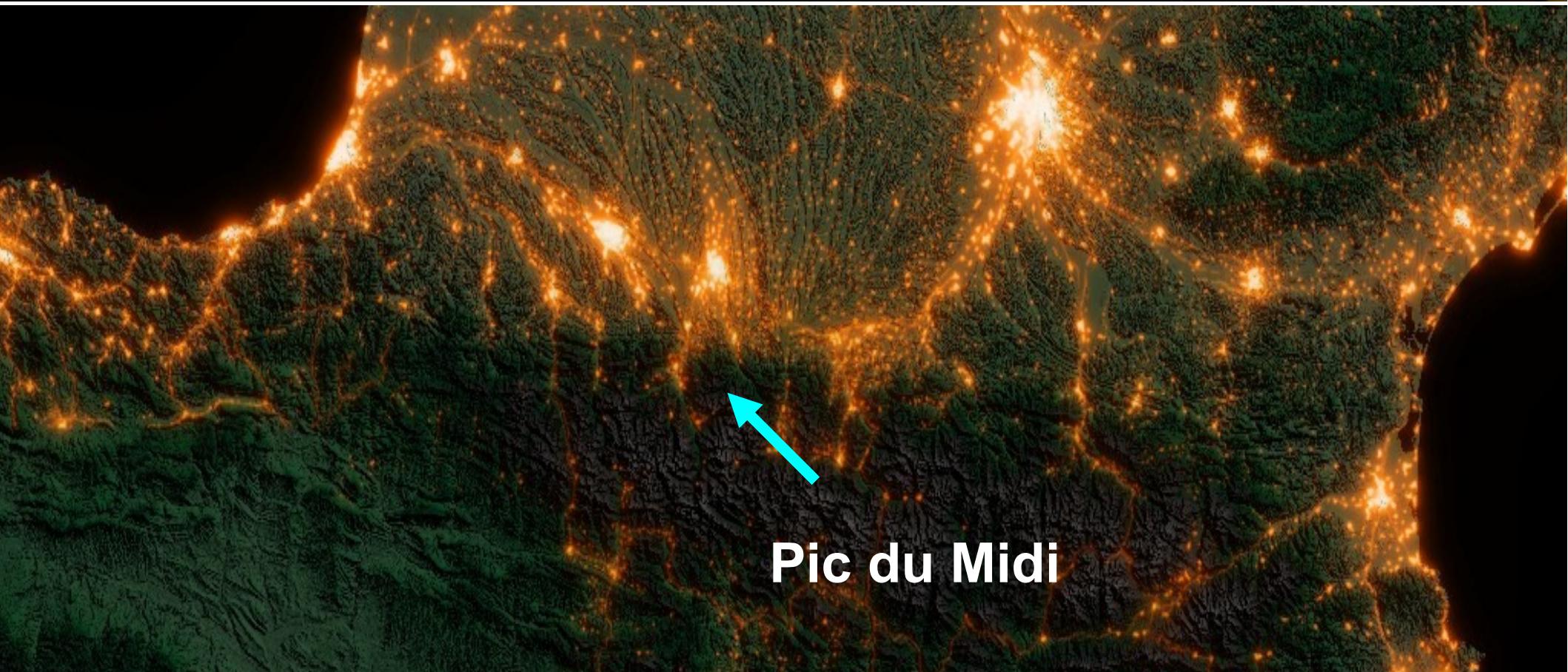


The “Station de Planétologie des Pyrénées” (S2P),
a collaborative science program
in the course of a long history at Pic du Midi observatory.

