

CATCHING THE AURORA ALL YEAR:

FROM EXTREME COLD TO CHASING THE ELUSIVE SUMMER AURORA

By: Jeanine Holowatuik

www.northernescapephotography.com



ABOUT ME

- From Saskatchewan, Canada
- University of British Columbia
- Lifelong love of Space
- NEP est. 2017
- Recognized & Published writer & photographer
- Highlighting Astro Tourism in the Canadian Prairies
- Aurora & Night Photography Workshops
- Dark Sky Awareness





INTERNATIONAL DARK-SKY ASSOCIATION



DarkSky
INTERNATIONAL



UNIQUE CHALLENGES TO CAPTURING THE AURORA



THE GEAR

- Tripod
- DSLR/Mirrorless
- Fast Lens f2.8 or lower
- Shutter Remote/ 2sec timer
- Warm Clothes
- Headlamp



LEARN TO QUICKLY WORK IN THE DARK

TIP: LEARN TO SET UP &
CHANGE SETTINGS AND
FOCUS IN THE DARK SO
WHEN THE AURORA IS
CHANGING YOU DON'T GET
FRUSTRATED TRYING TO KEEP
UP!



MY TYPICAL
'TEST SHOT' SETTINGS

DSLR

Canon 6D

14 MM F2.8

20 Sec / ISO 6400 / 3800K

Mirrorless

Sony a7iii

24 MM F1.4

6 Sec / ISO 3200 / F1.4 / 3800K



CHANGE SETTINGS WITH THE SHOW

First: Bring down ISO to
reduce noise

Second: Bring down
shutter speed to capture
movement



THE SETTINGS

Manual Focus - Live view, check often

2 second shutter or remote

Determine Maximum Shutter Speed by focal length

Aperture wide open or as wide as possible for clear corner focus

ISO introduces noise, low as possible



KEEPING UP TO THE SHOW

- Change shutter speed and ISO throughout a show
- Adjusting these quickly is important
- Capture foreground first if possible. If focus stacking or blending a longer exposure foreground

TIP: THE NORTHERN
LIGHTS ARE EXCITING,
WORKING EXCITED IS A
CHALLENGE



THE DIFFERENCE
BETWEEN AURORA
AND OTHER FORMS
OF NIGHT
PHOTOGRAPHY IS
SPEED!



TO SUMMARIZE FOR PHOTOS

- Set up tripod and gear (be mindful of lights)
- Find manual focus on a star or distant light
- Do a test shot even if you can't see the lights
- Change settings as needed for the aurora activity
- Check focus often
- Shutter speed can fluctuate greatly in a short time
- Shoot in RAW for better post processing control
- Start with your max shutter by focal length, 3200 ISO f2.8 or lower

AURORA CHASING IN EXTREME COLD



BE PREPARED

- Layer Clothing
- Bring extra clothes
- Keep Toes, Head & Hands Warm
- Cover all your skin
- Never expose skin
- Reliable Vehicle
- Emergency Car Kit
- Warm Drinks



CAMERA GEAR IN THE COLD

- Keep extra batteries warm
- Keep camera working
- Lens warmer - optional
- Try not to move plastic dials or clips in cold
- Bring gear inside sealed
- Foam Handles on tripod



GEAR I USE IN THE EXTREME COLD

HEAT PADS



HANDS



HEAT 3 SMART PRO POLARTEC® WIND PRO®



GEAR I USE IN THE EXTREME COLD

HEAD

MERINO WOOL TOQUE & SCARF

FEET



& MERINO WOOL SOCKS AND/OR HEATED SOCKS

BODY



CANADA GOOSE®



- Access can be restricted due to snow
- Scout during the day
- Harder to find open water for reflections
- Snowshoes
- Watching for unsafe extreme conditions
- Knowing your limit



EXTRAS

- Garmin In Reach
- Keep candles in your car
- Car Booster Pack
- Lots of fuel for car
- Keep Keys Warm (Push Button)
- Bring extra of EVERYTHING



SUMMER AURORA

A photograph of a summer aurora borealis over a lake at night. The aurora is a vibrant green and purple light display in the sky, with a bright green band of light stretching across the horizon. The sky is dark blue with many stars visible. In the foreground, there is a calm lake reflecting the light, and a shoreline with dark evergreen trees and some reeds. The overall scene is serene and beautiful.

WHY THERE IS NO 'AURORA SEASON'?

