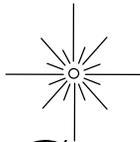




**AAAP 75th Anniversary  
1929 to 2004**



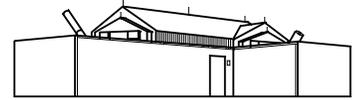
# The Guide Star

Newsletter of the Amateur Astronomers Association of Pittsburgh Inc.

A Section of the Academy of Science & Art of Pittsburgh

February, 2004

Vol. 37, No. 11



Nicholas E. Wagman Observatory

## 2004 Season Opener

# NEWO Comes Out Of Hibernation At "Winterfest"



As you read this article, things are quiet at Wagman Observatory... just an occasional whisper of wind through one of the roof vents, perhaps a snow "dust devil" twirling around the front door, maybe a deer sniffing around, wondering where everyone is, and utter silence inside the main reception room. Weather permitting, that all changes on **February 28, 2004** with our annual "Wagman Winterfest", which kicks off the AAAP's 2004 star party season. As always, we start the coldest star party of the year at **4:00 pm** looking at the hottest object in the 'hood, the Star Sol, with variously-filtered telescopes including the Brashear 11 Inch Refractor. After sunset, we turn our attention to slightly more distant suns that form the vast cluster of 1st and 2nd magnitude stars in and around Orion. Of course, Winterfest is also a prime opportunity for you to view the vast bridge of planets that reaches from Venus to Jupiter (especially the now well-tilted Saturn).

## Annual Meeting In Buhl Planetarium

### There's No Place Like Dome

When the "Omni-Max" theater design was introduced back in the 1990's ('80's?), many must have thought "what a neat concept... a wrap-around motion-picture." In a way, the basic Omni-Max concept was invented much earlier (1920's) with the introduction of planetariums such as Adler and our own Buhl Planetarium. Long before the new CSC was built, AAAP members enjoyed the annual free sky show at the old Buhl; it was always a packed affair. Thanks to the generosity of John Radziliowicz and the new CSC Buhl staff, that tradition continues today. If you're new to the 'burgh, make sure to attend our **February 6** meeting at the new Buhl to enjoy a fine astronomical show under the Digistar dome. Among other things, it will help you forget the foul weather outside, perhaps imagine that you are really outdoors under the stars. The title of the Planetarium presentation is "Ringworld" We'll leave the rest to your imagination.

*(continued on page 2, column 1)*



## Making It Happen

Like the fair-weather star parties, WW will only succeed with your help, ranging from portable scope set-ups to parking cars to herding the crowd inside the building. Of course, we will really appreciate the provision of hot coffee, hot chocolate and hot anything else that will help make the event more comfortable for all. If you have any questions or suggestions about refreshments, please contact Mari-Jo Meyers at 724-339-3447 or [wmeyers1@comcast.net](mailto:wmeyers1@comcast.net). Since we lost our tents in last year's trailer vandalism event, there will be no food or merchandise vending outside the back door of the observatory. Space permitting, we may set up a few vendor tables inside.

## Weather Or Not

Of course, Old Man Winter may decide to snuff out this year's Wagman Winterfest with a heap of snow or a sea of mud. If you have any doubts, please contact any AAAP officer or check postings on the club's listserv about any cancellation. In the event of a muddy day, early arrivers are asked to please check ground conditions before driving up to the building. We want to protect a new blanket of grass put in just last year. In all, a day just below freezing (keeps the ground hard) and no snow will be ideal for the event.

## Dick Haddad Bestowed Honorary Membership

*by George Guzik (from AAAP Listserv)*

It's my pleasure to announce that, at the January 9 AAAP Business Meeting, the members granted Honorary Membership status to **Dick Haddad**. As most of you are aware, Mr. Haddad's vision for a public astronomy facility in the South Hills led to our plans for the Mingo Creek Park Observatory.

Mr. Haddad played a key role in working with the Washington County Parks Department to select the location for the facility. He also played a key role in negotiating the lease with Washington County for the Observatory site. Mr. Haddad has been instrumental in obtaining donations of funds for construction of the Observatory. He negotiated the donation of labor for the recent road construction activity and personally supervised the work. His fundraising efforts

*(continued on page 2, column 2)*



## Three Highly Deserving Recipients of Harrison Award

by George Guzik (from AAAP Listserver)

Each year we present the Lois J. Harrison Memorial Award to women in the AAAP who made outstanding contributions to our organization. I'm very pleased to announce that our most recent winners are: **Alison Conte, Becky Nichols, Charlotte Tunney**

Alison has been our Corresponding Secretary, working closely with the Executive Committee in that role. She also assisted with the Brunelle Astrophotography Contest, one of our more complex and demanding annual events. Becky Nichols provided tremendous support with the planning for the Mingo Creek Park Observatory and with the successful first season of Star Parties at the Mingo Creek site. Charlotte Tunney is our current Corresponding Secretary and gave much of her time to actively support our public Star Parties and, especially, to support our special group Star Parties. I congratulate Alison, Becky, and Charlotte and thank them for their contributions!

