

URANOGRAPHOS



*Newsletter for the
Shoreline Amateur Astronomical Association*

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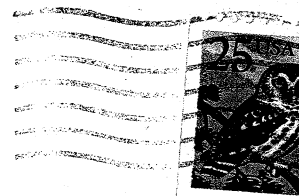
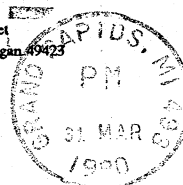
April 1990

April Meeting

The April meeting of the Shoreline Amateur Astronomical Association will be held on April 19, at 7:30 PM in the West Ottawa Middle School Planetarium in Holland, Michigan. The agenda will be as follows:

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|-----------|---|
| 7:30-7:35 | The April Night Sky Tour. |
| 7:35-7:45 | The Observer's Log - A review of objects to observe in the constellations Ursa Major and Canes Venatici presented by Peter Burkey. |
| 7:45-9:00 | <i>CRAF/Cassini Project</i> - is the subject of the talk to be presented by James Gipping (physics teacher) and Greg Brower (student) from Holland Christian High School. The info for this upcoming comet rendezvous and asteroid flyby was obtained from a NASA workshop they attended at the JPL in Pasadena, November 1989. |
| 9:00-9:15 | Short business meeting. |

3882 62nd Street
Holland, Michigan 49423



March Meeting Highlights

On March 15 at 7:30 p.m., Sandy began the festivities by giving our customary night sky tour. This has been a great help for newer members learning the night sky - don't you agree? Steve Tuls followed by giving us a tour of the constellations Leo and Coma Berenices. He began by relating historical and mythological information for each, followed by information regarding the brighter stars. Deep sky observers were

then shown where to find the more easily observable objects, mostly galaxies due to the proximity of these constellations to the north galactic pole.

Eric Schreur of the Kalamazoo Astronomical Society followed with a talk on vision and observing tricks. This is a talk he regularly gives audiences at the planetarium in the Kalamazoo Public Museum. Out night vision was alternately assaulted with bright lights and total darkness so Eric could demonstrate some of the physiology of vision and how that can affect our observing sessions. The talk was well received - Thanks Eric!

Astronomy Day

Preparations for SAAA's Astronomy Day program at the Herrick Library on Monday, April 30, are proceeding at a rapid pace. So far, two guest speakers have indicated a willingness to participate in our program. They are Dr. Richard Brockmeier from Hope College and Dr. Lawrence Oppliger from Western Michigan University. It is our hope that by offering several speakers on a variety of topics, public interest will increase. Anyone interested in dining out with our speakers at Bill Knapps before the meeting, contact Peter Burkey.

We still need volunteers to help with such things as publicity, set-up and clean-up, and displays. Any members who have telescopes, photographs, observing logbooks, or any other astronomical paraphernalia they would be willing to display should let Peter know at our April meeting. Spread the word, invite your friends. Let's all help make our Astronomy Day celebration a success.

Submitted by Peter Burkey

Winter Observing 1990

With the benefit of my SAAA SkyLog records I would like to share some highlights of this winter's observing. The log shows only 10 nights where I got out with the telescope, but fortunately there were occasions of very clear skies which afforded an opportunity to pursue two objectives: logging the Messier catalog and proceeding with our SAAA Observing Program.

My Messier project is over half done as I have logged 55 objects this winter. Standing out as unexpected treats are the following: M 67 in Cancer - a beautiful compact cluster of faint stars; M 51 in Canes Venatici - a galaxy with indications of structure in my 6" Meade reflector; M 3 in Canes Venatici also - a very nice globular cluster that I'd seen in the past. M 109 in Ursa Major is a galaxy that proved very tough for me to pick out. A conversation with Steve Tuls confirmed my observation by comparing sketches showing associated stars. Chalk one up for recorded observations!

I am also checking off other deep sky objects found in section 8 of our club observing program. Note: NGC 2402 should read NGC 2403. Item e, NGC 3242 has eluded me on several occasions. On the other hand, I found item d (NGC 4605) to be easier than many Messier objects.

I look forward to hearing of your observations in upcoming months!

Submitted by Mark Logsdon

April Star Parties

Our April star party is scheduled for Friday April 20 (April 21 if the 20th has bad weather) at the home of Bob Wade at 3882 62nd St (396-3614). The asteroid *Klotho* will occult star SAO 99210 (mag 7.6 lasting approx 40 seconds with a magnitude drop of 4.2) at around 11:36 pm this evening. The Lyrid meteor shower should also put on a display, although they are predicted to be better the following night. Some variable star

magnitude estimates will also be featured. Remember, our observing program includes at least a one-hour meteor count, so this would be a good time to get an occultation timing as well as a meteor count!

