

PAINTED NIGHTS In the Darkest Parts of the World

Melissa F. Kaelin • KaelinArt.com

About the Author

- Chasing the Aurora for over 13 years
- Wrote the Book “Beyond the 45th Parallel: The Beginner’s Guide to Chasing Aurora in the Mid-latitudes”
- Aurora Columnist, Amateur Astronomy Magazine, 2025
- Tour Guide for U-M Alumni Association, 2024-2026
- Founder of Michigan Aurora Chasers, est. 2021
- NASA Social Media Ambassador, Solar Orbiter, 2020
- Writer at heart, lover of nature
- B.A. in Journalism, Miami University, Ohio
- Co-Founder of annual Aurora Summit: Celebrating the Art, Culture, Science and Photography of the Aurora, 2017



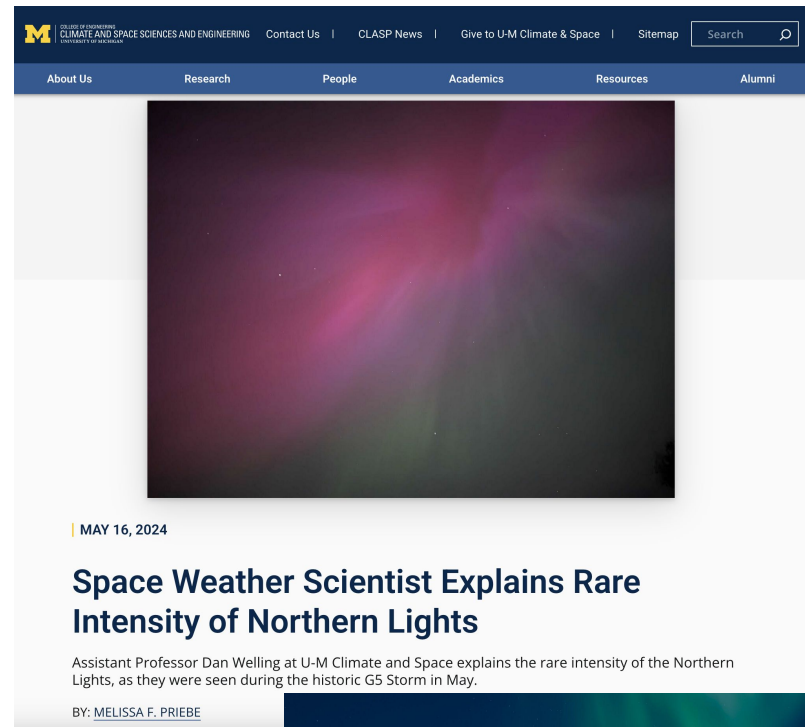
Melissa F. Kaelin & Elio



... and Science Communicator!

In the office, Melissa works as Manager of Marketing & Communications for the **University of Michigan Department of Climate & Space Sciences & Engineering.**

- Interviews researchers in fields of space weather & climate change
- Writes breaking news in partnership with NASA, NOAA and other agencies
- Manages websites, social media, marketing and press relations at U-M



"The better we understand how the atmosphere reacts to this energy input, the more precisely we can specify the probability of collision between objects."

Aaron Ridley
Professor, Michigan Engineering
Featured on [mlive.com](#)



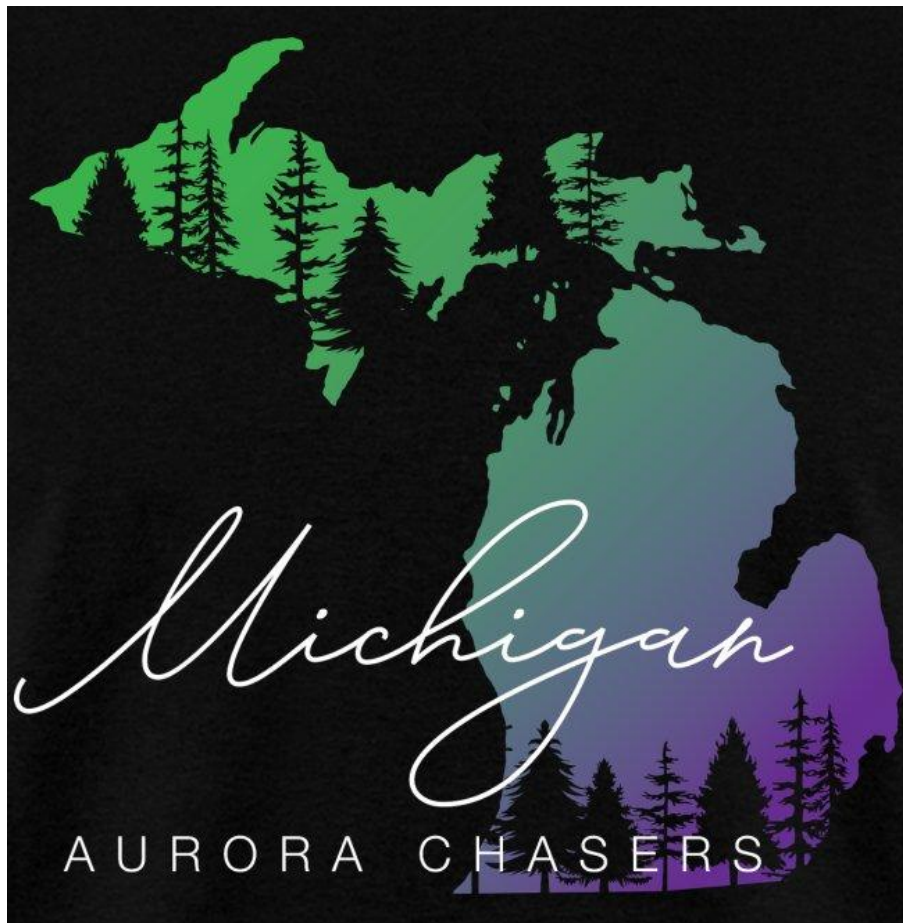
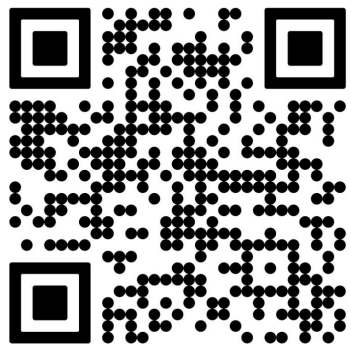
Guiding You to the Northern Lights

Events, Tools, Alerts, Travel Insight & More

Michigan Aurora Chasers

- Guides & Alerts
- Methods & Resources
- Live Chases & Events

MichiganAuroraChasers.com



3rd Edition Design by Shea Sarns

Aurora Alerts Only

- Download the free Telegram App
- Subscribe to [@MichiganAuroraAlerts](https://t.me/MichiganAuroraAlerts)