F.Colas and more than 200 co-autors

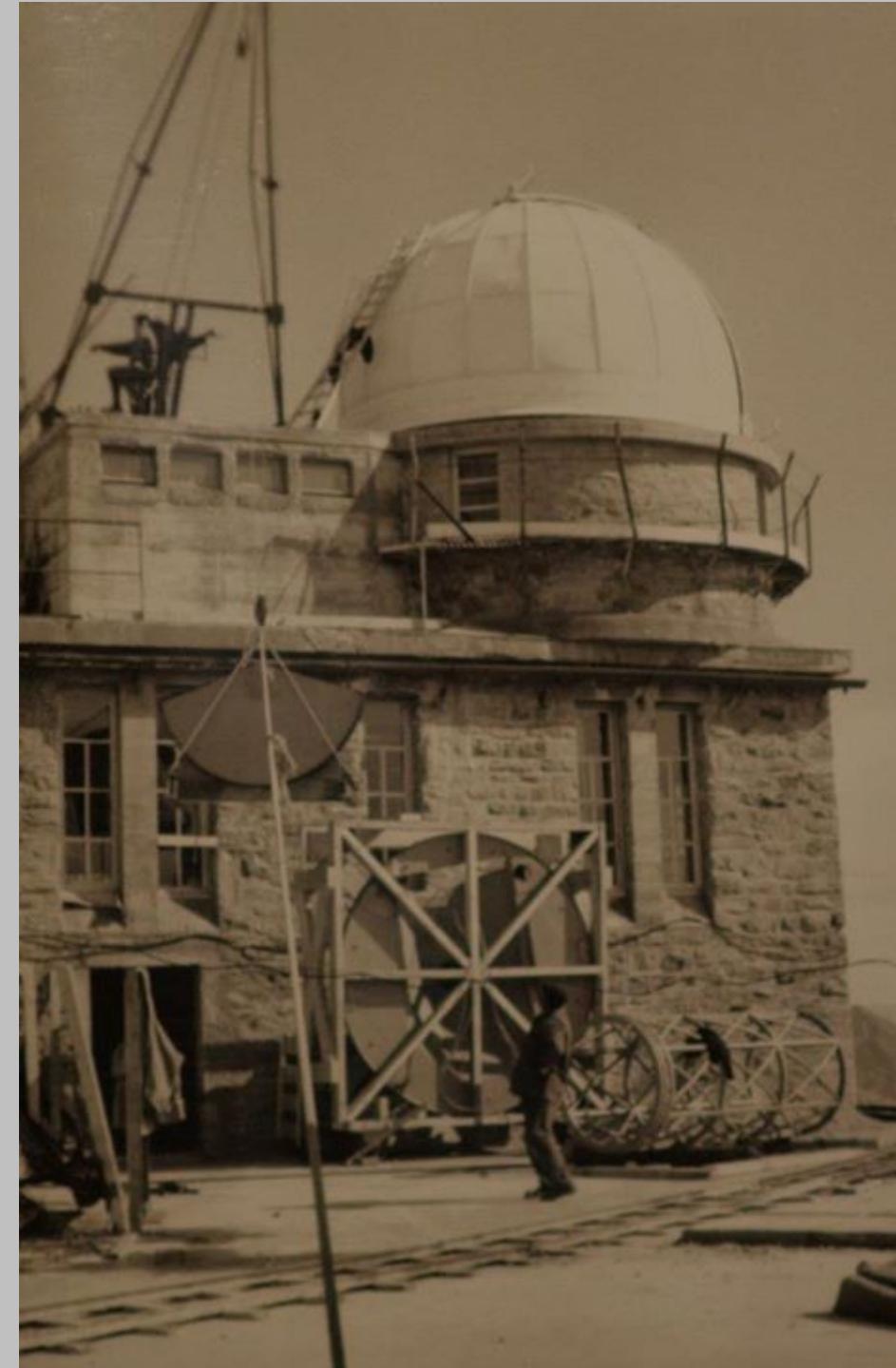




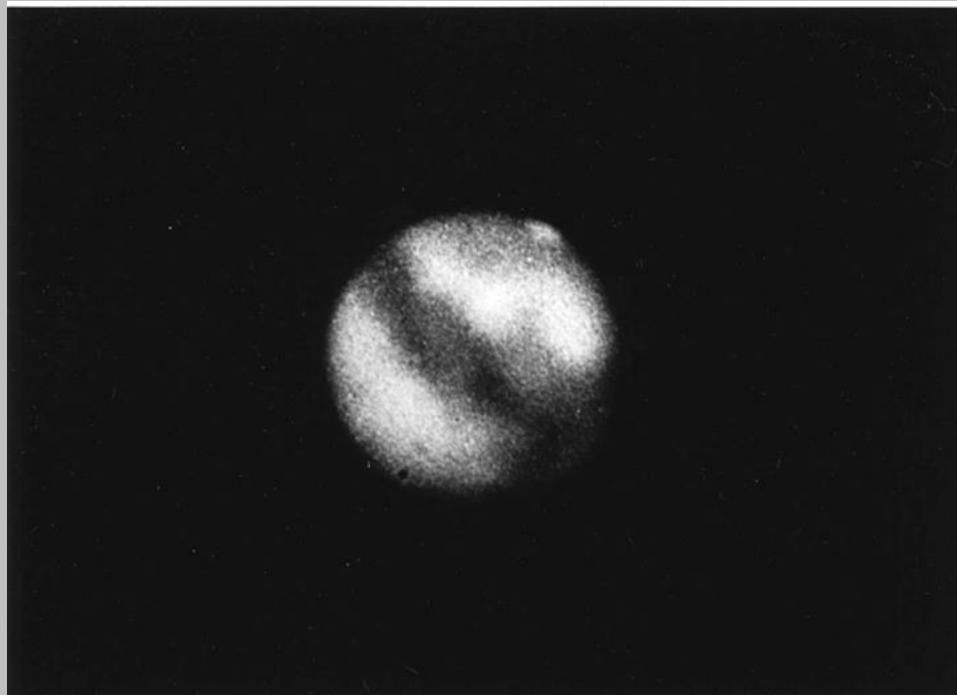
Pic du Midi

1963

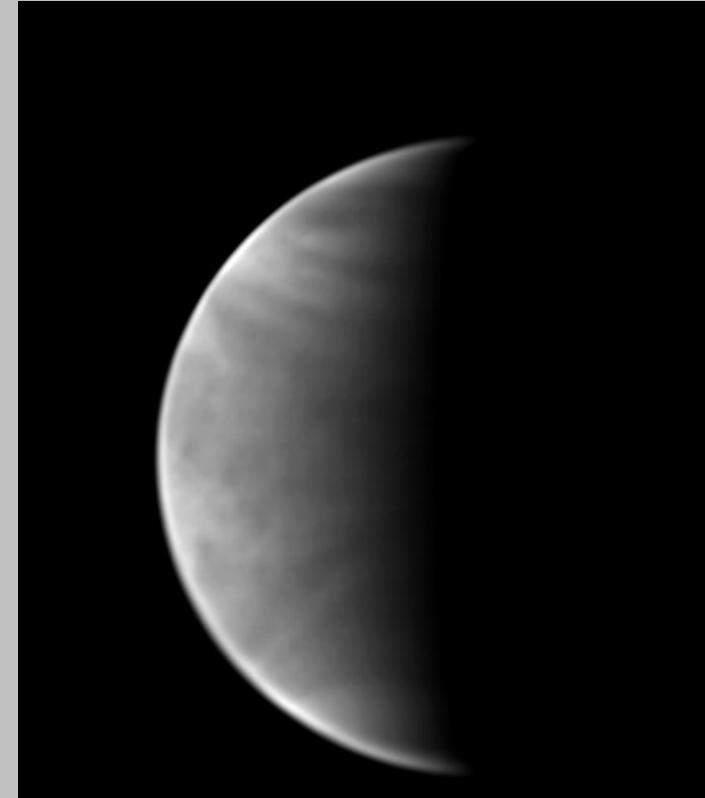
1 meter telescope building



Pic du Midi have a long history of planetary discoveries And amateurs collaborations



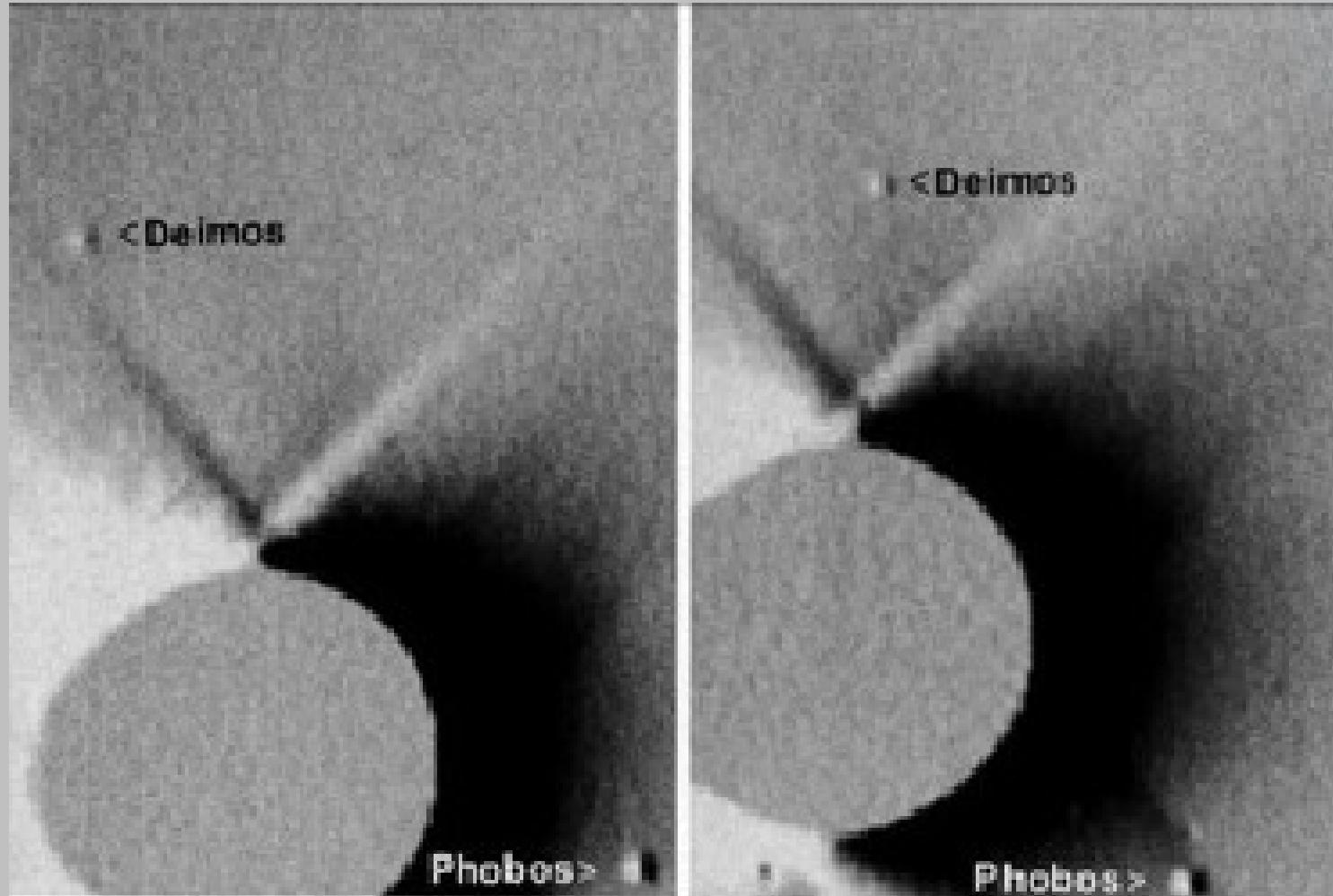
Mars evolutions studies



Discovery of Venus atmosphère
Super rotation
(C. Boyer - Camichel)

My start at Pic du Midi : Martian satellites...

with an anti blooming CCD camera developped by amateurs (C. Buil)





15-V4-86

$\omega = 67^\circ 6$

$T_0 = 106 \text{ cm}$

Filtre : W29

$1/2 \text{ sec}$

23'07" U.T.