The following week is our Public Star Party at Kollen Park, to be held after dusk on the 28th. Remember, this is Astronomy Day, so we hope to see you out there! Bring a scope and a friend.

April Lunar Occultations

The following table lists stars to be occulted by the moon during the month of April. The timings were produced courtesy of IOTA (International Occultation Timing Association) and are good for the Holland area. The times may be adjusted slightly for your observing location. Occultations by the brighter stars may be observable with binoculars if the moon is not very sunlit. Observation of any of these events will count towards

the club observing program. Use the following key to interpret the table:

DATE	TIME (UT)	PH	MAG	SP	PCT SNLT	SAO NUMBER
4/4	03:57:20	D	6.7	K0	68+	97884
4/6	01:13:05	M*	4.6	K2	85+	98964
4/15	06:46:30	M*	5.4	K2	77-	185350
4/17	09:24:23	R*	7.4	K0	59-	187898
4/17	09:39:59	R	4.9	F5	59-	187882
4/20	08:45:59	R	6.1	A0	29-	164679
4/21	03:36:54	A	7.6		22-	99210
4/28	01:22:16	D	6.6	B5	12+	76955
4/29	01:07:28	D	7.4(8.3)	N0	21+	78066
4/29	01:22:41	R*	8.6	A2	21+	78064
4/29	01:29:17	D	8.7	K2	21+	78088
4/30	01:16:26	D	8.6	A0	31+	79190
4/30	01:26:36	D	8.6	F5	31+	79194
4/30	01:57:43	D	8.2	G5	31+	79214
4/30	02:27:19	D	8.4	F8	31+	79236
4/30	04:21:54	D	8.7	A2	32+	79302
4/30	05:46:26	D	6.0	A0	33+	79354

Time = Universal Time; correct to EST by subtracting 5 hours (4 hours for EDT) and adjust date if necessary.

Ph = occultation phenomenon; D = disappearance; R = reappearance; M = miss or near graze.

Mag = Occulted star's magnitude.

Sp = Occulted star's spectroscopic classification.

Pct Snlt = percent of moon sunlit; (+) = waxing moon; (-) = waning moon.

SAO Number = Smithsonian Astrophysical Observatory number. This is an identification number for the star to be occulted.

Constellations 101

Many of us in the SAAA are still learning where the constellations are located in the night sky. Newer members are learning the main ones, more experienced members are learning the obscure ones. In any case, we all butcher the pronunciation of many names because we don't know the "correct" pronunciation. Last summer that stellar stalwart John Dobson made a point of saying the bright star in Lyra is not *Vayga*, but rather *Veega* (Vega). Then and there I decided it would be fun to look up proper pronunciations for various stars and constellations. *The Observers Handbook* contains just such listings, and I thought I'd share the correct pronunciations of the constellations with you. Although this source may not be the ultimate authority, it's a good place to start as any. Look through these as you have the time and see if the way you are pronouncing these now agrees with the key provided.

Constellation	Pronunciation	Abbr.	Meaning
Andromeda	ăn-drôm'ē-dá	And	Daughter of Cassiopeia
Antlia	ănt'lī-à	Ant	The Air Pump
Apus	ā'pūs	Aps	Bird of Paradise
Aquarius	à-kwâr'ē-ūs	Aqr	The Water-bearer
Aquila	à-kwīl'á	Aql	The Eagle
Ara	ā'rà	Ara	The Altar
Aries	âr'ēz	Ari	The Ram
Auriga	ô-rī'gá	Aur	The Charioteer
Bootes	bō-ō'tēz	Boo	The Herdsman
Caelum	sē'lūm	Cae	The Chisel
Camelopardalis	ká-mēl'ō-pár'd	Cam	The Giraffe
Cancer	kăn'sēr	Cnc	The Crab
Canes Venatici	kā'nēz vē-năt	CVn	The Hunting Dogs
Canis Major	kā'nīs mā'jēr	CMA	The Big Dog
Canis Minor	kā'nīs mī'nēr	CMi	The Little Dog
Capricornus	kăp'rī-kôr'nūs	Cap	The Horned Goat
Carina	ká-rī'ná	Car	The Keel
Cassiopeia	kăs'ī-ō-pē'yá	Cas	The Queen
Centaurus	sěn-tôr'ūs	Cen	The Centaur
Cepheus	sē'fē-ūs	Cep	The King
Cetus	sē'tūs	Cet	The Whale
Chameleon	ká-mē'lē-ŭn	Cha	The Chameleon
Circinus	sûr'sī-nūs	Cir	The Compasses
Columba	kō-lūm'bá	Col	The Dove
Coma Berenices	kō'má běr'ē-nī'sēz	Com	Berenice's Hair
Corona Australis	kō-rō'ná ôs-trā'līs	CrA	The Southern Crown
Corona Borealis	kō-rō'ná bôr'ē-ăl'īs	CrB	The Northern Crown
Corvus	kôr'vūs	Crv	The Crow
Crater	krā'tēr	Crt	The Cup

