

# The View From Arunah

Arunah Hill Natural Science Center

Vol. 7

Fall 1994

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**Welcome to the Fall edition of "The View from Arunah", the Arunah Hill informational newsletter.**

Wow! what a summer at Arunah Hill. This summer, amazing progress was made on the driveway and parking lot. This year at Arunah Hill Days, we saw the rebirth of a 17.5" reflector. It's no longer a dobsonian mount, it now sports an English cross axle mount and has a much lighter tube assembly, which can also be removed and put into a portable dobsonian mode. Over 80 people came representing just about every club in New England and some from even farther away. We had fun hosting the different clubs over the weekend.

We would like to say thank you to the staff of the Conjunction for co-hosting the weekend with us and for their continued support of Arunah Hill Observatory.

If you and your club would like to come up and observe at Arunah Hill, we implore all of you to take advantage of the facilities. Just call ahead and tell us what weekend your club members would like to come and observe. Hope to see you all soon.

Thank you for supporting your Dark Sky Observatory, Arunah Hill. Clearing Parties/Observing Sessions are still the first Saturday of every month, in addition there are other observing events. Please see schedule on last page for more info. If you would like to take part in any of the club projects or activities, call Steve Pielock at (413) 772-6715 or Joe Zuraw at (413) 665-7402.

## **Mason Parker Remembered**

5A club member Mason Parker passed away on Sept. 24, 1994 at his home after a prolonged illness. Mason was a loyal member of the 5A's, he very seldom missed a meeting or observing session. Mason, his wife and son also helped with the raising of the timber frame clubhouse at Arunah Hill Days 1992. He will always be remembered for his contributions to the astronomy community. He will be missed.

## **Arunah Hill Land Purchase**

Recently, the summit south of Arunah Hill observatory clearing went up for sale. Members immediately moved to purchase the parcel preserving it from possible development. The new mountain top at 1980 ft. high will be used for hiking trails, camping and a possible east-west view for observing comets and conjunctions.

This far-sighted acquisition will benefit future naturalists and astronomers, we are indebted to the generous efforts of those who made it possible.

## **Welcome New Members**

We would like to say hello and welcome to the newest members of Arunah Hill:


Shawn Whitney	North Smithfield, RI
Charles Sagan	Springfield, MA
Robert Osgood	Springfield, MA
Douglas Schnare	Worthington, MA
John Niedzielski	Huntington, MA
David Duclos	Peterborough, NH

Thank you for supporting Arunah Hill.

# Observing Comet Shoemaker-Levy Jupiter Collision from Arunah Hill

Here are some of the many drawings of the face of Jupiter during the crashes:

**Observing Comet Shoemaker-Levy Jupiter Collision From Arunah Hill.**  
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July 19 7/20 UT

DATE TIME 8:40 EDT 0:40 UT

TELESCOPE 45" diagonal # 6" Refractor (2)

TELESCOPE INVERTED INVERTED AND REVERSED LTR R

MAGNIFICATION 240 none

WIND DIRECTION 8 25

SEEING 8 25


TRANSPARENCY 5

OBSERVER John N. Davis

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

GM1 \_\_\_\_\_ GM2 \_\_\_\_\_



Thurs 7/21 7/21 UT

DATE TIME 8:55 EDT 0:55 UT

TELESCOPE 45" diagonal # 6" Gortner Refractor

TELESCOPE INVERTED INVERTED AND REVERSED LTR R

MAGNIFICATION 240 none

WIND DIRECTION 7 N E 25-6

SEEING 7 N E 25-6

TRANSPARENCY 5

OBSERVER John N. Davis

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

GM1 \_\_\_\_\_ GM2 \_\_\_\_\_

## Tales From a Tall Hill

by Joe Zuraw

Naked eye observing is as easy as spotting the Moon in the sky. But which one?

