



# STAR STUFF

Ford Amateur Astronomy Club Newsletter

## Star Stuff

This newsletter is published eleven times per year by:

Ford Amateur Astronomy Club  
P.O. Box 7527  
Dearborn, MI 48121-7527

## Officers

President:	Arica Flores
Vice President:	Ed Halash
Secretary:	Jesse Godsey
Treasurer:	Joseph Bostic

## Departments

Webmaster:	Liam Finn
Membership:	Doug Bauer
Newsletter:	Tim Campbell
Equipment:	Jeff Gorman
Speakers:	Sandra Macika

## Club Information

The Ford Amateur Astronomy Club meets on the fourth Thursday of each month, except for the combined November/December meeting which meets on the first Thursday of December – at Henry Ford College Administration Services and Conference Center in Dearborn.

## President's Corner

*by Arica Flores, President*

### Astronomy at the Beach: What a Fun Weekend!

I am writing this after a very successful Astronomy At The Beach. I want to thank all of you that helped this year. We had members that manned to club table, brought out their scopes, had presentations. It is because of you that this event was so successful. I also want to shout out to all the members who helped in the past without out you AATB would not be celebrating 20+ years.

We had 1200 attendees on Friday and 2080 on Saturday. Our club table as well as Sandra's meteorites, and Mike's scale of the solar system tables seemed to be busy. The lines at the telescopes as well as the attendance of the presentations all show the success of the event. The kids sure enjoyed the scavenger hunt and prizes. I asked everyone what their favorite thing to see through the scope and Saturn was the most popular response followed closely by the moon. Again, thank you to everyone who helped. Can not wait until next year's event. Save the date next year will be September 20th and 21st.

## Secretary's Report

*by Cheri Grissom, filling in for Jesse Godsey, Secretary*

### FAAC General Meeting – August 24, 2023

Meeting called to order at 7:02 p.m. by president, Arica Flores. Vice President, Ed Halash, and Treasurer, Joe Bostic, present. Secretary, Jesse Godsey, absent. We had nineteen in-person attendees and five online. Members and guests introduced themselves.

## Club Information

Refer to our website for a map and directions:

[www.fordastronomyclub.com](http://www.fordastronomyclub.com)

## Observing

The FAAC primary observing location is Spring Mill Pond located within the Island Lake State Recreation Area near Brighton, Michigan. The Club maintains an after-hours permit. Club members can contact any club officer for procedures to enter or exit the park when the main gate is locked.

The club also has use of a private observing site near Gregory Michigan. See the FAAC Groups.io Group for more information.

Inquiries can be directed to [info@fordastronomyclub.com](mailto:info@fordastronomyclub.com)

## Membership

Membership is open to anyone with an interest in amateur astronomy. The FAAC is an affiliate of the Ford Employees Recreation Association (FERA).

### Fees

Annual - New Members: \$30  
Annual - Renewals: \$25  
(\$30 if not renewed by Jan 31)

### Benefits

Membership includes the Star Stuff newsletter, discounts on magazines, discounts at selected

Arica thanked all of our members who volunteered for various duties and helped make our annual club picnic an enjoyable success earlier this month.

### *Member Observing Reports*

Following our picnic on August 12, we had nice weather and enjoyed an evening of observing at Island Lake's Spring Mill Pond. Many Perseid meteors were seen. We also observed the StarLink train that had just launched a couple days earlier. The many satellites were all still in a tight line and went almost straight overhead from the western horizon to just past zenith, when they disappeared, no longer being illuminated by the already-set sun's light. About five minutes later, we observed a high pass of Tiangong, the Chinese space station. Many members shared views of Saturn, Neptune, and several DSOs with the public. Earlier in the day, Tim Campbell had the club's solar scope set up for views of the sun. Gordon Hansen brought the club's new-to-us Celestron 150mm refractor, and it performed beautifully after he had spent some time at home testing it and fixing issues with the mount. Gordon also reported he has had a couple good nights of imaging this past month, photographing some new-to-him objects.

Arica spent a long weekend camping up north where she was also able to watch meteors with members of the public and share views of Saturn with people who had never had the opportunity to see it through a telescope.

