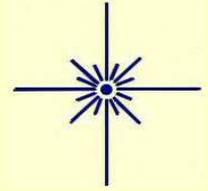




The Guide Star

Newsletter of the Amateur Astronomers Association of Pittsburgh Inc
Founded June 9, 1929 by Chester B. Roe and Leo J. Scanlon
Website: 3ap.org



March 2012

Volume 46, No. 3

AAAP March General Meeting

**March 9, 2012, 20:00 [Note the half-hour difference]
Bayer Science Stage at the Carnegie Science Center**

The General Business Meeting will be devoted to a discussion of the findings and recommendations of the Special Investigative Committee which was formed in December of 2011.

The committee consisted of Bill Roemer, chairman, Art Glaser, George Guzik and Bill Yorkshire.

Their completed report was presented to the AAAP Executive Committee in a joint session on the evening of February 13, 2012.

The Special Investigative Committee proposed seventeen changes to the way the AAAP governs itself. All were unanimously approved by the Executive Committee during the joint session. Some proposals were accepted with minor changes suggested by various Executive Committee members.

Some actions with regard to individual AAAP members were also recommended and approved in the joint session.

Upon adjournment, the Executive Committee chose to remain in executive session for a period of one week so that members affected by committee decisions could be officially notified.

During this general meeting, Bill Roemer will read the report of the Special Investigative Committee and discuss its contents.

Members of the AAAP Executive Committee will attend.

Astronomy Weekend at Carnegie Science Ctr

AAAP members are invited to help out with the 2012 edition of CSC Astronomy Days (now known as "Space Out/Astronomy Weekend") at the Carnegie Science Center, March 24 and 25.

As we have done for many years, member are encouraged to bring telescopes, table-top displays, audio-visuals, and literature to entertain and engage the visiting public.

Space Out/Astronomy Weekend is a family-oriented event, much like a public star party with guests ranging from grade school kids to senior citizens. In fact, if the weather permits, we will be setting up scopes on the lawn outside the Omnimax theater to show the Sun, Venus and (if possible) the newly crescent Moon.

If the weather is not good, scopes will be set up indoors and aimed at targets of opportunity inside and outside the building. (For example, the late Dave Smith was fond of aiming his Dobsonian at

folks enjoying dinner in one of the Mount Washington restaurants, or at a picture of Jupiter pasted on a far wall of the CSC lobby.)

Here are the particulars of the event:

- The event runs from 10:00 am to 5:00 pm on March 24 and 25.
- AAAP members can arrive as early as 8:30 am to bring in their displays and equipment.
- When you pull up to the parking lot attendant, tell him you are participating in the astronomy event; you will not be charged for parking.
- If possible, please park in the back lot near the back service entrance.
- The guard at this entrance will let you in and give you access to the service elevator if you have a lot of equipment to haul.
- Please refrain from loading and unloading in the main turn-around entrance at the front of the building.
- The AAAP will be setting up on tables next to the gift shop and extending to the balcony that overlooks the Omnimax lobby.
- Power strips and cords will be provided for laptops and other electronic equipment.
- You can leave your gear overnight, but be advised that the CSC will be holding a kid's sleepover on Saturday night. Thus, do not leave any valuables that could be taken.
- Members are welcome to bring free literature such as back issues of S&T and Astronomy. However, we cannot put out items for sale.

Members wishing to help out at Space Out/Astronomy weekend do not need to sign up or register, just show up on time. If you have any questions, please contact Vice President Eric Fischer.

Note: Other local astronomy clubs will be there; let's make sure to set up a diverse and attractive set of displays.

- Eric Fischer

Hey, It's Star Party Season!!!

The regular AAAP star party season kicks off on Saturday, March 31st at Wagman Observatory. Start time is a bit before sunset.

Venus at quarter phase and Jupiter with an Io shadow transit ending at 19:56 will grace the western sky at twilight. The waxing gibbous Moon sits in Gemini and Mars will be perfectly placed for observing all evening.

Almost like someone designed the thing!!!

-Guide Star Editor

Mars At Opposition

Mars reached aphelion, or its greatest distance from the Sun, on 15 February. Mars will reach opposition on 3 March.

A planetary opposition occurs when a planet lies opposite the Sun in our sky. These are the times when it's most advantageous to view it. They are well placed for evening observation, being nearly dead south at midnight.

Also, during opposition, Earth is closest to a planet during its apparition, which is another name for that period of time when the planet is visible from Earth.

However, due to differences in their orbital inclinations, Mars' closest approach to Earth will occur two days beyond opposition on 5 March.

At opposition, both the Earth and the planet in question will occupy positions in their orbits that are on the same side of the Solar System in relation to the Sun.

The inferior planets, Mercury and Venus, never come to opposition. The term applies only to the superior planets which lay beyond Earth's orbit: Mars, Jupiter, Saturn, etc.

Because of differences in the lengths of their years, Mars comes to opposition with Earth every two years and two months.

The orbits of both Earth and Mars are not perfectly circular, the

orbit of Mars being particularly eccentric or out-of-round, thus their distances from the Sun will vary and the distances separating them at various oppositions will vary too.

When Mars is closest to the Sun (perihelion) and reaches opposition, a perihelic opposition occurs. When farthest away, an aphelic opposition is said to occur. This latter type, an aphelic opposition, is occurring this month and in terms of distance, it's the least favorable opposition between the years 1995 and 2027.

