



V. TRAVEL TIPS

VI. FEATURE - The Green Flash [by Lt. Jan Curtis, USN]

(Ed. Note: The author knows whereof he speaks -his Green Flash prints are excellent! They are the largest green areas vis-à-vis the sun that I have seen, including a review of the August 1980 "Weatherwise" and Clouds of the World. Jan is also an accomplished astronomical photographer and proudly uses an f/1.5 Astro camera, one of only about 50 in the country. His time lapse star fields, both stationary and synchronous, are stunning, showing more colors in the stars (temperature variations) than I thought, possible. He's also done beautiful solar flare coronas and eclipses.)

When the sun descends below a sea horizon or very distant mountains, the last visible bit of the solar disk sometimes briefly appears to the naked eye as a vivid green. Among amateur observers who live in mid-northern latitudes, this green flash phenomenon has the reputation of being fairly rare. On the other hand, it, is frequently noted by persistent observers in favorable locations, such as the Rocky Mountains, the Alps, the Andes, and tropical seas.

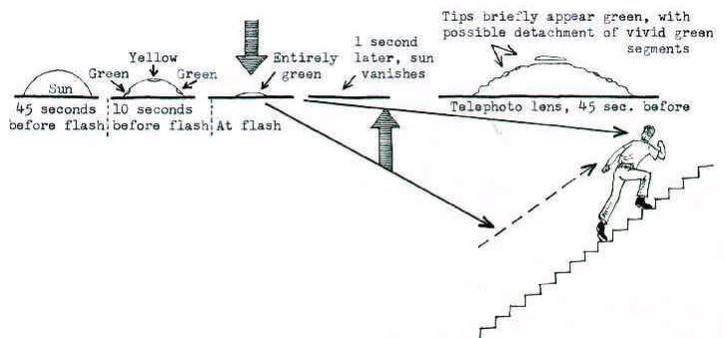
The conditions which lend themselves to the formation of the green flash are radiation and refraction. Since these two physical properties are inherent to the earth's atmosphere, the green flash isn't really that unique. The following steps are given to aid the most casual observer of the green flash:

(1) Pollution from large cities reduces the chances of witnessing the flash to zero. The reason for this is simply because the micro-particles suspended in the air act to absorb the spectrum of colors in all but red light. So if you see the horizon take on a dull red hue before sunset, , don't waste your time trying to see the flash.

(2) Any sharply defined object in the distance (even a cloud) can act to magnify the green flash effect. Don' try to watch the sun until the very last moments before it sinks below the horizon. The sun will normally be 10,000 times brighter than the full moon. 'While you probably won't become blinded by looking at the sun very close to the horizon, the after image that would be temporarily burned into your optic nerve (similar to a photographer's flash bulb going off) has a distracting effect.

(3) If you attempt to photograph the green flash, use a telephoto lens equivalent to a 400mm focus or greater. A tripod and autowinder are a must. Stopping down your lens to f/16 or greater, you should be able to see the last quarter of the sun take on green segments at each of the extremities, with this green color gradually shifting towards the center of the dwindling, segmented sun. See diagram below.

(4) Observe from a hill, if possible. This will enable you to prolong the flash, if it occurs. Several years ago I viewed the green flash from the steps of the State Capital Building in Salt Lake City. As soon as I saw the green rim of the sun, I started moving up the steps in order to keep the last glimpse of sun above the horizon. The successful experiment lasted 10 seconds! Just as good; if there are several people watching the flash at different levels along a hill, have them shout out if they see the flash. You should have 10 seconds lead time to ready yourself for the quick display.



(5) Yes, the green flash can be viewed at sunrise. However, one must know where the exact position of the sun is, and -anyway- who wants to get up that early.

For those who are interested in more information about, the green flash, I recommend two excellent books on the subject: (a) The Nature of Light and Colour in the Open Air by M Minnaert (Dover, Pub. 1954); and (b) The Green Flash and Other Low Sun Phenomena by D. J. K. O'Connell, S. J., (Interscience Pub., New York, 1958).

(Ed. Note: As is usual, the May 31 issue will be delayed while I am out west with you, chasing the elusive and dangerous plains tornadoes. Good luck!)