## A.O. Lecture Series Still Going Strong

We have been remiss over the past several months in keeping members informed about the excellent astronomical lecture series that continues at Allegheny Observatory. Below are several near-term programs. To keep up with future programs, go to <http://www.phyast.pitt.edu> Admission is free, but reservations are required (call 412-321-2400).

- ◇ February 20 – “Simulating Structure Formation in the Universe” (Dr. Joerg Colberg, University of Pittsburgh)
- ◇ March 19 – “Cosmic Capitalism” (Dr. Ravi Sheth, University of Pittsburgh)
- ◇ April 16 – “Dark Energy’s Shadow” (Dr. Ryan Scranton, University of Pittsburgh)

## Plan for the Planetarium Show

(continued from front page)

Please be in your seat at the CSC Buhl Planetarium by about **7:15 to 7:20 pm**; the doors close once and for all at **7:30**. After the sky show, we move to the Science Stage theater to conduct the balance of our meeting (unless, of course, it has been turned into an “over-nighter” hang-out for the kids!)

## Tip of the Month

**Not getting your Guide Star? Contact the Corresponding Secretary. Not getting your Sky & Telescope or Astronomy magazine? Contact the Treasurer.**

## Fruitful Discussions Regarding Mall/Interchange Development Near Wagman

by George Guzik (from AAAP Listserver)

Thanks to Terry Trees and to the other members who attended the January 14 public meeting on the road construction for the Pittsburgh Mills development. It was an ugly evening to be out on the roads but a number of AAPers traveled to the Clarion Inn in Tarentum and met with representatives from PennDOT, Pittsburgh Mills, and Gannette Fleming. The AAAP members who were there before me made an impression on the hosts of the meeting.

I first met Matt Mason of Gannette Fleming, the engineering firm that designed the new overpass. He noted that he had heard of our organization from a past meeting on the development. In fact, he recalled Bill Yorkshire’s presentation to that earlier meeting. I then met Thomas Kaniecki, Off Site Project Manager for the Mills Corporation, and provided both Mason and Kaniecki with literature describing the AAAP and NEWO. My message was that we are very concerned about the outdoor lighting to be used at the development, given that NEWO is less than 4 miles away, and that we strongly encourage the use of properly shielded lighting.

Kaniecki indicated that shielded lighting may, in fact, be in the plan for the development but that he would check into the issue. The conversation with Mason and Kaniecki was particularly interesting in that they cited St. Margaret’s as an example of good outdoor lighting. As I said, someone made an impression on them! I added that unshielded street lighting, such as Pittsburgh has around the new stadiums, is exactly what we DON’T need. We urgently need to continue our efforts to encourage the Pittsburgh Mills development to adopt good lighting practices.



(Editor’s note: See page 5 for Terry Trees’ superbly worded letter to Mr. Kaniecki regarding proper lighting of the Mall and Interchange area.)

## Honorary Membership for Dick Haddad

(continued from front page)

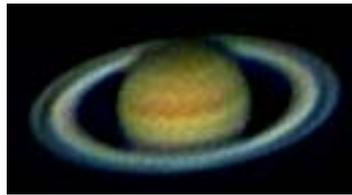
continue as he works to establish an endowment to cover the operating expenses for the Observatory. Mr. Haddad is also pursuing opportunities with several local colleges and universities to develop educational programs for the Observatory.

Look at the last page of your AAAP Membership Directory and you’ll find a list of our past and present Honorary Members. Consider that only 7 other people in the 75 year history of the AAAP achieved this status. The AAAP grants Honorary Memberships infrequently and grants them only to extraordinary people. Dick Haddad is, indeed, one of those extraordinary people. Congratulations, Mr. Haddad, and thank you for your service!



## Yet Another AAAP Member Masters Digital Astrophotography

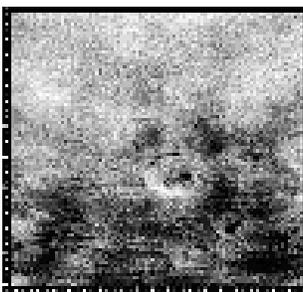
Check out these fine images of Jupiter and Saturn taken by club member **Phil Hughes** using his Toucam Pro equipment. Says Phil "I am happy with the results so far considering I am just learning how to use it. The images are the best I have obtained by any method to date. Now I need to learn how best to set up the camera and learn to process the images better. A little warmer weather couldn't hurt either." Phil's images can also be viewed at <http://www.comedyentertainment.com/toucamimages.htm>