The telescopic appearance of Mars differs from one opposition to the next. The inclination of the Martian axis means that the southern polar region is tilted toward Earth during oppositions closer to perihelion, while the north pole faces us during those closer to aphelion.

But the major difference is that the change in Mars' angular diameter between perihelic and aphelic oppositions is dramatic.

And here's the rub. In our era, good perihelic oppositions of Mars, which come round only every 15 or 17 years - the one's where Mars is closest to Earth - always occur in parts of the sky which are not favorable to observers in the northern hemisphere, down in Aquarius, where the seeing is affected by the thickness of the atmosphere.

True aphelic oppositions, when Mars is farthest, do favor us by occurring in Leo, high up, where seeing might support more magnification.

The diagram below illustrates the situation.

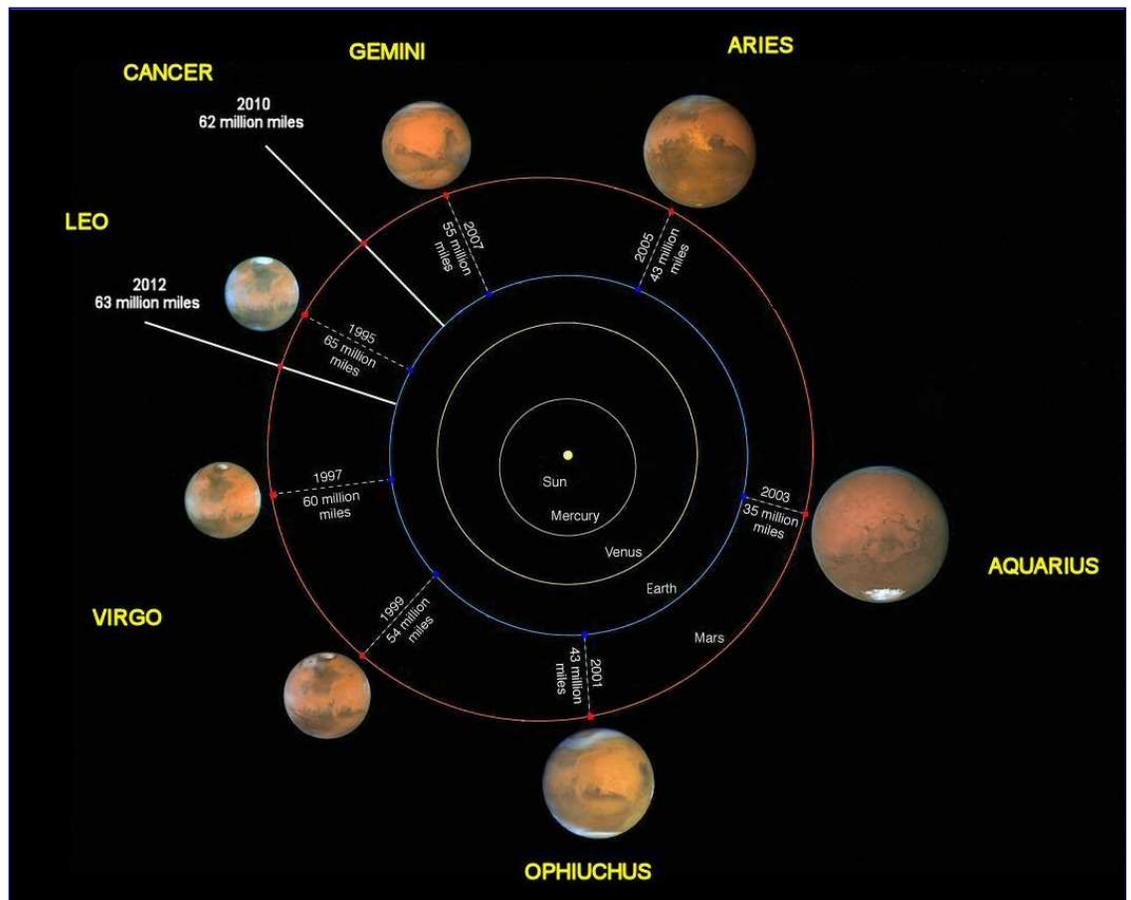
Martian Oppositions 1995 to the present

Note the "misalignment" of the orbits of Earth and Mars.

Note also: the difference in Earth-Mars distance between the perihelic opposition of 2003, the closest approach to Mars in recorded history, and this month's, which is the least favorable since 1995. In 2003, Mars' opposition diameter was a bit over 25 arc seconds, while this month's will be just under 14 arc seconds.

Also note the directions of the sky in which the various oppositions have occurred. Aphelic oppositions occur in Leo, perihelic in Aquarius.

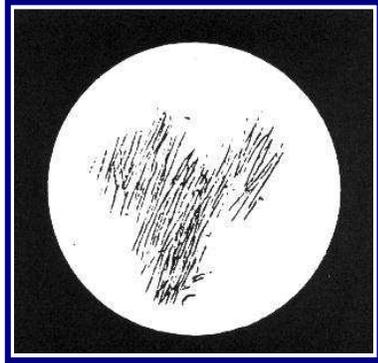
Finally, notice the alignment of the Martian poles during oppositions. South pole toward us when near or at perihelion. North pole at aphelic.



