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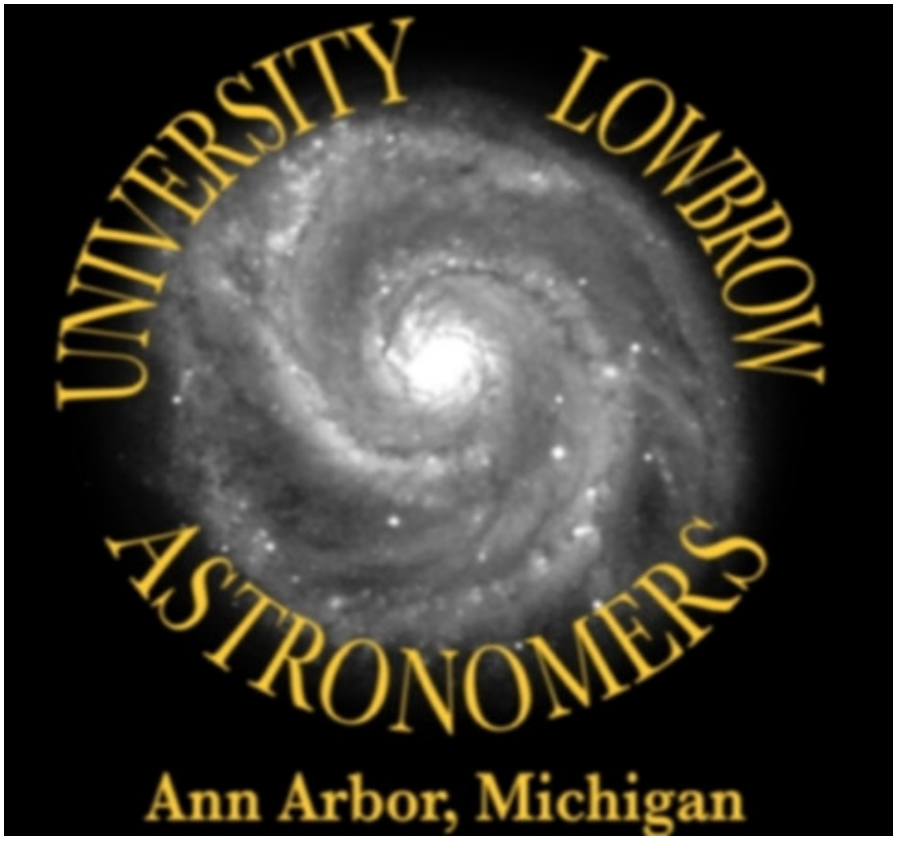
University Lowbrow Astronomers

March 2006

Volume 30 Issue 3



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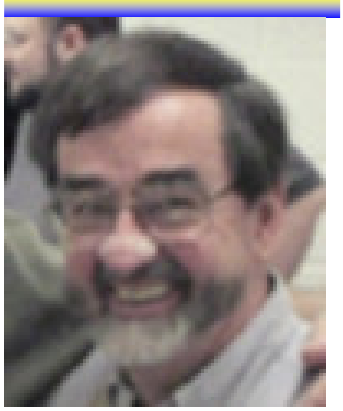
Inside this issue:



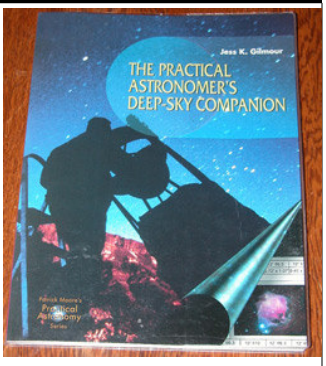
Harry Juday—Gives us his views!

Important Club Info

- March 4—Public Open House, starts at dusk, Peach Mt.
- March 17—Club Meeting starts at 7:30pm, rm. 130 Denninson Bldg., U of M Speakers—Nathan Murphy—Part 3 of Optics & Telescope Designs, and Doug Scobel—Astronomy Software of his own design.
- March 25—Public Open House, starts at dusk, Peach Mt.
- April 1—Public Open House, starts at dusk, Peach Mt.

BEWARE OF BORDERS- A BOOK REVIEW!

By Harry L. Juday

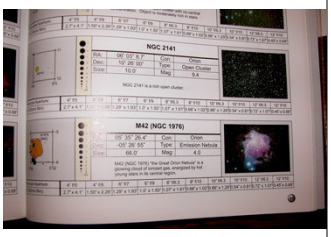


The Downtown Borders book store is a frequent stop for my wife Anna Scott & me. And whenever in there, I of course must check out the Astronomy book section to see if there is anything new that I feel I need to have for my Astro library. Not that I really need any more Astronomy books, I have a fairly respectable collection already, most of which I've even read or that I use regularly for reference, viewing, imaging, etc.

On a trip last fall, a new addition caught my eye, "The Practical Astronomer's Deep-Sky Companion" by Jess K. Gilmour. Naturally, I pulled the book from the shelf and leafed through it. Its main attraction is a series of 1 1/4" x 2" high quality color astro photos of 398 of the most interesting objects in the night sky, suitable for viewing from our Latitude. It looked interesting so I turned it over to check the price, a hefty $44.95, so I promptly returned it to the shelf.

