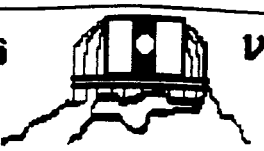
the ECLIPTIC

MARCH-APRIL 1996
SPRING!!!!



VOL 22
NO 2

Newsletter of the LACKAWANNA ASTRONOMICAL SOCIETY, Scranton, Pennsylvania

LAS OFFICERS and BOARD MEMBERS FOR 1996

PRESIDENT Joe Kamichitis VICE PRESIDENT John D. Sabia
SECRETARY Carol Leola TREASURER Cindy Krott
AT-LARGE MEMBERS Joe Krott/ Bob Maleninsky
Jim Spangler

LAS NEWS FLASHES

SPRING CALENDAR

MARCH	Regular Meeting	Tuesday March 5
	Club Night	Saturday March 9
	Board Meeting	Tuesday March 12
	Messier Marathon 1	Saturday March 16
	Messier Marathon 2	Saturday March 23
	Comet Watch Nights	(Make phone calls)
APRIL	Regular Meeting	Tuesday April 2
	Club Night	Saturday April 6
	Board Meeting	Tuesday April 9
	Astronomy Day	Saturday April 20
	Comet Watch Night	(Make phone calls)
MAY	Regular Meeting	Tuesday May 7
	Club Night	Saturday May 11
	Board Meeting	Tuesday May 14

Regular meetings are at the Keystone College Observatory and begin (in theory) at 7:30 PM. Observing sessions follow the meeting, weather permitting. Official Club Nights are on the Saturday after the regular meetings and begin about 9 PM. The location of the Board meetings has not yet been determined but these usually begin at 8 PM.

Keystone Observatory public nights are Wednesdays starting at 7:30 PM, from March 13, 1996 to about May 22, 1996.

ON ALL OFFICIAL CLUB NIGHTS, A KJCO/LASO KEYHOLDER WILL BE PRESENT. IF THE WEATHER IS IN QUESTION, PLEASE CALL EITHER JOHN D. SABIA AT 586-0789, OR JOE & JO-ANN KAMICHITIS AT 343-4006, TO SEE IF ANYONE IS GOING TO CHANCE IT. ON OTHER CLEAR NIGHTS CHECK WITH THE KEYHOLDERS OR CALL THE OBSERVATORY NUMBER, 945-3665. LET THE PHONE RING A WHILE.

TO GET TO KJC/LASO, TAKE I-81, EITHER EXIT 61 OR 62 AND HEAD TOWARDS FLEETVILLE. THE OBSERVATORIES ARE LOCATED AT THE INTERSECTION OF ROUTE 107 AND HACK ROAD. IF YOU FIND YOURSELF AT FLEETVILLE CORNERS, YOU'VE GONE TOO FAR!!

COMET HYAKUTAKE

Yuji Hyakutake of Japan has discovered a comet (C/1996 B2) which is expected to become just short of spectacular during the months of March and April this year. Nearly 10th magnitude when found on Jan 30, it's already (end of Feb) brightened to about 7th mag. John Sabia has reported seeing the comet on the morning of Feb 29 and calls it "big, easy, and 7.1 mag". At our first Messier Marathon night it should be around 4 or 5 mag, and at the second it could be as bright as 2nd mag. By the end of March the comet may be as bright as first magnitude and will be circumpolar!

Don't expect to see an object as bright as Vega streaking across the sky, however. Well, streaking, maybe. It'll be moving northward through Bootes and towards the pole at a rate of about 18 degrees per day (.75 degrees per hour), but its light will spread across an area about the size of the moon. At its closest to Earth on March 25, the comet will be less than ten million miles away.

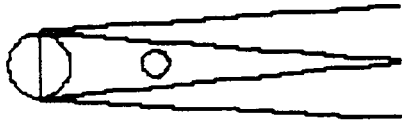
If word of the comet gets out in the local newspapers, we can probably expect crowds of people coming to the observatory for KCO Public Nights which usually begin in mid-March. The comet may still be visible on Astronomy Day, April 20, but it will be low in the west and nearing the sun.

We do not have any official comet observing dates planned at this time and chances are that we won't be planning any. The observatory will be open on meeting nights, clear club nights, our two scheduled Messier Marathon nights, and after the middle of March on Wednesday Public Nights. If the comet holds true to estimates, we will almost certainly be observing it on many clear nights other than those listed. The best thing to do, as always, is to call the observatory or call John, Jo-Ann and me, or the keyholders to see if anyone will be going up.