$d = 22'' 9$

$f_g = 52$

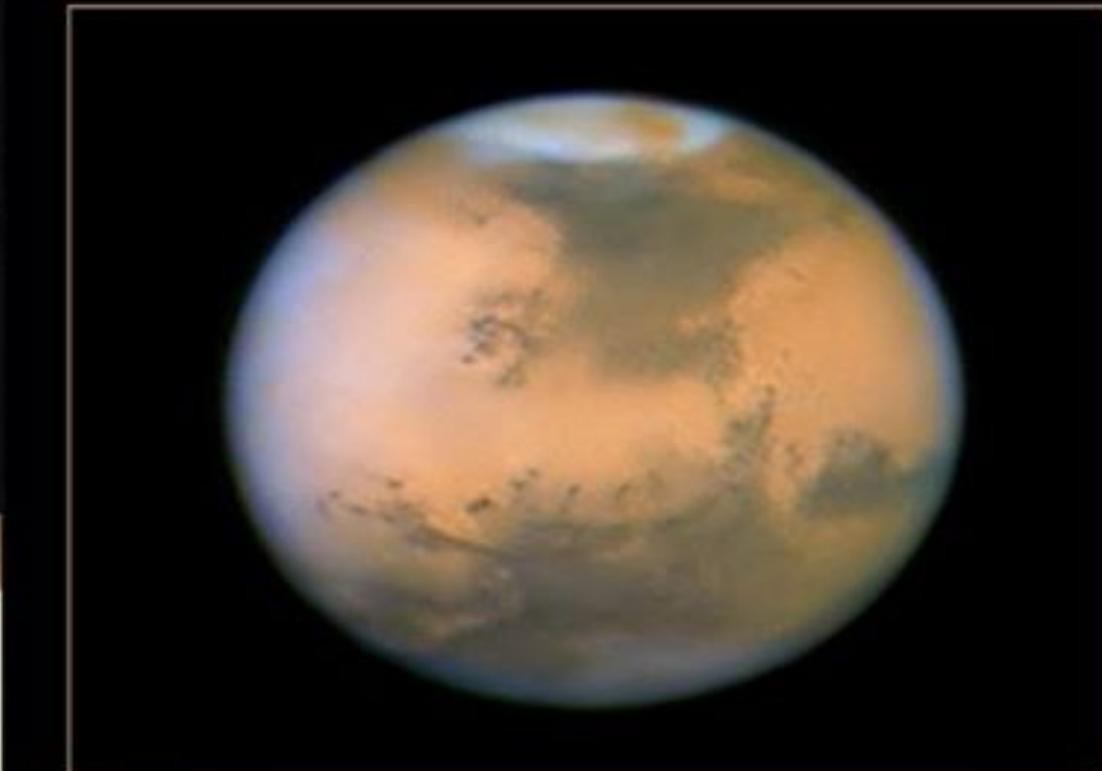
2415

HC-110 ($1/5$).

Pic du Midi

JEAN COUZECKO
FACULTÉ DES SCIENCES
BP 117
BUTARE
RWANDA

Il renverrait que cette photo soit l'une des meilleures,
j'aurais réunies, à partir d'un observatoire terrestre. Il y
a une infinité de fins détails, certains j'aurais cru
photographier. Pouvoir séparer = env: $0,3''$!



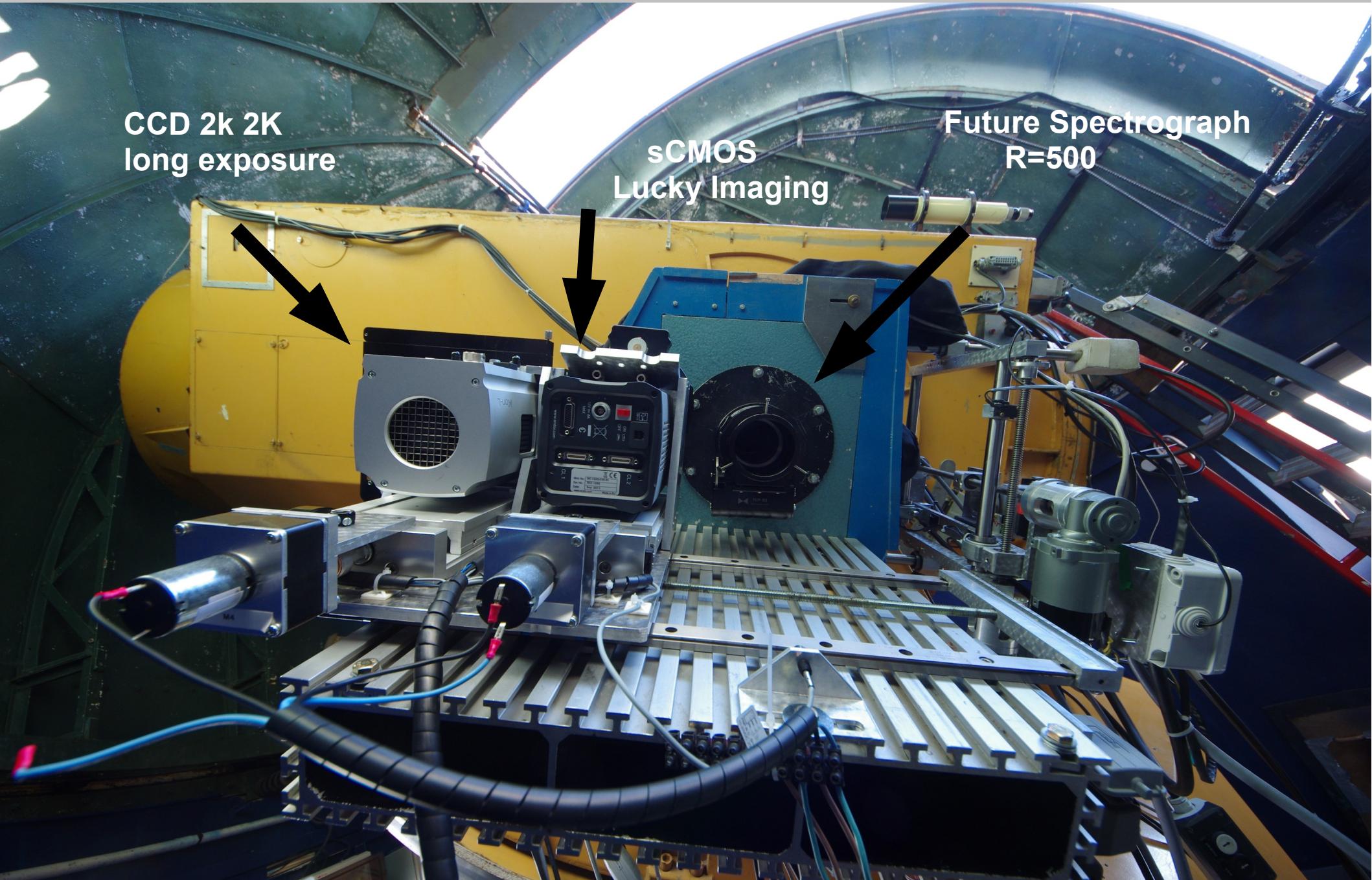
Planet Mars / February 28th 2010 at 2h03 UT / Pic du Midi (France) / 1-meter telescope - 817