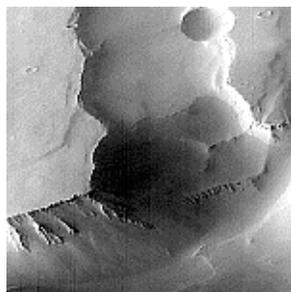
*Jupiter: January 21, 2004. 8 inch Dobsonian f/5.9. Toucam Pro with 2x Barlowe. Composite of 107 frames processed with Registax. Saturn: January 22, 2004. 8 inch Dobsonian f/5.9. Toucam Pro with 2x Barlowe. Composite of 110 frames processed with Registax.*

## A Useful Analogy: Paper Vs. On-Line Guide Star and Mariner 4 vs. Mars Global Surveyor

Among the host of benefits to you (and the club) for switching from the printed to on-line Guide Star is astro-image quality. As pointed out by George Guzik at the Jan. meeting, the on-line version reveals members' astrophotography in its resplendent color and resolution (along with ability to zoom in on image details). By comparison, black & white photo copies of these images in the are crude shadows of their former selves. Here's a useful analogy: Compare the first kilobit images of Mars' surface taken by Mariner 4 nearly 40 years ago to the multi-megabit images of the Mars Global Surveyor. If you want to enjoy the growing display of AAAP members astro-imaging in the On-Line Guide Star (as well as all the other cost and time benefits), contact our Corresponding Secretary Charlotte Tunney at [tunneyc@carnegielibrary.org](mailto:tunneyc@carnegielibrary.org).



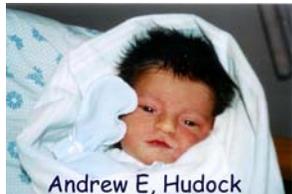
Like the printed Guide Star:  
Mars from Mariner 4



Like the On-Line Guide Star:  
Mars from Global Surveyor

## All-Sky News, All The Time

- ❑ Wow! The January 9 meeting certainly made up for the snow-bound Holiday Party on December 5. We had well over 100 members piled into the Science Stage Theater at the CSC, and we dispersed 29 more donated door prizes to the attendees; our thanks to the prize donors. Thanks is also extended to guest speakers Dana Martinelli and Ron McCloskey. The memorable quote at the meeting (from Terry Trees, in a thinly-veiled poke at refractors vs. reflectors): "We all know that refractors make nice finder scopes on Dobs."  

- ❑ What's worse than going up to Wagman on a cold Winter's night? Going to Wagman on a cold Winter's night with the wrong door combination. To avoid this disaster, contact **John Holtz** for the new number and key-fee payment provisions. **Call Flacc Stifel** or **Tom Reiland** if you need to brush up on the arming and dis-arming of the building security system.
- ❑ Speaking of observing site usage during the winter, members are also reminded to watch out for mud bogs around the new Mingo observing site, even though the new road has been put in.
- ❑ What better place to commemorate the successful landings of the "Spirit" and "Opportunity" rovers than Mars PA? Specifically, you can obtain cancelled postage marks from the Mars PA post office by contacting member Ariel Kelly at 724-625-2215. (Ironically, some say that Mars PA was not named after the planet, but for early settlers named the "Marshalls".) Our thanks to Ariel for making these available.
- ❑ Our Laurel Highlands Star Cruise committee is already hard at work lining up guest speakers for this year's event. For example, Noam Izenberg from Johns Hopkins University will speak on "The MESSENGER mission to Mercury" (scheduled to launch in the first half of May). For the up-to-date roster of speakers (and all other LHSC happenings), go to [www.LHStarCruise.org](http://www.LHStarCruise.org). Note: New volunteers for the LHSC Committee are always welcome.
- ❑ Put this in your long-range calendar: We've been invited to stage star parties and astronomy lectures in Keystone State Park on **July 10** and **August 14**. Check your future Guide Stars or the AAAP listserver for additional details.
- ❑ Congratulations to Membership Secretary (and long-time member) and his wife Debbie upon the arrival of their first child **Andrew Edward Hudock** (6 lbs 10oz. 19 1/2") born December 30. 

- ❑ Brent's other baby, the AAAP Membership Directory, was scheduled to go out with this Guide Star. Due to planning problems, it will be mailed separately or go out with the March issue.

## 2003 Financial Statement

from John Holtz, AAAP Treasurer

Here is the financial statement for the year 2003, as of 2004 Jan 12. (It may seem strange to need to date this, but I guarantee I'll get some payment that is dated 2003, and therefore, will affect the final income for last year.) With the increased expense of producing the Guide Star starting this passed year, I'm somewhat surprised that the numbers balance as well as they do. Counting only income from membership (and general donations, 50/50 raffles, sales, etc, only those sources attributed purely to members) and subtracting the expenses due purely to membership (subscriptions, meetings, Guide Star, etc), I get a gain of about \$6k. Another way to view the figures, if you subtract the income and expenses for the Mingo Creek Park Observatory (funds that do not contribute to the gain or loss of the club; used only for that purpose) and Star Cruise (really club general funds, but pretend they are for that purpose), the income and expenses balance to within \$700 gain. My conclusion: the membership (dues and donations from all sources) is sufficient to support all of the AAAP and Wagman Observatory activities. Naturally, you're free to put your own spin on these numbers.

