



# An Unexpected Meteor Shower Outburst



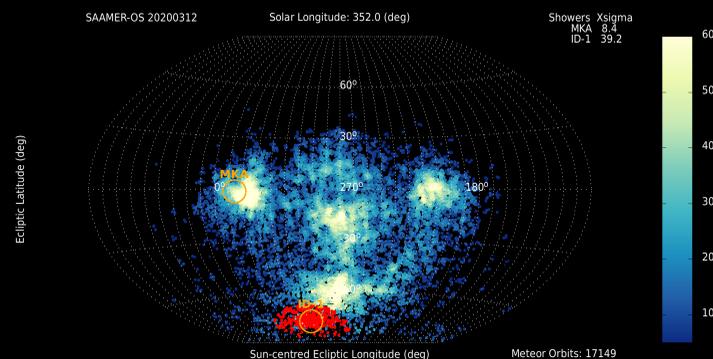
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A strong and unexpected meteor shower was observed by the Southern Argentina Agile MEteor Radar Orbital System (SAAMER-OS) between March 11 and 12, 2020. SAAMER-OS is an advanced system hosted at the Estacion Astronomica Rio Grande in Tierra del Fuego, Argentina.

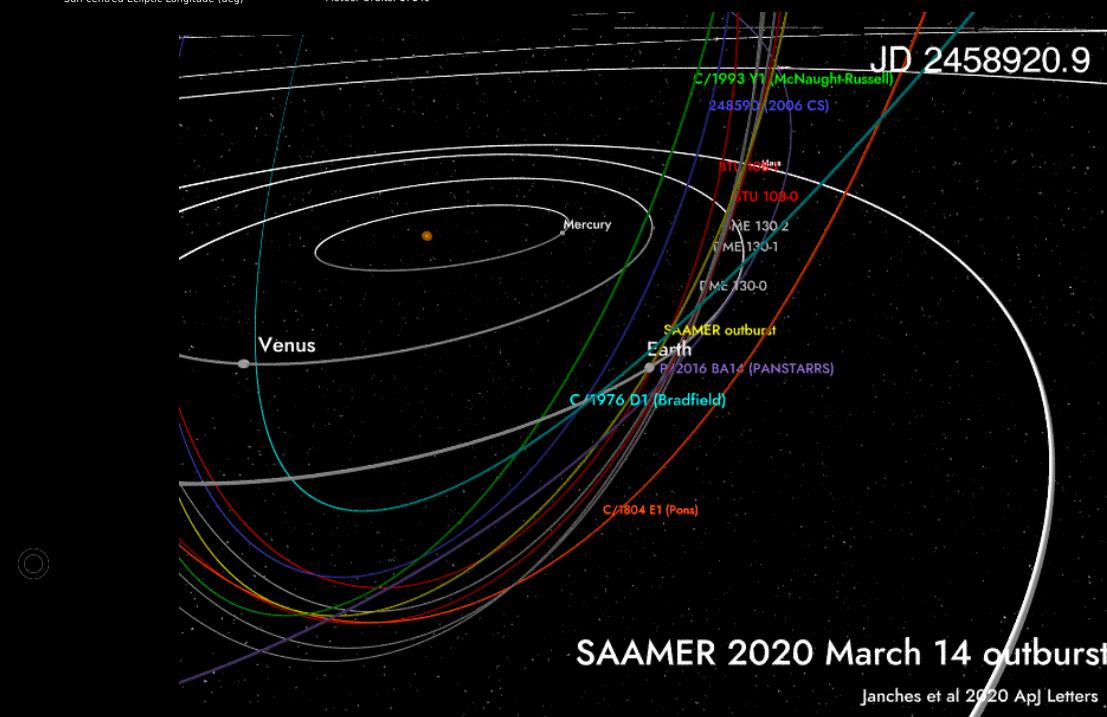
The meteor observations are part of a program to monitor the meteoroid environment in the southern hemisphere supported by NASA Planetary Science Division and NASA Engineering and Safety Center programs.

Scientists from the U.S. (including NASA/GSFC), Argentina and Canada found that the outburst may be part of the  $\beta$  Tucanid and  $\delta$  Mensid meteor showers, two showers that have been scarcely observed before. The results strongly suggest these are the same shower. Further analysis also associated the outburst with asteroid (248590) 2006 CS as promising parent candidate. This Near Earth Object has been suggested to be a dormant comet.

Detection of an unexpected meteor shower and the potential for linking to parent bodies help to locate and characterize Near Earth Objects. Studying these objects is important both to characterize the origins of the solar system and to protect Earth.



This sun-centered map shows the outbursts in red in the southern sky.



This snapshot from an animation showing the orbits of objects best associated with the outbursts. The outburst orbits are the 2 red lines.