Comet Fever - Catch It!

Joe Kamichitis

TOTAL LUNAR ECLIPSE !!!



On Wednesday, April 3, 1996, a KCO Public Night, we will have a total lunar eclipse (who says we don't plan ahead!) with an unusual twist.

We won't see the early stages because the moon will be completely in the umbra at 6:26 PM - sunset is 6:30. This means that by the time we see the moon, it will already be in total eclipse. Mid-eclipse is at 7:10 and it's all over (effectively) just before 9 PM when the moon leaves the umbral shadow.

The eclipsed moon will give us a better chance to see Comet Hyakutake which will be in Perseus but faded a bit to about second magnitude.

LA$**LA$**LA$

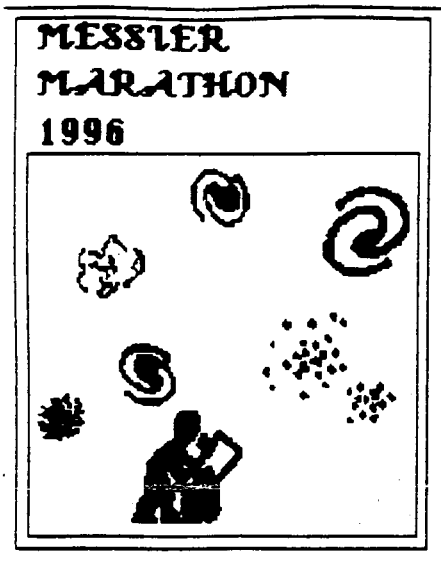
GET OUT THOSE CHECK-BOOKS! YES! YOUR LAS DUES FOR 1996 ARE DUE.

If your mailing label says 1996 on it you are already renewed. If your label says 1995, please renew as soon as possible.

Dues are
$5.00 for junior members
$8.00 for adults
$12.00 for families

Send your checks to:
Cindy Krott
419 Highland Ave.
Clarks Summit, PA
18411

LA$**LA$**LA$



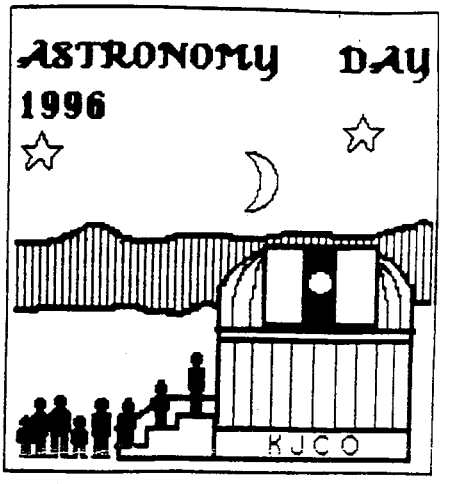
The LAS will hold its first annual Messier Marathon (at least in recent history) on Saturday March 16 and Saturday March 23 at the observatory. Theory says that the best date is 3/23 with the previous Saturday a close second best but we're going to schedule both nights in case one gets clouded out. If both nights are clear (dream on!) then the first will be a shakedown event by default. We should be able to see over 100 of the fameus objects so new and even long-time observers will be able to add to their observing lists.

The Messier Marathons are all-night events in the sense that you must begin around the end of evening twilight and your last objects will be barely visible in the pre-dawn sky. Never-the-less, after you bag the early evening objects and work your way east (or as we like to say - in order of increasing right ascension) to about the meridian, you can probably take a few hours off, get some sleep, and come back later. My computer says that sunset on the 16th will be 6:11 PM and on the 23rd at 6:19 with sunrise at 6:00 and 6:11 respectively (notice it's right around the equinox). The observatory should be open right around sunset on both Saturdays.

This is meant to be a club activity not a competition so even if you don't have a telescope you can still take part. (Also, please, NO WAGERING!!) Perhaps you can team up with another person or just be satisfied with seeing the objects and not necessarily finding them. We will probably have the 12" open and we'll be using the usual telescopes that you normally see at the observatory plus individuals will be bringing their own. We will also have check lists available with the Messier objects listed in the order you should look for them. The order is optional to some extent but, of course, you must find the evening objects first before they set (and they'll set fast so grab'em).

We'll have the usual coffee, tea, and hot chocolate available. If you want soda and food, bring your own. Bring warm clothes too.

Joe Kamichitis



In a blatant display of disregard for tradition, the club will actually hold our Astronomy Day activities on the same date as National Astronomy Day! - namely on Saturday, April 20. This annual event will be held at the observatory and will begin officially at 6:30 PM. Club members will be there well before that time, of course, to set things up and pull things out. This is a rain or shine event.