### CASH INFLOWS

50/50 raffles	\$342.00	
Assets (disposition of)	2,054.30	
Class @ Wagman Obs.	240.00	
Donations:		
Aluminum Recycling	33.20	
Columbia Fund	10.00	
Fish Bowl (star parties)	795.57	
Food (meetings)	395.00	
General	2,324.27	
Mt Stromlo Fund	120.00	
South Hills Observatory	58,000.00	
StarCruise	53.05	
TOTAL Donations	61,731.09	
Interest (savings)	1,078.60	
Keyfee (Wagman usage)	404.00	
Membership:		
Astronomy magazine	1,885.00	
Junior Members: new (5)	65.00	
Junior Members: renew (14)	182.00	
New Members (88)	1,584.00	
Renewing Members (391)	7,038.00	
S&T magazine	5,606.85	
TOTAL Membership	16,360.85	
Overpayment	351.50	
Sales		
Books	45.50	
Buttons	19.00	
calendars	499.00	
cash return (from advances)	276.29	
glow sticks	46.50	
hard hat	150.00	
hats	100.00	
magazines	6.01	
miscellaneous	802.41	
mouse pad	48.00	
Observers Handbook	530.00	
Postage	7.00	
sweatshirts	90.00	
T shirts	310.00	
TOTAL Sales	2,929.71	

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Star Cruise:		
cabin	591.00	
camping	4,765.50	
day registrations	530.00	
family registrations	3,345.00	
individual registrations	3,041.50	
Pins	336.00	
raffle	1,571.00	
RV hookup	520.00	
Sweatshirt	1,149.00	
T-shirt	1,185.00	
TOTAL Star Cruise		17,034.00
Stock:		
3M dividend	171.60	
Dupont dividend	68.25	
JCP dividend	46.52	
Kellogg dividend	165.64	
TOTAL Stock		452.01
Wagman Fund donations		940.44
TOTAL CASH INFLOWS		\$103,918.50
CASH OUTFLOWS		
Awards to Volunteers		\$402.80
Bank Fees		155.15
Bank safe deposit box		160.00
Food @ Christmas		273.71
Gifts:		
Christmas Cards	53.85	
Christmas Party prizes	118.67	
Mt Stomlo & Columbia	430.00	
Raffle prizes (50/50)	170.00	
TOTAL Gift		772.52
Guide Star:		
labels	72.74	
membership directories	737.55	
printing & mailing	3,391.60	
TOTAL Guide Star		4,201.89
Mail:		
3rd class annual fee	150.00	
bulk mailings (deposits)	450.00	
PO Box	58.00	
TOTAL Mail		658.00
Meeting:		
rental, etc	386.73	
honorariums	485.50	
TOTAL Meeting		872.23
Membership in IDA		200.00
Merchandise:		
solar filters	14.00	
bookmarks	5.99	
books	730.99	
calendar	517.18	
cash out/advances	276.29	
class @ Wagman	174.03	
TOTAL Merchandise		1,718.48
Mingo Creek Observatory:		
construction (fund)	9,308.54	
Equipment (fund)	2,099.00	
supplies (AAAP)	340.38	
TOTAL Mingo		11,747.92

(continued on page 5, column 1)

**2003 Financial Statement**

*(continued from page 4)*

N.E. Wagman Observatory:		
miscellaneous	45.96	
Construction/upkeep	1,555.25	
furniture	69.85	
security system	120.00	
TOTAL Wagman Obs.		1,791.06
Officers Treasurer (supplies)		187.50
Promotion		
signs, events	363.00	
<u>Brochures</u>	<u>276.94</u>	
TOTAL Promotion		639.94
Refunds		351.50
Stamps & Postage:		
Corrsponding Secretary	19.25	
Membership Secretary	63.97	
<u>Treasurer</u>	<u>288.72</u>	
TOTAL Stamps		371.94
Star Parties:	65.72	
Wagman	450.60	
StarCruise:		
miscellaneous	235.96	
camping	5,948.50	
photocopies	103.10	
goods	1,431.55	
Insurance	27.00	
kids activities	108.98	
postage	19.21	
prizes	816.70	
promo	55.00	
rental	3,004.03	
speaker fees	814.79	
staff	185.30	
<u>subtotal StarCruise</u>	<u>12,750.12</u>	
TOTAL Star Party		13,266.44
Subscriptions (magazines):		
Astronomy	1,914.00	
S&T	5,556.00	
<u>Honorary (4)</u>	<u>119.80</u>	
TOTAL Subscriptions		7,589.80
Tax	2,111.68	
Trailer:		
registration	7.50	
<u>insurance</u>	<u>383.00</u>	
TOTAL Trailer		390.50
Utilities:		
Mingo Park Observatory:		
insurance	123.00	
Wagman Observatory:		
Electricity	165.52	
insurance	2,308.00	
lawn care	551.04	
phone	626.04	
<u>porta john</u>	<u>1,043.25</u>	
<u>subtotal Wagman</u>	<u>4,693.85</u>	
TOTAL Utility		4,816.85
<b>TOTAL CASH OUTFLOWS</b>		<b>\$52,679.91</b>

*(continued at right)*

**Terry Trees' Letter to Mall Developer**

Mr. Kaniecki,

It was a pleasure meeting you this evening. We appreciate your offer of assistance regarding our concerns about the proposed lighting at Pittsburgh Mills and the new Route 28 interchange.

