

Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 1

## Minutes of the 32nd Scientific Committee

Held at Paris Observatory, salle Danjon, on May 19th 2009

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	
SC32-DR1	Mission Status O. Vandermarcq	
SC32-DR2	M. Auvergne	
SC32-DR3	Pipeline for the exo-Imagettes L. Jorda	
SC32-DR4	S. Chaintreuil	
SC32-DR5	F. Baudin	
SC32-DR6	E.M.	
SC32-DR7	Extension, version 2 A. Baglin	



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

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
O. LA MARLE	CNES, Paris	X
O. VANDERMARQ	CNES, Toulouse	X
C. IMAD	OPM/LESIA/secretariat	X



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 3

#### **Participants:**

All members were present!

#### 1 Mission status

The present run LRc03 will last 90 days, stopping on July2.

After the loss of chain 1 it has been proposed by Michel A. to use the telemetry of the chain to

- -increase the number of imagettes exo
- -increase the size of the imagettes sismo
- -increase the number of oversampled targets

Whereas the two first changes are already implemented in LRc03, the third one needs a modification of the onboard software, which cannot be implemented before autumn.

The Run looks satisfactory though the temperature of the CCDs is quite high (-30 instead of -38) due to the high value of the roll.

The default of chain 1 is under investigation, with the contribution of many teams (including ESTEC). There could be a new test at the end of this run to try to get more data.....

The next run LRc04 is foreseen to last 89 days (sismo) and 85 days (exo) and stop September 30<sup>th</sup> at the latest.

O.V. stresses that in autumn SMOS, the fourth Proteus mission will be launched (presently on the  $9^{th}$  of September) and the operation teams may be very busy.

So he proposes to prepare quite in advance the next runs LRc04 but also LRa03 and SRa03.

The upload of the new software (increase of the number of oversampled targets) will be done in October.

O.V. rises the question of the drift. Presently  $\Omega=12.24$ .

It is recalled that the drift was made to reach the target of LRa03 in good conditions.

The position of the plane of the orbit is now sufficient.

So The SC proposes to stop the drift at the earliest possibility.

OV remarks that this can be done beginning April 2010 at the latest (Omega = 9.85°).

## 2 Consequences of the loss of chain 1

M.A. presents the situation (see SC32-DR2)

The main concern is the slight degradation of the pointing due to the smaller distance of the sismo targets.

MA proposes to study the possibility to use exo imagettes to try to improve the correction. But for the moment, the data will be produced as before.

## 3 The exo-imagette pipe-line



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 4

LJ presents the status of this automatic pipe-line, adapted from the work of Roland den Hartog. The results were very noisy and Konstanz Zwintz and Michel Auvergne, using crude aperture photometry, obtained less noisy results.

Many bugs have been corrected in the pipe-line (incorrect background correction, calculated masks sometimes non convex....) and the level of noise is now of the same order of magnitude, generally smaller, though the duty cycle is slightly reduced.

Some additional simplifications are being done. But the treatment of hot pixels remains problematic.

It is decided to organise a teleconf with all the participants to exchange the files and compare the methods.

**Action SC32-1** M.A.: organise a teleconf on the exo-imagettes pipeline ASAP.

#### 4 Data deliveries

Presented by Sylviane Chaintreuil, invited, see SC32-DR4.

Version V1: In seismology: correction of a bug on a flag: reprocessing of all runs

3 runs are now public: Ira01, LRc01 and SRc01

Lra01 will become public this summer

Version V2: LRc02 almost finished

In progress SRc02 and SRc01

LRa02 and LRc03 will be delivered directly as V2, and then all the next runs.

In seismology, there is some adjustment to be done due to the better N1 processing.

LRc02 will be available at the end of the week

The SC says that obtaining LRa02 is very urgent.

While there is no need for faster delivery for the exodata, the sismo group asks for more rapid delivery for the sismo data if possible.

To improve the efficiency of the transit detection and of the FU programme, P.B. proposes to deliver the N1 alarm data through the Wiki to the whole CEST.

This is accepted unanimously and decided.

W.W. asks for accessing the data of the oversampled AP targets asap, to modify the list, if needed.

This is accepted. LAM will be in charge of this access.

#### 5 The archives

Presented by Frédéric Baudin, invited, see SC32-DR5.



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 5

There is a lot of work with the different archives and versions...more than expected.

The public archive has been open 4 months ago.

There has been 1360 visits, many from the US

This means that the data are used widely outside the CoroT community.

## 6 The observing programme

\* LRc04 as proposed by C. Moutou is good for the exoplanet

E.M. has proposed a slight shift to accommodate some sismo targets (SC32-DR6).

M.A. confirms that pointing will be possible.

So this position is decided. It corresponds to bloc 1704.3

- \* LRa03 as already proposed (bloc 440.7) is very poor for the exo programme
  The sismo field contains 1 solar-like, 1 delta scuti, the coldest Be an F2V star candidate for D
  Scut and G Dor....
- \* SRa03 is dedicated to an SdB in the exofield. there is still some flexibility for the position around the exo target. There are no ground observations.

O.V. asks for a position by end of June.

Action SC32-2 A.B. Fix the approximate position of LRa03 and SRa03 by June 15th.

MD says that the ground observations have to start immediately.

#### 7 Extension of the mission

O. La Marle presents the planning

The document should be ready by June 15<sup>th</sup>

He considers that it is presently at a good level but has to be slightly completed by illustrations, table of contents and a few statistics. It should also contain a § on "From candidates to planets"

There has been a long discussion based on the draft distributed by A.B.

The scientific objectives have been classified by their scientific priority, the length of observation and the pointing.

The upgrade of the second version is distributed among the SC members.

Texts should be send to A.B. before June 1st

Action SC32-3: Texts ready by June 1st T.G. A.N. E.M., E.J., WW

**Action SC32-4:** Final document to CNES June 15<sup>th</sup> A.B.

There will be an internal review at CNES with several "directors" and 2 persons from the groupe ad--hoc astro by June.



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 6

Then in fall CNES will organise an "Inter-organisme meeting" sort of Steering Committee where all the actors will be invited, which will give a recommendation to the CPS. O.L. asks the partners to give the names of the person in charge in their country.

### 8 General management

#### 8.1 CoRoT Pub

Works very well. Thanks to Tristan. Only pb with large files, difficult to solve

#### 8.2 Meetings

Workshop on exoplanets: Decisions will be taken after the next CEST

Action SC32-5: Organise the meeting in Marseille P.B., M.D.

#### 8.3 Symposium presentations

The web page has files unreadable

A.B. posts the CD-Rom on the ftp anonymous of the Observatory

#### 8.4 Scientific policy and Data rights document

A.B. has upgraded the document. The present version is 6.4.

It will be put on the web page but also send again to all CO-Is and GIs.

#### 8.5 List of CO-Is

E.J. proposes to replace R. de la Reza by S. Ferraz-Mello.

This is accepted by the SC

#### 8.6 Agreement with NASA

The agreement is ready to be signed. A few corrections are proposed. O. L. organizes a teleconf for a final version.

There is presently only two proposal for Keck

One or two nights have been attributed on the technical time. (Magali help)

#### 8.7 Next meeting

A.B. organise a Doodle between September 14<sup>th</sup> and 18<sup>th</sup>.

#### 9 Actions

**Actions from SC28** 

SC28-4	Document on corrections	SC, MA. AB	Dec 2008	

#### **Actions from SC30**



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 7

## **Actions from SC31**

SC31-1	Next Symposium in Marseille	PB	next SC	
SC31-2	Thematic conferences in 2010	EM, PB	next SC	

## **Actions from SC32**

SC32-1	teleconf on the exo-imagettes pipeline	MA	ASAP	
SC32-2	Fix the position of LRa03 and SRa03	A.B.	June 15th.	
SC32-3	Texts of the mission extension documentready.	T.G.,H.R,A.N. E.M., E.J.	June 1st	
SC32-4	Final document to CNES	A.B	June 15 <sup>th</sup>	



# Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

### COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 8

## Annex List of Co-Is

Name	first name	Country/lab	Institution	activity	WG
RAUER	Heike	Germany	DLR Berlin	GBO, planet statisitcs, atmospheres	E/ECO
HATZES	Artie	Germany	Thueringer	GBO exo and sismo	E/SGBO
PAETZOLD	Martin	Germany	Cologne	Exo atmopsheres	Е
WUCHTERL	Guenther	Germany	MPI	Planet formation, mass distribution	E
ERIKSON	Anders	Germany	DLR Berlin	GBO, dynamics, planet statistics	E/ECO
FRIDLUND	Malcom	ESTEC	RSSD	Planets, ground obs,activity	E/A
FAVATA	Fabio	ESTEC	RSSD	Young stars activity	Α
FOING	Bernard	ESTEC	RSSD	Link to space missions, activity	Α
GONDOIN	Philippe	ESTEC	RSSD	activity	E/A
NOELS	Arlette	Belgium	Liège	Stellar evolution	S
AERTS	Conny	Belgium	Leuven	Beta Ceph, SPB	S
SCUFLAIRE	Richard	Belgium	Liege	Non adiabatic analysis	S
GILLON	Michael	Belgium	Liege	Spectroscopic analysis	E
VANDENBUSSCHE	Bart	Belgium	Leuven	Instrumentation, Ground segment	Inst
GARRIDO	Rafael	Spain	IAA	GBO photometry	S
RIBAS	Ignacio	Spain	U. Barcelona	Binaries Ecclipsing	AP
DEEG	Hans	Spain Spain	IAC	Binaries Ecclipsing Transit detection	E
DEEG ROCCA-CORTES	Hans Theo	Spain Spain Spain	IAC IAC	Binaries Ecclipsing Transit detection Data analysis and interpretation	E S
DEEG	Hans	Spain Spain	IAC	Binaries Ecclipsing Transit detection	E
DEEG ROCCA-CORTES SOLANO WEISS	Hans Theo Enrique Werner	Spain Spain Spain Spain Austria	IAC IAC	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap	E S SGBO S/AP/SG
DEEG ROCCA-CORTES SOLANO WEISS HANDLER	Hans Theo Enrique Werner Gerald	Spain Spain Spain Spain Austria Austria	IAC IAC LAEFF  Vienna Vienna	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor	E S SGBO S/AP/SG APS
DEEG ROCCA-CORTES SOLANO WEISS HANDLER DVORAK	Hans Theo Enrique  Werner Gerald Rudolf	Spain Spain Spain Spain Austria Austria Austria	IAC IAC LAEFF  Vienna Vienna Vienna	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses	E S SGBO S/AP/SG APS E
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER	Hans Theo Enrique  Werner Gerald Rudolf Helmut	Spain Spain Spain Spain Austria Austria Austria Austria	IAC IAC LAEFF  Vienna Vienna Vienna Graz	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres	E S SGBO S/AP/SG APS E E
DEEG ROCCA-CORTES SOLANO WEISS HANDLER DVORAK	Hans Theo Enrique  Werner Gerald Rudolf	Spain Spain Spain Spain Austria Austria Austria	IAC IAC LAEFF  Vienna Vienna Vienna	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses	E S SGBO S/AP/SG APS E
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER	Hans Theo Enrique  Werner Gerald Rudolf Helmut	Spain Spain Spain Spain Austria Austria Austria Austria	IAC IAC LAEFF  Vienna Vienna Vienna Graz	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres	E S SGBO S/AP/SG APS E E
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER ZWINTZ	Hans Theo Enrique  Werner Gerald Rudolf Helmut Konstanz	Spain Spain Spain Spain Austria Austria Austria Austria Austria	IAC IAC LAEFF  Vienna Vienna Vienna Graz Vienna	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres PMS	E S SGBO S/AP/SG APS E E E
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER ZWINTZ  ROXBURGH AIGRAIN QUELOZ	Hans Theo Enrique  Werner Gerald Rudolf Helmut Konstanz	Spain Spain Spain Spain Spain  Austria Austria Austria Austria Austria ESA/UK	IAC IAC LAEFF  Vienna Vienna Vienna Graz Vienna  QMW London	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres PMS  Excitation and amplitudes Activity modeling GB follow-up	E S SGBO  S/AP/SG APS E E S S AP
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER ZWINTZ  ROXBURGH AIGRAIN QUELOZ KJEIDSEN	Hans Theo Enrique  Werner Gerald Rudolf Helmut Konstanz  Ian Suzanne	Spain Spain Spain Spain Spain Austria Austria Austria Austria Austria ESA/UK ESA/UK ESA/Switzerland ESA/Danemark	IAC IAC LAEFF  Vienna Vienna Vienna Graz Vienna  QMW London  d Geneve	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres PMS  Excitation and amplitudes Activity modeling GB follow-up TBC	E S SGBO  S/AP/SG APS E E S S AP GBO SGBO
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER ZWINTZ  ROXBURGH AIGRAIN QUELOZ	Hans Theo Enrique  Werner Gerald Rudolf Helmut Konstanz  lan Suzanne Didier	Spain Spain Spain Spain Spain Austria Austria Austria Austria Austria ESA/UK ESA/UK ESA/UK ESA/Switzerland	IAC IAC LAEFF  Vienna Vienna Vienna Graz Vienna  QMW London  d Geneve	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres PMS  Excitation and amplitudes Activity modeling GB follow-up	E S SGBO  S/AP/SG APS E E S S AP
DEEG ROCCA-CORTES SOLANO  WEISS HANDLER DVORAK LAMMER ZWINTZ  ROXBURGH AIGRAIN QUELOZ KJEIDSEN	Hans Theo Enrique  Werner Gerald Rudolf Helmut Konstanz  Ian Suzanne Didier Hans Mario	Spain Spain Spain Spain Spain Austria Austria Austria Austria Austria ESA/UK ESA/UK ESA/Switzerland ESA/Danemark	IAC IAC LAEFF  Vienna Vienna Vienna Graz Vienna  QMW London  d Geneve Aarhus	Binaries Ecclipsing Transit detection Data analysis and interpretation GB Data base  APWG +lambda Boo, Ro Ap Gam Dor Exoplanet orbit analyses planetary atmospheres PMS  Excitation and amplitudes Activity modeling GB follow-up TBC	E S SGBO  S/AP/SG APS E E S S AP EGBO SGBO



# Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

#### COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 9

FERRAZ-MELLO	Sylvio	Brazil	U Sao Paulo	Dynamics of planetary systems	E
MELLO	Gustavo	Brazil	O Vallongo, Rio	Gaints	AP
			U Rio Grande del		
de MEDEIROS	José Renan	Brazil	Norte	Rotation	S/AP
PORETTI	Enio	Italy	Merate	Spectroscopy/delta scuti	SGBO
MICHEL	Eric	France	LESIA	SWG+delta scuti analysis	S
CATALA	Claude	France	LESIA	SGBOWG	SGBO
ROUAN	Daniel	France	LESIA	Onboard treatment	Е
GOUPIL	Marie-Jo	France	LESIA	Moderate rotation	S
MOSSER	Benoit	France	LESIA	Solar planets	E/S
SAMADI	Reza	France	LESIA	Amplitudes	S
TIPHENE	Didier	France	LESIA	Instrument	Instr
BARBAN	Caroline	France	LESIA	Data analusis	S
SCHNEIDER	Jean	France	LUTH	Planets in multiple systems	E
ALECIAN	Georges	France	LUTH/GEPI	Chemically peculiar stars	S
HUBERT	Anne-Marie		GEPI	Be stars	AP/S
LEBRETON	Yveline	France	GEPI	Models	S S
NEINER	Coralie	France	GEPI	Be stars	S/AP
NLINLIX	Coralle	Trance	GLF1	De Stais	3/ AF
LEGER	Alain	France	IAS	Earth like	E
BOUMIER	Patrick	France	IAS	Instrument	Inst
BAUDIN	Frederic	France	IAS	Time frequency analysis	S
OLLIVIER	Marc	France	IAS	Instrument	E/Instr
APPOURCHAUX	Thierry	France	IAS	data analysis	S
BORDE	Pascal	France	IAS	data analysis	E
BARGE	Pierre	France	LAM	EWG+Hot planet statistics	E
DELEUIL	Magali	France	LAM	EGBO	EGBO
JORDA	Laurent	France	LAM	Data reduction	Е
MOUTOU	Claire	France	LAM	EGBOWG	EGBO
LLEBARIA	Antoine	France	LAM	Masks in E field	E
BOUCHY	François	France	IAP	Radial velocities	E
VALICE AID	Camand	F	OMP /LAT	WD	C
VAUCLAIR	Gerard	France	OMP/LAT	WD	S
TOUBLANC	Dominique	France	OMP/CESR	Catalogues	E
VAUCLAIR	Sylvie	France	OMP/LAT	Diffusion and mixing	S
RIEUTORD	Michel	France	OMP/LAT	Fast rotation	S
CHARPINET	Stephane	France	OMP/LAT	Corotsky	S
LIGNIERES	François	France	OMP/LAT	Rotating models	S+SGBO



Minutes of the 32nd Scientific Committee

Author: Annie BAGLIN

Reference:

COROT.LESIA.09.006 Version: 1

Date: 29/05/2009

Page: 10

GUILLOT	Tristan	France	OCA	Hot Jupiters	Ε
PROVOST	Janine	France	OCA	Direct seismic analysis	S
BERTHOMIEU	Gabrielle	France	OCA	Optimisation interpretation	S
TOUTAIN	Thierry	France	OCA	Data analysis	S
MATHIAS	Philippe	France	OCA	gamma dor	S
TURCK-CHIEZE	Sylvaine	France	Sap/CEA	Modeling, g modes	S
GARCIA	Rafael	France	Sap/CEA	Data analysis	S
BALLOT	Jerome	France	SaP/CEA	modeling	S
AUVERGNE	Michel	France	LESIA	IS	Inst
BAGLIN	Annie	France	LESIA	PI	

## GIs

Vannier	Martin	mvannier@eso.org
Gonzales	Walter	gonzales@dge.inpe.br
Maceroni	Carla	maceroni@mporzio.astro.it
Surdej	Jean	surdej@astro.ulg.ac.be
Gizon	Laurent	gizon@linmpi.mpg.de
Lanza	Antonio	nlanza@ct.astro.it
Valio	Adriana	avalio@gmail.com
Kollath	Zoltan	kollath@konkoly.hu
Chadid	merieme	chadid@unice.fr
Ripepi	Vincenzo	nlanza@ct.astro.it
De Ridder	Joris	joris@ster.kuleuven.ac.be