© Jean-Luc Dauvergne / François Colas / S2P / IMCCE

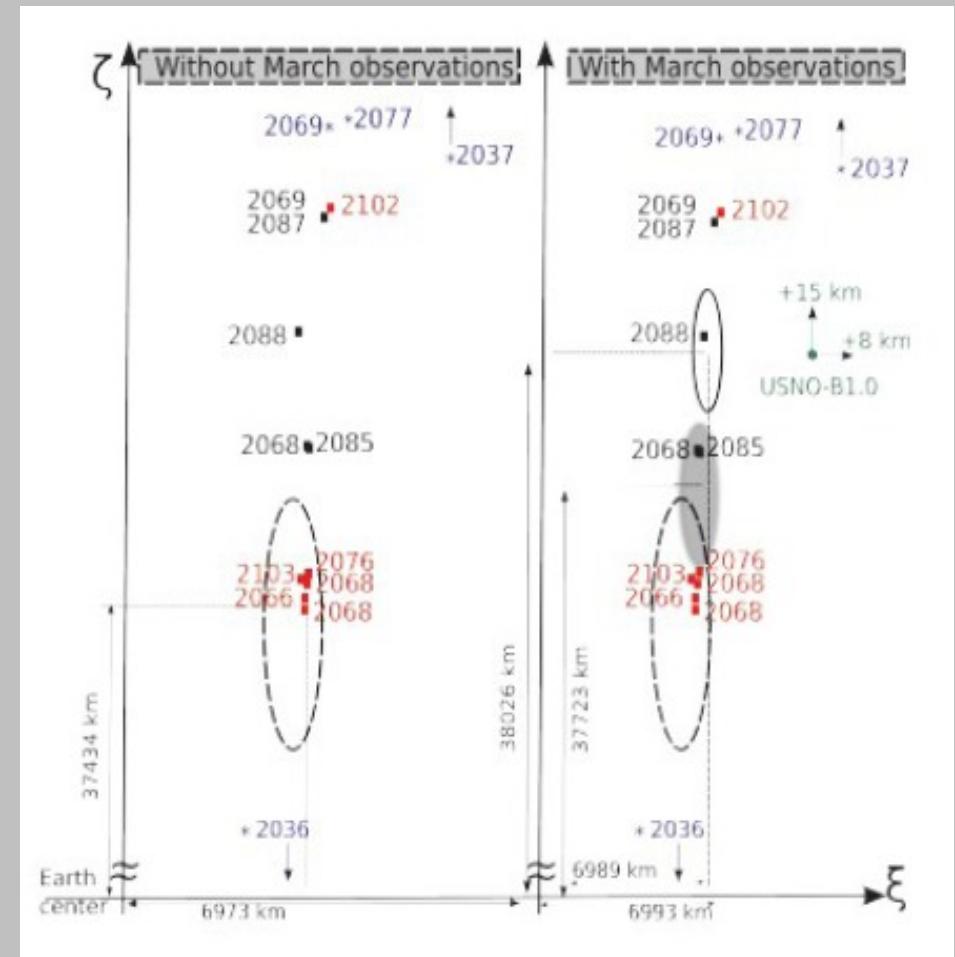
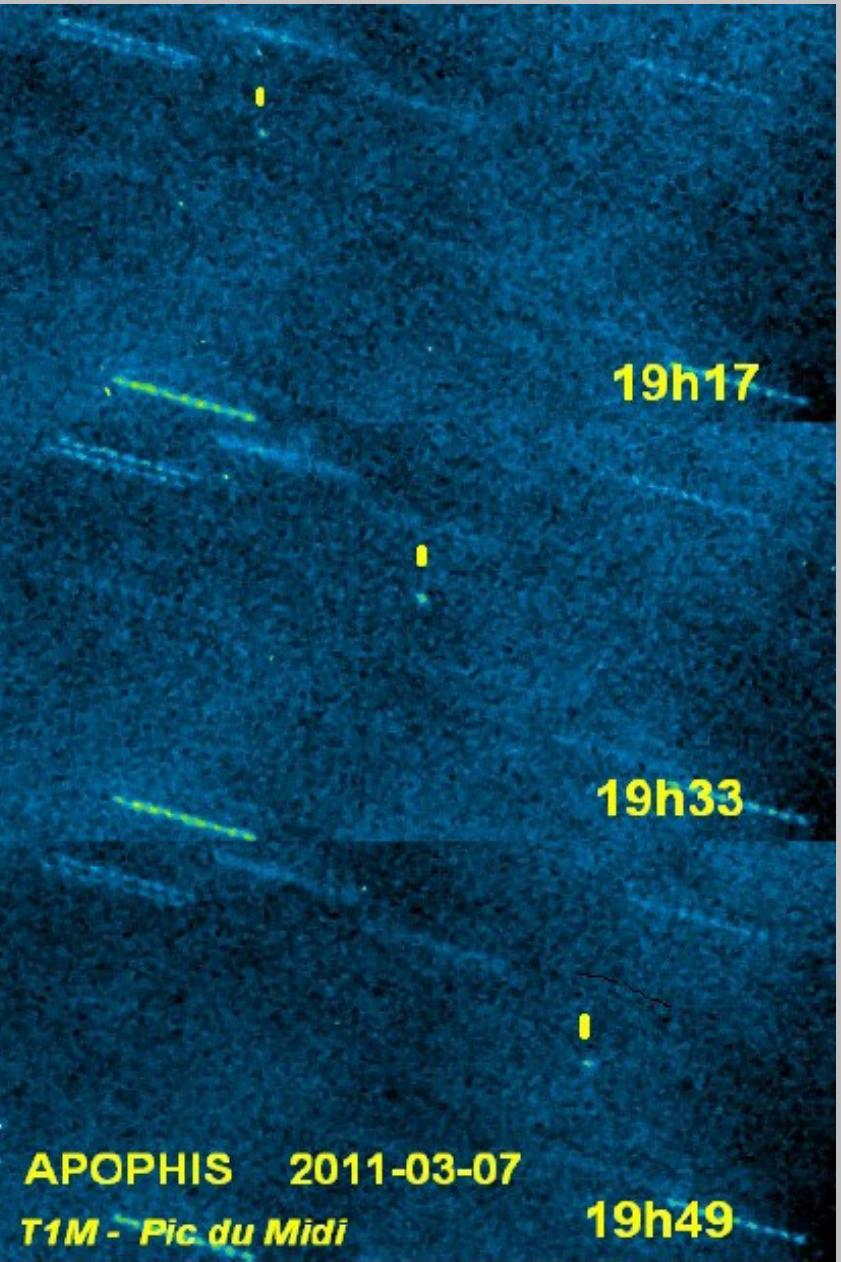
$d=14''$