If skies are clear we will start by showing the sun, in white light and H-alpha to the public. The moon will be a three-day old crescent sitting right in the Hyades cluster so we'll be seeing that around sunset. Venus will be out in full splendor and Mercury will be just above the horizon. If Comet Hyakutake performs up to expectations, it may still be visible at the end of evening twilight before it gets to close to the sun and is lost to us.

After nightfall, we will capture the public's attention by showing them

our favorite galaxies, clusters, and double stars. We have slide programs planned and will demonstrate several astronomy programs on the computers.

In past years we have had around 60 members of the public at this popular event. We also have had, and will again need, a good showing by club members to operate the scopes, point out constellations, and explain things like Chandrasekhar's limit, cosmic strings, and,of course, nucleosynthesis.

See you there again this year.

Joe Kamichitis

STAR STUFF
by Terry Alford

From the BMAA newsletter Kingsport, TN

FREEBIES!!! Yep, that got your attention. Although, maybe this article should be titled "recycle". Amateur astronomers, normally a poor lot, are notorious for finding new uses for products originally made for another purpose. Recently, a friend acquired a used 60mm refractor and brought it to me for repair. The objective lens, dewcap, and dust cover were among the missing parts. Before spending a lot of time making a dewcap from scratch, I noticed a foam "adult beverage" can holder on the shelf. It fit perfectly over the objective end of the small refractor. The holder was made as a two piece unit with the bottom held in simply by friction. Since the holder was a promotional giveaway, the insulated dew cap/dust cover was free.

Need a few 1 1/4" plastic eyepiece plugs for your focuser and barlow lens? We all know that 35mm film canisters will do the job even though they protrude out quite a bit. A much neater, lower profile plug can be found at some paint stores and in the paint department at Sears. The paint store punches hole in the top of the can to add pigment to the base. The hole is then filled with a plastic plug with an exact 1 1/4" outer diameter. The plugs can be obtained from the salesperson at a very low price, usually free, for the asking.

Don't toss away that bubble wrap that Aunt Martha's birthday present was shipped in. Take a couple of pieces along with some rubber bands out for your next viewing session. If your lenses start dewing up, simply take the bubble wrap from the warmer environs of your car or house and secure a layer or two around the tube with the rubber bands. The warmer air in the bubbles will stave off dewing for quite some time. It looks funky, but it works as well as the expensive foam dewcaps sold by several advertisers in the mags.

This is an old idea, but it bears repeating. People will drop binoculars and knock them out of alignment. They are usually thrown away (heaven forbid!) or sold for ridiculously low prices at garage sales. It is not difficult to separate the two optical tubes and create two monoculars. I keep one such unit in my car and one in my boat for quick looks at both UFO's and IFO's. Of course, you can purchase monoculars and companies will sell you half a pair of binoculars for nearly the same price as a whole pair. If the binoc's are really damaged, then salvage the eyepieces(s) and objective(s), hopefully in their original cells. Excellent finder scopes and small richest field telescopes can easily be constructed from these components. As the saying goes, "one man's trash is another man's treasure." Save by recycling!

Condolences go out to the family and friends of long time LAS member Elaine Moore, who died suddenly March 4, 1996.

Elaine served the club in many way the 1980's as secretary, then treasurer.

Her easy laugh will be missed.

Starry, Starry Night or, How To Make Light of History

by Norm Borczon

Reprinted from April 1995 issue of Stardust, newsletter of the Astronomical Society of Harrisburg.

As we gaze into the evening sky, or train our telescopes at faint, distant nebulae or galaxies, we sometimes ponder the age of the light reaching our eyes. Generations of people are born, live, love and die... All the while, light rays silently travel from all parts of the universe to our world. Countless human and natural events occur; some are recorded for posterity, while most are lost as memories fade. We remember but moments of past lives and happenings.

Let us, then, recount snippets of our history in "light" of the objects we see in the night sky. The night we see from the lovely Pleiades cluster left those stars about 410 years ago, while Mary Stuart, Queen of Scots, was being beheaded after an unsuccessful attempt to assassinate Queen Elizabeth. The same year, 1585, Sir Frances Drake attacked Santo Dominge.

The light arriving from Polaris, the North Star, began its journey to us in 1529, while Nicholas Copernicus was formulating his theory that the earth revolves around the sun once a year and that all the other planets move in uniformly circular orbits. Meanwhile, Henry VIII was splitting with the Pope and declaring himself the head of the new Church of England. Even as severe outbreaks of the plague were breaking out in his land.

