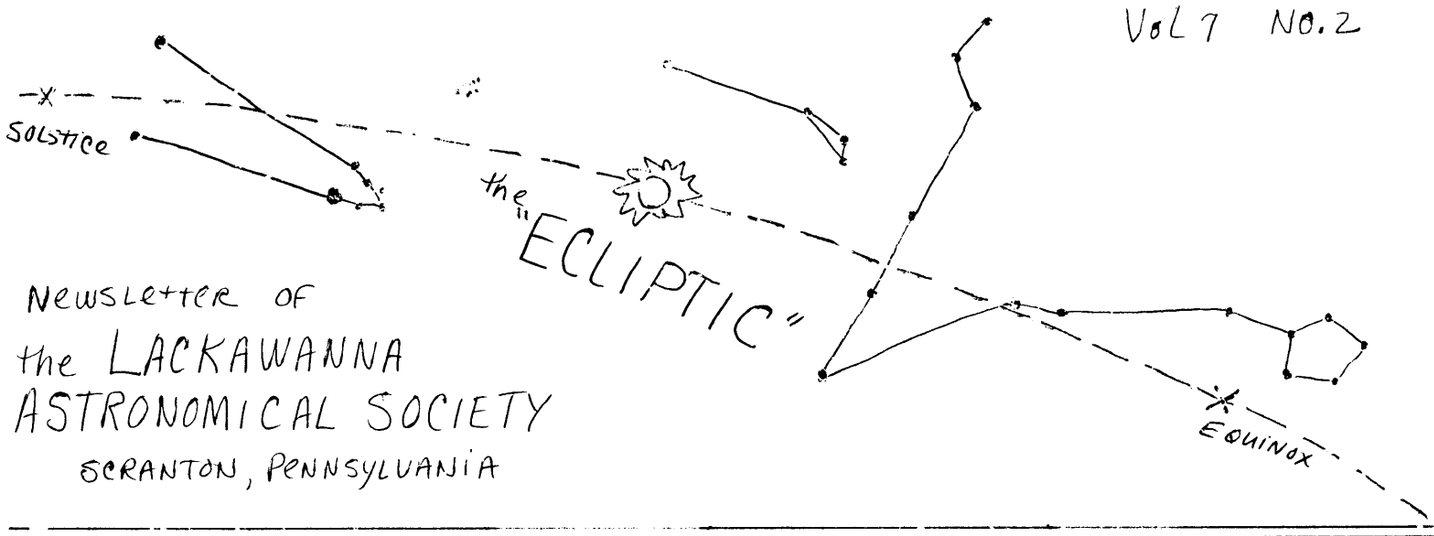
April - May 1981
Vol 7 No. 2



Newsletter of
the LACKAWANNA
ASTRONOMICAL SOCIETY
SCRANTON, PENNSYLVANIA

MEETINGS SCHEDULE

Regular Meetings - 7:30 p.m. at the Everhart Museum, Scranton.

Board of Directors Meetings - 8:00 p.m. at the home of Jo-Ann Pluciennik. (Any interested member may attend.)

Club Nights - Contact John Sabia, Jo-Ann Pluciennik or Joe Kamichitis for information on availability of the equipment and facilities on any clear Friday or Saturday. Scheduled dates are the weekend after the meeting, at KJC and LAS Observatories, Fleetville.

Month	Regular Meeting	Club Nights	Board Meeting
April	7	10 & 11	20
May	5	8 (9 probably not available)	19
June	2	5 & 6	16

PUBLIC PROGRAMS

KJC Observatory, Fleetville, PA (about halfway to the blinking light at Fleetville corners, from Exit 62 or 61, I 81) Open every Wednesday night, regardless of the weather, from 8:00 p.m. on, until the end of May. Featuring the 9" Alvan Clark refractor and smaller scopes.

Riverside Observatory, Taylor, PA (at the new High School, just off Main Ave. in Taylor, PA) Open 8:00 p.m. to 10:00 p.m. Mondays, only when skies are clear, until the end of May. Featuring the school's 14" Celestron. Contact John Kosek. 347-0084.

ASTRONOMY "DAY" ACTIVITIES

May 8 — 8:00 p.m. to 10:00 p.m. Riverside Observatory Open House and observing.

May 9 — 2:00 p.m. to 4:00 p.m. Riverside Observatory Open House and solar observing.

