

THE INSIDE ORBIT VOLUME 45, ISSUE 1

Volume 45, Issue 1

June August, 2010

THE QUARTERLY NEWSLETTER OF
THE GRAND RAPIDS AMATEUR
ASTRONOMICAL ASSOCIATION

TRADITION

Welcome to the renewed *Inside Orbit*, the quarterly publication of the Grand Rapids Amateur Astronomical Association. In a tradition that goes back to the very beginning of our organization, the *Inside Orbit* keeps members up to date on current club activities, provides topical astronomy news, useful practical observing information, and informs our membership of the various ways in which they can enjoy participation in one of the regions finest astronomy clubs. As always, input and contributions from members is not only welcome but heartily encouraged.

You may elect to receive the *Inside Orbit* either by email or, for a small fee, by traditional postal delivery. Articles, notices of items for sale, or stories you'd like to have included for publication, please email to: graaa@graaa.org, or mailed to: Grand Rapids Amateur Astronomical Association (GRAAA) 3308 Kissing Rock Ave SE, Lowell, MI 49331-8918

I look forward to the continuation our fine publication and hearing from our members about ideas and content for future issues.

- Dell Paielli

GRAAA ACTIVITIES FOR JUNE & AUGUST 2010

- < Public observing nights :
 - June 12th and 26th 9:30PM
 - July 10th and 31st 9:30PM
 - August 7th and 28th 9:00PM
- < The annual GRAAA Star-B-Que will take place Saturday, June 19th at the Veen Observatory. Festivities will commence at 6:30PM with observing once the sun goes down. Bring your appetite, good spirits, and a dish to pass. A grill and beverages will be provided.
- < Star parties for GRAAA members will be held at the observatory July 17th beginning at 10:00PM and August 7th starting at 9:00PM
- < The " Perseid Pajama Party " observing event will take place in Cascade Township Park on Thursday evening, August 12th. The shower should peak

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THE JAMES C. VEEN OBSERVATORY I
A MEMORABLE 40 YEARS
BY DAVID L. DEBRUYN

"Those who planned and built this observatory have done so carefully and thoroughly. Let me be unprofessional and cast a horoscope for you: I predict that the James C. Veen Observatory and the Jeffrey Borr Telescope will make significant contributions to the science of astronomy and to the diffusion of astronomical knowledge. You are very proud to day - and rightfully so but there is still more to come in which you will take pride."

Richard G. Teske

June 21, 1970

I remember those prophetic words of the dedication speaker, a University of Michigan Professor of Astronomy, as if they were spoken yesterday, not four decades ago this June. Fifteen years after he co-founded the GRAAA in 1955, James C. Veen's vision observatory had become a reality. Nearly 150 people walked up the two track unfinished road to the summit of Kissing Rock Hill that bright Sunday afternoon to see firsthand and take pride in the results of an arduous five year effort.

Jim Veen Sr. had unfortunately been killed in an auto accident in the late 50's, family were there as Mrs. Veen cut the ribbon officially opening the new facility. GRAAA co-founder Evelyn Grebel, longtime director of children's activities at the Public Museum, took part in the dedication ceremony presided over by then president Bob Moler. It was a historic and memorable day for all assembled and the official beginning of a new era for amateur astronomy

in West Michigan.

Now, four decades later, the Veen Observatory, undergoing continuous renovation, remains one of the most versatile of amateur run operations in the Midwest. It is also on the cusp of bold new initiatives you will be reading more about in coming issues of the *Inside Orbit*.

One of the original instruments was a twelve and one half inch Newtonian reflector designed by charter GRAAA member Ray Larson. Ray ground and polished the primary mirror in his basement while the massive fork mount was being assembled in the machine shop owned by member Roger Reed. At the dedication ceremony, the instrument was dedicated to the memory of Jeff Borr, one of many young members of GRAAA who labored so faithfully during construction of the building. Jeff joined the U.S. Army upon graduation from high school and was unfortunately killed in the Viet Nam war in 1969. His family set up a memorial fund and contributed the proceeds toward completion of the observatory.

The second original instrument in the twin domed observatory was a fine six inch refractor owned by Jim Marron. Were it not for the generosity and patience of Jim and Evie Marron, there is doubt the Veen Observatory would have been built. They not only leased the land and access rights for the building, they also toiled weekend after weekend during construction, and provided much needed supplies and suste-



James C. Veen

... walked up the two track unfinished road to the summit of Kissing Rock Hill that bright Sunday afternoon to see firsthand and take pride in the results of an arduous five

A MEMORABLE 40 YEARS

nance for the prodigious effort.

