

Pérdida de la oscuridad nocturna y la astronomía amateur en Puerto Rico



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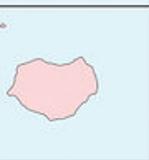
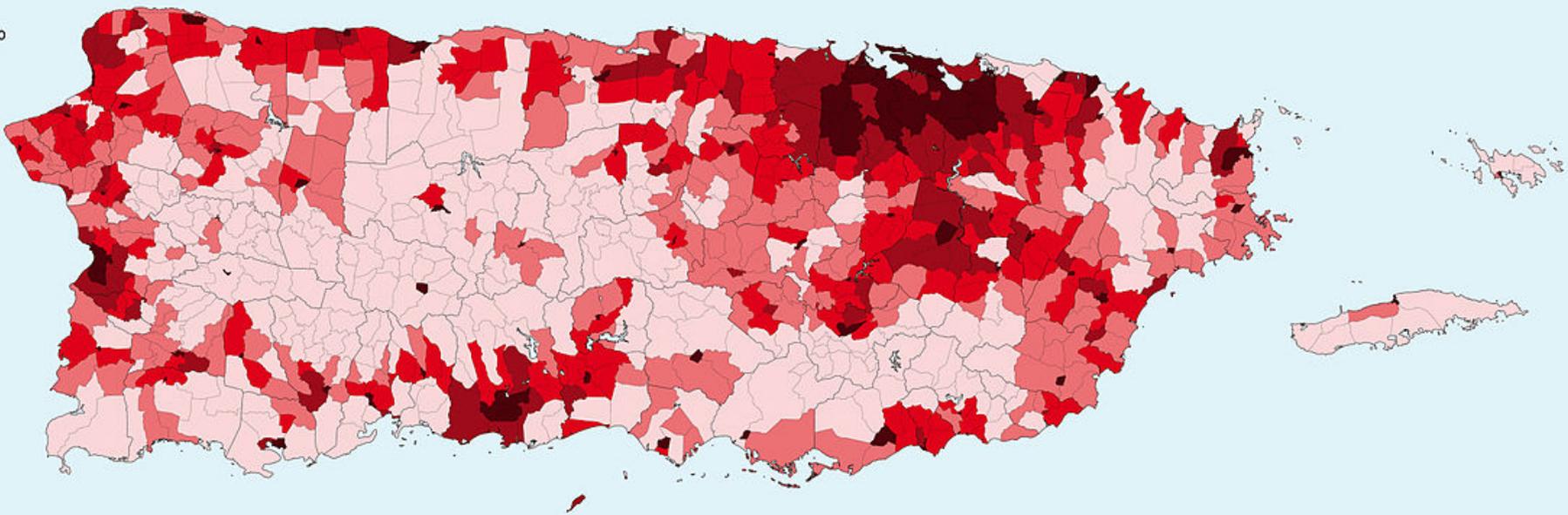
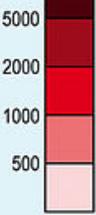




