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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:	Sean Pickard
Secretary:	Cheri Grissom
Treasurer:	Jameson Sullivan

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

Filling Leadership Positions

It's time to seek nominations for our open leadership positions. Gordon has kindly agreed to lead the nominating committee once again this year. As I'm term-limited, FAAC is looking to fill the president's position.

First, I want to express my gratitude to all those who have previously held club positions. I also want to acknowledge those currently serving on the board and in committee roles.

We need fresh faces to continue maintaining the club's dedication to promoting public awareness of astronomy through outreach. This involves enhancing the skills and knowledge of our membership by sharing experiences and information through lectures, demonstrations, and other group activities.

We've had several new members stepping up to assist with various tasks, such as observatory operations, setting up audio/visual equipment, managing social media, and updating promotional materials.

I must also mention the leadership needs of GLAAC, the organization that organizes Astronomy at the Beach, one of the largest astronomy events in the state. GLAAC is a small board and a handful of volunteers who organize this event. FAAC is one of the founding clubs of GLAAC. They urgently need to fill both the President and Vice President positions in January. The current individuals in these roles will continue to support GLAAC and the event but will also transition to different roles and guide the new leaders. Additionally, GLAAC could benefit from a few more event organizers to help share the planning and event workload.

Club Information

Refer to our website for a map and directions:

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

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

Over the years, many of our leadership team members have taken on multiple roles and returned to previous positions to further the club's growth. We're not alone in facing challenges in engaging new people in leadership roles. Post-COVID, filling leadership positions in volunteer organizations has reached a 30-year low. These organizations must have a fully staffed executive board to comply with their by-laws. I encourage you to consider filling one of these positions.

Secretary's Report

by Cheri Grissom, Secretary

FAAC General Meeting – September 25, 2025

Meeting called to order at 7:08 p.m. by President Arica Flores. Vice President Sean Pickard, Secretary Cheri Grissom, and Treasurer Jameson Sullivan also present. We had a total of 17 in-person attendees, plus 5 online, for a total of 22. Arica asked for member and guest introductions.

Member Observing: Jameson Sullivan just recently attended the Black Forest Star Party at Cherry Springs State Park in Pennsylvania. He had a great time! Gordon Hansen reports he had great skies four or five nights in a row at his Downriver home. Very unusual! Tim Campbell has been helping put on the observing events at U of M-Dearborn this year. He reports that it is typical for there to be 60 – 80 members of the public attending. Club members coming out to help are always welcome! Don't bring your telescope, the university provides them, they just need enough operators. The views are pretty good for the suburbs.

What's Up in the Night Sky: Sean Pickard went over our events calendar, which can also be found on our website and in "Star Stuff." We have no more official observing nights scheduled, but if weather is nice in October or November, members should feel free to post on Groups.io that they would like to organize an impromptu gathering at Spring Mill Pond. Sean reminded us about Astronomy at the Beach, happening this week on Friday and Saturday. There will be an opportunity to observe the Lunar X and V (or Y) on October 28, starting at 6:03 p.m. and lasting for about four hours.

There is a new comet visible in the northern hemisphere. Comet C/2025 A6 (Lemmon) peaks November 7 but will be visible for a long time before and after. It is a morning object now but will be gradually transitioning to

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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 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

See the groups.io files section for ordering information and instructions on how to request the correct logo.

Communication

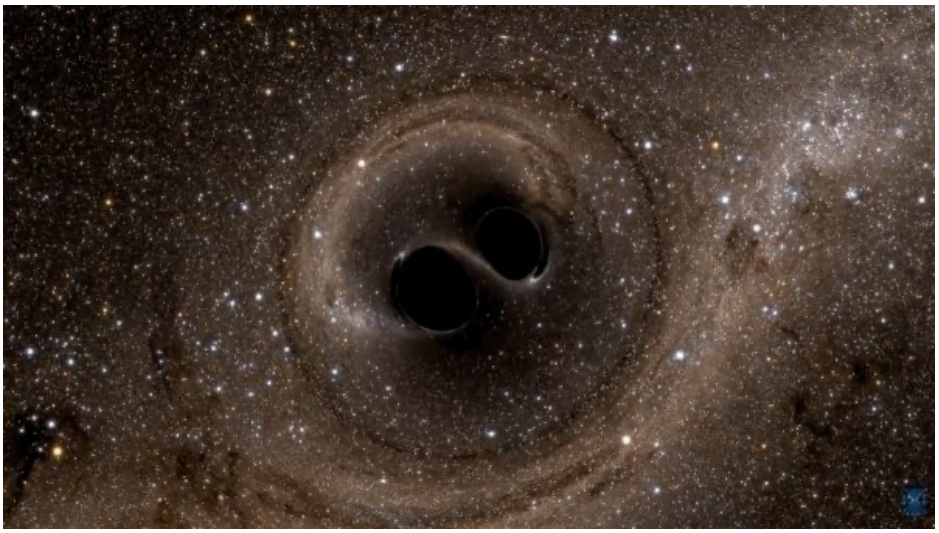
The FAAC uses Groups.io for our email distribution list (both formal and informal discussion.)