First a bit about who we are. We are the Amateur Astronomers Association of Pittsburgh (AAAP). Our ~550 members make us the largest amateur astronomers group in Pennsylvania and one of the larger in the United States. We have members who are just entering elementary school while other members are in their 90s. Many of our members are professionals: For example, physicians, dentists, attorneys, nurses, newspaper journalists, professors, scientists and teachers. Many are not. Some work at the airport, others are tradesmen of some sort. Many were laborers of various types in the factories that once dominated the area. Many members are retired.

Our WebSite, <http://www.3ap.org>, can tell you more about our organization, but of central concern is our facility in Deer Lakes Park, the Nicholas E. Wagman Observatory. The observatory is home to the John Brashear Refractor, an 11" telescope built by John Brashear for Andrew Carnegie in 1908 and the Manka Memorial Telescope, a 21" reflector. One telescope weighs more than a ton and is about 20' long. Those telescopes, along with more than 30 or 40 others brought by members, host a number of star parties each year.

Star parties are observing sessions, free to the public, where individuals can view the moon, comets, the planets of our solar system and many of their satellites and a variety of deep space objects such as star clusters, nebulae and galaxies. We host school, religious, scout and civic groups on special nights as well. During a given year, several thousand people will visit our observatory. Our record night saw our parking lot overflowing and cars parked on the road down each side of the hill for about a mile. More than 1,500 people came to see Comet Hale-Bopp that night and it seemed the waiting lines were endless.

And that brings us to our concern. If you were to turn on your television and adjust the contrast control to minimum, a washed-out picture would result, a picture where most of the detail is lost. Similarly, if we allow the night sky to be polluted by upward-shining or poorly shielded lighting, our telescopes will be rendered useless. All we will see is a washed-out picture like you saw on your TV. All our work will be lost and our public education programs will come to a grinding halt.

*(continued on page 10, column 1)*

<b>OVERALL TOTAL</b>	gain	\$51,238.59
OTHER (as of Dec 31)		
Material donations:	\$6,193.05	
Stock Value:	\$22,725.91	
Balances:		
Checking account	\$183.79	
Savings account	\$30,126.67	
Cash in transit	\$901.27	
Mingo Creek Fund	\$106,602.01	
Star Cruise Fund	\$6,839.03	
Valley View 2 Fund	\$32,116.60	

## Back to the Moon and Mars, and Scrap Everything Else? AAPers Assess the President's Proposal

Compiled by *Ann Norman* from the *AAAP listserver*

**Kenn Lippert:** John F. Kennedy made his famous challenge in another time, when the Soviet Union threatened to usurp the technological and military status of the United States.



He saw the lunar program as a means to energize a nation in the face of a real threat, a way to rally the nation around a common goal that was scientifically meaningful and technologically challenging, in way that would capture the hearts and minds of the public. If there are threats to the United States today, they are malaise, complacency, and self-absorption--threats which are not defeated with technologically challenging goals, but with societal reformation.

This proposal to drop all unmanned exploration and concentrate all effort on eventually landing astronauts on Mars is inconsistent from a scientific point-of-view. There is no legitimate reason to do that other than as an act of "my-country-is-better-than-yours" chest thumping. Which programs have captured the public's attention more in the last twenty years-- the incredible images from Hubble, the triumph of the "little rover that could" rolling around Mars, Galileo's fiery descent into Jupiter? Or ant farms on the shuttle, micro-gravity manufacturing, and leaking space stations? The only time the public's has paid great attention to manned space flight in the last twenty years has been when a disaster occurs.

Of course we as a species must eventually "slip the surly bonds of Earth." It is the last great manifest destiny. I would be the first to go if given the chance, but as a responsible society and civilization, we must balance resources with needs, and dreams with reality. The scientific community will decide when it is time for permanent settlement on the Moon, not Dick Cheney or Karl Rove. When the push comes from those who have dedicated their lives to the exploration of space and the understanding of the physical universe, then I will say it is time to fly. I am also certain that when that time comes, the scientists will want even MORE unmanned probes and robotic explorers in addition to an increased emphasis on manned programs. There is still so much that is unknown and dangerous; it is always better to reach with a gloved hand first.

