STAR STUFF

Volume 7 Number 2 March 1998

Feature of the Month

Meet Our Club President - Greg Burnett

Greg's interest in Astronomy started like many of us, with a look at the moon through a telescope. Greg was in 4th grade and his father bought a 4 1/4" newtonian from Edmund Scientific on an equatorial mount. And he still has that telescope. As with many of us the experience laid dormant for years. When the interest returned it was time for a new scope. In

(Continued on page 3)

House Bill 4254

The light pollution bill is still in the Senate committee for Technology and Energy. Representatives from the area clubs are planning a trip to Lansing with Norbert Vance to testify before the committee. This has not been confirmed yet. If you would like more information on this bill or the trip to Lansing contact Jack Kennedy at 248-399-9403 or e-mail to jjkenn@ibm.net

The Observer's Chair

by Larry Vassallo

Welcome to what may be the first in a series of monologues covering my observing experiences. First a disclaimer: I in no way represent myself as an expert or authority on astronomy, observing techniques, astrophotography, or telescopes. I have been 'star watching' for only the past couple of years, currently belong to just one club (FAAC), and in the words of our new editor 'have never been to a real dark-sky site.' The opinions expressed here are mine and mine alone and if you don't like them, well then come on out some night and form your own!

Ours is a two-telescope family, both 8" apertures. The celestial objects I'm going to discuss are actually visible through most telescopes, even in light-polluted skies. If you are looking for frustration, or happen to own a larger telescope, I'll refer you to Astronomy Magazine's "Observer's Challenge" column & a good chiropractor.

With that said, last Saturday (1/30) the skies were clear, the Sun was out, and my wife and I looked at each other and exclaimed 'Astronomy night!' We ate

(Continued on page 4)

Contents

- Featured Highlighted : Our New President Greg Burnett
- Observing Log by Larry Vassallo
- Editor's Corner
- Late Breaking News
- Observations by Greg Burnett
- Meeting minutes from 2-26-98
- Calendar of Activities for March
- Equipment Review by Clay Kessler

Star Stuff
Monthly Publication of the:
Ford Amateur Astronomy Club.

Star Stuff Newsletter
P.O. Box 7527
Dearborn, Michigan 48121-7527

1998 Club Officers

President	**Greg Burnett**
Vice President	**George Korody**
Treasurer	**Ray Fowler**
Secretary	**Harry Kindt**

General Meetings
The Ford Amateur Astronomy Club (FAAC) holds regular general meetings open to the public on the fourth Thursday of the month at 5:00 PM. Meetings are held in conference room 1029 of the Ford Credit Building

Observing Site
The Ford Amateur Astronomy Club has an established observing site, by permit, at the Spring Mill Pond area of Island Lake Recreation Area in Brighton, Michigan located near the intersections of I-96 and US-23. Members are responsible for opening and closing the gate after the parks 10:00 PM closing time. (Summer season only)

Observing Hot Line - (313) 390 5456
On Friday and Saturday nights, or nights before holidays, you can call the hot line number up to 2 hours before sunset to find out if we will be observing that night.

WWW Page
FAAC maintains a web page on the internet at URL:
http://kode.net/~dougbock/faac/
Ford Intranet at:
http://be0084.be.ford.com/fhl/faac

Membership and Dues
Membership to the Ford Amateur Astronomy Club is open to both Ford employees and the general public. The dues structure is as follows:

Annual Individual/Family	$ 20.00
Lifetime Membership	$100.00

Membership benefits include a subscription to the Star Stuff newsletter, discounts on subscriptions to Astronomy and/or Sky and Telescope magazines, after hours use of the observing site at Island Lake, and discounts at selected area astronomical equipment retailers.