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

October's Night Sky Notes: Let's Go, LIGO!

by Kat Troche of the Astronomical Society of the Pacific

September 2025 marks ten years since the first direct detection of gravitational waves as predicted by Albert Einstein's 1916 theory of General Relativity. These invisible ripples in space were first directly detected by the Laser Interferometer Gravitational-Wave Observatory (LIGO). Traveling at the speed of light (~186,000 miles per second), these waves stretch and squeeze the fabric of space itself, changing the distance between objects as they pass.



Waves in Space

Gravitational waves are created when massive objects accelerate in space, especially in violent events. LIGO detected the first gravitational waves when two black holes, orbiting one another, finally merged, creating ripples in space-time. But these waves are not exclusive to black holes. If a star were to go supernova, it could produce the same effect. Neutron stars can also create these waves for various reasons. While these waves are invisible to the human eye, this animation from NASA's Science Visualization Studio shows the merger of two black holes and the waves they create in the process.

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

Observatory

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

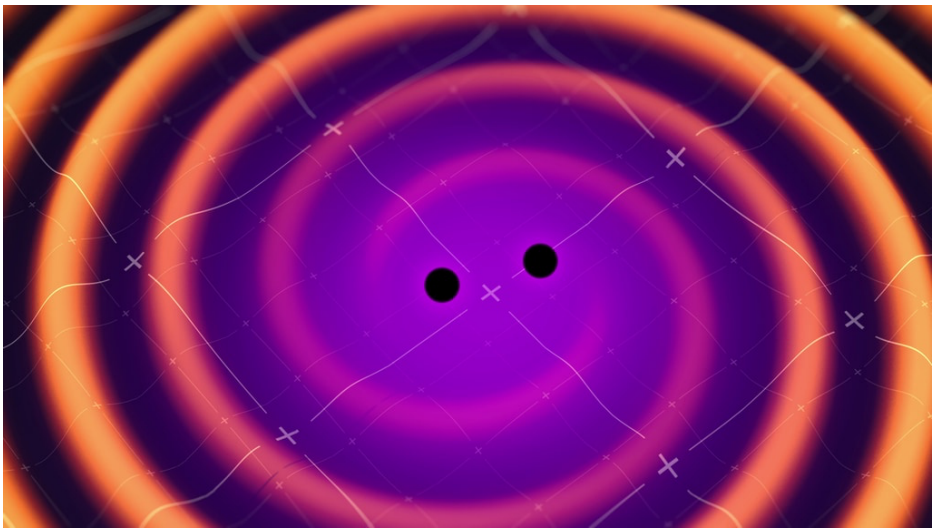
The observatory houses a 14" Celestron C14 Schmidt Cassegrain Telescope as well as other instruments and can be used by club members.

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).



Two black holes orbit around each other and generate space-time ripples called gravitational waves in this image. Credit: NASA's Goddard Space Flight Center Conceptual Image Lab.

How it Works

A gravitational wave observatory, like LIGO, is built with two tunnels, each approximately 2.5 miles long, arranged in an "L" shape. At the end of each tunnel, a highly polished 40 kg mirror (about 16 inches across) is mounted; this will reflect the laser beam that is sent from the observatory. A laser beam is sent from the observatory room and split into two, with equal parts traveling down each tunnel, bouncing off the mirrors at the end. When the beams return, they are recombined. If the arm lengths are perfectly equal, the light waves cancel out in just the right way, producing darkness at the detector. But if a gravitational wave passes, it slightly stretches one arm while squeezing the other, so the returning beams no longer cancel perfectly, creating a flicker of light that reveals the wave's presence.