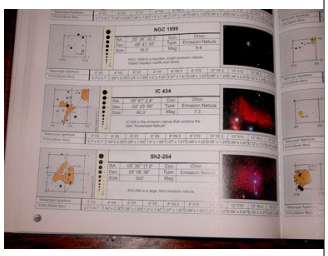
After all, the info in the book is available from other sources, albeit they may be scattered. And I do have a lot of other reference books, almost every Star Atlas published, The Sky program, and access to the internet which has more info on it then I will ever be able to dig out or use. So with limiting funds, why do I think I need this book? But wait, it seemed to have a lot more info than just the images, so I pulled it back out and took a closer look.

The book is part of the venerable British Astronomer, Sir Patrick Moore's "Practical Astronomer Series". It is an 8 1/2" x 11" soft cover volume with laminated covers and durable weight pages. Published by Springer. The author, Jess Gilmour, is a seasoned Canadian amateur astronomer and photographer/imager from Ontario and the images, I believe, are all his.



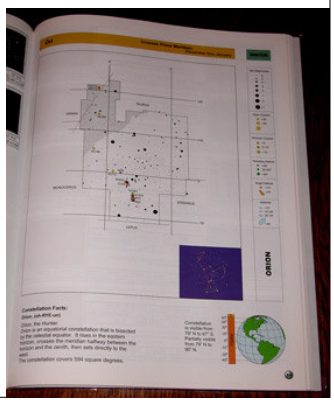
But the real beauty and utility of the book is the information contained with each image. This includes, as one would expect, the object name, and/or Astro designation, (M, NGC, IC, SH, etc.), the location, (RA & Dec), the Constellation, (the images are arranged by Constellation shown alphabetically in the book), and type (Spir. Gal., Bright Neb., Planetary Neb, Dark Neb, etc.).

But, most importantly of all, to me at least, the size and magnitude of the objects are given. They vary from less than one arc second to 300 arc min., and from mag 11.0 to the brightest objects. Why did this information interest me so much? Well, I have recently begun doing some humble CCD imaging. One of the first things I discovered was that I needed to match the size of the object with the telescope set-up I used to properly frame the object I was trying to image, or photograph if using film. Do I use the 8" SCT, or the 4" refractor? Do I use a focal reducer or a Barlow or Power mate, and if so, what power? What I needed was a quick reference of object size to match to the various fields of view of the different set-ups I can use with my equipment, (as I actually find I do minimal preplanning for my viewing/imaging sessions, a quick reference helps me a whole lot). There is also a reference along the bottom of each page showing various popular sized telescopes and f: ratios and the corresponding FOV for 35mm film.



But $ 44.95? No, just too steep, so I returned the book to the shelf again.

Then I really thought about it. Yes, it's a lot of money, seems it could be about half that price, but it certainly has a lot of useful information, all in one volume, and 398 objects are a lot. There are actually 841 illustrations in the book, counting the basic Constellation and small location charts of each object shown with each image.



Soooo, I broke down and purchased the book, and I have not been one bit sorry.

I have used it a lot in planning and setting up for my imaging sessions, not lately of course, thanks to the Michigan Nebula which is way too large to show in anything but a state sized weather map.

WHAT I LIKE ABOUT THE BOOK:

The pictures show colors matching most other images I have seen of the familiar objects, (e.g. M42, M31, NGC 7000, etc.). So I am assuming they are as accurate for all of the others. This is important when processing the images as I, at least, have found that there is quite a bit of latitude in balancing out the colors, even though I use a one shot color CCD camera.

NOTE:

My adventures and misadventures in image acquisition and processing MAY be, material for a future article if anyone is interested.

The data with each picture, especially the arc size, which, as I said above, has proven VERY useful in determining my imaging set-up and in sometimes letting me, know that I do not have the proper equipment for imaging a particular object very well.

WHAT I DO NOT LIKE ABOUT THE BOOK:

The price!

That's about all.

There are a couple of other minor items that I believe could be improved in a later edition, if one should be issued.

- All of the objects pictured are not noted on the overall Constellation chart, but each object is shown on a small location chart shown with each picture.

- There are additional objects noted on the Constellation chart that are not contained in the individual picture areas with no further data given. Of course, this can be fuel for further research.

WOULD I RECOMMEND THIS BOOK?

For anyone interested in astro-photos or CCD imaging? ABSOLUTELY!

For viewers only? Yes, if the $44.95 price does not scare you off. It can be a great viewing challenge reference for the less popular viewing targets. I know that I would have used it when I was mainly doing viewing with my Dobs and I had finished finding all of the Messier's.

For any interested persons; on my last visit to Borders downtown a couple of weeks ago, there was a copy of the book in the Astro section. And, if all sold out, I am CERTAIN that Borders would be MORE than happy to order a copy or so.

Here It Comes Again! **by Lee A. Vincent**

Now that I've enjoyed the night sky with my first scope for about a year, I'm reminded of a line from an old movie. I don't remember which movie, but the characters were probably Abbot and Costello or the Three Stooges. One guy whispers to the other "What was that????". The answer back is "I don't know, but here it comes again!!!!!". That's one of the many beautiful things about the night sky—if you didn't get a good look the first time, it will probably come around again, giving you another chance a year later.

