

## LETTER TO THE EDITOR

### COMMENT ON "FIRST OBSERVATION OF A GLORY FROM SPACE"

Israelevich et al. described the observation of a glory from an altitude of 278 km on 28 January 2003 by a Xybion radiometric camera onboard the space shuttle *Colombia* (Israelevich, P. L., J. H. Joseph, Z. Levin, and Y. Yair, 2009: First observation of a glory from space. *Bull. Amer. Meteor. Soc.*, **90**, 1772–1774). They claimed this to be the first observation of this optical phenomenon from space.

However, glories can also be observed from 705 km on satellite imagery in natural colors, as available from the MODIS instrument on the satellites *Terra* and *Aqua* and from the SeaWiFS instrument on the *OrbView-2*. As the *Terra* is flying since 1999 and the *OrbView-2* since 1997, the phenomenon

might have been observed from space prior to the reported case in 2003.

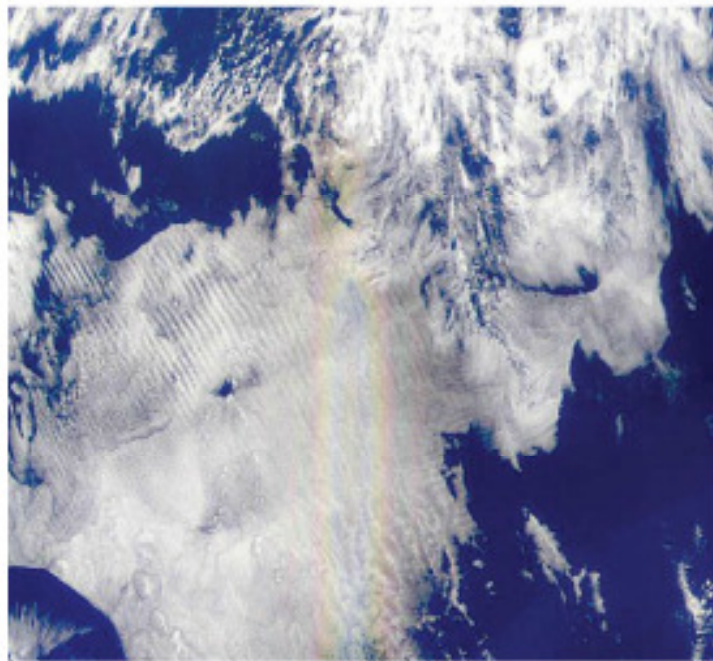
The Xybion radiometric camera observed the glory as a ring. However, since MODIS and SeaWiFS scan the Earth surface and the clouds above it in swaths perpendicular to the projection of the path of the satellite, the glory

will not be observed as a circle in this case.

Instead each swath gives a horizontal cross section through the glory circle, containing two colored areas at the positions where the swath meets the rings of the glory. Contributions of several swaths will result in two colored bands parallel to the projection of the path of the satellite.

This described pattern indeed can be seen on a SeaWiFS image of 28 December 1999, more than three years before the *Colombia*-observed a glory. Therefore it is possibly the first observation of a glory from space. Three more glories observed from space by MODIS before 2003 can be found online, among more recent examples, at <http://rapid-fire.sci.gsfc.nasa.gov/gallery/?search=glory>.

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**Possibly the first observation of a glory from space, 28 December 1999, by SeaWiFS on the satellite OrbView-2. The centre of the scene is about 1700 km due west of the Galapagos. Source: NASA/GSFC SeaWiFS Project/Visible Earth.**