Cayman Islands Astronomical Society - October 2024 Newsletter

1 message

Cayman Astronomy <cayman.astronomy@yahoo.com> Sun, Oct 13, 2024 at 11:43 AM
To: "cayman.astronomy@yahoo.com" <cayman.astronomy@yahoo.com>

Cayman Island Astronomical Society Upcoming Events:
Tuesday 15 October - Public Stargazing

Comet A3 Tsuchinshan-ATLAS (C/2023)

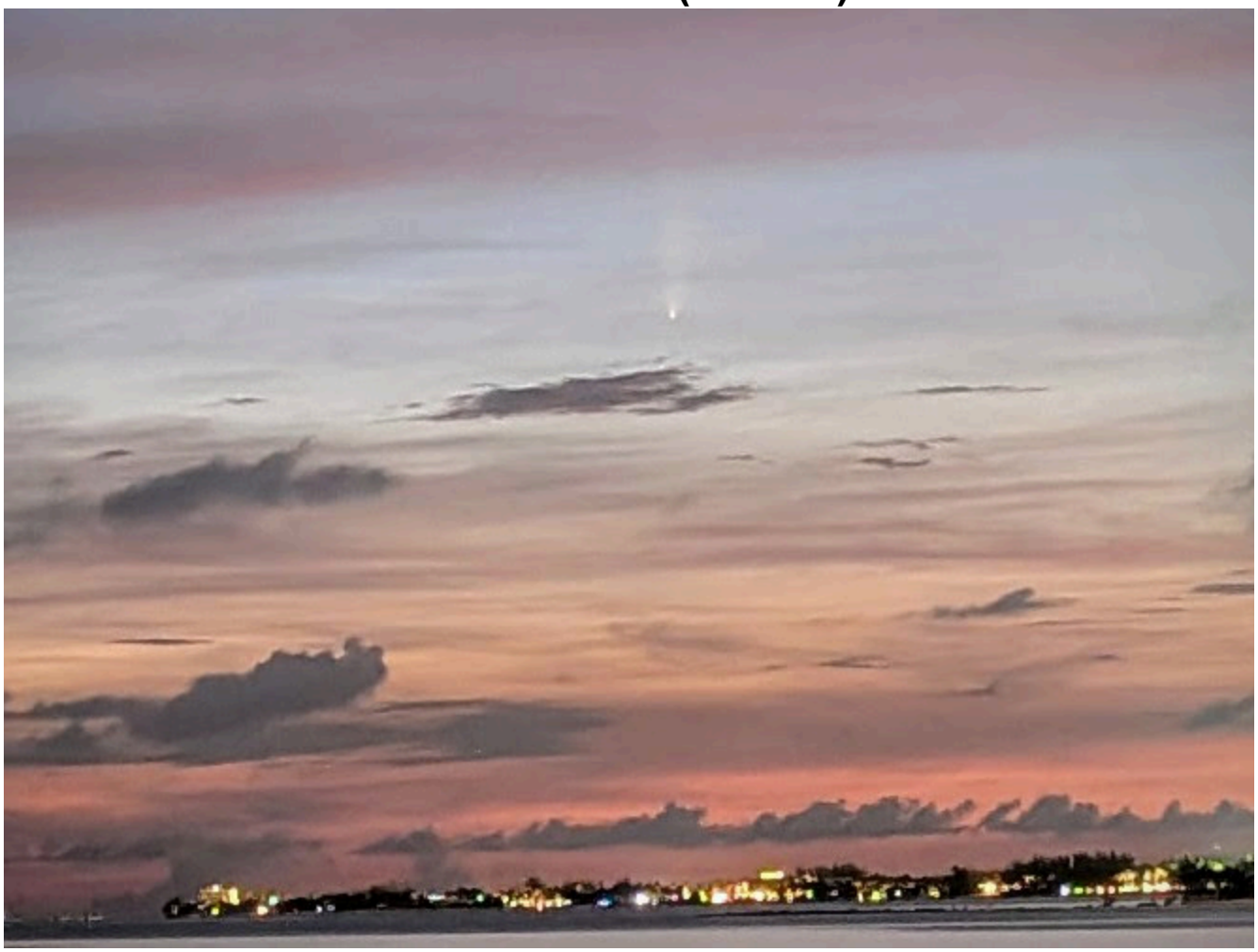


Photo: Tiyen Miller, October 12, 6;58pm at Ocean Club, Grand Cayman

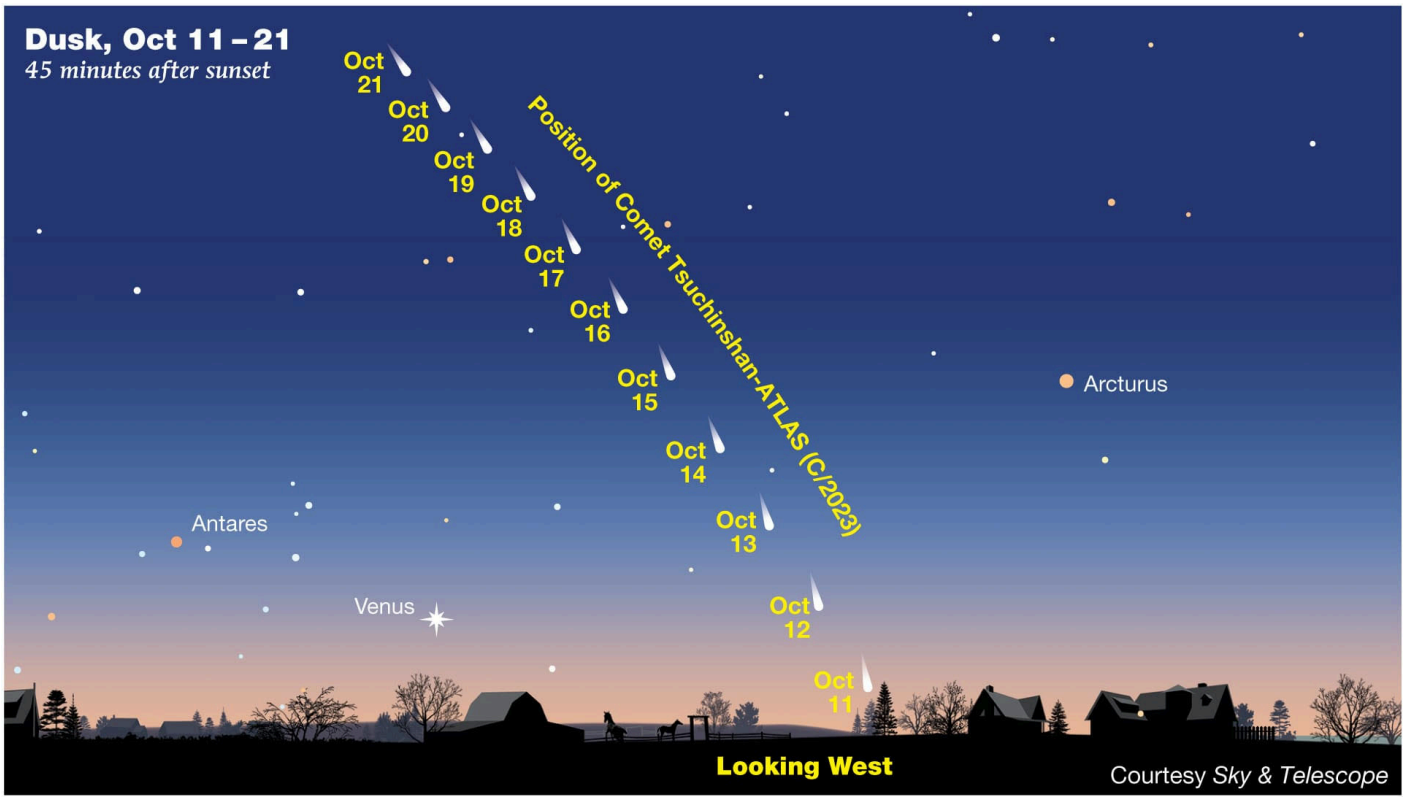


Photo: Sky & Telescope

Comet Tsuchinshan-ATLAS (C/2023) stretches upwards across the sky in the west just above where the sun sets for the next week or so. On Saturday night, it was visible to the naked eye between the clouds! Each night, it will appear a bit higher and will be easier to see as it stays up longer past the glare of the sunset. However, it will also grow dimmer daily.. so try each evening! Here in the Cayman Islands, we will have great viewing conditions from anywhere, with a view to the west. The chart above shows where to look. Learn more about the comet's visit: https://skyandtelescope.org/press-releases/bright-comet-evening-view/