Good thing, too, for someone like myself who is just getting acquainted with the mysterious night sky. What's really amazing is how the same night sky I gazed at a year ago looks familiar, but now somehow seems different—even better than before!

What a difference a year makes

The sky that seemed like random patterns of stars a year ago now almost naturally seems to fall into constellations and asterisms that serve as my road map. Now when I take a casual look, I may not always be able to distinctly see the double cluster or the ring nebula in the increasingly light polluted sky near my home, but I know they're up there and exactly where to find them.

I knew very little about deep sky objects then (I kept calling them deep space objects). I didn't know how to find what I was looking for, or what I was looking at when I found it. I wasn't even sure if I was looking at what I thought I was looking at.

The only two constellations I knew were the big "dipper" and the big "W" (I just can't bring myself to call it the big "M", since I'm a big "State" fan).

Last year, when I aimed my scope at Orion, it seemed like the only object of interest to me was its great glowing nebula. This year

I've been able to find NGC1907. I've split Iota and have found a smidgen of nebulosity in NGC1977 all within arc minutes of M42. I've also come to appreciate every wisp, every fold and every detail of something that just looked like a very interesting glow only a year ago.

I'm sure very little has changed up there in the past year (or in the last billion years for that matter), so it must have been me or my equipment or how I was going about doing things. Actually, the answer is all of the above.

A sense of power

I have a Meade EXT 125, which I love. It has a GOTO feature that is useful and fun for a novice like myself. But before long, I realized that I just wasn't getting to know the night sky as well as I would have liked. I was just pushing buttons and looking through the eyepiece and was too often disappointed in what I saw.

Before my scope even arrived, I was already considering an array of shorter focal length eyepieces and barlows in order to get the highest power possible. I wanted to really push this scope to the limit. This would be great for lunar/planetary observing but unfortunately, even the 26mm eyepiece that came with my 1900mm focal length Meade yielded about 73x which was not well suited, as I found out, for scanning and locating deep sky objects.

The first thing I had to do is to develop a 'sense of power'--magnification that is. I realized that what I needed was less magnification, not more, in order to appreciate the richness and develop a sense of vicinity for the objects I was looking at. It wasn't long before I was shopping for a long focal length eyepiece. I purchased a 40mm plossl by Meade, which at least reduced the magnification to just below 50x.

That helped, but I still felt lost until I purchased an Orion Starblast. It's an inexpensive, 4.5", grab-n-go, rich-field reflector (450mm focal length) on a modified Dob base (it also now comes on a tripod with EQ mount for a few bucks more, which might be worth the extra money). This was great, I could scan the sky to locate faint fuzzies at about 15 - 30x and then pop in a shorter focal length eyepiece that would take me to about 40 - 70x as needed. For a closer look, with a bit more aperture and better optics, I'll crank up my Meade.

Best of all, the Starblast came with an 'EasyFinder' (a 1x finder like a Rigel or Telrad). I could point that little red dot anywhere in the sky and suddenly I had a direct relationship between what I saw in the eyepiece and it's location in the night sky.

Reading is FUNdamental

My son gave me a book last year (NightWatch by Terence Dickinson). It's filled with outstanding general information for someone just starting out and has been an excellent resource in helping me select equipment, learn about the universe in general and locate objects in particular.

I also subscribed to Night Sky Magazine. Along with many terrific articles, each issue has a featured star hop. I've really enjoyed reading about clusters, planet's, nebulae, etc. and then following step-by-step instructions on how to find them. They give me recommendations on what magnification works best and other helpful hints.

I also joined the Lowbrows and have enjoyed the meetings, emails, newsletters and open houses. At my first open house, I thought all I had to do was set up my telescope and let people look through it. But no, wouldn't you know it--people would actually ask me questions about what they were looking at. This inspired me to learn more. The next open house I was much better prepared and have become a much better observer as a result.

A year does make a difference and the intricacy and regularity of the universe is an excellent gauge to measure just how much. Hey, by the way, what was that thing I saw in Auriga last year? I don't know, but here it comes again!

Lee Vincent is pictured here trying to figure out the proper settings for this Meade "coffee grinder."

"Let's see … that's flat bottom with paper filters …"

Actually Lee is seen here with his Meade ETX 125 and Orion Starblast getting ready for a night of observing!

Image by Lee Vincent

Contrary to popular belief this is not a picture of the newly reformed “Grateful Dead”!

It is, however some of the brains and heart of the GLAAC and just what is GLAAC?

Paul Walkowski explains and tells us what this group is planning for 2006!

Image by Paul Walkowski

GLAAC is the Great Lakes Association of Astronomy Clubs, and all Lowbrows by virtue of their update membership and also GLAAC members. It is largely a service organization for putting on a very large public star party aimed at families with children with talks and a chance to observe through many scopes. Its purpose is top encourage children to see science as fun and consider careers in science. This year we were led by Bob McFarland (Ford and 7-Ponds clubs), George Korody (FAS), Rick Kovari (WAS), John Schroer (Detroit Science Centre), Michael Tucker (Kensington Metropark) and Paul Walkowski (Lowbrows).

We kicked off the preparations for the 2006 GLAAC Star Party called "Astronomy on the Beach" this afternoon at the Kensington Nature center. The important things to remember are that there are two events this year, an observing session (only) on June 2 and 3, and the full blown GLAAC event for the general public (families) with demonstrations, name recognition speakers, and the sky scavenger hunt On September 29 and 30. The next organizing meeting is Sunday March 12 at 1:00 pm at the nature center.

