

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Tue 1 Jan   | 4:53 am            | 5:19 am      | 7:02 pm     | 7:28 pm          | rises 0:03 am  | sets 1:08 pm   |                     |
| Wed 2 Jan   | 4:54 am            | 5:20 am      | 7:02 pm     | 7:28 pm          | rises 0:33 am  | sets 2:01 pm   |                     |
| Thu 3 Jan   | 4:54 am            | 5:20 am      | 7:03 pm     | 7:28 pm          | rises 1:07 am  | sets 2:55 pm   |                     |
| Fri 4 Jan   | 4:55 am            | 5:21 am      | 7:03 pm     | 7:29 pm          | rises 1:44 am  | sets 3:50 pm   |                     |
| Sat 5 Jan   | 4:56 am            | 5:22 am      | 7:03 pm     | 7:29 pm          | rises 2:25 am  | sets 4:46 pm   |                     |
| Sun 6 Jan   | 4:57 am            | 5:22 am      | 7:03 pm     | 7:29 pm          | rises 3:13 am  | sets 5:40 pm   |                     |
| Mon 7 Jan   | 4:57 am            | 5:23 am      | 7:03 pm     | 7:29 pm          | rises 4:06 am  | sets 6:32 pm   |                     |
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| Wed 9 Jan   | 4:59 am            | 5:24 am      | 7:03 pm     | 7:29 pm          | rises 6:02 am  | sets 8:02 pm   |                     |
| Thu 10 Jan  | 5:00 am            | 5:25 am      | 7:04 pm     | 7:29 pm          | rises 7:02 am  | sets 8:40 pm   |                     |
| Fri 11 Jan  | 5:00 am            | 5:26 am      | 7:04 pm     | 7:29 pm          | rises 8:01 am  | sets 9:15 pm   |                     |
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| Sun 8 Jun   | 6:24 am            | 6:49 am      | 5:23 pm     | 5:49 pm          | rises 11:00 am | sets 10:28 pm  |                     |
| Mon 9 Jun   | 6:24 am            | 6:50 am      | 5:23 pm     | 5:49 pm          | rises 11:35 am | sets 11:27 pm  |                     |
| Tue 10 Jun  | 6:25 am            | 6:50 am      | 5:23 pm     | 5:49 pm          | rises 12:07 pm | ---            | 1 <sup>st</sup> qtr |
| Wed 11 Jun  | 6:25 am            | 6:50 am      | 5:23 pm     | 5:49 pm          | sets 0:22 am   | rises 12:37 pm |                     |
| Thu 12 Jun  | 6:25 am            | 6:51 am      | 5:24 pm     | 5:49 pm          | sets 1:15 am   | rises 1:07 pm  |                     |
| Fri 13 Jun  | 6:26 am            | 6:51 am      | 5:24 pm     | 5:49 pm          | sets 2:08 am   | rises 1:38 pm  |                     |
| Sat 14 Jun  | 6:26 am            | 6:51 am      | 5:24 pm     | 5:49 pm          | sets 3:02 am   | rises 2:12 pm  |                     |
| Sun 15 Jun  | 6:26 am            | 6:52 am      | 5:24 pm     | 5:49 pm          | sets 3:56 am   | rises 2:48 pm  |                     |
| Mon 16 Jun  | 6:27 am            | 6:52 am      | 5:24 pm     | 5:49 pm          | sets 4:51 am   | rises 3:29 pm  |                     |
| Tue 17 Jun  | 6:27 am            | 6:52 am      | 5:24 pm     | 5:49 pm          | sets 5:46 am   | rises 4:15 pm  |                     |
| Wed 18 Jun  | 6:27 am            | 6:52 am      | 5:24 pm     | 5:50 pm          | sets 6:39 am   | rises 5:06 pm  | full                |
| Thu 19 Jun  | 6:27 am            | 6:53 am      | 5:25 pm     | 5:50 pm          | sets 7:29 am   | rises 6:00 pm  |                     |
| Fri 20 Jun  | 6:28 am            | 6:53 am      | 5:25 pm     | 5:50 pm          | sets 8:16 am   | rises 6:56 pm  |                     |
| Sat 21 Jun  | 6:28 am            | 6:53 am      | 5:25 pm     | 5:50 pm          | sets 8:58 am   | rises 7:53 pm  |                     |
| Sun 22 Jun  | 6:28 am            | 6:53 am      | 5:25 pm     | 5:50 pm          | sets 9:35 am   | rises 8:49 pm  |                     |
