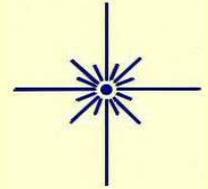




The Guide Star

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



April 2013

Volume 47, No. 4

AAAP General Business Meeting

**Friday, April 12, 2013, 20:00 Carnegie Science Center
Featured Speaker: Mark Kochte**

**Topic: "For the World has Hollows, and I have
Touched the Ice – The Greatest, Latest MESSENGER
Findings on Mercury"**

It has been 3-½ decades since the Mariner 10 spacecraft performed three flybys of Mercury. During these flybys, it photographed 45% of its surface, and made enormous discoveries about this hard-to-visit (or even observe) planet.

In 2008 and 2009, the MESSENGER spacecraft followed with three flybys, more than tripling the information from Mariner 10 with its first flyby alone, and imaging up to 95% of the planet's surface.

In March 2011 MESSENGER became the first spacecraft to go into orbit around Mercury. There it's taken nearly a quarter million images (now covering 100% of the planet's surface), and millions of scans of spectra, also making deep probes into the make-up of the magnetosphere, topographically mapping much of the northern hemisphere, and verifying the existence of water-ice in the permanently shadowed craters of the north pole region. All this has resulted in scientists re-writing our understanding of how Mercury came to be.

Join MESSENGER team member Mark 'Indy' Kochte as he takes you on a journey to one of the most elusive bodies in our Solar System, where not even the vaunted Hubble Space Telescope can peer.

About the speaker....

Beginning in 1988 Mark Kochte worked for 17 years on the Hubble Space Telescope project at the Space Telescope Science Institute. While there, he did research on extrasolar planets helping to define the evidence of an atmosphere around the first known transiting planet. He also was heavily involved in project UMBRAS, a spacecraft design that would enable space telescopes to actually visually detect extrasolar planets the size of Jupiter or Saturn. In the fall of 2006 he joined the MESSENGER team at Johns Hopkins Applied Physics Lab, working on the Mercury Atmospheric and Surface Composition Spectrometer instrument (MASCS). He has supported two successful flybys of Venus and three flybys of Mercury. In March 2011 he transitioned to Mercury Orbital Operations when MESSENGER became the first ever spacecraft to orbit Mercury.

Currently, he is involved in the daily monitoring of MASCS and in scheduling millions of spectral observations of the exosphere and surface of Mercury. He has published and co-authored papers on mission design, mission operations and analysis results.

Officer Nominations and Voting Procedure

Club officer elections will take place in May. This election cycle, the positions of Corresponding Secretary and Guide Star Editor will be vacated but all members may run for any elected office.

Those who wish to run for office or to nominate a fellow member should contact one of the following as soon as possible, definitely by April 1.

- John Cheng at john_a_cheng@hotmail.com
or phone (412) 421-5135
- Rowen Poole at Persephone1@mindspring.com
or phone (724) 502-2119
- Bill Yorkshire at wildyork@verizon.net
or phone (412) 793-9552

The duties of each elected office can be found in the club by-laws. Elected officers also hold a position on the club's executive committee.

Candidates approved by the Nominating Committee will be announced at the April 12 general business meeting. Members in attendance may also nominate candidates from the floor.

Biographies of the candidates should appear in the May issue of the Guide Star.

Prior to the May election, the Nominating Committee will mail a ballot to each member in good standing as of April 1, as validated by the AAAP Membership Secretary. Each ballot will have a unique sequence number.

Directions for completion of your vote, as stated in the by-laws, will be printed on the ballot (**Article XI: Election of Officers**). It reads:

"Each voter shall mark the ballot, seal it in an envelope, and sign his or her name to the return address part of the envelope depending on how many members reside at a given household address. The voter shall either mail the ballot to the Treasurer before the date of the election meeting in May, or bring it to the meeting in person and give it to a member of the Nominating Committee.

