alpha

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Francisco Lao, Jr.
Editor-in-Chief
< appulse2000@yahoo.com >

FEATURE IMAGE THIS ISSUE

National Astronomy Week is the time for amateur astronomers to feature the hobby and share it with others. The image above shows the team from ALP and the Manila Planetarium that participated in the closing ceremonies and ran a stargazing session open to the public at the SM Mall of Asia's Science Discovery Center. We celebrate and recognize all the volunteers who bring astronomy to life with the public!

CLUB NEWS

NATIONAL ASTRONOMY WEEK 2008

The Astronomical League of the Philippines (ALP), in partnership with the SM Science Discovery Center (SDC), opened its National Astronomy Week (NAW) 2008 celebration on Sunday, February 17, 2008 at 4:30 p.m. at the SM Mall of Asia's SDC. This year's ALP NAW theme was "Rediscovering the Universe" but both ALP and SDC later renamed the theme for the event as "Starry Starry Night."

ALP members who attended were: President James Kevin Ty, Vice President Jett Aguilar, PRO Rich Pijuan, NAW 2008 Chairman Peter Benedict Tubalinal, Membership Head Angie Tan, Treasurer Henry So, Auditor Brian Davis, Ways and Means Committee Head Melisa Bata, Alfonso Uy, Michelle Lampa, Kristy Ann Abello, Bel Pabunan, Manila Planetarium staff (Junelyn Alacapa, Nel Lagda, Liza Quitlong, Mary Ann Ramirez, Roberto Silvestre & Maximo Zabanal), Roland and Elena Moya, Jonathan & Ellen Alcartado, Nathaniel Custodio, Irving Raymundo, Sheri Mae Domingo, Alexander Loinaz, Omar Turqueza, and Janice Ponce.

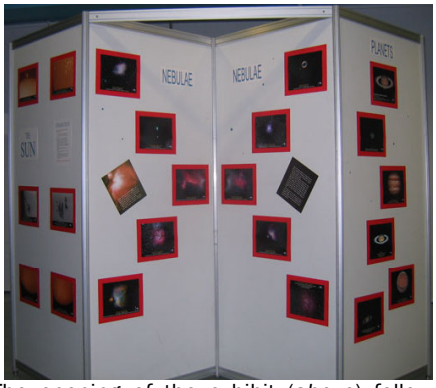
The event started off with registration at around 3:30 p.m. GMA-7 came and covered the event. Earlier, they interviewed ALP President James Kevin Ty regarding astrophotography, and about NAW '08, while waiting for people to fill up the seats inside the lecture room. PRO Rich Pijuan was also interviewed about how she took the image of the Moon. Elena Moya was also interviewed.

This live interview and feature was made by GMA-7 reporter Meann Los Banos, and was shown on *Unang Hirit* and *Afternoon News Flash* on Feb. 18.

The exhibit area was right next to the lecture area. Those who arrived earlier had the time to move around and observe the images posted on the exhibit. There were 102 images, all of them courtesy of ALP imagers. They are grouped accordingly: planets, galaxies, nebulae, solar, astronomical events, ALP in action, the Moon, and the Discovery of Red Spot Jr.

People who attended the planetarium show had the privilege to attend the lecture entitled "Basics of Astrophotography". The lecture started at around 5:30 p.m., where James (*above*) used his laptop connected to a multimedia projector for the presentation. The objective was to show participants that astrophotography could be done with the use of a simple digital camera. James introduced the types of cameras used from the old technology to the digital age. He showed the audience the ways of imaging some of the astronomical objects, the simplest of which is the Moon.

He explained that by the use of even the simplest digital camera, one can image our nearest neighbor in space. He showed them the proper way of holding it right in front of the eyepiece. Later, he presented some of the images that were taken from a simple digital camera, and also those taken using a better digital camera.



The opening of the exhibit (*above*) followed after his lecture ended at around 6:30 p.m. People who were not able to come early took time to roam around and view the exhibit, where members of the ALP explained what they were looking at, and how the images were taken.

The interests and smiles on the faces of the participants were very obvious, as various people had their own interests. Some wanted to learn how to image the stars, others wanted to image the planets, and other objects. They were so interested that they even inquired on how to join the ALP. In addition to an enjoyable discussion, snacks and coffee were also served (⇨ *p. 26*).

Members and visitors were greeted by ALP's own angels at the registration area.

After the lecture and exhibit, they all proceeded outdoors, where ALP had set up their telescopes amidst a very cloudy sky. Though uncertain of the possibility of the skies to clear up, ALP members proceeded in putting up their respective telescopes.

Telescopes that were used for the public viewing were a 4-inch TV101 refractor and 10-inch Meade SCT (Schmidt Cassegrain Telescope), both courtesy of James Kevin Ty; 8-inch SCT (Jett Aguilar), 6-inch Dobsonian (Edgar Ang), 4-inch refractor (Brian Davis), 8-inch SCT (Manila Planetarium), and a telescope by Jon Alcartado. Not all telescopes were placed because of the weather.

Despite cloudy skies, heavenly bodies played hide and seek all throughout the session. People were able to observe the Moon, and its craters really caught peoples' attention.

Bright stars also popped into view: Sirius from the constallation Canis Major; and Rigel from the constellation Orion. Viewers were captivated by the bright twinkling effects of these stars.

Roland Moya assists Jon Alcartado set up his 80-mm refractor.