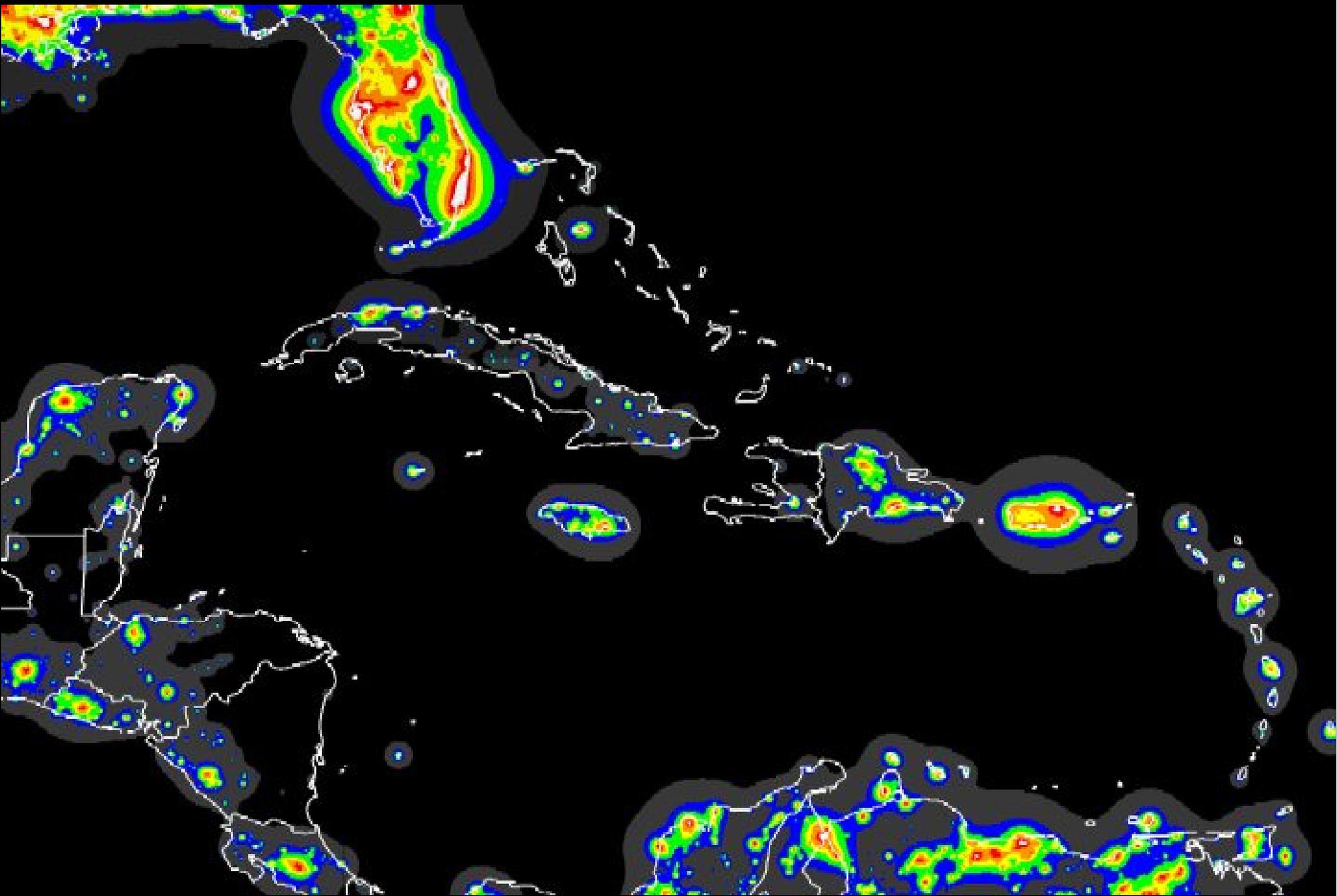


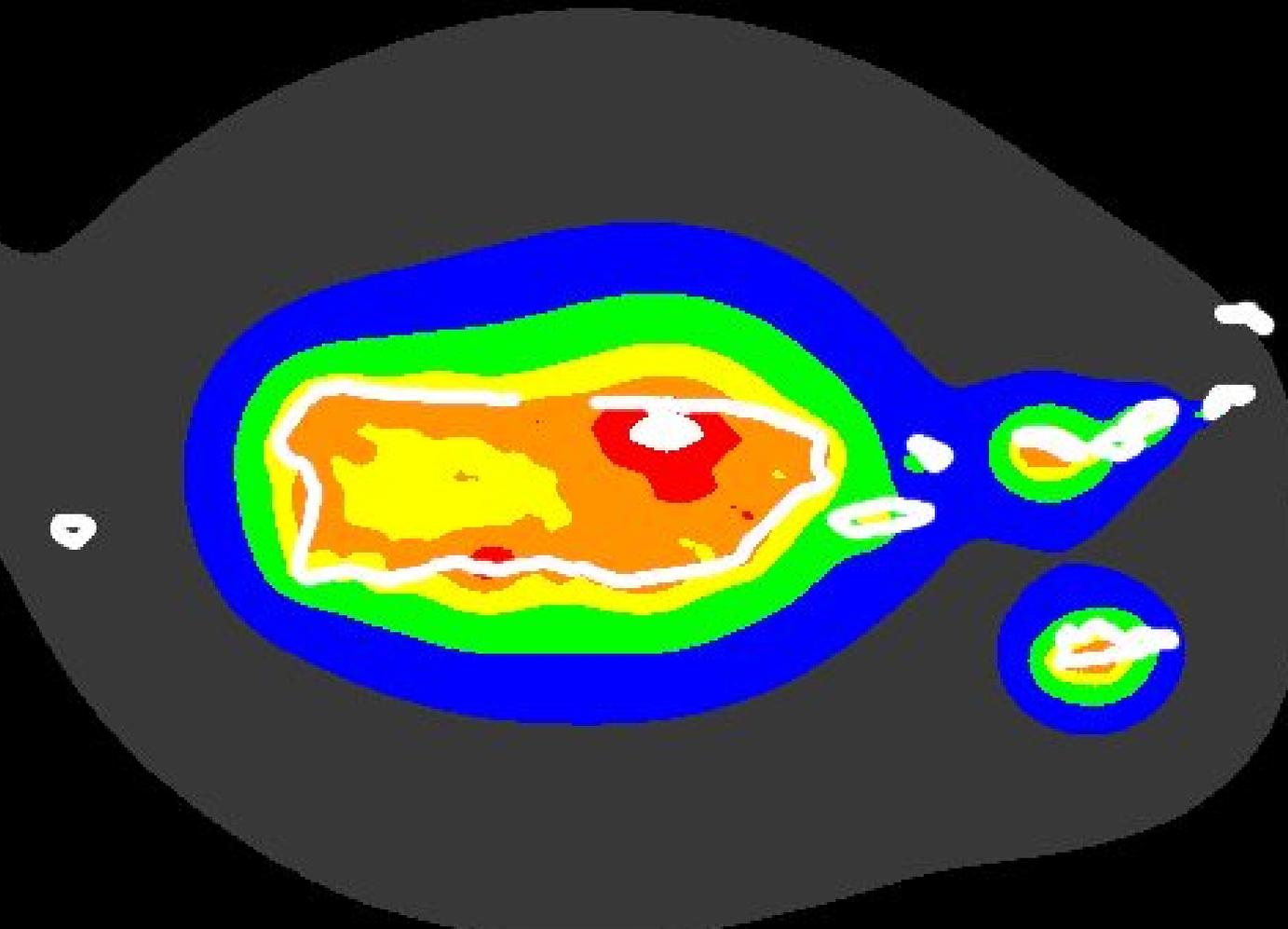
Population Density of Puerto Rico
(2000 Census)