For close to three centuries each advance in our Martian knowledge could usually be tied to observations made near or during oppositions. Some examples:

1636: The earliest drawing of Mars was produced by the Neapolitan astronomer, Francisco Fontana, who notes that the Martian disk was not uniform in color. The second earliest drawing, made again by Fontana near the next opposition in 1638, shows the Martian disk as gibbous.

1659: This favorable, but not perihelic, opposition saw Dutch astronomer Christian Huygens estimate Mars' distance from Earth, estimate its size and set its period of rotation as close to 24 hours. He also made the well-known drawing which clearly depicts Syrtis Major.



1704: During this perihelic opposition, Giacomo Maraldi note the disappearance of a feature he was using to determine rotation time. This is possibly the first observed instance of a dust storm on Mars.

1777: Herschel speculates that Mars polar caps are subject to melting, determines the inclination angles of the poles, proposes that Mars has seasons and mentions the possibility of inhabitants.

1877: This perihelic opposition saw Giovanni Schiaparelli produce a map whose names for surface features are still used today. He noted clouds and veils and numerous surface landmarks. And perhaps most infamously, he popularized the term "canali" or channels. This term was understandably translated as "canals". Enter Percival Lowell and eventually, Orson Welles and the rest was history

While this Martian apparition and aphelic opposition are not too favorable, there are some things to both keep in mind and to look for:

On March 3rd, the Martian disk will be at full phase and be 13.9 arc seconds in diameter. Over the coming months, it will diminish both in size (being only 4.8 arc seconds in late September) and phase, being noticeably gibbous even in small scopes.

Also, it is currently spring in the north on Mars. Summer begins on March 29 and the northern polar cap should decrease in size. Autumn begins on September 29.

Observers who remember the wonderful 2003 perihelic opposition will recall the dust storms which obliterated the disk for a time. Aphelic oppositions have few dust storm problems, possibly due to distance from the Sun and the increased volumes of frozen CO2 trapped in the poles, which is said to decrease atmospheric pressure by up to 25%.

Finally, something should be said about colored filters which are almost universally recommended for visual observations of Mars.

Three filters usually top the list:

- Yellow will brighten desert areas, and darken blue and brown features. (W12 or W15) [Note: W stands for Wratten]
- Orange will increase contrast between light and dark features and help penetrate cloud cover. (W21 or W23A)
- Red used for maximum contrast, to highlight fine details, dust cloud and polar cap boundaries. (W 25 or W29)

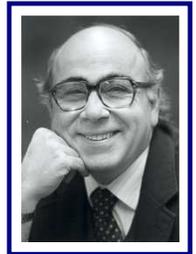
But two notes of caution about colored filters. First, they require a bit of visual trickery to use them. An observer must ignore the color they give to the image and just concentrate on the effect they have on contrast. You have to try to see in black and white. Second, because filters dim the image, sufficient aperture should be used. For example, the red filters named should be used with scopes six inches in aperture and larger.

I use a W12 yellow which passes 74% of incoming light, a W21 Orange which passes 46% and departing from the recommended filters, a W23A light red which transmits 25%, more than the W25 and W29.

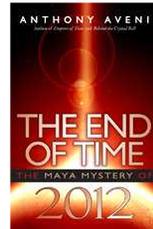
-Guide Star Editor

March 22nd: Maya 2012 Telecon!

Join the NSN members for a teleconference with one of the most prolific and loved science writers of our time, Dr. Anthony F. Aveni, as he gets us ready to face the 2012 craze with facts and humor. We are pleased to welcome the astronomer and anthropologist that Rolling Stone magazine named one of the 10 best professors in the in the country.



He will talk about the phenomenon of the 2012 prophecies, theories, and predictions that this date marks the end of the world, or at least the end of the world as we know it. Here's your chance to bone up on the history and science behind the mayhem to help you prep for questions from the public. Dr. Aveni is widely known for his 16 very popular books, numerous TV appearances, and legendary classes. He is considered one of the founders of cultural astronomy and is an expert in the astronomical history of the Aztec and Maya Indians of ancient Mexico. His latest book is titled *The End of Time: The Maya Mystery of 2012*. He is Russell B. Colgate Distinguished University Professor of Astronomy, Anthropology, and Native American Studies at Colgate University, where he has taught since 1963.



To join the Teleconference on Thursday, March 22nd at 9:00 pm EST call the toll-free conference call line: 1-888-455-9236

Download the Power Point Slides at <http://nightsky.jpl.nasa.gov/docs/2012S.ppt> (23.34 MB) .

Call anytime after 5:45 pm the evening of the telecon. An operator will answer and:

- You will be asked for the passcode: NIGHT SKY NETWORK
- You will be asked to give your NAME and the CLUB you belong to, and number of people listening with you.

- Kathy DeSantis

Garradd's Odyssey Nears Its End

Like old luggage, Comet C/2009 P1 Garradd is proving hard to be rid of. It's a physically large comet and its path is unusually far away for a comet of its brightness.

It's been on and off in astronomy news bulletins since being discovered at Siding Spring Observatory in Australia on August 13th of 2009 by astronomer Gordon Garradd.

Using a CCD camera and a half-meter Schmidt telescope to look for near earth objects, Garradd captured images which showed an almost 18th magnitude object with a circular coma about 15 arc seconds across.

It was briefly thought that the comet may have previously visited the inner Solar System, but this was later discounted, hence the "C/" designation for non-periodic. Since its discovery, it's scribed an awe-inspiring track across the sky.

