

Southern African Fireball Observations 2007/8

T P Cooper (Director, Comet and Meteor Section)

Catalogue of Recent Sightings

This article continues the sequential numbering of reported fireball sightings from southern Africa, and covers fireballs observed during 2007 and 2008. By definition, a fireball is any meteor event with brightness equal to or greater than visual magnitude -3. The following events were reported to the author and details are reproduced as given by the observer. All times were converted to UT and all coordinates are for epoch J2000.0.

Event 198 – 2007 January 9 – Sandton, Gauteng

Reported by Trevor Gould. Observed by David Gauchard at 19h56. $m_v = -4$. Colour white, becoming orange-white, increasing in size, no trail. Path from close to zenith, heading west to east, fading out 45° above eastern horizon.

Event 199 – 2007 February 6 – Piketberg and Stellenbosch, Cape

Observed independently by Melanie Glass and Vasili Champanis. Melanie commented about 11pm SAST, shot low over the house like a firework rocket, but no sound, bright round ball with a long tail. Vasili reported 20h52, very bright like a flare, colour white and path approximately from 12h30, -06° to 08h00, +04°.

Event 200 – 2007 March 9 – Kirstenbosch, Cape

Observed by Dudley Field at 19h56. $m_v =$

-6. Colour green, duration 2 seconds, travelled from Corvus through Leo.

Event 201 – 2007 March 13 – Universitas, Bloemfontein, Free State

Observed by Gerrit Penning at 18h10. $m_v = -4.5$. Colour yellow-orange with bright white core. Duration 1-2 seconds before passing below roof of the house. He commented 'I was alone outside doing some satellite photography and deep sky with the telescope, and had just finished photographing an Iridium flare when I saw the bright streak. First position where I saw it was about 15 degrees altitude, just below alpha Centauri, travelling south-east after which it disappeared below the roof about 12 degrees altitude. Azimuth start: ~150 degrees, disappearing behind roof ~140 degrees in Lupus'.

Event 202 – 2007 April 9 – Dainfern, Gauteng

Observed by Cedric Loe at 16h10. $m_v = >-4$. Travelling south from Dainfern on William Nicol highway, bright, fast object towards south-east horizon which it appeared to hit, duration 2 seconds. Said to be brighter than the moon (not visible at the time).

Event 203 – 2007 May 3 – Diverse observing sites

This object was reported by no less than ten independent observers. A separate report appeared in *MNASSA* (66, 9&10, Oct 2007,

204) summarising those reports received by the director. While all of these were from members of the public and somewhat discordant, the most probable details are 16h27 UT, direction north to south extending from Pretoria to Natal Drakensberg, duration between 10-30 seconds, orange or red colour with tail, broke into two pieces before fading.

Events 204 and 205 – 2007 June 29 – near Villiers, Free State

Observed by Tamlyn and Glyn Gould at 20h28 from car travelling north on N3 freeway, east of Villiers. m_v = brighter than Venus. Colour white, 11 o'clock position, fell vertically for about 15 degrees. Left a trail. Followed by event 205 at 21h10, just before Toll Plaza in Villiers, travelling W, position 1 o'clock. Higher than previous sighting. Brighter than previous. Fell all the way to horizon. Could be seen for about 2 secs. Also fell vertically. Also white. Glyn thought it looked like two pieces falling.

Event 206 – 2007 July 3 – Francistown, Botswana

Observed by Sandy Welsh at 17h45. Appeared to the north of the town, 60° above the horizon, short trail and appeared to be leaving fragments as it travelled almost vertically downwards, terminal explosion with a blinding flash of light. Before the explosion the object was about twice as bright as Venus, so perhaps m_v = -6. The explosion was said to be like a flash of lightning, lighting up the sky and surrounding clouds. Duration was about 3 seconds.