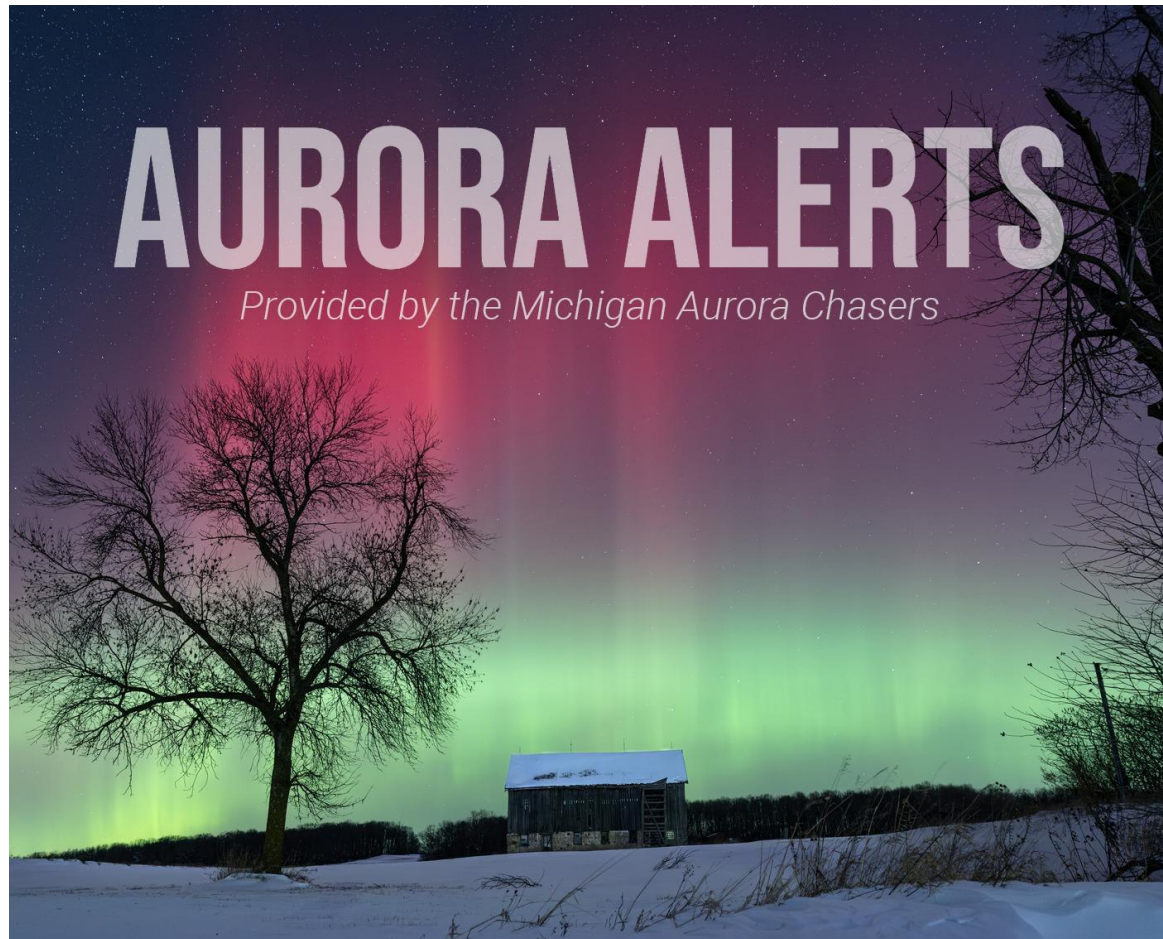
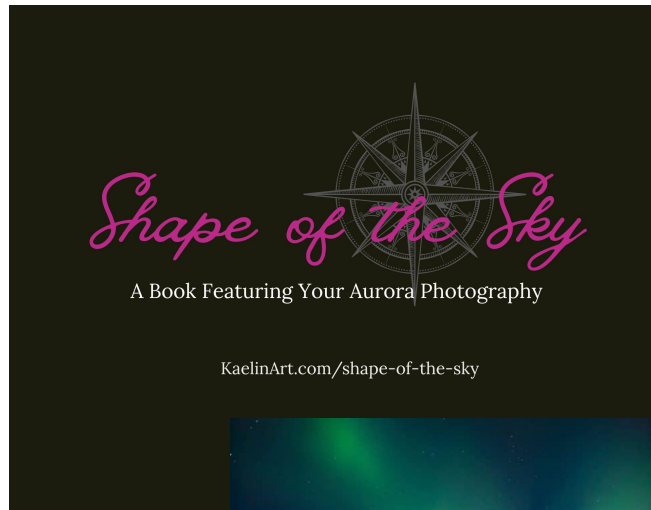


Photo by Richard Montano

Aurora Projects for You

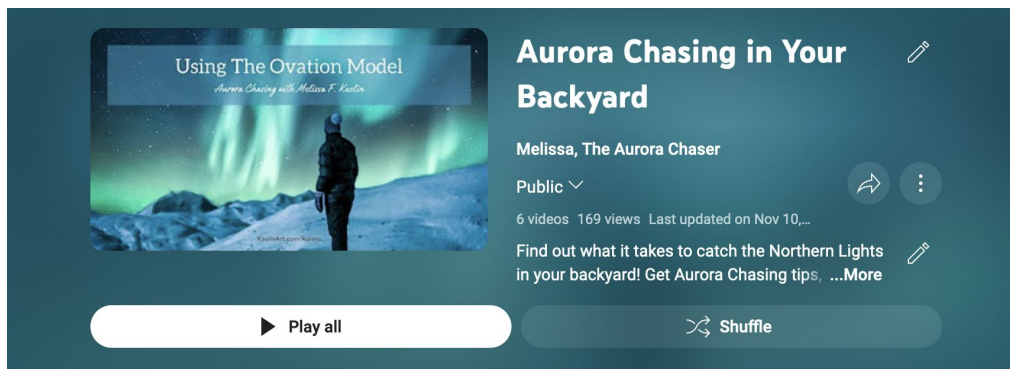
We lead an engaged and active community!

- Guided Chases & Workshops
- Get Published & Contests
- Free Aurora Alerts & Resources



Guides to Aurora Chasing

- An Empowered Guide to Viewing Locations
- MI Aurora Resource List
- Advice Blog: Aurora Chasing in the U.S.
- YouTube: Aurora Chasing in Your Backyard



Aurora Chasing in Your Backyard

Melissa, The Aurora Chaser

Public

6 videos 169 views Last updated on Nov 10,...

Find out what it takes to catch the Northern Lights in your backyard! Get Aurora Chasing tips, ...More

▶ Play all

↻ Shuffle



Aurora Chasing

Seven Ways to Find an Aurora Viewing Location

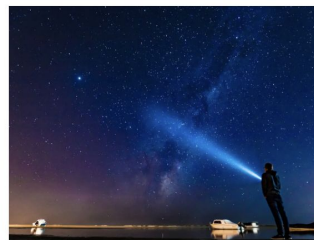
So, you want to see the Aurora! Here are seven ways to find a great Aurora Viewing Location, which are included in my new Empowered Guide.



Aurora Chasing

Five Simple Steps for Tracking Solar Flares

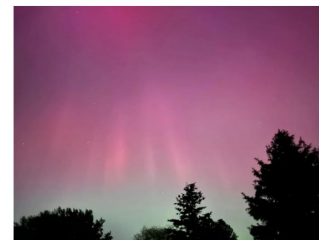
As Aurora Chasers, we love hearing about new solar flares. But many things have to happen for a solar flare to have any visible impact on our night skies.



Aurora Chasing

Make or Break Your Shot: The Beauty of Night Sky Etiquette

Take a few easy steps to ensure everyone around you can enjoy the night sky.



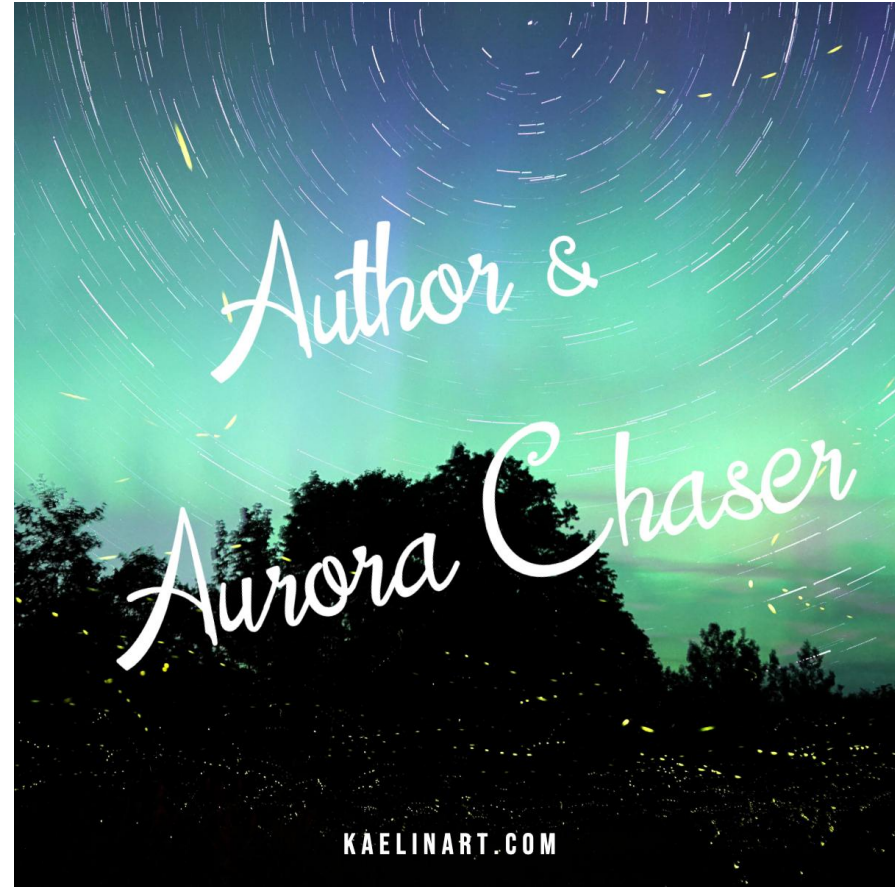
Aurora Chasing

Ask How, Not Where to View Aurora

Often, people who chase the Northern Lights can become too focused on WHERE

Official Website: KaelinArt.com

- YouTube Tutorials
- Aurora Advice Blog
- Programs & Events
- 45th Parallel Series Books