Newsletter Staff

Editor:	Jack Kennedy	248-399-9403
	e-mail	jkennedy1@voyager.net
	work	248-616-9562

Editor's Corner

By Jack Kennedy

The mild weather is making a lot of us think about the spring viewing season. With it comes the annual parade of Messier objects. I have a new found appreciation for those that participate in a Messier marathon. Even with a Go-To scope it is not easy to identify all the objects. It requires clear skies, patience and a selection of eye pieces. I have used everything from binoculars for objects such as M31 and M33 to high power for objects like M84, M89 and M59. These are quite small objects. I have been logging Messier objects and expect that I have about 75% of them. I do however hope to add to my collection of those objects this spring.
This is a great time of year for astronomy, In addition to the Messier objects the Virgo constellation is home to the Virgo cluster of galaxies. This is a great area to get lost in for hours.

Be sure to keep the schedule of events in this issue handy. There are lots of great events and in particular don't miss the Kensington Spring Festival. The Astronomy activities will be the highlight of the weekend. All of the local clubs will be present and the park is expecting a large turnout if the weather cooperates.

Our newsletter is still looking for articles on astronomy. Whether hand written or a text file we would be glad to have it. Just contact any club officer, myself or send it to the club mailing address.

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Kensington Metropark Spring Festival
May 1-2, 1998
Martendale Beach - 5:00 to 12:00 - rain or shine
featuring **David Levy**

Sponsored by:
The Great Lakes Amateur Astronomy

Burnett *(Continued from page 1)*

about 1985 a new Astro Physics refractor was ordered. The lead time on it was about 14 months and of course a Beyers mount with a lead time of 15 months. Not happy with the Beyers mount, Greg purchased a Celestron G11 mount about 5 years ago. This is his current setup. Greg is one of our most knowledgeable members where refractors are concerned.

When the Ford Amateur Astronomy Club was founded in June of 1992, Greg was one of the founding members and became its first president holding office for two years. After serving as president his contributions to the club continued. Not the least of which is his great slide show made up of both Hubble images and his own slides. If you haven't had the opportunity to see one of his slide presentations by all means don't miss it the next time around. Greg has also supported many of our club activities. One of the most memorable contributions to the club is his writing. The past issues of Star Stuff have a wealth of great reading as well as his very popular Astronomy 101 class. Greg is currently in the process of writing a book on astronomy and I hope to be one of the first to place my order.

Greg's favorite objects in the night sky are double stars. And the best of these is Epsilon Bootes with a separation of 2.9 arc secs. The big challenge on this double is the difference in brightness of the two components of the system, one bright and the secondary is faint. This type object is what he feels is the strong point of a refractor. Greg is quite often out at our viewing site at Island Lake Recreation Area on normal viewing nights. He is an astrophotographer and is more than willing to answer questions from novices like myself.

Other hobbies he lists includes, percussion (If you hear drums when out viewing its a good guess its Greg), Scuba diving, he is a member of the Ford Gun Club, an radio amateur, knitting (ask him, it surprised me to), and in the past, flying and sky diving (unrelated).

We are looking forward to a great account of the trip to ARUBA for the eclipse. An amazing event in a really great place. Maybe we can get an article or two from the crew that went down to ARUBA for the newsletter.

A special thanks to Greg for his contributions to the club and we look forward to the coming year.

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ASTRO LINGO
by Paul Mrozek

catena - A chain of craters on a planetary surface.

cavus - A hollow or irregular depression on the surface of Mars.

cislunar - Pertaining to the region of space between the Earth and Moon.

colles - A term meaning 'low hills' used as part of a name in

(Continued on page 4)

Humor.....Humor.....Humor.....Humor

Late Breaking News

- A glitch in the programming of the Cassini space craft has it orbiting around the Saturn plant in Spring Hill, Tenn. Details to be announced. On a positive note it arrived ahead of schedule.

- McDonalds Food chain has signed an agreement with NASA to put the first fast food in space, in the soon to be launched Alpha Space Station. Ronald McDonald is in astronaut training.

- The Very Large Array in Socorro New Mexico with new ultra sensitive equipment just installed, finally heard the events just prior to the Big Bang. "OK now light the fuse and run, son".