May 16 — LAS sponsored display and public observing at McDade State Park, by the Anthracite Museum.

FELS PLANETARIUM TRIP PLANNED

Join us on a visit to the Fels Planetarium and the Franklin Institute in Philadelphia. There's much to see. The Institute contains three floors of physical science exhibits. On the top floor there's an observatory, used only for public observing, containing a 10" Zeiss refractor and a 24" reflector. The Planetarium, which is adjacent to the Franklin Institute, uses a Zeiss projector like the one in the Hayden Planetarium in New York. (A former member of the LAS, Val Gonzalez, has worked at the Fels Planetarium. Val was director of the planetarium at Tunkhannock High School.)

The Institute also has a shop, book store and cafeteria.

WHEN - Saturday, June 20, 1981

LEAVING - 8:00 a.m. sharp, from the Everhart Museum. (Park by the Brook's Mine)

RETURNING - 4:30 p.m. sharp from the Franklin Instisute, Philadelphia

COSTS - Bus Fare $11.50
Admission to the Franklin Institute $3.50 adults, $2.50 students
Admission to the Planetarium $1.00 extra

DEADLINE - for bus fare payments is June 2, 1981
Please make checks payable to Mary Ellen Granville. Do not include the admission costs. Include this information with your payment: Number of persons and Names
Send this information and bus fare payments to:
Mary Ellen Granville
2001 Electric Street
Dunmore, PA 18512

HOLISTIC OBSERVING

Just past nightfall, you walk across the field, deftly avoiding the red-lit cow-chips. You open the door, remove the hold-down bolts, and roll off the roof noting its mass and solid-sounding rumble as it glides over the tracks. Suddenly, the ceiling which was just two feet above your head now extends into light-years. It's observing night at the LASO.

You open your atlas (to the proper map the first time, of course) and find your selected object. With the finder, you guide the 12½" into position feeling confident that the desired object will be centered in the eyepiece. You place the ladder (in precisely the right spot) and climb, taking note how the breeze increases at each step upward. As you approach the eyepiece (tonight, a 24 mm Brandon), the apparent field overflows the background image of the tube and your window to the universe opens up. "You're observing with your mind as well as with your eye."* You've developed an overall view of things. You know that the objects in view are separated from you not only by scarcely comprehensible distances but as well by scarcely comprehensible time. The light from the field star may have left its source when you were a child -- the light from the galaxy in the center is showing how things looked long before humans existed. All this you take in stride, though, because you realize that the human mind may not be really capable of fully understanding such a scale. But then, the occasional, fleeting, tantalizing moments of partial comprehension is what attracts you to this hobby in the first place. That and the beauty of it all.

The hours pass. Messier objects fall one by one, some holding your attention longer than others; faint NGC objects delight you merely in their finding; tough double stars resolve before your eyes with each eyepiece change; globular clusters fill the field with their stars and you're immersed inside them; you catch Ganymede just at its transit ingress; you find Uranus with your first attempt. Nothing can go wrong -- this is observing night at the LASO.

* Bill Mecca, 1981

Over the course of the year you've felt the revolution of the Earth and tonight you're feeling its rotation. The eastern sky is mid-July and getting lighter by the minute, but the west is still deep enough in the Earth's shadow to give you remaining glances of the brighter Coma-Virgo galaxies, but they're fading fast. Soon only Jupiter is visible and the sun you saw setting on your way up will be rising on your way home. You cover the scope, secure the building, and wait until -- tommorrow night.

Joe Kamichitis

ASTRONOMY SPEAKER AT WILKES COLLEGE

The public is invited to hear Dr. Howard L. Poss of Temple University speak on the topic "Extraterrestrial Life; Yes, No, or Maybe." at Stark Science Hall, Wilkes College, on April 30, 1981 at 8:00 p.m.

MATERIAL AVAILABLE

Thinking about building a Dobsonian? Looking for building material? Some quantity of teflon is available to members of the LAS. Contact John D. Sabia, 346-3150, if you're interested.

RECENT COMET OBSERVATIONS

BRADFIELD (1980t)

This comet's discovery came at an inopportune time to reach magazine publication, so not many amateurs were notified of its appearance. I receive Mr. Bortle's "Comet Circular" and the A.L.P.O. comet section "News Alert", and so had data about the comet's anticipated magnitude and position.