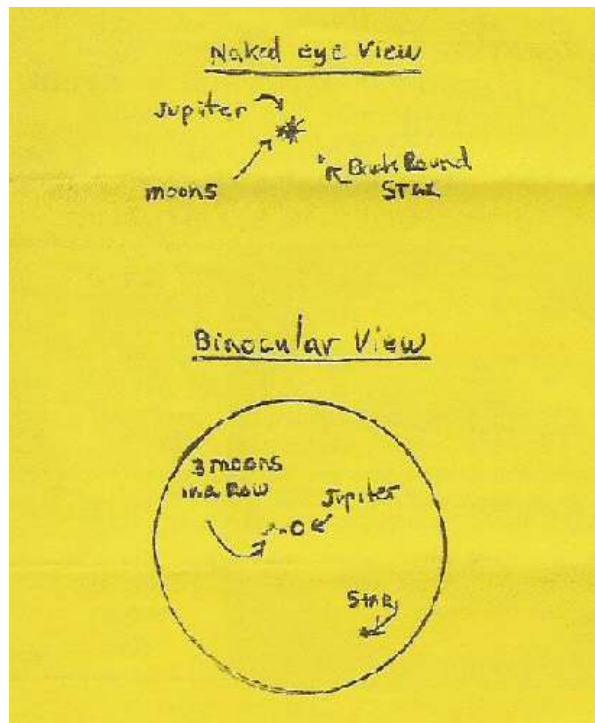
We already knew it was going to be a good night of observing at Arunah Hill. The air was so clear that the 6" Gaertner was picking up structures on the horizon that were over 60 miles away. The sky was almost painfully blue. Yes, a good night. The air was still. The air was clear. Dark skies made for high contrast. Altitude put us above low level smog and dust.

At about 10pm, Arunah Hill member Bruce Blanchard tapped me on the shoulder, pointed at Jupiter and said "What do you see?" I looked. Immediately, I exclaimed "No!, Anything but that! Why did you have to bring it to my attention?"

A year earlier, Jupiter had passed close by a star. I had mistaken it for a moon. When I told other amateurs of what I had seen, I was met with tolerant nods meant to humor me and long lectures about how the glare of Jupiter rendered naked eye observing of its moons scientifically impossible. I had slunk away determined not to make a fool fo myself again.

Now I looked into the sky at a bright glare of Jupiter, and there, very close, was a point of light almost lost amid the rays but unmistakable at between 9:00 and 10:00.

Bruce then handed me the binoculars. One look confirmed a string of 3 moons at between 9:00 and 10:00, no nearby stars at all. I cursed him and turned and tapped Ray Burk on the shoulder. "Look at Jupiter Ray ... What do you see?" He looked. And looked. I handed him the binoculars "##!!@^@\*!" He said.



If anyone ever says you can't see the moons of Jupiter naked eye, I will support you to the death" Ray said solemnly. "Just so long as its just you, Bruce and I who are there."

"Never cry wold." I sighed softly "They will call it a tall tale from a tall hill." But then they weren't there that night.

## First Impressions

Following the Labor Day's Conjunction, my wife and I headed for Arunah Hill. We set up what proved to be a very comfortable camp, and then set to observing for the evening. The evenings observing was tremendous and would have been an easy 10 from my home in northern Rhode Island. Steve Pielock and others informed me that for Arunah it was about a 6 or 7. That sold me. Saturn was a showpiece in the 6 inch Gaertner. With the 17.5 Newtonian, we set to observing the Deep Sky. We observed several objects, but two stand out in my mind.

The central star in M57 proved to be an easy target. For those of you who are new to astronomy, M57 is the Ring Nebula in Lyra. We then hunted down NGC 7009 in Aquarius. This object is also known as the Saturn Nebula. I have observed this object on several occasions with my 10 inch f/4.5 Dobsonian back home, but in the 17.5 it was the color of a glacial lake. It was so beautiful that my body had a difficult time prying itself from the eyepiece.

The following day, my wife and I hiked the trails of Arunah, and explored its diverse flora and fauna. I returned the following weekend with a good friend Keith Sculley. We observed for a couple of hours and then set out for the lean-to not far from the Observatory. We spend the night there and set out the following morning to hike and explore Arunah. We both had a great hike.

For the sake of brevity, I must conclude my ramblings. My instincts rarely lead me in the wrong direction, and they are telling me that I must return to Arunah again and again. It is time well spent. There seems to be a little something for everyone here at Arunah Hill. I shall return.

Shawn L. Whitney  
Pilgrimage Observatory  
North Smithfield, RI

## **A Celestial Double-Header: The Conjunction and Arunah Hill Days - 1994**

by John Davis

As mid-summer passes summer evenings lengthen and darkness falls a little earlier each evening, every year we look forward to perennial happenings on the celestial scene, summoning us with almost magnetic attraction: Stellafane, The Perseids, The Conjunction, and for the third straight year, Arunah Hill Days.

It was a hot, humid and exhausting though exciting summer, punctuated by an event the likes of which had never before been experienced in human history; the bombardment of a giant planet by a large, fragmented comet. Most of us amateur astronomers and many of us here on Arunah Hill were astounded and delighted beyond belief at eyewitnessing first hand and with great clarity, even with small telescopes – the effects of Shoemaker-Levy 9's colossal collision with Jupiter.

