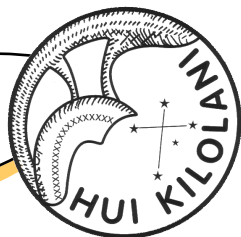


The Astronews



Volume 62, Issue 8

www.hawastsoc.org

August 2014

Version 1.0 Charles Rykken

I am not the starship Intrepid. I am an ordinary human who has taken over the task of Astronews editor from Carolyn Kaichi. Carolyn has a professional level of publishing competence. I have next to no such competence. This issue will be a bit of a kludge and as such I really hope the curse of first impressions will not be a cloud over my head for very long. This issue is being prepared on Microsoft Publisher 2013.

My intention is that my other skills will make up for my lack of publishing skills until I get up to speed on MS Publisher.

I know that one of the most important reasons for the existence of HAS is to support/encourage star gazing. Many of the articles are about stellar events that the readers would like to

(Continued on page 6)

Upcoming Star Parties

Public Party	Aug 2	eiger
Public Party	Aug 2	Kahala
Public Party	Aug 16	Dillingham
Club Party	Aug 23	Dillingham
Public Party	Aug 30	eiger
Public Party	Aug 30	Kahala

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Upcoming Events:

- The next meeting is at 7:30 p.m. on Tuesday, Aug..5 at the Bishop Museum.
- Bishop Museum's next evening planetarium shows are every Saturday of the month at :00p.m.

www.bishopmuseum.org/g/calendar

President's Message

Spacecraft have flown by comets before. Comet 1P/Halley and a handful of others have been imaged by passing spacecraft. Comet 9P/Tempel was even visited twice, once by the Deep Impact mission that directed a metal sphere to impact it, then again by the Stardust spacecraft (after completing a different primary mission) to examine the results of that impact. However, these have all been brief encounters as the spacecraft flew past.

The Rosetta mission is currently approaching comet 67P/Churyumov-Gerasimenko. NASA conveniently abbreviates that as "Comet C-G". As I write, Rosetta has already acquired images that show the comet to be composed of two lobes, and by the time you read this much better images should have been acquired. In August Rosetta will enter into orbit around the comet.

After orbiting at a safe distance and imaging the body, Rosetta will dispatch the lander it carries, called "Philae", to descend to the surface of C-G and anchor itself with a harpoon and screws. The exact site will be chosen based on information gathered from the instruments on the orbiter. Philae is scheduled to land in November.

The two spacecraft will then study the comet together as it becomes increasingly active on its journey toward perihelion in August of 2015. It's unknown, of course, how long either the lander or orbiter will be able to survive as outgassing increases.

There are 11 instrument packages on the orbiter and 10 on the lander. Although it is a European Space Agency mission, three of the instruments were supplied by NASA. Not only is this mission a team effort by different countries, the two spacecrafts also work as a team. One instrument will send radio waves between

(Continued on page 6)

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Meteor Log—August 2014

by Tom Guigere

The reliable Perseid Meteor Shower reaches maximum on August 13th. The full Moon reaches maximum just three days earlier and will affect this shower in a major way.

The κ -Cygnids (KCG) will be affected by the last quarter moon slightly, but may still be worth a look. The shower has a low ZHR, however it has produced fireballs in the past. This is incentive enough to observe the shower.

As a reminder, if you spot a fireball this month or anytime, please stop and think for a moment... write down some of the key facts like brightness, direction (left to right or vice versa), and starting/ending azimuth and elevation. Then go to the AMS fireball reporting website at http://www.amsmeteors.org/fireball_event/2014/398#top and file a report. Doesn't take long, and there's a chance that someone else saw the same bright meteor and reported it as in Hawaii case #398 listed here. Two people reported this event from the evening of February 9th. The AMS can then cross reference the observations and further refine the trajectory. You can find the graphic on page 5.