- The Sun Continuously sends charged particles toward Earth
- The Sun's Activity fluctuates over its cycle
- It is the hours of darkness that matter



MAGNETIC POLE

Dawn

oon

Mic

Thin & faint
daytime auroral
oval / Electrojet

Geographic pole

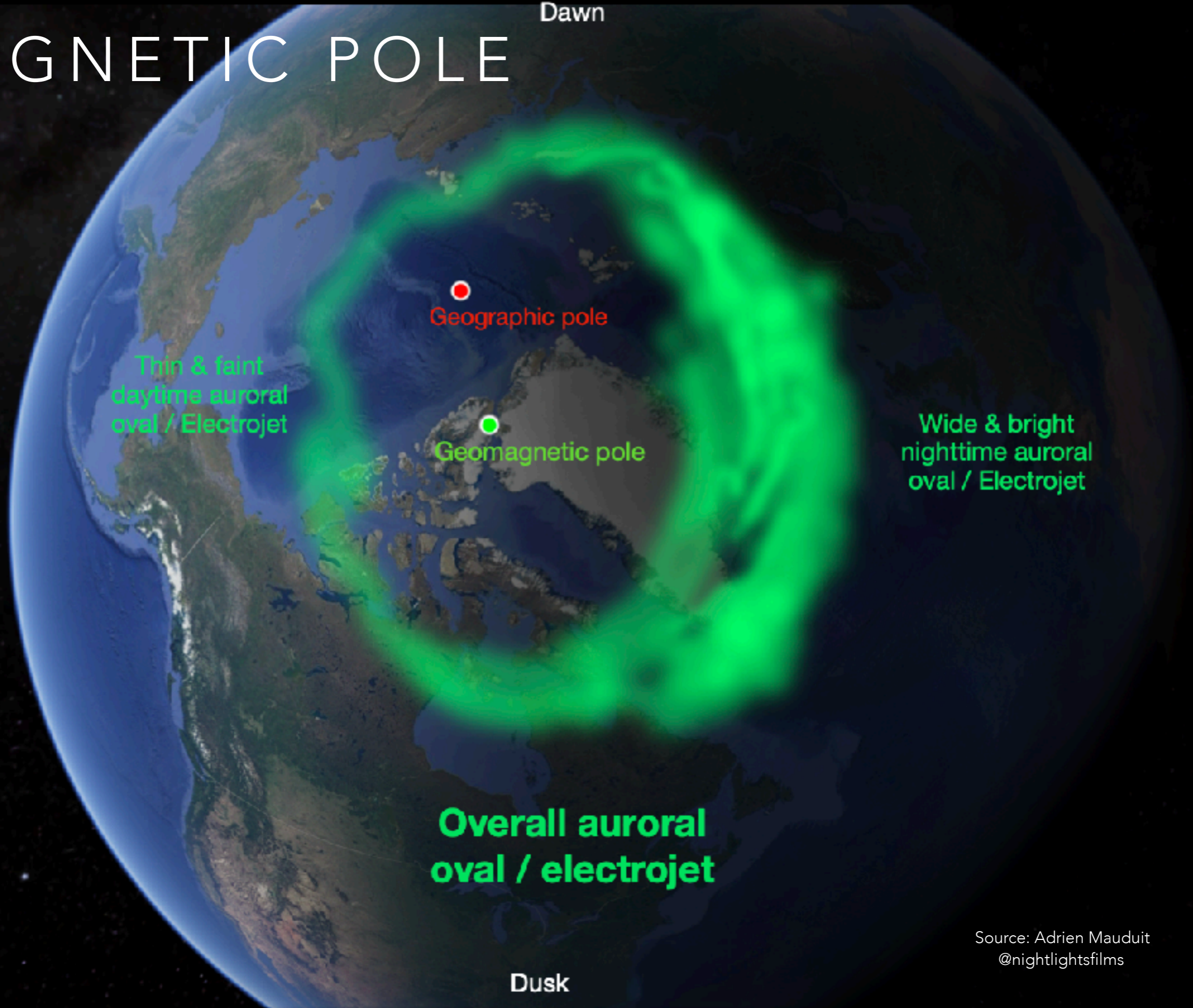
Geomagnetic pole

Wide & bright
nighttime auroral
oval / Electrojet

Overall auroral
oval / electrojet

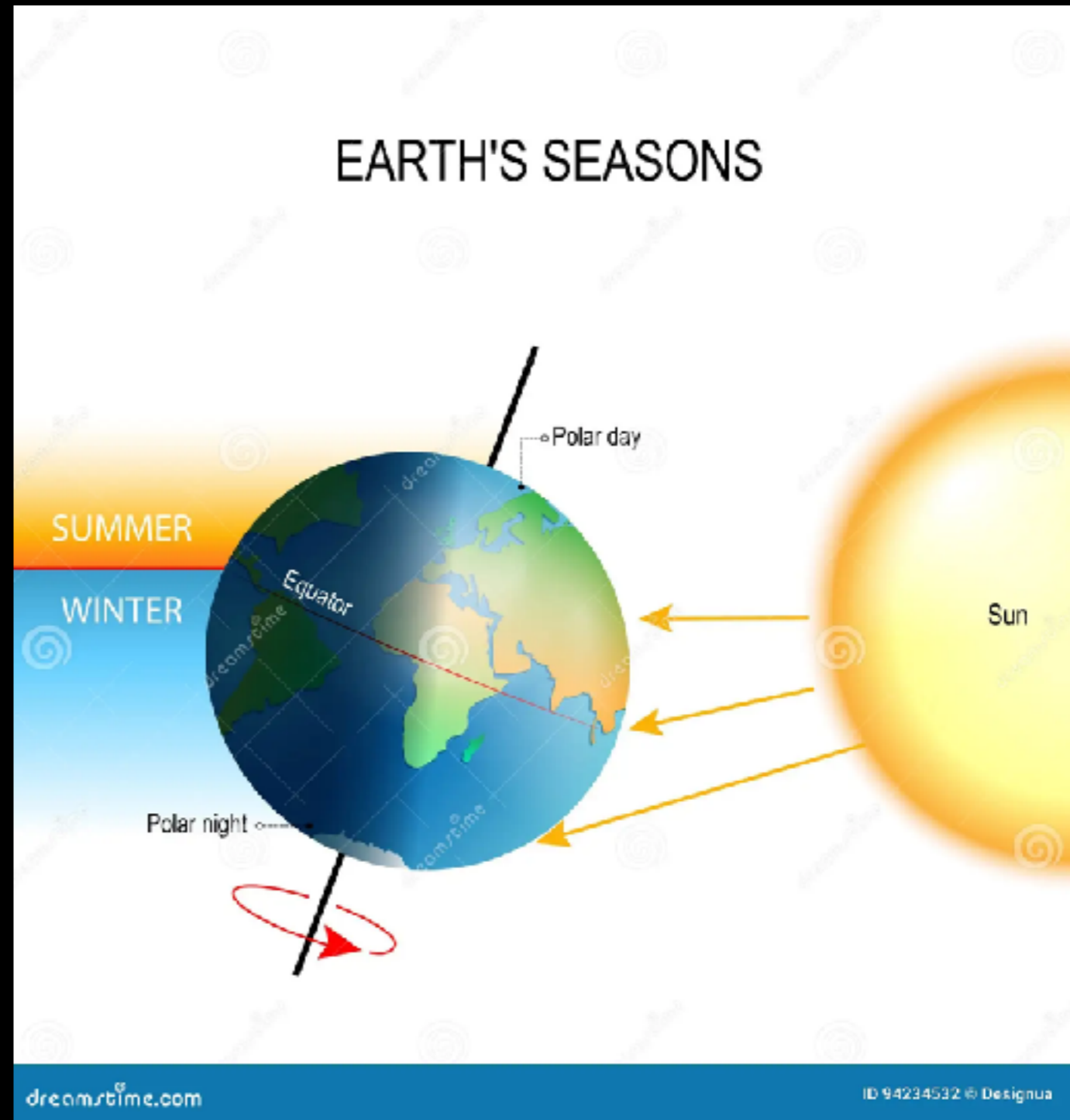
Dusk

Source: Adrien Mauduit
@nightlightsfilms



SUMMER AURORA

- The Midnight Sun takes over in the far north in April/May pending location.
- Won't get enough astronomical twilight until August.
- The southern half of SK/AB/MB will lose official night in late May-Late July
- Middle of Astronomical Twilight still allows enough darkness for aurora (from about 12am-2am)



IT IS A SMALL PORTION OF EARTH
THAT CAN SEE THE SUMMER AURORA





WHY I LOVE SUMMER AURORA THE MOST

- Summer Aurora is rarer due to the limited darkness for limited locations
- Noctilucent Clouds visible May-July (even more rare than Aurora)
- The Twilight light & colourful nights
- Camping on the south shore of a lake

IMPORTANT FACTORS FOR SUMMER AURORA

- Geographic Location
- Light Pollution
- Hours of Darkness
- Moon Phase
- Solar Activity
- Solar Maximum
(11 year Cycle)



- Limited Darkness -
Astronomical Twilight
- The heat can cause your
sensor to warm up - hot
spots or more noise
- BUGS! - Watkins Lotion &
Spray
- Fog will reduce visibility
- Reflections Everywhere
- Be cautious of wildlife