| Mon 23 Jun  | 6:28 am            | 6:54 am      | 5:25 pm     | 5:51 pm          | sets 10:10 am  | rises 9:45 pm  |                     |
| Tue 24 Jun  | 6:29 am            | 6:54 am      | 5:26 pm     | 5:51 pm          | sets 10:42 am  | rises 10:41 pm |                     |
| Wed 25 Jun  | 6:29 am            | 6:54 am      | 5:26 pm     | 5:51 pm          | sets 11:14 am  | rises 11:38 pm |                     |
| Thu 26 Jun  | 6:29 am            | 6:54 am      | 5:26 pm     | 5:51 pm          | sets 11:46 am  | ---            | last qtr            |
| Fri 27 Jun  | 6:29 am            | 6:54 am      | 5:27 pm     | 5:52 pm          | rises 0:37 am  | sets 12:21 pm  |                     |
| Sat 28 Jun  | 6:29 am            | 6:54 am      | 5:27 pm     | 5:52 pm          | rises 1:39 am  | sets 12:59 pm  |                     |
| Sun 29 Jun  | 6:29 am            | 6:54 am      | 5:27 pm     | 5:52 pm          | rises 2:45 am  | sets 1:44 pm   |                     |
| Mon 30 Jun  | 6:29 am            | 6:54 am      | 5:28 pm     | 5:53 pm          | rises 3:54 am  | sets 2:36 pm   |                     |

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Tue 1 Jul   | 6:29 am            | 6:54 am      | 5:28 pm     | 5:53 pm          | rises 5:05 am  | sets 3:37 pm   |                     |
| Wed 2 Jul   | 6:29 am            | 6:54 am      | 5:28 pm     | 5:53 pm          | rises 6:13 am  | sets 4:45 pm   |                     |
| Thu 3 Jul   | 6:29 am            | 6:54 am      | 5:29 pm     | 5:54 pm          | rises 7:15 am  | sets 5:56 pm   | new                 |
| Fri 4 Jul   | 6:29 am            | 6:54 am      | 5:29 pm     | 5:54 pm          | rises 8:08 am  | sets 7:06 pm   |                     |
| Sat 5 Jul   | 6:29 am            | 6:54 am      | 5:29 pm     | 5:54 pm          | rises 8:53 am  | sets 8:12 pm   |                     |
| Sun 6 Jul   | 6:29 am            | 6:54 am      | 5:30 pm     | 5:55 pm          | rises 9:31 am  | sets 9:13 pm   |                     |
| Mon 7 Jul   | 6:29 am            | 6:54 am      | 5:30 pm     | 5:55 pm          | rises 10:05 am | sets 10:11 pm  |                     |
| Tue 8 Jul   | 6:29 am            | 6:54 am      | 5:31 pm     | 5:56 pm          | rises 10:37 am | sets 11:07 pm  |                     |
| Wed 9 Jul   | 6:29 am            | 6:54 am      | 5:31 pm     | 5:56 pm          | rises 11:08 am | ---            |                     |
| Thu 10 Jul  | 6:29 am            | 6:54 am      | 5:31 pm     | 5:56 pm          | sets 0:01 am   | rises 11:39 am | 1 <sup>st</sup> qtr |
| Fri 11 Jul  | 6:29 am            | 6:54 am      | 5:32 pm     | 5:57 pm          | sets 0:55 am   | rises 12:12 pm |                     |
| Sat 12 Jul  | 6:29 am            | 6:54 am      | 5:32 pm     | 5:57 pm          | sets 1:50 am   | rises 12:47 pm |                     |
| Sun 13 Jul  | 6:28 am            | 6:53 am      | 5:33 pm     | 5:58 pm          | sets 2:45 am   | rises 1:27 pm  |                     |
| Mon 14 Jul  | 6:28 am            | 6:53 am      | 5:33 pm     | 5:58 pm          | sets 3:40 am   | rises 2:11 pm  |                     |
| Tue 15 Jul  | 6:28 am            | 6:53 am      | 5:34 pm     | 5:59 pm          | sets 4:34 am   | rises 3:00 pm  |                     |
| Wed 16 Jul  | 6:28 am            | 6:53 am      | 5:34 pm     | 5:59 pm          | sets 5:25 am   | rises 3:53 pm  |                     |
| Thu 17 Jul  | 6:28 am            | 6:52 am      | 5:35 pm     | 5:59 pm          | sets 6:13 am   | rises 4:49 pm  |                     |
