

Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 1

Minutes of the 28th Scientific Committee

Held at Observatoire de Paris, May 29th 2008.

Prepared by par:	Annie Baglin	
Accepted by:	The SC members	

MODIFICATIONS OF THE DOCUMENT

Ed.	Revs.	Date	Modifications	Visa
1				

REFERENCE DOCUMENTS

Reference	Title of the document	
SC28-DR1	Mission status Olivier Vandermarcq CNES	
SC28-DR2	Data production and delivery S. Chaintreuil	
SC28-DR3	Future pointings AB, EM, MD	
SC28-DR4	The new archival scheme A.B.	



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 2

DIFFUSION:

G. ALECIAN	OPM	X
M. AUVERGNE	OPM/LESIA	X
A. BAGLIN	OPM/LESIA	X
P. BARGE	LAM	X
C. CATALA	OPM/LESIA	X
M. DELEUIL	LAM	X
M. FRIDLUND	RSSD/Estec	X
R. GARRIDO	IAA/Spain	X
T. GUILLOT	OCA	X
E. JANOT-PACHECO	Sao Paulo University	X
L. JORDA	LAM	X
E. MICHEL	OPM/LESIA	X
A. NOELS	IA Liege	X
M. OLLIVIER	IAS	X
H. RAUER	DLR Berlin	X
D.ROUAN	LESIA	X
I. ROXBURGH	QMW London	X
J. SCHNEIDER	OPM	X
G. VAUCLAIR	OMP	X
W. WEISS	IA Vienna	X
J-L. COUNIL	CNES	X
O. VANDERMARQ	CNES	X
C. IMAD	OPM/LESIA/secretariat	X



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 3

Participants:

G. Alecian, M. Auvergne, A. Baglin, P. Barge, C. Catala, M. Deleuil, M. Fridlund, R. Garrido, T. Guillot, E. Janot-Pacheco, L. Jorda, E. Michel, M. Ollivier, H. Rauer, D. Rouan, I. Roxburgh, J. Schneider, G. Vauclair, O. Vandermarcq, W. Weiss

Invited S. Chaintreuil for point 7 **Non-attendees**: A. Noels, JL Counil

1 Mission status

O.V. presents the different points concerning the status of the mission (see SC28-DR1).

* The present planning of the operations is:

LRc02 observations in the exofield started on April 15th, till September 8th.

SRc02 from September 13th to October 6th

SRa02 from October 13th to November 3rd at least

LRa02 from November 8th

- * There are only two points of concern
- Still some TM have been missed, but recently there has been a large decrease of the PLTM2 loss (Alcantara station), so it is now solved
- A non-understood erratic behaviour of the results of the barycentre position of one of the SCAO stars of CCDA1

This leads for the moment to <u>exclude pointing on CCDA1</u>, as long as the problem is not clarified.

It may have consequences on the scientific programme through constraints on the pointing positions.

- * OV presents also the work being done at CNES to avoid collisions with space Débris.
- * Many people raise the question of the extension of the mission.

The SC is strongly in favour of this extension at least for two years.

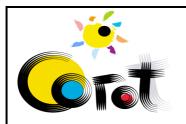
Though this extension seems evident for everybody (as long as the instrument works) it will be necessary to prepare a scientific case, the budget and the continuation of the cooperations for the operational part. It will be discussed at the next SC.

2 What's about the preliminary results?

* Number of planets discovered:

The two first planets discovered were already presented at various conferences and now are published in a referred Journal.

At the IUA 253 Symposium (Cambridge) that focused on transiting planets three discoveries were announced: 2 new giant planets and a very exciting brown dwarf that should be presented at the Collstars meeting, and published rapidly.



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 4

* Cumulative plots performed with all the periodic events detected in the exoplanet group are preented by P.B..

The depth of the events appears limited to $\sim 0.1\%$ independently of the period.

The duration of the events is consistent with a 1/3 power of the period. These plots need to be completely understood to help homogenize the results of the various teams.