John Lines, who lives in Colorado, has been attending and helping out at some large observing events (175-200 people) held in Rocky Mountain National Park.

Trajan Centers has been getting acquainted with his new telescope and was recently up north on Old Mission Peninsula, where he had great views of Saturn and the Perseids.

For the benefit of new members, Arica discussed our club mentoring program and answered related questions..

### *What's Up in the Night Sky*

Gordon Hansen went over dates for our September meetings and events. As always, these can be found in our events calendars on Groups.io and [fordastronomyclub.com](http://fordastronomyclub.com). The second full moon for the month of August is coming up soon, August 30. The next one will be September 29. The

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area equipment retailers, and after-hours access to the Island Lake observing site and private observing sites.

Astronomy or Sky & Telescope magazine discounts are available by contacting the FAAC club treasurer [treasurer@fordastronomyclub.com](mailto:treasurer@fordastronomyclub.com) for the discount form. The form should be sent to the respective publisher with your subscription request and payment. Do not send money directly to FAAC.

The FAAC has a pool of equipment including telescopes, cameras, and other gear used for outreach. Much of the gear can be borrowed for personal use in the interest of furthering your knowledge and experience in astronomy.

Please see the equipment list for further information.

## Club Wear

Club logo-wear (embroidered with club logo) can be ordered directly through [LLBeanBusiness.com](http://LLBeanBusiness.com)

See the [groups.io](https://groups.io) files section for ordering information and instructions on how to request the correct logo.

## Communication

The FAAC uses Groups.io for our email distribution list (both formal and informal discussion.)

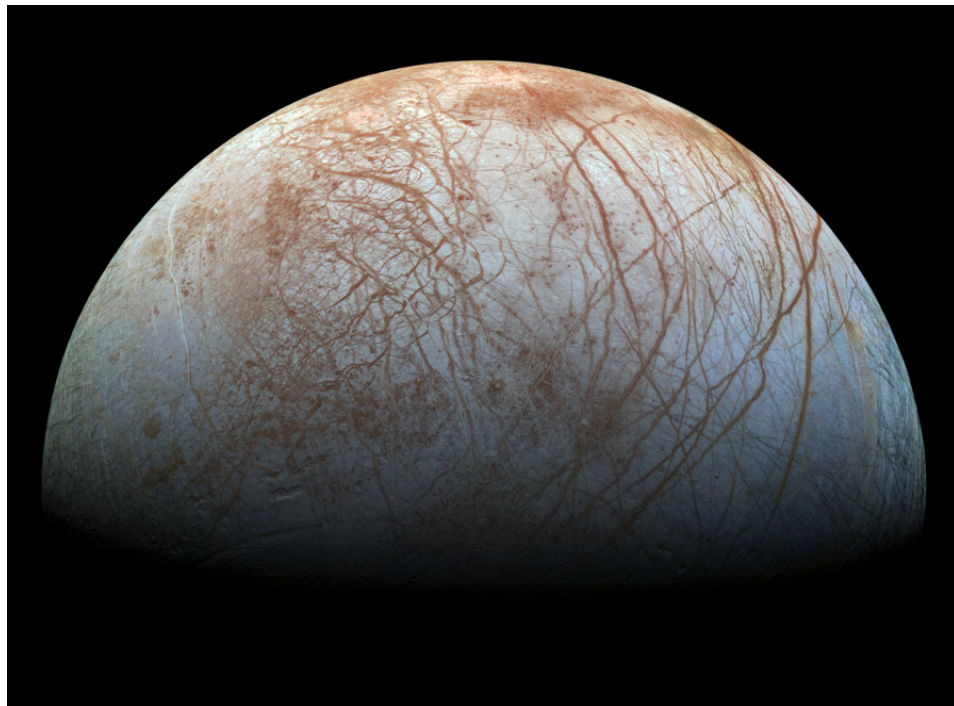
Observing nights & locations (scheduled and unscheduled as weather permits), equipment

# From Galileo to Clipper, Exploring Jupiter's Moons

by Vivian White

“...We, too, are made of wonders, of great  
and ordinary loves, of small invisible worlds,  
of a need to call out through the dark.”