| Fri 18 Jul  | 6:27 am            | 6:52 am      | 5:35 pm     | 6:00 pm          | sets 6:57 am   | rises 5:47 pm  | full                |
| Sat 19 Jul  | 6:27 am            | 6:52 am      | 5:36 pm     | 6:00 pm          | sets 7:36 am   | rises 6:44 pm  |                     |
| Sun 20 Jul  | 6:27 am            | 6:51 am      | 5:36 pm     | 6:01 pm          | sets 8:12 am   | rises 7:41 pm  |                     |
| Mon 21 Jul  | 6:26 am            | 6:51 am      | 5:37 pm     | 6:01 pm          | sets 8:45 am   | rises 8:37 pm  |                     |
| Tue 22 Jul  | 6:26 am            | 6:51 am      | 5:37 pm     | 6:02 pm          | sets 9:17 am   | rises 9:33 pm  |                     |
| Wed 23 Jul  | 6:26 am            | 6:50 am      | 5:37 pm     | 6:02 pm          | sets 9:48 am   | rises 10:31 pm |                     |
| Thu 24 Jul  | 6:25 am            | 6:50 am      | 5:38 pm     | 6:02 pm          | sets 10:22 am  | rises 11:31 pm |                     |
| Fri 25 Jul  | 6:25 am            | 6:49 am      | 5:38 pm     | 6:03 pm          | sets 10:58 am  | ---            | last qtr            |
| Sat 26 Jul  | 6:24 am            | 6:49 am      | 5:39 pm     | 6:03 pm          | rises 0:34 am  | sets 11:39 am  |                     |
| Sun 27 Jul  | 6:24 am            | 6:48 am      | 5:39 pm     | 6:04 pm          | rises 1:40 am  | sets 12:26 pm  |                     |
| Mon 28 Jul  | 6:23 am            | 6:48 am      | 5:40 pm     | 6:04 pm          | rises 2:48 am  | sets 1:22 pm   |                     |
| Tue 29 Jul  | 6:23 am            | 6:47 am      | 5:40 pm     | 6:05 pm          | rises 3:56 am  | sets 2:25 pm   |                     |
| Wed 30 Jul  | 6:22 am            | 6:47 am      | 5:41 pm     | 6:05 pm          | rises 4:59 am  | sets 3:33 pm   |                     |
| Thu 31 Jul  | 6:22 am            | 6:46 am      | 5:41 pm     | 6:05 pm          | rises 5:55 am  | sets 4:43 pm   |                     |

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Fri 1 Aug   | 6:21 am            | 6:46 am      | 5:42 pm     | 6:06 pm          | rises 6:43 am  | sets 5:51 pm   | new                 |
| Sat 2 Aug   | 6:21 am            | 6:45 am      | 5:42 pm     | 6:06 pm          | rises 7:24 am  | sets 6:56 pm   |                     |
| Sun 3 Aug   | 6:20 am            | 6:44 am      | 5:43 pm     | 6:07 pm          | rises 8:01 am  | sets 7:56 pm   |                     |
| Mon 4 Aug   | 6:20 am            | 6:44 am      | 5:43 pm     | 6:07 pm          | rises 8:34 am  | sets 8:54 pm   |                     |
| Tue 5 Aug   | 6:19 am            | 6:43 am      | 5:44 pm     | 6:08 pm          | rises 9:06 am  | sets 9:50 pm   |                     |
| Wed 6 Aug   | 6:18 am            | 6:42 am      | 5:44 pm     | 6:08 pm          | rises 9:37 am  | sets 10:45 pm  |                     |
| Thu 7 Aug   | 6:18 am            | 6:42 am      | 5:45 pm     | 6:09 pm          | rises 10:10 am | sets 11:40 pm  |                     |
| Fri 8 Aug   | 6:17 am            | 6:41 am      | 5:45 pm     | 6:09 pm          | rises 10:45 am | ---            | 1 <sup>st</sup> qtr |
| Sat 9 Aug   | 6:16 am            | 6:40 am      | 5:46 pm     | 6:09 pm          | sets 0:36 am   | rises 11:23 am |                     |
| Sun 10 Aug  | 6:16 am            | 6:39 am      | 5:46 pm     | 6:10 pm          | sets 1:31 am   | rises 12:06 pm |                     |
| Mon 11 Aug  | 6:15 am            | 6:39 am      | 5:46 pm     | 6:10 pm          | sets 2:26 am   | rises 12:53 pm |                     |
| Tue 12 Aug  | 6:14 am            | 6:38 am      | 5:47 pm     | 6:11 pm          | sets 3:18 am   | rises 1:45 pm  |                     |