Why the earlier event? No, it was not because of the pristine skies at Kensington, but because we wanted to take the opportunity to socialize with the good company of our fellow astronomers, take a look through everyone else's scope and favorite eyepieces, and do some casual (non research level) observing ourselves. No schedules or program to follow, no advertising to the public, no pressure to get there at 4pm for the best scope location, just us and anyone who walks by and asks a question. Much of the feedback from folks who organized and manned the scopes all evening at the GLAAC event indicated that GLAAC the only event all year for them to rub elbows with folks from all the other clubs, too concerned about security to walk around for more than a minute or so, and too busy serving the public to do so until after midnight, and many were too exhausted to do so at that time.

I'd encourage Lowbrows, families, and guests to bring a picnic meal and make an evening or it. Attendance is optional, that is part of the low pressure, low key persona. Cars must park in the lots, but you can drive to the site on the sidewalks to drop off scopes. We will try out minimalist red only lighting at the pavilion (with hopes for using it again in the fall), with scopes set on the grass between the pavilion and the lake. If you absolutely must invite Mrs. Penobscot fifth grade class or GSA troop 1154 and they can't hold off till fall-- they must bring enough adult supervision to take care of themselves. And please shoot Paul Walkowski and Bob McFarland an email before you make any promises.

Now back to the main GLAAC event: "Astronomy on the Beach".

Feed back from last year was that the event went off well with no memorable complaints from park management. The park folks liked the scopes along the service drive (Mostly Saturday) and did not even notice the line of SUVs and trailers blocking the parking lot lights. We were advised to do it again (discreetly, of course) on our own initiative, parking well off the pavement to leave access for possible emergency vehicles. It is apparently easier to beg forgiveness that to obtain permission. Crowds were medium sized in the 200-500 people range for Saturday and less for Friday. The keynote speaker, Dr. Adams "Cosmology" went well over the heads of most folks and many there noted that parents pulled their kids from the pavilion after only 5-10 minutes. There is a lesson in this for all of us.

This year the short talks and demonstration will be encouraged to update and freshen their talks, and the same format will be followed as in the past.

For example, I understand that Astronomy 101 is now nearly 100% new, and Norb Vance has a lot of new developments on light pollution and lighting technology to add to his talk.

We spent the bulk of the 3 hour meeting (a record for GLAAC) brainstorming on the best possible speakers for our 10th anniversary celebration. WE desired folks with name appeal and a good understanding of how to energize the audience to think about science as something exciting. John Schroer, one of the principals from the Detroit Science Center was a fountain of good ideas and we needed to force rank the list of speakers to make it manageable. John apparently had a working relationship with many or most of these folks. In the next few weeks we will determine who is available and what our budget can bear. We have $600 between last year's donations and some roll over from earlier years. There are likely donations from various clubs as well as Cranbrook, the Detroit Science Center, Riders, and we may investigate the possibility of corporate donations at future meetings.

The short list of potential speakers includes (spelling may not be correct):

-Michael Griffin--New top Administrator of NASA-- a Scientist himself and former NASA chief engineer who proposes that "America wants a space agency that is going somewhere and doing something", not just sustaining the past.

His term follows a long period of decline where accountants and watchdogs were placed over NASA to keep it in check. A powder keg of enthusiasm and can-do attitude, he is shaking the cobwebs out of the agency and going right to the public with his agenda for saving Hubble, lunar bases, and Mars Exploration. If we could get this gentleman to come to GLAAC, we would likely get a lot of media attention and the crowds will come. He has plenty of imagination to capture his audience, and the full resources of NASA at his disposal.

-Matt Mountain --Director of Hubble and SCSI administrator, a very dynamic speaker whose mission in life is to gather a groundswell of public support and extend Hubble's mission.

-Neil Tyson -- the Current director of the Hayden planetarium in NY. He grew up in Brooklyn a poor, minority kid and when he first saw the first NY planetarium years before he announced that He would return to work there someday. Turns out that a PhD, a great deal of drive and energy, remarkable people savvy, and planning the design of the Hayden propelled him into the job. His life's work is getting kids interested in careers in science so they can make a difference in our world.

- Stephen Squyares-- of Cornell University-- Chief scientist for the Mars Spirit and Opportunity rovers-- I understand that this gent exudes excitement and works well with children. He was instrumental in getting the "Exploring Mars" IMAX film released.

-Brother Guy Consolmagno--of the Vatican Observatory was well received at Cranbrook and thousands of teens at World Youth Day. He could explain why the Vatican is so involved in Astronomy and why they have the foremost collection of meteoroids in the world.

-David Levy has been to GLAAC in the past and is a popular favorite from his Sunday newspaper columns and astronomy related popular books. We understand that he has taken a new stance on public appearances and favors appearances where children will be inspired to study science on both his calendar and with a much reduced honorarium for such appearances.

-Ann Kinney --NASA's Chief Astronomer. She fine tunes and selects the many programs, telescopes, and probes that will be in everybody's future for the next 10 years. A dynamic speaker, she has toured Michigan in the past and appeared at the Great Lakes Planetarium Association and in Grand Rapids.

