

# 49th Scientific Committee

## CoRoT Mission Status

C. DONNY



■ **As expected, 4 platform experiments have been performed in the last months of 2013**

- ◆ **COR\_THERM : assessment of some thermal effects on the solar array for the SWOT mission**
- ◆ **COR\_AGIL : satellite attitude control optimisation**
- ◆ **COR\_CMD\_STRUCT : use of structured commands**
- ◆ **COR\_SST : Star tracker end of life performance assessment**

⇒ **All have been run successfully with the expected timeline**

■ **One additional payload experiment COR\_SWARM was performed**

- ◆ **turn ON the instrument while increasing the payload temperature**
- ◆ **to give more inputs to strengthen the hypothesis proposed by the experts**

⇒ **Done as expected but unfortunately, the observed results were not really significant**

⇒ **Waiting for the experts' report**



## A « rough » Christmas for Corot

- An unexpected general rehearsal of the orbit lowering maneuver was done on december 23rd.
- For the first time in 6 years of operation, we had to perform an evading maneuver to avoid a piece of an american launcher Thor-Agena that threatened Corot on its orbit
- To do that, we decided to advance the first orbit lowering maneuver expected on january 6th
- This maneuver was executed successfully and the collision risk was removed



## End of life operations are going on

- **Since december 23rd and beginnig of january**
  - ◆ We are lowering the Corot Orbit perigee to 649km
  - ◆ Several weeks process, close to the end
  
- **Still to perform**
  - ◆ Put the satellite in survival mode
  - ◆ Observer the tank relaxation
  - ◆ 2 more platform experiments
  - ◆ Perform the battery discharge
  - ◆ Send the final telecommand to definitely turn OFF Corot
  
- **As said at the previous SC, the final turn OFF of the satellite is still expected in june 2014 but may be earlier according to discharge/relexation time**
  
- **De-orbitation is expected to last a bit more than 40 years**



## ■ Expected events at CNES

- ◆ Corot REVEX on data archiving on june 18th am
- ◆ Corot Day at CNES on june 18th pm (CNES internal communication event)