ALP NAW 2008 Chairman and Observation Head Peter Benedict Tubalinal quickly aims the 8" Meade SCT to the Moon as the clouds break up.

Manila Planetarium's Nel Lagda used a C8 telescope to show the crowd the beauty of the heavens.

ALP member Elena Moya was invited by Sofia to help her entertain the crowd

Then, the finale -- the appearance of the ringed planet Saturn. The public rushed in line to get a glimpse of what has always been the most beautiful planet in the solar system. They took their moment viewing Saturn through the telescopes, for at least a minute for each one.

GMA-7 reporter Meann Los Banos also had a great time looking at the craters of the Moon.

Then moments later, clouds started to close in again. A little entertainment, courtesy of Sofia, was also there to add spice to the public viewing session. The observing session ended at around 10:30 p.m., where a series of group pictures were taken, with the theme logo as the background (*above*). Group picture-taking had always been one of the most enjoyable parts of any event of the ALP.

Closing. The ALP, again in partnership with the SM Science Discovery Center (SDC), had its closing activity of National Astronomy Week 2008 on February 23, 2008 at 4:30 p.m., at the SM Mall of Asia's SDC. ALP members who attended were: President James Kevin Ty and Charito Ty, PRO Rich Pijuan, Membership Head Angie Tan, Treasurer Henry So, Auditor Brian Davis, Secretary Alice Villa-Real, ALP Directors Alfonso Uy & Jomar Lacson, Bel Pabunan, Manila Planetarium staff (Junelyn Alacapa, Nel Lagda, Liza Quitlong, Mary Ann Ramirez, Roberto Silvestre & Maximo Zabanal), Maximo Sacro, Elena Moya, Roland Moya, Jonathan & Ellen Alcartado (⇨ *p. 27).*

The large crowd at the Mall of Asia's SDC.

Brian's SCT pointed towards the red planet Mars

Jon Alcartado aims his Skywatcher 6" Newtonian reflector at Saturn.

ALP Secretary Alice Villa-Real (at the scope) and PRO Rich Pijuan shows the Pleiades star cluster with Alice's wide field Orion ST-80

Nathaniel Custodio, Irving Raymundo, Omar Turqueza, Janice Ponce, Edgar Ang, Joseph Gutierrez, Aldrin Palacio, and Alfonso Sy.

The event started with Registration at around 3:30 p.m. The 2nd ALP Astrophoto Exhibit was still up beside the lecture area. Those who arrived earlier had the time to move around and observe the images posted on the exhibit. ALP members again answered the viewers' questions and how the images were taken.

In addition to an enjoyable discussion, snacks and coffee were also served, courtesy of Bo's Cafe.

Aside from the astrophotography exhibit and lecture, the Science Discovery Center also had a show entitled "Search for Life" at SM SDC's Digistar Planetarium – the most advanced 360 degree 15-meter dome screen technology in the Philippines. This is a sure way of learning more about the stars and the skies.

An estimated 2000+ queued without a break along the telescopes set up at the site. Among the objects observed were magnificent Saturn; still bright but smaller Mars; the Great Orion Nebula; the beautiful Pleiades star cluster in Taurus, brightest star Sirius, and last but not the least, the beautiful gibbous Moon.

ALPer Max Sacro guides the viewers on what objects were being pointed at by the telescopes.

Saturn was a stunner, as most of the viewers couldn't believe that they would be able to see its majestic rings. The public rushed in line to get a glimpse of what has always been the most beautiful planet in the solar system. They savored viewing Saturn through the telescope for at least a minute each. Mars, although a bit smaller now than during December, was still a sight to behold with its beautiful bright orange color and features such as Syrtis Major and small polar ice cap at high magnification. At around 9:00 p.m, the gibbous Moon had risen above the SM building obstruction for ALPers to point some of their telescopes at it. Some of the scopes were set up for whole disk viewing, while the others were set up to view at high power to better show the magnificent craters and beautiful maria.

ALPer Irving Raymundo points the ALP's Meade 8" SCT at the rising Gibbous Moon.

The observing session ended at around 10:30 p.m., where a series of group pictures were taken, again with the theme logo as background (*see cover*). The weather that week was marred by clouds, but with God's blessing, the closing of the NAW 2008 came out with a blast with a surprisingly clear night for members to share the beauty of the heavens with the public. Thick clouds and a mild rain came later, after the event was over.

During NAW 2008, ALP also welcomed Rodney Jovin Velasco, Jaizel Valerie Pilapil and Michael Manriquez as its newest members.

In addition to the opening and closing ceremonies, ALPers were featured in the media, adding to spreading awareness of amateur astronomy (⇨ *p. 28*).

NAW 2008 Chairman Peter Benedict Tubalinal and ALP President James Kevin Ty were interviewed by hosts Kim Atienza and Rica Peralejo live on ABS-CBN Channel 2's "*Umagang Kay Ganda*" on Feb. 15, regarding National Astronomy Week 2008 and the activities at SM Mall of Asia's SDC. They also discussed the different types of telescopes.

ALP would like to thank those who helped make NAW 2008 a successful one - to everyone from setting up the astrophoto exhibits such as Rich Pijuan, Angie Tan, Bel Pabunan, Edgar Ang, and Nel Lagda; ALP members Jett Aguilar, Brian Davis, Jon Alcartado, Alice Villa-Real, Edgar Ang, Nathaniel Custodio, and Manila Planetarium staff who put extra effort and energy to bring their telescopes to the event; and the numerous ALP members who helped assist during the 2 days of activities with their presence.