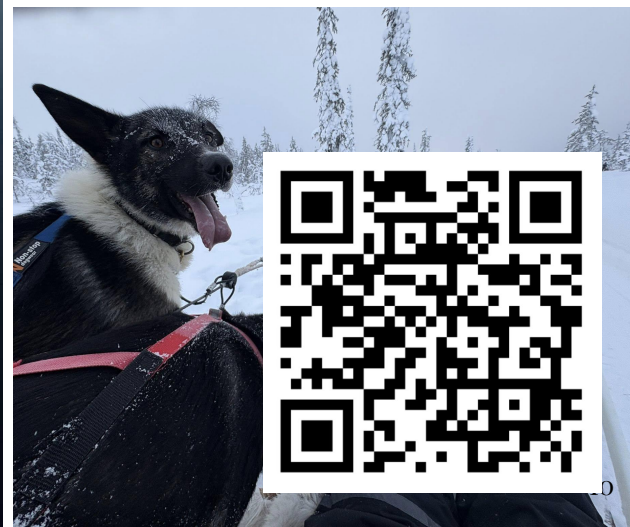




Beyond the Aurora

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*Beyond the Aurora
on Substack.com*



5 COUNTRIES.

4 STATES.

3 ARCTIC CIRCLE TREKS.

1 UNRIVALED 360° STREAK.


Are You Ready?

Lightning Round!

Let's see some photos...

Almost all photos taken on iPhone by yours truly!

**Except for portraits and where noted*

A photograph of the Aurora Borealis (Northern Lights) in Alaska. The aurora is visible as vibrant green and purple streaks and curtains against a dark, starry night sky. The foreground shows the dark silhouettes of evergreen trees on the right side. The overall scene is a beautiful natural phenomenon captured in a dark, starry environment.


10th Anniversary in Alaska

Caught Aurora 7 out of 8 nights

Love Akureyri

A walk with the Aurora in Iceland



A photograph of a teepee at night. The teepee is illuminated from within, casting a warm, yellow glow. A tall, dark pole with a circular top stands next to it. The background is a dark night sky with a vibrant green aurora borealis. Silhouettes of trees are visible in the foreground and background.

Aurora Village

Wood Stove Heated Teepees in NWT

Foxfires in Finland

One night of clear skies



Chasing Aurora at Sea

Norway Cruise aboard M.S. Trollfjord with Hurtigruten



Photo by Christina Cantu Sharp
Arctic Circle, Norway

Christina Marie Imagery

Corona in Neon

Under the Auroral Oval in Yellowknife



Photo by Kris Knutson
YELLOWKNIFE, CA

Advice for Destination Travel

Some things stay the same, some are vastly different



Embrace the Darkness

- Study the light pollution
- Acclimate to the darkness in dark sky
- Test shots for every chase



Location, Location, Location

- Urban versus rural or remote
- When conditions align: From clouds to lava
- Position your chase on the globe



Timing is Everything! Or is It?

- March is the GOAT! Avoid February
- Midnight sun vs. hours of darkness
- From sunset to sunrise, with substorms



Ask Not Where, But How

- You can catch Aurora anywhere
- It may be subtle, even “sub visual” (camera-only)
- Use your flight to get a head start!

Dark Sky Immersion for the Win

- All-night stake outs
- Plans for dangers of the tundra, like a running vehicle
- “What is your threshold?”
- Push yourself, but in remote areas, honor your comfort zone





A Portrait of an Icelandic Chase

- Cold Rain. Driving Wind!!!
- Weather Warnings here are **a different ballgame**
- Tunnels through mountains close often
- Landscape is ever-changing
- Volcano eruptions can obstruct night sky views
- Go to Iceland to see Iceland! Do not go for Northern Lights...

Iceland





U.S.A. — Alaska (Great Gatsby Vibes)

Yellowknife, Canada — NWT



Finland: Arctic Circle





Norway: Arctic Circle



Michigan: Great Lakes Region

Expectation vs. Reality

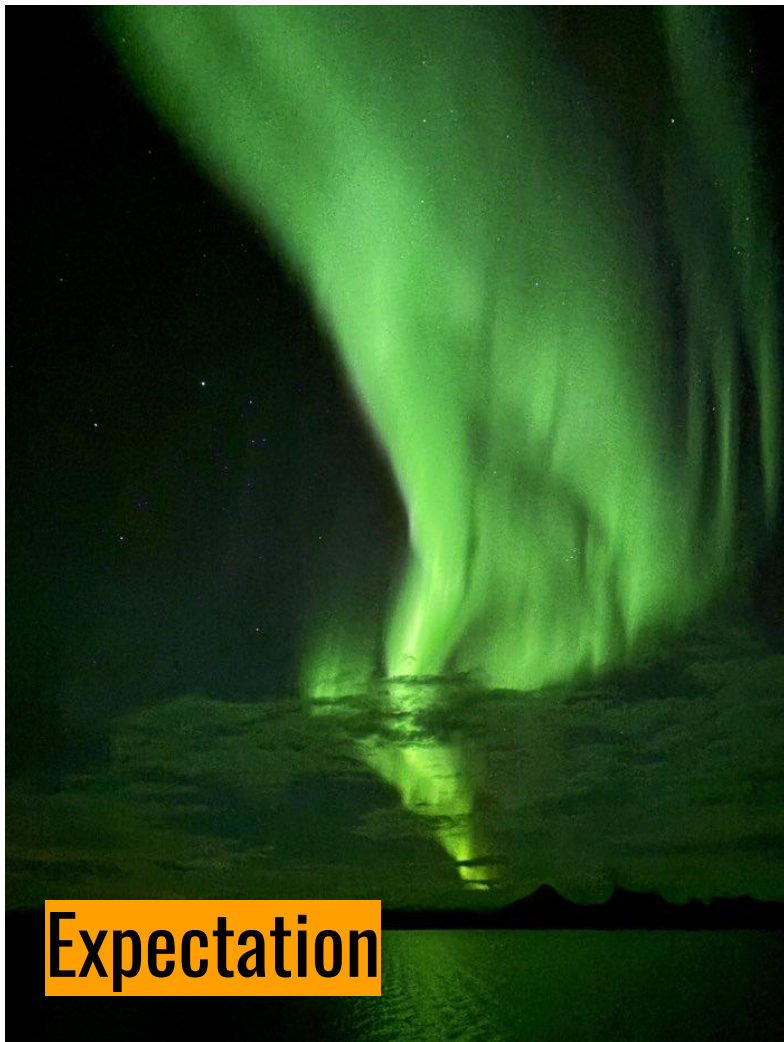
Side by Side Comparisons, Day and Night Views

Expectation



Reality







Hallucination



Reality

Expectation



Reality



Or If You Prefer...





Day



Night



Day



Night



One More...

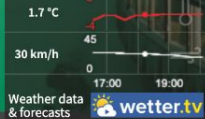
And why the North Cape is a peak achievement!



Expectation...



The Globe monument



2022-12-24

18:15



OVERVIEW MAP

HOTELS

BEST SHOTS

E-CARD

ARCHIVE

TIMELINE

TIME LAPSE

HOT SPOTS

POLAR LIGHTS





“Here I stand at **Nordkapp**, the extreme of Finnmark, at the very end of the world,” said Franscesco Negri in the winter of 1664.