Public Viewing for the Comet

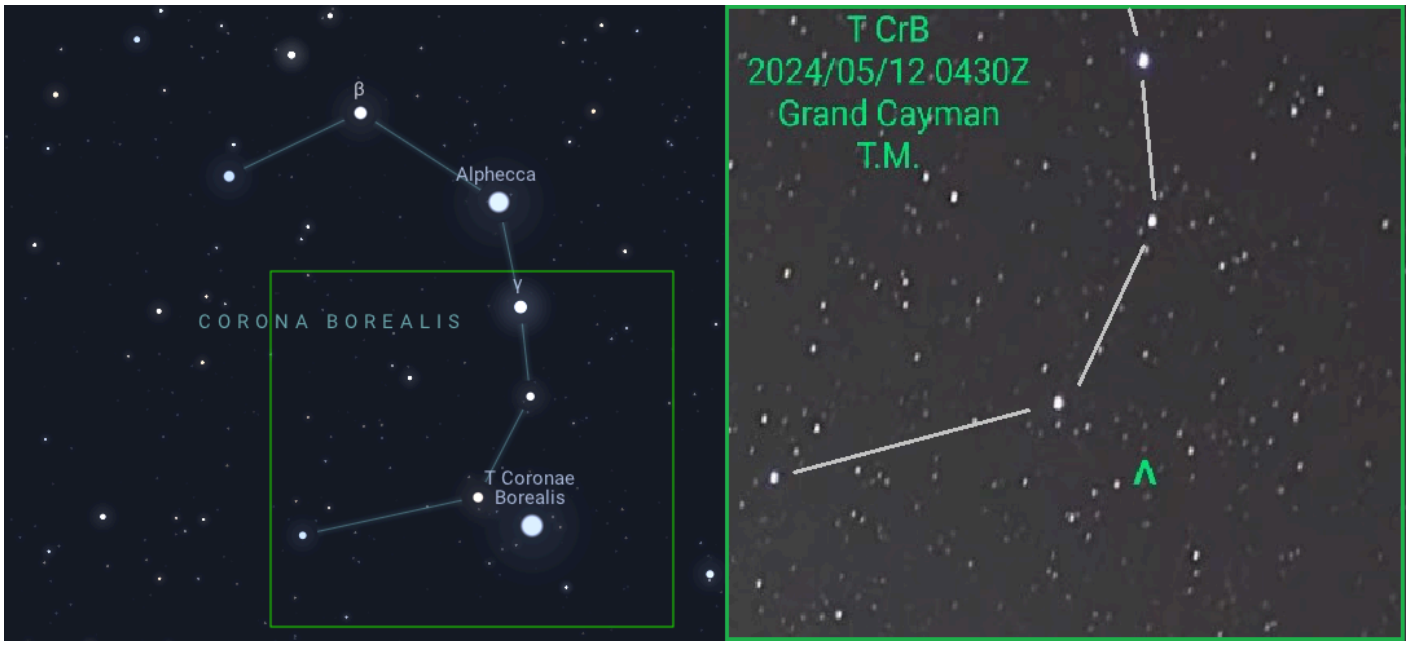
Tuesday 15 October at 6:30pm, SMB Public Beach

The CIAS will hold a special public viewing for the visiting comet at SMB Public Beach at 6:30 pm on Tuesday, 15 October. The comet should be amazing! Moreover, the Moon, the planets Saturn and Venus, and the stars of the Milky Way's galactic core will be excellent targets for our telescopes. We may even see the nova of the "Blaze Star". All are welcome, and the event is free. Please check our Facebook events page for any updates closer to the time, as it will be cancelled if there is more than 50% cloud cover.