Telescope instrumentation



NEO observations (Euronear project)



D. Bancelin (2011)

Apophis orbit changes with Pic du Midi Images

M=21,5 V = 3"/min

Comet Swift Tuttle

NOYAUX COMETAIRES

109 P / SWIFT-TUTTLE

LA COMETE DES PERSEIDES

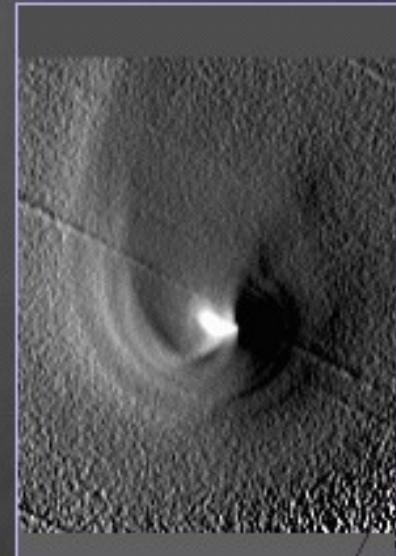


14-12-1992

17 h 55 UT

2,5 jours après
le périhélie.

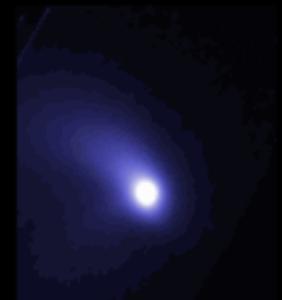
←
r : 10^{-5} km



Comet Swift Tuttle



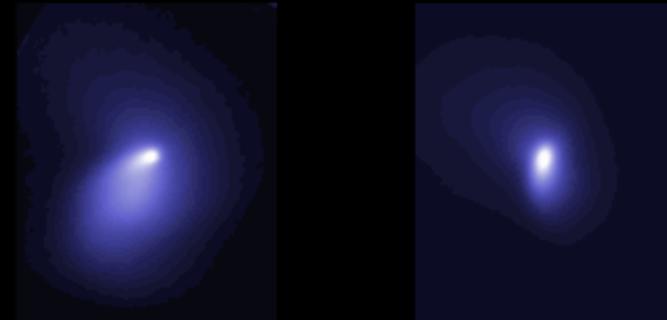
20 novembre



21 novembre



22 novembre



23 novembre

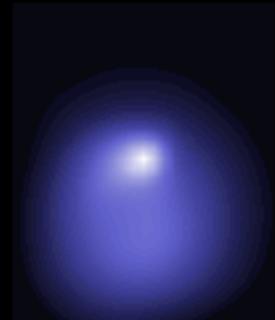
25 novembre



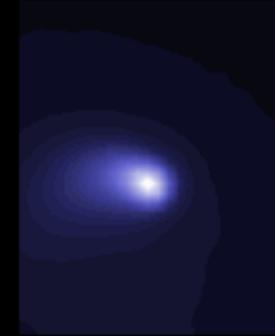
26 novembre



27 novembre



28 novembre



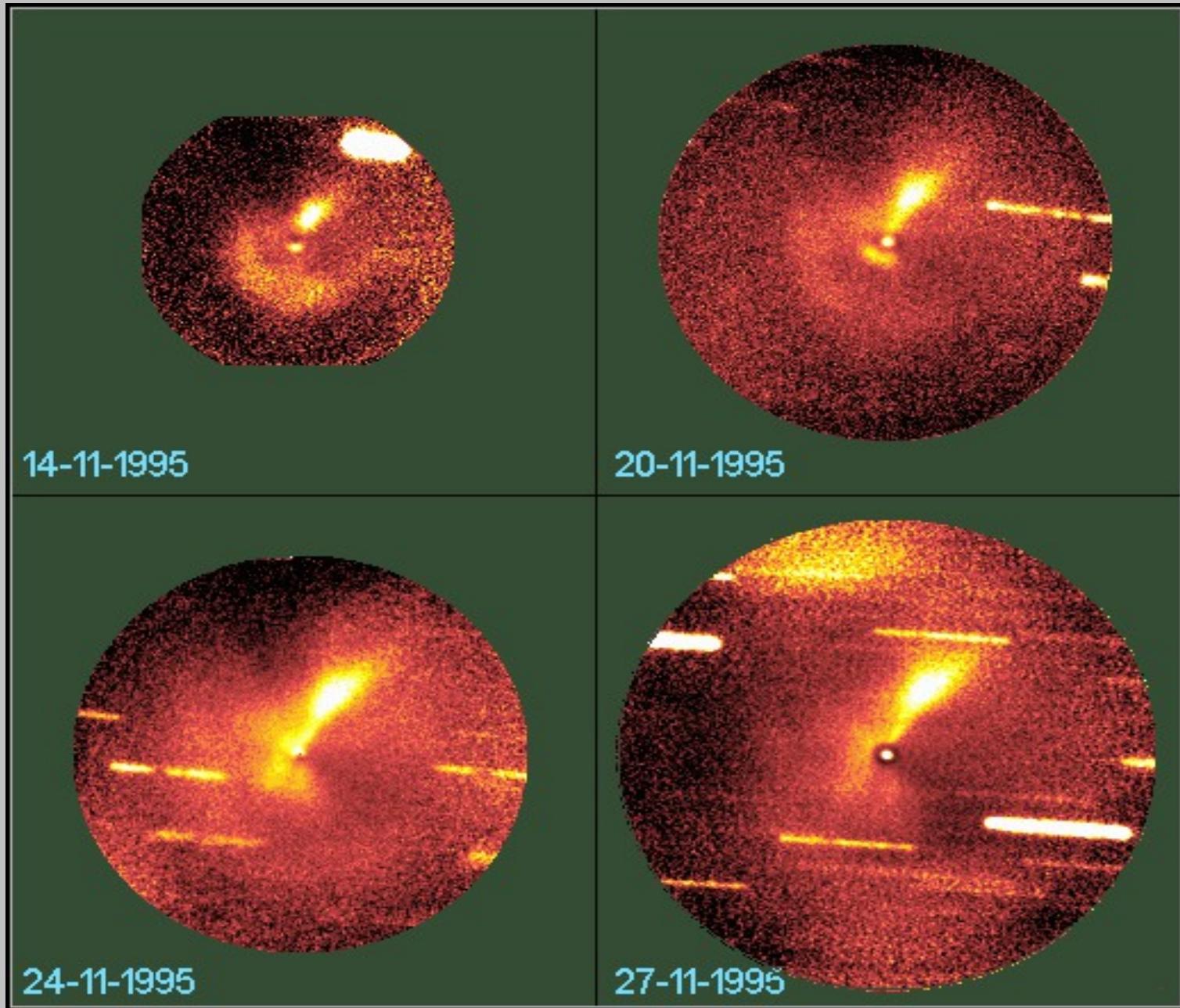
