

A nighttime landscape photograph. In the foreground, a dark, silhouetted evergreen tree stands on the left. A body of water reflects the light from a bright source on a distant hill. The hill is covered in dark trees, with a very bright, glowing light source (likely the moon or a bright star) positioned just above the horizon line. The sky is dark blue with wispy, white clouds and numerous small, bright stars. The overall scene is serene and captures a celestial event.

Night Time Lapse Photography Saint John Astronomy Club

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Two Topics

- Time Lapse Photography

- Gear
- Settings
- Shooting
- Workflows
 - Planning
 - Applications
- Video
- Options
 - Night, HDR, Motion

- Astrophotography Time Lapse

- Photography at night
- Time lapse at night – what's different?
- Workflows
 - Planning
 - Applications

Time Lapse - Gear

- Tripod
- Intervalometer
- Filters (ND, Circular Polarizing)
- Motion Control
- Exposure Control
- Camera (DSLR, video) (Canon & Others) (Sensor Size Matters)
- Lenses (+ hoods)
- Battery Grip
- Memory (SD, CF)
- Plastic

Time Lapse - Settings

- Desired output?
- RAW versus JPEG
- Resolution pros & cons
- Power management

Time Lapse - Shooting

- Composition (still, moving)
- Design (# images, duration)
- Camera settings
 - aperture, shutter speed
 - ISO, intervals, focus
- Test shots +/- sequence
- Live view to focus

Time Lapse - Workflows

- Concept
- Pre-planning
 - Location scouting
 - Applications – Google Earth, Photographers Ephemeris (moon & sun)
 - Websites
 - Windfinder - http://www.windfinder.com/forecast/gardner_s_creek
 - Environment Canada - https://weather.gc.ca/city/pages/nb-23_metric_e.html
 - Fisheries & Oceans - <http://tides.gc.ca/eng/station?sid=65>
- Field work
- Post-production
 - Applications – Lightroom, LRTimelapse, Photomatix >> JPEGs
 - Applications – Photoshop CC
 - Applications – Adobe After Effects, Premiere Pro
 - Overall flow, music?

Time Lapse - Video

- Sometimes *video* is the starting point
- Or DSLR
- Or GoPro...
- Final output is a video
 - Dynamic
 - Insight & discovery

Time Lapse - Options

- High Dynamic Range (HDR)
- Motion
 - In-frame (using high resolution of DSLR)
 - Mechanical (more toys)
- Night-time time lapse
 - Astrolapse

Astrophotography – *Time Lapse Photography at Night*

- Workflows
 - More emphasis on pre-planning
 - Scouting in daylight
 - Applications
 - Google Earth, Photographers Ephemeris, **Stellarium**
- Websites
 - Same as previous *plus*
 - Clear Dark Sky - <http://cleardarksky.com/c/SntJhnNMBkey.html?1>

Astrophotography – Other Things

- It's dark
 - Know your camera
 - Lighting
 - To see your way
 - To see your gear
 - To illuminate your scene (light painting)
 - A spare!
 - Headlamps ROCK!
 - Higher ISO's
- It might be cold or wet or damp
 - Protection for you and your gear
 - Lens Warmers

Astrophotography – Settings

- All Manual
- High ISO –
 - up to 3200 on 6D & 60D
 - XTi (older crop sensor) likes daytime better
- Aperture is usually wide open (f/4 ok, f/2.8 better...)
 - Fast glass really helps
 - Some lenses have severe chromatic aberration (or coma)
- Shutter speed
 - Test shots to be sure
 - Up to 30 seconds for stars as points of light
 - rule of thumb – $600/\text{focal length}$ – eg $600/24\text{mm} = 24 \text{ seconds } +/-$
 - Longer for star trails

Tips & Tricks

- Mark sequence starts with your hand (or a light)
- Consider a checklist for your settings
- Plan ahead
- Learn from your experiments
 - Field lessons – what worked, what didn't?
 - Captures – even if it wasn't what you planned...
- Clean the sensor & lens