Heartfelt thanks go to the SM Science Discovery Center (SDC), especially SDC Marketing Manager Lara Marie Lua, Marketing Officer Jeffrey Cifra, Operation Manager Ronwell Bete, Senior Marketing and Communication Manager Ampy Crisostomo, and Senior Assistant Vice President Dexter Deyto for their great support to make this year's National Astronomy Week 2008 a successful and memorable one. – *Peter Benedict Tubalinal and James Kevin Ty*

ALPERS FEATURED

US-based Edwin Aguirre and Imelda Joson were featured in the February 2008 issue of Sense and Style magazine on its people and passion column (page 128).

The article was entitled "Written in the Stars" and was written by Nicole Limos. Nicole wrote about how Edwin and Imelda met and how they have grown in their love for each other as well as their love of astronomy. – *James Kevin Ty*

THIRD JOVIAN RED SPOT DISCOVERED FROM CEBU

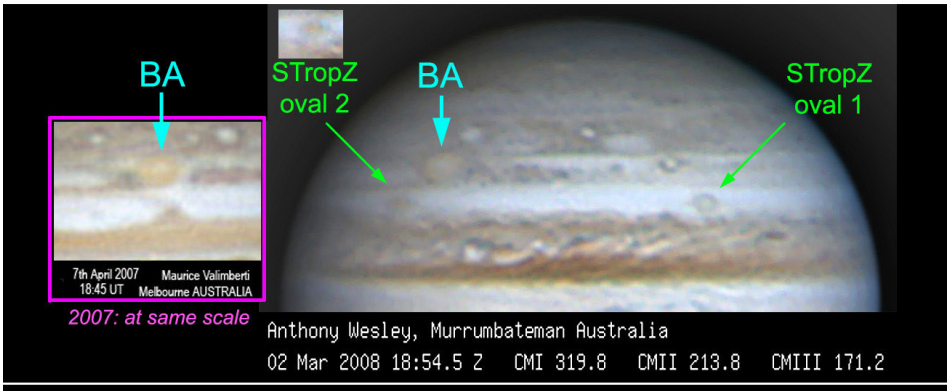
Christopher Go's friends Tomio Akutsu, and Australian Anthony Wesley discovered the 3rd Red Spot of Jupiter (*see right, image courtesy of Tomio Akutsu*). This was the South Tropical Disturbance-2 (STrD-2) that transformed into an anti-cyclonic oval.

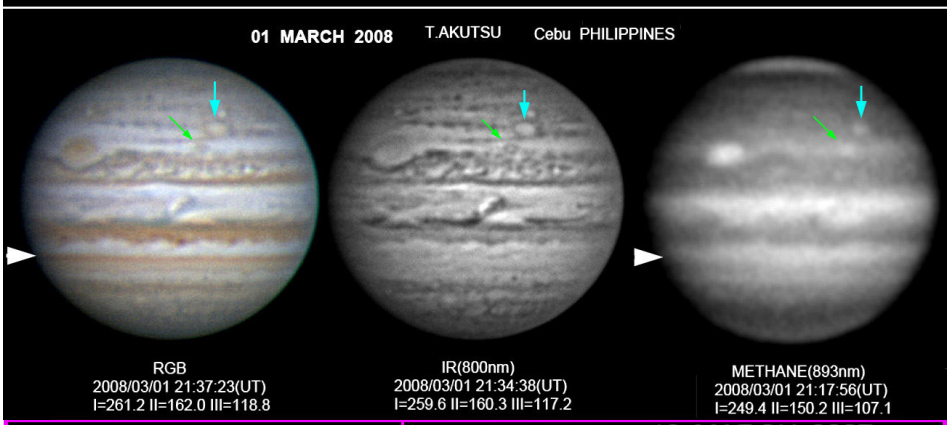
The Japan ALPO website reports: *"On 2008 March 1 and 2, interesting new developments on Jupiter were revealed in the first methane image of the apparition (Tomio Akutsu, Japan) and the first v-hi-res colour image (Anthony Wesley, Australia)"*.

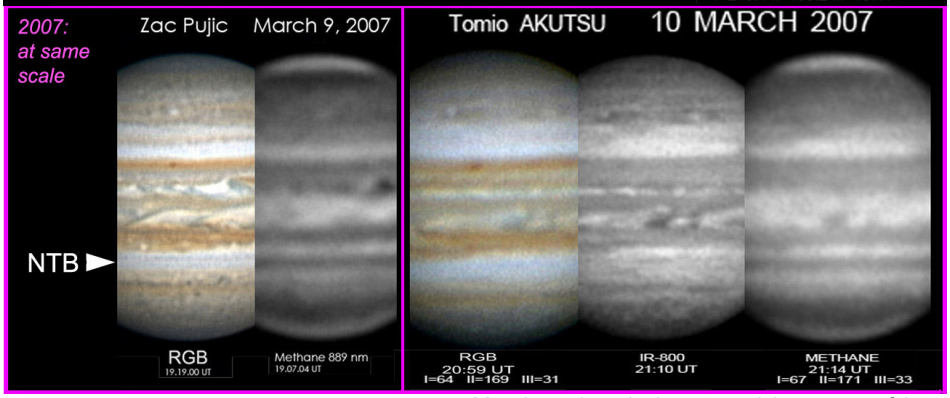
Coincidentally, the discovery is exactly 2 years after Chris discovered Red Jr. Cebu does it again! – *Christopher Go*

Red ovals, red belt: changes from 2007 to 2008

Note: Fading of red ring in Oval BA; STropZ ovals 1 and 2, probably derived from STrD-1 and -2, oval 2 a methane-bright Little Red Spot; NTB revived as a red belt but faded in methane.