If a member in good standing has not mailed a ballot and is present at the May (election) meeting, he or she may vote by completing a ballot made available at this meeting and giving the ballot to a member of the Nominating Committee. Members submitting ballots at the May meeting must sign a form indicating that they have not voted by mail."

Of Club Interest

Proposed By-Law Change

There were no comments to the proposed by-law change (see page 3 of March Guide Star) at the March meeting, so we will discuss it one more time in April. The membership that is present will vote to accept or reject the change. Let your voice be heard! (Or your waving hand to be seen, however the vote is done.)

- John Holtz

Logo Contest

In regards to the "Official AAAP Logo" contest (see page 2 of March Guide Star), I have received two submissions.

If you would like a chance to win \$100, please create a logo that you would like to use for the AAAP and send it to me.

The membership will vote for their favorite logo in May (at the same we vote for the officers), so I want your submission before April 20.

- John Holtz

John Holtz: Some Things Never Change

While researching the history of who has held an elected office over the life span of the AAAP, I came across an article in one of our newsletters. It reads:

"How often the question has arisen: where the devil is everyone? This is a pervading phrase put to the Officers of our organization by the regular attending members at our scheduled meetings each month.

Our membership embodies very close to two-hundred members and we always find the same twenty-five familiar faces at these meetings...."

This certainly seems true today, but any guesses about when it was published? The answer is on the last page.

Future General Meeting Dates & Times

May 10, 2013 8:00pm Carnegie Science Center

Please note that the meeting time is a half-hour later than usual.

Dennis Derda

With sadness, we report the passing of Dennis Derda on 6 March. Dennis was an AAAP member since 1994 and served as the club's Recording Secretary from 2002 until 2012.

His contribution, friendship and humor will be missed.

At the Observatories

Upcoming Star Parties

<i>Mingo</i>	<i>Wagman</i>	<i>Closest Phase</i>
Apr 19-20	Apr 19-20	First Qtr Apr 18
May 17-18	May 17-18	First Qtr May 18
Jun 14-15	Jun 14-15	First Qtr Jun 16
Jul 12-13	Jul 12-13	First Qtr Jul 15
Aug 9-10	Aug 9-10	First Qtr Aug 14
Sep 7 (DS)		New Sep 5
	Sep 14	First Qtr Sep 12
	Sep 21 (MR)	Full Sep 19
Sep 28 (DS)		Last Qtr Sep 27
Oct 12	Oct 12	First Qtr Oct 11
Oct 26 (DS)	Oct 26 (DS)	Last Qtr Oct 26
Nov 9 (BUSF)		First Qtr Nov 10

WWF - Wagman Winterfest

DS - Dark Sky

BUSF - Bundle-up Starfest

MR - Moon Rise

Mingo Creek Park Observatory



Mingo Observatory: Telescope for Loan

8" Orion Dobsonian
Contact Bill Roemer
412-257-8756

Mingo Observatory: Need telescope help?

Contact Gene Leis, Help facilitator
412-310-2504

Mingo Observatory 10 inch Refractor Telescope Training

Saturday, May 18, 4:00 PM

Requirements: Familiarity with telescope operation and AAAP membership for at least one year.

Members previously trained on the 10 inch refractor and who wish a review are also welcome.

Training on the 24 inch reflector will be conducted later in the summer. One year's previous experience on the 10 inch refractor is required for training on the 24 inch.

Disappointment, Thy Name is PANSTARRS

John Pane captured this image of Comet C/2011 L4 PANSTARRS about 8:24 pm on Thursday evening, 14 March. John mentions: "The star near the airplane contrail below the comet is the 5.7 magnitude 51Piscium. Above and left of the comet is 7.8 magnitude HIP 2843. I estimate the tail is visible for about a half degree in this photo. At the time of this photo, the comet's altitude was about 4.5 degrees. It is a 2-second exposure through a 200mm f/2.8 lens with 2x extender (making it 400mm f/5.6). I did not crop the photo, so the field of view is about 3.75 degrees wide. I had the camera mounted on an ordinary tripod." John's image shows the clearly defined ion tail on the right and the more diffuse dust tail flowing to the left..