The original twelve and one half inch was replaced in 2000 by a high tech 16 inch Meade LX200, designated the Borr II Telescope. However, the original instrument, following complete refurbishing a few years ago, is now back in service most clear nights at the Steven F. Wessling Observatory at the Kropscott Environmental Farm north of Fremont. It has been re-christened the Raymond B. Larson telescope in honor of the person who designed it. Ray, an honorary GRAAA life member, is now nearing his 90th year and lives not far from the facility. (Note in your *GRAAA Meeting and Activities Guide* that a field trip to the Wessling Observatory is coming up Sept. 4th or 5th.)

The original 6 inch refractor in the observatory "first light" back building connecting the two towers was even completed. It has long been decommissioned, replaced first with an 11 inch Celestron, and then by a 14 inch Celestron donated to the Association by James Hern in the late 1980's. Within the 14inch has been refitted with a highly sophisticated Paramount system that permits precise pointing and guiding of the telescope from a remote location. The east dome complex, appropriately now designated the Jim and Evelyn Marron Telescope, has the potential to place the Veen Observatory on the cutting edge of capabilities for basic research and imaging on an amateur level.

At a recent public visitors

night, guests were encouraged to go down to the observatory's library where Dell Paielli and Tom Haynes, two of the stalwarts who guided the project's frustrating course to operation, were taking real time images remotely and proudly displaying them on a computer screen. One impressed visitor, who left with a GRAAA application blank in hand, said that watching the robotic operation, and listening to Dell and Tom's enthusiastic description of its capabilities, was the "coolest" part of the experience.

During the arduous construction of the observatory in the late 60's, largely carried out by members on evenings and weekends, one person the youngsters and adults in the gritty work crews always looked up to was Percy Hawkins. The longtime member and former president, a native of New Zealand, was nearing 80, but had lost little of the bounce or zest for life that had made him a favorite of students taking his manual arts classes over a long teaching career. The flurry of activity in 1968, which resulted in installation of the two Ash Domes, construction of the connecting building, and start of interior finishing, inspired the talented master carpenter to write the following verse:

"If by chance you pay a visit, to the crew on Kissing Hill; though the sun be almost setting, you will find them working still. Three more courses, or the lintels, that's the goal we have in sight, and with diligence we'll make it, before the twilight turns to night. Suddenly the light is fading, and the mortar box is running low. Question: Which will last the longer? Lack of

If by chance you pay a visit, to the crew on Kissing Hill; though the sun be almost setting, you will find them working still.

Percy Hawkins

A MEMORABLE 40 YEARS

one could spoil the show. Tales like this must have bright endings, and our plans are going fine; for the last assembled pieces were in place at 10:09!"

Beloved by all, Percy Hawkins died in 1982 at age 92. Two years later, a third principal instrument was added to Veen Observatory, this one a 17 inch Newtonian reflector of the straightforward Dobsonian design. The idea was to have an instrument with large aperture just for viewing that is user friendly and accessible to all members following appropriate orientation. It is housed in a rollaway structure, and its use does not require entry into the main building. Could there be a more fitting memorial to a wonderful GRAAA asset who could be best described as the "p mer?"

John Dobson himself spoke at the dedication of the Percy Hawkins Telescope in May of 1984. Like the other two principal instruments at Veen, it has also undergone reincarnations over the years, the latest in 2000. On good seeing nights, it boasts superb images made possible by an excellent primary mirror and upgraded eyepieces. Sometimes I feel the spirit of the inimitable Percy looking over my shoulder as I peer through this instrument.

So many wonderful memories have been accumulated over these past forty years of regular activity on Kissing Rock Hill. Here are just a few that stand out clearly.

One visitors night in 1971 came while the Apollo 15 mission was underway on the moon.

There we were, assembled in the west dome showing fascinated visitors the Hadley Rille, near which two astronauts and their little landing craft were right then encamped. A visitors night in September of 2003 came during the height of a highly publicized close approach of Mars. The overblown media hype resulted in the hill being g estimated 1,000 visitors peering at the tiny wavering Martian disk! Typical public visitors nights these days draw 75 -125 visitors each, which is ideal for the size of the facility and its resources.

The Veen Observatory made the front page of the the *Grand Rapids Press* in 1979 when Bill Sanders and Bob Montle, looking for new variable stars in collaboration with a Vanderbilt University astronomer, came up with a promising suspect. Variable star work, timings of lunar occultations, and some pretty impressive astrophotography have been going on for many years now on Kissing Rock Hill.