Whew, I was breathless, and think there was one more name that I may have forgotten.

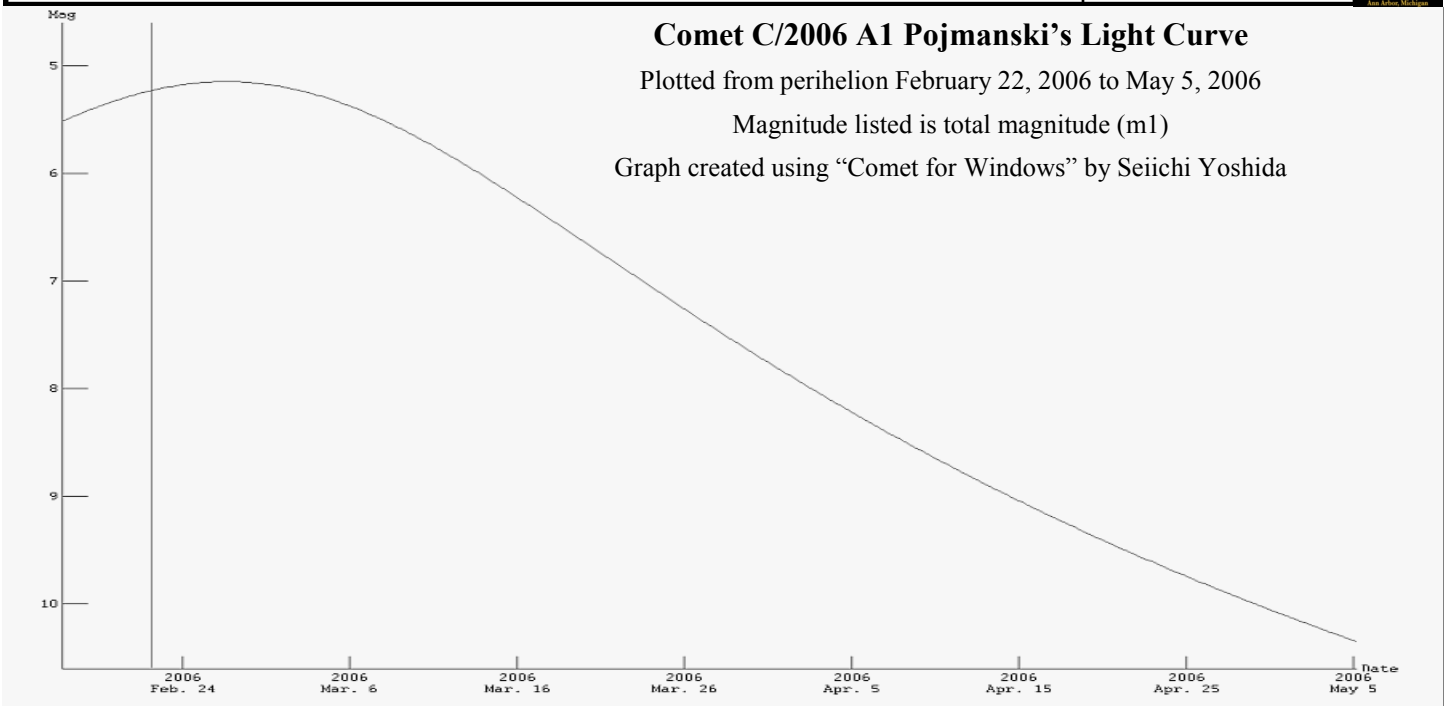
The water park is apparently under way and will be completed sometime between Memorial Day and September. It is still fenced in with construction fencing to the north of the last sidewalk on the North side of the pavilion by the restroom entrances. We will have the boat launch and construction lighting turned off for both events, and it will be closed for the season on Labor Day.

