

METEOR and FIREBALL NOTES

Edited by Tony Markham

2013 Mar 30 Fireball/Bright meteor

Two reports (see below) of this fireball have been received. In addition, several reports were posted on-line. All reports, other than that of Alex Pratt, were from Manchester or Cheshire, suggesting that this was the only area with significant clear sky at the time.

Alex Pratt (Leeds)

My video system was affected by substantial cloud cover, but I captured a mag -2 meteor on 2013 Mar 30 at 00:39:12.9 (through a gap in the clouds) up to 00:39:14.5 UT. It was obscured again until brief reappearances at 00:39:17.2 and 00:39:17.8 (see image below left). Note, however, that the very slow angular speed of this meteor has affected video and visual measures of its brightness, so it could have been brighter than mag -5.

William Stewart (Ravensmoor, Cheshire) also captured this event (see image below right) on his video system at 00:39:08.7 UT. It exited the camera's FOV at 00:39:17.7; a duration of 9s. Peak brightness was estimated as mag -3.5.

We estimate the full duration of the meteor to be 00:39:08.5 to 00:39:18.0, i.e. 9.5s.

The meteor had a solar system orbit in the plane of the ecliptic, with an inclination of 5 degrees and a slow geocentric velocity of 6 km/s. We will publish further details of our 2-station analysis of this curious object on our website <http://www.nemetode.org/>

**Triangulation:**

A provisional analysis with UFO Orbit suggests that the object travelled from ENE to WSW. It was detected at a height of about 75km and extinguished at an altitude of 45km, having a ground track of 85km.

An observer in Leicester would have seen it pass overhead, with an absolute magnitude of -3. Such a slow passage across the sky would have made it look much brighter.

