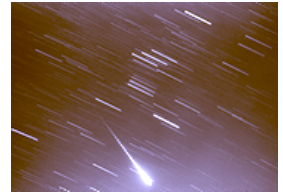


## Meteor and meteor shower research at Fremont Peak Observatory

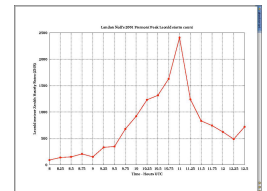
### **1994 - 1997: Research site for investigation of unusual meteor showers.**

Fremont Peak Observatory is one of two sites where volunteers meet to operate intensified cameras for the study of unusual meteor showers, part of a NASA grant to answer why such events occur (they are dangerous for satellites in orbit and are bits of comets that hold clues to properties and past comet activity). Pioneering work at FPO leads to a much larger project to investigate the Leonid meteor storms.



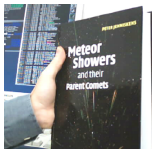
### **1998-2002: Support NASA's Leonid Multi-Instrument Aircraft Campaigns.**

Volunteers meet at Fremont Peak to monitor the 1998 - 2002 Leonid meteor storms, providing data on shower activity at times not covered by the research aircraft, which help satellite operators protect spacecraft from being hit by meteoroids.



### **2006: Results of FPO meteor shower research reported in 790-page book.**

"Meteor Showers and their Parent Comets" published by Cambridge University Press in hardcover (2006) and softcover (2008).



### **2004-2008: Fremont Peak Observatory is occasional testing site for new camera concepts for meteor and artificial fireball observations.**

Cameras are deployed on NASA research aircraft that study the re-entry of the Genesis (Sep. 8, 2004) and Stardust (Jan. 15, 2006) Sample Return Capsules and ESA's Automated Transfer Vehicle (Sep. 29, 2008).



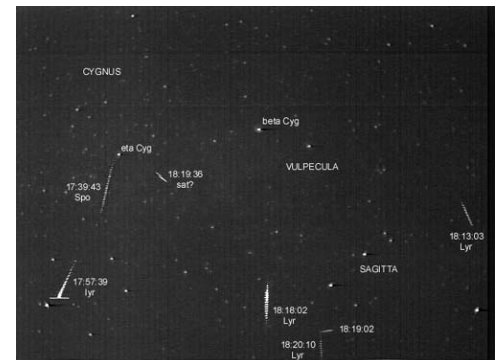
### **2007: Fremont Peak Observatory supports NASA Aurigid Multi-Instrument Aircraft Campaign.**

A long-period comet, discovered at Lick Observatory in 1911, is predicted to cause an outburst of meteors over northern California. Researchers travel from as far as U.K. to observe this event at FPO



### **2008-2010: Fremont Peak Observatory and Lick Observatory work together on NASA sponsored all-sky video surveillance.**

Goal of the work is to validate minor meteor showers in the IAU Working List of Meteor Showers, and identify the parent bodies responsible for these showers.



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