Observations
by Greg Burnett

Anticipation...waiting for that decisive moment. Eclipses have been occurring since the Earth and the Moon were formed. Long before life crawled out of the primordial sea, great lunar shadows swept across the barren Earth. When the Moon was much closer to the Earth than now, solar eclipses could last fifteen or twenty minutes. Someday in the far future, the Moon will have receded to an orbit larger than today, and total eclipses will never occur again, only annular eclipse will be possible. Imagine witnessing the last total eclipse for all time! Ever! We live in a privileged epoch, when the apparent sizes of the Sun and the Moon are nearly the same, making for extraordinary, wonderfully beautiful eclipses. It was not always so, and will not be forever.

By the time you read these words it will already have passed. Touching down in the Pacific Ocean, the looming shadow will sail over the Galapagos Islands, across South American, through the Caribbean, and into the Atlantic, a tidal wave of sudden darkness. As I write, both equipment and minds are being prepared, and many circumstances are being arranged such that our world lines might intersect this grand phenomenon; a time and place when our Universe will no longer whisper its secrets, but will shout with a great clamor at it sweeps us up in the cosmic dance.

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(Continued from page 3)
planetary photography.

colure - A circle on the celestial sphere passing through the celestial poles and either equinoxes or the solstices.

dispersion measure - The delay between arrival times from a radio pulsar at different frequencies (used to calculate its distance).

dorsum - An irregular, wrinkled ridge found on planetary surfaces.

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Observer *(Continued from page 1)*
a quick dinner, loaded up the astro-buggy (a minivan with the rear bench seat removed), dressed for the weather and headed out to Island Lake Recreation Area (ILRA) for the first viewing either of us have had since November 8th of last year. By the time we arrived it was after 7:00p.m. and fully dark. 'Binocular' Bob was the only one there, but we were soon joined by Harry & somewhat later, Mike. I spent my usual twenty minutes to half an hour setting up my telescope & doing a 'casual' polar alignment. (Hint: bring a shovel with you the next time you go to ILRA in the dead of winter. They don't plow & the parking lot was covered with ice & snow). The weather was cold, with little wind. The Moon phase was 10% and it set by 9:00p.m. Orion was overhead, as was Auriga, Taurus, and Gemini. We started the night by looking at Saturn, the only planet still visible, as both Jupiter and Mars had set by this time. Planets make for great viewing! They're bright, large, and have noticeable features in just about any telescope. Titan, one of Saturn's moons, was easily seen & the rings are now starting to open up & show some detail.

Onward we went to the Orion Nebula (M42). Visible to the naked eye, this is a 4th-magnitude nebula, one of the largest & brightest you'll see from northern skies. It lies about 1300 light-years (LY) away on the celestial equator & is estimated to contain enough gas to make a cluster of thousands of stars. We started out using 62x magnification to view the entire nebula then increased magnification to 200x to view the four individual stars of Theta Orionis, better known as the Trapezium. Two other 11th-magnitude stars are sometimes visible on a good night, or with a larger telescope, but not tonight!

The horizon started to haze up, attenuating the light pollution from nearby Novi to the east & Brighton to the west, so we decided to look overhead, at the constellation Auriga. There are three well-known Messier objects visible (M36, M37, & M38), all open star clusters, with another (M35) in the nearby constellation of Gemini. I love star clusters! They're bright, easy to find, & each has its own 'personality.'

(Continued on page 7)

Meeting Minutes for 2-26-98 by Harry Kindt

The meeting was called to order by our former president, Bob MacFarland, in the absence of our current president, Greg Burnett. There were 26 members and guests, present. We welcomed those present who were attending their first meeting.

Since several of our members, including our president and treasurer, were in Aruba for the Solar Eclipse, tonight's meeting was rather informal.

At 5:30 PM, while we were all enjoying our usual pizza and pop, we received a surprise phone call from Aruba. This turned out to be one of the high lights of the meeting. Greg Burnett, Doug Bock, and Ray Fowler all had the opportunity to describe their own personal observations of the Solar Eclipse they had seen earlier that day.

The next order of business was a report by George Korody on the progress of our annual dinner party scheduled for March 7, 1998 at Papa Romano's headquarter's and restaurant. The restaurant will be open at 6:30 PM and dinner will be served at 7:30 PM. Cost of the dinner is $15.00 per person. We began collecting money for this event at tonight's meeting. George must have a count of those who plan on attending by March 4th, so if you plan on attending this gala affair, please contact one of the club officers. Just let us know that you will be at the dinner and you will be able to pay when you arrive at Papa Romano's. Directions to the restaurant are in the February newsletter.