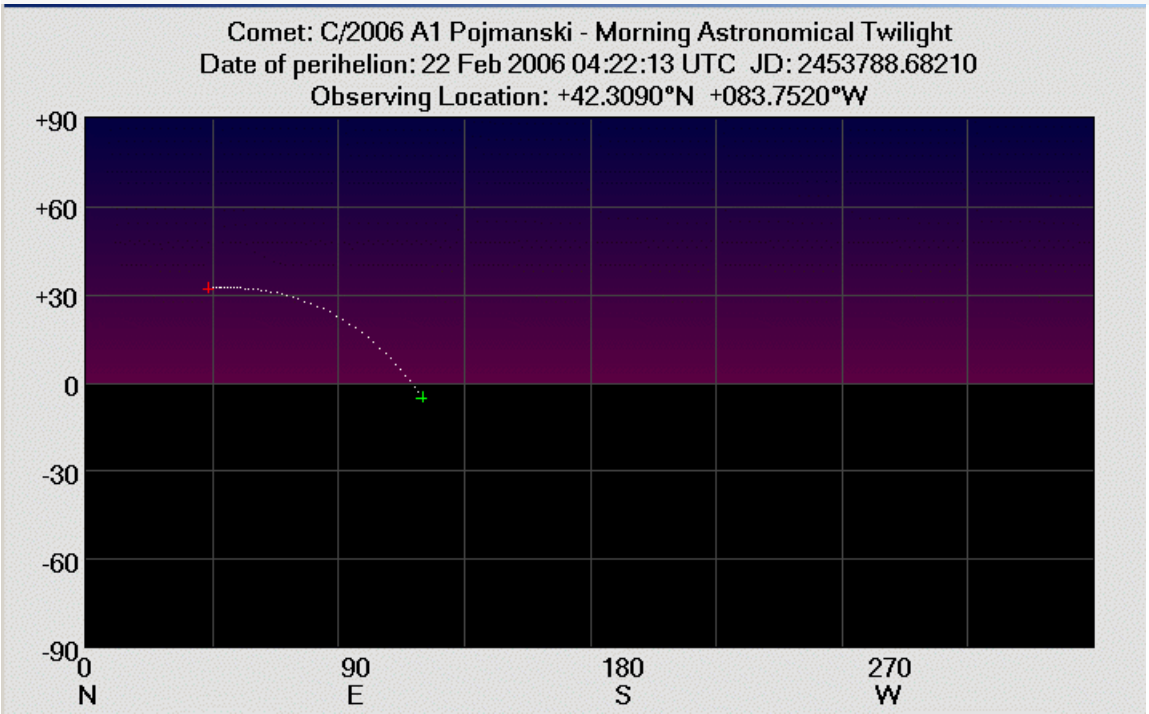
Comet C/2006 A1 Pojmanski's Light Curve

Plotted from perihelion February 22, 2006 to May 5, 2006

Magnitude listed is total magnitude (m1)

Graph created using "Comet for Windows" by Seiichi Yoshida





Altitude & Azimuth plotted for the same period as above. The comet should be visible low in the eastern sky shortly before the first rays of the sun begin to illuminate the sky.

This plot was created using "Visible Comet" by William Schwittek

Both programs are freeware and links to where you can download them are in the article below.

We are in luck once again, there is another "bright" comet coming this spring and this time it's a morning apparition. Comet: C/2006 A1 Pojmanski should reach 5th magnitude as it passes within 0.77 AU of Earth on March 1, 2006 shortly after perihelion. Although it doesn't get much above 30 degrees in the "wee hours" of the night it should be and easy binocular target and may sport a fairly long tail. Shades of Hyakutake? Probably not, but it should be very impressive as it moves through the western edge of the Sea Goat, past the heart of the Dolphin, crossing the eastern wing of the Swan, to the throne of the Queen. For a rough finder chart see page 8.

For daily ephemeris go to: (http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2006A1_1.html)

For the Freeware programs used above: "Comet for Windows" (www.aerith.net/project/comet.html)

"Visible Comet" (www.inourfamily.com/sites/cmtwin/)