From In Praise of Mystery: A Poem for Europa by Ada Limon



As autumn begins, if you're up late, you may notice a bright point of light rising in the east. Look a bit closer, with a pair of binoculars, and you'll notice it's not a star at all. While stars look point-like no matter how big your backyard telescope, this light appears as a circle under closer examination. Even more curious, you will likely see a line of smaller dots on one or both sides. Congratulations! You've rediscovered the king of the planets - majestic Jupiter - and its four largest moons.

Galileo famously chronicled the four moving dots near Jupiter and surmised that they were orbiting the distant world. While Jupiter has well over 80 discovered moons as of September 2023, these brightest four are called the "Galilean Moons" - Io, Europa, Ganymede, and Callisto. (Great mnemonics exist to remember these in order of distance from Jupiter, such as "I Eat Green Caterpillars") You can follow these like Galileo did, using stargazing apps or the handy image below. A favorite beginning observing



questions, events, outreaches, etc. are normally discussed via this list.

Join by visiting <https://groups.io/g/FordAstronomyClub> to request membership.

## Articles & Submissions

Your submissions to Star Stuff are welcome! Send your story and/or images to the editor at: [starstuff@fordastronomyclub.com](mailto:starstuff@fordastronomyclub.com)

## Observatory

The FAAC maintains and operates the Hector J Robinson Observatory (HJRO) at Lincoln Park Schools.

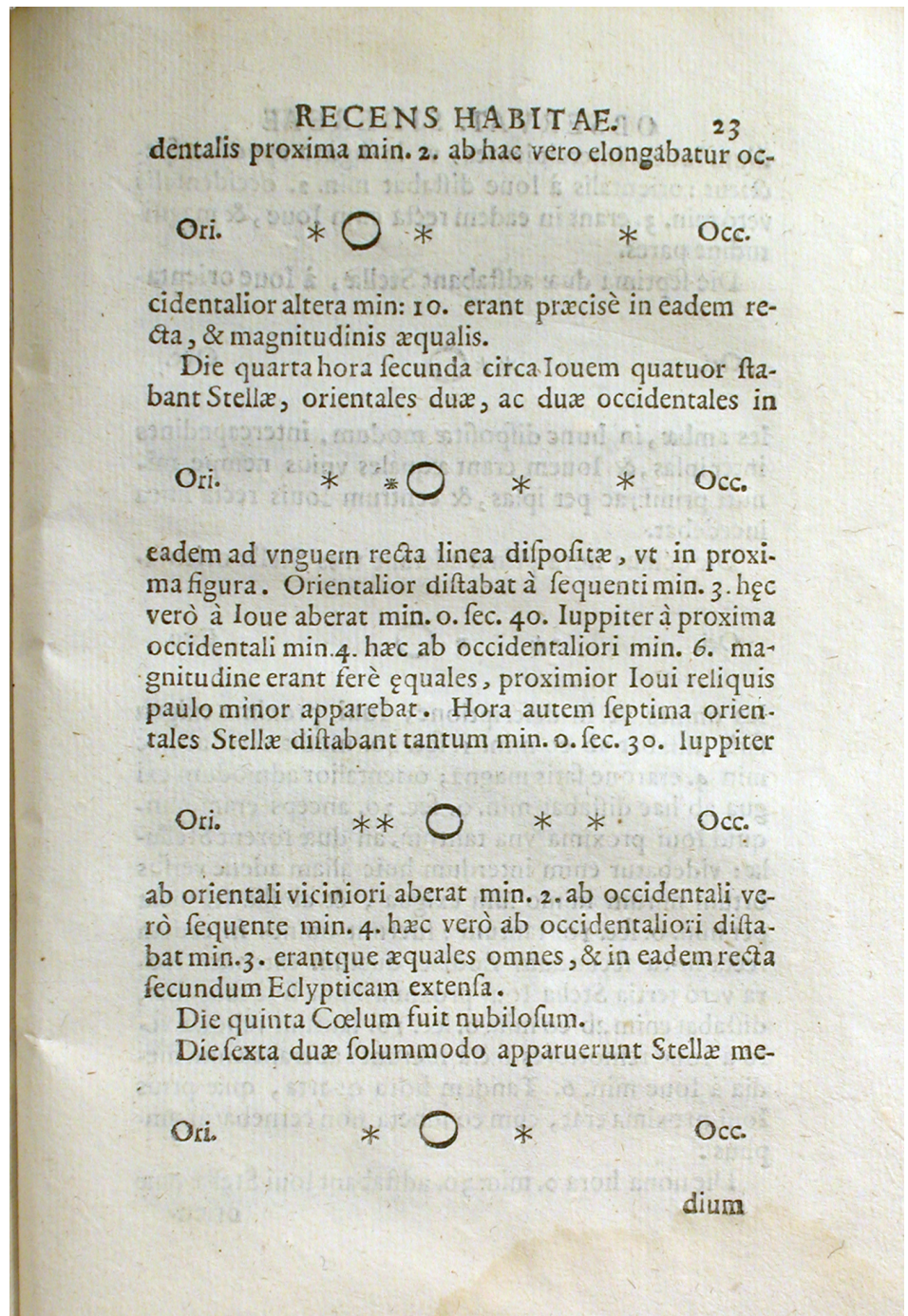
The observatory houses a 14" Celestron C14 Schmidt Cassegrain Telescope as well as other instruments and can be used by club members.