See Seiichi Yoshida's historical charts at:

<http://www.aerith.net/comet/catalog/2009P1/2009P1.html>

Slowly brightening, Garradd came to a perihelion of 1.6 astronomical units or about 149 million miles this past December and was reported to have come close to magnitude 6 since then.

This month is significant for 2009 P1 Garradd:

On March 5th Garradd will make its closest approach to Earth at 1.27 astronomical units.

On March 11th, it will reach its most northern declination of +70.7 degrees. Afterwards it will move south for the rest of the year.

On March 17th, it will reach a maximum solar elongation of 112 degrees (the angle between it and the Sun as seen from Earth)

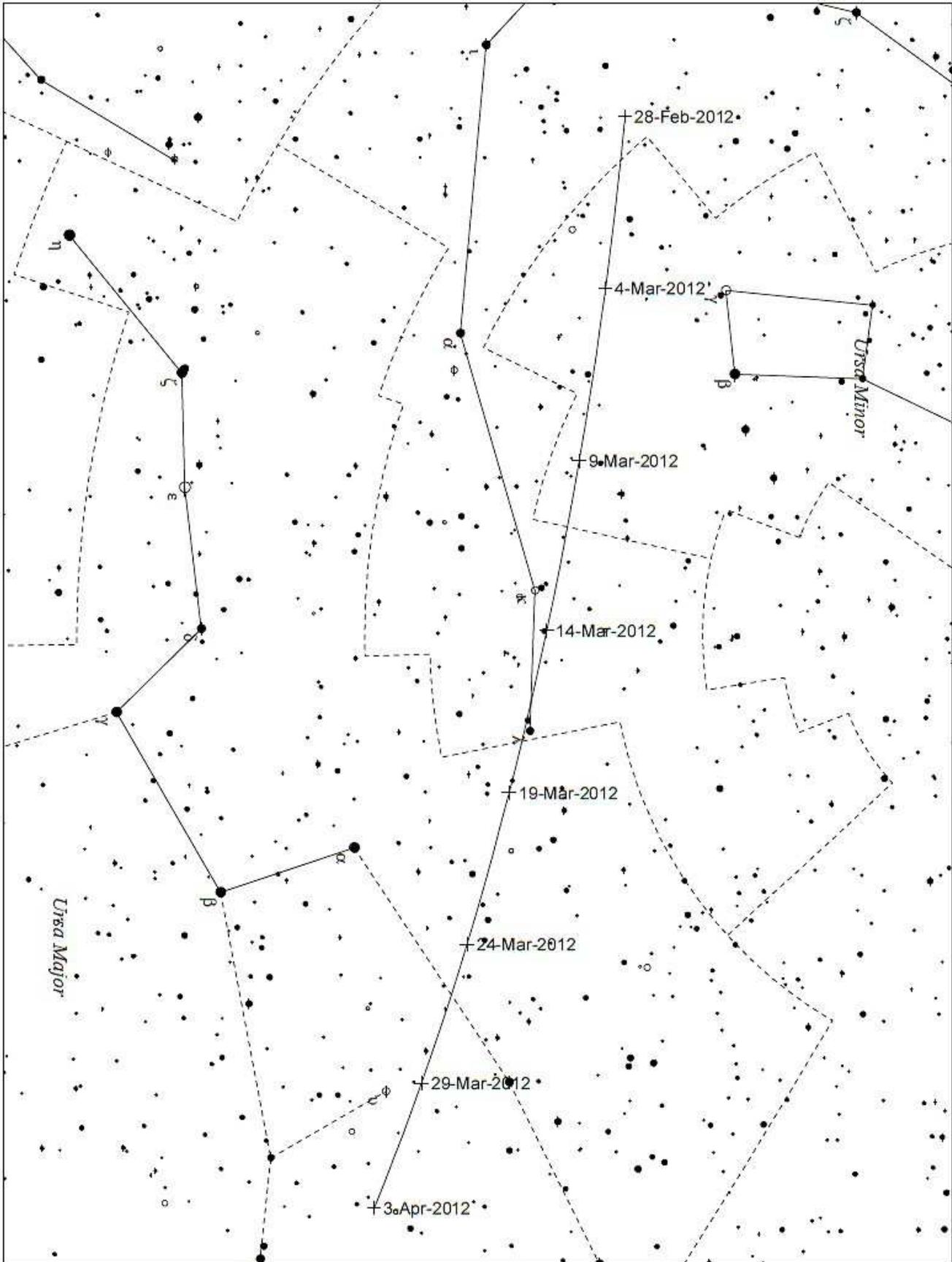
Now fading, the comet will be unobservable in June.

-Guide Star Editor



Bill Snyder of the AAAP used a TMB 130mm APO and a Apogee U8300 camera at his home observatory to capture this image of 2009 P1 Garradd as it came within a half degree of Messier 92, the globular cluster in Hercules on the morning of February 3, 2012. A finder chart for March follows.

During March, Comet Garradd will travel through Ursa Minor, Draco and Ursa Major, decreasing in brightness from approximately magnitude 7 to magnitude 8. The indicated positions are at local midnight on the dates given.