29 novembre 1992



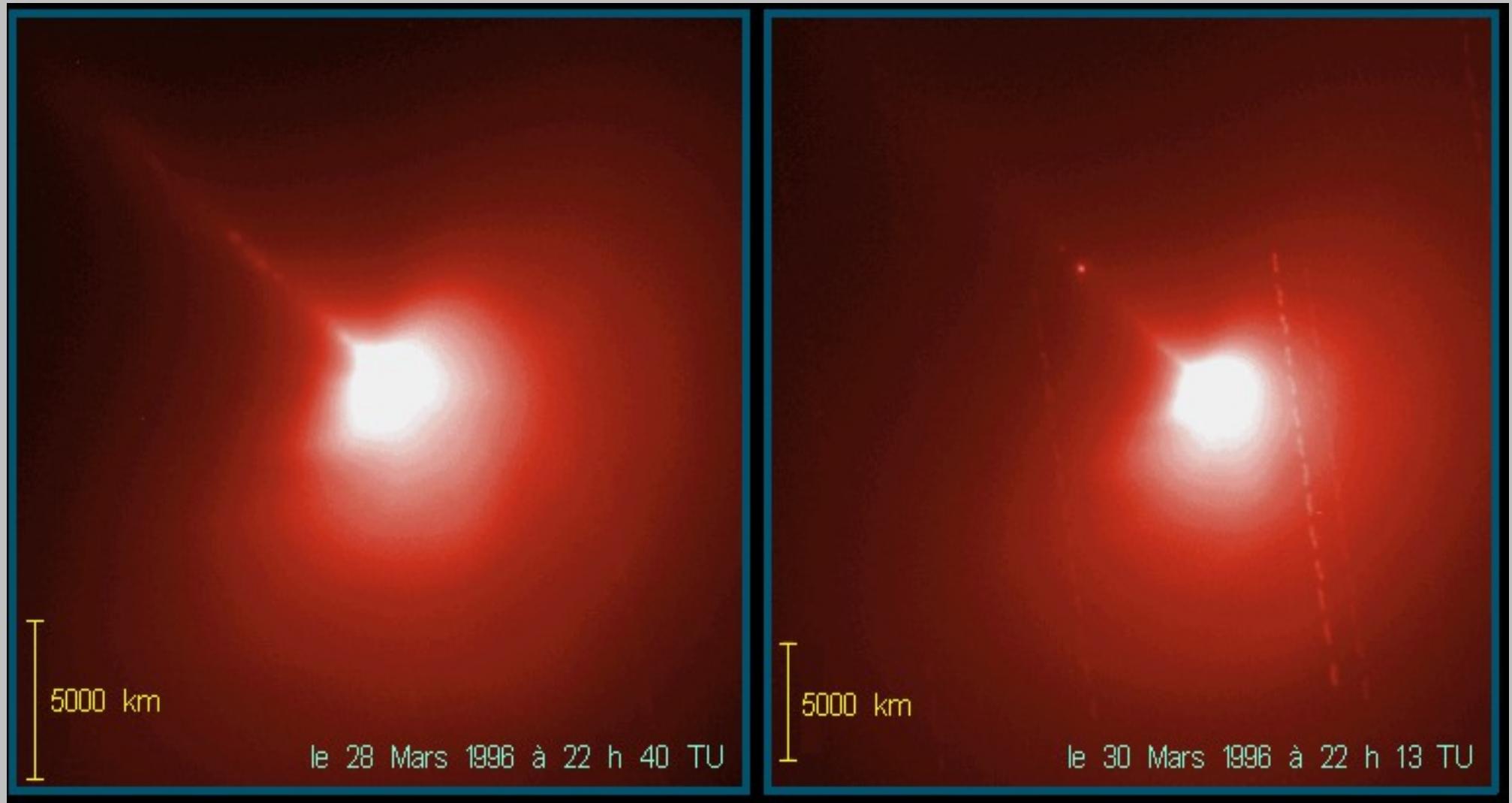
Noyau de la comète
109 P/SWIFT-TUTTLE

Période de rotation : 2,9 jours

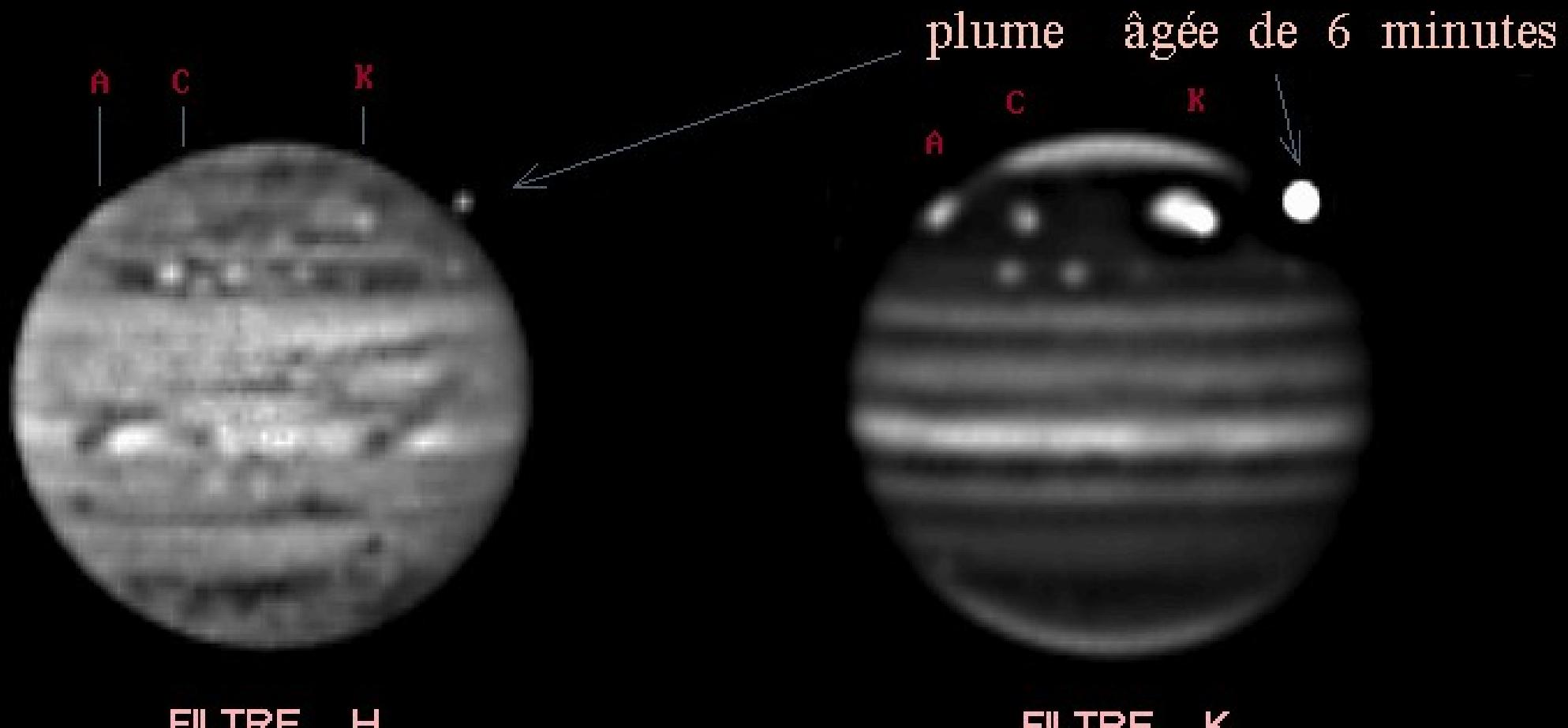
Outburst of comet SW1

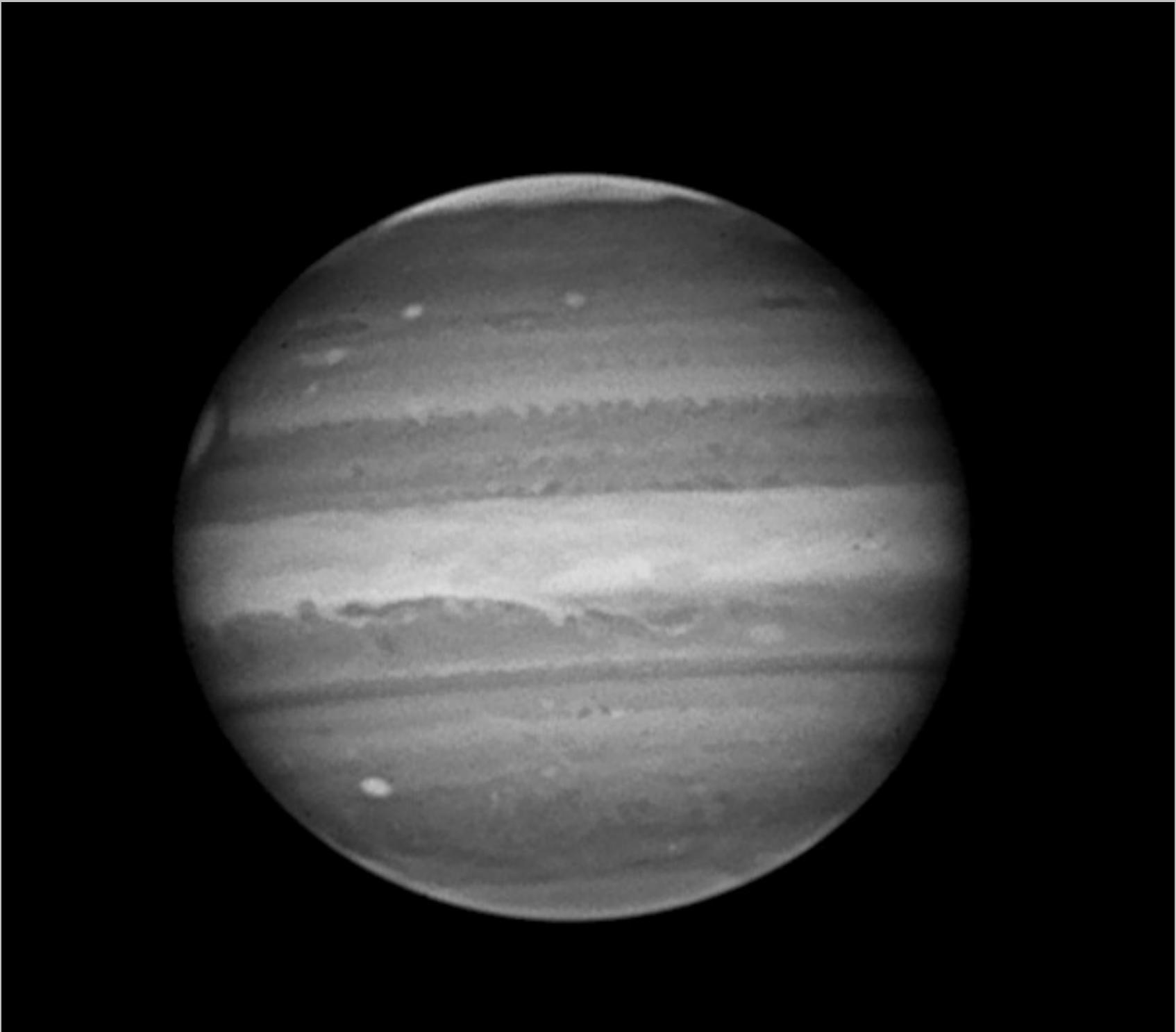


Fragmentation of comet Hyakutake

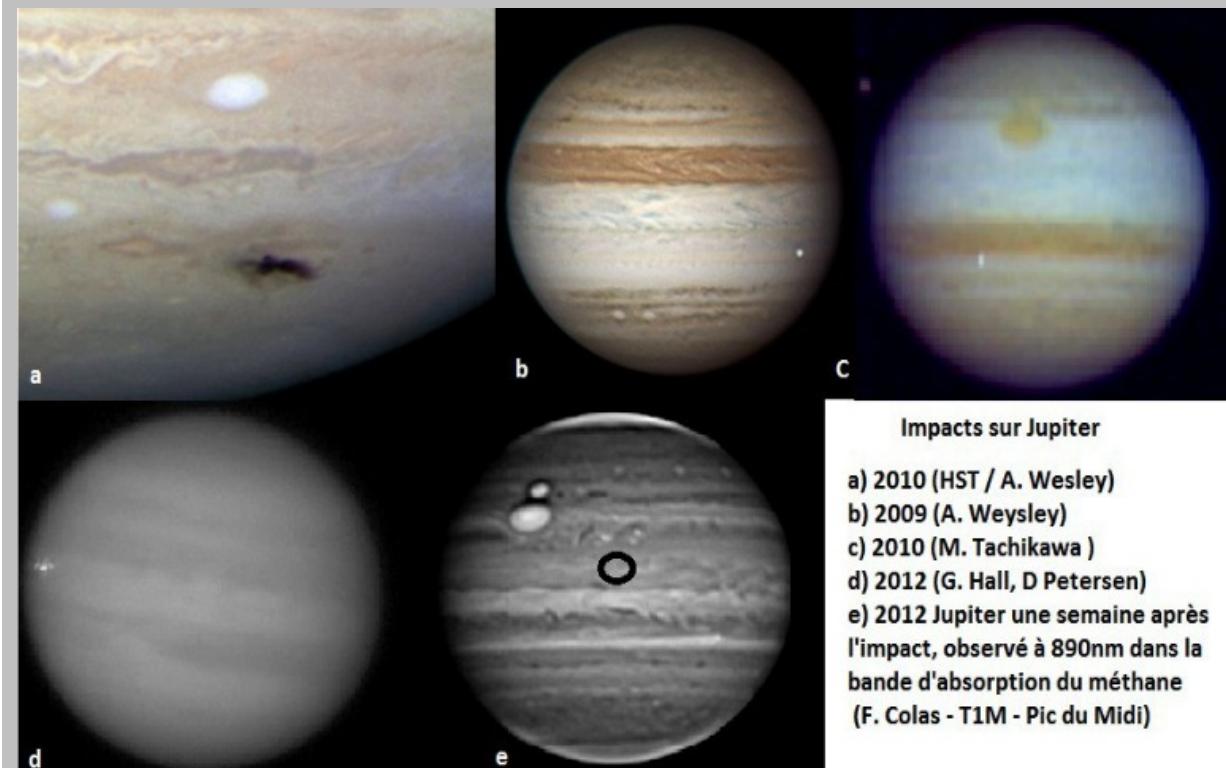
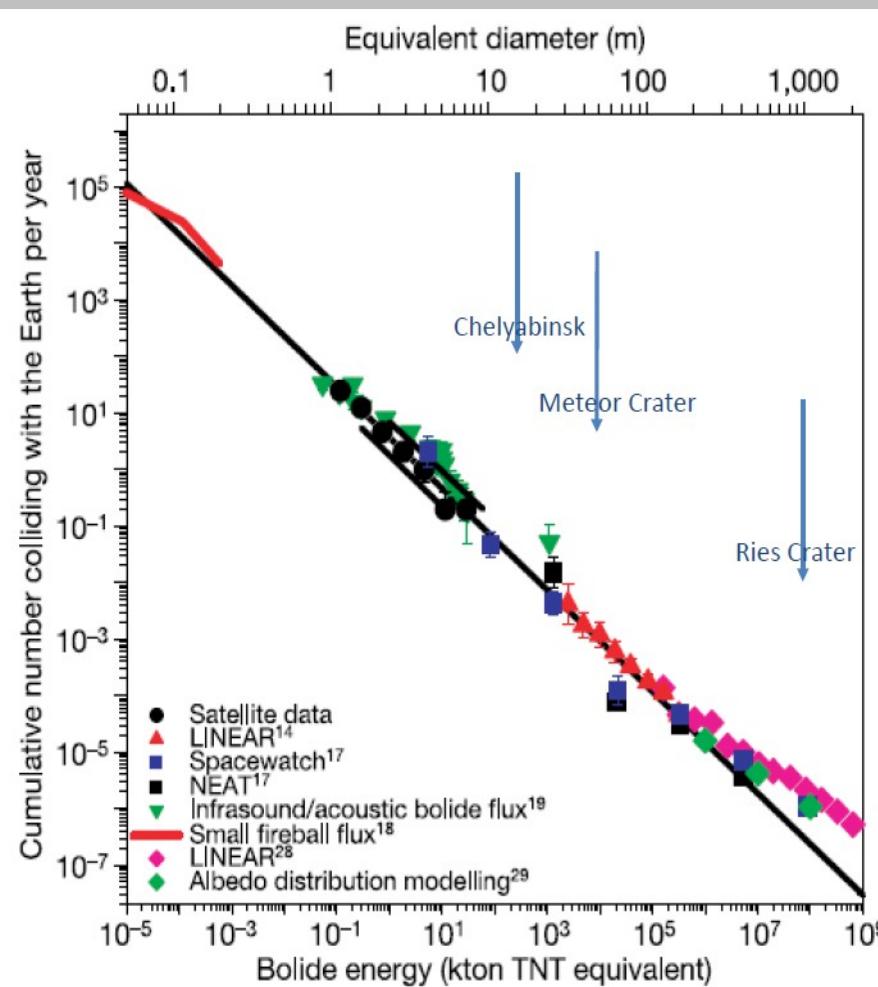