The observatory is adjacent to the athletic field situated between the Lincoln Park Middle School and High School buildings near

1701 Champaign Rd.  
Lincoln Park, MI 48146

The school system has designated four "key-holders" within the club who have the ability to open the observatory.

Call (313) 444-5850 to learn when the observatory is opening (or request an opening).



Galileo's drawings of Jupiter and its Medicean Stars from Sidereus Nuncius. Image courtesy of the History of Science Collections, University of Oklahoma Libraries.

challenge is to track the movement of the Galilean Moons over the course of many nights. Even within a few hours, you will notice them moving in relation to Jupiter, just as Galileo did.

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## Planetarium

FAAC members are volunteer operators for the Hammond Planetarium at Henry Ford College.

Planetarium shows are free and open to the public.

Four seasonal planetarium shows are offered per year with the stars and constellations of the current season as well as a multi-media presentation featuring select planets.

Public planetarium shows are normally the third Wednesday of each month at 7:00pm. Please see the planetarium schedule for specific times. It is posted here:

[fordastronomyclub.com/hfc-planetarium](http://fordastronomyclub.com/hfc-planetarium)

## Social Media

The FAAC has several social media accounts. Members are encouraged to join and follow them.

### Facebook

[facebook.com/FordAstronomyClub](https://facebook.com/FordAstronomyClub)

### Twitter

[twitter.com/Ford\\_Astro](https://twitter.com/Ford_Astro)

## Scheduled Club Events

Month	Date	Sunset	Location
October	21st	6:42pm	Spring Mill Pond

## Upcoming Club Meeting Topics & Speakers

Meeting	Speaker	Topic
September 28	Eric Hintz	Got a few hours? Observing Short Period Pulsating Stars
October 26	Sandra Macika	100 yr Anniversary of the Day we Discovered the Universe

## September Talk Details

Got a couple hours at your telescope?

Observing Short-Period Pulsating Stars

*Eric Hintz,*

*American Association of Variable Star Observers (AAVSO)*

### Talk Description:

With the currently operational large survey programs in astronomy, there are new variable stars being discovered every day. For short period variable stars, the rate at which data is taken is not always sufficient to see detailed light curves. To fully classify the type of variation it requires follow-up observations that can be done with relatively small telescopes. We will discuss the small telescopes that make up the Orson Pratt Observatory at Brigham Young University and will discuss how anyone with a little bit of equipment, and a bit of desire, can help classify variable stars.