BREAKING NEWS

MARTIAN AVALANCHE

The High Resolution Imaging Experiment (HiRISE) on NASA's Mars Reconnaissance Orbiter took an image on Feb. 19 that shows tan clouds billowing away from the foot of a towering slope, where ice and dust have just cascaded down. The camera was tracking seasonal changes on Mars when it inadvertently caught the avalanche on film.

The full image reveals features as small as a desk in a strip of terrain 6 kilometers wide and more than 10 times that long, at 84 degrees north latitude. Reddish layers known to be rich in water ice make up the face of a steep slope more than 700 meters tall, running the length of the image.

Mars' north pole is covered by a cap of ice, and it even snows there. The scientists suspect that more ice than dust probably makes up the material that fell from the upper portion of the scarp (*image on next page*).

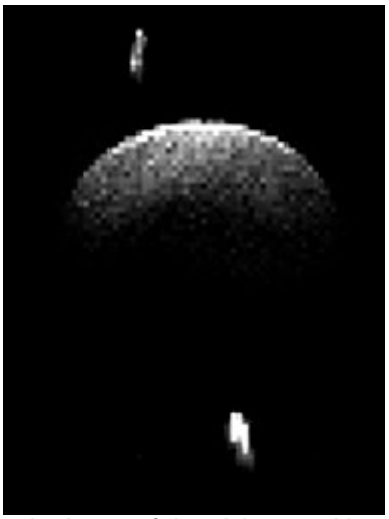
"If blocks of ice broke loose and fell, we expect the water in them will be changing from solid to gas," said Patrick Russell of the University of Berne, Switzerland, a HiRISE team collaborator. "We'll be watching to see if blocks and other debris shrink in size. What we learn could give us a better understanding of one part of the water cycle on Mars." What set off the landslide and whether such events are common on Mars is something else the team will be looking at. – *Space.com* (⇨ *p. 29*).

The image above has captured at least four Martian avalanches, or debris falls, in action. It was taken on February 19, 2008, by the High Resolution Imaging Science Experiment (HiRISE) camera on NASA's Mars Reconnaissance Orbiter. Credit: NASA/JPL-Caltech/University of Arizona

TRIPLE ASTEROID

The first triple asteroid near Earth has been discovered. Astronomers have found plenty of double or binary asteroids. Triples are known to exist, too (the first triple was found in 2005).

The system called 2001 SN263 is the closest triple, at just 11.2 million kilometers from Earth. It was originally found in 2001, but new observations with the radar telescope at the Arecibo Observatory in Puerto Rico reveal it is three gravitationally bound rocks.



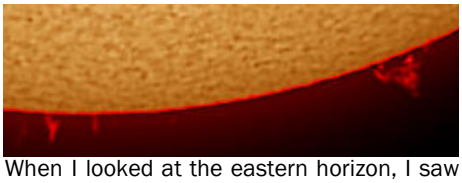
A radar image of the triple asteroid system 2001 SN263. Credit: Arecibo Observatory/ Cornell University/NSF

The main rock is spherical and about 2 km. wide. Another is about half that size. The smallest is about 47 meters across, or about the size of the Arecibo telescope. Double, or binary, asteroid systems are known to be fairly common — about one in six near-Earth asteroids is a binary — but this is the first near-Earth triple system to be discovered. - *Robert Roy Britt, Space.com*

Observing Log

Sun

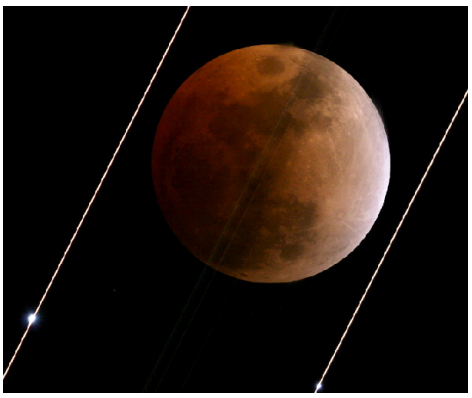
Mar. 2. After a long hiatus of not being able to observe and image anything because of bad weather. I was blessed with a short span of clear skies and the seeing condition was also steady at around 2/5. As I set up my solar imaging scope, I saw a nice medium eruptive prominence (*below*).



When I looked at the eastern horizon, I saw a large cloud coming in fast so I wasted little time and imaged the Sun in less than 15 minutes. After the session, clouds covered the entire sky again. – *James Kevin Ty*

Total Lunar Eclipse

The trails shown in two of our pictures are not from the fragments of the spy satellite USA 193. The bright streaks were made by the wing lights of a low-flying commercial jetliner that passed in front of the eclipsed Moon while on its way to the airport. The close-up view was taken with a 3-inch refractor (*top right*), while the wide-angle view was made using a zoom lens (*bottom right*).



Our two cameras were only a few feet apart, but the parallax shift of the aircraft relative to the Moon is clearly evident.

The eclipse sequence (*next page*) is a composite of three separate exposures that shows the Moon right before, during, and right after totality.