* The FU activities: In the case of IRa01, all the candidates produced by the alarm mode were send for confirmation to the FU. Then the effort of the detection teams focused on the other runs: LRc01 and SRc01, for which N2 data were analyzed by a larger number of the detection teams. The results obtained by the 8 different teams were merged following automated procedures to help the selection of candidates for the FU operations.

The number of candidates for FU was larger than for IRa01 and is still increasing; so, more planets are expected. The next CEST meeting will focus on the way to further improve the detection and selection of planet candidates.

- * Seismology: presently the major results concern
 - -solar like pulsators
 - delta scuti stars
 - B and Bes: many modes
 - giants:p-modes and low frequency modes

exo-1b

3 Status of the publications

Exoplanet detection

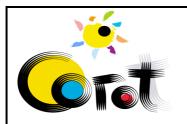
Exopianci acieciion	CAO-10	i published
	exo-2b	2 published
	exo-3b	1 paper submitted
		1 in progress
	exo-4b	1 submitted
	exo-5b	in progress
Seismology	HD 49933	1 submitted to A&A
	Solar like	1 submitted to Nature
	Discovery	and modelling of new Beta Cephei stars in the
	CoRoT exofields IR	01, SR01 and LR01 /July
	Discovery	and modelling of new slowly pulsating B stars in
	the CoRoT exofield	s IR01, SR01 and LR01 /July
	Discovery	and modelling of pulsating B stars in eclipsing
	binaries in the CoRo	T exofields IR01, SR01 and LR01 July
	Be pulsations	S
	W. Weiss (an	nd team): paper by fall 2008: The CP star HD50773

1 published

Instrument Background (R. Drummond) accepted in A&A

Performances in progress

Additional programmes



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 5

Philippe Gondoin: poster at the Cool Star 15

Frederic Baudin: AcroCOROT plans to publish a paper in a "prestigious" journal (Science) showing 1) that COROT, due to its stability is a very good tool to look for the signature of activity as microvariability and 2) that in the case of HD49933, we have the signature of two structures with different lifetimes that could be, if we allow ourselves to speculate a little, the signatures of spots (short lifetime) and facular regions (longer lifetime).

Conny Aerts: Publication of CVC methodology + application July 2008 Jose Renan "Rotation in CoRoT Era", rotation period for 20 stars f July.

4 Embargo rules

What are they presently?

All the matter which has been published can be used

Work in progress can be presented at meetings, but in the exoprogramme coordinates of unpublished objects cannot be given.

The presentations and posters at colloquia have to be submitted to CoRoTpub

An upgrade of the booklet for the exoplanet field has been prepared by P. Barge and will be posted on CoRoTpub.

E. Michel will prepare material from the Wroclaw presentation

Action SC28-1: EM prepares the upgrade of the booklet for the sismo programme June 25 **Action SC28-2**: A.B. Send a message to all Co-Is to state that.

Modification of the Scientific Policy and Data Rights document: done,

The last version is now 6.2, available at http://corot.oamp.fr/scomite.html, item 4, end of the page

5 Observing programme

Choice of the field of SRc02

This is a short run dedicated to seismology centred on HD 174732 The block is 1640.0

Choice of the field of SRa02

This run combines two objectives:

- * An additional programme proposed by Vannier, Guillot et al. to observe the star hosting planet HD 46375 in the seismology field to detect the refracted light on the planet
- * A complement of the seismology Core programme on O stars proposed by C. Aerts It is possible to accommodate 6 or 7 O stars, 4 of them belonging to NGC2244.

The block is 1579.8,

Choice of the field of LRa02



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 6

As already pointed out by M.A. there is some concern about pointing in the later proposed position, which tried to accommodate the observation of a low Vsini delta scuti star, and an O star.

The position now proposed by the SC contains, in addition to the star hosting planet, an early B star, a delta scuti with low sini, an Ap star, a Be star, 3 A and 2 F stars.