		First Quarter August 4	Full Moon August 10	Last Quarter August 17	New Moon August 25			
Sho wer	Ac- tivity	Maximum	Radiant			V_{∞}	r	ZHR
		Date	λ_{\odot}	α	δ	km/ s		
Per- seids (PER)	Jul 17- Aug 24	Aug 13	140°	48°	+58°	59	2.2	100
κ - Cyg- nids (KCG)	Aug 03- Aug 25	Aug 18	145°	286°	+59°	25	3.0	3

August 2014

Sun Mo Tue We Thu Fri Sat
n d

					1	2 Geiger Public Star Par- ty
3	4	5 Club Meeting 7:30 pm	6	7	8	9
10	11	12	13	14	15	16 Dilling- ham Public Star Par-
17	18	19	20	21	22	23 Dilling- ham Club Star Par-
24	25	26	27	28	29	30 Geiger Public Star Par- ty
31						



AMS

Report a Fireball

Browse Fireball Reports

Browse AMS Events

Log In

Register

AMS > Events in 2014 > #398

AMS received 2 reports about this fireball seen over HI on February 5th 2014 around 06:30 (UTC).
DELAYED SOUND
1 no
CONCURRENT SOUND
1 no

2 reports
#398a - Kathleen W. Level: 2
#398b - Davis E. Level: 4

Like 0

8-1

0

0

0

Add Info to this Event

Mapable Reports - All Experiences All Obs. Dir. All Sound Exp.

Types Options Map

Legend
The witness saw the fireball
The witness heard a delayed sound
The witness heard a concurrent sound
The witness heard a first seen direction
The witness saw the fireball going from right to left
The witness saw the fireball going from left to right
Fireball direction vertical or unknown
Last seen direction

Id	UTC Date & Time	Local Date & Time	City	State	Magn.	Az/E.L.	Delayed Sound	Concur. Sound	Exp. Level	Notes
398a	02/09 02:09 UTC	02/08 20:30 HST	Honolulu	HI	-18	P1: 280°/65° P2: 300°/65°	No	No	2	
398b	02/09 06:30 UTC	02/08 20:30 HST	Honolulu	HI	-18	P1: 266°/138° P2: 283°/25°	No	No	4	I thought it was a low flying helicopter when I...

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President's Report (Continued from page 2)

the orbiter and lander to probe the interior of the comet.

This will truly be a first. We have never been able to examine a comet in high resolution as its activity ramped up on approach to the Sun. C-G has already surprised us by becoming active earlier than expected, then shutting off again. What other surprises await? We'll soon find out.

Chris

Minutes (Continued from page 1)

go out and view for themselves. That policy will remain in place.

For a variety of reasons some of the familiar postings are not in this issue. I fully expect that all will be back to normal with the next issue.

Part of the reason for the lame condition of the present issue is due to a plague of personal problems that struck when I was hoping to be going through the learning curve on MS Publisher (much steeper than I had thought, originally). The plague has passed and I expect/hope that no further afflictions await me in the future, the near future at least.

I will be open to any and all suggestions for improvements/alternates but I must take full responsibility for the choices I make.

Charlie

Some Interesting Websites by Charles Rykken

I have been auditing some courses on the courser.com that I mentioned in the November 2013 issue of Astronews. The motherload of pointers was the course titled "Introduction to Astronomy"

One site that has been mentioned before in these pages <http://www.stellarium.org/> as well as Cartes du Ciel <http://www.ap-i.net/skychart>

These are sky chart programs (free) that many amateur astronomers use in the field to locate a place in the sky.