George also reported on a Messier Marathon star party to be held at the Lake Hudson State Recreation Area on March 27th with March 28th as a cloud/rain/snow date.

Bob MacFarland reported on the progress of the plans for our Second Annual Great Lakes Amateur Astronomy Club's (GLAAC) star party. The event is too be a two day affair scheduled for May 1st and 2nd ,1998 at the Kensington Metro Park. Last year's event proved to be a rousing success and we hope this years party will be even bigger. We expect that all of the participating clubs will provide the general public and amateur astronomers alike, a unique perspective on this fascinating hobby. Dr. David Levy will be the guest speaker. The subject of Dr. Levy's talk is yet to be determined. We will keep you informed about this event as more details become available.

It was at this point in the meeting that those folks who were present had the opportunity to introduce themselves and to briefly describe their viewing experiences since our last meeting.

We had scheduled a video tape on the planet Uranus for the evenings entertainment, but, unfortunately the tape was of the wrong format and didn't fit any of our video playback equipment. So, instead, we held a question and answer period in an attempt to find out what we knew about Uranus. The meeting was adjourned at 6:50 PM.

Submitted 2/27/98
Harry Kindt
Sec'y FAAC

NASA Lunar Prospector

For more information on the EMU's involvement with NASA's Lunar Prospertor Project called Moonlink visit the EMU web site at:
http://www.physics.emich.edu/astrclub/moonlink/moonlink.htm

Other Good Astronomy Links:
Abrams Planetarium Skywatcher's Diary
http://www.pa.msu.edu/abrams/SkyWatchersDiary/Diary-t.html

Astronomy Magazine
http://www.kalmbach.com/astro/astronomy.html

Sky & Telescope Magazine
http://www.skypub.com/

Lowell Observatory, Flagstaff, AZ
http://www.lowell.edu/

1998 Ford Amateur Astronomy Club Calendar

17 & 18 Jan	Ice Days - Lake Erie Metropark
22 Jan	FAAC General Membership Meeting & Election of Officers
21 Feb.	Deep Sky/Remote Telescope/Photon Acquisition SIG
26 Feb.	FAAC General Membership Meeting
28 Feb.	Annual FAAC Dinner Party
20 & 21 Mar	Fish Lake Star Party (EMU Norbert Vance
26 Mar	FAAC General Membership Meeting
TBD	University of Michigan - Dearborn (E.Rasmussen - 313-441-4460)
27 Mar	Lake Hudson State Park Messier Marathon Star Party (Backup date 28 Mar)
11 APR	Astronomy Day Celebration
1 & 2 May	GLAAC Star Party - Kensington Metropark Spring Festival Kensington Metropark 6:00PM to Midnight
TBD	Third Huron County Star Party, Duggans Family Campground, Pt. Crescent, MI
22 - 26 May	NCO Wilderness Campout/Star Party, Boon, MI (D. Bock 313-390-8101)
28 May	FAAC General Membership Meeting
25 Jun.	FAAC General Membership Meeting
26 - 27 Jun.	15th Annual NCO Summer Solstice Star Party - Fenton (D. Bock 313-390-8101)
23 Jul.	FAAC General Membership Meeting
TBD	Lake Hudson Dark Sky Party - Lenewau Club Schedule (G. Korody 810-349-1930)
23 - 26 Jul	SMURFS (Southern Michigan Unorganized Regional Festival of Stargazers)
27 Aug.	FAAC General Membership Meeting
24 Sept.	FAAC General Membership Meeting
26 Sept.	5th Annual Island Lake Star Party
TBD	NCO Fall Fenton Star Party (D. Bock 313-390-8101)
TBD	NCO Wilderness Campout/Star Party (D. Bock 313-390-8101)
22 Oct.	FAAC General Membership Meeting
3 DEC	FAAC General Membership Meeting

Check for updates on the FAAC Hotline 313-390-5456

Equipment Review -
The Hewlett Packard PhotoSmart System
by Clayton Kessler - February 19,1998

I am fairly new to this interest in Amateur Astronomy but I have a long standing interest in both photography and computers. It was only a matter of time before I wanted to take astrophotos "just like those in the magazines". And so, I started down that slippery slope towards sleeplessness and a second mortgage.