### Bio:

Originally from the Akron, Ohio area. Eric Hintz has been observing pulsating variable stars for 35 years when he got started as an undergraduate research student at Case Western Reserve University in Cleveland, Ohio. He has been on the faculty at Brigham Young University since 1998 and currently serves as the Associate Chair of the Department of Physics and Astronomy. Finally, he is currently the section leader for short period pulsating variable at the American Association of Variable Star Observers (AAVSO).

*Secretary's Report (Con't from Page 2)*

annual Great Lakes Star Gaze will be held in Gladwin, Michigan, September 14 through 17. Astronomy at the Beach will be at Island Lake, Kent Lake Beach, September 22 and 23.

The Zodiacal Light could be visible around September 11, 12, and 13, skies permitting. Venus's greatest brilliance will occur September 18, 19, and 20. The Autumnal Equinox is September 23. Neptune will be at opposition on September 19.

There will be a Great Outdoors Jamboree at Lake Hudson Recreation Area on September 10. They are asking for astronomers to bring telescopes.

Comets: Comet 103P/Hartley will reach perihelion on October 12 and could be a naked-eye object. Comet C/2023 P1/Nishimura, an extra-solar comet, could be bright in mid-September, albeit very low on the horizon. Comet C/2023 E1/ATLAS is still above magnitude 10. Comet C/2020 V2/ZTF is still faintly visible.

Planets: Evening: Mars, Saturn, Neptune. Midnight: Jupiter, Saturn, Uranus, Neptune. Morning: Mercury, Venus, Jupiter, Uranus, Neptune.

DSOs: The Milky Way is still overhead and easy to spot in dark skies, running from Cassiopeia in the northeast to Sagittarius in the southwest. A few September highlights are M15, a globular cluster in Pegasus; M11, an open cluster in Scutum called the Wild Duck Cluster; and M73, found in Aquarius, which is not really a DSO but an asterism of four close stars.

*Club Business*

Equipment: Jeff says nothing new. Secretary's Report: Cheri advised those present she has lanyards and plastic sleeves for your name badge if needed. Treasurer's report was given by Joe. Social Media: Up to date.

Sandra Macika gave a presentation on the upcoming Astronomy at the Beach event, with discussion of who will be there with what demonstrations or responsibilities and who has certain items. We also can use donations of astronomy magazines to hand out to the public. Volunteers are needed! Sandra passed around a sign-up sheet and will publish this through Groups.io soon, providing sign-up opportunities to those who were not at the meeting.

*Speaker*

Our scheduled guest speaker was unable to attend, so we had an impromptu "Ask the Astronomer" session, with those present breaking up into a few different groups to either ask/answer questions or help out with members' equipment.

Meeting adjourned at 9:15 p.m.

## September 7, 2023 Board Meeting Summary

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(Videoconference meeting.) All board members present except for Jesse Godsey. Eight additional members present.

We had discussion about the importance of touching base with our guest speakers shortly before the meeting to confirm they will be there. We also discussed technical issues with the videoconference meetings which, hopefully, have been resolved. Tim Campbell volunteered for the job of monitoring the audio of the online members, with the ability to mute in case of extraneous noise or feedback.

Secretary: Cheri asked if anyone has any questions/comments/suggestions for improvement of the Secretary's Report in the newsletter, to please let her know.

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# Equipment

The FAAC maintain an equipment pool of telescopes, binoculars, cameras, and other equipment used for special events. Much of this equipment is available to members.

Each piece of equipment is either stored by a club volunteer who offers to be the caretaker of the item, or by the person who last borrowed the item.

Most equipment can be borrowed for one-month durations. At the end of the month, the borrower can extend the loan if no other members have requested it.

Some items are reserved for special events use and are not normally available to be borrowed.