A grant received in 1981 allowed purchase of the Daystar solar filter that delivers those fascinating views of prominences and other solar features visible only in the red light of hydrogen. While that system has since fallen into disuse, the anticipated rise of solar activity to the latest maximum over the next several years is behind a current impetus to refurbish the equipment and get it back in operation soon.

The outpouring of sympathy and public outrage that followed a break-in with some vandalism in 1992 was nothing short of amazing.

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A MEMORABLE 40 YEARS

A story on the front page of the *Grand Rapids Press* resulted in no less than three alarm companies offering to install a complimentary security system. Thanks to the continuing generosity of Mid-State Security Company, the building is today alarmed for break-in, fire, and low temperature.

Is there a most treasured memory over these past forty years? It is more likely a combination of images that most satisfies my muse: the exclamation of a young visitor as he or she looks up from the eyepiece after seeing the rings of Saturn for the first time; an excited young GRAAA member showing off his first successful astro-photograph; members enjoying fellowship while observing, drawn together by a common interest in the wonders of the sky; friendships that have long endured.

At the close of a successful public visitors night recently, I accompanied a departing group of appreciative visitors who had come to know the stars a little better this particular evening. As we walked down the observatory road to our parked cars, I looked up in contemplation from time to time through the canopy of trees at the spring stars twinkling overhead. My goodness, those trees were mere saplings when we started this project. It has been a long ride but one of great satisfaction and fulfillment.



The James C. Veen Observatory, Kissing Rock Hill, Lowell, MI

RESEARCH AT THE JAMES C. VEEN OBSERVATORY

DELL PAIELLI

One of the long time goals of the GRAAA, indeed going back to club founder, James Veen, was utilizing the resources of our club to conduct scientific research. As Richard G. Teske is quoted in Dave Earl's *predict, that "the James C. Veen Observatory has made significant contributions to the science of astronomy and to the diffusion of astronomy."* During the past two years developments at the Veen have finally come to fruition to make both men's dream a reality. With the mentoring support of Dr. Larry Molnar, professor of Astronomy and Physics at Calvin College, association members Jeff Dickerman, Tom Haynes, and myself are in the initial stages of collecting data on Main Belt asteroids using the Jim and Evelyn Marron Telescope located in the East Dome. Crucial for this project to begin were the tireless efforts of Jeff and electrician Rick Curtis of Lakeland Electric to install much needed dome controller equipment to allow unattended, remote operation of the

equipment. This upgrade to the east dome has allowed imaging to be collected over a much longer time which has greatly improved the quality of the data. It also has the potential to provide remote operation via the web which opens up possibilities for international collaborations.

The research on asteroids falls into two areas: Asteroid light curve photometry and asteroid astrometry. Light curve photometry involves measuring the changing amount of reflected light from an asteroid as it spins in space. This information can provide details on the rate and direction of spin of the object in addition to its polar inclination and even the shape. The goal of this study is to determine the nature of families of asteroids, and their possible interactions with the inner solar system. The object studied this past spring was the asteroid 939 Isberga which is fascinating as it is actually a binary; a

software to determine the asteroids precise movements.

Developing these projects showcases the tremendous potential of the Veen Observatory and, more importantly, the talent of the members of the GRAAA.

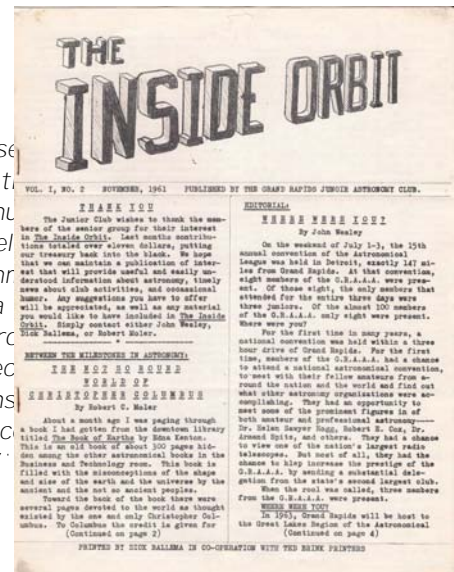


The James & Evelyn Marron Research Telescope

49 YEARS AGO INSIDE H < 9 ' ' Î C F 6 = H Î

December 1961

Would you like to own a twelve inch reflector in a well located, permanent observatory? For the average individual, the cost of such an installation is prohibitive, but the way by which we can all have such an instrument at our disposal, at a minimum expense. Stated in more precise terms, this means building or purchasing a twelve inch or larger telescope and an observatory to house it. If purchased from a commercial firm, such an installation might cost \$2500 or more. The G.R.A.A.A. can have a twelve inch f/6 reflector, permanently mounted in a 12 by 16 foot, concrete block, roofed observatory, for less than \$700, if members of the club get behind the project and contribute the labor. If an observatory were given careful and immediate construction, it might well be completed before the 1963 convention, providing an excellent opportunity to observe the stars.



