



ECLIPTIC

JANUARY 2010 - MESSAGE FROM THE CHAIR

A very happy New (Gregorian) Year to all!!!

As the chair of the committee of UKSEDS, I'd like to introduce the return of our monthly newsletter "Ecliptic". This will be produced alongside our quarterly "Aurora", and at the moment we are considering on mostly digital publishing method for both of these. Expect the new Aurora soon (slated for February)! If you want to contribute to either of these get in touch!

Down to business: the new committee elected at the 21st UKSEDS Conference had their first meeting in December. Held at the University of Surrey (we're getting used to the place!) we eked out these ideas for the updated UKSEDS publications; our plans for outreach to secondary schools around the country (courtesy of a possible grant from BNSC); and the inauguration of a long-term project manager, Beatrice Smith, and a conference liaison manager, Chris Brunskill.

We also made a pledge to improve our website content - even within 24hrs of the meeting the site saw major improvements - check it out now! If you are on [Facebook](#) or [Twitter](#), you can also join our extended online network, too!

It seems we are looking forward to a prosperous year for UKSEDS!

Roger J A Duthie
UKSEDS Chair 09/10



Photo by Mark Bentley



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UKSEDS CONFERENCE 2010

The UKSEDS conference is an annual meeting of the society members to attend sessions on the latest space technology and research. Each year representatives from the top employers in the space industry and universities attend in force, looking for you, the next generation of space engineers, scientists and researchers. The conference provides the opportunity for you to speak directly to employers, ideal if you are looking for a graduate job or industrial placement. Or, if you are considering a postgraduate course such as an MSc or PhD, you can chat to the academics who developed some of the biggest space missions that the UK has been responsible for.

Each year the conference is run by UKSEDS and hosted by a UK university. Traditionally held over the course of an entire weekend in the late Autumn, you can look forward to talks on the engineering of spacecraft, the science of their payloads, or the latest astronomical observation technology and its results. Alongside these sessions UKSEDS runs a full space research and industrial exhibition, a room full of stalls and representatives ready to speak to you and answer your questions on graduate jobs, internships and postgraduate research.

Our biggest supporters are the biggest names in UK Space: Astrium, SSTL; and for international work, HESpace and ESA, to name just a few. You will also have the chance investigate other space-related opportunities: internships and research placements such as the ISP Winter School in Kiruna, Sweden; or the ISU Space Studies Programme, held each summer in a different location around the world.

On the lighter side, as a student society we run socials before and during the conference, giving you the chance to meet the other UKSEDS members from across the country, meet UKSEDS alumni, or just catch up with members met at previous conferences. The conference is also the platform we use to host our AGM, so if you want to contribute to the society through working as a committee member, this is your chance to put yourself forward! We have a dedicated website for the conference where you can find details on the speakers, sponsors and exhibitors at the 2009 conference, held at the University of Surrey. You can find our [conference website here](#).

We are now open to receive proposals from prospective applicants if you want your university to host the 2010 UKSEDS conference! We want to hear what sets your university apart from the rest, why do you think your university is the ideal place for the next UKSEDS conference. We are looking for new and innovative ways to get the name of UKSEDS out into the wider community, and the conference is the ideal medium for this. You need to let us know what your plans are for promotion, how you intend to raise funds for the event and proposals for sessions and events during the two-day conference to help spread the word and help develop the society. We have a number of previous proposals available on request if you need inspiration. Deadline for submission is TBA, though an early show of interest will put you at an advantage. Please direct all conference proposals, or any questions you might have, to conference@ukseds.org.

