

## **Astronomy Talk 14<sup>th</sup> September 2021**

### **Secret Stowaways**

Kate Earl gave us this Zoom talk on the history of things unofficially or officially sent into space. There were 72 attendees.

NASA does not have a good list of all the things that have been launched. Quite a lot of items went to the Moon with the Apollo missions, of which many were brought back again. E.g., on Apollo 14 Alan Shepard took a golf club and two balls, on Apollo 15 a plaque with a memorial to fallen astronauts and cosmonauts was placed on the Moon.

The Russians sent many little metal pentagon items, essentially marking territory, both to Venus and to Mars.

Pioneers 10 and 11 had the famous Sagan plaque, and Voyagers 1 and 2 had a record of sounds. Vikings 1 and 2 had a microfilm with the names of the thousands of people who had worked on the project. Spirit and Opportunity had memorials to the September 11<sup>th</sup> victims. The Juno probe had Lego toys of Jupiter Juno and Galileo.

The Perseverance rover's landing parachute had the code "Dare Mighty Things", and the helicopter Ingenuity a small swatch of the original Wright Brothers' aircraft. The Sherlock device included a fairly complex maze in its calibration targets, plus a bit of a Martian meteorite

Eugene Shoemaker's ashes were sent to the Moon, and Clyde Tombaugh's were on the New Horizons probe that went to Pluto.

These are just a few. There are probably hundreds about which we know nothing!

As with the previous talk, quite a few questions, and many thank you notes on Chat, so much appreciated.