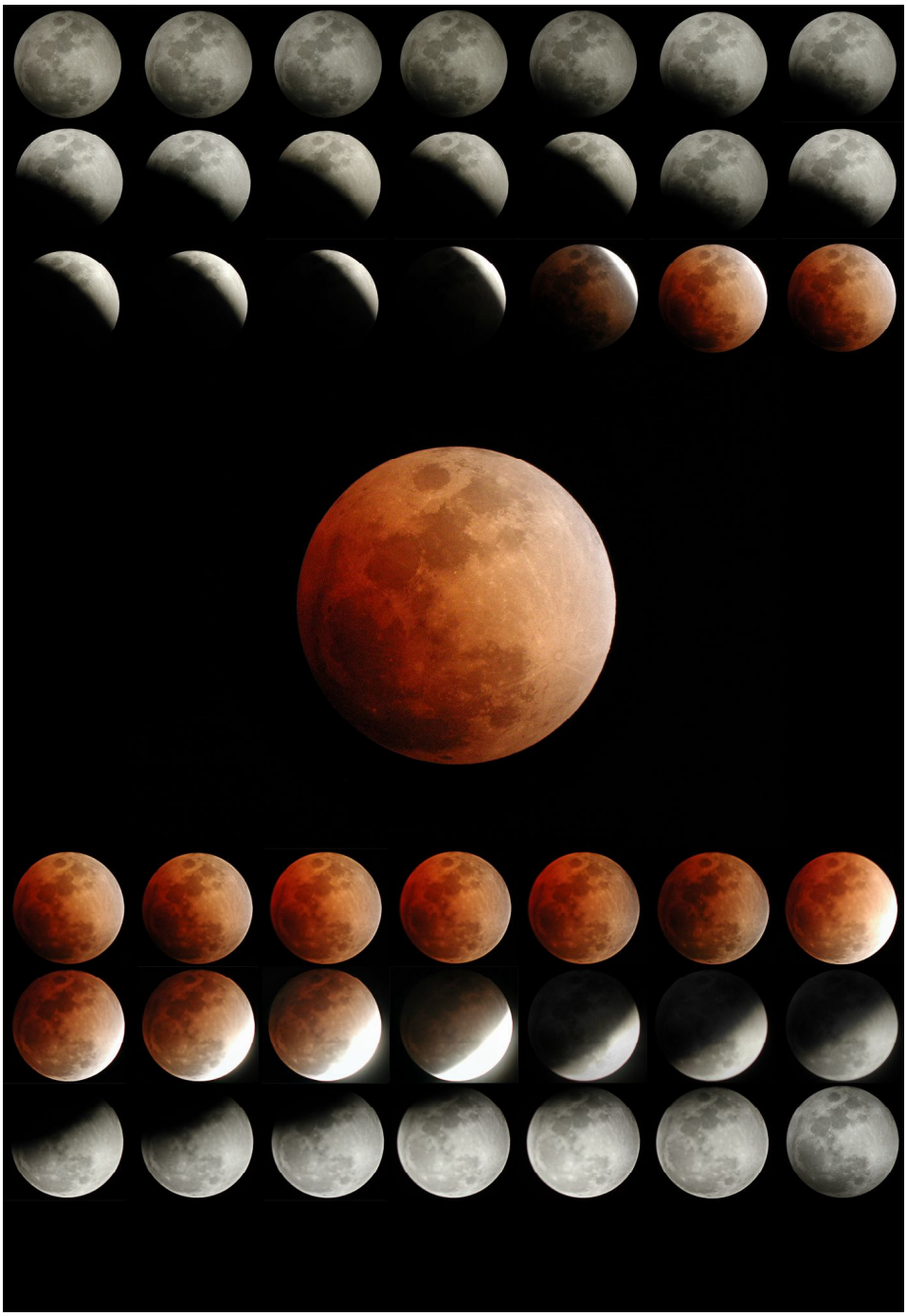
You can see the circular outline of the Earth's shadow on the lunar disks. The sky did clear up in time for the total phase of the eclipse, but it was quite cold -- only –8° C degrees in our location, and we were outside setting up our equipment and photographing the event for nearly four hours. – *Imelda Joson and Edwin Aguirre, Woburn, Massachusetts*

It's frigid over here in Ohio (forecast low is about 10 degrees F = - 12° C), but at least it's clear! Considering we had a snowfall this morning, this is indeed a blessing! My impression of this eclipse so far is that at totality, it looks lighter than the eclipse of August 2007. We'll see if my impressions jive with overall observations.

The sequence of the total eclipse of the Moon on February 20, 2008 is shown on the next page. It was taken with an Olympus 3040-Z point-and-shoot digital camera operating afocally using a Meade 26-mm Plossl. The Borg 76ED was placed on an AP1200 mount. – *Eric Africa, Westchester, Ohio* (⇨ *p. 30*).

Lunar eclipse sequence by Edwin and Imelda, above, is centered on the Earth's shadow.

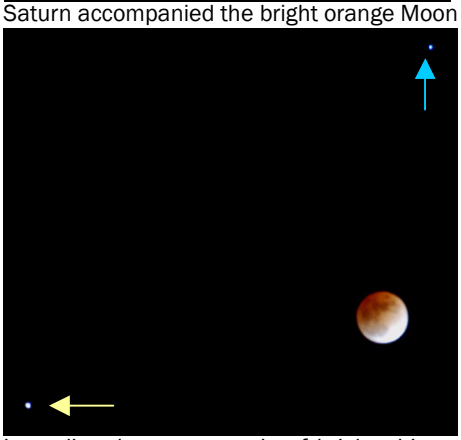
Lunar eclipse sequence by Eric Africa, below shows all the phases of the total lunar eclipse.