Event 207 – 2007 July 10 – Rondebosch, Cape

Observed by Guy Midgley at 17h45. He commented 'travelling on the N2 into Cape Town, nearing Rondebosch Golf Course, bright fireball fell vertically in front of me, directly over Devils Peak, about ten times brighter than Venus (so perhaps m_v = -8), and left a long trail, travelling very fast'. Duration about 1 second, colour white with orange tail.

Event 208 – 2007 July 14 – Cederberg, Cape

Observed by Cliff Turk at 16h52. m_v = -5. Path from 08h30, -68 to 16h00, -70. Colour yellow becoming white, duration 2 seconds, no fragmentation or persistent train. The object was independently observed by Ms J Cooke from Somerset West who reported the same time to Cliff but no further details.

Event 209 – 2007 August 1 – Sutherland and Van Wyksvlei

Observed by Nathan Honey while standing at his front gate, bright object trailing smoke falling approx. 30° east of north, and disappeared 8° above the horizon. Nathan believes he hear a sound like 'a burning fuse' coinciding with the event. Mr Moolman in the Van Wyksvlei area saw it while driving south from the farm Pietersrust to the farm De Riet as a burning object leaving a trail in the direction of De Riet. It disappeared before it reached the horizon.

Event 210 – 2007 August 17 – Montagu, Cape

Observed by Koos van Zyl at 02h38. m_v

= -5. Colour white, started in Monoceros, brightening quickly and ending with a terminal flash in Sculptor. Path 50° on the line between Rigel and Fomalhaut

Event 211 – 2007 November 19 – Philadelphia, Cape

Observed by Dudley Field at 01h11. $m_v = -4$. Colour white. Duration 1-2 seconds, from direction of Carina towards Orion, seen during watch on the Leonids.

Event 212 – 2007 December 16 – Breede River, Cape

Observed by Steve Searle and five members of his family at 20h14, from a boat on the river travelling in a southerly direction. Flash lit up the scene in front of the boat, duration 4 seconds. The path was from azimuth 100° to 190° , descending at an angle of $30-35^\circ$. Colour changed from white, through green, then red and back to white. Finally fragmented into 5 pieces before burning out and leaving a persistent train for 5 seconds.

Event 213 – 2007 December 30 – Kala-gadi Transfrontier Park, Cape

Observed from Garagab Camp by Fran and Steve Newby at about 20h00. From the description I estimate perhaps $m_v = -5$ or -6. Duration 1-2 seconds. Looked like a flare, brightened towards end before fading out. Colour mainly white with blue-green centre and orange edge. From the description of the path I derive the start at about 8h, -15° in southern Puppis and end at 11h, -40° in the direction of Centaurus. Plotting the path and tracing backwards yields a

potential radiant near Taurus/Gemini, and the object was possibly a member of the ecliptic streams active from this area in late December/early January.

Event 214 – 2008 February 8 – Kirstenbosch, Cape

Observed by Cliff Turk at 18h14. $m_v = -8$, duration 1.5 seconds, colour white tinged with yellow. Puff of smoke near start of trajectory remained for 30 seconds. Path from 04h, -60° to 21h, -55° . Fragmented (staccato) train. Still light at time of observation, only Sirius, Canopus and Mars visible so path coordinates approximate.

Event 215 – 2008 May 9 – Alldays, Limpopo

Observed by Tim Cooper at 01h47. The fireball was an eta Aquarid, $m_v = -4$, yellow colour. The object was seen rather low down on the horizon, short path and left no train.

Event 216 – 2008 May 10 – Alldays, Limpopo

Observed by Tim Cooper at 02h55, sporadic meteor during watch on the eta Aquarids. $m_v = -5$, colour white and left a train persisting for 10 seconds.

Event 217 – 2008 November 24 – Stellenbosch, Cape

Observed by Auke Slotegraaf at 21h25. $m_v =$ brighter than Venus, caught last part of the trajectory in Crux from 11h46, -61 to 12h46, -56 , at which point it disappeared behind a roof. Colour white with flash of green as it disappeared. ☆