In the Eyes of an Arctic Explorer

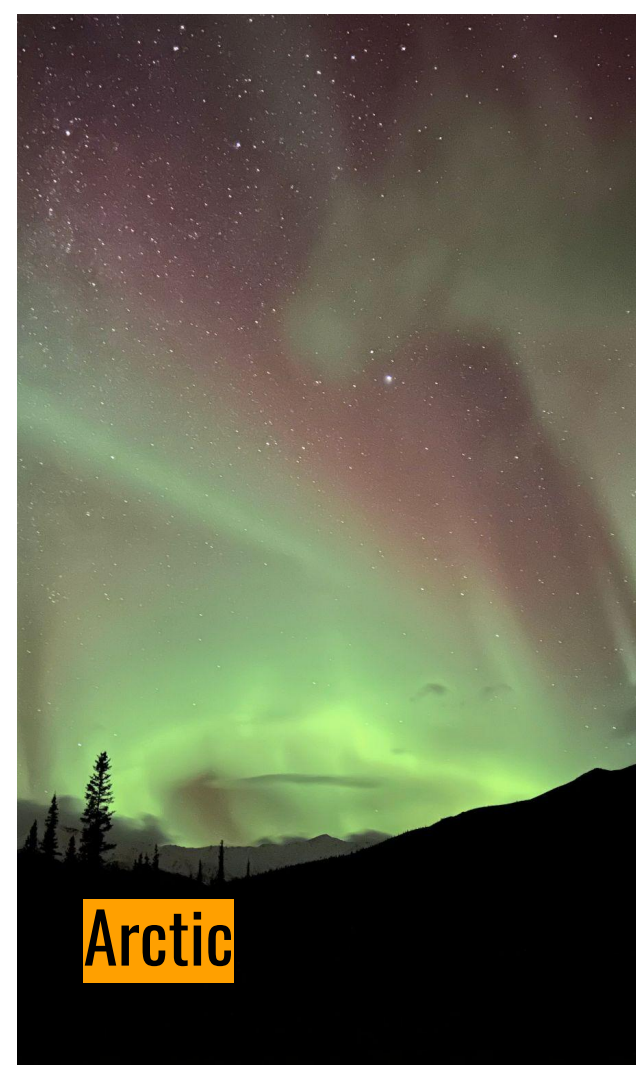
3 Countries: 3 Arctic Circle Experiences

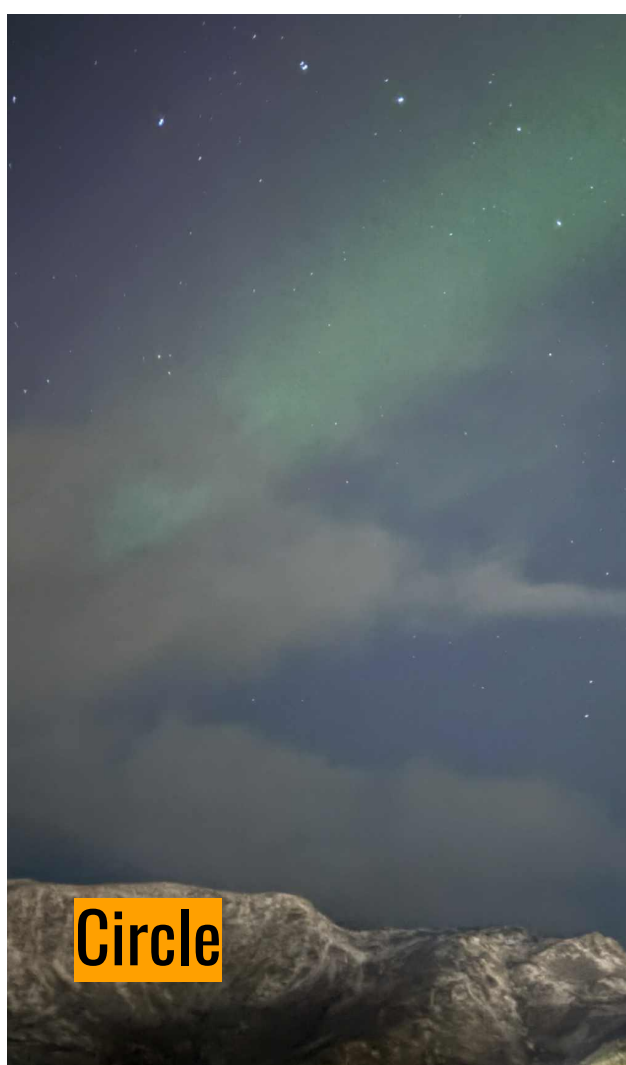
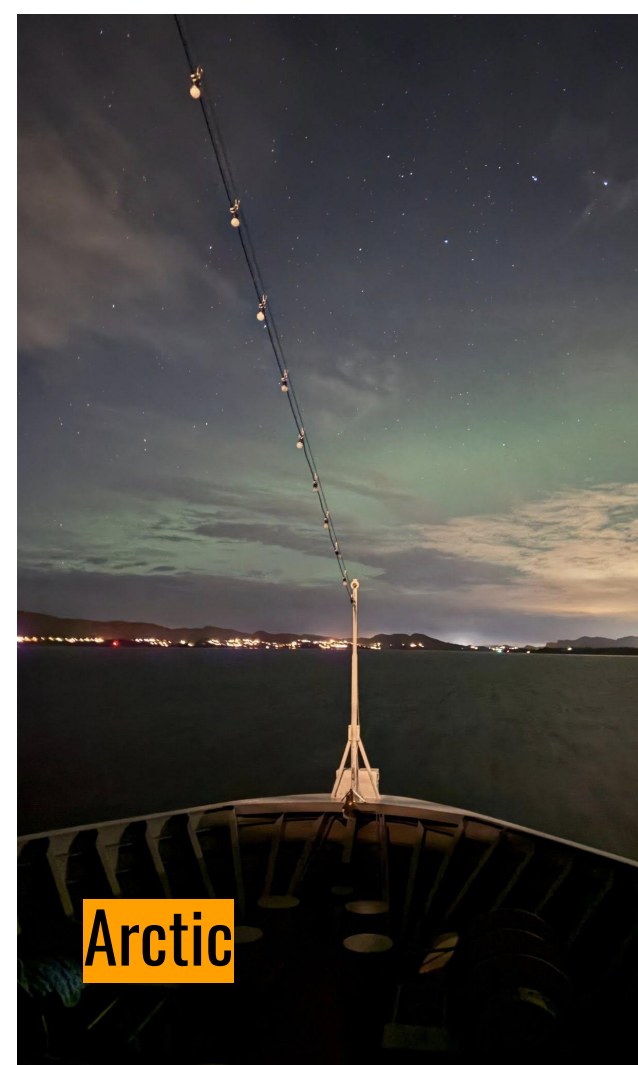
Arctic Circle or Bust!

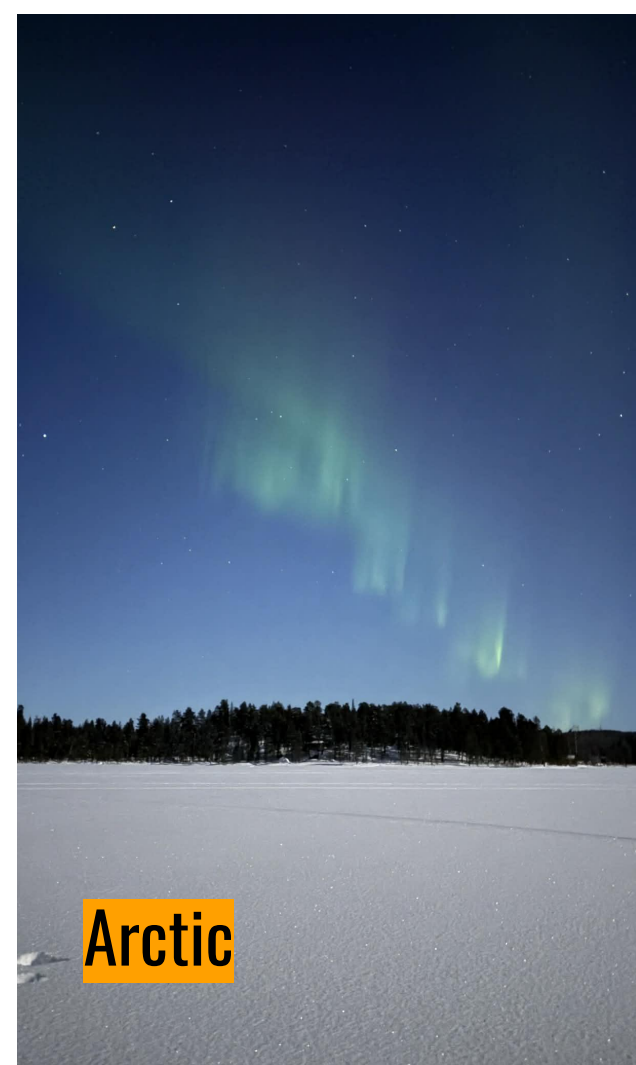
- 66.33 North
- Temperatures vary
- Road difficulty varies
- Comfortable driving on ice, snow
- Recommend traveling with an experienced guide



