

## **Astronomy Talk 9<sup>th</sup> March 2021**

### **Meteors**

This was a “Zoom” talk given by Steve Bosley, vice-chairman of the Hampshire Astronomy Group. There were 120 attendees.

First, Steve defined meteors, meteoroids etc, and looked at the IAU list of meteor showers, of which there are over 1,000. Approximately 50,000 tonnes of dust etc. falls onto the Earth each year, and there are about 10,000 meteorites greater than 100g, mostly falling into the sea. The BAA has an observation process and form for amateurs to use.

We then looked at all the equipment and procedures Steve uses for observation. He has 3 video cameras recording every night, triggered by movement. These can be triggered by aircraft, owls, gamma rays etc., as well as meteors. HAG has a complete meteor capture system, and it involves a lot of processing as some events are quite faint. To make it easier Steve has written software that captures 85% of the real event, but that still leaves 15% he doesn't want to miss. He has about 500,000 records over the last 5 years or so.

There are many other similar observers in other places, and combining their data gives the object's trajectory and its orbit before reaching Earth. That also enables one to work out where an object may land if it's a meteorite. The meteorite found from the 28 February event was in exactly the centre of the estimated footprint.

Looking at the spectrum of a meteor enables us to identify its constituents: they can be very variable.