Sun

Mon

Tue

Wed

Thu

Fri

Sat

<p>"...Adrift in a cosmos whose shores he cannot even imagine, man spends his energies in fighting with his fellow man over issues which a single look through this telescope would show to be utterly inconsequential..."</p> <p>—Dedication of the 200-inch Hale Telescope, Palomar Observatory, June, 1948</p>		<p>All times given are local.</p> <p>Legend: SR = Sunrise, SS = Sunset, MR = Moonrise, MS = Moonset, PI = Approximate Percentage Visible Lunar Surface Illuminated Local Midnight</p> <p>Details for AAAP Events can be found at: https://nightsky.jpl.nasa.gov/event-list.cfm?Club_ID=675&EventEra=Future</p>		<p>1</p> <p>Occultation of magnitude 4.8 114 Tau See details Pg.3</p> <p>SR:06:53 SS:18:12 MR:11:30 MS:01:51 PI:50%</p>	<p>2</p> <p>Occultation of magnitude 3 zeta Tau See details Pg.3</p> <p>SR:06:51 SS:18:13 MR:12:23 MS:02:41 PI:59%</p>	<p>3</p> <p>Occultation of magnitude 4.11 nu Geminorum See details Pg.3</p> <p>Mars Opposition</p> <p>SR:06:50 SS:18:14 MR:13:22 MS:03:26 PI:69%</p>
<p>4</p> <p>SR:06:48 SS:18:15 MR:14:25 MS:04:08 PI:78%</p>	<p>5</p> <p>Mars closest to Earth this Opposition</p> <p>SR:06:47 SS:18:16 MR:15:32 MS:04:45 PI:86%</p>	<p>6</p> <p>SR:06:45 SS:18:17 MR:16:41 MS:05:20 PI:92%</p>	<p>7</p> <p>John Herschel born 1792</p> <p>SR:06:43 SS:18:18 MR:17:52 MS:05:53 PI:97%</p>	<p>8</p>  <p>SR:06:42 SS:18:20 MR:19:05 MS:06:25 PI:100%</p>	<p>9</p> <p>AAAP General Business Meeting CSC 20:00</p> <p>SR:06:40 SS:18:21 MR:20:19 MS:06:57 PI:99%</p>	<p>10</p> <p>SR:06:39 SS:18:22 MR:21:33 MS:07:32 PI:96%</p>
<p>11</p> <p>Daylight Saving Time Begins</p>	<p>12</p> <p>SR:07:35 SS:19:24 MR:**** MS:09:55 PI:82%</p>	<p>13</p> <p>SR:07:34 SS:19:25 MR:00:56 MS:10:45 PI:73%</p>	<p>14</p>  <p>SR:07:32 SS:19:26 MR:02:01 MS:11:41 PI:62%</p>	<p>15</p> <p>SR:07:31 SS:19:27 MR:02:58 MS:12:42 PI:51%</p>	<p>16</p> <p>SR:07:29 SS:19:28 MR:03:47 MS:13:46 PI:40%</p>	<p>17</p> <p>SR:07:27 SS:19:29 MR:04:29 MS:14:51 PI:30%</p>
<p>Venus and Jupiter within 3 degrees in the western sky at Twilight</p>						
<p>18</p> <p>SR:07:26 SS:19:30 MR:05:05 MS:15:55 PI:20%</p>	<p>19</p> <p>SR:07:24 SS:19:31 MR:05:36 MS:16:58 PI:13%</p>	<p>20</p> <p>Vernal Equinox 01:14</p> <p>SR:07:22 SS:19:32 MR:06:05 MS:17:59 PI:7%</p>	<p>21</p> <p>SR:07:21 SS:19:33 MR:06:32 MS:18:59 PI:3%</p>	<p>22</p>  <p>SR:07:19 SS:19:34 MR:06:58 MS:19:58 PI:1%</p>	<p>23</p> <p>Wernher von Braun born 1912</p> <p>SR:07:17 SS:19:35 MR:07:25 MS:20:57 PI:0%</p>	<p>24</p> <p>Astronomy Weekend Carnegie Science Center</p> <p>SR:07:16 SS:19:37 MR:07:54 MS:21:55 PI:2%</p>
<p>25</p> <p>Astronomy Weekend Carnegie Science Center</p> <p>SR:07:14 SS:19:38 MR:08:25 MS:22:53 PI:5%</p>	<p>26</p> <p>SR:07:12 SS:19:39 MR:09:00 MS:23:49 PI:10%</p>	<p>27</p> <p>Venus Greatest Eastern Elongations 46° Magnitude -4.4</p> <p>SR:07:11 SS:19:40 MR:09:40 MS:**** PI:17%</p>	<p>28</p> <p>SR:07:09 SS:19:41 MR:10:24 MS:00:43 PI:24%</p>	<p>29</p> <p>SR:07:08 SS:19:42 MR:11:14 MS:01:33 PI:33%</p>	<p>30</p>  <p>SR:07:06 SS:19:43 MR:12:10 MS:02:19 PI:42%</p>	<p>31</p> <p>SR:07:04 SS:19:44 MR:13:09 MS:03:01 PI:52%</p>

Some Solar System Highlights

- *Selenographic Colongitude* is 6.3° at 0h UT on the first day of the month. Add 12.2° each day.

The following planetary entries include Local Rise and Set Times, Magnitudes and Disk diameters in Arc Seconds on the 1st, 11th, 21st and 31st days of the month.