If you are interested in borrowing an item, please contact either the current holder of the equipment, or contact the club equipment manager, Jeff Gorman, at [equipment@fordastronomyclub.com](mailto:equipment@fordastronomyclub.com)

Item	Held by	Item	Held by
<b>Telescopes</b>		<b>Display Items</b>	
TK1 Coronado Personal Solar Telescope (Doublestack) w/Meade Autostar Goto Mount	Jessica Edwards	Astronomy Event Sign (3' x 6')	Gordon Hansen
TK5 4.5" Reflector on Fitz GEM mount	Jerry Jamula	Astronomy Event Signs 18x24" (x8)	Liam Finn
TK6 8" Orion XT8i Dobsonian	Dan Smith	PVC Display Board - Folding	Sandra Macika
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Gary Gibson	Banner - Small (24" x 32")	George Korody
TK8 20" f/5 Obsession Dob, Ladder & EP Kit	Liam Finn	Banner - Medium (24" x 72")	Sandra Macika
<b>Presentation Tools</b>		Banner - Large (32" x 16')	George Korody
Projector (older)	Jim Frisbie	Tri-Fold Presentation Boards	George Korody
Projector (newer)	Gordon Hansen	<b>Other</b>	
Projection Screen 8'	John McGill	Canopy (10' x 10')	Liam Finn
Projection Screen 6'	Liam Finn	Pop Cooler	Sean Pickard
Bullhorn	Liam Finn	TA Sky Quality Meter	Liam Finn
Speaker System w/Wireless Mic	Liam Finn	<b>Demonstration Tools</b>	
		Weigh on Planets Scale	Liam Finn
		Lunar Phase Kit	Bob MacFarland
		100' Scale Model Solar System Kit	Bob MacFarland
		NSN Meteorite (Outreach) kit	Sandra Macika

Item	Held by
<b>Imaging Cameras</b>	
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
<b>Other Imaging Equipment</b>	
CA1 Rigel Systems Spectrascope	Gordon Hansen
C7 Canon EOS EF 70-200mm f/1.4L IS USM lens & tripod mounting ring (for Canon EOS cameras)	Gordon Hansen
Rokinon 8mm f/3.5 Fish-Eye Lens (Canon EOS Mount)	John McGill
<b>Special Event Items - Not available for Loan Out</b>	
BK2 Zhumell 25x100 Binoculars, hard case, & Zhumell TRH-16 tripod w/soft fabric bag	Sandra Macika
TAK1 Night Vision Image Intensifier for telescopes (2" barrel size)	Tim Dey
Lunt 100mm H-alpha Solar Telescope with Celestron CG-5 equatorial mount	Tim Campbell

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### *Secretary's Report (Con't from Page 2)*

**Treasurer:** Joe gave our balance and a summary of outstanding bills (just one at this time). Joe and Arica brought us up to date on the search for a new software program to do the club's accounting. They will have more information for us by the next meeting.

**Membership:** We've had one new member join this past month, as well as a new member to the Plymouth Astrophotography group.

**Club Equipment:** Jeff let us know that the current caretaker of TK7, the club's 8" astrograph, is no longer able to keep it. Gary Gibson generously offered to be the new caretaker. Arrangements are being made to make the transfer.

**Discussion of General Meeting format:** We had a lot of comments on our last general meeting and how much everyone enjoyed the impromptu social hour that we had, as our guest speaker did not show up. Arica will start sending out the official agenda at the same time the invitations to join our general meeting

go out. We will make social time more of a priority at our general meetings. It was decided that, once a quarter, four times a year, in lieu of a guest speaker, we will have an "Ask the Astronomer" session which would be a combination of social/snack time/live chat, as well as addressing specific questions from members about astronomy, equipment, etc.

Tim Campbell brought us up to date on Astronomy at the Beach, volunteers still needed, plans for the raffle, how we can express our thanks to companies donating items for the raffle, etc.