There are (at least) two levels of disappointment that adhere to Comet PANSTARRS. First, our local weather was uncooperative as the comet swung through perihelion and emerged into the twilight skies of the northern hemisphere.

John Pane's lovely shot was taken on the day that seems to have been our only real opportunity to see the comet at near maximum brightness.

The other level of disappointment has to do with the comet itself.

Early thought to have had the potential of being a "great comet", it's failure to live up to its billing – or even to show itself to many who tried for it – has led to an entertaining round of hand-wringing and speculation among some noted comet watchers.

The reactions range from attempts to salvage PANSTARRS as a

"great comet" by re-defining "great" as simply memorable, even if it takes optical aid to spot it, or as one that's "great" to image, all the way to near derision: "PANSTARRS is almost certainly the least impressive comet of its general brightness seen in more than a generation" and "the most insipid of any major bright comet that I can recall." These last remarks are by long-time observer, John Bortle, the originator of the well-known Dark Sky Scale.

Explanations of its low visibility include our pretty much full side-on view, the comet's somewhat erratic emissions of material into its dust tail and its distance from the Sun at perihelion.

Whatever the cause, the difficulty in observing it can serve as warning never to underestimate the effect of the crepuscular sky when even bright objects are at a close angular distances from the Sun.

- Guide Star Editor



The AAAP and the Astronomical League

<http://www.astroleague.org/>

by Terry N. Trees



The AAAP Executive Committee recently approved offering Astronomical League membership as an AAAP benefit. Unfortunately, the AAAP doesn't have the resources to exclusively fund this new benefit, but it has made a significant contribution toward reducing League membership costs. Details will be presented later in this article.

The Astronomical League is a non-profit federation of astronomical societies (clubs). It is chartered to promote the science of astronomy: (1) by fostering astronomical education, (2) by providing incentives for astronomical observation and research and (3) by assisting communication among amateur astronomy societies. To a certain extent, the Astronomical League is a "club of clubs", but it also has many Members-At-Large.

The Astronomical League is comprised of more than 250 organizations and totals more than 15,000 individual members. Because of that, the United States is divided into 10 geographic regions. (Pittsburgh is in the Mid-East Region.) Each region holds a 1 to 2 day annual convention and there is also a 3 to 4 day national convention. Attendees share ideas, attack common problems, establish networks with others having similar interests and issues, make new friends and renew past friendships. Paper sessions, exhibits, contests, field trips and star parties are scheduled.

The League offers a number of publications to its members. (1) The Reflector, a quarterly journal/newsletter printed on glossy paper like Sky and Telescope or Astronomy but rather than being comprised of 80 pages, usually runs about 25 pages. (2) There is a variety of Observing Manuals and pamphlets. (3) There are downloadable Outreach Banners. (4) Astronomy Study Guides for local courses or club study groups are available.

It is also possible to purchase astronomy-related books at a discount through the League Book Service. You get a 10% discount off the face price of the book and there is no shipping charge. (However, this is not always less expensive than other sources, e.g., Amazon.)

One of the Astronomical League's central benefits is its expansive list of Observing Programs. Get out of that observing rut by trying something new – maybe something you've never even thought about before. Learn new techniques. Earn certificates of achievement for demonstrating observing skills with various instruments and for seeing "new" objects. There is something for everyone: (1) naked-eye, binoculars, telescopes, cameras, (2) bright urban skies, dark rural skies and (3) neophyte or experienced observers. We will periodically present detailed descriptions of 1 or 2 of these projects at AAAP meetings and in the Guide Star. You can also examine the programs yourself at: <http://www.astroleague.org/observing.html>. Astronomical League Observing Certificates will be awarded at AAAP meetings.