| Wed 13 Aug  | 6:13 am            | 6:37 am      | 5:47 pm     | 6:11 pm          | sets 4:08 am   | rises 2:40 pm  |                     |
| Thu 14 Aug  | 6:12 am            | 6:36 am      | 5:48 pm     | 6:11 pm          | sets 4:53 am   | rises 3:37 pm  |                     |
| Fri 15 Aug  | 6:12 am            | 6:35 am      | 5:48 pm     | 6:12 pm          | sets 5:34 am   | rises 4:35 pm  |                     |
| Sat 16 Aug  | 6:11 am            | 6:34 am      | 5:49 pm     | 6:12 pm          | sets 6:11 am   | rises 5:33 pm  | full                |
| Sun 17 Aug  | 6:10 am            | 6:34 am      | 5:49 pm     | 6:13 pm          | sets 6:46 am   | rises 6:30 pm  |                     |
| Mon 18 Aug  | 6:09 am            | 6:33 am      | 5:49 pm     | 6:13 pm          | sets 7:18 am   | rises 7:27 pm  |                     |
| Tue 19 Aug  | 6:08 am            | 6:32 am      | 5:50 pm     | 6:13 pm          | sets 7:51 am   | rises 8:25 pm  |                     |
| Wed 20 Aug  | 6:07 am            | 6:31 am      | 5:50 pm     | 6:14 pm          | sets 8:24 am   | rises 9:25 pm  |                     |
| Thu 21 Aug  | 6:07 am            | 6:30 am      | 5:51 pm     | 6:14 pm          | sets 8:59 am   | rises 10:27 pm |                     |
| Fri 22 Aug  | 6:06 am            | 6:29 am      | 5:51 pm     | 6:15 pm          | sets 9:38 am   | rises 11:32 pm |                     |
| Sat 23 Aug  | 6:05 am            | 6:28 am      | 5:52 pm     | 6:15 pm          | sets 10:23 am  | ---            |                     |
| Sun 24 Aug  | 6:04 am            | 6:27 am      | 5:52 pm     | 6:15 pm          | rises 0:39 am  | sets 11:15 am  | last qtr            |
| Mon 25 Aug  | 6:03 am            | 6:26 am      | 5:52 pm     | 6:16 pm          | rises 1:45 am  | sets 12:14 pm  |                     |
| Tue 26 Aug  | 6:02 am            | 6:25 am      | 5:53 pm     | 6:16 pm          | rises 2:49 am  | sets 1:19 pm   |                     |
| Wed 27 Aug  | 6:01 am            | 6:24 am      | 5:53 pm     | 6:16 pm          | rises 3:46 am  | sets 2:27 pm   |                     |
| Thu 28 Aug  | 6:00 am            | 6:23 am      | 5:54 pm     | 6:17 pm          | rises 4:35 am  | sets 3:34 pm   |                     |
| Fri 29 Aug  | 5:59 am            | 6:22 am      | 5:54 pm     | 6:17 pm          | rises 5:19 am  | sets 4:39 pm   |                     |
| Sat 30 Aug  | 5:58 am            | 6:21 am      | 5:54 pm     | 6:18 pm          | rises 5:56 am  | sets 5:40 pm   | new                 |
| Sun 31 Aug  | 5:57 am            | 6:20 am      | 5:55 pm     | 6:18 pm          | rises 6:31 am  | sets 6:39 pm   |                     |

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Mon 1 Sep   | 5:56 am            | 6:19 am      | 5:55 pm     | 6:18 pm          | rises 7:03 am  | sets 7:37 pm   |                     |
| Tue 2 Sep   | 5:55 am            | 6:18 am      | 5:56 pm     | 6:19 pm          | rises 7:35 am  | sets 8:33 pm   |                     |
| Wed 3 Sep   | 5:54 am            | 6:17 am      | 5:56 pm     | 6:19 pm          | rises 8:08 am  | sets 9:29 pm   |                     |
| Thu 4 Sep   | 5:53 am            | 6:16 am      | 5:56 pm     | 6:19 pm          | rises 8:42 am  | sets 10:25 pm  |                     |
| Fri 5 Sep   | 5:52 am            | 6:15 am      | 5:57 pm     | 6:20 pm          | rises 9:19 am  | sets 11:21 pm  |                     |
| Sat 6 Sep   | 5:51 am            | 6:14 am      | 5:57 pm     | 6:20 pm          | rises 10:00 am | ---            |                     |