Actually, the piggyback photography that I started with was relatively inexpensive. After all - I had a camera and a telescope with a clock drive - what else did I need? I was pretty happy with my first efforts. This was the peak of Hale-Bopp and if I could make out a comet I was happy. Of course - I tried scanning my photos with my flatbed scanner and printing them on my venerable HP 560C inkjet - with mixed results. That's when I started to read the Astrophotography Mailing List Archives on the internet. I found that most of the "big boys" scanned their negatives for best results. **Holy Cow!** Those negative scanners cost 1000 to 2000 bucks! Add a photo quality Tektronix dye sub printer to the tune of an additional $4000 and we are talking some serious money - you can buy a **BIG** telescope for that kind of cash.

Enter Hewlett Packard -
Last fall I started seeing a nifty display in the local computer stores. The display featured a small digital camera, a negative scanner and a rather bulky printer. These were collectively labeled the HP PhotoSmart System. On one of my trips I was fortunate enough to talk to a Hewlett Packard representative. I gave him one of my astrophotos negative strips (Doesn't everyone travel with their negatives?) and he scanned and printed a picture. **WOW** - what a difference from my scans of the prints! I walked out of the store with the scanner part of the system.

PhotoSmart Scanner -
The scanner part of the system is a relatively small box approximately 8" wide, 11" deep and 4" high. It uses a SCSI interface and comes with it's own interface card. The scanner will scan 35mm negatives, 35mm slides and up to 5X7" photos. The changeover between scanning modes consists of a single button to toggle between selections shown on the front panel. The front of the scanner changes - Transformer like (ask your kids!) - to accommodate the different media. This single button and the on/off button comprise all of the external controls on the scanner. Pretty simple so far!

The included software was typical of HP - slide in the CD-ROM, answer a few questions and you are in business. The scanner is activated simply by inserting an object to be scanned. When a negative strip is inserted the software pops up on the computer screen and allows you to flip and rotate, crop, set exposure and balance color. On screen previews let you see the effects of your adjustments as they are made. Once you are satisfied a click of the mouse and you are scanning. A typical scan is about 1 minute. The scanner software lets you save the image in several formats including the popular TIFF and JPEG formats.

(Continued on page 8)

Observer *(Continued from page 4)*
I used my lowest-power eyepiece, which yields a field-of-view of 0.8 degrees, to try to get as many stars as possible from each open cluster into view. M36 is a young star cluster, containing about 60 stars and estimated to be 4100 LY away. M37 is a superb open cluster, easily the best of the three in Auriga, containing over 150 stars and estimated to be over 4700 LY distant. M38 is an irregularly-shaped open cluster approx. 4200 LY distant and containing over 100 stars. M35 is an outstanding cluster of over 100 stars about 2200 LY distant. The brighter stars seem to form a curving row that is quite beautiful to behold.

We then took a quick peek at the Crab Nebula (M1), the brightest known remnant of a supernova explosion that took place over 900 years ago on July 4th or 5th 1054 AD. You can thank M1 for motivating Charles Messier to undertake compiling his famous catalogue of 'Messier objects.' His rediscovery of the Crab Nebula in September of 1758, while observing comets, prompted him to create a catalogue of nebulae & clusters so that other observers wouldn't mistake them for comets.

The next stop was the Pleiades or 'Seven Sisters' (M45) in Taurus. This bright, well-known open cluster, is easily visible to the naked eye & beautiful in a pair of 7x50 binoculars! I can just fit the bright, central grouping of seven or more stars in my telescope's field of view. About 410 LY distant, the Pleiades is one of the nearest open clusters, and contains over 250 stars.