THE INSIDE ORBIT
 VOL. 1, NO. 2 NOVEMBER, 1961 PUBLISHED BY THE GRAND RAPIDS JUNIOR ASTRONOMY CLUB.
THE INSIDE
 The Junior Club wishes to thank the members of the senior group for their interest in *The Inside Orbit*. Last month contributions included new silver dollars, putting our treasury back into the black. We hope that we can maintain a publication of interest that will provide useful and easily understood information about astronomy, timely news about club activities, and occasional humor. Any suggestions you have to offer will be appreciated, as well as any material you would like to have included in *The Inside Orbit*. Simply contact either John Welby, Dick Ballena, or Robert Miller.
BETWEEN THE MIRRORS IN ASTRONOMY
THE INSIDE
 ABOUT A MONTH AGO I WAS paging through a book I had gotten from the downtown library titled *The Book of Earth* by Ross Kenton. This is an old book of about 300 page slides among the other astronomical books in the Business and Technology room. This book is filled with the dimensions of the shape and size of the earth and the universe by the ancient and the not so ancient peoples.
 Toward the back of the book there were several pages devoted to the world as thought existed by the one and only Christopher Columbus. To Columbus the credit is given for
 (Continued on page 7)
MEMORIAL
THE INSIDE
 By John Welby
 On the weekend of July 1-3, the 15th annual convention of the Astronomical League was held in Detroit, exactly 147 miles from Grand Rapids. At that convention, eight members of the G.R.A.A.A. were present. Of these eight, the only members that attended for the entire three days were three Juniors. Of the almost 100 members of the G.R.A.A.A. only eight were present. Where were you?
 For the first time in many years, a national convention was held within a three hour drive of Grand Rapids. For the first time, members of the G.R.A.A.A. had a chance to attend a national astronomical convention, to meet with their fellow amateurs from around the nation and the world and find out what other astronomy organizations were accomplishing. They had an opportunity to meet some of the prominent figures in of both amateur and professional astronomy—Dr. Helen Sawyer Hogg, Robert S. Cole, Dr. Armond Spite, and others. They had a chance to view one of the nation's largest radio telescopes. But most of all, they had the chance to help increase the prestige of the G.R.A.A.A. by sending a substantial delegation from the state's second largest club. How the club was called, three members from the G.R.A.A.A. were present.
GRAND RAPIDS
 In 1963, Grand Rapids will be host to the Great Lakes Region of the Astronomical League.
 (Continued on page 4)
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REFLECTOR

Many club members join the GRAAA because of the opportunity of using one of the fine telescopes our organization possess. If you are one of those people a few training sessions will have you quickly on your way to broadening your observational experience and delving deeper into the night sky.

The entry level scope available is the Hawkins 17" and housed in the small front of the observatory. This telescope is actually the largest aperture instrument the club owns and yet is the easiest to use. In addition, access to the observatory building is not required for use of this scope. Mounted on a alt-azimuth base, the telescope is simply pointed by hand to objects of interest with the aide of

a small finder scope. Objects are then kept in the field of view by periodic nudges as this mount is not motorized. Training consists of learning the steps of opening the storage shed, installing and handling the various eyepieces , the use of charts, how the mount works with the night sky, and, of course, closing up the telescope at the end of the observing session. Contact Jim Foerch or Fritz Lowe to schedule a training session.



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ASTRONOMY & SPACE NEWS

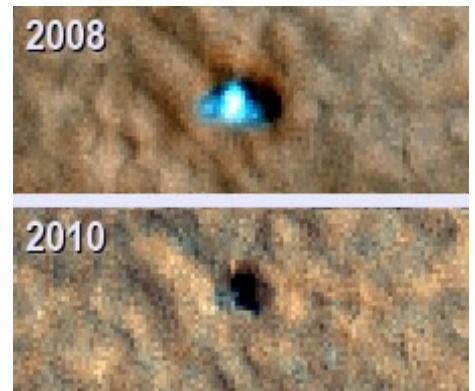
Phoenix Mars Lander is Silent, New Image Shows Damage

An image of Phoenix taken this month by the High Resolution Imaging Science Experiment, or HiRISE, camera on board the Mars Reconnaissance Orbiter suggests the lander no longer casts shadows the way it did during its working lifetime. Apparent changes in the shadows cast by the lander are consistent with predictions of how Phoenix could be damaged by harsh winter conditions.

