

CAS UKMON Report to CAS Committee Meeting 06/12/2018

This report covers activities between the 10th September and the 1st December 2018 of the CAS Meteor Observation Camera 2 located as part of the Society Observatory at National Trust Dyffryn Gardens.

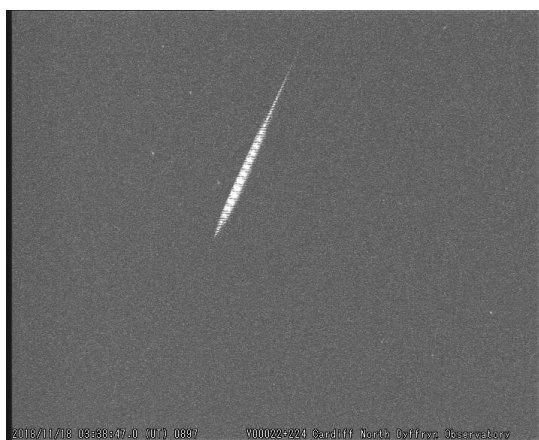
Camera 2 captured 53 meteor trails in September 2018, 85 meteor trails in October 2018 and 33 meteor trails in November 2018; no fireball events were recorded in the period of this review although at -3.6 magnitude a Leonid on the 18th November at 03:38:47 UT came close.

The CAS website CAS_UKMON entry has been updated to the end of August 2018 for Camera 1, end September 2018 for Camera 2 and today for this report and general information.

The UKMON central database has been updated to the end of September 2018 for Camera 1 and the end of November 2018 for Camera 2.

Some images from the camera at Dyffryn Gardens:

CARDIFF CAMERA 2 – NORTH VIEWING – SEPTEMBER 2018			
06/09/2018 022430 GMT Class: J8_TRI Mag: -0.9	07/09/2018 022521 GMT Class: J8_AOR Mag: -1.3	12/09/2018 204953 GMT Class: J8_NIA Mag: -1.2	13/09/2018 222039 GMT Class: J8_NPI Mag: -1.2
16/09/2018 032052 GMT Class: J8_SPE Mag: -1.1	21/09/2018 032450 GMT Class: spo Mag: -1.7	25/09/2018 023803 GMT Class: J8_ERR Mag: -0.9	25/09/2018 044417 GMT Class: J8_SSA Mag: -1.1
25/09/2018 044540 GMT Class: spo Mag: -1.0	26/09/2018 235041 GMT Class: J8_OPC Mag: -1.0	27/09/2018 011559 GMT Class: J8_POR Mag: -0.9	29/09/2018 031139 GMT Class: J8_ZTA Mag: -1.3



Mag: -3.6 Leonid meteor 18/11/2018 03:38:47 UT

The UKMON PC has operated with only minor intervention since the last report in September 2018. A spare UTC clock server has been constructed and remains in reserve.

On the 20th October the Fourth UKMON Collaboration Meeting was held, it was co-ordinated by CAS with the venue and facilities provide by Dr Jana Horák at the National Museum Wales, Cardiff. The meeting was attended by 20 people (3 from CAS), a mixture of academics and amateurs. From the feedback I have received following the meeting I would judge it as a success.

Yet to be fully confirmed but as a result of the UKMON Collaboration Meeting, the NMW Cardiff are looking to install a UKMON camera (possibly a full-sky viewing model) at Cathays Park.

Edward Cooper
CAS UKMON Co-ordinator
4th December 2018

Fourth UKMON Collaboration Meeting, held in Cardiff

Members of UKMON (UK Meteor Observation Network) gathered at the National Museum Wales in Cardiff on **20th October 2018** for its fourth collaboration meeting. UKMON brings together amateur and professional astronomers from around the country who share a common interest in meteor science. This annual get-together allows members to get to know each other and to share knowledge and experience. The event was coordinated by CAS with the venue and facilities provided by Dr Jana Horák at the National Museum Wales, Jana will be giving a talk to CAS on the 10th January 2019.

The meeting was attended by 20 people, a mixture of academics and amateurs.



Richard Kacerek presented an update on the UKMON network the key points being:

- There are now 32 cameras and another 7 in preparation;
- There are now 3 (SCAMP) all sky viewing cameras and more planned;
- A UKMON for schools' initiative is active;
- In 2018 a total of 23 cameras contributed data to the UKMON repository. Together, these cameras recorded 20,829 individual meteor observations;
- The exposure on the BBC Sky at Night Programme had been of great benefit.

Jim Rowe gave an update on the growing Fripon / Scamp network, SCAMP being the UK spin-off of the French FRIPON network and part of an international effort to recover meteorites.

Luke Daily ([University of Glasgow](http://www.glasgow.ac.uk)) presented an update on the UK fireball network which already has four cameras in place.

Sarah McMullan (University of Glasgow) then shared with us the research she is undertaking on the energy deposited in the atmosphere by meteor events.

Peter Campbell-Burns (UKMON) completed the morning programme with a presentation of his dark flight model.

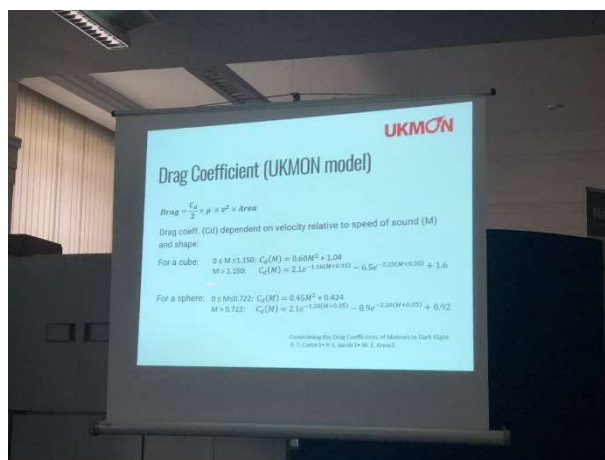
Jana Horák, Head of Mineralogy and Petrology at the National Museum Wales opened the afternoon programme. Dr Horak gave us an excellent introduction to meteorites and Impactites and brought with her an interesting selection of meteorites from the museum's collection.

Dr Martin Fullekrug (University of Bath) and **Simon Ghilain** presented on lightning and sprites.



Dr Martin Fullekrug showing us transient luminous events also known as sprites

Peter Campbell-Burns (UKMON) took the last two sessions to present the data analysis and data visualisation projects he has been working on over the last year.



Peter Campbell-Burns showing us Dark flight calculations

Throughout the day there were many touch-points where member's interests were piqued, and it was evident that stronger links were forged between members. Further information on most of the presentation is available at: <https://ukmeteornetwork.co.uk/downloads-presentations/>