Map link for the location: https://maps.app.goo.gl/2WTHgrRC7ASfonKc6

Facebook event page: https://www.facebook.com/share/Pp1vJNztyPXn3Cbm/

Nova of the Blaze Star (Possibly!)



Photos: stellarium-web.org, Tiyen Miller

T Coronae Borealis (T CrB) is ordinarily a very dim point of light in the constellation of the Northern Crown. The humble binary star system formed of a white dwarf and red giant spinning around each other is only detectable with special equipment, as in the photo above in May this year. However, T CrB is also known as the "Blaze Star" because about every 80 years, the white dwarf in the system pulls enough material across from its partner that it becomes unstable and undergoes a thermonuclear detonation, which intensifies its brightness to appear to match the brilliance of the North Star for a week or so. This "nova" process can repeat and is not the same as a "supernova", which results in the ultimate destruction of a large star through a tremendous explosion. T CrB has not "gone nova" quite yet, but it will likely do so any moment now! Learn more about T CrB: https://www.skyatnightmagazine.com/space-science/t-coronae-borealis-nova

Aurora Borealis sometimes visible from the Cayman Islands

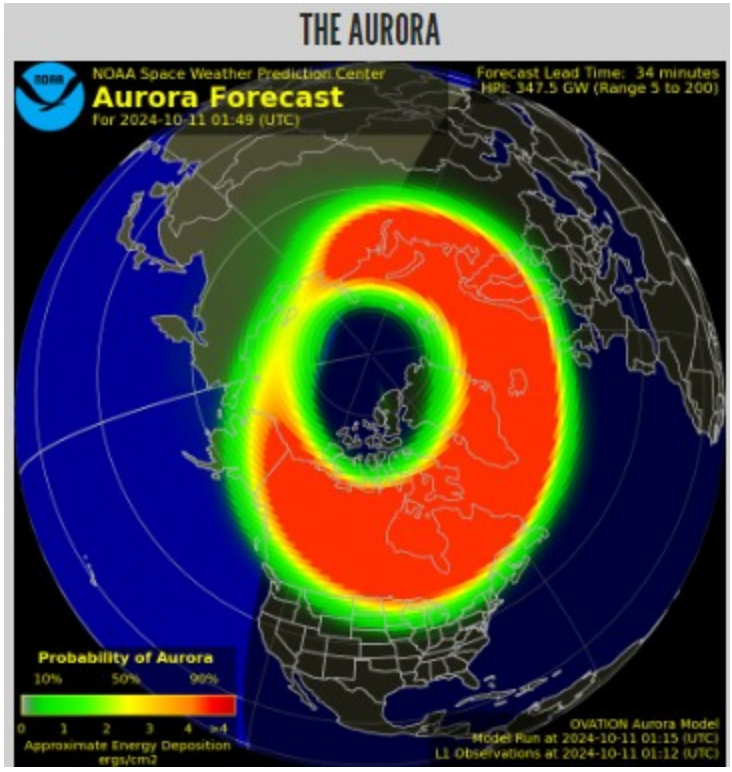


Photo: National Oceanic and Atmospheric Administration (October 11, 2024)

The aurora borealis, or northern lights, are an amazing spectacle driven by the interaction of material ejected from the Sun with the Earth's magnetic field, causing atmospheric particles very high above the planet to glow. Most of this material is caused by coronal mass ejection (CME) events, where billions of tons of material are jettisoned from the sun. (To put that in perspective, that much mass is similar to the mass of all of the land of all of the Cayman Islands above sea level!) Luckily most of the material does not hit the Earth! Nevertheless, the sun's activity levels follow an eleven-year cycle, and we are at a "solar maximum" when the sun is the most frequently launching CMEs and other phenomena. Thus, this year, we have had more chances to see Aurora than usual.
Auroras develop near the poles because of the arrangement of the Earth's magnetic field. However, when the aurora is powerful, as happened in May and October this year, the highest altitude aurora from further north can be seen from the Cayman Islands as a shifting reddish glow low on the northern horizon. You can maximise your chances of seeing aurora by finding a very dark spot with a clear view north over the sea. Be sure to watch the CIAS Facebook page for alerts when aurora are likely to be visible!