Why join the Astronomical League? The League is a service organization like the AAAP, helping to astronomically educate the public through its local members and clubs, but it also serves the needs of its members both as individuals and as member societies. It is people: people who share a common joy and wonder as they explore the various objects and phenomena in the sky. And, the League is here to help you see ... and wonder ... and marvel ... and become more enriched for having done so.

How much does Astronomical League membership cost? If you wished to become a Member-At-Large, it would cost you \$30 per year. However, because the AAAP has decided to become a League member association and pay an annual registration fee, your cost is just \$7.50 per year. That is a 75% discount from the Member-At-Large price. And that \$7.50 is your household's dues. If you are single, it's \$7.50. If you have an AAAP Family Membership encompassing you, your spouse and your 4 children, it's still just \$7.50 per year. Quite a deal!

To join, simply print out the attached application form and mail it with your \$7.50 check to our Treasurer, Nate Brandt. His address and additional information are available on the form.



Amateur Astronomers
Association of
Pittsburgh

**ASTRONOMICAL
LEAGUE**
Membership
Application Form



Astronomical League "Member-at-Large" dues are currently \$30/year for US residents.

If you join the A.L. through the AAAP, you receive a **75%** discount.

(Annual membership runs July 1 – June 30)

(Dues prices are subject to change.)

Please complete and mail this form with a \$7.50 check made out to "AAAP", with "Astro League" in its Memo Field to:

Nathan Brandt – Treasurer, AAAP
2520 Campmeeting Road
Sewickley, PA 15143-9104

PLEASE PRINT

Last Name: _____

First Name(s): _____

(A.L. membership is \$7.50/year/household. If you have an AAAP Family Membership, please list all those family members you wish to include in the Astronomical League membership.)

Address 1: _____

Address 2: _____

City: _____ State: _____ ZIP+4: _____

Telephone: _____ (_____) _____ E-Mail: _____

ADVERTISE/SHARE MY ABOVE PERSONAL INFORMATION (Circle one): YES NO

E-Mail addresses, phone numbers and mailing addresses are normally shared within the League including other League clubs/societies for the purposes of promoting astronomy related events...yours will be shared ONLY if you circle "YES".