The first chance to spot the comet was Monday evening, 1/5/81. I spotted it clearly with 10 x 50 binoculars at 6:53 p.m. EST. Jim Filipski soon picked it out with a pair of 7 x 50's. It took Karen (Mrs. Filipski) some time to find it on the western horizon. From my home in South Abington Township, we could make out a 3° tail pointing in position angle of 35°. The tail was not very wide nor curved to any degree. The coma was smaller than we expected, some 7.0' and circular. It set behind the horizon rapidly in the late twilight.

For the next two evenings, 1/7/81 and 1/8/81, Jim Filipski and I secured two photographs with the 8" Schmidt at KJC Observatory. They both show a dark separation of the tail, which extends out to some 6°. The best view of the coma showed in the 5" f/5 at 17X -- a starlike central condensation surrounded by a blue coma. This is the first comet since Comet West in which I've noticed a distinct color to the coma. The total magnitude that evening was +4.0, just visible in the low western horizon.

Using my 10 x 50's from the city of Scranton, I spotted the comet at magnitude +5.3 with a 1° tail, on January 11, 1981, in strong moonlight. This was the last time I could see it.

(Ed. note: This comet is an illustration of differing points of view and standards. To John this was a spectacular comet, and even a casual observer like me could find a lot to be interested in, with it. Seen from my neighbors parking area, overlooking street lights and a shopping center, I could spot the comet with my 7 x 35's on 1/7/81 and my C-90 on 1/8/81. In both cases, a tail was easily visible, as the comet moved past Aquila. To my 9th grade classes however, this comet was just another example of the ravings of a science teacher. They want a blatent daylight comet, not one that's a

challenge to see, and preferably one visible in the early evening on a nice warm summer night.)

COMET PANTHER 1980u

This circumpolar object was visible all through March. I had no difficulty with a 5" f/5 at 17X on 2/14/81. It was a small nebulous patch in Draco. The 12½" f/5.6 view at 45X was great. It showed a small coma of 3.0' somewhat elongated in P. A. (position angle) 340°, with a hint of a stubby tail in the same P.A. In the coma there appeared to be a starlike nucleus. Using the SAO catalog and SAO star chart, I estimated the position at RA 19^h 21^m and Dec. +64° 05'. The The magnitude of 9.0 may seem faint, but the 12½" had no trouble showing it.

Ed. Note: Comet Panther was independently discovered by an observing group at LASO on March 28-29, 1981. Viewed through a 12½" f/5.6, a 9" f/15, two 5" f/5's, a 6" f/5, and a 4" f/5, before being positively identified. It is now thought of affectionately as Comet Kamichitis-Maleninsky-Mecca-Pluciennik-Sabia (at least by me). It was easily visible in all of these instruments. In fact John reports "Comet Panther's magnitude 3/29/81 as =9.3, size 4.0' circular with a starlike nucleus." This estimate was made with the 12½" f/5.6 at 110X.

John D. Sabia

SOME ASTRONOMICAL COROLLARIES OF MURPHY'S LAW

Excerpted from Berton Stevens of the Chicago Astronomical Society via "Starlite" - Peoria Astronomical Society newsletter, and "The Asterisk" - Spokane Astronomical Society newsletter.

1. It will be cloudy during any special event (eclipses, transits, occultations, etc.)

2. If you travel more than two miles to an observing site, it will be cloudy by the time you get there.

3. If you travel less than two miles, the clouds will come in just as you finish setting up.

4. If it is clear, it will be windy (aka the curse of the astrophotographer.)

5. During a "once-in-a-lifetime" event, your camera will fail.

6. The clock drive will only fail during a critical exposure.

7. If all your equipment works, it will turn cloudy.

8. You will always leave a vital part of your observing equipment at home (film, eyepieces, camera, counterweight, etc.)

VISUAL IMPRESSIONS OF SATURN

A recent session at the 9" Clark refractor revealed many details of the planets cloudy atmosphere. The whole of the Northern Hemisphere could be sectioned into distinct belts and zones, during extremely good seeing conditions.

The North Equatorial Zone (EZn) was the widest of all, visible during bad seeing as a dull yellowish feature. Below this was a darkest belt, the North Equatorial Belt (NEB). In small instruments such as 6" or less, the NEB is the most noticable feature.

At a higher latitude, the North Temperate Belt (NTeB) was seen to be

grayish and not as wide as the NEB. Between these two belts was the North Tropical Zone (NTrZ), dull and difficult to separate from the NTeB, since both were close to the same brightness.