| Sun 7 Sep   | 5:50 am            | 6:13 am      | 5:58 pm     | 6:21 pm          | sets 0:16 am   | rises 10:46 am | 1 <sup>st</sup> qtr |
| Mon 8 Sep   | 5:49 am            | 6:12 am      | 5:58 pm     | 6:21 pm          | sets 1:09 am   | rises 11:36 am |                     |
| Tue 9 Sep   | 5:48 am            | 6:11 am      | 5:58 pm     | 6:21 pm          | sets 2:00 am   | rises 12:29 pm |                     |
| Wed 10 Sep  | 5:47 am            | 6:10 am      | 5:59 pm     | 6:22 pm          | sets 2:47 am   | rises 1:25 pm  |                     |
| Thu 11 Sep  | 5:46 am            | 6:09 am      | 5:59 pm     | 6:22 pm          | sets 3:29 am   | rises 2:22 pm  |                     |
| Fri 12 Sep  | 5:45 am            | 6:08 am      | 6:00 pm     | 6:22 pm          | sets 4:08 am   | rises 3:20 pm  |                     |
| Sat 13 Sep  | 5:44 am            | 6:06 am      | 6:00 pm     | 6:23 pm          | sets 4:43 am   | rises 4:18 pm  |                     |
| Sun 14 Sep  | 5:42 am            | 6:05 am      | 6:00 pm     | 6:23 pm          | sets 5:17 am   | rises 5:16 pm  |                     |
| Mon 15 Sep  | 5:41 am            | 6:04 am      | 6:01 pm     | 6:24 pm          | sets 5:50 am   | rises 6:15 pm  | full                |
| Tue 16 Sep  | 5:40 am            | 6:03 am      | 6:01 pm     | 6:24 pm          | sets 6:23 am   | rises 7:15 pm  |                     |
| Wed 17 Sep  | 5:39 am            | 6:02 am      | 6:01 pm     | 6:24 pm          | sets 6:59 am   | rises 8:18 pm  |                     |
| Thu 18 Sep  | 5:38 am            | 6:01 am      | 6:02 pm     | 6:25 pm          | sets 7:37 am   | rises 9:23 pm  |                     |
| Fri 19 Sep  | 5:37 am            | 6:00 am      | 6:02 pm     | 6:25 pm          | sets 8:21 am   | rises 10:31 pm |                     |
| Sat 20 Sep  | 5:36 am            | 5:59 am      | 6:03 pm     | 6:26 pm          | sets 9:12 am   | rises 11:38 pm |                     |
| Sun 21 Sep  | 5:35 am            | 5:58 am      | 6:03 pm     | 6:26 pm          | sets 10:09 am  | ---            |                     |
| Mon 22 Sep  | 5:34 am            | 5:57 am      | 6:03 pm     | 6:26 pm          | rises 0:42 am  | sets 11:12 am  | last qtr            |
| Tue 23 Sep  | 5:33 am            | 5:55 am      | 6:04 pm     | 6:27 pm          | rises 1:41 am  | sets 12:18 pm  |                     |
| Wed 24 Sep  | 5:31 am            | 5:54 am      | 6:04 pm     | 6:27 pm          | rises 2:32 am  | sets 1:24 pm   |                     |
| Thu 25 Sep  | 5:30 am            | 5:53 am      | 6:05 pm     | 6:28 pm          | rises 3:16 am  | sets 2:28 pm   |                     |
| Fri 26 Sep  | 5:29 am            | 5:52 am      | 6:05 pm     | 6:28 pm          | rises 3:55 am  | sets 3:29 pm   |                     |
| Sat 27 Sep  | 5:28 am            | 5:51 am      | 6:05 pm     | 6:28 pm          | rises 4:30 am  | sets 4:28 pm   |                     |
| Sun 28 Sep  | 5:27 am            | 5:50 am      | 6:06 pm     | 6:29 pm          | rises 5:02 am  | sets 5:25 pm   |                     |
| Mon 29 Sep  | 5:26 am            | 5:49 am      | 6:06 pm     | 6:29 pm          | rises 5:34 am  | sets 6:21 pm   | new                 |
| Tue 30 Sep  | 5:25 am            | 5:48 am      | 6:07 pm     | 6:30 pm          | rises 6:06 am  | sets 7:17 pm   |                     |

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Wed 1 Oct   | 5:24 am            | 5:47 am      | 6:07 pm     | 6:30 pm          | rises 6:40 am  | sets 8:13 pm   |                     |
| Thu 2 Oct   | 5:23 am            | 5:46 am      | 6:08 pm     | 6:31 pm          | rises 7:16 am  | sets 9:09 pm   |                     |