And so we arrived at The Conjunction and Arunah Hill Days with plenty to talk about and share, as this year The Conjunction and Arunah Hill Days were merged together into one long and eventful Labor Day weekend; Sept. 2-5th. Held at the traditional location, Northfield (Mass.) Recreation and Environmental Center, The Conjunction got us started Friday evening with short talks focusing on the Comet impacts on Jupiter and an antique star map. The talks gave way to clear skies and an enjoyable observing session outside on the grassy knoll, accentuated for this observer with spectacular views of Saturn, globulars, planetaries and several Spiral Galaxies in such scopes as Phil Harrington's new Star-Splitter and a number of other homemade scopes of up to 18 inch aperture.

An excellent turnout Saturday morning amid refreshments and swap tables contributed to enjoyable reunions and lively conversation. The T-Shirts designed by Dave Gallup, featured Joe Zuraw's fine drawing of Arunah Hill's Gaertner telescope were popular items and soon were adorning many in attendance. The morning program featured an enlightening panel discussion by astronomy educators Jack Megas, Ron Woodland, Hughes Pack, Sue French, and Dave Gallup, each discussing the fine points of their particular areas of expertise in bringing astronomy to the public. In the afternoon, we enjoyed a fine slide show and talk on the history and development of home and school planetariums culminating in their heyday during the 50's and 60's by Steve Pielock who through his interest, travels and research has become an authority on the subject. This was followed by Phil Dombrowski's excellent discussion and videos of grazing occultations, a fascinating presentation by Bob Conlon reflecting his extensive research into the history of observations and orbital measurements of the Companion to Sirius. Always entertaining, noted deep sky observer and author Phil Harrington, whose new book: Star Ware, detailing products for the amateur astronomer has just been released, gave everyone a delightful look back through the century at the "new and unusual, the weird and the ordinary, the great and "not-so-great" from various publications, of telescopes an astronomy products throughout the century to the present day. The afternoon was capped off by Pat Rowan of the Springfield Science Museum who shoed slides and video documenting the PBS-TV production broadcast nationwide of the December '92 total lunar eclipse, highlighted by a public open house hosted by the Springfield STARS. After a delicious chicken barbeque dinner, the evening's keynote speaker was William Lowell Putnam, former owner of TV Channel 22 and sold Trustee of Lowell Observatory, who gave us a revealing insight into the many important discoveries generated by the fascinating cast of characters populating the famous observatory established 100 years ago by Putnam's great uncle: Mars pioneer, Percival Lowell. Putnam was on hand to answer questions and to autograph copies of his commemorative Centennial history of Lowell Observatory: Then Explorers of Mars Hill.

Following the keynote speaker, Daniel Fischer, an astronomer and magazine editor from Germany and a previous Conjunction visitor gave a slide show sharing his adventures on his recent rrip to Cerro Tololo Inter-American Observatory chasing the Dying Comet. Dan showed sketches he made of the Comet impact scars on Jupiter.

Partial clouds dimmed the prospects for good observing on the knoll at Northfield Saturday evening, but as we drove west under ever-clearing skies late in the evening, we arrived at Arunah Hill in time to enjoy great observing at the 6 inch Gaertner refractor, along with several amateur scopes such as Phil Rounseville's magnificent 6 inch f/30 Gregorian and Gene Lauria's newly completed 12 ½ inch F7 Dobsonian which had recently seen "First Light". Views of such as M33 with vivid spiral arms along with the Veil Nebula were magnificent and these were especially breathtaking in Arunah Hill's newly completed and totally re-designed 17 ½ inch reflector, now in its new incarnation with its massive English Equatorial Mount, and its new tube and focuser...all this, thanks to much toil and sweat by Joe Zuraw, Steve Pielock, Bruce Blanchard and Joe Piorkowski, who worked feverishly getting the 'scope up and running in time for Arunah Hill Days.

Sunday morning dawned on the hill sweetened by the scent of fresh coffee and brightened by a breakfast of fantastic omelets al fresco served up by Scoutmaster Bruce Blanchard and members of his Hadley Boy Scout Troop 550 followed by an impressive flag-raising ceremony by the Scouts. From an early hour Sunday more and mroe people arrived and made their way to the hilltop to take part in the first Arunah Hill Days not to be plagued with clouds or bad weather, though all day the sky was one-half clear to the west and half cloud-covered to the east as a storm with rain and high winds lashed the coastal areas and eastern New England; – here on Arunah Hill, we "lucked out" winding up on the clear edge of the system.