Sub Arctic

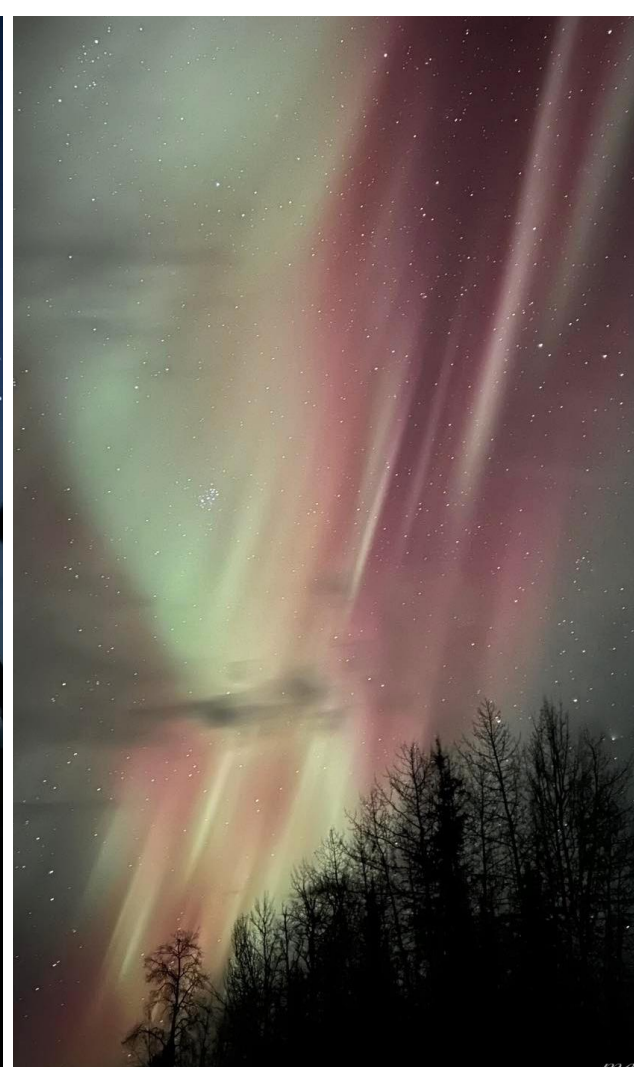






A night sky filled with stars. Two camera tripods are silhouetted against the sky. The tripod on the right has a small blue light on its leg. The background shows a dark landscape with some trees and a building under a starry sky.

Alaska's Arctic Circle can be remote, navigating America's Most Dangerous Highway, with a trucker's buffet for dining and a shipping container for the inn.

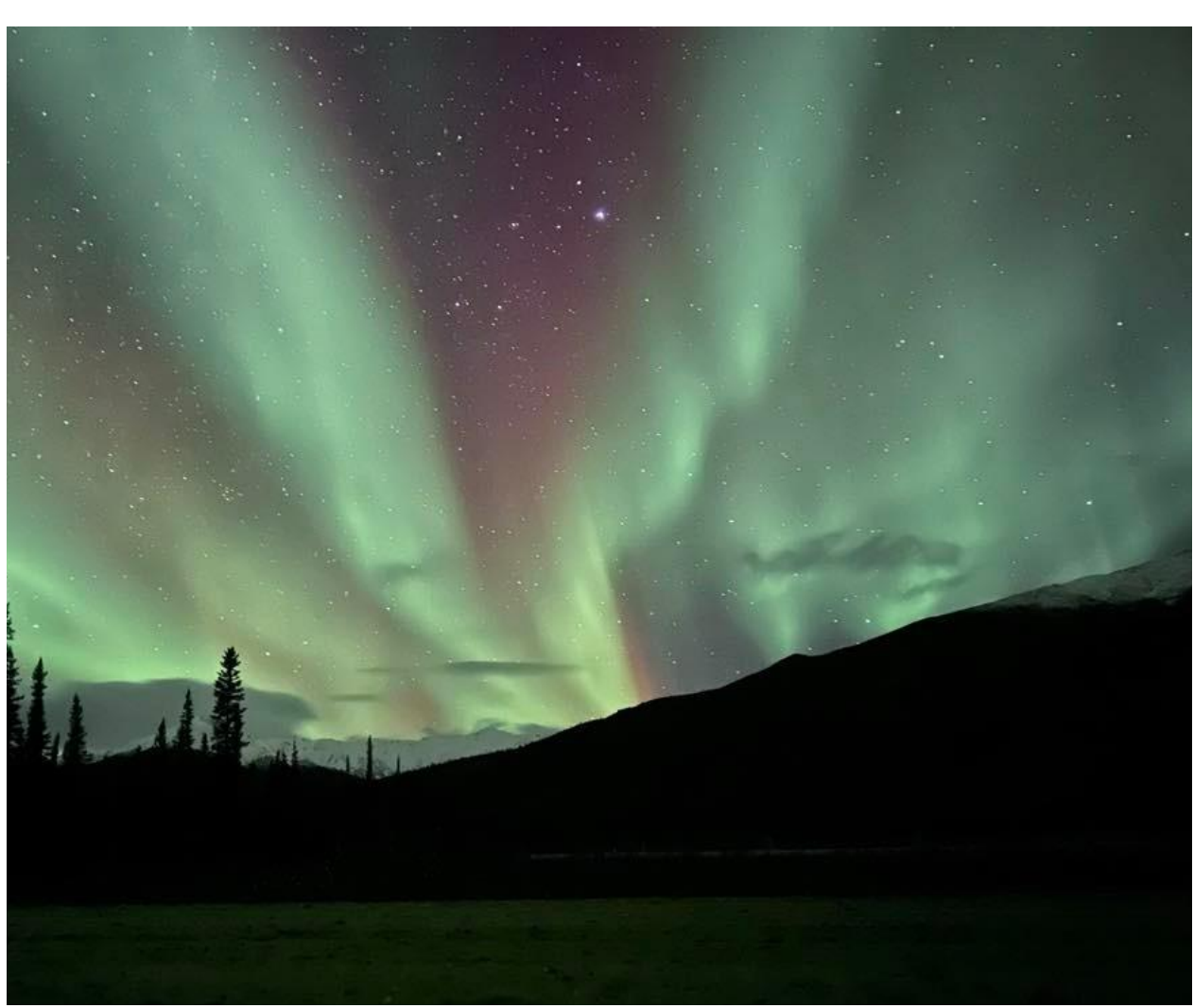
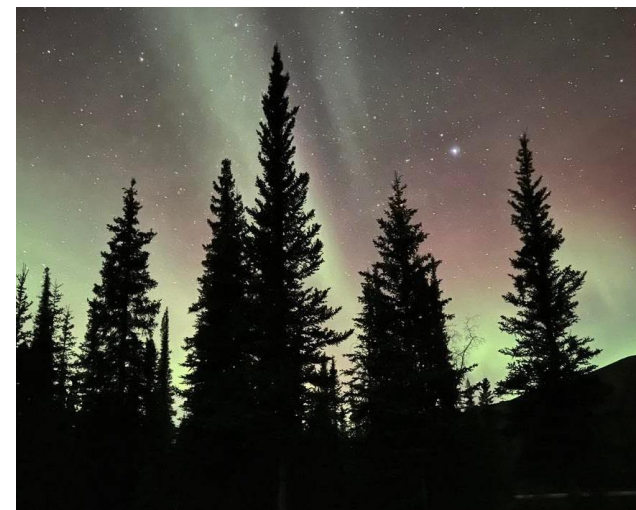
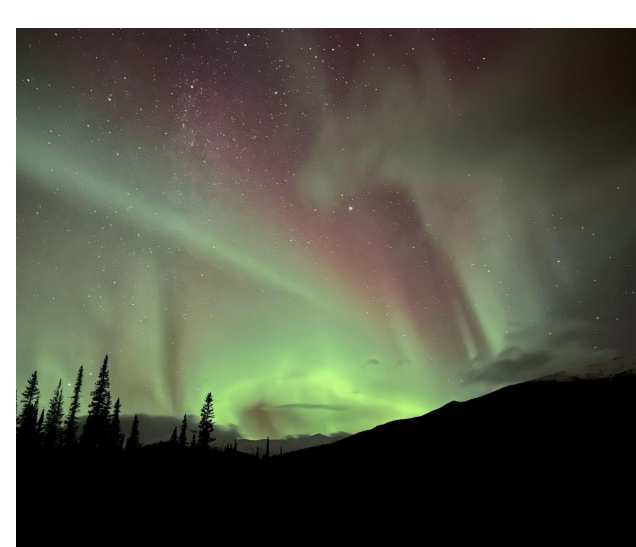




Giving new
meaning to
Off the Grid!

