



The magnetotail of Titan from Cassini flyby T9 on 26 December 2005

F.M.Neubauer(1),H.Backes(1),M.K.Dougherty(2), C.S., Bertucci(2) ,A.Law(2),

C.T.Russell(3), J.Saur(1),A. Wennmacher(1) and THE MAG SUPPORT TEAM

(1)Institut fuer Geophysik und Meteorologie, Universitaet Koeln, Germany

(2) Space and Atmospheric Physics, Blackett Laboratory, Imperial College , United Kingdom

(3) Institute of Geophysics and Planetary Physics, University of California, United States

(neubauer@geo.Uni-Koeln.de / Fax: +49 02235-922741)

We shall use magnetic field data from the Titan encounter T9 on 26 December 2005

to investigate the magnetic field structure of the induced magnetotail of Titan.The

flyby occurred at an intermediate distance of 10409 km from Titan's surface downstream of the satellite in its equatorial plane.We shall show that in contrast to some previous ideas the tail is not even nearly cylindrical but rather has the shape of an aerodynamical delta-wing.We shall also argue physically that the boundary of the magnetotail corresponds to the draping boundary introduced previously for the tail close to Titan after TA,TB and T3 observations.The relationship between this tail boundary and the MHD-wing issuing from Titan as the high beta counterpart of the low beta Alfvén wing will also be discussed.