Learn more about the aurora and the current space weather conditions: https://www.swpc.noaa.gov/
See some beautiful photos of the aurora from Cayman Brac published by JET
Photo: https://www.facebook.com/JETPhotoCayman/posts/1150018526645668

Opportunities to see Space Stations passing overhead

Click on the date for a star chart and other pass details from heavens-above.com. The lower the magnitude (more negative), the brighter the pass.
You can learn more about how we can see the space station in our ISS explainer video.

International Space Station Passes (current crew of 7 people)
Click on the date to get a star chart and other pass details.

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
14 Oct	-3.7	05:27:37	10°	SW	05:30:55	80°	SE	05:34:13	10°	NE	visible
15 Oct	-2.2	04:42:24	31°	SE	04:42:43	32°	SE	04:45:44	10°	ENE	visible
16 Oct	-2.4	05:30:23	20°	WNW	05:31:03	21°	NW	05:33:41	10°	N	visible
17 Oct	-1.3	04:45:03	16°	NNE	04:45:03	16°	NNE	04:45:51	10°	NNE	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
05 Nov	-0.7	05:30:04	10°	NE	05:30:25	10°	NE	05:30:45	10°	NE	visible
07 Nov	-2.3	05:25:37	13°	NNW	05:28:11	34°	NE	05:31:14	10°	ESE	visible
07 Nov	-1.4	18:47:03	10°	SSE	18:47:44	11°	SE	18:47:44	11°	SE	visible
08 Nov	-1.1	04:38:44	16°	NE	04:38:44	16°	NE	04:40:45	10°	E	visible
08 Nov	-2.1	19:31:51	10°	SW	19:33:47	32°	WSW	19:33:47	32°	WSW	visible
09 Nov	-3.5	05:24:44	37°	W	05:25:33	47°	SW	05:28:43	10°	SSE	visible
09 Nov	-3.5	18:42:18	10°	SSW	18:45:30	48°	SE	18:46:52	28°	ENE	visible
10 Nov	-1.4	04:37:51	22°	SE	04:37:51	22°	SE	04:39:10	10°	SE	visible
10 Nov	-1.3	19:30:12	10°	W	19:32:24	16°	NW	19:32:41	16°	NW	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
11 Nov	-2.3	18:39:31	10°	WSW	18:42:34	34°	NW	18:45:30	11°	NNE	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
13 Nov	-0.8	18:38:59	10°	NW	18:39:36	10°	NW	18:40:13	10°	NNW	visible

Tiangong Space Station Passes (current crew of 3 people)

Click on the date to get a star chart and other pass details.

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
13 Oct	0.0	05:11:38	10°	SSW	05:14:15	25°	SE	05:16:53	10°	E	visible
14 Oct	-1.8	05:44:40	10°	WSW	05:47:40	46°	NW	05:50:41	10°	NE	visible
15 Oct	-0.8	04:45:27	38°	E	04:45:27	38°	E	04:47:36	10°	ENE	visible
16 Oct	-0.8	05:18:03	23°	NNW	05:18:03	23°	NNW	05:20:30	10°	NNE	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
29 Oct	0.5	06:01:50	10°	N	06:03:36	14°	NNE	06:05:23	10°	ENE	visible
31 Oct	-0.2	05:29:16	11°	NNW	05:31:35	24°	NE	05:34:08	10°	E	visible
01 Nov	-2.0	06:00:40	10°	WNW	06:03:38	54°	SW	06:06:37	10°	SE	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
02 Nov	-1.3	04:59:21	44°	NE	04:59:21	44°	NE	05:02:07	10°	ESE	visible
03 Nov	-1.0	05:30:20	24°	WSW	05:31:00	26°	SW	05:33:36	10°	SSE	visible
03 Nov	-0.2	18:40:15	10°	S	18:42:09	15°	SE	18:42:39	15°	SE	visible
04 Nov	1.2	04:29:20	11°	SE	04:29:20	11°	SE	04:29:28	10°	SE	visible
04 Nov	-2.1	19:10:42	10°	SW	19:13:29	72°	WSW	19:13:29	72°	WSW	visible
05 Nov	0.9	19:43:25	10°	WNW	19:44:11	14°	WNW	19:44:11	14°	WNW	visible
06 Nov	-1.2	18:37:41	10°	WSW	18:40:37	42°	NW	18:42:49	16°	NNE	visible
07 Nov	0.7	19:11:32	10°	NW	19:12:21	11°	NNW	19:13:10	10°	NNW	visible