Over 240 miles
(6 hours)





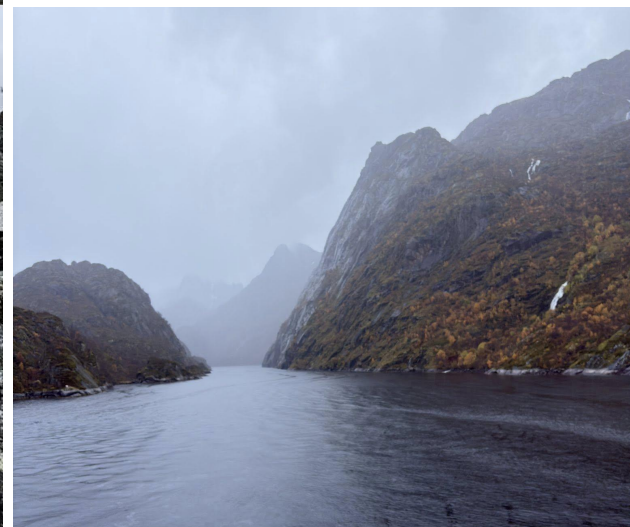
Finland's Arctic Circle is surprisingly sophisticated, dotted with resorts and sleek major roads. It may present an expense, or a self-guided opportunity.





Norway's Arctic Circle is some of the most rugged land I've ever seen. Not many are able to live or travel near the North

Cape.



Arctic Circle:

North Cape, Norway 2025:
71.17° North

Arctic Circle, Finland 2026:
68.60° North

Coldfoot, Alaska 2022:
67.25° North

Highest Personal Latitudes



North Cape

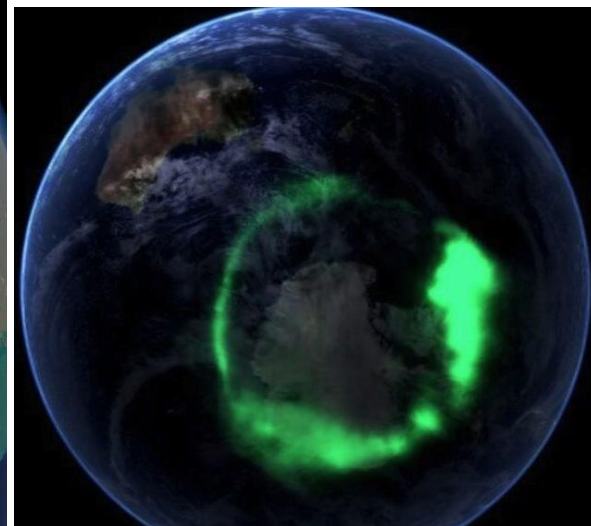
EUROPE

North
Atlantic
Ocean



Inari

EUROPE



Siglufjörður, Iceland:
66.15° North

Yellowknife, Canada:
62.45° North (-38F!)
(Churchill 58.76)

Fairbanks, Alaska:
64.84° North

Sub Arctic





Deciding Where to Travel: Geomagnetic Activity & Our World Map

The Auroral Oval, the Auroral Zone & Visible Aurora

Geomagnetic Storm **Aurora Condition**



G-0

No G-scale Geomagnetic Storming: Quiet-time. Aurora will be visible far north, quite dim in intensity, and not very active.

Kp < 5

G-1

Aurora will become brighter and more dynamic (motions and formations). It is commonly visible at high latitudes (e.g., northern Michigan and Maine).

Kp = 5

G-2

Aurora will become brighter, more active and move further from the poles. It has been seen as low as New York and Idaho (typically 55° geomagnetic latitude).

Kp = 6

G-3

Aurora will become even brighter, more active and move further from the poles. It has been seen as low as Illinois and Oregon (typically 50° geomagnetic latitude).

Kp = 7

G-4

Aurora will move even further towards the equator and it will become very bright and very active. It has been seen as low as Alabama and northern California (typically 45° geomagnetic latitude).

Kp = 8 to 9

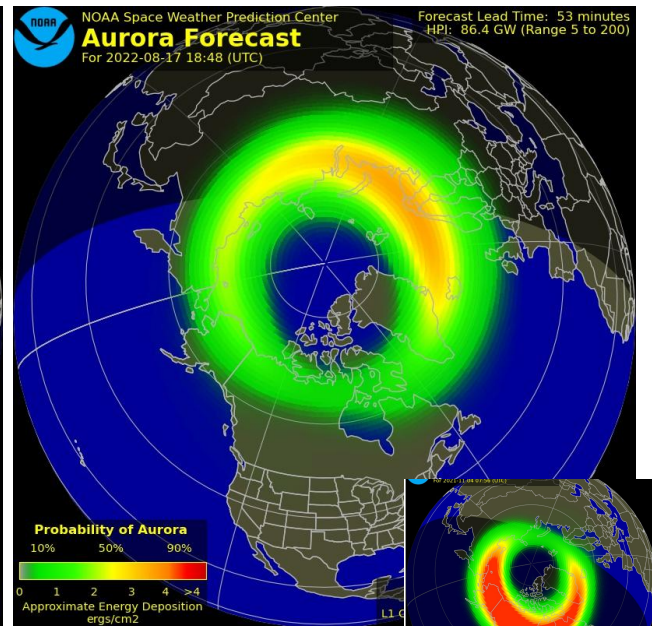
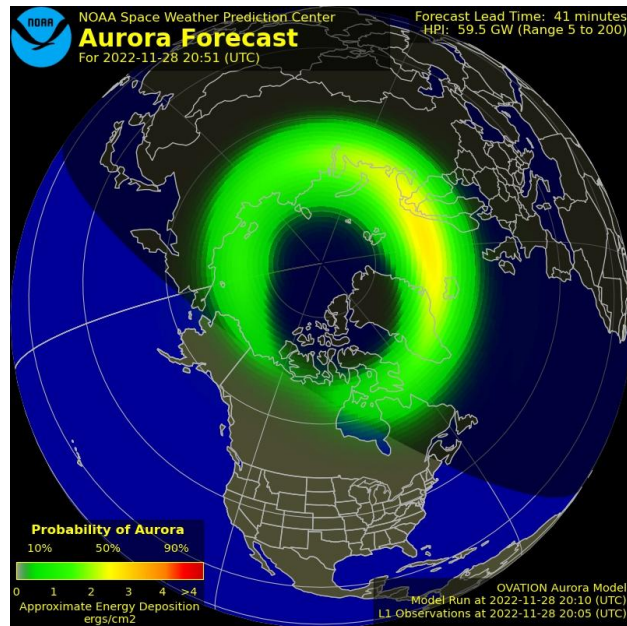
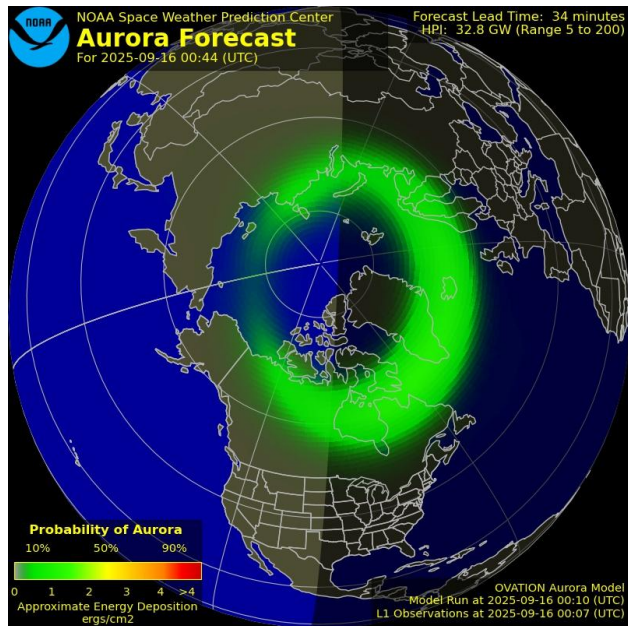
G-5

Aurora may be seen directly overhead from the northern states of the USA, but also at the northern horizon in southern states, such as Florida and southern Texas (typically 40° geomagnetic latitude).