**Suzanne Coholic:** Much benefit to mankind came from men walking on the Moon and the scientific R&D born of it. I doubt we would have the caliber of robotics or even the Hubble Space Telescope (let alone the James Webb Scope, etc.) if it weren't for the successes of that first space program, which Kennedy envisioned. Space technology improves the lives of consumers. The military and space programs both have launched advances in electronics, medicine, and household appliances. I am surprised to hear the "chest-thumping" comment from someone who is an amateur astronomer. The reason the programs Kenn mentioned have captured public attention is simply that they have been "manifest," not avoided. The Moon and Mars are hardly "short-term trophies". And there's no reason to separate the announced missions from basic science.

**Mark Schomer:** We should all be elated by the prospect of going back to the Moon and, eventually, Mars, regardless of the any [political] motive [on the part of the President]. It's all about exploration and the advancement of science, and that's good for all of us.

**Larry McHenry:** The White House proposal is nothing but a Sci-fi essay. It's not gonna happen for two reasons:

1) Unlike the early 60s, there's no driving national interest to return to the Moon (or go to Mars) anytime soon. The 'Space Race' is over, we won; we saved the Moon from communism. If the Chinese space program should someday become advanced enough to challenge our superiority in space, then a national interest could re-emerge, but that day is many years away.

2) We ain't got the money! With the tax cuts having drained the national treasury, and huge deficits projected for many years, there is no cash just sitting around waiting to be spent. Throw in the costs of the Iraqi war, having to rebuild that country, a new drug program, and the baby boomers' retirement--we'll be lucky to keep NASA's current funding intact!

I've always been a big supporter of the manned space program, and all of the NASA robotics research programs. Apollo reached its zenith at the same time I was heading into my teenage years, and made a big impression on me. I think it is man's crowning achievement of the last 100 years. But it was the following robotic explorer missions (Voyagers, Vikings, Galileo, SOHO, and others) that brought back true knowledge of our solar system and the universe. I'm also a realist.

Yes, NASA does need a 'vision goal', involving man in space, but not one that would discard what has been among NASA's greatest accomplishments.



(continued on page 7, column 1)

Personally, I'd love to see America ramp up and continue to lead a worldwide effort to explore Space, return to the Moon and go to Mars, but thinking we can do it all on our own is the fiction part of this proposal. If we really do "scrap everything else" in the push for the Moon and Mars the proposal could hurt the science part of NASA's mission. I hope a way is found to do both.

**John Cheng:** The merits of manned versus unmanned vehicles have been debated for at least thirty years, under administrations of both stripes...

In my opinion, the verdict's been in for years. We abandoned the Moon and the technology that lifted people to its surface because it was prohibitively expensive, risked lives and, while it was a catalyst for many things, the payoff was mostly political. Once people landed, we lost interest and the Soviets never bothered to try.

When resources are limited, something wins, something loses. What is being proposed is that unmanned programs be curtailed or eliminated while manned capabilities are green-lighted.

If the space program falls under the rubric of space "exploration" and the efficient acquisition of data, (not political impact, not weapons development, not the public support of a private industry or a profession) then unmanned probes win...hands down. Voyager and Hubble may be the most mind-blowing experiences of our generation. In changing the intellectual tone for everyone on the planet, these pieces of dead metal, glass, and electronics may have been as influential as anything ever built.

Forgetting the numeric data that's been retrieved, all of us have cruised the outer Solar System, visited a comet, seen the unimaginable, and are on the Martian surface right now. One needn't be an astronaut.

I have to laugh. I should have known that one particular family trip was better skipped when I put the kids in the back seat and one of them asked, "What are we gonna do when we get there?" Already some of the articles I've read are trying to imagine just that.

**Truman Kohman:** It's not feasible. The solar-flare radiation would kill the astronauts on the way. Arguments that the radiation on Mars is not that bad ignore (a) the solar-flare events and (b) the impossibility of having adequate shielding on the spacecraft carrying the astronauts.



**Wayne Meyers: Ok, so no one else started it. I guess I'll have to: Back to the Moon? Back !!! Who said we were there in the first place?☺**

**Terry Trees:** I think there's room for discussion [on the radiation issue].

1. Assuming they do go back to the moon and build a permanent base, perhaps underground for radiation protection, and assuming they find metal resources in sufficient quantity to create alloys and a Martian



spaceship from them—which may be hard considering the density of the moon compared to the Earth--then I think a safe spaceship with at least one super-thick, radiation-blocking wall could be built and lifted-off the low-gravity moon. The one thick, protective wall could be kept pointed toward the Sun during the trip.

2. Not long ago it was announced the technology to build a space elevator would be available in a few decades. If so, that could eliminate the need for a lunar base and available lunar resources. Heavy materials could be easily and inexpensively placed in Earth-orbit.

3. Once on the surface of Mars, additional protective measures would have to be taken. Perhaps robot-freighters, launched earlier to Mars, carrying shielding construction materials or shielded rover vehicles could be used.