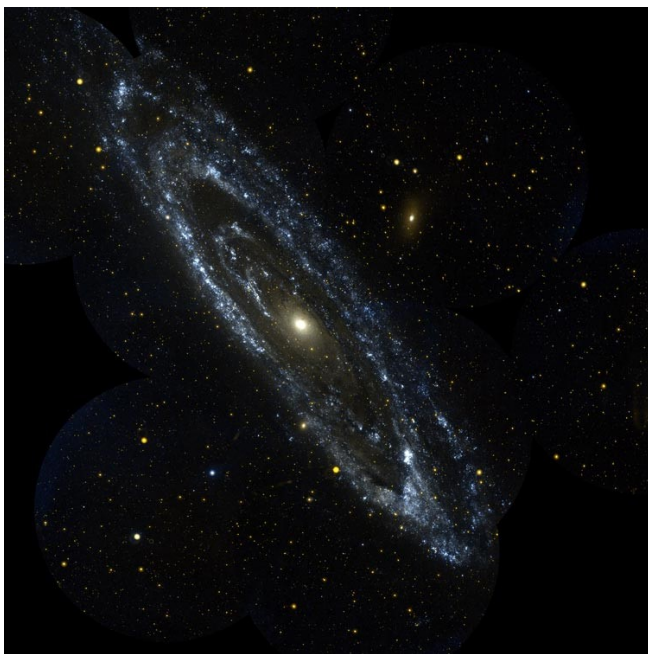
If you are a fan of video like myself I think the following site which has videos derived from the Hubble telescope will be well worth a look. The number of videos is quite large and I am sure that there is something there to stimulate anyone's astronomical curiosity. The speed of delivery is a bit slow but you can queue up

a few videos and then watch them without those pauses <http://www.spacetelescope.org/videos/viewall/>.

Wolfram has a dictionary of astronomy terms. <http://scienceworld.wolfram.com/astronomy/> Actually Wolfram has that and a whole lot more as the marketing slogan goes.

If you hear something that is a common misconception in astronomy send them to <http://scc.losrios.edu/~sah/physics/44Miscon.htm> It isn't quite as encyclopedic as Snopes.com but chances are you will find the more common mistakes there.

If You have wondered where



The GALEX telescope took this UV image of the Andromeda galaxy (M31), revealing a surprising shape not apparent in visible light.

astronomy is going to be in the near future there is an online book from the National Academies press that might have something that will interest you.

http://www.nap.edu/openbook.php?record_id=10079&page=9

The Andromeda picture is from a prior Astronews. I like Andromeda.

URLs for Astronomy Basics by Charles Rykken

You all have heard the expression that nature abhors a vacuum. Well, I think abhor might be a bit over the top but at the very least I certainly feel embarrassed to have so much white space on this issue. With that in mind I have chosen a quick path and am using the course notes from the Coursera course “Introduction to Astronomy” to let you know about some very cool (in my humble opinion) websites pointed out in the course..

The International Astronomical Union has a site <http://www.iau.org/public/themes/constellations/> on everything you wanted to know about constellations.

One of the mystery subjects for me has been all the jargon surrounding positional astronomy. For a hands on demo of the celestial equator see <http://astro.unl.edu/classaction/animations/coordsmotion/radecdemo.html> If you click and hold the sphere you can rotate it into any desired. This is for right ascension and declination. The University of Nebraska Lincoln maintains a site that is virtually encyclopedic on basic astronomy animations <http://astro.unl.edu/animationsLinks.html> . I have spent quite a bit of time playing with some of their animations. This is where the interactive quality of the internet really enhances the learning experience.

I am sure you all have a folder full of site for astronomical pictures, but just in case you missed this one <http://www.aao.gov.au/images/> from the Australian Government, check it out.

A seasons and ecliptic simulator by unl is <http://astro.unl.edu/classaction/animations/coordsmotion/eclipticsimulator.html> this also gives you a test of your understanding of right ascension and declination.

A really nice explanation of the earths precession and short(~8 min) is here <http://www.dnatube.com/video/28577/Wobbly-earth-sixty-symbols>.

A Youtube video explains the phases of the moon and the synodic month as well as throwing sidereal time and more. <https://www.youtube.com/watch?v=LMz5PBtYnU&noindex=1> the only thing that gives me trouble is that the voice over is a computer generated voice, creepily very close to a natural human voice. We are the borg, resistance is futile.