The actual detection happens at the point of recombination, when even a minuscule stretching of one arm and squeezing of the other changes how long it takes the laser beams to return. This difference produces a measurable shift in the interference pattern. To be certain that the signal is real and not local noise, both LIGO observatories — one in Washington State (LIGO Hanford) and the other in Louisiana (LIGO Livingston) — must record the same pattern within milliseconds. When they do, it's confirmation of a gravitational wave rippling through Earth. We don't feel these waves as they pass through our planet, but we now have a method of detecting them

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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

Social Media

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

Facebook

facebook.com/FordAstronomyClub

Twitter

twitter.com/Ford_Astro

Discord

https://discord.gg/RH6rhAPWb8

Scheduled Club Events

Month	Date	Sunset	Location
October	25th	7:00 - Midnight	Public Observing (Spring Mill Pond)

Hammond Planetarium

Date	Time	Topic
November 7th	7:30pm	Fall Planetarium Show
November 12th	7:30pm	Fall Planetarium Show

Club Meeting Topics & Speakers

Meeting	Speaker	Topic
October 23rd	Jim Shedlowsky	The Way We Found the Universe
December 4th	None	Club Social & Potluck

October Meeting

The Way We Found the Universe

Jim Shcedlowsky,
Member several astro clubs;
Treasurer at McMath Hulbert Astronomical Society

Description:

This presentation will describe a fascinating 30 year period beginning in 1898, during which our entire concept of the universe was transformed by a combination of new technologies and the dedicated men and women who exploited it. Such well-known names as Albert Einstein, Edwin Hubble, and George Ellery Hale made their major contributions in this time period along with other lesser known, but important contributors such as James Keeler, Vesto Slipher, Henrietta Leavitt, and Adrian van Maanen. The presentation will discuss events, controversies, the people, technologies, and circumstances that revolutionized our understanding of the universe.

Bio:

Jim Shedlowsky graduated from the University of Michigan in 1960 with a degree in Engineering Physics. After spending 2 years as an artillery

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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

Item	Held by
Telescopes	
TK1 Coronado Personal Solar Telescope (Doublestack) w/Meade Autostar Goto Mount	Kristie Whittington
TK5 4.5" Reflector on Fitz GEM mount	Bob MacFarland
TK6 8" Orion XT8i Dobsonian	Dan Smith
TK7 TPO 8" f/4 Newtownian Astrograph (OTA Only - no mount)	Scott Smith
TK8 20" f/5 Obsession Dob, Ladder & EP Kit	Liam Finn
TKn Celestron 6" Refractor & AGT Mount	
TKn Meade 8" f/5 Newtonian & LX-70 Mount	
Zhumell 20x80 Binoculars	
Presentation Tools	
Projector (older)	Jim Frisbie
Projector (newer)	Gordon Hansen
Projection Screen 8'	John McGill
Bullhorn	Liam Finn
Speaker System w/Wireless Mic	Liam Finn
Logo Tablecloth (x2)	Gordon Hansen

Item	Held by
Display Items	
Astronomy Event Sign (3' x 6')	Gordon Hansen
Astronomy Event Signs 18x24" (x8)	Liam Finn
PVC Display Board - Folding	Sandra Macika
Banner - Small (24" x 32")	Sandra Macika
Banner - Medium (24" x 72")	Sandra Macika
Banner - Large (32" x 16')	Sandra Macika
Tri-Fold Presentation Boards	Sandra Macika
Other	
Canopy (10' x 10')	Liam Finn
Pop Cooler	Sean Pickard
TA Sky Quality Meter	Liam Finn
36" Flat-Top Griddle	Gordon Hansen
Demonstration Tools	
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
Imaging Cameras	
C2 Meade Deep Sky Imager Pro III w/Autostar Suite	Gordon Hansen
C6 Canon 60Da Astrophotography DSLR and accessories	Tim Dey
Other Imaging Equipment	
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
Special Event Items - Not available for Loan Out	
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

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

evening. We have nine ISS solar or lunar transits coming up in October.