Science fiction? I believe men on Mars is quite do-able in the next 50 years if people are willing to spend the money and the cost-reducing short-cuts NASA have used in the past, with disastrous results, are avoided. After all, we went to the moon using Radio Shack technology (regardless of what Wayne "Fox" says) ☺

**Truman Kohman:** I don't think the "space elevator" idea has merit. A) It would be too hazardous. Carbon-nanotube-composite ribbon might be strong enough, but the joints between the many segments would present opportunities for failure. B) It probably couldn't be erected. Twenty tons of cable, once in orbit, could not be "snaked to earth." The released cable would simply stay in the same orbit as the reel.

**Brett Day:** One question has been bugging me: Did the White House talk to NASA to determine just what would be the best way to expand the ongoing explorations of Space. [The proposal] just sounds a little "gung ho" and thinly conceived to me. NASA has had to make a lot of changes in the past couple of decades; it seems they have taken lemons and made lemonade. From constricted budgets, they have generated truly magical innovations for Space exploration. If only we could get the masses to see that these are every bit as exciting as putting a boot print on the moon.

Don't get me wrong; if I see a way to stow away on the human Mars project, you'd better believe I'd be in that box! But, I would dearly love to hear the priorities of the various Scientists, and engineers, what they would advise the President to do given a broader budget, and increased Government support.



## Touring Mars: A Book Review by Richard McLaughlin

**Review of *A Travelers Guide to Mars*, by William K Hartmann (2003) Workman Publishing. Available from Sky Publishing.**

*The Travelers Guide to Mars* has two maps of Mars located inside the front cover. The first shows details visible from earthbound telescopes. Hartmann points out that the lighter and darker areas that we see on Mars are due to the contrast between the brighter red dust and the darker gravel exposed by the wind. The second map is a topographical look at Mars derived by the Mars Global Surveyor Laser Altimetry. The elevations are color coded from violet at -8 kilometers (km) to white at 12 km.

The book is divided into three main sections relating to the life span of the planet of about 4,500 million years (MY.) The first section cover the Noachian Era: from 4,500 MY to 3,500 MY. The areas still visible on Mars from this era have many impact craters. The second section covers the Hesperian Era: from 3,500 MY to 2,500 to 2,000 MY. The third section covers the Amazonian Era: from 2,500 to 2,000 MY to the present time. The book contains many photos taken by the Mars Global Surveyor (MGS.) The author is a member of the MGS imaging team. These photos are used to show the particular formations on the planet described in the text. In analyzing the possible causes that may have created them, Hartmann offers his opinions along with those of many other planetary scientists he has consulted over the years. He also includes some of his paintings giving us an idea of what an astronaut might see from the planet's surface.

The author uses inserts in the text, which he calls "My Mars Chronicles" to inform the reader of his experiences leading to his interest in the origins of the formations on the red planet.

I have some interesting background on the author (which is not included in the book): When Bill Hartmann was a teenager he joined the Allegheny Valley Amateur Astronomers. His first telescope was a 2.4-inch refractor. Using this modest scope he made a series of drawings of the lunar crater, Walter, under various angles of illumination. He used these drawings to make a plaster model of the crater. With the aid of a flashlight, he was able to show his fellow members how the crater looked during sunrise on the Moon. Hartmann then made a reflecting telescope, during which time he received advice on mirror making from Leo Scanlon. Hartmann's technical information is presented in a skillful writing style together with outstanding pictures that are directly related to the text. I HIGHLY RECOMMEND this book.

## The Inside Scoop on Aliens: A Book Review by Ann Norman

**Review of *Lonely Planets: The Natural Philosophy of Alien Life*, by David Grinspoon. (2003) Harper Collins Publishers.**

What is a natural philosophy of alien life? Galileo, working just before the dawn of the scientific era was a natural philosopher—a philosopher with a particular interest in nature. Grinspoon suggests that that study of alien life is still in the natural philosophy stage--brave speculation with a small, but growing body of facts to guide it. And that's what we get in this book.

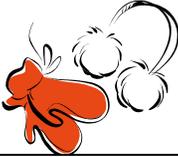
Grinspoon is an insider in the pioneering field of astrobiology and he's willing to think out loud about the possibilities of finding E.T. while dropping stories about the SETI community and its heroes. He knew Carl Sagan and family, rubs elbows with the authors of *Rare Earth*, is a planetary scientist, has attended SETI conferences, and has talked with victims of alien abduction and cattle mutilations. He is a real life Fox Mulder--enthusiastic about alien studies, aware of the inherent absurdity of the topic, with a Dana Scully-like conscience, advising him to be guided by science.