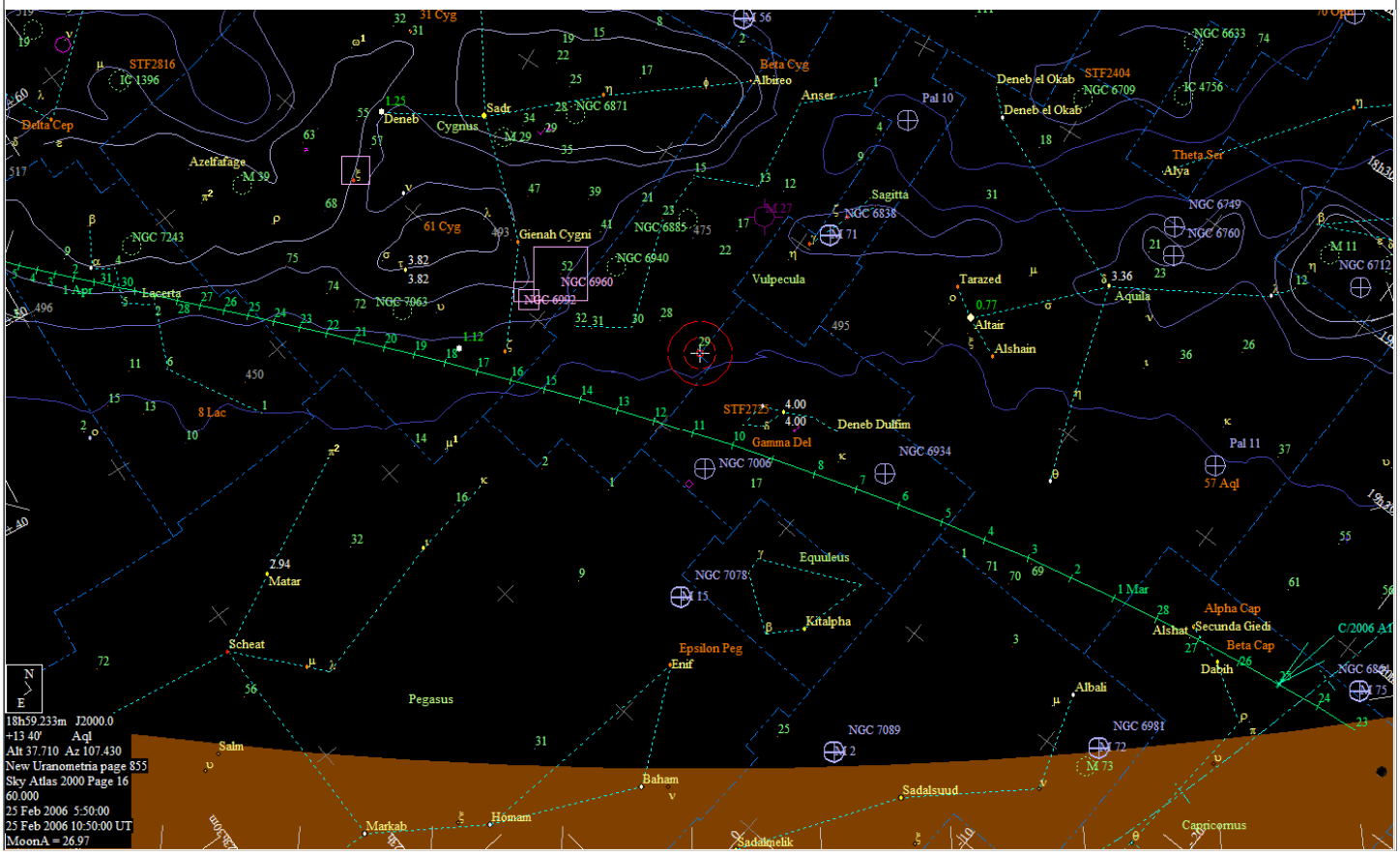
Space Collisions: Problem

by Lorna Simmons

There is an orbital debris space environment out there which is creating serious impact problems for our space systems, particularly to human space flight and extending to our robotic missions. With many thousands of Earth-orbiting leftovers from previous space missions and the breaking up into many fragments as a result of those missions, it is getting to be increasingly dangerous out there. Several space collisions have been documented and, luckily, have not yet resulted in large clouds of debris which would make future space travel even more hazardous that it has been in the past. This growth of space junk seems to be caused by the greater densities of larger and increasingly massive remains of rocket bodies and spacecraft, combined with the excessive decays of such bodies in certain regions of space. In the future, it is apt to become a nightmare for astronauts attempting to avoid collisions with these fast-moving objects. Thoughts of impact with any of them would be horrific. The current situation of space junk in some regions of space has evolved into creating a very unstable space environment. The high collision activity in near-earth space will be apt to produce even more lethal debris. Obviously, all of this will probably become even more unstable because spacecraft will continue to be launched, becoming even more space junk to deal with in the future.

Space vehicle disposal and their lifetime orbit limitations are of greatest importance to the future of space travel and to the many nations throughout the world which have space missions, including those of the United States. This will limit the growth of space debris but might not be capable of slowing down the population growth of artificial Earth satellites. Only the necessary removal of present-day large artificial objects from orbit will solve the present space problems.

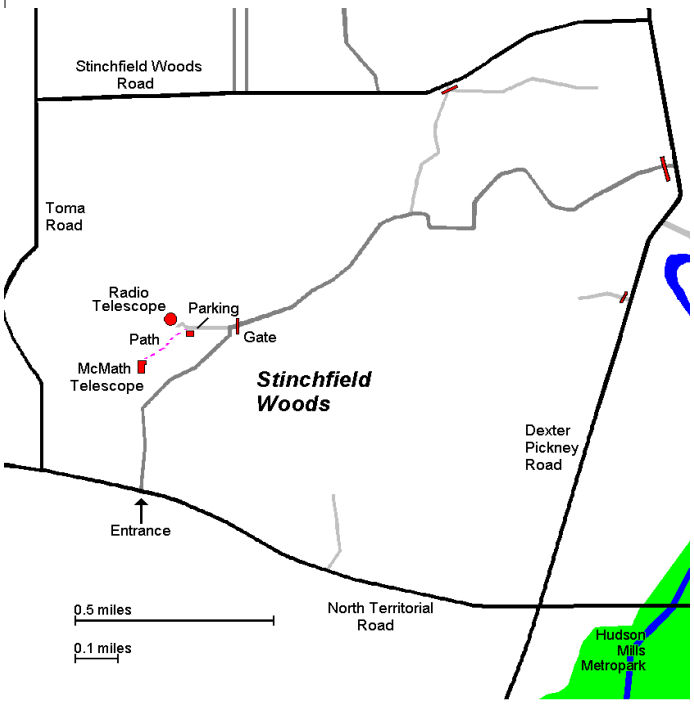
Most of the successful means for speeding up the orbital decay of old spacecraft and rocket bodies would be excessively costly. However, something must be done about the removal of space debris or space travel will become prohibitively costly, if even possible.



Places & Times

Dennison Hall, also known as The University of Michigan's Physics & Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. Dennison Hall can be found on Church Street about one block north of South University Avenue in Ann Arbor, MI. The meetings are usually held in room 130, and on the 3rd Friday of each month at 7:30 pm. During the summer months and when weather permits, a club observing session at the Peach Mountain Observatory will follow the meeting.

Peach Mountain Observatory is the home of the University of Michigan's 25 meter radio telescope as well as the University's McMath 24" telescope which is maintained and operated by the Lowbrows. The observatory is located northwest of Dexter, MI; the entrance is on North Territorial Rd. 1.1 miles west of Dexter-Pinckney Rd. A small maize & blue sign on the north side of the road marks the gate. Follow the gravel road to the top of the hill and a parking area near the radio telescopes, then walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.



