

Astronomical Society of Southern Africa
Report of the Comet, Asteroid and Meteor Section for the year ending June 2026
Tim Cooper, Director

The following observations are reported for the full year ending 30 June 2026.

Comets

Images were received of seven comets; C/2024 E1 (Wierzbach), C/2025 A6 (Lemmon), C/2025 K1 (ATLAS), C/2025 R2 (SWAN), C/2025 R3 (PanSTARRS), C/2026 A1 (MAPS) and 3I/ATLAS. Images were submitted by Angus Burns, Kos Coronaios, Johan le Roux, Lafras Smit, Oleg Tournilovitch and Carol Botha (C/2025 A6 (Lemmon) using the Slooh telescope). Notable are the images by Johan le Roux and Kos Coronaios of the interstellar comet 3I/ATLAS, only the third interstellar object discovered so far.

Visual observations of comets C/2025 R2 (SWAN) and C/2025 R3 (PanSTARRS) were made by Magda Streicher, Kos Coronaios and Tim Cooper. Both comets became visible to the naked eye from dark sky locations.

Previous observations and images of comets C/2023 A3 (Tsuchinshan-ATLAS), C/2024 G3 (ATLAS) and C/2025 R2 (SWAN) were submitted for publication in MNRAS. An article on comet C/2025 R3 (PanSTARRS) will be submitted for publication in MNRAS in due course.

Meteors

Visual meteor shower observations totalling 30.4 hours were conducted by Tim Cooper and Magda Streicher as follows:

Meteor shower	IAU #, code	Tim Cooper hours	Magda Streicher hours
New shower in Hydrus	M2025-S2	3.75	---
Orionids	8, ORI	5.51	6.13
eta Aquariids	31, ETA	7.20	7.80
Total		16.46	13.93

Tim Cooper visually observed the new shower emanating from the constellation of Hydrus in September, which was detected by both CAMS and GMN video surveys. Despite poor conditions due to moon and haze, the shower was found weakly perceptible with ZHR near the sporadic rate. Observations of the eta-Aquariids by Magda Streicher and Tim Cooper were carried out with interference from the bright Moon but nevertheless confirmed the 2026 return was at normal ZHR levels with no enhanced activity.

Cameras for Allsky Meteor Surveillance (CAMS)

CAMS@SA operates sixteen cameras as part of the global CAMS network with eight cameras at Bredell (BR) operated by Tim Cooper and eight cameras at HartRAO (HA) operated by Philip Mey. The network captured and determined orbits for 6100 meteors during the past year. The total is lower than previous years due to an abnormally wet and cloudy summer season in Gauteng where the cameras are located.

Global Meteor Network (GMN)

The South African network currently stands at 10 cameras operating in the Western and Eastern Cape, and includes those operated by Andre Bruton, Louw Ferreira, Johan Swanepoel, Stuart Clark, and Touwsrivier Primary School. The GMN cameras at Laingsburg High School were decommissioned during the year. The Global Meteor Network reports are by calendar year, and the total number of meteor orbits determined for South Africa in 2025 was 11,396.

Pierre de Villiers and Tim Cooper continue to serve on the Global Project Team for the GMN Outreach Project, which aims to provide cameras to schools to promote STEM education and to create a network between schools and meteor scientists. Derek Duckitt also serves on the local organizing team, and we are grateful for assistance received from Project Leader Radim Stano in Austria. Plans are in place to expand the coverage to further schools.

Fireballs

Sixty-two fireballs were reported to the Director, all of which were analysed before adding to the Southern African Fireball Catalogue (SAFC) and bringing the total number of investigated events in the Catalogue to 584. This represents a record number of fireball reports received in one year, with a large increase in captures by GMN cameras. We also benefit from more fireballs which are reported to the American Meteor Society's fireball page and are passed on for further investigation. In this regard I thank Robert Lunsford for forwarding these reports. The updated Southern African Fireball Catalogue has now been placed on the ASSA website and is available for inspection.

Asteroids

No observations of asteroids were submitted in the past year. There remains an opportunity for observers to become involved in these activities.

All members who contributed observations are warmly thanked.

Tim Cooper
Director, Comet, Asteroid and Meteor Section