Club Business: Secretary's report is in "Star Stuff." Jameson reports no change to our balance this month, no income or expenses. Liam Finn reports that our social media is up to date, including mention of AATB on Facebook. Jeff Gorman says nothing new to report for club equipment.

Astronomy at the Beach: Gordon and Arica brought us up to date. The event is Friday (tomorrow) and Saturday. We are going to need all the volunteers we can get to make this a success. Liam may not be able to bring the club's Obsession Dob due to a transportation problem; his truck is not available. A few members offered to help, but it would need to be a truck with a covered bed.

Guest Speaker

Dean Regas was introduced by Sandra Macika. Dean is a public speaker, author, educator, national popularizer of astronomy and an expert in observational astronomy. He served as the astronomer for the Cincinnati Observatory from 2000-2023 and was the Astronomer in Residence at the Grand Canyon in 2021. He is the author of seven books so far. From 2010-2019 Dean was the co-host of the PBS program "Star Gazers." Dean has contributed to many different astronomy publications and television shows. He also has his own podcast called "Looking Up With Dean Regas." The title of his talk this evening is "The New and Improved Solar System."

The solar system is constantly changing, as is our knowledge and understanding of it. Dean had an excellent video presentation to help us understand its vastness and the types of objects that can be found within it, including the evolution of our definition of a planet. He noted that, interestingly, the International

Astronomical Union (IAU), in 2006, proposed a resolution to state that we have twelve planets in our solar system! Ceres, an asteroid, Eris, a Kuiper Belt object, and Pluto's moon Charon were under consideration. After much discussion (as we can all imagine), this resolution was defeated and instead it was decided Pluto would no longer be called a planet but a dwarf planet like countless other Kuiper Belt objects.

Dean also talked about Sedna, a dwarf planet about 2/3 the size of Pluto, with a highly elliptical orbit. At its farthest, it is almost 1,000 astronomical units from the sun, and it takes about 10,000 years to complete one orbit.

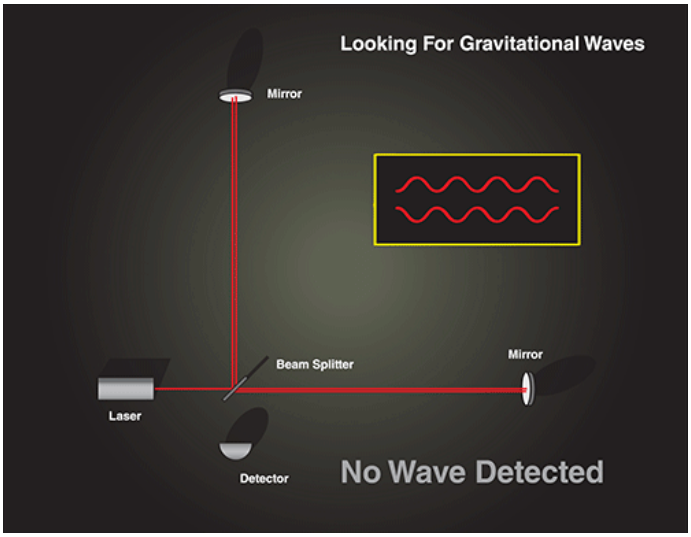
This was an informative and engaging talk, followed by a question-and-answer session.

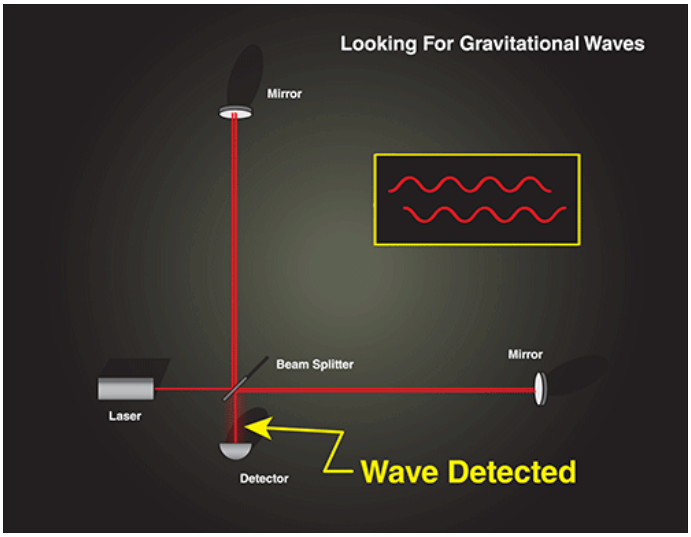
Meeting adjourned at 9:10 p.m.