Useful References

- Websites I use:
 - Clear Dark Sky - <http://cleardarksky.com/c/SntJhnNMBkey.html?1>
 - Windfinder - http://www.windfinder.com/forecast/gardner_s_creek
 - Environment Canada - https://weather.gc.ca/city/pages/nb-23_metric_e.html
 - Fisheries & Oceans - <http://tides.gc.ca/eng/station?sid=65>
- Applications I use:
 - Lightroom, LRTimelapse, Photomatix, Photoshop CC
 - *Adobe Premiere Pro**, *Adobe After Effects**
 - Photographers Ephemeris, Google Earth, Stellarium
- Books I'd recommend:
 - Chylinski, Ryan. 2012. Time-Lapse Photography.
 - Wu, Jennifer. 2014. Photography: Night Sky.

Screen Shots

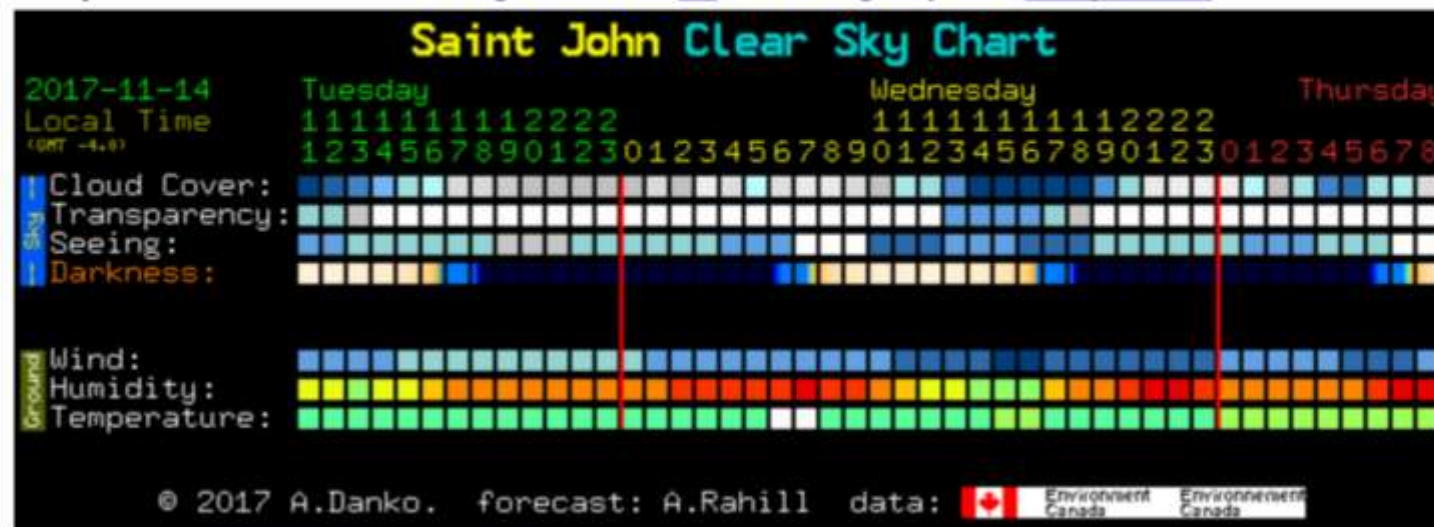
- Selected websites

<http://www.cleardarksky.com/c/SntJhnNMBkey.html?1>

Saint John Clear Sky Chart

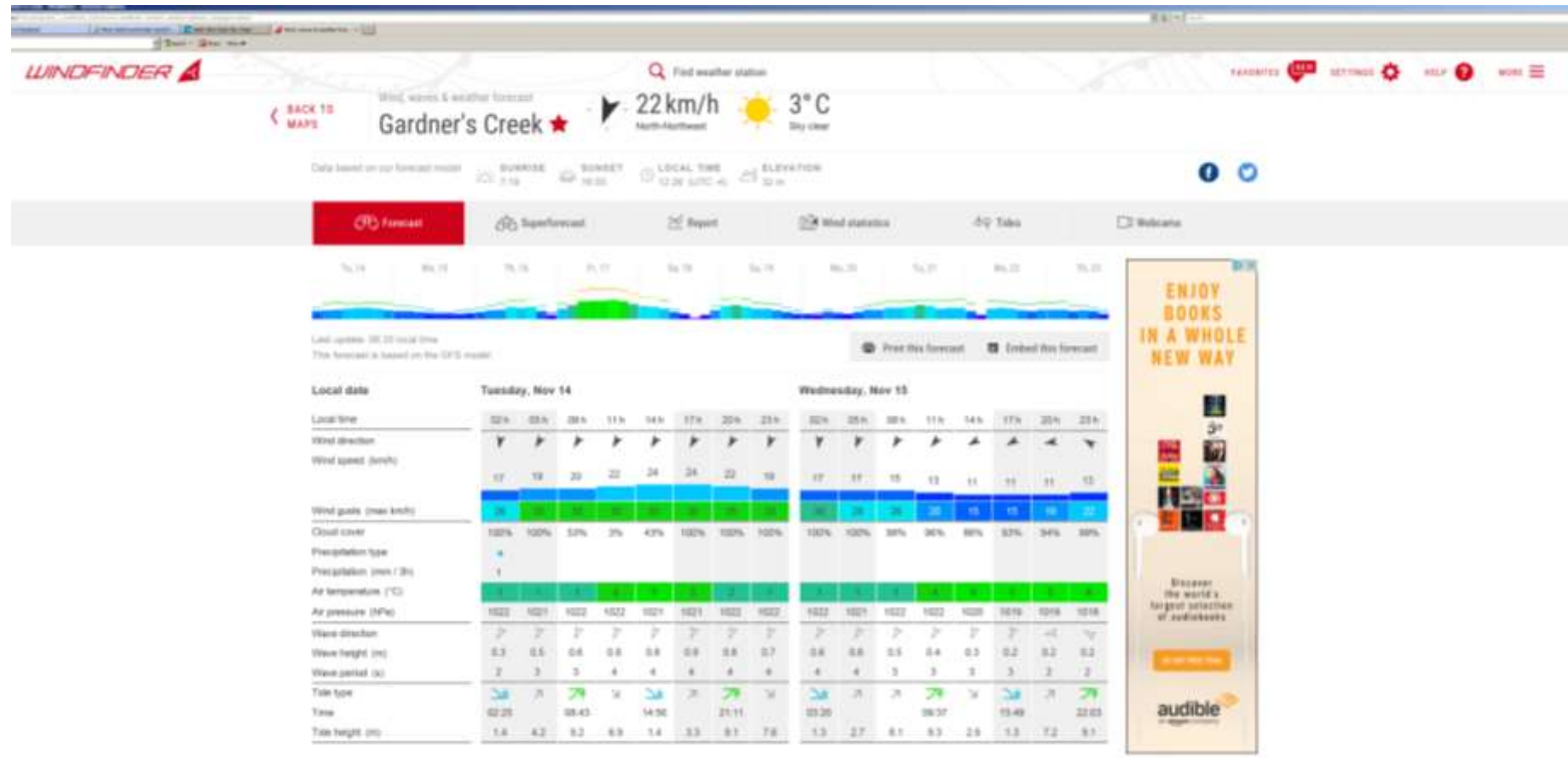
legend page

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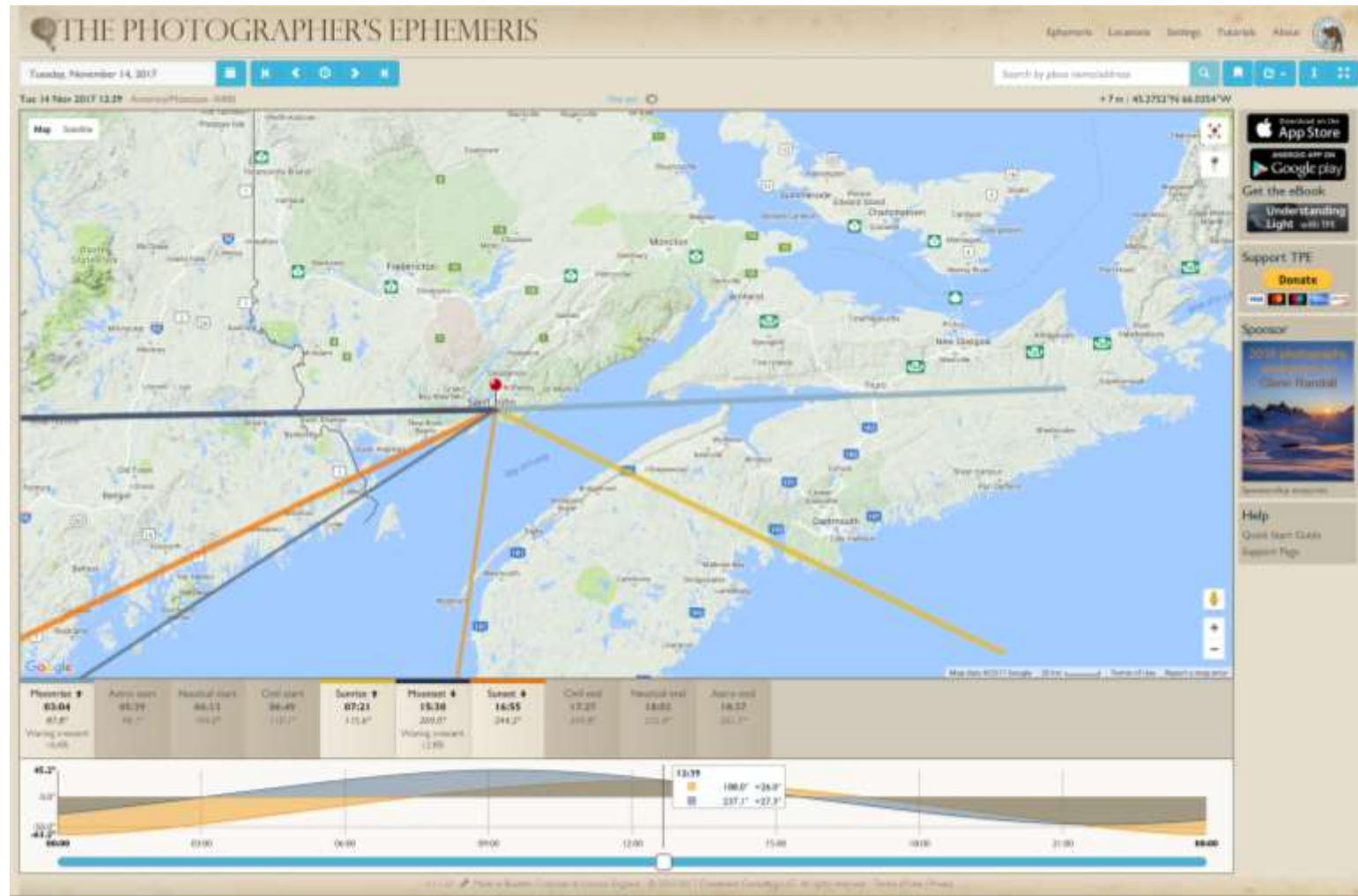


Home of the [Saint John Astronomy Club](#).

https://www.windfinder.com/forecast/gardner_s_creek



<http://app.photoephemeris.com/>



November 14, 2017

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A silhouette of a camera mounted on a tripod, positioned on a dark shore. The camera is pointed towards a calm body of water, which reflects the warm, orange and yellow light of a sunset. In the background, a dark, silhouetted forest line is visible against the bright horizon. The sky transitions from a deep blue at the top to a lighter orange near the horizon.

Questions?

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