Date	Brightness	Start			Highest point			End			Pass type
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
22 Nov	-0.9	18:56:24	10°	NNW	18:58:24	27°	N	18:58:24	27°	N	visible
23 Nov	-0.3	19:26:30	10°	WNW	19:28:31	31°	W	19:28:31	31°	W	visible
24 Nov	-2.2	18:20:15	10°	NW	18:23:17	57°	NE	18:26:17	10°	ESE	visible
25 Nov	0.3	18:50:46	10°	W	18:53:16	22°	SW	18:55:45	10°	SSE	visible
27 Nov	1.1	18:15:11	10°	WSW	18:16:47	13°	SW	18:18:22	10°	SSW	visible
01 Dec	0.8	05:41:30	10°	S	05:43:29	16°	SE	05:45:28	10°	E	visible

Planets Visible in the Sky

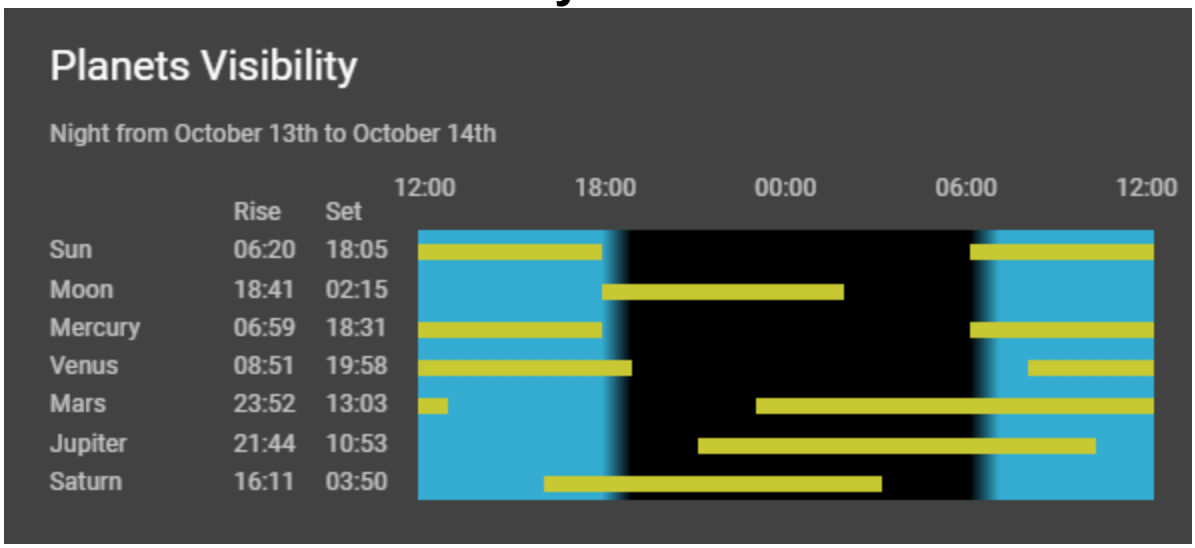


image adapted from stellarium-web.org

CIAS Membership

If you are interested in joining the CIAS, speak with any of us at our public events or drop us an email. All are welcome!
Annual dues are 15KYD for adults and 5KYD for children. Membership allows the use of club equipment and inclusion in our internal messaging. Members can also reach out to the public as volunteers at public events and special activities for more specific audiences, such as schools or other organisations.

Best regards,
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Tiyen Miller
President

Cayman Islands Astronomical Society

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http://www.cias.space
facebook.com/caymanastronomy

The Cayman Islands Astronomical Society has been bringing together people with an interest in astronomy since 1991 with a goal of promoting astronomy to the public. CIAS is registered as a Non-Profit Organisation in the Cayman Islands (NP-358)