Kp = 9

spaceweather.gov

Ways to measure Aurora include Hemispheric Power & Kp (0-9), which corresponds to Geomagnetic Storm scales.

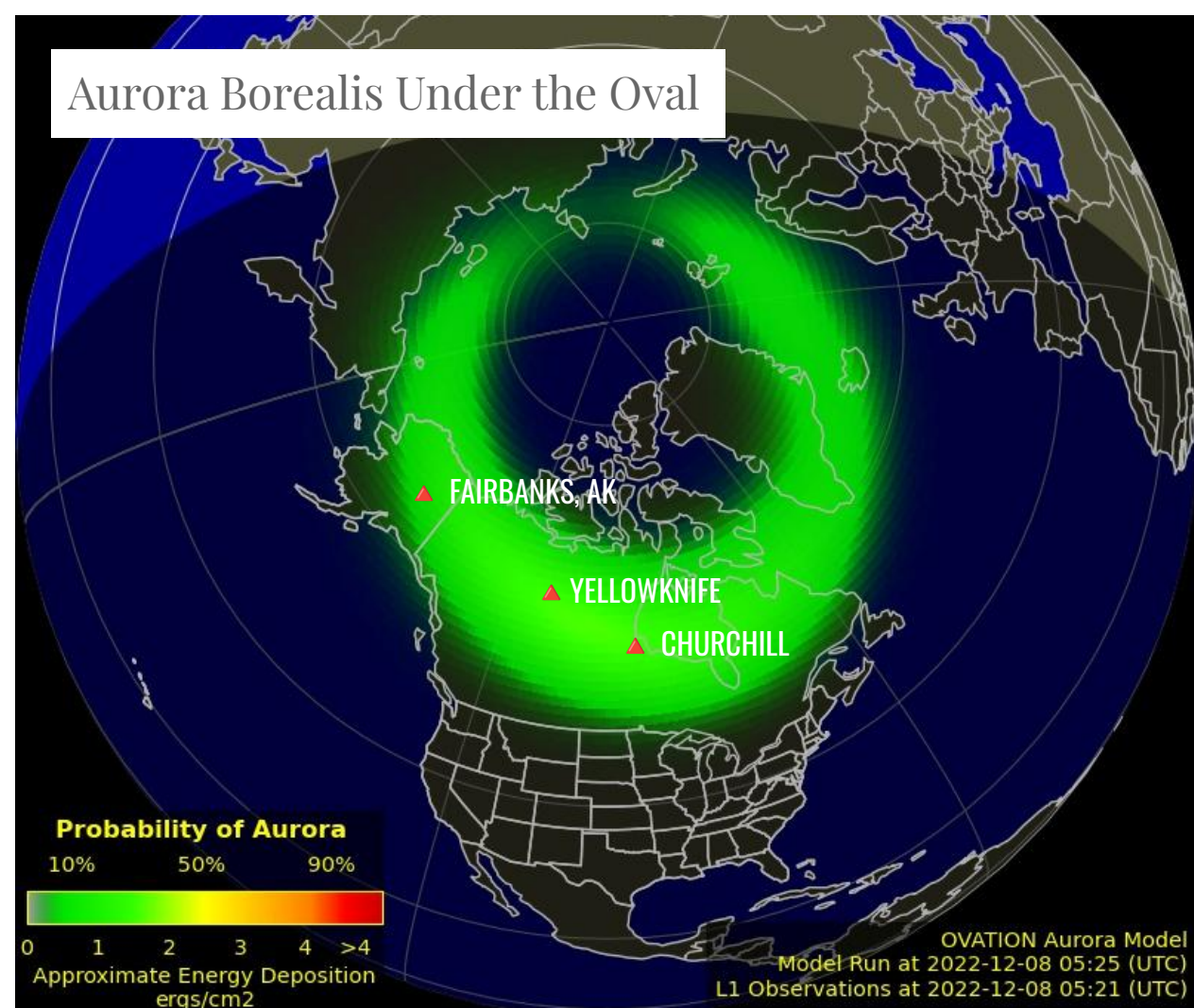


Mapping Aurora: Ovation Model

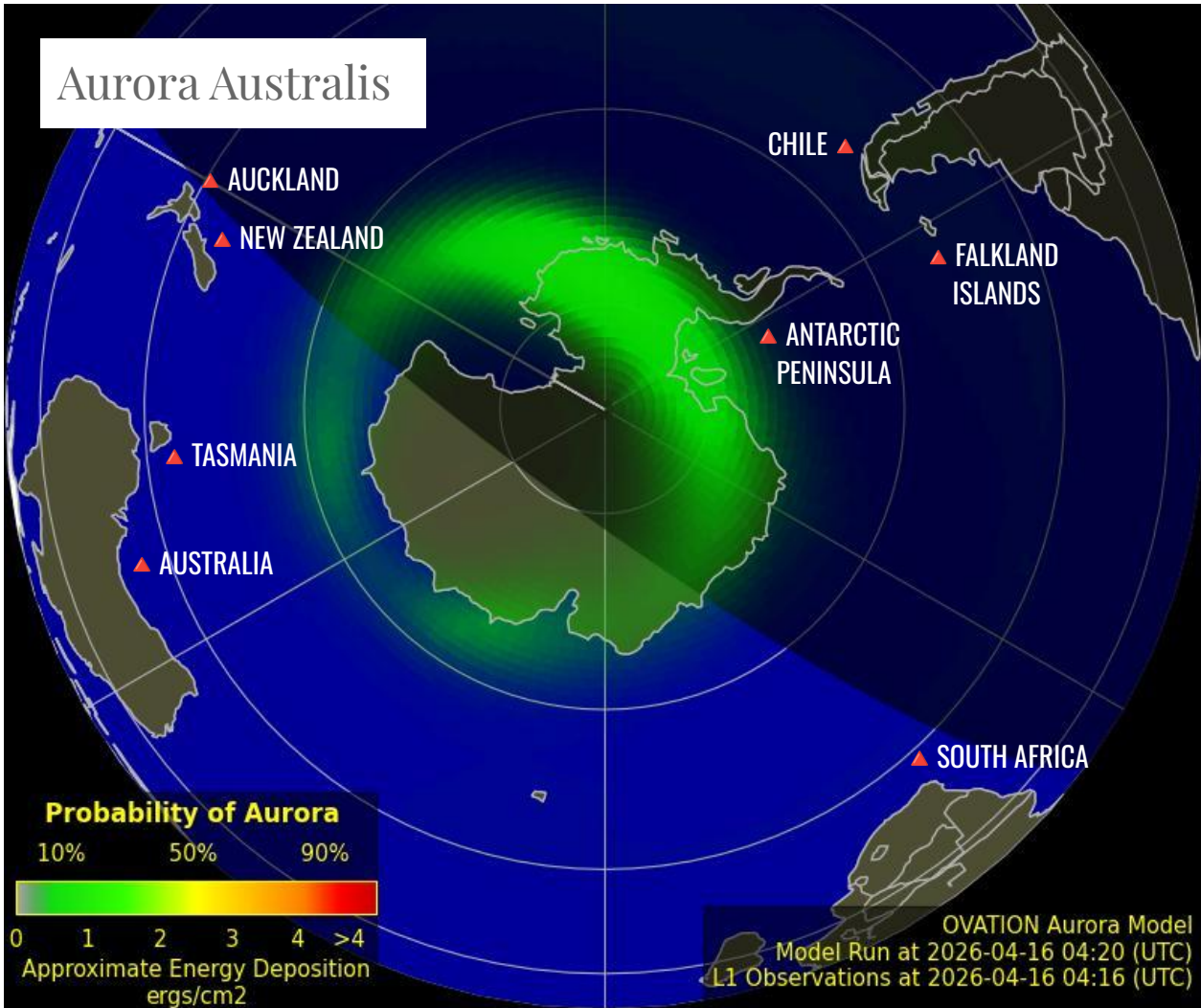
- Compare the Hemispheric Power Index:
 30gw • 60gw • 90/100gw
- Aurora is regional — but it has reached all 50 States
- Comes in waves — and wavy on the map