SL9 Impact Methane band filter observations

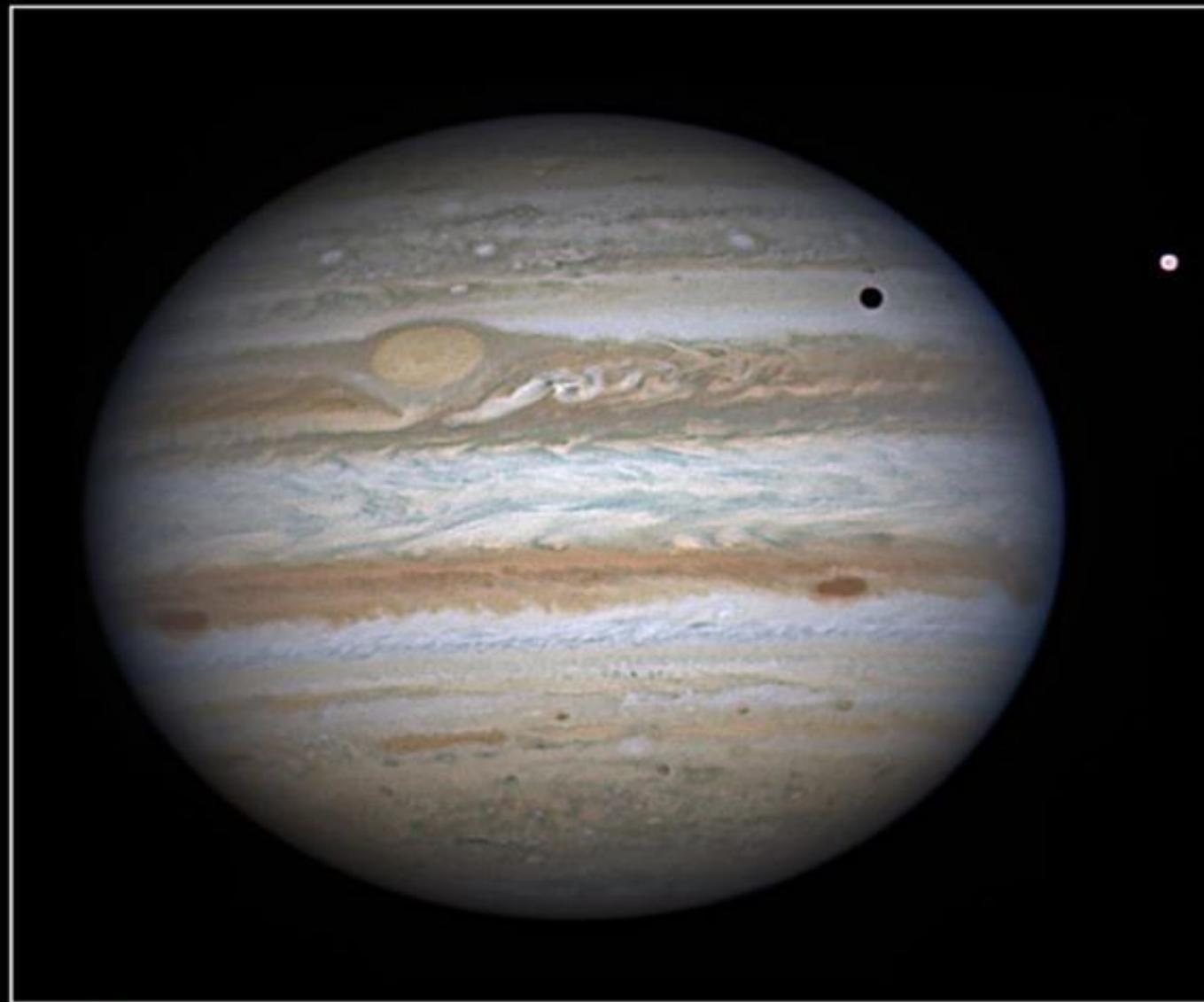




Survey of impacts on giant planets



Jupiter 2011 october 10th at 23h38m



Pic du Midi Observatory / 1 Meter Telescope

© S2P / IMCCE / Obs. Midi Pyrénées / JL Dauvergne / E Roussel / E Meza / P Tosi

Uranus

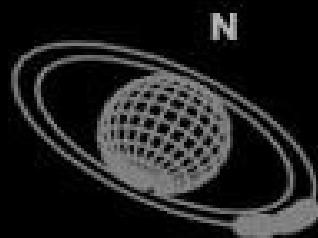


Neptune

Neptune & Triton (NI) - 2012-08-08

diam. 2.4° - mag. 7.8 - alt. 34° - CM 258.5° - $D_{\text{sun}} = -27.1^\circ$, $D_{\text{earth}} = -27.1^\circ$, $L_{\text{sun}} = 332^\circ$

• Triton



Simulation
(PDS Rings Planet Viewer)



IR>685nm 00:10.5 UT



You are welcome to Pic du Midi !!

colas@imcce.fr

