

MEDIA RELEASE

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ATTENTION: Chiefs of Staff, News Directors



Scientists gather to view Pluto's atmosphere

International astronomers from France and the United States will gather at the University of Tasmania's Mt Canopus Observatory **next Monday (June 23)** to observe a rare planetary event that is best visible from Tasmania.

Before dawn on Monday morning, Pluto will pass in front of a 12th magnitude (relatively dim) star. This "occultation" will last only minutes, but will provide important information about Pluto's atmosphere.

Dr John Greenhill, an Honorary Research Associate in the UTAS School of Physics, said monitoring the state of Pluto's atmosphere is of critical importance to NASA's *New Horizons* Pluto fly-by mission scheduled for 2015.

"Pluto is moving away from the Sun and getting cooler so it is possible that the atmosphere (mainly methane) will freeze out: the objective of Monday's observation is to study this expected freeze-out," Dr Greenhill said.

"A NASA telescope will fly past Pluto in 2015 and it is possible that by then Pluto will have no atmosphere, which will make NASA's mission more difficult.

"This information will certainly be of interest to NASA," Dr Greenhill said.

Pluto will pass slowly in front of the star from about 5am on Monday.

"If Pluto had no atmosphere, the starlight would disappear instantly and return just as suddenly about two minutes later," Dr Greenhill said.

"The denser the atmosphere, the slower the onset and exits from the occultation."

The observation group includes French scientist Virginie Batista, from the Institute of Astrophysics in Paris, and Steve Souza from Williams College, Massachusetts.

Dr Greenhill said that detailed study of these changes would provide information about the density, temperature and composition of Pluto's atmosphere, but it would be some months before the outcomes of Monday's observations were known.

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