



FINAL PROGRAMME

Programme at a glance

Wednesday 12 June 2013				Thursday 13 June 2013				Friday 14 June 2013	
08h30	Welcome			08h30	Welcome			09h00	Welcome
	Opening				Launch range facilities	Launch complex	Test facilities		
	Welcome addresses				Session 2 - Environment - regulations - safety	Session 2 - Exploitation - Operations	Session 2 - Maintenance and exploitation		Plenary session 2
09h00 10h30	Plenary session 1			09h00 10h30				09h30 10h30	
Coffee break				Coffee break				Coffee break	
11h00 12h00	Plenary session 1			11h00 12h30	Session 2 - Environment - regulations - safety	Session 2 - Exploitation - Operations	Session 2 - Maintenance and exploitation	11h00 12h00	Plenary session 2
Lunch				Lunch				12h00 12h30	Closing
	Launch range facilities	Launch complex	Test facilities		Launch range facilities	Launch complex	Test facilities		
14h00 15h30	Session 1 - Space port architecture - operations	Session 1 - Design and concepts	Session 1 - Description and general characteristics	14h00 15h30	Session 3 - Communications - tracking stations	Session 3 - Specific technical aspects	Session 3 - Sub systems and techniques		
Coffee break				Coffee break					
16h00 17h30	Session 1 - Space port architecture - operations	Session 1 - Design and concepts	Session 1 - Description and general characteristics	16h00 17h30	Session 3 - Communications - tracking stations	Session 3 - Specific technical aspects	Session 3 - Sub systems and techniques		
				20h	Dining cocktail				



Wednesday 12 June 2013

8h30-9h30 **Opening**

Welcome addresses: Michel EYMARD, CNES, Paris, France

9h30-10h30 **Plenary session 1**

Chairs: Michel Eymard and Bernard Brandt

O01 - Baikonur Proton Launch Operations

James Youdale
ILS, Belcastel, France

O02 - Soyuz in French Guiana: summary of a success story

Jean-Marc Astorg
CNES, Paris, France

10h30-11h00 **The coffee breaks are sponsored by TSAT.**

11h00-12h00 **Plenary session 1**

Chairs: Michel Eymard and Bernard Brandt

O03 - To be confirmed - Alcantara Space Launch

Mauricio Lima, Devanir Pinheiro Correa, Marco Antonio Vieira de Rezende
CLBI, Alcantara, Brazil

O04 - The Present and Trend of China's Long March Vehicles Ground and Launch Systems Processing

Xirong Yang
China Academy of Launch Vehicle Technology, Beijing, China

12h00-14h00 **The lunch is sponsored by APCO.**

14h00-17h30 **Launch Range Facilities (Room Ariane) - Session 1 - Space port architecture - operations**

Chairs: Michel Starozinski and Jacques Gigou

14h00

O05 - From one shot EGSE to generic EGSE

Simon Klingler
CLEMESSY, Mulhouse, France



14h30 **O06 - Withdrawn**

15h00 **O07 - Spaceport design for safety**

Jean-Pierre Trinchero
CNES, Toulouse, France

15h30-16h00 **The coffee breaks are sponsored by TSAT.**

16h00 **O08 - Withdrawn**

16h30 **O09 - A Digital Management Platform for Working Process Control in Rocket Launch Field**

Xirong Yang
China Academy of Launch Vehicle Technology (CALT), Beijing, China

17h00 **O10 - Research on power supply and grounding system of Aerospace Launch Facility**

Xiang Zhang
China Academy of Launch Vehicle Technology, Beijing, China

14h00-17h30 **Launch Complex (Room Soyuz) - Session 1 - Design and concepts**

Chairs: Pier-Michele Roviera and Jacques Bertrand

14h00 **O11 - Rocket Sled Track Facility as a Test Platform and a Launch Assist of Space Planes**

Nakata Daisuke
Muroran Institute of Technology, Muroran-shi, Japan

14h30 **O12 - Reuse of former launch complex**

Marc Vales
CNES, Paris, France

15h00 **O13 - Integrating Sustainable Practices into Ground Based Space Facilities**

Mike McCarthy
Reynolds, Smith & Hills, Inc., Jacksonville, FL, United States

15h30-16h00 **The coffee breaks are sponsored by TSAT.**

16h00 **O14 - A next generation launch complex for a next generation**



launcher: Ariane 6 AIT facilities and Launch Pad

Christian Canart
CNES, Paris, France

16h30 O15 - An integrated Launch Vehicle – Launch Complex approach to development of a New European Launch System

Kate Underhill
MT Aerospace AG, Augsburg, Germany

17h00 O16 - An Analysis of the Design Requirements of General Assembly-test Building at Large Manned Spacecraft Launch Site

Zhao Ting
China Academy of Launch Vehicle Technology, Beijing, China

14h00-17h30 Test Facilities (Room Vega) - Session 1 - Description and general characteristics

Chairs: Anja Frank and Jacques Tanguy

14h00 O17 - Cryogenic tests facilities and achievements for launcher tanks developments and technologies

Sébastien Bianchi
Air Liquide Advanced Technologies, Sassenage, France

14h30 O18 - BEAP: A5 or VEGA Booster test Bench in flight position

Frédéric Munos
CNES, Kourou, France

15h00 O19 - Overall panorama of the test facilities in snecma vernon

Philippe Caisso
Safran Group - Snecma Space Engines Division, Vernon, France

15h30-16h00 The coffee breaks are sponsored by TSAT.

16h00 O20 - Multifunctional Robot Test Facility for On-Orbit Operation and Extraterrestrial Surface Exploration

Benjamin Girault
DFKI Robotics Innovation Center, Bremen, Germany

16h30 O21 - PF52, Test facility for cryogenic subsystems and Vinci engine

Philippe Magnant
Snecma, Vernon, France

17h00 O22 - Altitude Engine Test Facility for Korea Space Launch Vehicle II 2nd Stage Engine

Seung-Han Kim
Korea Aerospace Research Institute, Daejeon, Korea



Thursday 13 June 2013

09h00-12h30 **Launch Range Facilities - Session 2 - Environment - regulations - safety (Room Ariane)**

Chairs: Jean-Pierre Trinchero and Françoise Perrel

09h00 O23 - Reliable Propellant Service for Chemical Propulsion Spacecrafts, Hypergolic Propellants, Ground Infrastructure, Propellant Handling

Stefan Ziegenhagen
Astrium GmbH Space Transportation, Möckmühl, Germany

09h30 O24 - Chemical's and pressurized equipment's risks prevention

Olivier Richard, Lionel Guillaume, Franck Cantié,
VINCI Energies, Saint Denis, France

10h00 O25 - Historical evolution of toxic propellant use and waste treatment for space industry.

Jean-Francois Niccolai, Marco Cencetti
CNES, Toulouse, France

10h30-11h00 The coffee breaks are sponsored by TSAT.

11h00 O26 - Regulating Spaceports for Commercial Sub-orbital and Orbital Flights

To be confirmed
European Aviation Safety Agency (EASA), Cologne, Germany

11h30 O27 - Skin mode Doppler radar for safety mission

Clément Baron
CNES, Toulouse, France

12h00 O28 - Withdrawn

09h00-12h30 **Launch Complex - Session 2 - Exploitation - Operations (Room Soyuz)**

Chairs: Christian Lardot and Pier-Michele Roviera

09h00 O29 - Evolution of ground control systems: Same functions, different known needs

Angel Ramirez
GTD, Barcelona, Spain



- 09h30** **O30 - Industrie Cometto S.p.A.: the right ground support for the best result in the space**
 Simone Ferriani
Industrie Cometto S.p.A, Borgo San Dalmazzo, Italy
- 10h00** **O31 - Strategy for obsolescence treatment of launch pad and launcher control systems**
 Sébastien Herpoel
Thalès Alenia Space, Charleroi, Belgium
- 10h30-11h00** **The coffee breaks are sponsored by TSAT.**
- 11h00** **O32 - World Launch Sites. Ways of Their Reliability Increasing and Costs Reduction Offered by Ukrainian Experts**
 Viacheslav Pronskyi, Yulii Dragomyretskyi
Dneprot'yazhmash PJSC, Ukraine
- 11h30** **O33 - Exploitation of the Soyuz launch pad in French Guiana**
 François Barreau
Arianespace, Evry-Courcouronnes, France
- 12h00** **O34 - Operation of the ARIANE 5 / ELA 3 launch complex**
 Christian Lardot
ARIANESPACE, Evry Courcouronnes, France
- 09h00-12h30** **Test Facilities - Session 2 - Maintenance & exploitation (Room Vega)**
- Chairs: Frédéric Munos and Anja Frank
- 09h00** **O35 - Statistical Methods for the evaluation of the quality of measurement data on the test benches**
 Wolfgang Stuchlik
DLR, Hardthausen, Germany
- 09h30** **O36 - -Maintenance of test facilities for rocket engines**
 Rainer Schürmanns
DLR e.V., Hardthausen, Germany
- 10h00** **O37 - Modification of the DLR High Pressure Test Facility P3.2 to perform hot fire tests of Stage Combustion Rocket Engines on Pre-Burner and Main-Chamber level**
 Volker Kraft
DLR German Aerospace Center, Hardthausen, Germany
- 10h30-11h00** **The coffee breaks are sponsored by TSAT.**



11h00 **O38 - Operation of Test Facilities for Upper Stage Engines:
High Altitude Test Facility P4**

Christopher Gusinde

German Aerospace Center (DLR), Hardthausen, Germany

11h30 **O39 - Improvement on Rocket Engine Test Facility
Concerning Maintenance and Operation**

Yohei Ogawa

JAXA, Miyagi, Japan

12h00 **O40 - Design and Testing of Water Based Rocket Engine
Exhaust**

Acoustic Absorber on Ground Test Facility

Philipp Kallina

German Aerospace Center (DLR), Hardthausen, Germany

12h00-14h00 **The lunch is sponsored by Telespazio.**

14h00-17h30 **Launch Range Facilities - Session 3 - communications
- tracking stations (Room Ariane)**

Chairs: Michel Starozinski and Jacques Gigou

14h00 **O41 - STFO (Optical fiber transmission system for satellite):
Objective and evolution for A6 / ELA4**

Nicolas Hugues

CNES, Toulouse, France

14h30 **O42 - Launcher Tracking Support from ESTRACK**

Gerhard Billig

ESA, Darmstadt, Germany

15h00 **O43 - Mobile Telemetry stations concept for launcher tracking**

Jean-Yves Bedu

Telespazio France, Kourou, French Guiana

15h30-16h00 **The coffee breaks are sponsored by TSAT.**

16h00 **O44 - European Tracking Stations Networks Evolutions from
Xmas 1979 to now**

Jacques Barbier, Jérôme Lavernhe, Michel Starozinski

CNES, Toulouse, France

16h30 **O45 - Meteorological Data Analysis and Strategy of
Collaboration for NARO Launch Operation**

To be confirmed

Korea Aerospace Research Institute, Goheung, South Korea



17h00 **O46 - Introduction into Ground Telemetry System of Naro Space Center and Operation Results at KSLV-I Launch Mission**
DongHyun Kim
KARI (Korea Aerospace Research Institute), Goheung-gun, South Korea

14h00-17h30 **Launch Complex - Session 3 - Specific Technical aspects (Room Soyuz)**

Chairs: Jacques Bertrand and Christian Lardot

14h00 **O47 - Optimization costs by mutualisation of chilled and hot water production system**
Serge Sellerian
CNES, Toulouse, France

14h30 **O48 - Air liquide involvement in launch pad ground / launcher interfaces**
François Barbier
Air Liquide Advanced Technologies, Sassenage, France

15h00 **O49 - Soyouz Launch Complex Infrastructures**
Pierre Guilhem
CNES, Toulouse, France

15h30-16h00 **The coffee breaks are sponsored by TSAT.**

16h00 **O50 - Twin screw mixer & continuous process - A credible solution for solid propulsion**
Philippe Cloutet
Herakles (Safran Group), Le Haillan, France

16h30 **O51 - "Historic and state of the art: the lightning protections of the space launch pads on the Guyana Space Center (ARIANE 5, VEGA, SOYOUZ)"**
Philippe Curot
CNES - Launchers Directorate, Toulouse, France

17h00 **O52 - Launch Pad Acoustic Suppression System for next generation Rocket Boosters**
Singari Reddeiah
Indian Space Research Organisation(ISRO), Sriharikota, India



14h00-17h30 Test Facilities - Session 3 - Sub systems & techniques

Chairs: Jacques Tanguy and Frédéric Munos

14h00 O53 - SOWARLA, Solar Assisted Water Treatment, DLR test centre Lampoldshausen
Rainer Schürmanns, Christopher Gusinde
DLR, German Aerospace Center, Hardthausen, Germany

14h30 O54 - Evaluation of numerical bus systems used in rocket engine test facilities
Volker Schmidt
German Aerospace Center (DLR), Hardthausen, Germany

15h00 O55 - The experimental platform FAST: Facilities for Aerothermodynamics & Supersonic Technologies
Viviana Lago
Laboratoire ICARE, CNRS, Orléans, France

15h30-16h00 The coffee breaks are sponsored by TSAT.

16h00 O56 - Cryo-laboratories for test and development of Propellant storage and management technologies
Jens Gerstmann
German Aerospace Center - Institute of Space Systems, Bremen, Germany

16h30 O57 - Cryo Upper Stage Tank Demonstrator
Jörg Klatte
Astrium GmbH, Bremen, Germany

17h00 O58 - Research On Launch Vehicle Test And Virtual Launch System Based On Model
Linna Wang
China academy of launch vehicle technology R&D center, Beijing, China

20h00-23h00 The dining cocktail is sponsored by Arianespace.





Friday 14 June 2013

09h30-12h00 Plenary session 2

Chairs: Michel Eymard and Bernard Brandt

O59 - Presentation of the French Guiana launch complexes

Jacques Bertrand
CNES, Toulouse, France

O60 - Reconsideration and conception of H-IIA, H-IIB and next generation facilities

Isao Kotani
Japan Aerospace Exploration Agency, Ibaraki-ken, Japan

10h30-11h00 The coffee breaks are sponsored by TSAT.

O61 - Term Prediction of Vostochny Cosmodrome Development in Support of Space Activity

Alla Serikova
*Central Research Institute of Machine Building
(FSUE/TSNIIMASH), Korolev, Moscow region, Russia*

O62 - To be confirmed - Centre Spatial Guyanais : European Space Port

To be confirmed
CNES, Kourou, France

12h00-12h30 Closing



POSTER EXHIBITION

Launch Range Facilities

P01 - Low Profile and High Gain Yagi Wire-Patch Antenna for TT&C Applications

Hongjiang Zhang

China Academy of Launch Vehicle Technology, Beijing, China

P02 - An Analysis of the Design Requirements of General Assembly-test Building at Large Manned Spacecraft Launch Site

Zhao Ting

China Academy of Launch Vehicle Technology, Beijing, China

P03 - Environmental protection technology of Satellite-rocket horizontally docking

Zhenyu Wu

Beijing Institute of Aerospace Systems Engineering, Beijing, China

P04 - Design of a Class of Communication Network of Drive Control System of Movable Launch Platform

Daoping Li

Beijing Institute of Space Launch Technology, Beijing, China

P05 - Withdrawn

P06 - SOYUZ IATR (Integrated & Active TM Repeater)

Benoit RATTI

CNES, Toulouse, France

P07 - The Research of Spacecraft Automatic Test System

Xiaojun Liu

Research & Development of China Academy of Vehicle Technology, Beijing, China

P08 - Withdrawn

Launch Complex

P09 - The Method and Development of The Launch Vehicle Verticality Adjustmeng

Wu Mengqiang

Beijing Institute of Space Launch Technology, Beijing, China

P10 - Storable propellants: risks and stakes

Olivier Richard, Lionel Guillaume, Franck Cantié,

VINCI Energies, Saint Denis, France



Test Facilities

P11 - Computer security in context of test bench risk management

Volker Schmidt

German Aerospace Center (DLR), Hardthausen, Germany

P12 - Validation and Qualification of a new test facility

Peter Lutz

ESA, Paris, France