| Fri 3 Oct   | 5:22 am            | 5:45 am      | 6:08 pm     | 6:31 pm          | rises 7:56 am  | sets 10:05 pm  |                     |
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| Mon 6 Oct   | 5:18 am            | 5:41 am      | 6:09 pm     | 6:33 pm          | rises 10:19 am | ---            |                     |
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| Wed 15 Oct  | 5:09 am            | 5:32 am      | 6:14 pm     | 6:37 pm          | sets 5:32 am   | rises 7:07 pm  |                     |
| Thu 16 Oct  | 5:08 am            | 5:31 am      | 6:14 pm     | 6:38 pm          | sets 6:15 am   | rises 8:16 pm  |                     |
| Fri 17 Oct  | 5:07 am            | 5:31 am      | 6:15 pm     | 6:38 pm          | sets 7:05 am   | rises 9:26 pm  |                     |
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| Sun 19 Oct  | 5:05 am            | 5:29 am      | 6:16 pm     | 6:39 pm          | sets 9:04 am   | rises 11:35 pm |                     |
| Mon 20 Oct  | 5:04 am            | 5:28 am      | 6:16 pm     | 6:40 pm          | sets 10:11 am  | ---            |                     |
| Tue 21 Oct  | 5:03 am            | 5:27 am      | 6:17 pm     | 6:41 pm          | rises 0:29 am  | sets 11:17 am  | last qtr            |
| Wed 22 Oct  | 5:02 am            | 5:26 am      | 6:18 pm     | 6:41 pm          | rises 1:15 am  | sets 12:22 pm  |                     |
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| Fri 24 Oct  | 5:01 am            | 5:24 am      | 6:19 pm     | 6:43 pm          | rises 2:31 am  | sets 2:22 pm   |                     |
| Sat 25 Oct  | 5:00 am            | 5:24 am      | 6:19 pm     | 6:43 pm          | rises 3:04 am  | sets 3:18 pm   |                     |
| Sun 26 Oct  | 4:59 am            | 5:23 am      | 6:20 pm     | 6:44 pm          | rises 3:35 am  | sets 4:13 pm   |                     |
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| Tue 28 Oct  | 4:57 am            | 5:21 am      | 6:21 pm     | 6:45 pm          | rises 4:39 am  | sets 6:04 pm   |                     |
| Wed 29 Oct  | 4:56 am            | 5:20 am      | 6:22 pm     | 6:46 pm          | rises 5:14 am  | sets 7:00 pm   | new                 |
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| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Sat 1 Nov   | 4:54 am            | 5:18 am      | 6:24 pm     | 6:48 pm          | rises 7:22 am  | sets 9:44 pm   |                     |
| Sun 2 Nov   | 4:53 am            | 5:18 am      | 6:24 pm     | 6:49 pm          | rises 8:12 am  | sets 10:33 pm  |                     |
| Mon 3 Nov   | 4:53 am            | 5:17 am      | 6:25 pm     | 6:49 pm          | rises 9:05 am  | sets 11:18 pm  |                     |
| Tue 4 Nov   | 4:52 am            | 5:16 am      | 6:26 pm     | 6:50 pm          | rises 10:00 am | sets 11:58 pm  |                     |
| Wed 5 Nov   | 4:51 am            | 5:16 am      | 6:26 pm     | 6:51 pm          | rises 10:56 am | ---            |                     |
| Thu 6 Nov   | 4:51 am            | 5:15 am      | 6:27 pm     | 6:51 pm          | sets 0:35 am   | rises 11:51 am | 1 <sup>st</sup> qtr |
| Fri 7 Nov   | 4:50 am            | 5:14 am      | 6:28 pm     | 6:52 pm          | sets 1:09 am   | rises 12:46 pm |                     |
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| Wed 12 Nov  | 4:47 am            | 5:12 am      | 6:31 pm     | 6:56 pm          | sets 4:04 am   | rises 5:53 pm  |                     |
