. From there to Alicante and then to Tinduf on the Algeria/Western Sahara border. They were helped by an organization called European Amateurs without borders and helped carry a repeater into the country to help with medical communications.

Western Sahara was formerly known as Spanish Sahara and, after Spain declared them independent, war broke out as Algeria and Morocco made bids for land. Consequently W. Sahara has more land mines than any other country. The UN stepped in and made the country a protectorate. The total population of this dry desert country is 40,000.

Their final destination, Rabun, was reached by vehicle across 50 miles of

SEMDXA CLUB OFFICERS

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

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CQ Checker: Mike Rudzki, **N8MR**

CQ Checker: Al Bailey, **K8SIX**

Program Chairman: Vacant

LP Publisher: Gerry Fasse, **W8GF**

desert and is a former Spanish Foreign Legion fort. The ONLY languages spoken are Arabic or Spanish, NO ENGLISH! One of their first tasks was to set up the repeater and an antenna on a 100' water tower. This set-up would be used to talk with medicos from Cuba who provided the country with needed medical help. Conditions were primitive at best, but hospitality was evident and they were treated well. Being a Muslim country, they saw few women around the compound. Lunch was the big meal of the day and it never varies from French fries, camel stew and a salad. Temperature was 129 degrees in the shade and sand got into everything! No rain had fallen in five years, but a water delivery truck made the rounds.

He found that the people grew carrots in spaces between houses where seeds were planted, watered, and then long very slender roots grew. They had a military "minder" to keep watch over them. At a mandatory reception they had planned, we enjoyed the local tea, or as he describes it, "liquid sugar with a tea-taste".

XE1L brought silver charms as gifts for the men and toys for the kids. Antennas were pre-cut dipoles as well as shortened commercial antennas. The "shorty" antennas did not work at all because of the low humidity and zero ground. A home brew steel tower was used to hang the dipoles, but it was so hot they burned their hands they didn't think to bring gloves to the desert-until **N8SHZ** wrapped his hands so he could climb.

Power in Rabun was on only part of the day so they brought a 1.9KW 220V generator to use when "commercial" electricity was not available. Equipment included a TS-50, an FT-100D and a FT-920. After the trip one of **N8SHZ**'s buddies emptied a three-quarter cup of sand from the 920. Operation was on SSB, digi-

tal and even slow scan, but no CW. In **N8SHZ**'s opinion the European pile ups showed the worst operators. As a special treat he showed us how to put on the turban which is an absolute necessity if you ever visit Western Sahara. A short but exciting visit to one of the remotest places on earth. Thanks **N8SHZ** for a great story!

Meeting adjourned at 9:05 p.m. to general fellowship.

AC8W, Secretary

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**Welcome New Member!**

**N8SHZ** has been added to the **SEMDXA** membership roster. Bela resides in Benton Harbor and is an avid Dxer. His recent exploits in the Western Sahara are noted in this month's minutes. Living in Benton Harbor will make it difficult for Bela to attend our meetings but he will keep in touch via the *Long Path*. He is number 228 on the perpetual roster. His e-Mail: [N8SHZ@comcast.net](mailto:N8SHZ@comcast.net)

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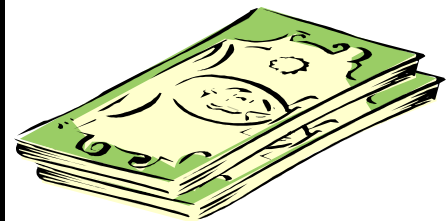
VU4/VU7 Interests!

Over the past few weeks, it was learned that the two operators who requested everyone to write to the Indian Telecommunication Ministry to authorize an operation to Andaman and Lakshadweep Islands are two separate efforts and that there is not competition between the two. However, there has been some letters written to **VU2WAP** sup-

porting Mrs. Bharathi, **VU2RBI**. These letters should be kept separate so as not to confuse the application with the minister of communications. Both are receiving plenty of support. For more details, please refer to OPDX #680.

In this connection, **SEMDXA** membership could help the cause by writing as outlined in OPDX #680. Your letter need not be lengthy nor elegant but merely spell out the need for an early DX-pedition to these exotic locations. Those members that still need these entities should have all of the motivation needed!

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**Treasurer's Report**

Following is our Treasury status as of 09/01/2004:

09/01/04 Bal. \$740.32  
 Expenses \$60.00  
 Deposits \$120.00

09/30/04 Bal. \$800.32

**N8CQA**, **SEMDXA** Treasurer

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Dues - Dues - Dues

If you have not already done so, get you dues settled with **N8CQA**. To continue receiving the *Long Path*, your dues must be paid up!

Arizona BPL

The ARRL again has asked the FCC to immediately shut down a broadband overpower line (BPL) field trial in the Cottonwood, Arizona, area that it says is interfering with Amateur Radio communication. The League's second shut-down request, sent October 11, accuses the FCC of doing "absolutely nothing" to enforce its rules or to protect licensed services from interference. In an accompanying 12-page technical analysis, the ARRL also cast serious doubt on the accuracy--and possibly the integrity--of the BPL system's FCC-required six-month report, filed more than two months late. Its review of the report from system operator Electric Broadband LLC (EB), the League said, indicated inconsistent test results demonstrating that ambient noise conditions at the test sites "were clearly misstated."

"To be blunt, as can be easily determined from the EB report itself," ARRL General Counsel Chris Imlay, W3KD, wrote in a cover letter to the ARRL's technical analysis, "one of two things occurred: either (1) EB altered the data to suit its false conclusion that the system is operating in accordance with FCC rules; or (2) its technical consultants were not qualified to conduct the tests and glaringly misinterpreted, among other things, the source of noise generated internally in their own test equipment."