It's a bright eclipse - with a lot of gradation across the lunar limb - quite evident in images with portions of the limb quite bright, and others quite dark.

10 mins. before full immersion in the umbra.

Saturn accompanied the bright orange Moon



In reality, there was a trio of bright objects during the eclipse – blue Regulus at upper right, the orange Moon bottom right, and Saturn at bottom left. We got a nice 3D effect, especially with the varying gradation of the Moon's brightness and color. Very cold though - it's now 12 deg. C below zero in Mason. They're predicting more snow tomorrow night (we already got about 3-4 inches of snow this morning). Images were taken with a Nikon D80 DSLR and 70-300 mm f/4.5 lens. – *Jun Lao, Mason, Ohio*

Saturn

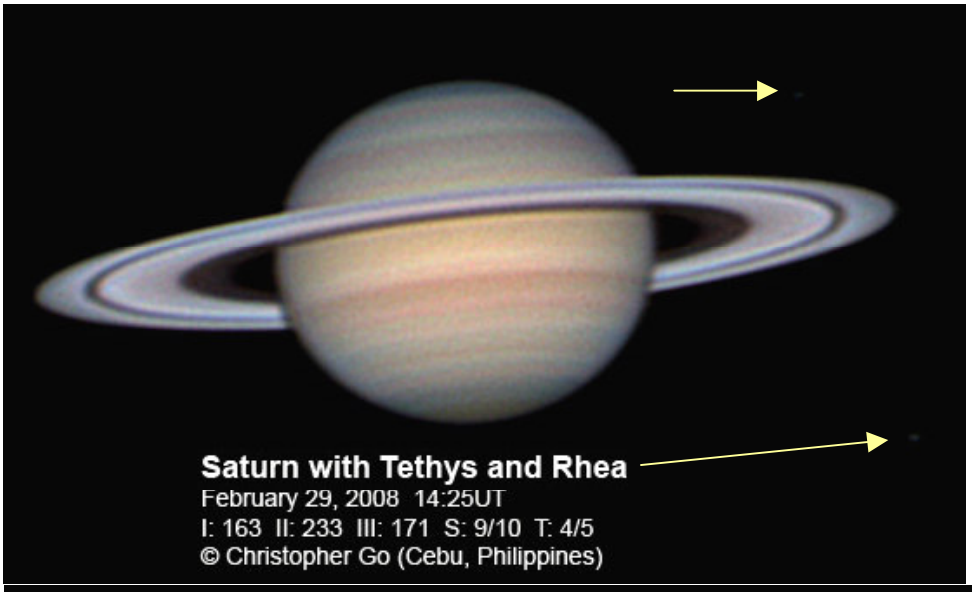
Feb. 22. Here is my most recent effort, which I am happy with because I captured a storm (⇨ *p. 31*).

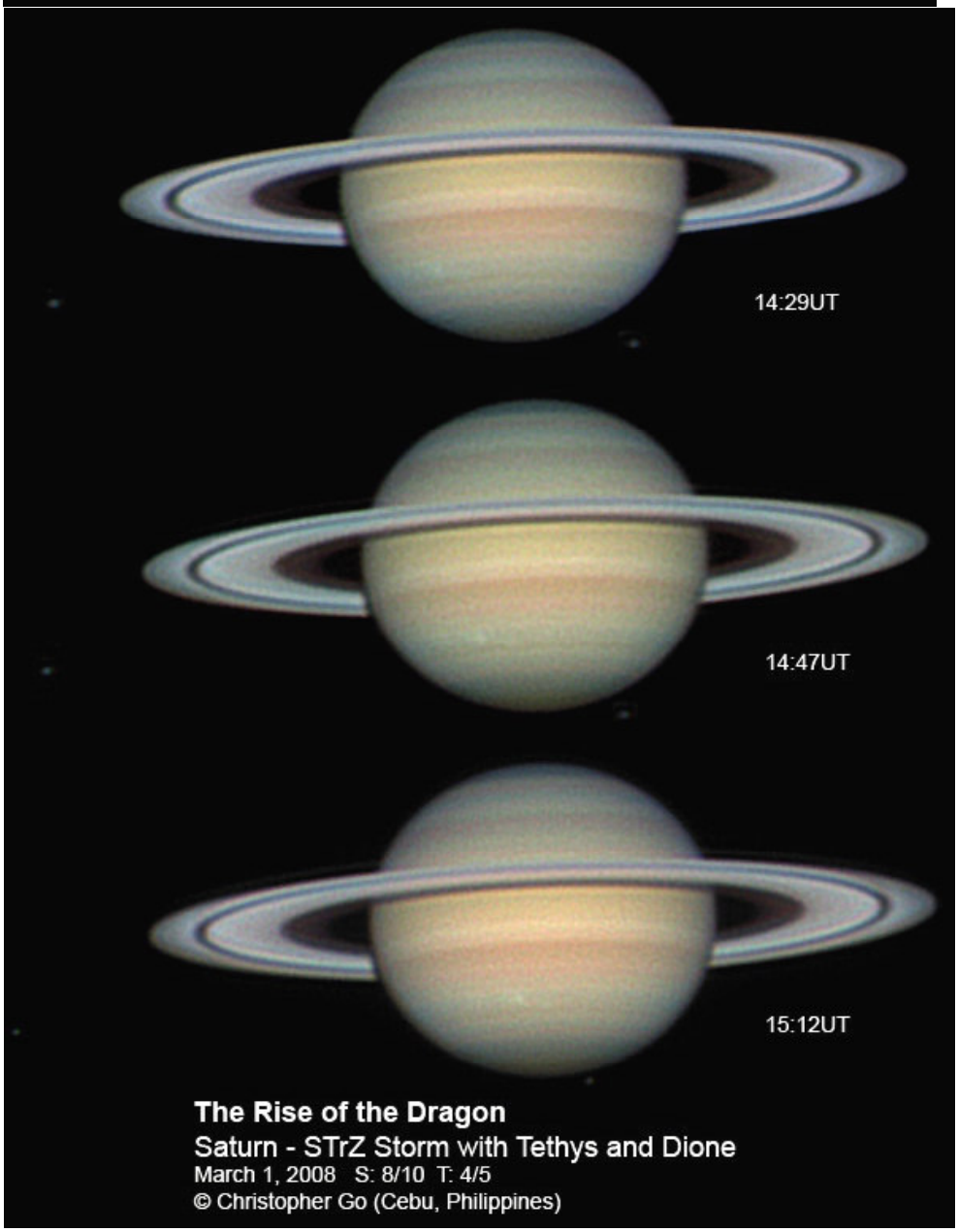
Mar. 2. Here is my best effort from a very hazy Saturday night:

– *Brian Davis*

Feb. 29. At right is my first image of Saturn this year. Seeing was good this evening. It's bands galore on Saturn. Note the dark North Polar Region (NPR). The northern hemisphere bands are showing up now. Tethys is the faint star just above the ring of Saturn on the right while Rhea is below the ring on the right.

March 1. Seeing was good this evening. I was able to capture the rising South Tropical Zone (STrZ) storm "aka" the "Dragon". The storm is located around SYS III: 300. Contrast of this storm gets better as it gets closer to the Central Meridian (CM). Some features of this storm seem to be resolved. Hopefully we can get some Cassini images for this. 2 moons are visible here. Tethys is on the left while Dione just below the south polar cap in the image at the right. – *Chris Go, Cebu*





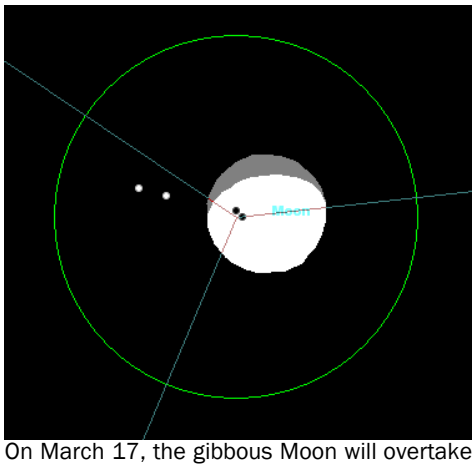
Sky Calendar

March and April are often the months that observers in the Philippines get clear skies. The Intertropical Convergence Zone is normally further south, and the monsoon winds coming from the north will have abated.

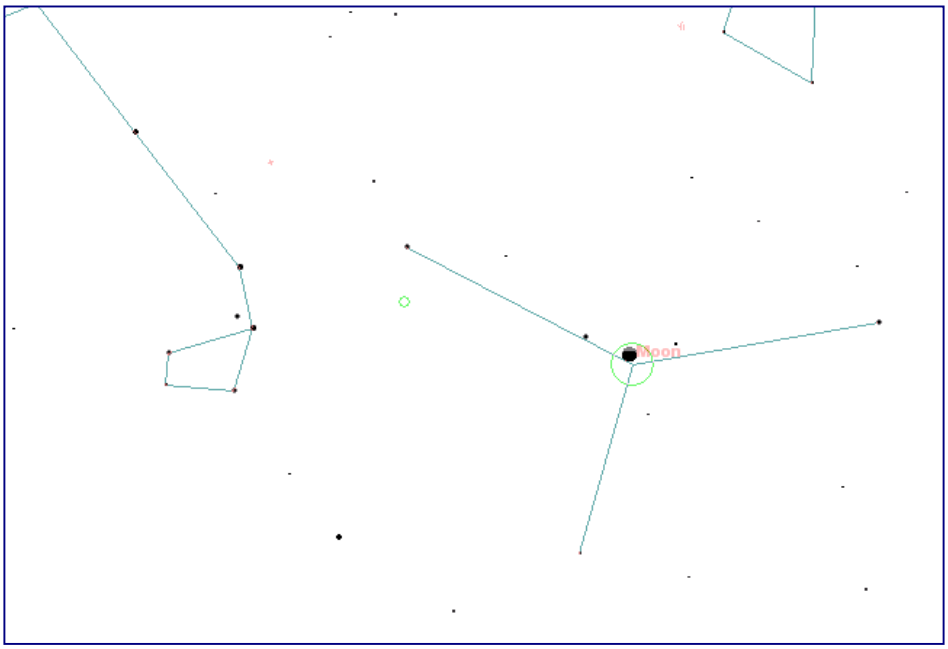
The Sky

DAY	*HR*	*EVENT*
MARCH 2008		
08	01:13	NEW MOON
13	02:56	Moon 0.6° N of Pleiades
14	18:45	FIRST QUARTER
15	09:45	Mars 0.2° S of Moon
17	22:52	Moon 0.1° N of Beehive star cluster
19	14:13	Moon 0.7° S of Regulus
20	00:01	Saturn 3.0 deg N of Moon
20	13:48	EQUINOX
22	02:59	FULL MOON
23	18:14	Mercury 1° S of Venus
23	22:53	Moon 2.7° S of Spica
27	17:37	Moon 0.3° S of Antares
30	05:46	LAST QUARTER