Monthly speaker (cont'd from page 5)

officer in the US Army in Germany, he worked for 36 years at General Motors as a Vehicle Development Engineer/Manager specializing in Acoustics, Noise and Vibration, retiring in 1999. In his spare time, he wrote and recorded music for Epic and Roulette Records as one of the "Skee Brothers," appearing on Dick Clark's American Bandstand in 1958.

Gravitational Waves (Con't from Page 2)





Animation of how LIGO (Laser Interferometer Gravitational-Wave Observatory) detects gravitational waves using a laser, mirrors, and a detector. You can find the animated version here. Credit: NASA

Get Involved

With the help of two additional gravitational-wave observatories, VIRGO and KAGRA, there have been 300 black hole mergers detected in the past decade; some of which are confirmed, while others await further study.

While the average person may not have a laser interferometer lying around in the backyard, you can help with two projects geared toward detecting gravitational waves and the black holes that contribute to them:

- Black Hole Hunters: Using data from the TESS satellite, you would study graphs of how the brightness of stars changes over time, looking for an effect called gravitational microlensing. This lensing effect can indicate that a massive object has passed in front of a star, such as a black hole.
- Gravity Spy: You can help LIGO scientists with their gravitational wave research by looking for glitches that may mimic gravitational waves. By sorting out the mimics, we can train algorithms on how to detect the real thing.

You can also use gelatin, magnetic marbles, and a small mirror for a more hands-on demonstration on how gravitational waves move through space-time with JPL's Dropping In With Gravitational Waves activity!

University of Michigan Public Nights at the Observatory

2025 Schedule

Public nights at the U of M Observatory will be held, weather permitting, on these nights.

- Observing sessions require suitable sky conditions. To learn the status of any event, check the Observatory's home page and/or CASL social media pages beginning one hour before the event. Please arrive no later than one half hour before the scheduled end of the session.
- All sessions are free and open to the public. These events are family friendly, but best suited to children over the age of 4. Observing sessions are primarily held outdoors. Please dress appropriately for personal comfort during your visit.
- The Observatory is located on the main campus of the University of Michigan-Dearborn, in the Science Learning and Research Center (SLRC). Park in the parking lot behind the SLRC (Parking Lot A) and enter the building through the west door. Take the elevator to the third floor, and turn left to go through the double doors to the observing deck.

For more information visit our website at:

https://umdearborn.edu/casl/centers-institute/um-dearborn-observatory

Club volunteers are welcome and appreciated at these events. If you would like to volunteer, you *do not* need to bring a telescope. The observatory has several 8" Celestron SCT telescopes on piers located on the observation deck — but they appreciate have enough volunteers on hand to staff each telescope.