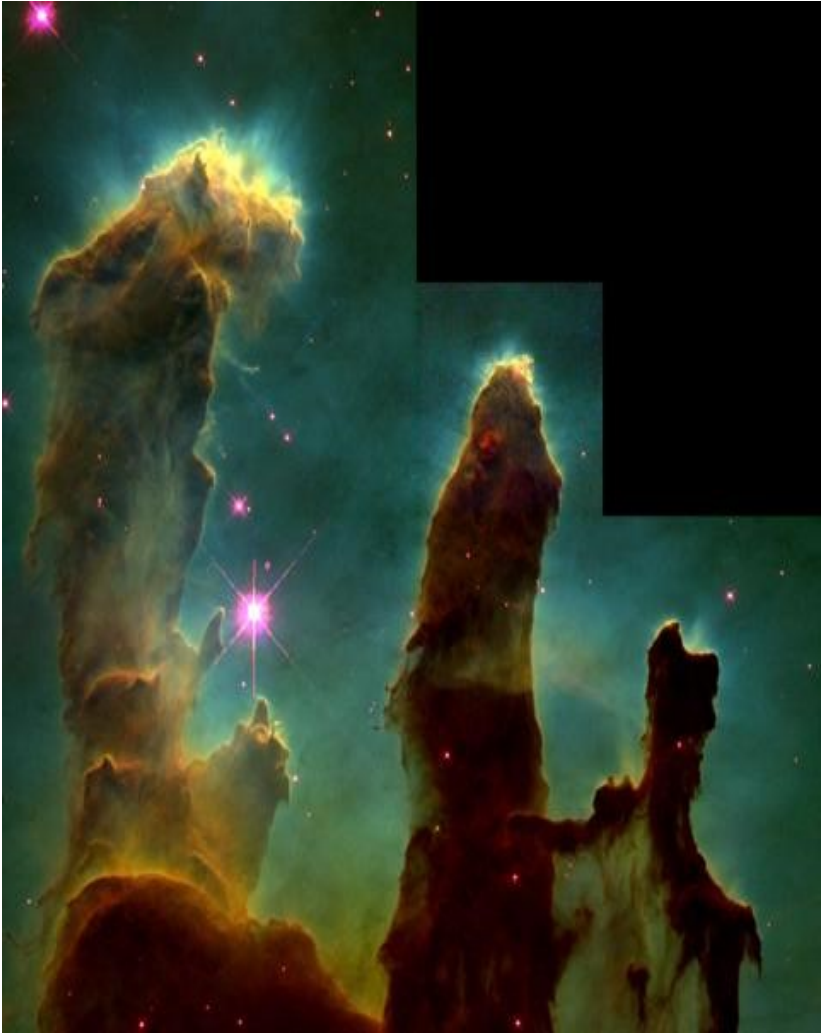
Finally, being trained in mathematics I felt I must give a nod to the parallax view with <http://astro.unl.edu/classaction/animations/intro/smallangledemo.html> .adeeba adeeba adeeba that;s all folks!

Treasurer's Report

by April Lew

HAS Financial Report as of July15, 2014

Initial Balance:	\$3,946.13
Income:	
Donations	10.00
Dues Received	154.00
Total Income.....	\$164.00
Expenses:	
Astronews.....	137.89
Magazine Subscriptions	34.00
Astronomical Society of the Pacific Dues	690.00
Postage	63.70
Total Expenses:	\$925.59
Ending Balance:	\$3184.54



Above photo from NASA

*There are two kinds of light—the glow that illuminates,
and the glare that obscures.*

—James Thurber

**Hawaiian Astronomical Society
Membership Application/Renewal
2006-2007**

Name: _____

Street or P.O. Box: _____

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Phone: _____ e-mail: _____

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Family members: each	\$2.00	_____
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Donation		_____
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Total:		_____
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Fill out this form and send with your check payable to:

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☐ Check here if you do not want information included in the Club Roster.

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