Grinspoon's writing style is informal, open, direct, and entertaining. Reading his book, I felt like I'd invited a really cool/nerdy guest to dinner and was picking his brain about SETI. The text is sprinkled with footnotes that are mostly jokes, except when they are interesting pieces of gossip. Like the comedian Chris Rock, he doesn't seem to edit the odd thoughts that fly through his head (unless its to make them funnier). I knew this book would be special when, in reference to Voyager and other early missions, Grinspoon brags that, ". . . the planets were where we thought they'd be and our traveling machines actually reached them and worked [confirming] the scientific and technological revolution of the past four centuries." A footnote adds: "\*Stuff that in your socially constructed pipe and smoke it." After expressing the politically incorrect opinion that multicellular life was indeed a great leap forward-- that it constitutes progress—Grinspoon apologizes, in a footnote, to any microbes who may be reading his book.

Part 1 is about the history of interest in alien life (the public, scientists, and natural philosophers ALWAYS have been interested in alien life). Part 2 is about the science of alien life— including novel insights from the study of Venus— Grinspoon's specialty. Part 3 is about the UFOology and belief in alien life. In each section, I learned a few new facts. But Grinspoon's biggest contribution is to put a different spin on facts I already knew--especially through his explanation of philosophical concepts such as "Gaia" and the "noosphere." He recommends that we look for energy flows in searching for alien life, rather than simply "following the water." After reading his arguments, I am less hopeful about life on Mars, but not totally closed to the idea of life on Venus or Io. If you want "the inside scoop" on the search for alien life, read this book. I give it 4 ½ stars.

★★★★★

# February 2004

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Don't forget the Wagman Winterfest on FEBRUARY 28 at 4 PM					6  AAAP Meeting 7:00 CSC	7
1	2	3	4	5		
8 	9	10	11	12	13 	14 
15	16 President's Day	17 	18	19	20  A.O. Astro. Lecture (see page 2)	21
22 Birthday Dr. Nicholas E. Wagman 1902	23 	24	25 ASH Wednesday	26	27 	28 Wagman Winterfest begins at 4 p.m.
29 Leap Year!						

<b>Looking ahead:</b> April 23, 24 Star Party at Wagman Observatory	<p style="text-align: center;"><u>AAAP Long-Range Meeting Schedule</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Mar. 5, 2004</td> <td style="width: 50%;">Sep. 24, 2004</td> </tr> <tr> <td>Apr. 2, 2004</td> <td>Oct. 29, 2004</td> </tr> <tr> <td>May 7, 2004</td> <td>Nov. 19, 2004</td> </tr> <tr> <td style="color: red;">Summer Picnic</td> <td>Dec. 17, 2004</td> </tr> </table>	Mar. 5, 2004	Sep. 24, 2004	Apr. 2, 2004	Oct. 29, 2004	May 7, 2004	Nov. 19, 2004	Summer Picnic	Dec. 17, 2004
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Summer Picnic	Dec. 17, 2004								

**Fridge Calendar** by Cathy Rivi

## Terry Trees' Letter to Mall Developer

*(continued from page 5, column 2)*

We were assured at one of the earlier meetings that the mall lighting would meet our needs. We requested that full cut-off, shielded light fixtures properly directed toward the ground be used. Citizens General Hospital in New Kensington and St. Margaret's Hospital near the Waterworks Mall are excellent examples of properly designed lighting. Ground lighting fixtures pointed upward or poorly designed parking lot lights spewing light upward as can be seen in many malls will both destroy our skies. Similarly, we cannot have excessively bright interchange lighting mounted on 150' tall poles such as can be seen at the Tarentum and Harmarville interchanges. That too will destroy our facility and its programs.

Several attachments are provided to support our case. Some show good lighting, some show bad. For example, Namnite.bmp is a composite satellite photo of North America at night. The fact that this much lighting can be seen from earth orbit is testimony to the amount of energy that is wasted by our society, billions of dollars annually. The light in that image is doing nothing but illuminating the undersides of birds in flight.

Your corporation and the AAAP will be neighbors and we need to be good neighbors. Right now, we need your help.

Thank you for your concern.

Terry N. Trees, Ph.D., Past President  
Amateur Astronomers Association of Pittsburgh

## Welcome to Our Huge But Humble Organization

The following folks were happily received into the AAAP universe at the January meeting:

Maura Burd  
Randell W. Burd  
Mike Doyle  
Chris Genovese  
Shirley Ann Granberg  
Phil J. Greer

Tom McGrew  
John F. Noullet  
Phil Thomas  
Benjamin Tsai  
Ronald T. Winkler

## Classifieds

FOR SALE: 3-1/4" (probably Jaegers) refractor, offered to AAAP members first by Mary Florida (wife of the late Bob Florida). Believed to be an f/12, on older mount with crank handles, includes 1-1/4" focuser and homemade Baader solar filter. Contact Bob Mickey at 412/373-3462 or micfam@comcast.net

FOR SALE: Meade 127ED APO 5" Refractor (2002), fully loaded, excellent condition, eyepieces, filters, camera w/adapters, guide scope w/illuminated reticle, etc. Seller can fax full description. Price: \$1800. Contact Bob Ruhoy: Ruhoy@ptd.net

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