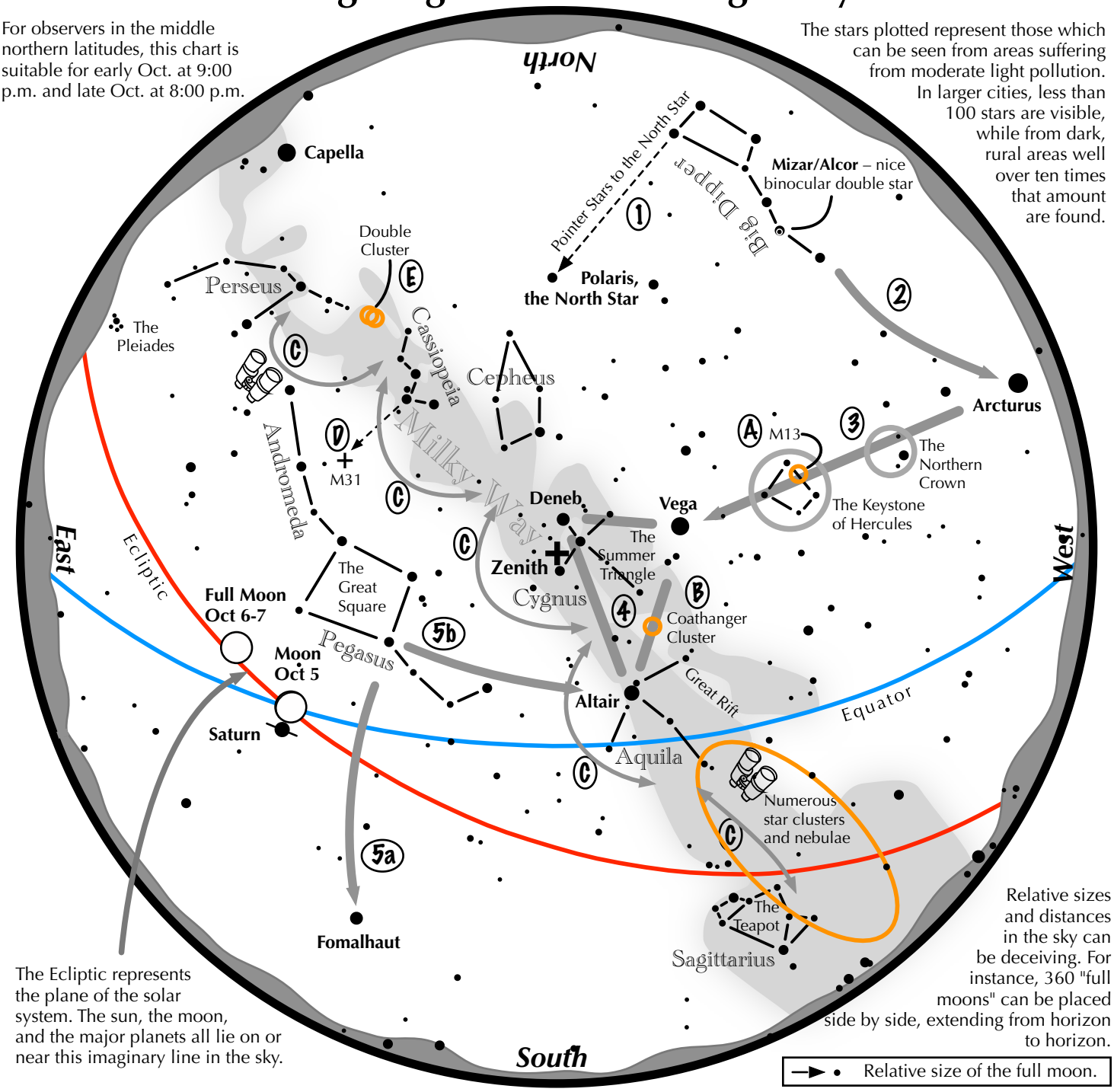
Contact Liam Finn or Tim Campbell if you are interested.

April 25	9:30pm – 11:30pm
May 2	9:30pm – 11:30pm
May 16	10:00pm - Midnight
May 30	10:30pm – 12:30am
June 6	10:30pm – 12:30am
June20	10:30pm – 12:30am
June 27	10:30pm – 12:30am
July 18	10:30pm – 12:30am
July 25	10:30pm – 12:30am
August 1	10:30pm – 12:30am
August 15	10:00pm - Midnight
August 22	10:00pm - Midnight
September 12	10:00pm - Midnight
September 19	9:30pm – 11:30pm
October 10	9:30pm – 11:30pm
October 17	9:30pm – 11:30pm
October 31	8:00pm – 11:00pm

Navigating the October Night Sky

For observers in the middle northern latitudes, this chart is suitable for early Oct. at 9:00 p.m. and late Oct. at 8:00 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

Relative size of the full moon.

Navigating the October night sky: Simply start with what you know or with what you can easily find.

1. Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
2. Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the early October evening sky.
3. To the northeast of Arcturus shines another star of the same brightness, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
4. Nearly overhead lie the summer triangle stars of Vega, Altair, and Deneb.
5. High in the east are the four moderately bright stars of the Great Square. Its two southern stars point west to Altair. Its two western stars point south to Fomalhaut.

Binocular Highlights

A: On the western side of the Keystone glows the Great Hercules Cluster, a ball of 500,000 stars. **B:** 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger. **C:** Sweep along the Milky Way for an astounding number of fuzzy star clusters and nebulae amid many faint glows and dark bays, including the Great Rift. **D:** The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval. **E:** Between the "W" of Cassiopeia and Perseus lies the Double Cluster.