As the mighty Betelgeuse leaves our view with the coming of spring, its glimmer commenced the long earth journey while Michelangelo was an infant. To the southwest of Betelgeuse, the more distant Rigel's starlight began its 900 year trip to us as Pope Urban II proclaimed the start of the First Crusade.

A popular, though elusive telescope object, the Dumbbell nebula's light started its trek as the world's first great novel, "Tale of Gingi" was being written by Murasaki, in Japan, in the year 1020 A.D. Elsewhere, the synod of pavia was insisting on celibacy for higher clergy. In forty years, the Norman conquest of England would begin.

Water wheels were already powering mills when the light from the Great Nebula in Orion began its journey, in 695 A. D., while the Arabs were destroying Carthage and Clovis III, King of the Franks, was dying. Many telescope gazers have delighted in the view of the popular summer Ring nebula. The faint vision greeting the eye through the lens have been traveling since 595 A. D., when St. Augustine became the first Archbishop of Canterbury, and Mohammed was founding Islam. Part of the summer triangle, lovely Deneb's light has been winging along to us since 395 A. D., when early churches' walls echoed, for the first time, with hymnal singing (introduced by St. Ambrose), and scrolls were being replaced by a new marvel -- books.

Even relatively nearby stars, such as Spica, at only 220 light years distance, can stir us to dream of times past -- Spica's radiance left that star as Mozart was composing the opera buffa "La Finta Giardiniera" and a five year old Beethoven was beginning to master the piano.

The obscure star Gredi in the Capricorn constellation takes on new meaning when we realize that its light left for our eyes even as Vincent Van Gogh was painting his masterpiece "The Starry Night." Only the brilliantnight sky could provide the inspiration for the brushstrokes beneath the artist's loving hand.

Some objects are, of course, much more distant -- take the double cluster in Perseus, whose light left 6,000 years ago, when ancient people in Iran and Turkey were learning to heat, melt, and reform

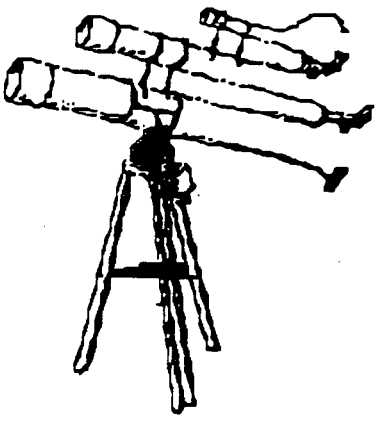
copper into tools and weapons.

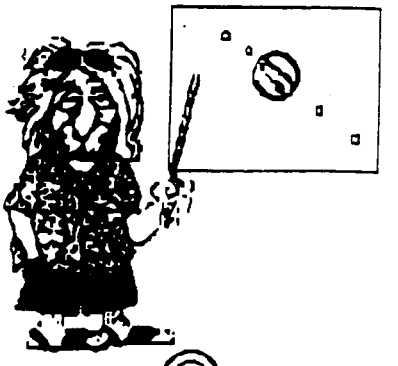
The faint globular cluster, M 13 in Hercules, visible on dark, moonless nights, cast its appearance to us while Cro-Magnon man roamed Europe, Native Americans crossed the land bridge at the Bering Strait, and Aborigines reached Australia's shores, some 32,000 years ago.

On warm summer nights, we use our averted vision to catch the faint, bluish glow of the Great Andromeda Galaxy, whose beams have been on a long journey of 2.3 million years; here on earth our earliest ancestors were beginning to walk upright and, using brains only half the size of ours, to form crude stone tools.

When our member/ astronomers swing our 17" telescope to the beautiful Whirlpool galaxy, our eyes strain for slim ribbons of light that left 37 million years ago. At that time, here on earth, Greenland was just separating from Europe, and Antarctica would not freeze over for another 12 or so million years, having just separated from Australia. Dog- and cat-like mammals were making an initial appearance, but the dogs could not lie and roll in grass as we know it, for even modern grass was still millions of years in the future (as was the invention of the lawn mower).

As astronomers at the massive Keck observatory in Hawaii capture the elusive aura of fleetingly faint "blue" galaxies, we are reminded that their light left long before there even was an earth or sun. By examining our history in a "light" framework, then, we see that light years can be only a form of distance, but also a function of time itself. As we open our eyes wide to the starry, starry night, we see the shimmering starlight our direct link with our past, and ourselves.





REMEMBER!!
Your article here, could have kept us from having to fill this space with old graphics!!

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