Crux	krüks	Cru	The Cross
Cygnus	sĭg'nūs	Cyg	The Swan
Delphinus	dĕl-fĭ'nūs	Del	The Dolphin
Dorado	dō-rā'dō	Dor	The Goldfish
Draco	drā'kō	Dra	The Dragon
Equuleus	ē-kwōō'lē-ūs	Equ	The Little Horse
Eridanus	ē-rĭd'ā-nūs	Eri	A River
Fornax	fōr'nāks	For	The Furnace
Gemini	jĕm'ĭ-nĭ	Gem	The Twins
Grus	grūs	Gru	The Crane (bird)
Hercules	hūr'kū-lēz	Her	The Son of Zeus
Horologium	hōr'ō-lō'jĭ-ŭm	Hor	The Clock
Hydra	hĭ'drā	Hya	The Water Snake (male)
Hydrus	hĭ'drūs	Hyi	The Water Snake (female)
Indus	ĭn'dūs	Ind	The Indian
Lacerta	lā-sūr'tā	Lac	The Lizard
Leo	lē'ō	Leo	The Lion
Leo Minor	lē'ō mĭ'nĕr	LMi	The Little Lion
Lepus	lē'pūs	Lep	The Hare
Libra	lē'brā	Lib	The Balance
Lupus	lōō'pūs	Lup	The Wolf
Lynx	lĭnks	Lyn	The Lynx
Lyra	lĭ'rā	Lyr	The Lyre
Mensa	mĕn'sā	Men	Table Mountain
Microscopium	mĭ'krō-skō'pē-ŭm	Mic	The Microscope
Monoceros	mō-nōs'ēr-ōs	Mon	The Unicorn
Musca	mūs'kā	Mus	The Fly
Norma	nōr'mā	Nor	The Square
Octans	ōk'tāz	Oct	The Octant
Ophiuchus	ō'fē-ŭ'kūs	Oph	The Serpent-bearer
Orion	ō-rĭ'ōn	Ori	The Hunter
Pavo	pā'vō	Pav	The Peacock
Pegasus	pĕg'ā-sūs	Peg	The Winged Horse
Perseus	pūr'sē-ūs	Per	Rescuer of Andromeda
Phoenix	fē'nĭks	Phe	The Phoenix
Pictor	pĭk'tĕr	Pic	The Painter
Pisces	pĭ'sēz	Psc	The Fishes
Piscis Austrinus	pĭ'sĭs ôs-trĭ'nūs	PsA	The Southern Fish
Puppis	pŭp'ĭs	Pup	The Stern
Pyxis	pĭk'sĭs	Pyx	The Compass

Reticulum	rē-tīk'ū-lūm	Ret	The Reticle
Sagitta	sá-jīt'á	Sge	The Arrow
Sagittarius	sāj'ī-tār'ē-ūs	Sgr	The Archer
Scorpius	skôr'pē-ūs	Sco	The Scorpion
Sculptor	skūlp'tēr	Scl	The Sculptor
Scutum	skū'tūm	Sct	The Shield
Serpens	sūr'pēnz	Ser	The Serpent
Sextans	sěks'tānz	Sex	The Sextant
Taurus	tôr'ūs	Tau	The Bull
Telescopium	těl'á-skō'pē-ūm	Tel	The Telescope
Triangulum	trī-āng'gū-lūm	Tri	The Triangle
Triangulum Australe	trī-āng'gū-lūm ôs-trā'lē	TrA	The Southern Triangle
Tucana	tōō-kān'á	Tuc	The Toucan
Ursa Major	ūr'sá mā'jēr	Uma	The Great Bear
Ursa Minor	ūr'sá mī'nēr	UMi	The Little Bear
Vela	vē'lá	Vel	The Sails
Virgo	vūr'gō	Vir	The Maiden
Volans	vō'lānz	Vol	The Flying Fish
Vulpecula	vūl-pěk'ū-lá	Vul	The Fox

ā dāte; ă tăp; â câre; á ásk; ē wē; ě mět; ě makēr; ī īce; ĭ ĭt; ō gō; ǒ hǒt; ô ôrb; ōō mōōn; ū ūnite; ů ůp; ů ůrn.

Apr. '90