| Thu 13 Nov  | 4:47 am            | 5:11 am      | 6:32 pm     | 6:57 pm          | sets 4:51 am   | rises 7:04 pm  | full                |
| Fri 14 Nov  | 4:46 am            | 5:11 am      | 6:33 pm     | 6:57 pm          | sets 5:46 am   | rises 8:15 pm  |                     |
| Sat 15 Nov  | 4:46 am            | 5:11 am      | 6:33 pm     | 6:58 pm          | sets 6:48 am   | rises 9:22 pm  |                     |
| Sun 16 Nov  | 4:45 am            | 5:10 am      | 6:34 pm     | 6:59 pm          | sets 7:56 am   | rises 10:21 pm |                     |
| Mon 17 Nov  | 4:45 am            | 5:10 am      | 6:35 pm     | 7:00 pm          | sets 9:06 am   | rises 11:12 pm |                     |
| Tue 18 Nov  | 4:45 am            | 5:10 am      | 6:36 pm     | 7:01 pm          | sets 10:13 am  | rises 11:55 pm |                     |
| Wed 19 Nov  | 4:44 am            | 5:09 am      | 6:36 pm     | 7:01 pm          | sets 11:17 am  | ---            | last qtr            |
| Thu 20 Nov  | 4:44 am            | 5:09 am      | 6:37 pm     | 7:02 pm          | rises 0:32 am  | sets 12:17 pm  |                     |
| Fri 21 Nov  | 4:44 am            | 5:09 am      | 6:38 pm     | 7:03 pm          | rises 1:06 am  | sets 1:14 pm   |                     |
| Sat 22 Nov  | 4:43 am            | 5:08 am      | 6:39 pm     | 7:04 pm          | rises 1:37 am  | sets 2:09 pm   |                     |
| Sun 23 Nov  | 4:43 am            | 5:08 am      | 6:39 pm     | 7:05 pm          | rises 2:09 am  | sets 3:03 pm   |                     |
| Mon 24 Nov  | 4:43 am            | 5:08 am      | 6:40 pm     | 7:05 pm          | rises 2:40 am  | sets 3:58 pm   |                     |
| Tue 25 Nov  | 4:43 am            | 5:08 am      | 6:41 pm     | 7:06 pm          | rises 3:14 am  | sets 4:54 pm   |                     |
| Wed 26 Nov  | 4:42 am            | 5:08 am      | 6:42 pm     | 7:07 pm          | rises 3:51 am  | sets 5:49 pm   |                     |
| Thu 27 Nov  | 4:42 am            | 5:08 am      | 6:42 pm     | 7:08 pm          | rises 4:32 am  | sets 6:45 pm   | new                 |
| Fri 28 Nov  | 4:42 am            | 5:08 am      | 6:43 pm     | 7:09 pm          | rises 5:17 am  | sets 7:38 pm   |                     |
| Sat 29 Nov  | 4:42 am            | 5:08 am      | 6:44 pm     | 7:09 pm          | rises 6:07 am  | sets 8:28 pm   |                     |
| Sun 30 Nov  | 4:42 am            | 5:08 am      | 6:45 pm     | 7:10 pm          | rises 6:59 am  | sets 9:15 pm   |                     |

| PTA<br>2008 | TWILIGHT<br>STARTS | SUN<br>RISES | SUN<br>SETS | TWILIGHT<br>ENDS | MOON           |                |                     |
|-------------|--------------------|--------------|-------------|------------------|----------------|----------------|---------------------|
|             |                    |              |             |                  | rises          | sets           |                     |
| Mon 1 Dec   | 4:42 am            | 5:08 am      | 6:45 pm     | 7:11 pm          | rises 7:54 am  | sets 9:56 pm   |                     |
| Tue 2 Dec   | 4:42 am            | 5:08 am      | 6:46 pm     | 7:12 pm          | rises 8:49 am  | sets 10:34 pm  |                     |
| Wed 3 Dec   | 4:42 am            | 5:08 am      | 6:47 pm     | 7:12 pm          | rises 9:43 am  | sets 11:08 pm  |                     |
| Thu 4 Dec   | 4:42 am            | 5:08 am      | 6:47 pm     | 7:13 pm          | rises 10:37 am | sets 11:41 pm  |                     |
| Fri 5 Dec   | 4:42 am            | 5:08 am      | 6:48 pm     | 7:14 pm          | rises 11:32 am | ---            | 1 <sup>st</sup> qtr |