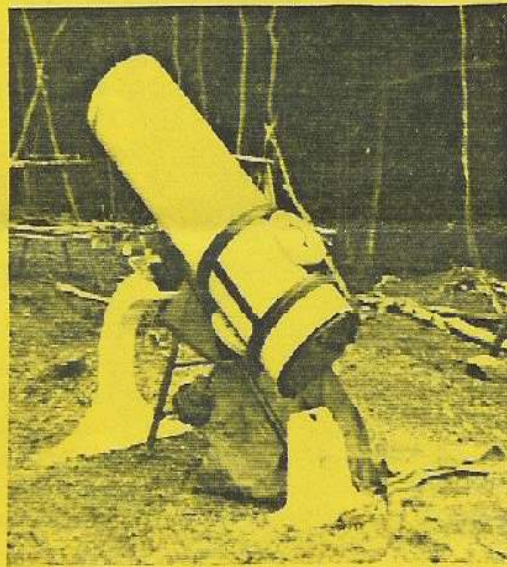
For the first time, thanks to a culvert installed and roadway over a seasonal brook, we had 4-wheel drive access with one vehicle to shuttle supplies and equipment to the top. Much labor by many loyal and dedicated members over the summer made this whole weekend possible, from the smoothing of the trail to the clearing and surfacing of the parking lot. The morning's events were highlighted by Joe Zuraw's and Dve Bowman's sawmilling/wood-carving demonstration in the parking lot, and through the day a fine art exhibit in the barn was held by Beth Kurtz featuring her talents on canvas with color and creativity revealed in her beautiful and realistic deep sky astronomical paintings. On the hilltop, a lively horseshoe tournament drew not only teams from various clubs represented, but an enthusiastic gallery of loyal club fans. I am told the Arunah Hill team won and welcomes all challengers next year.

With an ever-increasing turnout on the hilltop, Bruce Blanchard and his Scouts treated our palates to a unique Chippeway Indian Kitchen dinner prepared authentically with sides of beef cooked on hot charcol spread over driven mud packs resting on cooking standds fashioned completely from cut saplings lashed together. Roasted corn and salad rounded out the feast, along with "Seconds" for everyone! Space artist Beth Kurtz delighted a number of us by conducting a workshop wherein we were instructed in painting our own colorful creations of globular clusters! Later in the afternoon back down in "the barn", many were witness to an Arunah Hill "first": The debut, with a show and talk by John Davis, of Arunah Hill's new planetarium acquired and setup through the efforts of Steve Pielock, under the newly erected "portable" 32-Piece, 12 foot dome fashioned by Joe Zuraw.

Later on the hilltop as we finished supper al fresco, Ron Woodland provided his usual unique talents in demonstrating with human volunteers, Kepler's laws of orbiting celestial bodies illustrating constantly varying speeds in their orbits. Thanks to a generator provided for the occasion by Sid Mann to bring electricity to the hilltop, we had power for the overhead & slide projectors for the early evening talks in Arunah Hills new outdoor amphitheater. These were entertainingly emceed by the versatile and articulate Ray Burk who after conducting drawings and announcing raffle winners, introduced the speakers, John Davis gave an illustrated talk on a new and effective approach to Star-Hopping using geometric star patterns and figures. Ray himself gave an illuminating presentation on the behavior of light, and how an understanding of its nature, physical and optical properties and spectra has contributed to mankind's understanding of the Universe. As the remaining clouds from the day disappeared, and more stars appeared in the darkening twilight, Richard Sanderson's excellent slide show an presentation featuring a finely illustrated overview of an array of astronomical memorabilia from the past served as an impressive finale for the evening talks.

By now, Arunah Hill's dark skies were brilliantly starlit revealing a bright and billowy Milky Way trailing down to our low Southern Horizon and observing was underway in earnest, as short lines formed around a number of 'scopes set up on the hilltop even more people arrived in the dark to view the heavens. Again summer globulars, spiral-armed galaxies, the wonders of the Sagittarius and Cygnus Milky Way, The "Ring" and the "Veil" were a source of delight for all viewing them. The views in the newly-refurbished 17 ½ inch again were truly spectacular...and indeed we experienced yet another remarkable night of observing at Arunah Hill.

Monday morning daylight saw many who had remained for the night to enjoy breakfast on the hilltop. Altogether upwards of perhaps 80 from places like Rhode Island, New Jersey, New York and northern Vermont as well as Massachusetts enjoyed the festivities of Arunah Hill Days 1994. As we returned home, pleasant memories lingered, a fitting conclusion to an exciting and eventful weekend, with anticipation of many more to come.



**Photo of the 17" English cross axis reflector**