

## **Astronomy Talk 8<sup>th</sup> August 2023**

### **Arrokoth and the Sentinels**

This Zoom only talk was given by Greg Smye-Rumsby who works at the Royal Observatory Greenwich, and also provides technical illustrations for the magazine "Astronomy Now". 49 attended.

We started by looking at the solar system, gradually moving outwards, and ended up in the Kuiper Belt and Oort Cloud. Arrokoth was the target the Pluto probe New Horizons observed after Pluto. Greg referred to the leader of the project, Alan Stern, and the search for another target if possible. New Horizons has plenty of fuel left so another encounter is to be hoped for.

New Horizons passed Arrokoth travelling at 14.4 Km/second, so it was a great challenge to get any data. Arrokoth has 2 flattened components, earlier referred to as Ultima and Thule, and has a diameter of approximately 35 Km. Limited spectroscopy showed no methane or ammonia, but it is a fairly uniform colour, covered in tholins. It's suggested the 2 parts amalgamated by tidal movements with an eventual very slow collision – less than 3 metres/second.

Greg then went on to look at other Kuiper Belt Objects (KBOs), and briefly mentioned the possibility of there being a Neptune sized "Planet 9" somewhere out there. It would be very hard to find, especially as the Milky Way would be its backdrop.

Greg has boundless enthusiasm, which is very infectious, and there were many questions for him, which shows how well the audience were engaged by the talk.