The block is 1338.

The different fields are described in SC28-DR3

Preliminary choice of the field of LRc03

Some AP programmes need the position ASAP to be able to observe this summer. The early choice for this field centred on HD 170580 is very poor for the exoprogramme. After a long discussion the SC proposes to optimise the exo programme for this long run in choosing a very good position with regards to its criteria only, and postpone the observation of HD 170580 for the next long run.

Action SC28-3 M.D.: propose a position for LRc03, after discussion with EM, asap and not later than June 28th.

6 Additional programmes

6.1 Announcements of opportunity

As described by W. W there are two different new AOs

- * AO-3 to propose Additional Program targets for LRa02 and SRa02, which has been issued on April 28^{th} with a dead line on May 25^{th} .
- * AO-4 a new general AO which will allow new scientists to join the CoRoT Additional program in proposing either completely new projects or projects overlapping the existing ones. If so a recommendation is made in the AO to try to collaborate with the existing ones. Dead line September 15th.

6.2 Policy concerning targets common to different programs

The SC states that there is no difficulty as each GI is allowed to publish only on the project he has proposed, and that there has been coordination among the groups following approximately the same aims.

6.3 Core programme versus Additional programmes

There has been some confusion about the boundaries between Core Programme and Additional programmes!

For instance studying the seismology of a B star in the sismo field belongs to the Core Programme while in the exofield it is an Additional Programme.

The exoplanet Core programme covers all the aspects of detection of planets in the exoplanet field.



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 7

So for instance detecting planets in binaries belongs to the Core Programme while the study of the properties of the binaries themselves belongs to the Additional programme

7 Data

S.Chaintreuil presents the status of the pipe-line and the planning of delivery. The document SC28-DR2 "Data production" contains a rapid description of the versions and their date of release It is accepted by the SC and will be presented at the Co-I meeting. A more detailed document will be prepared for the end of the year.

Action SC28-4: Edit a document on corrections and versions of the data SC, MA, AB December 2008

8 Archives and VO environment

There has been some evolution of the archive project during the mission.

As decided, IAS remains the only mission archive, in charge of the early delivery of the data to the CO-Is and GIs and to the management of the versions of the N1 and N2 data.

But, after the proprietary period, it seems important for the scientific community to be able to access the data in a rich environment.

It is proposed that data could be accessible in four different sites: IAS, CDS, LAEFF and NStED. But, CDS, LAEFF and NStED will have to retrieve the data from IAS. (See SC28-DR4).

IAS will have to produce Metadata needed to manage this access.

CDS, NStED, LAEFF and LAM will built in cooperation some VO compatible tolls defined by the demand of the users,

The functionalities of the different sites will probably be different depending on their objective.

9 Meetings

9.1 CO-is and GIs meeting

The second meeting, CGM II, is held on Friday May 30th at CNES HQ More than 80 participants have registered.

A third meeting CGM III will be decided at the next SC.

9.2 CoRoT International symposium

The dates (February 2nd to 5th) are fixed

The place is Maison internationale Cite Universitaire Boulevard Jourdan Paris XIV.

The sponsors are CNES, HELAS-5 and Paris Observatory.

It is proposed to include in the programme a session in honour of F. Praderie, followed by a reception at Paris Observatory as well as a press conference on Wednesday afternoon.

The web site is not yet open and the SC stresses that it is very urgent.



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 8

Due to the wide variety of subjects, it seems impossible to held this meeting in less than 4 days. The SC stresses the need to have a full 4 days meeting, due to the scientific impact of this manifestation.

Action SC28-5 AB Ask for a rapid opening of the website and a total duration of 4 complete days

A preliminary programme will be distributed by AB asap, to be checked by the SC and then put on the web site.

9.3 JENAM

Minisymposium astero

E. Michel is giving an invited paper

General lecture, Contacts have been taken by WW and AB but no news

9.4 Participation to Wroclaw seismology workshop

E. Michel, is giving an invited paper on CoRoT, R Samadi on the general question of mode excitation, but as remarked by AB, the place given to CoRoT is small...probably due to the early announcement.

9.5 Participation to the Liège colloquium

A few presentations will deal with the CoRoT results but there is no specific talk.

9.6 Participation to the cool star meeting

An invited talk by C. Catala on asteroseismology and rotation is foreseen. Due to the discovery of CoRoT-exo-3b, it is strongly suggested to propose a talk by Magali on this intermediate object.

9.7 International doctoral school in Paris

The Doctoral School of Ile-de-France is organizing an International Young Astronomers School on CoRoT Astrophysics, from Oct. 6 to 10, 2008, in Meudon, entitled "THE STAR AND ITS PLANETARY SYSTEM IN THE WAKE OF COROT ADVANCES". The objective of the school is to introduce the students to the fields of stellar evolution and exoplanet science. The school also covers the techniques of asteroseismology, planetary transit detection, and more generally space-based ultra-high precision photometric monitoring. See details at http://ecole-doctorale.obspm.fr/rubrique163.html "

10 PR activities

CEST has decided to issue a communiqué after each meeting. The first one was issued on May 20th after the CEST meeting of May, at the Boston conference.

The SC stresses the importance of having regular releases of information as this one.

The frequency of one per month or per two months seems OK

The next one could be issued after the Wroclaw meeting, and devoted to seismology. Action SC28-6: prepare the seismology communiqué AB, EM, July 4th.



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 9

11 General management

11.1 Cooperation with NASA

<u>Unofficial</u>: anonymous data have been send to the Kepler team, to test their pipe-line. There is a demand by Mike Shao to access the same kind of data to estimate the stellar activity for the preparation of SIM.

Some discussions in the SC leads to the decision to answer positively

Action SC28-7: AB: Send the same set of data to Mike Shako

Official: There is complete agreement about the collaboration with NStEd, which will be part of a general document CNES/NASA on the cooperation

Concerning the Keck time, MD has initiated some discussions among the FU group, which will be written soon by MD and MF, for an agreement by the SC.

There have been discussions in parallel at the Boston Symposium with Chas Beichman, and a letter will be send soon by NASA HQ (Lia Lapiana).

It will be proposed that an AO for proposals will be send to the US community for the use of KECK time for CoRoT FU. This would cover, essentially photometric FU and stellar characterisation, and will stress that an access to observational ressources other than KECK can be proposed too.

2 or 3 US PIs will be selected by the CoRoT Team and a NASA representative. These colleagues will become associated scientists in teams lead by a CoRoT Co-I.

11.2 CoRoTpub

Tristan G. proposes to extend the accessibility to the CO-Is and collaborators nominated by the Co-Is, so that CoRoTpub remains the main source of information and not private mails. Accepted.

11.3 List of CO-Is

No change

Next SC meeting October 2nd in Paris



Minutes of the 28th Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.08.009 Version: 1

Date: 09/06/2008

Page: 10

12 Actions

Actions from SC 19.

Actions from SC25

SC25-9 Put the list of meetings on the web page AB ASAP

Actions from SC27

SC27-1	Ask CNES/DP for a letter on the extension of the mission	OV	March 31st
SC27-9	Prepare an upgrade of the booklet for Aps WW	WW	April 15
SC27-12	Prepare the new version	AB	April 30th

Actions from SC28

SC28-1	Ugrade of the sismo booklet	EM	June 25th
SC28-2	Message to Co-Is on embargo	AB	ASAP
SC28-3	Position of LRc03	MD.EM,AB	June 28tj
SC28-4	Document on corrections	SC, MA. AB	Dec 2008
SC28-5	Comuniqué sismo	AB, EM	July 4th
SC28-6	Symposium	AB	asap
SC28-7	Send data to Mike Shao	AB	asap