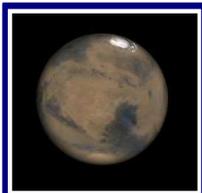
Mercury will be in the western evening sky early in the month. It is at perihelion on the 2nd and achieves greatest eastern elongation of 18 degrees on the 5th, when it will present a quarter phase. Dimming rapidly during the second week of March, it reaches inferior conjunction on the 21st. By month's end it will be a tough morning object.

Rise / Set	(1st) 07:30 / 19:40	(11th) 07:59 / 20:41	(21st) 07:07 / 19:35	(31st) 06:22 / 18:17
Mag. / Arc Secs	(1st) -00.80 / 06.48	(11th) 00.90 / 08.73	(21st) 04.90 / 10.96	(31st) 02.20 / 10.76



Venus in the western evening sky, presenting a waning gibbous aspect all month. It will be about 3 degrees from Jupiter from the 11th to the 15th. The waxing crescent Moon will be 1.8 degrees away from Venus on the 26th. Venus will achieve its greatest eastern elongation of 46 degrees on the 27th.

Rise / Set	(1st) 08:33 / 21:56	(11th) 09:18 / 23:15	(21st) 09:03 / 23:32	(31st) 08:50 / 23:46
Mag. / Arc Secs	(1st) -04.20 / 18.43	(11th) -04.30 / 20.05	(21st) -04.30 / 22.06	(31st) -04.40 / 24.56



Mars in Leo, comes to opposition on the 3rd. Unfortunately, it is near aphelion and this will be its most distant opposition in the 30 year period spanning 1996 to 2026. It's well placed for evening viewing throughout the entire month.

Rise / Set	(1st) 18:10 / 07:27	(11th) 18:11 / 07:38	(21st) 17:15 / 06:49	(31st) 16:24 / 07:32
Mag. / Arc Secs	(1st) -01.20 / 13.85	(11th) -01.20 / 13.83	(21st) -01.00 / 13.38	(31st) -00.70 / 12.64



Jupiter in Aries, is in the western evening sky. Its apparent diameter growing smaller, it will disappear into evening twilight in April. Jupiter's System II longitude is 176°.

Rise / Set	(1st) 09:12 / 22:47	(11th) 09:38 / 23:18	(21st) 09:04 / 22:49	(31st) 08:30 / 22:20
Mag. / Arc Secs	(1st) -02.20 / 36.00	(11th) -02.10 / 35.18	(21st) -02.10 / 34.49	(31st) -02.00 / 33.91



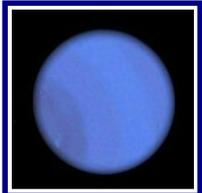
Saturn in Virgo, rises in late evening. It continues retrograde (east to west) motion and its disk continues to grow slightly larger. As mentioned before, the north side of its ring system is inclined toward us at an angle of about 14 degrees.

Rise / Set	(1st) 21:56 / 09:05	(11th) 22:15 / 09:25	(21st) 21:32 / 08:44	(31st) 20:50 / 08:03
Mag. / Arc Secs	(1st) 00.40 / 18.34	(11th) 00.40 / 18.58	(21st) 00.30 / 18.76	(31st) 00.30 / 18.90



Uranus in Pisces, is not visible this month.

Rise / Set	(1st) 07:48 / 19:56	(11th) 08:10 / 20:20	(21st) 07:32 / 19:43	(31st) 06:54 / 19:07
Mag. / Arc Secs	(1st) 05.90 / 03.34	(11th) 05.90 / 03.33	(21st) 05.90 / 03.32	(31st) 05.90 / 03.32



Neptune will reappear as a tough morning object late in the month.

Rise / Set	(1st) 06:31 / 17:15	(11th) 06:52 / 17:37	(21st) 06:14 / 17:00	(31st) 05:36 / 16:22
Mag. / Arc Secs	(1st) 08.00 / 02.16	(11th) 08.00 / 02.17	(21st) 08.00 / 02.17	(31st) 08.00 / 02.18

Jupiter Activity: Satellites & the Great Red Spot



Following are times for Jovian satellite transits and occultations and Great Red Spot meridian crossings for the current month..

They are organized by observing sessions beginning with the first event of interest on a given evening and continuing to Jupiter's setting. Using March 15th as an example, at 19:27 with twilight fading and Jupiter already well past the meridian in the SW and Io and Ganymede's shadow already in transit, Io's shadow will begin to transit the Jovian disk (SST). At 20:20, Ganymede's shadow will exit (ST) leaving only Io's shadow on the disk (S). Io's shadow exits at 21:37 and Jupiter itself will set at 22:59. All times are local and account for the switch to DST on the morning of the 11th.

