

Bits of space: The return of Hayabusa and the impact of asteroid 2008 TC₃ in Sudan

Dr. Peter Jenniskens, NASA Ames Research Center / SETI Institute

**Saturday 12th June
3:00— 4:00pm**

Meteor astronomer Dr. Jenniskens is visiting Australia in the company of 26 other researchers from NASA, JAXA, the University of Southern Queensland and many other institutions worldwide. They are here to monitor the return of the Hayabusa spacecraft, a JAXA mission that is expected to return to earth a small sample of asteroid Itokawa in the evening of June 13. If successful, this will be the first time that an asteroid sample was brought back to earth by a space mission.

Jenniskens and his colleagues are especially interested in testing how well the return capsule's heat shield performs. NASA Ames Research Center is known for its research on thermal protection systems. They arrived in NASA's DC-8 research aircraft and will observe the Hayabusa reentry from the air.



When: Saturday 12th June

Time: 3:00—4:00pm

Where: VSSEC @ Strathmore Secondary College
400 Pascoe Vale Rd,
Strathmore

Cost: FREE

Seats are limited. To book a seat please email

bookings@vssec.vic.edu.au

Dr. Jenniskens is best known for one of the more interesting planetary research stories of the past several years - that of the 2008 TC₃ asteroid impact in Sudan. 2008 TC₃ is the first asteroid to be detected in space before it impacted Earth - just 20 hours before impact.

It served as a test of NASA's near earth object warning system, and involved rapid international cooperation and observation. It was also expected to vaporize in the atmosphere, so it was surprising when Peter found meteorites with the help of Muawia Shaddad and 45 of his students at the University of Khartoum. Even more, the meteorites turned out to be rare ureilites, now linked to a rare class of asteroids. It is really a great story on many levels.