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p><i>Seeing through a telescope is 50% vision and 50% imagination.</i></p> <p>- Chet Raymo</p>	<p>1</p> <p>SR:07:03 SS:19:45 MR:00:52 MS:10:48 PI:74%</p>	<p>2</p> <p>SR:07:01 SS:19:46 MR:01:50 MS:11:50 PI:64%</p>	<p>3</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">  <p>00:37</p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Jupiter Only 1 Moon Visible 00:01</p> </div> <p>SR:07:00 SS:19:47 MR:02:41 MS:12:56 PI:52%</p>	<p>4</p> <p>SR:06:58 SS:19:48 MR:03:25 MS:14:03 PI:41%</p>	<p>5</p> <p>SR:06:57 SS:19:49 MR:04:04 MS:15:10 PI:30%</p>	<p>6</p> <p>SR:06:55 SS:19:50 MR:04:39 MS:16:16 PI:21%</p>
	<p>7</p> <p>SR:06:53 SS:19:51 MR:05:11 MS:17:21 PI:13%</p>	<p>8</p> <p>SR:06:52 SS:19:52 MR:05:42 MS:18:25 PI:6%</p>	<p>9</p> <p>SR:06:50 SS:19:53 MR:06:13 MS:19:27 PI:2%</p>	<p>10</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">  <p>05:35</p> </div> <p>SR:06:49 SS:19:54 MR:06:44 MS:20:29 PI:0%</p>	<p>11</p> <p>SR:06:47 SS:19:55 MR:07:18 MS:21:28 PI:0%</p>	<p>12</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>AAAP General Business Meeting Carnegie Science Center</p> </div> <p>SR:06:46 SS:19:56 MR:07:54 MS:22:26 PI:3%</p>
<p>14</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Jupiter within 4° of the Moon</p> </div> <p>SR:06:43 SS:19:58 MR:09:18 MS:***** PI:12%</p>	<p>15</p> <p>SR:06:41 SS:19:59 MR:10:05 MS:00:11 PI:19%</p>	<p>16</p> <p>SR:06:39 SS:20:00 MR:10:56 MS:00:57 PI:27%</p>	<p>17</p> <p>SR:06:38 SS:20:01 MR:11:50 MS:01:39 PI:36%</p>	<p>18</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">  <p>08:31</p> </div> <p>SR:06:37 SS:20:02 MR:12:47 MS:02:17 PI:45%</p>	<p>19</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Star Parties Both Mingo & Wagman Observatories</p> </div> <p>SR:06:35 SS:20:03 MR:13:45 MS:02:51 PI:55%</p>	<p>20</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Star Parties Both Mingo & Wagman Observatories</p> </div> <p>SR:06:34 SS:20:04 MR:14:46 MS:03:23 PI:64%</p>
<p>21</p> <p>SR:06:32 SS:20:05 MR:15:48 MS:03:54 PI:74%</p>	<p>22</p> <p>SR:06:31 SS:20:06 MR:16:53 MS:04:25 PI:82%</p>	<p>23</p> <p>SR:06:29 SS:20:07 MR:17:59 MS:04:57 PI:90%</p>	<p>24</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Occultation Chi Virginis Magnitude 4.7 Immersion 00:12 Emersion: 00:34</p> </div> <p>SR:06:28 SS:20:08 MR:19:09 MS:05:31 PI:95%</p>	<p>25</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">  <p>15:57</p> </div> <p>SR:06:27 SS:20:09 MR:20:20 MS:06:08 PI:99%</p>	<p>26</p> <p>SR:06:25 SS:20:10 MR:21:31 MS:06:51 PI:100%</p>	<p>27</p> <p>SR:06:24 SS:20:11 MR:22:39 MS:07:41 PI:98%</p>
<p>28</p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p>Saturn comes to Opposition at 04:00</p> </div> <p>SR:06:22 SS:20:12 MR:23:42 MS:08:37 PI:93%</p>	<p>29</p> <p>SR:06:21 SS:20:13 MR:***** MS:09:40 PI:86%</p>	<p>30</p> <p>SR:06:20 SS:20:15 MR:00:37 MS:10:47 PI:77%</p>	<div style="border: 1px solid black; padding: 10px;"> <p><i>“Men and women are not content to comfort themselves with tales of gods and giants, or to confine their thoughts to the daily affairs of life; they also build telescopes and satellites and accelerators, and sit at their desks for endless hours working out the meaning of the data they gather.</i></p> <p><i>The effort to understand the universe is one of the very few things that lifts human life a little above the level of farce, and gives it some of the grace of tragedy.”</i></p> <p style="text-align: right;">- Steven Weinberg</p> </div>			

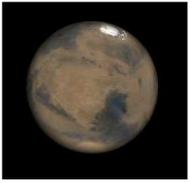
Some Solar System Highlights

Lunar entries are listed by named phase and include maximum libration dates. Note: Values are lunar east and lunar west. Planetary entries include Local Rise and Set Times, Magnitudes and Disk diameters in Arc Seconds on the 1st, 10th, 20th and 30th days of the month.

	Date / Time	Phase	Arc	<p>The Moon's Selenographic Colongitude is 150.82° at 0h UT and 153.32° at 0h local on the first day of the month. Add 12.2° each day.</p> <p><u>Max Libration dates:</u></p> <p>East limb on 8th (+5.1°) West limb on 25th (-6.6°)</p> <p>North limb on 23rd (+6.8°) South limb on 9th (-6.8°)</p>
	03 00:37	Last	1932	
	10 05:35	New	1827	
	18 08:31	First	1788	
	25 15:57	Full	1950	

