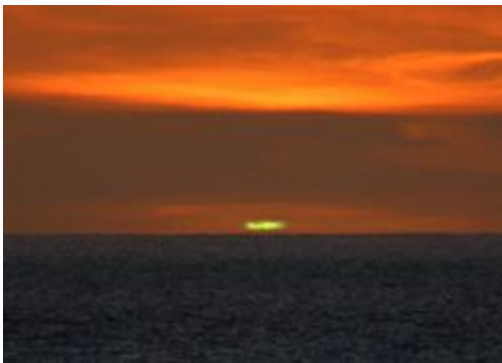


When the sun sets, it turnsgreen!

G.P. Können, Terschelling Diary 2006/1

This effect, which was 70 years ago dismissed by some as being nonsense, can regularly be seen from our coast. The conditions have to be favorable, though. Required is a transparent sky: the brighter the setting sun shines, the better it is. Hence if in our climate the wind blows from north or northwest and transports polar air to us, the chances are greatest. Conversely when the setting sun turns very red, which is standard in the subtropics and occurs in our place when the wind blows from south, you can forget about it: the so-called 'green flash' will not show up.



The very last part of the setting sun turns green. It is a transient phenomenon: it usually lasts no longer than about one second. Picture taken on 31 March 2003 by the German observer Florian Schaaf (www.florianschaaf.de) in De Panne on the Belgian North Sea coast

The best place to chase the green flash is on the beach close to the sea, but a position on the dunes is not too bad either. Be prepared that the flash is of short duration: typically less than one second. Crucial for the observation is to carefully follow the very last part of the setting sun: just before it disappears, its color may turn into grass-like green! Don't give up when no effect seems occur: keep watching and the green flash may still decide to show up. A device that helps is a binocular, which can show the green color of the sun's upper part a bit earlier. Concentrate your view on the upper limb, but do not point your binocular to the sun until it is halfway below the horizon – otherwise your attempt may become your very last visual observation.

Finally, two hints for the more advanced observers:

- When the setting sun travels through an inversion layer, part of the solar image may become cut off and standing free from its main disk. In extreme cases, there can be three or more loose elements above the sun. They consequently turn green before they disappear. This results in an extended visibility of the green flash.
- When long swell is present on the sea and you are standing close to the waterline, the green flash may appear twice: the apparent horizon is nearby (less than 5 km) and undulates up and down, causing the sun to set two times.

See also:

<http://www.sundog.clara.co.uk/atoptics/gf1.htm> (Les Cowley's website)

<http://mintaka.sdsu.edu/GF/pictures.html> (Andrew Young's website)