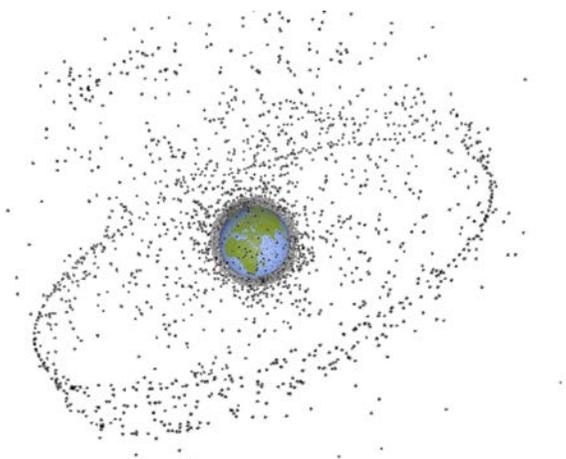


First Announcement

SIXTH EUROPEAN CONFERENCE ON SPACE DEBRIS

ESA/ESOC
Darmstadt, Germany

22-25 April 2013



Abstract Submission

Authors are invited to submit their abstracts according to the procedure described below. Each abstract (approximately 500 words) should clearly outline major achievements and innovative ideas. Papers will be selected on the basis of:

- interest in the subject by the target audience
- relevance to the conference topics
- originality of the ideas presented
- quality and clarity of the content

Papers must be submitted in English, according to the "instructions to authors". English will also be the working language at the conference.

**Abstracts must be submitted by
07 Dec 2012**

Please follow the instructions for the abstract style and abstract submission procedure at:

<http://www.congrexprojects.com/13a09>

Target Audience

The conference will provide a unique forum for information exchange, technical discussions and networking between space debris researchers, engineers & decision takers of industry, policy makers & space lawyers, insurance underwriters, space & ground system operators, institutional organizations (e.g. EU, EC, UNCOPUOS, IAA, COSPAR), space agencies, academia, and the defense sector.

Important Dates

07 Dec. 2012	Deadline for abstracts
03 Feb. 2013	Notification of Authors
24 Feb. 2013	Final Program
22 Apr. 2013	Deadline for papers
22 Apr. – 25 Apr. 2013	6th European Conference on Space Debris
July 2013	Publication of proceedings (distribution on a DVD)

Conference Venue

European Space Operations Centre
ESA/ESOC, Robert-Bosch-Strasse 5
64293 Darmstadt, Germany

Registration Fees

Early registration: €400 (students €200)
After 10 Feb. 2013: €450 (students €225)
Fees include the proceedings on a DVD, a reception, free lunches and coffee breaks.

Point of Contact

Conference website (as of 19-Oct-2012):
<http://www.congrexprojects.com/13a09>

ESA Conference Bureau
ESA/ESTEC
P.O. Box 299
2200 AG Noordwijk
The Netherlands
Tel: +31 71 565 5005
Fax: +31 71 565 5658
e-mail: esa.conference.bureau@esa.int

Debris Background

Since 1957, more than 4,900 space launches have led to an on-orbit population today of more than 22,000 trackable objects, with sizes larger than 10 cm. Approximately 1,000 of these are operational spacecraft. The remaining 94% are space debris, i.e. objects which no longer serve any useful purpose. About 64% of the routinely tracked objects are fragments from some 250 breakups, explosions and collisions of satellites or rocket bodies. In addition, there is evidence of a much larger population of debris that cannot be tracked operationally. An estimated number of 700,000 objects larger than 1 cm and 170 million objects larger than 1 mm are expected to reside in Earth orbits.

Due to relative orbital velocities of up 56,000 km/h, centimeter-sized debris can seriously damage or disable an operational spacecraft, and collisions with objects larger than 10 cm will lead to catastrophic break-ups, releasing hazardous debris clouds of which some fragments can cause further catastrophic collisions that may lead to an unstable debris environment in some orbit regions ("Kessler syndrome"). Space debris mitigation measures, if properly implemented by spacecraft designers and mission operators, can curtail the growth rate of the debris population. Active debris removal, however, has been shown to be necessary to reverse the debris increase.

To improve our understanding of the space debris environment, assess related risks, mitigate its growth, and control its stability, a multitude of technical disciplines is required. Many of these will be addressed in the course of this conference by recognized experts in their fields.

Conference Scope

European Conferences on Space Debris are the largest dedicated gatherings on the subject. Internationally renowned scientists, engineers, operators, lawyers and policy makers meet here to discuss different aspects of space debris research, including measurement techniques, environment modeling theories, risk analysis techniques, protection designs, mitigation & remediation concepts, and policy & legal issues.

During four days, in two parallel sessions, the Sixth European Conference on Space Debris will provide a forum for presenting and discussing latest results, and for defining future directions of research. Special sessions will be devoted to active debris removal.

Main Topics

The conference program will highlight all classical disciplines of space debris research:

- radar, optical & in-situ measurements
- space surveillance & catalogs
- debris environment modeling
- on-orbit & re-entry risk assessments
- orbit prediction & determination
- debris mitigation & remediation
- hypervelocity impacts & shielding
- standardization & policies

The conference will include, as a special theme, the topic of active debris removal, in support of space debris environment remediation, to ensure a long-term sustainability of activities in space.

Organizing Agency



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