

Geophysical Research Abstracts,
Vol. 10, EGU2008-A-04551, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-04551
EGU General Assembly 2008
© Author(s) 2008



TandEM: A mission for Titan and Enceladus in situ exploration within ESA's Cosmic Vision

A. Coustenis (1), The TandEM Consortium (2)

(1) LESIA, Paris-Meudon Observatory, 5, place Jules Janssen, 92195 Meudon Cedex, France,

(2) <http://www.lesia.obspm.fr/cosmicvision/tandem/>;

(Athena.coustenis@obspm.fr / Fax: +33145072801 / Phone: +33145077720)

An international Consortium of 155 scientists and engineers from all over the world submitted a proposal in response to ESA's Cosmic Vision 2015-2025 Call for a mission to perform in situ exploration of Titan and Enceladus. With a launch around 2018, this mission would operate roughly between 2025 and 2030.

Although our understanding of Titan has been greatly enhanced by the data returned by the Cassini-Huygens mission, several aspects regarding the atmosphere, the surface, the interior and the astrobiological aspects of both satellites beg for further exploration with an optimized orbital tour and advanced instrumentation. Our proposal was selected for further studies by ESA. Key science measurements and the instrument suites for achieving our science goals have been defined (Coustenis et al., 2008). In particular, we developed conceptual designs for delivering the science payload, including an orbiter, an aerial platform and probes for Titan, as well as penetrators for Enceladus, which we will present here.

Ref: Coustenis, A., and 154 co-authors, 2008. TandEM: Titan and Enceladus mission. *Astrophysical Instruments and Methods*, in press.

Web site : <http://www.lesia.obspm.fr/cosmicvision/tandem/index.php>