

# National Park Service - Island Astronomy Institute

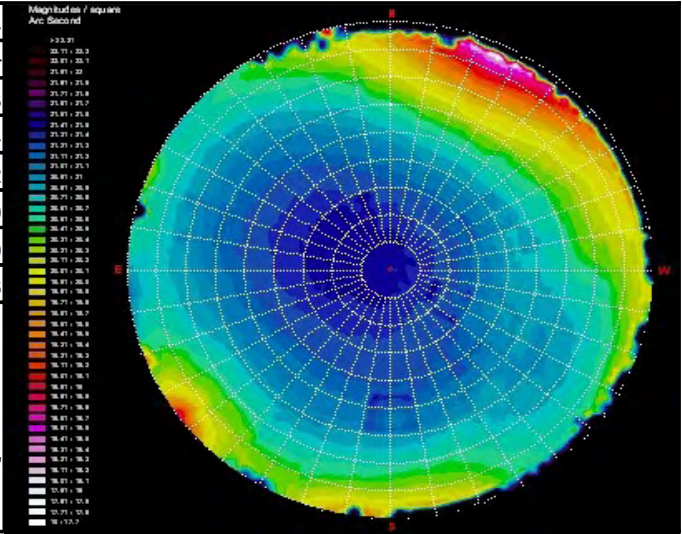
## Night Sky Quality Monitoring Report



Report date: 3/27/2008 by: Jim Cormier

<b>PARK:</b>	Acadia	<b>EQUIPMENT:</b>	am#2,35mm, Bessell V Band #6084
<b>SITE NAME:</b>	Acadia Gateway Center	<b>OBSERVERS:</b>	Jim Cormier
<b>LONGITUDE:</b>	-68.37	<b>AIR TEMP (°F):</b>	33
<b>LATITUDE:</b>	44.47	<b>REL HUMID (%):</b>	64
<b>ELEVATION (m):</b>	10	<b>WIND SP (mph):</b>	2
<b>DATE (UT):</b>	March 27, 2008	<b>CCD TEMP (°C):</b>	-10
<b>TIME START (UT):</b>	1:02:36	<b>EXP (seconds):</b>	10
<b>DATA QUALITY:</b>	Very Good	<b>BORTLE CLASS:</b>	4.5
		<b>ZLM:</b>	6

**NARRATIVE:** Airport runway light were on during both runs, rotary beacon (due south) is on all night. Snow cover is limited to melting banks. Route 3 traffic 150 yards due east. Traffic was moderate. Transparency was good and light domes were minimized. Skies darkest to the east. Magnitude limit at zenith was 6th magnitude, SQM reading ranged from 21.00 at beginning of first run to 21.18 at end of second. Milky Way was evident near zenith and toward the south horizon, alongside Orion and into northern Canis Major. Zodiacal light was visible upon the end of astronomical twilight, prior to the data collection. Survey performed for Friends of Acadia.



### SKY BRIGHTNESS DATA

Data Set Number	Time (UT)	Extinction coefficient (mag/air-mass)	Std Err Y Extinction Stars (mags)	Zenith (mag/sq arc-sec)	Whole Sky (mags)	Sky Above 20° Altitude (mags)	Brightest (mag/sq arc-sec)	Darkest (mag/sq arc-sec)	Link to Sky Maps
1st Start	1:02:36			21.43					<a href="#">PAN</a>
End	1:32:23	0.253	0.046	21.42	-7.88	-7.10	18.32	21.52	<a href="#">HEMI</a>
2nd Start	1:35:26			21.46					<a href="#">PAN</a>
End	2:05:14	0.264	0.044	21.48	-7.83	-7.06	18.38	21.59	<a href="#">HEMI</a>
3rd Start									
End									
4th Start									
End									
5th Start									
End									
6th Start									

### LIGHT DOME DATA

City	Distance (km)	Azimuth	1st Data Set Brightness (mags)
Ellsworth	10	320.0	-7.33
Lamoine	2	65.0	-2.12
Bar Hbr Biolab	1	128.0	-4.53
HC Airport / Trenton	4	172.0	-4.96
Total			-7.40