NO MATTER WHAT SEASON

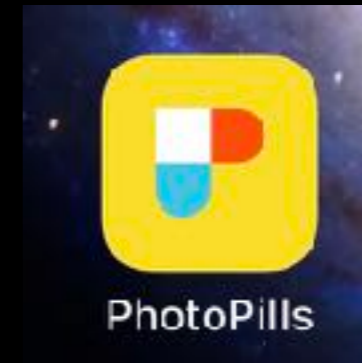
PLANNING IS KEY



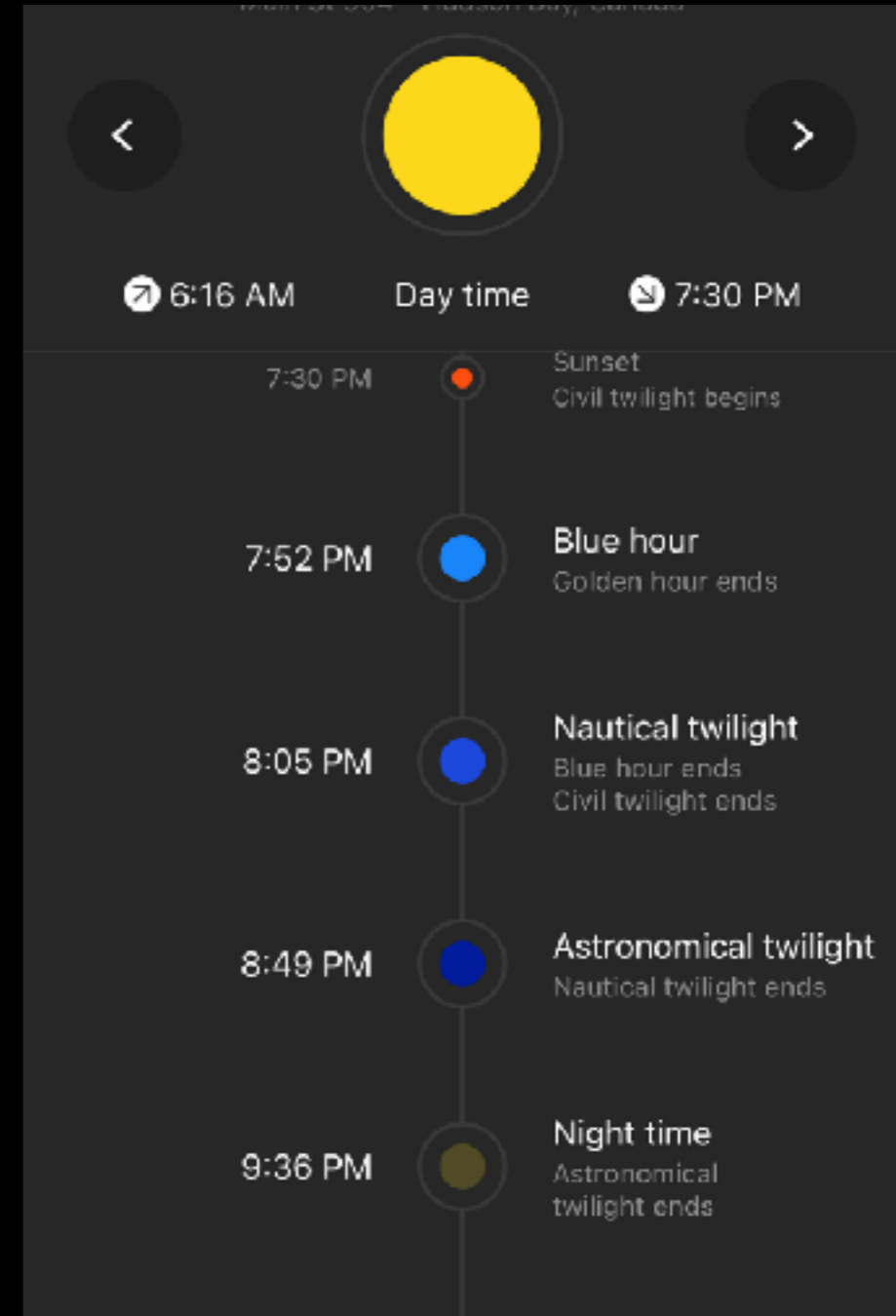
PLANNING TIPS FOR AURORA ALL YEAR

- Scouting Locations: Google Earth, Maps, Local Travel Guides, Blogs and a compass are all handy.
- Hours of Darkness
- Moon Phase
- Light Pollution Maps
- Be aware of local wildlife, risks and threats.
- Weather & Cloud Cover: windy.com, Environment Canada & Weather Network
- Clear Sky Charts - cleardarksky.com

PLANNING WITH PHOTOPILLS



- Useful for:
 - Daylight/Night Times
 - Nautical Twilight/Astronomical Twilight
 - Planning MW shots with realtime compositions
 - Planning ahead based on locations
 - Camera settings info



THANK YOU!

www.northernescapephotography.com

Instagram: [jeanine.holowatuik](https://www.instagram.com/jeanine.holowatuik)

Facebook: [Northern Escape Photography](https://www.facebook.com/NorthernEscapePhotography)

Twitter: [@jeanineh_](https://twitter.com/jeanineh_)

TikTok: [@northern.escape.photo](https://www.tiktok.com/@northern.escape.photo)