Public Open House / Star Parties

Public Open Houses / Star Parties are generally held on the Saturdays before and after the New Moon at the Peach Mountain observatory, but are usually cancelled if the sky is cloudy at sunset or the temperature is below 10 degrees F. For the most up to date info on the Open House / Star Party status call: (734)332-9132. Many members bring their telescope to share with the public and visitors are welcome to do the same. Peach Mountain is home to millions of hungry mosquitoes, so apply bug repellent, and it can get rather cold at night, please dress accordingly.

Membership

Membership dues in the University Lowbrow Astronomers are $20 per year for individuals or families, and $12 per year for students and seniors (age 55/+). This entitles you to the monthly Newsletter and use of the 24" McMath telescope (after some training). Dues can be paid at the monthly meetings or by check made out to University Lowbrow Astronomers and mail to:

The University Lowbrow Astronomer c/o Kathy Hillig

7654 W. Ellsworth Road
Ann Arbor, MI 48103

Membership in the Lowbrows can also get you a discount on these magazine subscriptions:

Sky & Telescope - $32.95 / year

Astronomy - $29.00 / year

For more information contact the club Treasurer. Members renewing their subscriptions are reminded to provide the renewal notice along with your check to the club Treasurer. Please make your check out to: "University Lowbrow Astronomers"

Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest. Call or Email the Newsletter Editor: **Mark S Deprest (734)223-0262 or msdeprest@comcast.net** to discuss length and format. Announcements, articles and images are due by the 1st day of the month as publication is the 7th.

Telephone Numbers

President:	Charlie Nielsen	(734) 747-6585
Vice Presidents:	Jim Forrester	(734) 663-1638
	Bernard Friberg	(734) 761-1875
	Bob Grusczynski	(734) 461-1257
Treasurer:	Kathy Hillig	(734) 663-8699
Observatory Director:	D. C. Moons	(586) 254-9439
Newsletter Editor:	Mark S Deprest	(734) 223-0262
Key-holders:	Bernard Friberg	(734) 761-1875
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Lowbrow's Home Page

http://www.umich.edu/~lowbrows/

Email at:

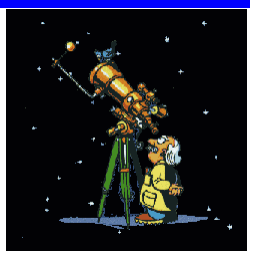
Lowbrow.Astronomers@umich.edu

University Lowbrow Astronomers

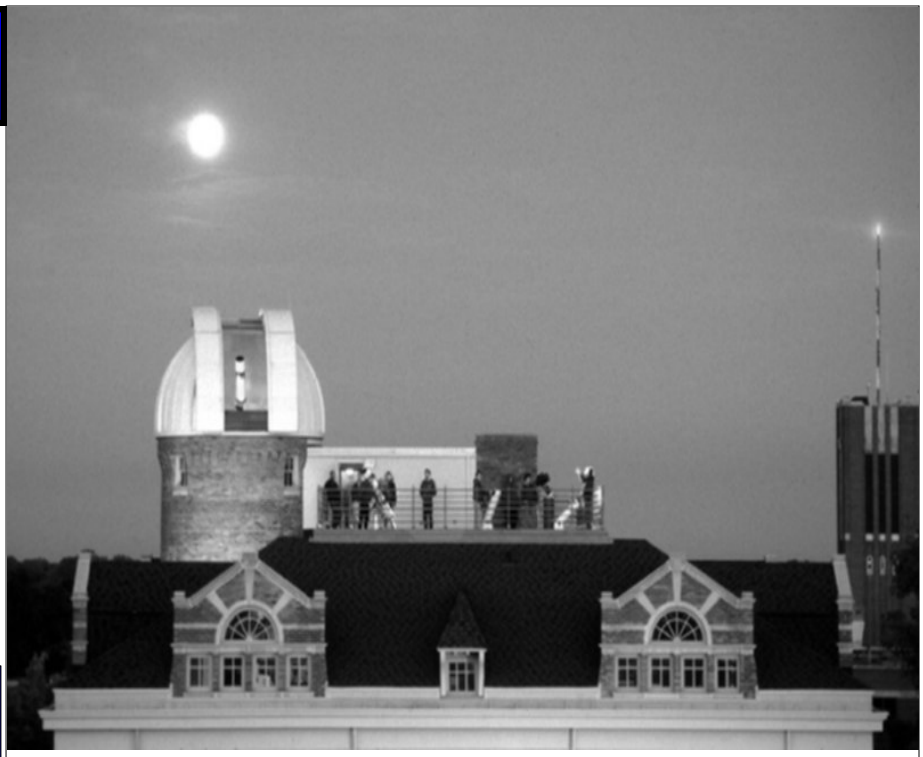
Kathy Hillig
7654 W. Ellsworth Road
Ann Arbor, MI 48103

Phone: 734-663-8699
E-mail: hilligk@hotmail.com

Reflections & Refractions



Website
www.umich.edu/~lowbrows/



Coming Next Month: Lowbrows at EMU— At the invitation of Norb Vance, a few of the photon deprived Lowbrows spent a few hours as Norb guests on top of Sherzer Hall on January 26, 2006 (Opposition of Saturn).

Image by Tom Kasper

University Lowbrow Astronomers
7654 W. Ellsworth Road
Ann Arbor, MI 48103

Check your membership expiration date on the mailing label