Inhabitants
per square mile

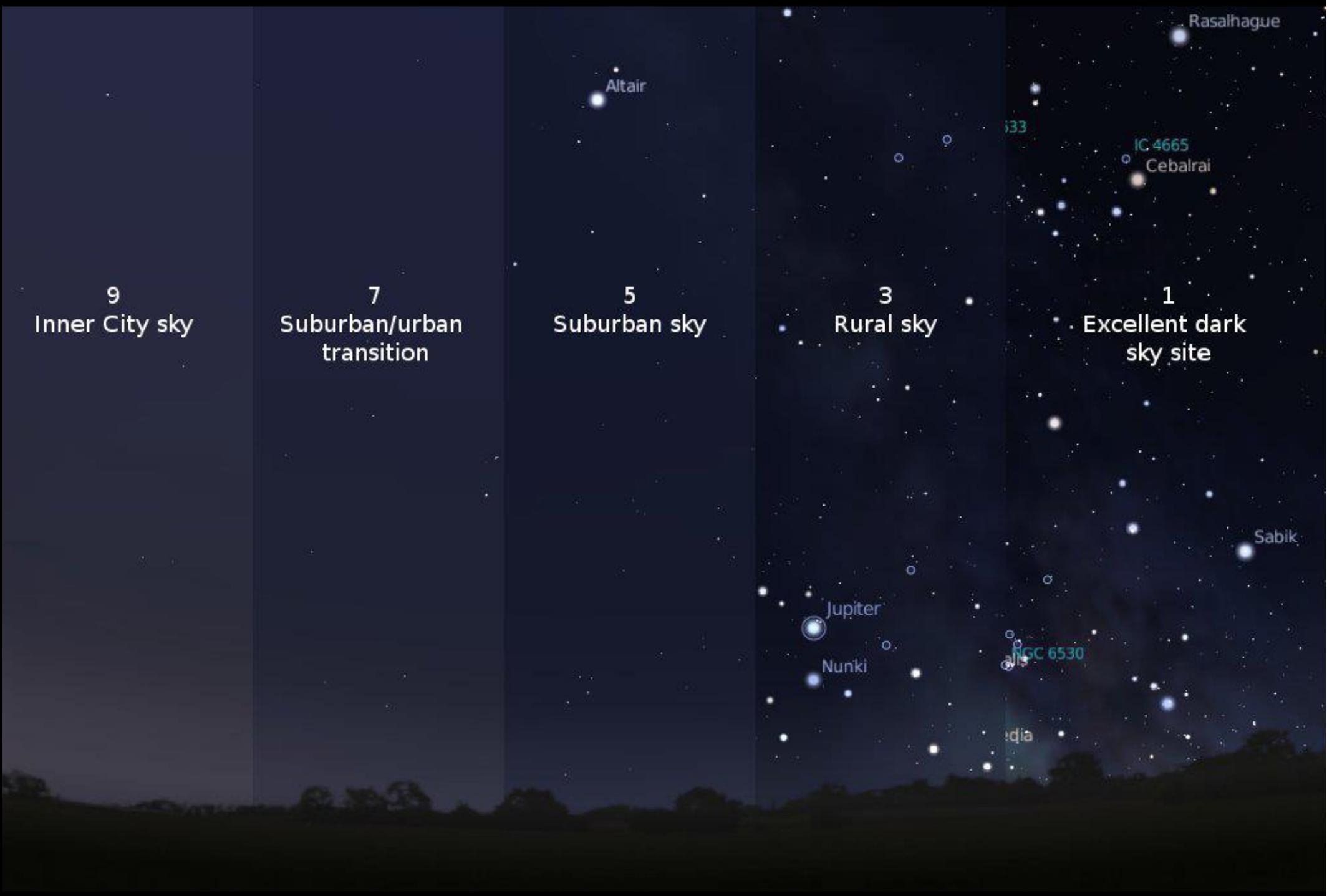


| Class | Title | Color key | Naked-eye limiting magnitude | Stellar limiting magnitude (with 12.5" reflector) | WWW.Wikipedia.COM Description |
|-------|--|-----------------|------------------------------|---|---|
| 1 | Excellent dark-sky site | black | 7.6–8.0 | 19 at best | Zodiacal light, gegenschein, zodiacal band visible; M33 direct vision naked-eye object; Scorpius and Sagittarius regions of the Milky Way cast obvious shadows on the ground; airglow is readily visible; Jupiter and Venus affect dark adaptation; surroundings basically invisible. |
| 2 | Typical truly dark site | gray | 7.1–7.5 | 17 at best | Airglow weakly visible near horizon; M33 easily seen with naked eye; highly structured summer Milky Way; distinctly yellowish zodiacal light bright enough to cast shadows at dusk and dawn; clouds only visible as dark holes; surroundings still only barely visible silhouetted against the sky; many Messier globular clusters still distinct naked-eye objects. |
| 3 | Rural sky | blue | 6.6–7.0 | 16 at best | Some light pollution evident at the horizon; clouds illuminated near horizon, dark overhead; Milky Way still appears complex; M15, M4, M5, and M22 distinct naked-eye objects; M33 easily visible with averted vision; zodiacal light striking in spring and autumn, color still visible; nearer surroundings vaguely visible. |
| 4 | Rural/suburban transition | green yellow | 6.1–6.5 | 15.5 at best | Light pollution domes visible in various directions over the horizon; zodiacal light is still visible, but not even halfway extending to the zenith at dusk or dawn; Milky Way above the horizon still impressive, but lacks most of the finer details; M33 a difficult averted vision object, only visible when higher than 55°; clouds illuminated in the directions of the light sources, but still dark overhead; surroundings clearly visible, even at a distance. |
| 5 | Suburban sky | orange | 5.6–6.0 | 15 at best | Only hints of zodiacal light are seen on the best nights in autumn and spring; Milky Way is very weak or invisible near the horizon and looks washed out overhead; light sources visible in most, if not all, directions; clouds are noticeably brighter than the sky. |