By this time, the wind had begun to kick up & both of us were getting cold. We decided to take a look at the Andromeda galaxy (M31) before we called it quits for the night. Now I have to admit that Jason Ware has spoiled my eyepiece view of Andromeda, ever since I bought his spectacular photograph of M31 taken through a 6" refractor. Still, to be able to see the bright center of our nearest galactic neighbor (only 2.2 million LY away!) & imagine that this is how the Milky Way galaxy would look to them gives one a real appreciation for the immensity of the visible universe. With help from my spouse, I tore down all my equipment, packed up the van, and headed for home knowing that we'd both be back out under the stars before too long.

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Ford Amateur Astronomy Club
Star Stuff Newsletter
P.O. Box 7527
Dearborn, MI 48121

Detroit, MI Latitude: 42°19'48" N Longitude: 83°02'57" W Local Time = UT - 5.00 hours
Elevation: 178 meters

March 1998

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
SR: 07:08	SR: 07:06	SR: 07:05	SR: 07:03	SR: 07:01	SR: 07:00	SR: 06:58
SS: 18:22	SS: 18:23	SS: 18:24	SS: 18:26	SS: 18:27	SS: 18:28	SS: 18:29
MR: 09:01	MR: 09:38	MR: 10:18	MR: 11:00	MR: 11:47	MR: 12:37	MR: 13:30
MS: 22:13	MS: 23:24	MS: None	MS: 00:32	MS: 01:36	MS: 02:35	MS: 03:29
				FQ: 03:43		
8	9	10	11	12	13	14
SR: 06:56	SR: 06:55	SR: 06:53	SR: 06:51	SR: 06:50	SR: 06:48	SR: 06:46
SS: 18:30	SS: 18:32	SS: 18:33	SS: 18:34	SS: 18:35	SS: 18:36	SS: 18:37
MR: 14:27	MR: 15:24	MR: 16:22	MR: 17:20	MR: 18:17	MR: 19:15	MR: 20:11
MS: 04:16	MS: 04:57	MS: 05:34	MS: 06:07	MS: 06:38	MS: 07:07	MS: 07:35
				FM: 23:35		
15	16	17	18	19	20	21
SR: 06:44	SR: 06:43	SR: 06:41	SR: 06:39	SR: 06:37	SR: 06:36	SR: 06:34
SS: 18:39	SS: 18:40	SS: 18:41	SS: 18:42	SS: 18:43	SS: 18:44	SS: 18:45
MR: 21:08	MR: 22:05	MR: 23:02	MR: 23:59	MR: None	MR: 00:55	MR: 01:50
MS: 08:03	MS: 08:32	MS: 09:03	MS: 09:37	MS: 10:15	MS: 10:58	MS: 11:47
						LQ: 02:40
					MEQ:14:54	
22	23	24	25	26	27	28
SR: 06:32	SR: 06:31	SR: 06:29	SR: 06:27	SR: 06:25	SR: 06:24	SR: 06:22
SS: 18:47	SS: 18:48	SS: 18:49	SS: 18:50	SS: 18:51	SS: 18:52	SS: 18:53
MR: 02:42	MR: 03:31	MR: 04:16	MR: 04:59	MR: 05:38	MR: 06:16	MR: 06:53
MS: 12:43	MS: 13:45	MS: 14:52	MS: 16:03	MS: 17:17	MS: 18:32	MS: 19:47
					NM: 22:15	
29	30	31				
SR: 06:20	SR: 06:18	SR: 06:17				
SS: 18:55	SS: 18:56	SS: 18:57				
MR: 07:31	MR: 08:11	MR: 08:54				
MS: 21:02	MS: 22:15	MS: 23:23				

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These file sizes can get large, the scanner is capable of 2400 DPI optical resolution and 30 bits of color. This means a full 35mm negative is about 23 megabytes in TIFF format. JPEG format reduces this by quite a bit but the storage space for this data should be considered.

Needless to say I am delighted with the scanner! But I was painfully aware that I had only half of the system and my 560C inkjet printer just couldn't match the quality of the scans. Oh well - back to the computer store!.

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Observing Note:
Mercury will reach its longest elongation from the sun on March 19th. It will be in dark skies on hour after sunset and a few degrees below Saturn.