Also seen was the North Temperate Zone (NTeZ), the second brightest of the zones, easily seen as a wide white zone, its southern edge bordering on the NTeB; and its northern edge upon the North Polar Region. The Polar region was a large dull area covering the cap. No dark cap was seen.

With a $+5.7^{o}$ tilt, those magnificent rings were a blinding bright strip across the face of the planet. They covered the southern area where the EZs would normally be. Just above the rings was the SEB. I suspected seeing this feature on my last session, which was during mediocre seeing. This night it was clearly seen as a reddish band, hiding in the glare of the rings. The high latitudes of the southern hemisphere are tilted away from us now, and so it was difficult to see any belts or zones. The southern region, as a whole, was a dull orangish-yellow area.

John D. Sabia

OBSERVATORY ASIDES

In the past month, since resuming public and group nights, we've seen some pretty interesting things. One of the most interesting has been the size of the crowds on any clear night -- thirty-five and forty people. You can tell it's getting warmer. It's too bad we can't warn the public just how cold it can still be, hanging around an unheated building at night on concrete floors.

The moons of Jupiter have been putting on quite a show, which the public doesn't fully appreciate. We've had two shadow-satellite transits of Io. Just beautiful! It's remarkable how 3-dimensional the dot of the satellite looks when it is just at the edge of the disk, and the shadow is still visible on Jupiter. The public just missed an occultation of Europa by Jupiter too.

Best of all was a good aurora, our second this year. This time the streaks were there, looking like car headlights beaming through humid foggy air. They flickered a bit and then the color appeared -- a very distinct red. Our trained observer, John, had seen a red tint earlier, but what I'm describing is "man-in-the-street" red here.

It would be great to have more of our members make use of the 12½", but I like it this way too. I get to use it more and find it much easier to handle than the 9". Plus an 8 x 50 finder is more easily used by me than the 3" telescope that serves as a finder on the Clark. Of course, if more people used it, they'd realize how much work still has to be done on the scope itself.

I'm always amazed at the difference a larger aperature makes. I'm more used to 5", 4" or 6" telescopes. It's neat to see NGC objects looking like what you'd expect the brighter Messier objects in your smaller scope. What a pleasure it is to be stunned by the brightness of, say, M3. (As long as you don't get so surprized that you fall off the rickety aluminum ladder.) Then there's the "realm of galaxies" that I've never really explored until this year. Best of all, you never lose touch with the night sky with a roll off roof, the way you do with a dome.

I'm sad to report the removal of our barn swallow nest by the cleanup crew, who are planning to paint the wood underneath the roof. I liked that rustic touch to the decor.

Jo-Ann Pluciennik

ASTRO CON 81

On August 10 to 16 (pick the dates you want to go) the Astronomical League, and the Association of Lunar and Planetary Observers will hold a joint convention at Kutztown State College. This meeting is being run by the Lehigh Valley Amateur Astronomers, who ran the highly successful and interesting bicentennial convention in 1976.

Among the guest speakers will be Dr. Frank Drake from Cornell, Dr. Owen Gingerich from Harvard, Dr. George Abell of UCLA, and a guest speaker from NASA. There will be tours to observatories, and to non-astronomical places for non-participating family members, a telescope fair, astrophotography display, workshops and paper sessions.

Individual registration is $8 or $10 for families. There will be dormatory housing available. Inquiries and preregistration should be sent to:

Neil S. Lerner
P. O. Box 133
Mansfield, PA 16933

WANT ADS

Skilled or unskilled workers - to help cleanup LASO, paint the wood and cinder blocks.

Electricians (pro or amateur) - to help us get power out to LASO as cheaply as possible.

Writers, cartoonists - to contribute to the "Ecliptic"

Speakers - to give "Konstellation Kloseups" at future meetings or to provide programs.

Volunteers - to bring telescopes, or help "man" them, so we can show the universe to the public at McDade Park, May 16th.

Beginning Observers - to come on up and take advantage of the telescopes available on club nights, and increase their knowledge of astronomy outside of books. The regulars can't wait to help you out.

In all cases, contact:
Joe Kamichitis - 346-4562
Jo-Ann Pluciennik - 346-3268
John D. Sabia - 346-3150

The Ecliptic is the official publication of the Lackawanna Astronomical Society.

Jo-Ann Pluciennik - Editor
Diane Musewicz) Staff
Joe Kamichitis)