	Date	Rise	Set	Mag	Arc	<p>Mercury in the dawn sky all month although location is not favorable to northern observers. It will brighten through the month. It will be 7° south of the crescent Moon on the 8th and 2° south of Uranus on the 19th.</p>
	01	06:07:57	17:20:48	0.3	7.52	
	10	06:01:26	17:39:13	0.1	6.56	
	20	05:57:00	18:15:52	-0.3	5.80	
	30	05:56:47	19:08:25	-0.9	5.28	

	Date	Rise	Set	Mag	Arc	<p>Venus enters the evening sky in the west, but won't emerge from the solar glare until late in the month.</p>
	01	07:13:00	19:46:52	-3.9	9.67	
	10	07:03:25	20:08:02	-3.9	9.68	
	20	06:54:13	20:32:00	-3.9	9.72	
	30	06:47:37	20:56:19	-3.9	9.79	

	Date	Rise	Set	Mag	Arc	<p>Mars in conjunction with the Sun on the 18th, is not visible.</p>
	01	07:16:09	20:00:34	1.2	3.89	
	10	06:56:47	19:59:51	1.2	3.87	
	20	06:35:42	19:58:52	1.2	3.84	
	30	06:15:18	19:57:38	1.2	3.83	

	Date	Rise	Set	Mag	Arc	<p>Jupiter, System II longitude is 192° this month. The planet, still in Taurus, begins the month east of the Hyades near the 4th magnitude star tau Tau. Continuing east along the ecliptic, it sets about 3 hours after sunset by month's end. Jupiter will be close to the 5 day old crescent Moon on the 14th.</p>
	01	09:58:20	00:46:06	-2.1	35.71	
	10	09:28:39	00:18:17	-2.1	34.93	
	20	08:56:20	23:45:00	-2.0	34.18	
	30	08:24:38	23:15:16	-2.0	33.56	

	Date	Rise	Set	Mag	Arc	<p>Saturn in western Libra is visible most of the night, comes to opposition on the 28th. The ring system, which we continue to view from the north until 2025, will be inclined to our line of sight by about 18° until October when it will begin to open to an eventual 22° by year's end.</p>
	01	21:51:37	08:34:18	0.3	18.54	
	10	21:13:13	07:57:22	0.2	18.66	
	20	20:30:15	07:16:06	0.1	18.75	
	30	19:47:10	06:34:44	0.1	18.77	

	Date	Rise	Set	Mag	Arc	<p>Uranus, not visible for northern observers this month, will reappear in the in the dawn sky for us in mid-May.</p>
	01	07:00:27	19:23:50	5.9	3.33	
	10	06:26:15	18:51:00	5.9	3.33	
	20	05:48:13	18:14:26	5.9	3.34	
	30	05:10:08	17:37:45	5.9	3.35	

	Date	Rise	Set	Mag	Arc	<p>Neptune is in the eastern dawn sky in Aquarius, although its location favors southern observers.</p>
	01	05:39:06	16:30:33	8.0	2.18	
	10	05:04:25	15:56:32	7.9	2.18	
	20	04:25:46	15:18:32	7.9	2.19	
	30	03:47:02	14:40:20	7.9	2.20	

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 that are visible in our area.

They are organized by observing sessions beginning with the first event of interest on a given evening and continuing to Jupiter's setting or the Sun rising.

The codes following the entries indicate what is currently happening, for example, T indicates a satellite transit, S indicates a shadow transit, ST indicates both a satellite and a shadow are transiting, STT indicates one shadow and two satellites are in transit. All times are local.