1 21:35 GRS: Crosses Central Meridian	11 20:56 GRS: Crosses Central Meridian	22 20:31 Io : Transit Begins TT
1 22:41 Jupiter Sets	11 23:11 Jupiter Sets	22 21:08 Gan: Transit Ends T
2 19:40 Eur: Reappears from Eclipse	13 22:35 GRS: Crosses Central Meridian	22 21:22 Io : Shadow Transit Begins ST
2 22:38 Jupiter Sets	13 23:05 Jupiter Sets	22 22:35 Gan: Shadow Transit Begins SST
4 18:40 Gan: Disappears into Occultation	14 21:09 Io : Disappears into Occultation	22 22:39 Jupiter Sets
4 19:06 GRS: Crosses Central Meridian	14 23:02 Jupiter Sets	23 20:40 Io : Reappears from Eclipse
4 20:53 Gan: Reappears from Occultation	15 19:27 Io : Shadow Transit Begins SST	23 20:56 GRS: Crosses Central Meridian
4 22:32 Jupiter Sets	15 20:20 Gan: Shadow Transit Ends ST	23 22:36 Jupiter Sets
6 20:46 GRS: Crosses Central Meridian	15 20:40 Io : Transit Ends S	25 20:24 Eur: Shadow Transit Begins ST
6 20:58 Io : Transit Begins T	15 21:37 Io : Shadow Transit Ends	25 21:14 Eur: Transit Ends S
6 22:02 Io : Shadow Transit Begins ST	15 22:59 Jupiter Sets	25 22:31 Jupiter Sets
6 22:26 Jupiter Sets	16 20:06 GRS: Crosses Central Meridian	28 20:06 GRS: Crosses Central Meridian
7 21:21 Io : Reappears from Eclipse	16 21:36 Eur: Disappears into Occultation	28 22:22 Jupiter Sets
7 22:23 Jupiter Sets	16 22:57 Jupiter Sets	30 19:42 Io : Disappears into Occultation
8 18:41 Io : Shadow Transit Ends	18 20:11 Eur: Shadow Transit Ends	30 21:45 GRS: Crosses Central Meridian
8 22:20 Jupiter Sets	18 21:45 GRS: Crosses Central Meridian	30 22:17 Jupiter Sets
9 18:17 GRS: Crosses Central Meridian	18 22:51 Jupiter Sets	31 19:56 Io : Shadow Transit Ends
9 22:17 Jupiter Sets		31 22:14 Jupiter Sets

Occultations: Three in a Row

Three moderately bright stars will be occulted by the darkened limb of the waxing gibbous Moon to begin the month of March.

On the evening of March 1st at 19:38 local time, magnitude 4.9 114Tau will disappear behind the dark limb of the 9 day-old Moon. It will emerge from behind the bright limb at 20:42.

About five hours later, early on the morning of March 2nd at 01:51, with the Moon a scant ten degrees off the western horizon, third magnitude zeta Tau will disappear behind the dark limb. It will emerge from the bright limb at 02:06 with the Moon only four degrees off the horizon.

Just after midnight, at 00:26 on March 3, fourth magnitude nu Geminorum will disappear behind the dark limb of the 10 day-old gibbous Moon. It will emerge, again from the bright limb, at 01:17

Jupiter's Other Equatorial Belt Fades

In November 2010, Jupiter's Southern Equatorial Belt (SEB), against which we view the Great Red spot, revived after being absent for about a year.

Currently, it appears that Jupiter's Northern Equatorial Belt (NEB) which lately has been the location of high contrast features known as barges is fading. Unfortunately this activity is occurring as Jupiter is getting lower in the evening sky.



Jupiter's NEB

19 January, 2011

19 February, 2011.

Images courtesy Christopher Go.

His web site is at: <http://jupiter.cstoneind.com/>

Suggested Deep Sky Objects for March

This table is part of a series of monthly Deep Sky targets compiled by Bob Kepple, co-author of *Night Sky Observer's Guide*. The complete set of tables, one per month, may be found at the AAAP web site : <http://www.3ap.org/> under the S.I.G. link (Special Interest Group) for Deep Sky Observing.

Bob mentions that, "...objects in the ... lists may be observed for about two months before and after the month they are listed... If you have a small telescope see how many objects you can find in the lists for larger scopes and, of course, individuals with larger instruments will have no trouble observing objects listed for smaller instruments...." [PA = Position Angle of second component in relation to primary, with 0° representing North, 90° representing East, etc.]

