

vIAD

How To Be An Urban Astronomer

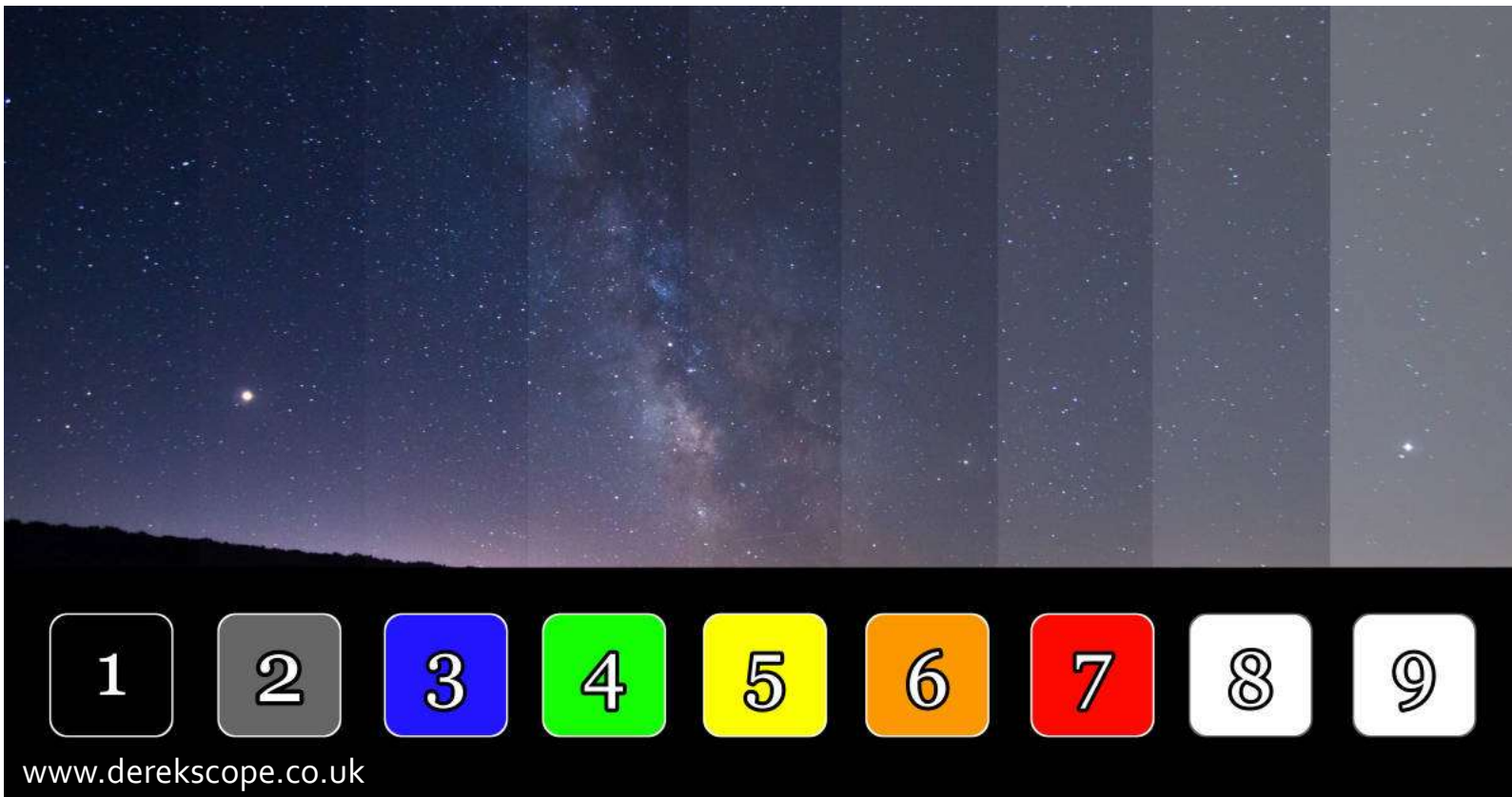
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Date: May 2021