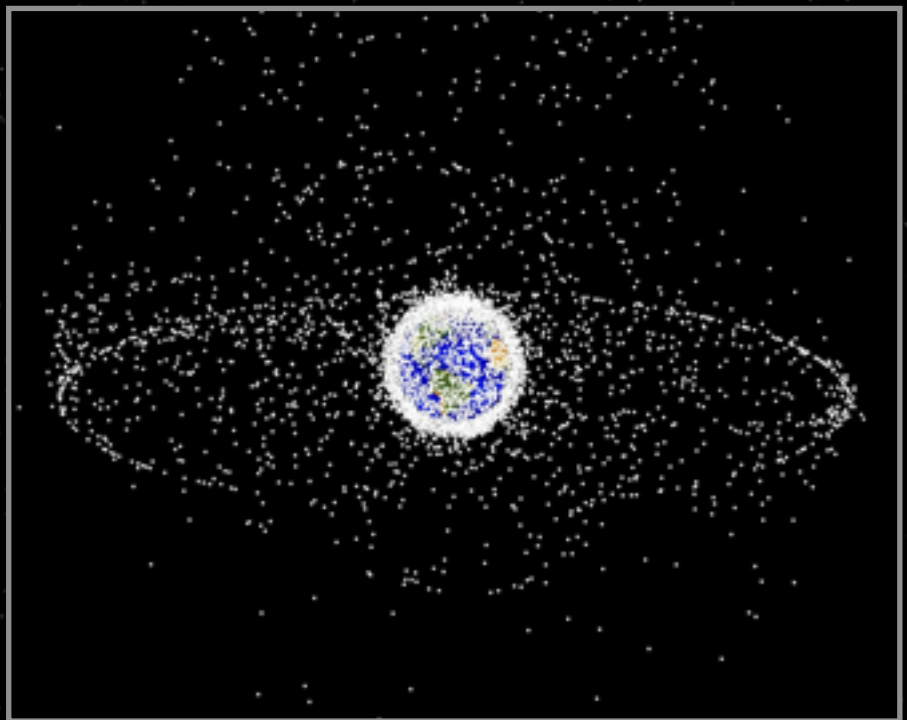


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UKSEDS LONG TERM PROJECT

The UKSEDS Long Term Project (or LTP) was born out of a conversation at the UK Space Conference 2009. Alan Bond, Managing Director of Reaction Engines, challenged UKSEDS to use its wide variety of talents and contacts to achieve something new, interesting and exciting. With this in mind, a group was set up on Facebook to gauge people's interest in collaborating on a project. This had a great response, both from UKSEDS members and members of the space community from around the world, and a number of different project areas were proposed, ranging from space based solar power to a mission to the Alpha Centauri system! An overview of these ideas was presented at this year's UKSEDS conference.

After some discussion, the area of 'Space Debris Mitigation' was selected, as this is an extremely important issue for space agencies around the world due to the increasing number of satellites being launched. This topic would also offer opportunities for input from various engineering and scientific backgrounds, and a number of UK academics are also working in this field, and have expressed interest in the project.



So where do we go from here? A committee is being set up to co-ordinate the project, and by the beginning of 2010 we hope to have started exploring the area in detail, and soon after that we will divide the project between the participating members and start work. Each team will be responsible for a certain part of the project (for example thermal control, communications or trajectory planning). By the end of August a first draft of the mission concept should be complete, and hopefully we will be able to publish a paper on our work! The project doesn't have to end there though, and we hope that it will continue over the next few years, maybe even resulting in building some test hardware. If you are interested in taking part, either as an individual or as part of a university team, please email project@ukseds.org or check out [our Facebook group](#).

WOULD YOU LIKE TO CONTRIBUTE TO UKSEDS?

We are currently on the look out for the vital talents of students who would like to join our community, while gaining experience and increasing their employability.

Technical

There are openings with our technical operations for those who have a little tech savvy (html, php, javascript) and a little spare time. The work load can be tailored to you. Contact our technical officer [Robin Moss](#) regarding this.

Education

UKSEDS are hoping to run a secondary school outreach programme in the new year. However, to do this we will need YOUR HELP! If you would like to take the chance to go into a school and share your enthusiasm for space with children then you should contact our [education team](#).

We will provide you with everything you need, including contacts, materials and expenses, but the programme will rely on your energy and passion to make it work. We would like to pilot the scheme in at least ten schools.

If you would be able to give a couple of days of your time, are at all interested in teaching kids, or would just like to improve your communication skills, you should volunteer! Or, if you would like to help out in any other way, [get in touch!](#)



Writing

Our Ecliptic newsletter will be coming out monthly and the Aurora magazine will be released quarterly. If you have any ideas about what you would like to see in the newsletter, or would like to send us an article, let us know.

The deadline for submission of articles for the next issue of Aurora is the **27th January**. [Contact our publications team for more details.](#)