1 21:05 GRS: Crosses Central Meridian		15 22:43 GRS: Crosses Central Meridian	
2 22:40 Io : Disappears into Occultation		18 20:14 GRS: Crosses Central Meridian	
2 23:04 Eur: Transit Begins	T	18 21:09 Io : Disappears into Occultation	
3 00:03 Gan: Disappears into Occultation	T	18 23:22 Eur: Disappears into Occultation	
3 19:55 Io : Transit Begins	T	19 20:39 Io : Transit Ends	S
3 21:04 Io : Shadow Transit Begins	ST	19 21:37 Io : Shadow Transit Ends	
3 22:08 Io : Transit Ends	S	20 20:25 Eur: Transit Ends	S
3 22:44 GRS: Crosses Central Meridian		20 21:53 GRS: Crosses Central Meridian	
3 23:16 Io : Shadow Transit Ends		20 22:15 Eur: Shadow Transit Ends	
4 20:29 Io : Reappears from Eclipse		20 23:05 Gan: Transit Begins	T
4 22:33 Eur: Reappears from Eclipse		25 21:04 GRS: Crosses Central Meridian	
6 20:15 GRS: Crosses Central Meridian		25 23:10 Io : Disappears into Occultation	
6 21:17 Gan: Shadow Transit Ends		26 20:28 Io : Transit Begins	T
8 21:54 GRS: Crosses Central Meridian		26 21:19 Io : Shadow Transit Begins	ST
10 21:55 Io : Transit Begins	T	26 22:41 Io : Transit Ends	S
10 22:59 Io : Shadow Transit Begins	ST	27 20:42 Io : Reappears from Eclipse	T
10 23:33 GRS: Crosses Central Meridian		27 20:42 Eur: Transit Begins	T
11 20:33 Eur: Disappears into Occultation		27 22:22 Eur: Shadow Transit Begins	ST
11 22:24 Io : Reappears from Eclipse		27 22:43 GRS: Crosses Central Meridian	
13 21:04 GRS: Crosses Central Meridian		27 23:12 Eur: Transit Ends	S
13 21:11 Gan: Transit Ends		30 20:14 GRS: Crosses Central Meridian	
13 22:51 Gan: Shadow Transit Begins	S		

Items for Observers:

On the evening of April 14, Jupiter will be within 4° of the four and one-half day old Moon. Both will be located just east of the Hyades.

The Lyrid Meteor shower, well placed for us but with a very modest ZHR of less than 20, will be hampered this year by a Moon waxing toward full during its period of activity (April 16 to 25 with a maximum on the 22nd).

Two difficult observations:

Just after midnight, at 00:03 April 3, those with a good western horizon may be able to observe the relatively rare phenomenon of Jupiter with only one satellite Callisto, clearly visible. Jupiter will be less than 7° off the horizon. Europa will be in transit, while Ganymede and Io will be occulted



The first hour of April 24 will see magnitude 4.7 chi Virginis occulted by the dark northern limb of the 13.79 day old Moon. The occultation begins at 00:12 and ends at 00:34. The difficulty lies in viewing the star with the Moon so close to full.

AAAP Welcomes New Members

EVAN AUTENREITH
HOWARD GOLDBERG
CARL GRANATH
GREG RUMBAUGH

Membership Information

AAAP Member Dues: \$ 30.00

Student Membership
(K-12 & full time
college student): \$ 20.00

Family Membership \$ 45.00

Basic Procedure for Paying Dues:

1. Make check payable to "AAAP Inc."
2. Send check to: Nate Brandt, Treasurer
2520 Campmeeting Rd.
Sewickley, PA 15143-9104

Membership Renewal Form can be found at:

http://www.3ap.org/AAAP_Mem_RenForm_2013.pdf

New Membership Form can be found at:

http://www.3ap.org/AAAP_New_MemForm_2013.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:

Amateur Astronomers Association Of Pittsburgh, IncExecutive Committee2012-2013 Elected Officers

President: John Holtz
president@3ap.org
Vice-President: Terry Trees
vicepresident@3ap.org
Treasurer: Nate Brandt
treasurer@3ap.org
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Executive Committee Appointees

Eric Fischer
Bill Moutz
Chris Mullin
Joyce Osborne-Fischer
Mike Skowvron

Answer to "Some Things Never Change"

That paragraph was published in November 1965! So the current hypothesis that people do not attend meetings because they can get the information and socialization from the Internet does not seem to be a valid reason. What is true is the old saying: "the more things change, the more they stay the same".