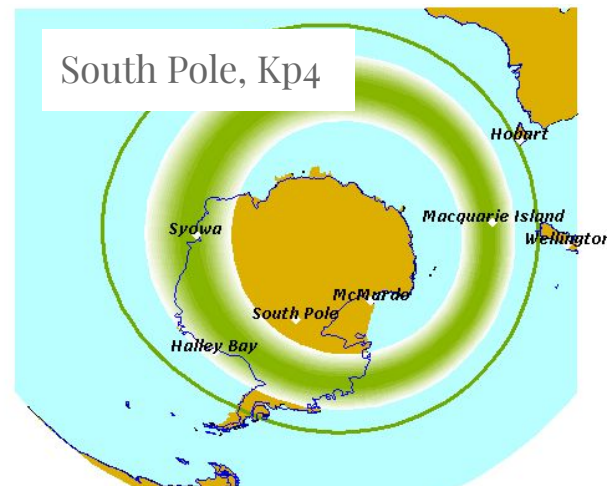
Aurora Borealis Under the Oval



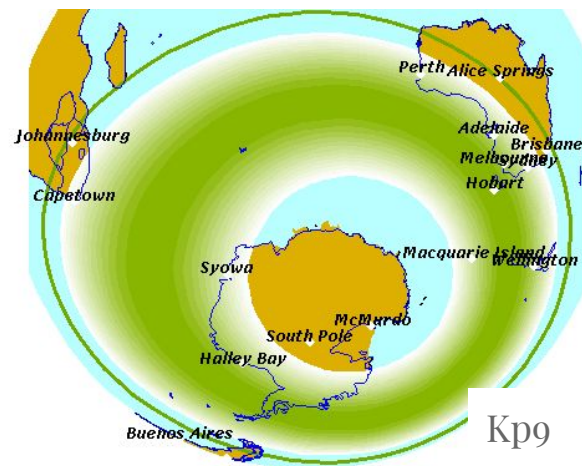
Aurora Australis



South Pole, Kp4



Geophysical Institute



Kp9

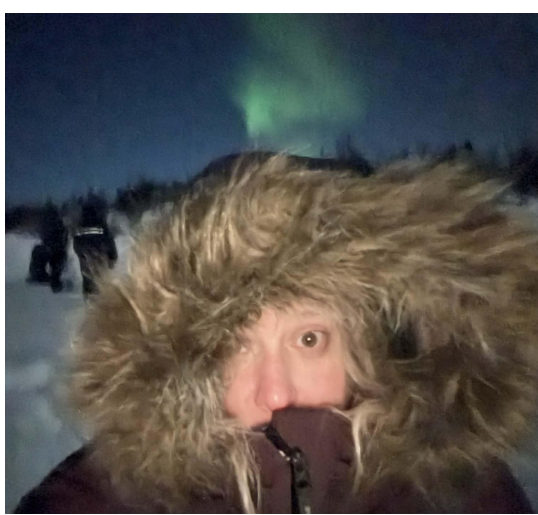
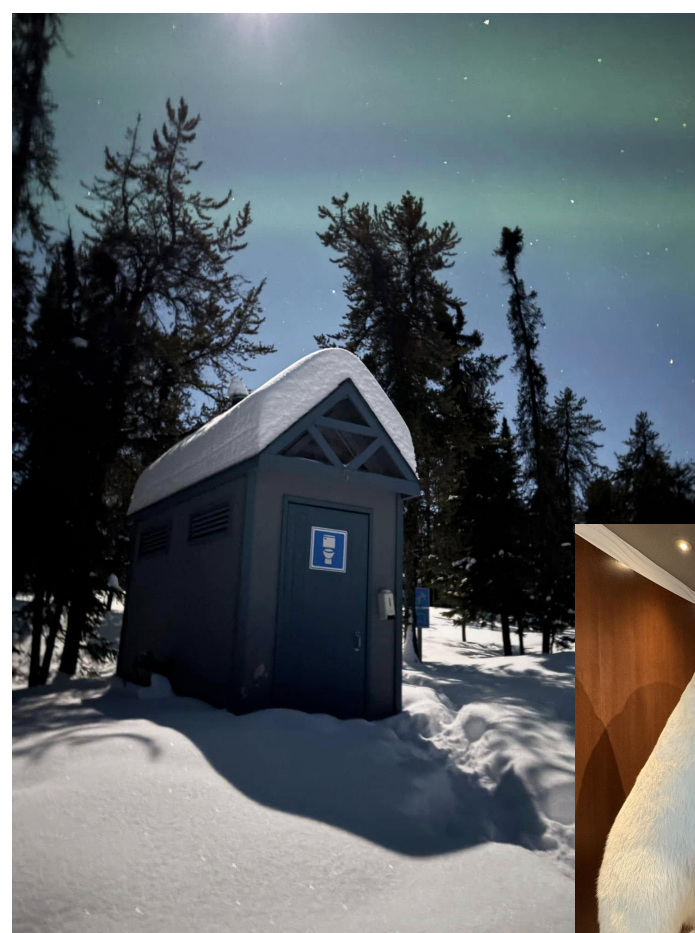


My Favorite?

Over 240 Nights
of Clear, Dark Skies

Outtakes!

... and The Most Stunning
Pitstop of My Life



Ice Roads of the Northwest Territories

Chasing the Aurora on the Ice Roads in -38F, -44F windchill



Photo by Cristiano Saturno
YELLOWKNIFE, CA

Now, for the Best Part

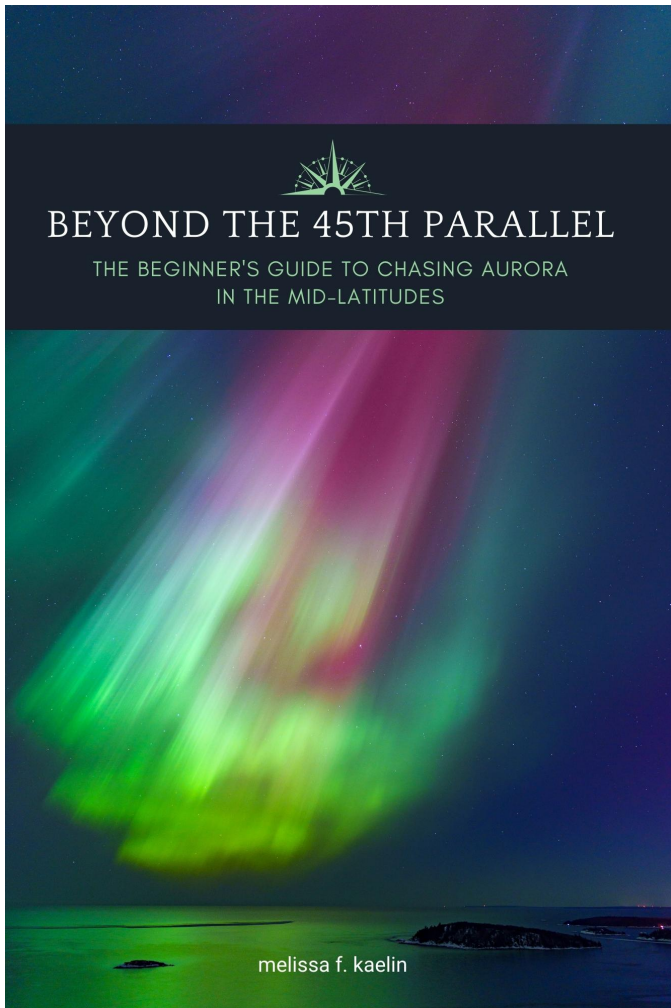
The greatest Aurora Chase &
chasing right here in Michigan

My Own Backyard

42.45° North, Michigan

Jen Mainka

Photo by Jen Boss Mainka



Thank you!

Books Sold Here! 1st & 2nd Edition

Beyond the 45th Parallel: The Beginners Guide to Chasing Aurora (\$16)

KaelinArt.com



A Guide for the Guide!

Join me on a journey around the world — from staying in a glass ceiling igloo to chasing Aurora at sea aboard a Hurtigruten ship. After three separate excursions to the Arctic Circle, I'll illustrate what it's like to chase painted skies in the northernmost corners of the world, while sharing dark sky advice and useful tips that can help you view the Aurora in any location.

We'll cover:

- Five Countries, Four States
 - Comparing 3 regions of the Arctic Circle
 - Advice for planning your trip
 - Location: City/Country, Drive out, Sensitive Nature & Sustainable Travel
 - Destinations Designed for Aurora Chasers
 - Tour types: Guided chases, locals, cruises, Road Scholar, Alumni Association, AHI
- Personalized Group Travel
- Deciding where to travel
 - Risks of the Road Less Traveled
 - Adventure stories: Dalton Highway, The Deadliest Catch