Objects for Binoculars							
RA	Dec	Number	Mag(s)	Size/Sep	PA	Const.	Type of Object
08 ^h 13.1 ^m	-05°48'	M48	m5.8v	54'		Hya	Open Cluster, 80 stars
08 ^h 40.1 ^m	+19°57'	M44	m3.1v	95'		Cnc	Open Cluster 50 stars, "Beehive or Praesepe
08 ^h 50.4 ^m	+11°49'	M67	m6.9v	29'		Cnc	Open cluserter 200 stars
08 ^h 46.7 ^m	-28°46'	48 (Iota-1)	4.2, 6.6	30.5"	307°	Cnc	Double Star
13 ^h 23.9 ^m	+54°56'	79+80 (Zeta)	2.3, 4.0	14.4"	150°	Cnc	Double Star
Objects for Small Telescopes (2-6 inch)							
RA	Dec	Number	Mag(s)	Size/Sep	PA	Const.	Type of Object
06 ^h 26.8 ^m	+58°25'	5 Lyn	5.3, 9.8	31.4"	139°	Lyn	Triple Star (3 rd star 7.9, 96". 272°)
08 ^h 52.7 ^m	+33°25'	NGC 2683	9.8v	8.4'x2.4'		Lyn	Galaxy, type SA(rs)b II-III
09 ^h 55.6 ^m	+69°04'	M81	m6.9v	24'x13.0'		UMa	Galaxy, type SA(s)ab I-II
09 ^h 55.8 ^m	+69°41'	M82	m8.4v	12'x5.6'		UMa	Galaxy IO
10 ^h 24.8 ^m	-18°38'	NGC 3242	m7.8v	>16"		Hya	Planetary Nebula "Ghost of Jupiter"
Objects for Medium-Size Telescopes (8-14 inch)							
RA	Dec	Number	Mag(s)	Size/Sep	PA	Const.	Type of Object
08 ^h 26.8 ^m	+26°56'	23 Cnc (Phi-2)	6.3, 6.3	5.1"	218°	Cnc	Double Star
08 ^h 33.4 ^m	-16°09'	NGC 2610	m12.8v	37"		Hya	Planetary Nebula
08 ^h 48.3 ^m	+00°33'	OE194	7.3, 10.8	12.6"	56°	Hya	Double Star
08 ^h 49.2 ^m	+60°13'	NGC 2654	m11.8v	3.8'x0.7'		UMa	Galaxy, type SBab: sp II-III
09 ^h 10.3 ^m	+07°02'	NGC 2775	m10.1v	4.6'x3.7'		Cnc	Galaxy, type SA(r)ab
09 ^h 31.5 ^m	+63°04'	23 UMa	3.7, 8.9	22.7"	270°	UMa	Double Star
09 ^h 32.2 ^m	+21°30'	NGC 2903	m9.0v	12'x5.6'		Leo	Galaxy, type SAB(rs)bc I-II
Objects for Larger Telescopes (16-inch & larger) Challenge Objects							
RA	Dec	Number	Mag(s)	Size/Sep	PA	Const.	Type of Object
07 ^h 38.1 ^m	+38°53'	NGC 2419	m10.3v	4.1'		Lyn	Glob. Cl. "Intergalactic Wanderer"
08 ^h 14.7 ^m	+49°04'	NGC 2541	m11.8v	7.4'x3.3'		Lyn	Galaxy, type SA(s)cd
08 ^h 54.2 ^m	+08°55'	PK219-31.1	m12.0v	>980"		Cnc	Planetary Nebula (use O-III filter)
08 ^h 54.2 ^m	+30°35'	57 Cnc (Iota-2)	6.0, 6.5	1.4"	316°	Cnc	Double Star
09 ^h 19.8 ^m	+33°44'	NGC 2832	m11.9v	3.0'x2.1'		Lyn	Galaxy, type E+2: (In Abell 779 galaxy group)
09 ^h 45.7 ^m	-14°20'	NGC 2992	m12.2v	4.0'x1.2'		Hya	Galaxy, type SO pec sp
09 ^h 45.8 ^m	-14°22'	NGC 2993	m12.6v	3.3'x1.8'		Hya	Galaxy, type IO? Pec

Reminder: AAAP Elections are Coming

Nominations for AAAP Officer positions will soon be accepted by a nominating committee and elections will take place in May.

Officer responsibilities are outlined in the AAAP by-laws found in the members-only section of our web site. Also, current officers can be approached to discuss their duties. Typically, they're not difficult or time-consuming.

An organization will only as good as its members and its leaders.

Please consider how your participation at the officer level might make the AAAP a better astronomy club.

Eric Fischer: New AAAP Vice President

Pursuant to a vote at its January 23rd meeting, the Executive Committee approved Eric Fischer as the new AAAP Vice President.

Best wishes and good luck in your new role.

2012 Star Party Dates

Wagman Obs.

Mingo Obs.

Mar 31	-----
Apr 27 - 28	Apr 27 - 28
May 25 - 26	May 25 - 26
Jun 22 - 23	Jun 22 - 23
Jul 27 - 28	Jul 6 - 7, 20 - 21
Aug 24 - 25	Aug 10 - 11
Sep 8 *- 22	Sep 8 - 22
Oct 6 *- 20	Oct 6 - 20

* Moonrise

Future General Meeting Dates & Times

April	13, 2012	20:00 or 8:00pm
May	11, 2012	20:00 or 8:00pm

Please note that the meeting times for April and May are a half-hour later than usual.

AAAP Welcomes New Members



**Sean O'Brien
Robert Volosky
Dan Zitelli**

Amateur Astronomers Association of Pittsburgh, Inc.

2011-2012 Executive Officers

President:	Anthony Orzechowski president@3ap.org
Vice-President:	Eric Fischer vicepresident@3ap.org
Treasurer:	Michael Meteney treasurer@3ap.org
Corresponding Sec:	John Mozer correspondingsecretary@3ap.org
Recording Sec:	Dennis Derda recordingsecretary@3ap.org
Membership Sec:	Don Hoecker membershipsecretary@3ap.org
Guide Star Editor:	John Cheng gseditor@3ap.org

AAAP Member Dues:	\$ 24.00
Student Membership (K-12 & full time college student):	\$16.00
Family Membership	\$ 40.00

Basic Procedure for Paying Dues:

1. Make check payable to "AAAP Inc."
2. Send check to: Michael Meteney, Treasurer
1070 Sugar Run Road
Venetia, PA 15367-1514

http://www.3ap.org/AAAP_Mem_RenForm_2012.pdf

Guide Star Submissions:

All AAAP members are encouraged to submit items to the club newsletter. Articles, images, observations, notices, ads, book, software and equipment reviews, all are welcome.

The Guide Star is posted online at month's end to both the club web site and the file section of the Yahoo Group AAAPgh.

Please submit items as early as possible for inclusion in the coming issue. Forward submissions or questions to:
gseditor@3ap.org