| Sat 6 Dec   | 4:42 am            | 5:08 am      | 6:49 pm     | 7:15 pm          | sets 0:12 am   | rises 12:27 pm |                     |
| Sun 7 Dec   | 4:42 am            | 5:08 am      | 6:50 pm     | 7:15 pm          | sets 0:43 am   | rises 1:24 pm  |                     |
| Mon 8 Dec   | 4:43 am            | 5:08 am      | 6:50 pm     | 7:16 pm          | sets 1:17 am   | rises 2:24 pm  |                     |
| Tue 9 Dec   | 4:43 am            | 5:09 am      | 6:51 pm     | 7:17 pm          | sets 1:54 am   | rises 3:28 pm  |                     |
| Wed 10 Dec  | 4:43 am            | 5:09 am      | 6:52 pm     | 7:17 pm          | sets 2:36 am   | rises 4:37 pm  |                     |
| Thu 11 Dec  | 4:43 am            | 5:09 am      | 6:52 pm     | 7:18 pm          | sets 3:26 am   | rises 5:48 pm  |                     |
| Fri 12 Dec  | 4:43 am            | 5:09 am      | 6:53 pm     | 7:19 pm          | sets 4:25 am   | rises 6:59 pm  | full                |
| Sat 13 Dec  | 4:44 am            | 5:10 am      | 6:53 pm     | 7:19 pm          | sets 5:32 am   | rises 8:04 pm  |                     |
| Sun 14 Dec  | 4:44 am            | 5:10 am      | 6:54 pm     | 7:20 pm          | sets 6:43 am   | rises 9:00 pm  |                     |
| Mon 15 Dec  | 4:44 am            | 5:10 am      | 6:55 pm     | 7:21 pm          | sets 7:55 am   | rises 9:48 pm  |                     |
| Tue 16 Dec  | 4:45 am            | 5:11 am      | 6:55 pm     | 7:21 pm          | sets 9:03 am   | rises 10:29 pm |                     |
| Wed 17 Dec  | 4:45 am            | 5:11 am      | 6:56 pm     | 7:22 pm          | sets 10:07 am  | rises 11:05 pm |                     |
| Thu 18 Dec  | 4:46 am            | 5:12 am      | 6:56 pm     | 7:22 pm          | sets 11:06 am  | rises 11:38 pm |                     |
| Fri 19 Dec  | 4:46 am            | 5:12 am      | 6:57 pm     | 7:23 pm          | sets 12:03 pm  | ---            | last qtr            |
| Sat 20 Dec  | 4:46 am            | 5:12 am      | 6:57 pm     | 7:23 pm          | rises 0:10 am  | sets 12:59 pm  |                     |
| Sun 21 Dec  | 4:47 am            | 5:13 am      | 6:58 pm     | 7:24 pm          | rises 0:42 am  | sets 1:54 pm   |                     |
| Mon 22 Dec  | 4:47 am            | 5:13 am      | 6:58 pm     | 7:24 pm          | rises 1:15 am  | sets 2:49 pm   |                     |
| Tue 23 Dec  | 4:48 am            | 5:14 am      | 6:59 pm     | 7:25 pm          | rises 1:51 am  | sets 3:44 pm   |                     |
| Wed 24 Dec  | 4:48 am            | 5:14 am      | 6:59 pm     | 7:25 pm          | rises 2:31 am  | sets 4:39 pm   |                     |
| Thu 25 Dec  | 4:49 am            | 5:15 am      | 7:00 pm     | 7:26 pm          | rises 3:15 am  | sets 5:33 pm   |                     |
| Fri 26 Dec  | 4:50 am            | 5:16 am      | 7:00 pm     | 7:26 pm          | rises 4:03 am  | sets 6:25 pm   |                     |
| Sat 27 Dec  | 4:50 am            | 5:16 am      | 7:01 pm     | 7:27 pm          | rises 4:54 am  | sets 7:12 pm   | new                 |
| Sun 28 Dec  | 4:51 am            | 5:17 am      | 7:01 pm     | 7:27 pm          | rises 5:48 am  | sets 7:56 pm   |                     |
| Mon 29 Dec  | 4:51 am            | 5:17 am      | 7:01 pm     | 7:27 pm          | rises 6:44 am  | sets 8:34 pm   |                     |
| Tue 30 Dec  | 4:52 am            | 5:18 am      | 7:02 pm     | 7:28 pm          | rises 7:38 am  | sets 9:10 pm   |                     |
| Wed 31 Dec  | 4:53 am            | 5:19 am      | 7:02 pm     | 7:28 pm          | rises 8:33 am  | sets 9:42 pm   |                     |