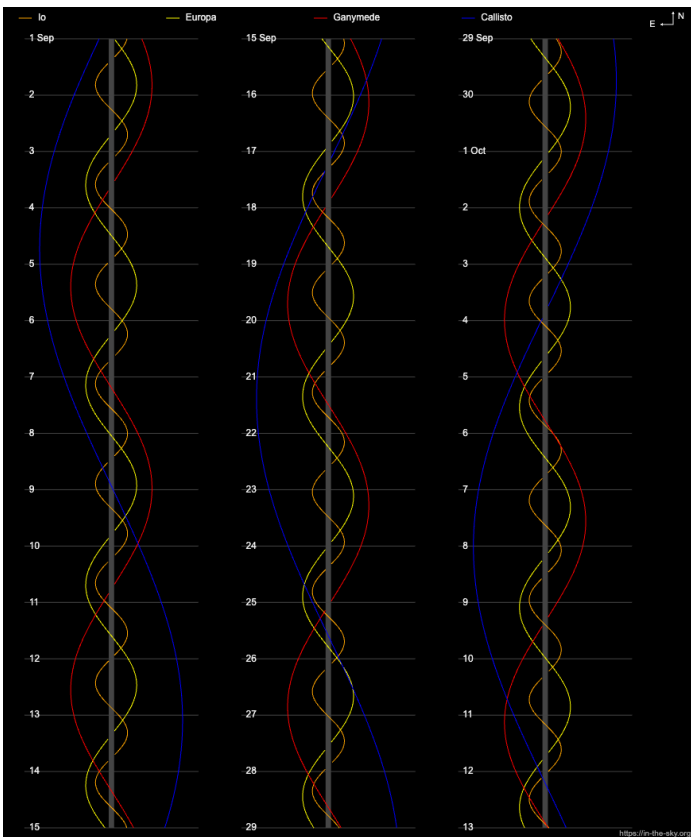
### *Jupiter's Moons (Con't from Page 4)*

Fast forward 414 years, and NASA will be sending a robotic mission to investigate the surface of one of these distant worlds. The Europa Clipper Mission is launching to the cold, icy moon in 2024, to begin orbiting in 2030. With its salty oceans covered by ice, Europa was chosen as an excellent location to continue the search for life outside of Earth. Clipper will be the largest spacecraft ever sent to another planet, designed to withstand Jupiter's punishing radiation. Once it arrives at Jupiter in 2030, NASA plans to do about 50 flybys of Europa, mapping almost the entire surface of this watery world.

the celebrated quotes from the classic 2010: Odyssey Two warns, "All these worlds are yours, except Europa. Attempt no landing there." Science fiction fans can feel relieved knowing that writer Arthur C. Clarke gave his blessing for the Europa Clipper mission.

Join the Europa Message in a Bottle Campaign to send your name with the spacecraft, hear the rest of the poem by the US Poet Laureate, and learn more about the wonders of space travel with the Clipper Mission: <https://europa.nasa.gov/participate>