| 6 | Bright suburban sky | red | 5.1–5.5 | 14.5 at best | Zodiacal light is invisible; Milky Way only visible near the zenith; sky within 35° from the horizon glows grayish white; clouds anywhere in the sky appear fairly bright; surroundings easily visible; M33 is impossible to see without at least binoculars, M31 is modestly apparent to the unaided eye. |
| 7 | Suburban/urban transition or Full Moon | red | 4.6–5.0 | 14 at best | Entire sky has a grayish-white hue; strong light sources evident in all directions; Milky Way invisible; M31 and M44 may be glimpsed with the naked eye, but are very indistinct; clouds are brightly lit; even in moderate-sized telescopes the brightest Messier objects are only ghosts of their true selves. At a full moon night the sky is not better than this rating even at the darkest locations with the difference that the sky appears more blue than orangish white at otherwise dark locations. |
| 8 | City sky | white | 4.1–4.5 | 13.5 at best | Sky glows white or orange—one can easily read; M31 and M44 are barely glimpsed by an experienced observer on good nights; even with telescope, only bright Messier objects can be detected; stars forming familiar constellation patterns may be weak or completely invisible. |
| 9 | Inner-city sky | white | 4.0 at best | 13 at best | Sky is brilliantly lit, with many stars forming constellations invisible and many weaker constellations invisible; aside from Pleiades, no Messier object is visible to the naked eye; only objects to provide fairly pleasant views are the Moon, the planets, and a few of the brightest star clusters. |





| Color | Bottle* Class |
|--------|------------------|
| | 1 |
| Grey | 2 |
| Blue | 3 |
| Green | 4 |
| Yellow | 4.5 |
| Orange | 5 |
| Red | 6,7 |
| White | 8,9 |



9
Inner City sky

7
Suburban/urban
transition

5
Suburban sky

3
Rural sky

1
Excellent dark
sky site

Altair

Rasalhague

IC 33

IC 4665
Cebalrai

Sabik

Jupiter

Nunki

NGC 6530

Alnilam





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