Imlay called the EB test results "completely compromised" and said they can't be used to determine whether or not the system is operating legally. "ARRL has previously established that the system is operating substantially in violation of Part 15 rules," he said, "and is causing actual interference" on ham bands.

The ARRL said that EB's report further indicates that in the low-VHF Public Safety allocation at 30-50 MHz, "the BPL system is operating at radiated

emission levels significantly in excess" of Part 15 limits.

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## More BPL!

The ARRL this week asked the FCC to shut down a BPL field trial system in Briarcliff Manor, New York, that has been the subject of past interference complaints. The ARRL says the system, operated by Ambient Corporation under an FCC Experimental license, continues to cause harmful interference" to amateur stations and that the FCC must require it to cease operation immediately.

"The operator of the system has attempted what it referred to as 'adjustments' in this system in order to reduce the severe interference potential to licensed radio services such as the Amateur Service," said ARRL General Counsel Chris Imlay, W3KD. "These 'adjustments' have come to be inaccurately referred to as 'notching' of certain bands, and as a solution to interference to Amateur Service stations, they are incomplete and inadequate."

The ARRL's October 8 letter of complaint asserts that the Briarcliff Manor system not only is currently causing interference but fails to comply with either applicable FCC Part 15 regulations or with the terms of its FCC experimental authorization.

ARRL said the BPL facility at Briarcliff Manor should not be permitted to resume operation until it can demonstrate "full compliance" with FCC rules. The League also called on the FCC to impose "appropriate monetary forfeitures" against Ambient.

Accompanying the League's complaint were technical exhibits substantiating the degree of interference the League alleges. One exhibit shows the results of

frequency-shifting adjustments Ambient made to the system in the wake of "multiple interference complaints from licensed radio amateurs." The complaint maintains that the adjustments failed to reduce interference on "a substantial portion" of the HF amateur allocations. The ARRL study says Ambient has been trying for more than a year to mitigate interference by using "notching" techniques, "but to no avail."

The ARRL said measurements taken at 14.3 MHz at one point in the system "revealed 30 to 40 dB of degradation to Amateur Radio operations along a stretch of road over a kilometer in length." A sweep at another location showed that BPL signals occupying the entire 15-meter band remained strong more than a quarter mile from the BPL injector.

"The levels of interfering BPL signals are sufficient to obscure virtually all Amateur Radio received signals and preclude Amateur Radio communications in the areas and on the bands identified in the report," the ARRL concluded.

ARRL member Alan Crosswell, N2YGK, a resident of the community, has documented interference, complaints and related information on his "BPL in Briarcliff Manor" Web site <<http://www.columbia.edu/~alan/bpl/>>.

The Briarcliff Manor BPL system, which is operated by the electric utility Consolidated Edison, was the focus of a March 2004 front-page Wall Street Journal article, "In This Power Play, High-Wire Act Riles Ham-Radio Fans," by technology writer Ken Brown. ARRL staff members accompanied Brown to the BPL site so he could hear the interference firsthand.

# 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: \_\_\_\_\_

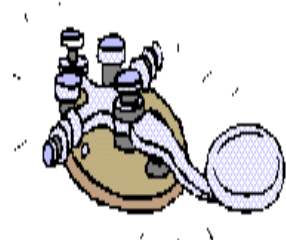
E-mail address: \_\_\_\_\_

***MAKE CHECK PAYABLE TO SEMDXA***

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



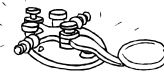
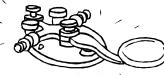






***Leon Switzer, Treasurer  
427 Jeffrey Avenue  
Royal Oak, Michigan 48073***

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



# November 2004

## SEMDXA Monthly Planner

| Sunday                                                                                                         | Monday                                                                                                       | Tuesday                                                                                                       | Wednesday                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday                                                                                                              | Friday                                                                                                                    | Saturday                                                                                         |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
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|                                                                                                                | <b>1</b><br> All Saints Day | <b>2</b><br><br>Election Day | <b>3</b><br><br>W1AW Qualifying Run                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>4</b>                                                                                                              | <b>5</b>                                                                                                                  | <b>6</b><br>ARRL CW SS Test<br>NA Collegiate CW ARC<br>RC America QSO Party<br>Ukrainian DX Test |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>7</b><br>High Speed CW Test                                                                                 | <b>8</b>                                                                                                     | <b>9</b>                                                                                                      | <b>10</b><br><br>West Coast Qualifying Run                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>11</b><br> Veteran's Day          | <b>12</b><br> New Moon                 | <b>13</b><br>Japan DX SSB Test<br>OK/OM CW DX Test<br>WAEDC RTTY DX Test                         |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>14</b>                                                                                                      | <b>15</b>                                                                                                    | <b>16</b>                                                                                                     | <b>17</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>18</b>                                                                                                             | <b>19</b><br><br>W1AW Qualifying Run | <b>20</b><br>ARRL SSB SS Test<br>LZ DX Test<br>NA Collegiate SSB Test<br>RSGB 160M CW Test       |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>21</b>                                                                                                      | <b>22</b>                                                                                                    | <b>23</b>                                                                                                     | <b>24</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>25</b><br><br>Thanksgiving Day | <b>26</b><br> Full Moon              | <b>27</b><br>CQ WW DX SSB Test                                                                   |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| <b>28</b><br> Advent Sunday | <b>29</b>                                                                                                    | <b>30</b>                                                                                                     | <table border="1" style="margin: auto; border-collapse: collapse;"> <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> <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> <tr> <td>31</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> <table border="1" style="margin: auto; border-collapse: collapse;"> <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> <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> </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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| 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                                                                                                                        |                                                                                                  |         |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |          |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |