



18TH ESA SYMPOSIUM

ON EUROPEAN ROCKET AND BALLOON
PROGRAMMES AND RELATED RESEARCH

3-7 JUNE 2007

VISBY SWEDEN

SECOND ANNOUNCEMENT & CALL FOR PAPERS



Second Announcement and Call for Papers

European Space Agency
Programme Advisory Committee
on the Special Project
Concerning the Launching of Sounding Rockets

**18th ESA SYMPOSIUM ON
EUROPEAN ROCKET AND BALLOON PROGRAMMES
AND RELATED RESEARCH**

**3 - 7 June 2007
Visby, Sweden**

Symposium Programme Committee

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Submission of Abstracts

Please submit your abstracts by **15 February 2007**, following the instructions given on the Symposium website.

Registration

Please register by **15 April 2007** via the Symposium website in order to obtain the lowest registration rate.

Symposium website:

<http://www.spaceflight.esa.int/pac-symposium2007>

Symposium email address:

pac@esa.int

Point of contact:

ESA/EASP Office

ESTEC

Postbus 299

2200 AG Noordwijk

The Netherlands

Tel.: +31 71 565 3365

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Introduction

The 18th ESA Symposium on European Rocket and Balloon Programmes and Related Research is organised and sponsored by the European Space Agency (ESA) and Sweden as the hosting country. SSC/Esrange is the local organiser, supported by the Swedish National Space Board (SNSB). The symposium programme will be defined by the Programme Committee, which is composed of representatives from all five member states of the Esrange Andøya Special Project (EASP) for the launching of sounding rockets and balloons, and ESA.

Purpose of this Symposium

This Symposium will be the eighteenth in a series of conferences initiated in 1973 by the member states of EASP to provide a platform for scientists and engineers using sounding rockets and balloons for their research, and to advance the progress in the related scientific disciplines. The scope of the Symposium also includes related ground-based, aircraft and satellite research, new developments in technology, and improvements of range facilities.

Symposium participants are given the opportunity to report both on their latest achievements and plans for the future in the various scientific and technical fields.

These symposia have become widely recognised occasions for efficient communication between scientists, engineers from industry, project managers, range personnel and administrators, and thereby have become the starting point for intensified collaboration.

In recent years the symposium has also covered new topics, such as space education, which has attracted a large audience.

New trends and the latest developments using sounding rockets and balloons for scientific research will be highlighted in this symposium. This will facilitate the establishment of a strategic and lasting roadmap towards the future of these activities. To this end the symposium will be concluded with a plenary session where highlights from the various themes will be presented with the aim of initiating a lively and constructive discussion to come to some programmatic conclusions.

Invited symposium lectures will address topics of general interest and present the state of scientific and technical knowledge in fields of specific interest. Oral and poster contributions are solicited, the latter being accompanied by short oral summary presentations.

There will be opportunities for special project meetings and working group discussions.

The Proceedings of the Symposium will be published by ESA's Publications Division and distributed to all participants approximately three months after the Symposium.

Outline of the Symposium

General Topics

- National Reports (EASP member states and invited reports)
- New Techniques and Instrumentation (incl. Range Facilities)
- New trends and latest developments in the use of sounding rockets and balloons for scientific research
- Space-related Education
- Combined In-situ, Ground-based and Satellite Projects

Scientific Topics

- Atmospheric Physics and Chemistry, including the Thermosphere
- Life and Physical Sciences and Applications in Space
- Astrophysics, Astronomy and Cosmology

Exhibition

- Ranges
- Agencies
- Companies

During the symposium there will be an exhibition area available to display and demonstrate hardware and software, service systems for balloons and sounding rockets, experiment hardware, new technologies/ diagnostic tools/measurement systems etc.

Facilities for holding small meetings and working group discussions outside the main symposium programme will be available. Please contact the ESA/PAC secretariat in advance to make the necessary reservations.

Symposium Lectures / Invited Speakers

- Scientific interplay between the Odin satellite and coordinated rocket and balloon measurements – *D. Murtagh (S)*
- Atmospheric science with sounding rockets – its present status and future perspectives – *J. Gumbel (S)*
- Cosmology and dark matter – satellite and balloon observations working together – *P. de Bernardis (I)*
- The History of Sounding Rockets and their Contribution to Space Research– *G. Seibert (ESA)*
- Long-duration balloon experiments – an approach to solve future challenges with respect to Astronomy and Astrophysics – *V. Jones (US)*
- Long-duration balloon experiments – an approach to solve future challenges with respect to Aeronomy – *F. Vial (F)*
- Challenges in auroral research – *R. Smith (US)*
- The benefit of weightlessness for materials science research – *L. Ratke (D)*

Abstracts

Papers for presentation will be selected on the basis of abstracts of approximately 500 words. These should be submitted with a quality suitable for publication in the abstract book.

Abstracts must be uploaded to the Symposium website by **15 February 2007**, or shall be sent as a Word file to the ESA/PAC secretariat at ESTEC, either by e-mail to: pac@esa.int or via letter, such that they are received by **15 February 2007**.

The abstracts and titles should clearly outline the paper's major elements of interest and originality. Papers will be selected on the basis of:

- General interest of the subject
- Quality of the content
- Originality of the ideas presented

Authors are invited to comply with the following instructions:

- Abstracts should be written on standard A4-sized paper, portrait orientation, text width 17 cm, single line spacing, and font Times New Roman 12 pt.

The centred title block should include:

- the title of the paper in CAPITALS
- the authors' full names, affiliations and mailing addresses including e-mail, fax and telephone
- the name of the presenting author should be underlined.

The preferred session for the paper should be indicated.
All participants will receive an abstract book upon arrival at the registration desk at the conference centre in Visby.

Calendar of Events

2007

15 February	Abstract deadline
23 March	Notification of acceptance / instructions to Authors; Issue of preliminary programme
15 April	Final registration and hotel reservation
3 June 16:00–21:00	On-site registration
3 – 7 June	18 th ESA/PAC Symposium; final manuscripts to Editor
September	Publication of Symposium Proceedings

Proceedings

The ESA Publications Division will publish the proceedings approximately three months after the Symposium as an ESA Special Publication (SP). Instructions on how to prepare the manuscripts in camera-ready form will be sent out to all authors with the notification of acceptance. Authors should bear in mind that the proceedings will be printed in black and white only. All registered participants will receive a copy of the proceedings.

Posters

A part of the Symposium will be devoted to the presentation of poster papers. The display area for posters is 80cm (width) by 150cm (height).

Exhibition

For the exhibition an area of 150m² will be available. A fee will be requested from the exhibitors according to their requirements (SEK 10.000 per 10m²). If you are interested, please contact Swedish Space Corporation (e-mail: symposium2007@esrange.ssc.se) by **30 April 2007**.

Technical Equipment

The lecture rooms will be equipped with an overhead projector and a beamer (projector for PCs). Video recorders (VHS only) and DVD players are available. Speakers are not allowed to use their own computer during their talks, but must transfer their presentation to a computer provided by the organiser. Internet access will be provided for participants throughout the meeting.

Venue

The symposium will be held at *Wisby Strand Congress & Event* in Visby, located in Gotland which is Sweden's biggest island. 500 Years ago the town was the centre of the Hanseatic League - a mighty trade network of 30 independent cities. Many traders sailed to Visby port, and the impressive St Mary's Cathedral was originally built by German traders. Today, Visby is a living world heritage with people living and working in beautiful, old buildings. Visby is an extremely well-preserved medieval city with a network of narrow, cobbled streets. The many ruins of churches and abbeys give Visby, "the City of Roses and Ruins", its unique charm. It has also a rich tradition of arts and crafts and is the most restaurant-intensive city in Sweden.

Registration

Symposium participants are requested to complete the registration form available on the Symposium website **by 15 April 2007** in order to obtain the early registration rates.

Registration fees

SEK 4000 regular participants
SEK 2000 student participants (please enclose proof of status)
SEK 1500 accompanying persons

Please note that for registration and payment received **after 15 April 2007** the conference fee will be:

SEK 5000 regular participants
SEK 2500 students
SEK 2000 accompanying persons

The registration fee for regular participants and students includes access to the meeting rooms, display area, coffee breaks, lunches, get-together party, closing dinner, and proceedings. The registration fee for accompanying persons does not cover coffee breaks, lunches and proceedings.

Payment of the conference fee can be made either by

1. bank transfer, in SEK only, to account no: 6917.222.503.602 Svenska Handelsbanken, Box 4027, SE-17104 Solna, Sweden
Swift address: HANDSESS
IBAN No: SE27 6000 0000 2250 3602
in favour of **18. ESA Symposium**, or

2. completing the credit card payment form available on the Symposium website, or
3. on-site payment upon registration. This can be done by credit card (Visa, Mastercard, and Eurocard) or cash.

All bank charges are to be borne by the remitter.

Cancellation

Registration fees will be refunded only if cancellation is received at the ESA/EASP office **before 15 April 2007**.

Travel

Visby airport has about 25 flight connections to Stockholm. Arlanda international airport and the smaller Bromma airport (both near Stockholm city) provide connections to international flights. Flying from Stockholm to Visby takes 35 minutes.

The ferry company Destination Gotland has around 16 departures per day and at least one going to each of the mainland ports every day of the year. The high-speed (29 knots) ferries can bring you and your car from Nynäshamn (south of Stockholm) or Oskarshamn (in southeast Sweden), to Visby within three hours.

Registration Desk

The registration desk in the conference centre will be open on Sunday 3 June 2007 between 16:00 and 21:00 hrs. During the conference it will be open every day from 8:30 hrs until the last lecture of the day.

Hotel

Rooms have been blocked in three different hotels in Visby from 3 to 7 June 2007. Wisby Hotell and Strand Hotel offer special rates for participants staying during the whole conference. Breakfast is included in the room rate. All rates in SEK, VAT incl.

Wisby Hotell

www.wisbyhotell.se

	single	double
3-7 June	6390 (1278 /night)	7800 (1560 /night)
single night	1595	1950

Strand Hotel

www.strandhotel.net

	single	double
3-7 June	6075 (1215 /night)	6500 (1300 /night)
single night	1310	1445

HamnHotellet

www.gotlandsresor.se

	single	double
5 nights	2950 (590 /night)	3950 (790 /night)
single night	590	790

Please complete the hotel reservation form on the Symposium website before **15 April 2007**. After that day, accommodation at these hotels can no longer be guaranteed.

Social Events

The get-together party on Sunday and the conference dinner on Thursday will take place at the Wisby Strand congress centre.

An excursion will take place on Tuesday afternoon at a reduced price. Participants have the choice between three tours. On each tour a dinner with local specialities will be served, for example grilled lamb and Gotlandsdricke, a special drink from Gotland. The number of persons on each tour is limited. The principle 'first come, first served' will be practised.

1. **Visit Fårö – a nature experience**

A round trip by bus to Fårö, far out at the sea. See the limestone rocks which have been shaped by wind and waves. You will also visit fishing huts at Helgumannen. Dinner will be served at Gåsemora.

2. **Arts and crafts of Gotland**

This bus trip will take you to the eastern part of Gotland. You will see some of the handicraft typical for Gotland such as glass, textiles and arts, and also visit a fishing hamlet at Herrvik. Dinner will be served in the harbour restaurant of Herrvik.

3. **Visit the Vikings**

Learn about the history of the Vikings at the Viking Village, one exciting historical activity in the countryside of Gotland. You will also make a stop at Högklint where you have a wonderful view over the Baltic Sea. Dinner will be served in connection to the Viking Village.

A city tour will be arranged on Monday and Wednesday free of charge. It will be a guided tour to historical parts of Visby inside the ring wall.

The conference will end on Thursday evening, 7 June 2007, with the Conference Dinner.

Please check the Symposium website regularly, as further information about the Symposium will be published as soon as it becomes available:

<http://www.spaceflight.esa.int/pac-symposium2007>

Any questions about the Symposium shall be addressed to the ESA/EASP secretariat or to the local organising committee by email to:

pac@esa.int or symposium2007@esrange.ssc.se