Glimpse of an Urban Sky

Add image from my backyard

The Bortle Scale



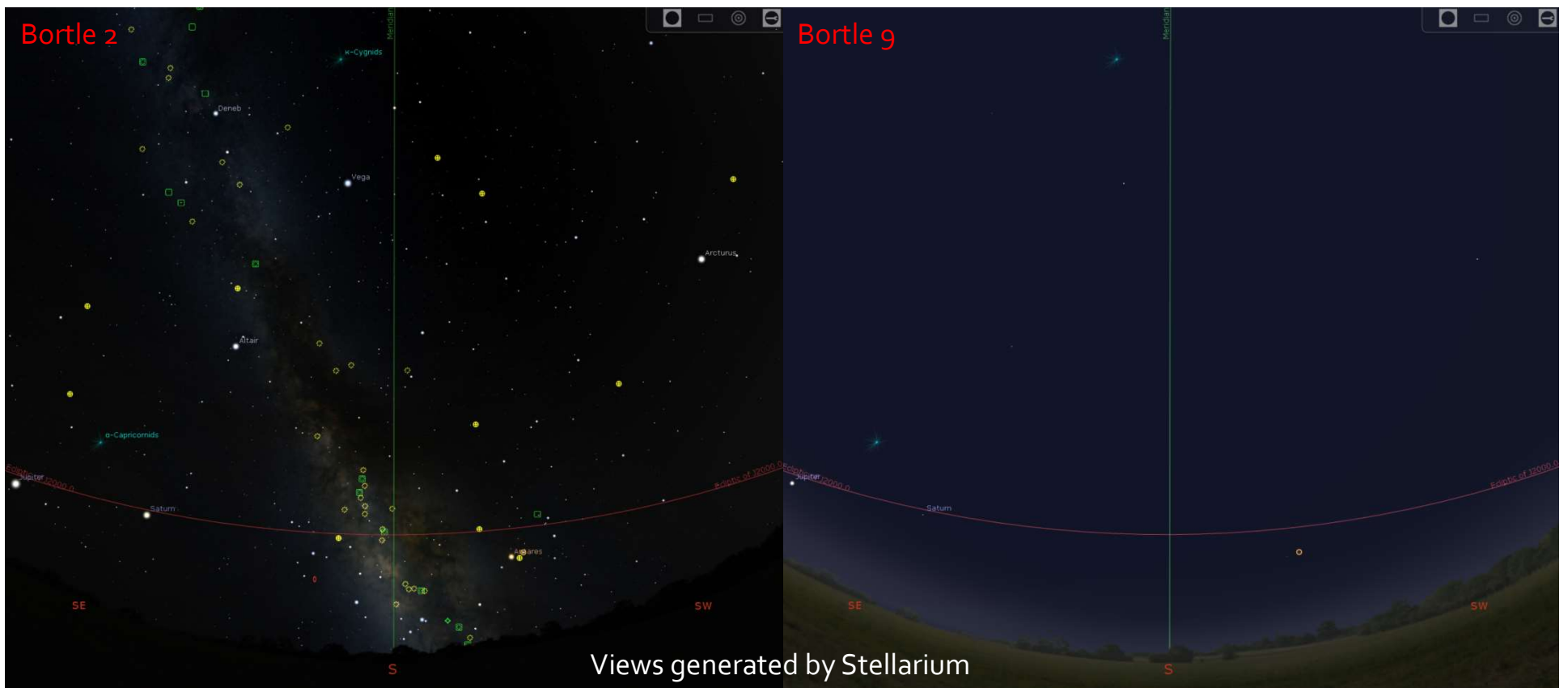
- Proposed by John Bortle in Feb. 2001 Sky & Telescope magazine
- Used to evaluate & compare observing sites

What's My Bortle?

Bortle	Title	Description	NELM*
1	Excellent dark sky	Milky Way casts shadow, lost in stars!	7.6-8.0
2	Typical dark sky	Milky Way striking, airglow visible	7.1-7.5
3	Rural sky	Faint light domes, more naked eye objects	6.6-7.0
4	Rural/suburban sky	Light domes, many stars, bright objects	6.1-6.5
5	Suburban sky	Glow on horizon, Milky Way clearly visible	5.6-6.0
6	Bright suburban	Horizon grey, Milky Way just barely visible	5.1-5.5
7	Suburban/urban sky	Light grey sky, star clusters, bright objects	4.6-5.0
8	City sky	Grey sky, make out some constellations	4.1-4.5
9	Inner-city sky	Bright sky, few stars, Moon & planets	<4.0

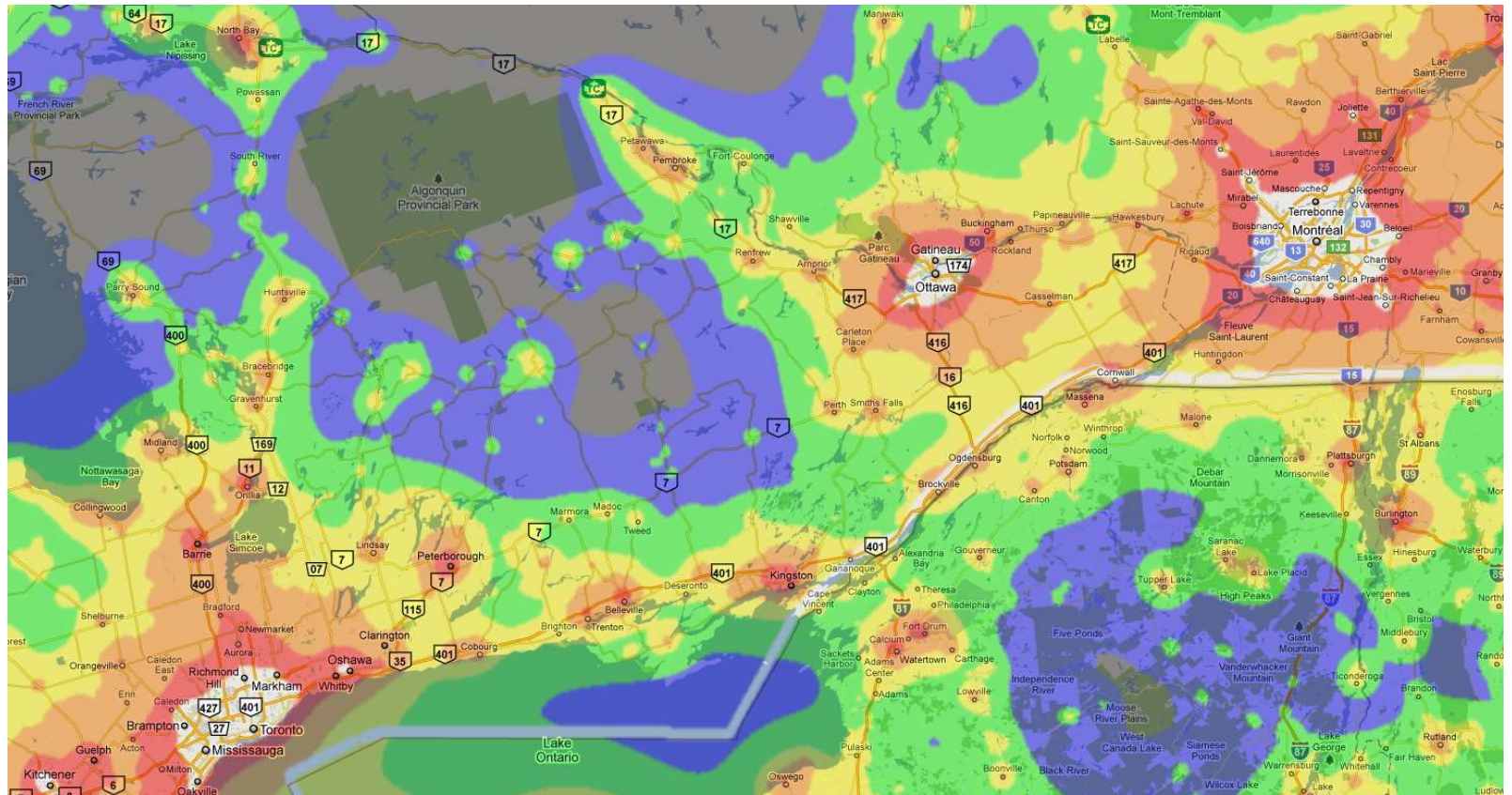
*NELM = Naked Eye Limiting Magnitude

Can You See The Difference?



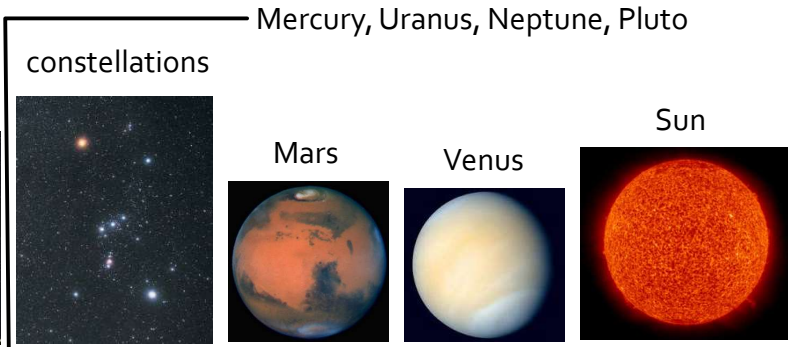
Eastern Ontario Skies

- Lots of resources online
- Satellite data used to create dark sky maps
- Ottawa is Bortle 8-9
- 90min drive to Bortle 2



Urban Sky ≠ Give Up

not
observable*

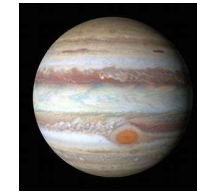
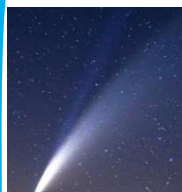


observable, but...
(not great)*

easily observable (binoculars, telescope)

DIM

BRIGHT



faint galaxies

comets

planetary
nebulae

globular clusters

open clusters

Saturn

Jupiter

Moon

Secret Weapon #1: Filters

Filter Impact Example

Secret Weapon #2: EAA

EAA Impact Example

How Far Down The Rabbit Hole?