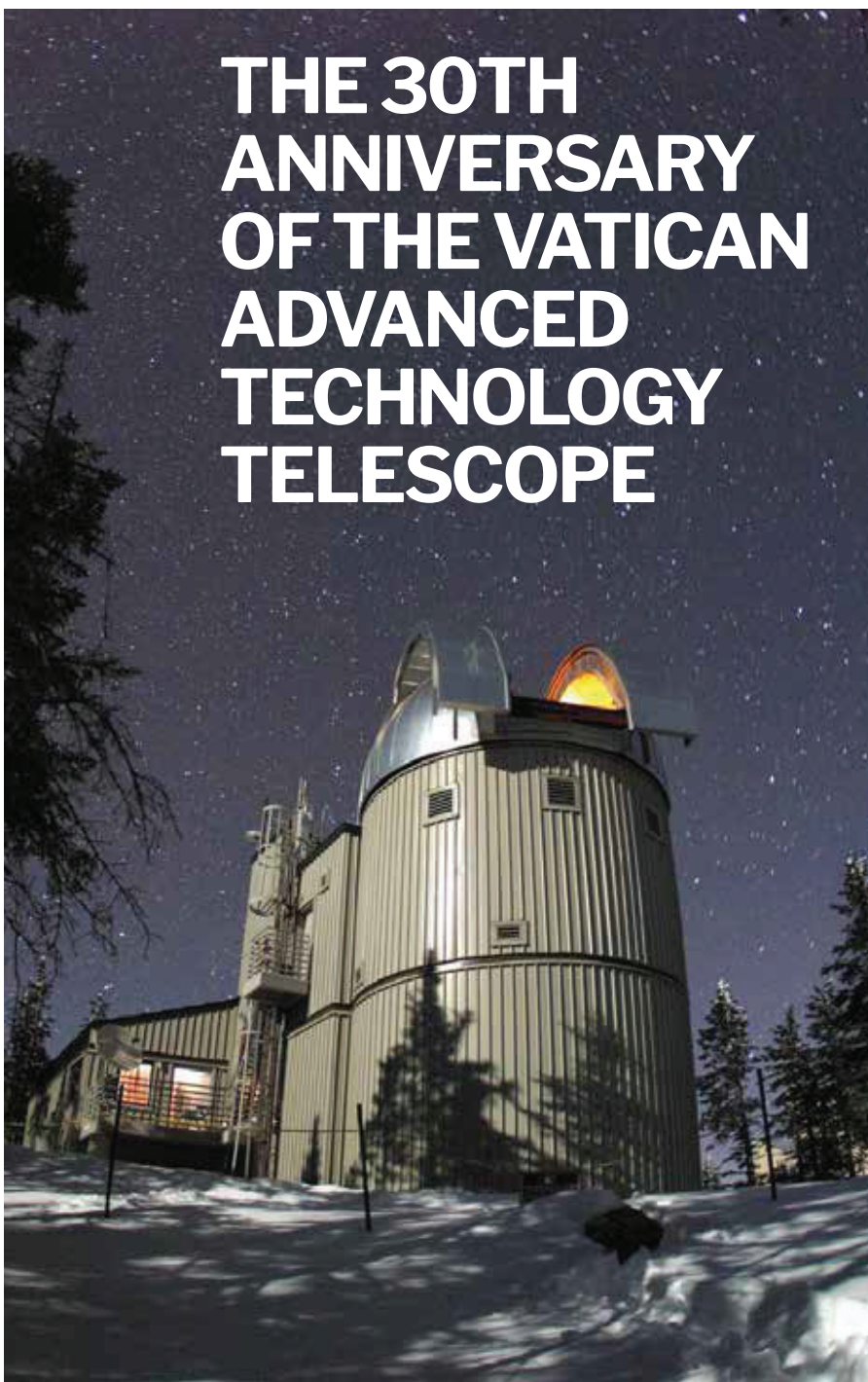
Watch a wonderful Clipper webinar with Dr. Cynthia Phillips, planetary geologist with the mission: <https://www.youtube.com/live/RnnLJBLRBCA?feature=shared&t=269>



The position of the Galilean Moons of Jupiter in October 2023: <https://in-the-sky.org/jupiter.php>

What was once only dreamed of in the small telescope of Galileo, or in great works of fiction, NASA is turning our wildest imagination into reality. One of

# THE 30TH ANNIVERSARY OF THE VATICAN ADVANCED TECHNOLOGY TELESCOPE



The Alice P. Lennon  
Telescope  
The Thomas J. Bannan  
Astrophysics Facility  
**September 29-October 2,  
2023 • Tucson, AZ**

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## **FRIDAY, SEPTEMBER 29TH**

THE ANNIVERSARY GALA  
Hacienda del Sol Resort

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**5:00 PM**

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With featured guest Maj. Gen. Charles  
Bolden, Jr., USMC (Ret), Former NASA  
astronaut and administrator  
Sponsorship opportunities available  
RSVP Required

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## **SATURDAY, SEPTEMBER 30TH**

TOUR TO THE VATICAN ADVANCED  
TECHNOLOGY TELESCOPE

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**8:00 AM** Departure from Tucson

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**6:00 PM** Return to Tucson

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RSVP Required

Transportation (to and from Tucson)  
and lunch will be provided

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## **SUNDAY, OCTOBER 1ST**

MEMORIAL MASS FOR THE REV.  
GEORGE V. COYNE, S.J.

Director of the Vatican Observatory:  
1978-2006

President of the Vatican Observatory  
Foundation: 1987-2011

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**11:00 AM**

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Ss. Peter & Paul Church  
Reception immediately following  
RSVP Not Required

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For more details, and the  
full schedule of events  
Friday through Monday, visit:  
**[vaticanobservatory.org/  
vatt30/](https://vaticanobservatory.org/vatt30/)**