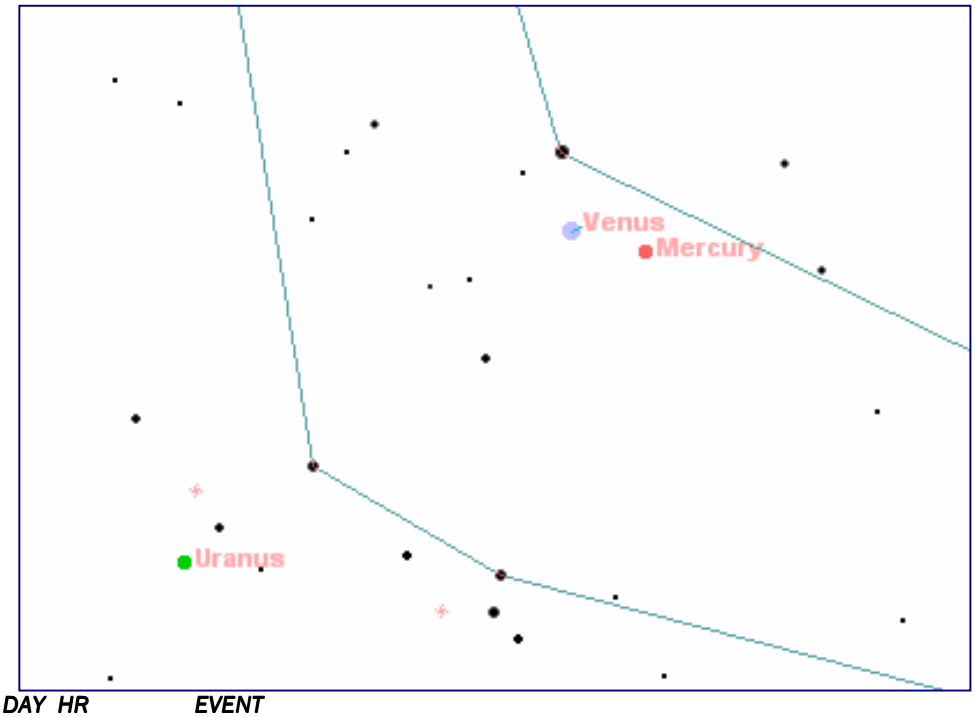
(⇨ *p. 32*)



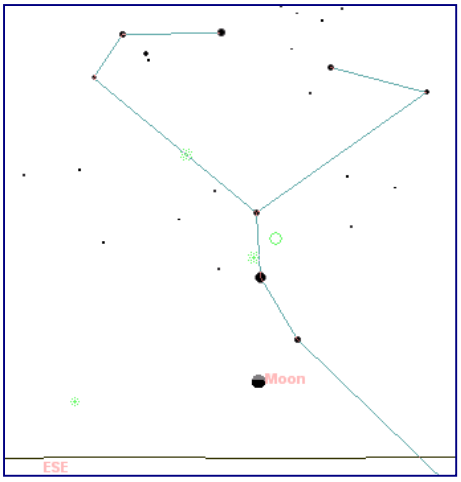
On March 17, the gibbous Moon will overtake the Beehive cluster (see chart at right, showing how it looks at 9 p.m. The detailed chart above shows the group at 8 p.m.). This will be a nice observable event, with the Moon about 45 degrees high, but you will need a clear, haze-free western horizon where the event will be situated.



On the early morning of March 23, you can catch the two fleetest planets close together in the early morning sky – these would be Venus and Mercury close together. Look for a clear eastern sky to spot the two, as they can be quite low and near the horizon when you need the background to be dark enough before they get washed out (*see right*).



On March 27, you can spy the Moon just to the east (below) of Antares as they rise above the east southeast:



DAY HR EVENT

APRIL 2008

06 11:55 NEW MOON

09 08:12 Moon 0.5° N of Pleiades

12 11:52 Mars 1.1° S of Moon

13 02:31 FIRST QUARTER

14 04:36 Moon 0.6° S of Beehive star cluster

DAY HR EVENT

15 22:33 Moon 1.2° S of Regulus

16 15:24 Mercury at Superior Conjunction

20 08:15 Moon 2.9° S of Spica

20 18:25 FULL MOON

22 12:04 Lyrids Meteor Shower Peak

24 00:15 Moon 0.8° S of Antares

26 14:20 Jupiter 2.6° N of Moon

28 22:11 LAST QUARTER

The April Lyrids are beset by the light of the Full Moon this year and you can only catch its brighter members.

During the month of April, there's not a whole lot to see in terms of planetary conjunctions. One thing to appreciate in the night sky, though, is the presence of the Milky Way in the early morning. As the humidity of the day goes away, you are normally left with clearer skies in March and April early mornings.

Catch the summer Milky Way by then and explore its richness – see it meander through Scorpius, Sagittarius, and Scutum, then move north to Cygnus, tracing the dark rift. Before then, also catch the southern bounties: the star clusters of Vela, the Coal Sack in Crux, and the largest and brightest of the globular clusters: Omega Centauri.