It was anticipated that the weight of a carbon-dioxide ice buildup could bend or break the lander's solar panels said Michael Mellon of the University of Colorado in Boulder, a science team member for both Phoenix and HiRISE.

Mellon calculated hundreds of pounds of ice probably coated the lander in mid-winter.

http://www.nasa.gov/mission_pages/phoenix/news/phx20100524.html



The 2008 lander image shows two relatively blue spots on either side corresponding to the spacecraft's clean circular solar panels. In the 2010 image scientists see a dark shadow that could be the lander body and eastern solar panel, but no shadow from the western solar panel. Image credit: NASA/JPL-Caltech/University of Arizona

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FOR SUMMER 2010 ISSUE OF INSIDE ORBIT

These are exciting days for the GRAAA as *The Inside Orbit* has returned after a hiatus. Thanks to Dell Paielli offering to be lead editor. Did you know that prior to that, *The Inside Orbit* had been published bi-monthly, quarterly, or more recently monthly for 44 years? Lots of dedicated contributors made that possible, and now it is your turn. If you are doing things that would be interesting to fellow amateur astronomers, or like to write, please send submissions to Dell for consideration. Our publication has a long tradition of excellence which is now being rekindled.

The first issue rightfully looks to the past as we celebrate the fortieth anniversary of dedication of the James. C. Veen Observatory this summer. This milestone becomes a springboard to the future and renewed energy at one of the outstanding amateur operated observatories in the Midwest. The Marron robotic telescope is now in full operation and is being regularly used for research projects and impressive

electronic imaging. If you want to be part of that excitement, get in touch with Dell Paielli, Tom Haynes or Jeff Dickerman. If less sophistication is your fancy, learn how to use the Hawkins 17 inch Dobsonian telescope without the need to enter the main building. Jim Foerch or Fritz Lowe are the guys to talk to. Check the website under "area" for contact

I am pleased to report that our membership has increased over the past year, and we in the leadership want to do everything possible to see that trend continue. It has been rewarding to meet and work with some of our new members, and I pledge to do more of that. Your officers and board members welcome any comments or suggestions as to how we can improve our services to members. In the meantime, be sure to get your membership dues for the 2010-2011 year in to treasurer Jerry Persha so we can keep this trend going.



ACTIVITIES AT THE VEEN

- ◁ Remote operation and control of the Marron Research Telescope from the Veen library was demonstrated to the public for the first time on Saturday, May 29th during Visitor's Night. An impressive number of guests were treated to images of M51, M81, and M13 which were captured by Tom Haynes and displayed on the library's monitor.
- ◁ Membership dues are currently being collected for the 2010 season. Adult membership is \$45, Students \$25, and Families \$50. A \$25 fee is also required for access to the observatory and use of the equipment. See the GRAAA website (www.graaa.org) for membership details and a downloadable application form.

CLASSIFIEDS

To have ads placed in the Inside Orbit please contact Dell Paielli paiellid@gvsu.edu.

For ad placement on the GRAAA website contact Kevin Jung graaa@graaa.org

For Sale: Celestron Telescope:

- * Celestron C-14 OTA (Black), mid-1980s version with Starbright coatings.
- * Celestron 9x50 finderscope
- * Set of Bob's Knobs (installed)
- * Feathertouch Microfocuser (installed)
- * C14 counterweight bar and weight
- * C14 2" mirror diagonal with 1.25" adapter

(also including a Telegizmos C14 dust cover)

Equipment gives great views, has no dents or dings. Asking price is \$2700 (plus shipping, if applicable). If interested in any of the items, contact Steve Snider via email or by telephone at (269) 397-1173.

For Sale: Meade Telescope:

- * Meade LXD-55 6 inch Schmidt-Newtonian optical tube assembly.
- * 26 mm eyepiece
- * Finder
- * Cradle Rings
- * Saddle plate

Equipment is brand new and has never been used. Asking price is \$250. If interested in any of the items, contact Marty Schreur via email or by telephone at 616-452-9035 (H) or 616-365-7131(W).

For Sale: Various items, includes:

- * 18mm Orthoscopic Eyepiece - \$15
- * TeleVue Bandmate 1.25" OIII Filter - \$80
- * TeleVue Bandmate 1.25" Nebustar Filter - \$80

If interested in any of the items, contact Dell Paielli at paiellid@gvsu.edu

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The GRAAA is a 501(C3) non-profit educational and scientific organization dedicated to advancing the study of astronomy and promoting astronomy and science education to the community.