



THE SPACE EXPLORER

THE NEWSLETTER OF THE ASSOCIATION OF SPACE EXPLORERS • USA March 1999

Belgium Hosts 14th Planetary Congress "Space and Education-A Message to the Youth"

The 14th Planetary Congress of the Association of Space Explorers was held 19-23 October, 1998 in Brussels, Belgium. Hosted by Belgian flier Dirk Frimout (STS-45), the theme of the 14th Congress was "Space and Education-A Message to the Youth" and many of the week's activities included the participation of students from all over Belgium and Europe. Eighty-seven fliers and spouses from 18 countries attended.

The Opening Ceremony of the Congress was held Monday morning with over 300 students, government officials and T.M. the King and Queen of Belgium in attendance. The ceremony was held at the Congress Palace in

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Bill Readdy Elected to ASE-USA Board of Directors

ASE-USA members have elected Bill Readdy to fill the post previously held by Tom Stafford and have re-elected Owen Garriott and Rick Hieb to serve second terms on the Association of Space Explorers-USA Board of Directors. Both Garriott and Hieb will bring continuity, experience and dedication to the positions while Readdy will represent a strong ASE presence in the Space Shuttle Program Office at NASA Headquarters.

ASE-USA Inaugurates Endowment Fund

Under the direction of ASE-USA member and director Owen Garriott, the Association of Space Explorers-USA has inaugurated an endowment fund to support the programs and operations of the Association. With pledges and contributions by 100% of the

Board of Directors, over \$30,000 has been raised and a wider solicitation has been issued to ASE members and corporate partners.

The goal of the fund is to raise capital sufficient to generate on-going revenue for the operations and activities of the

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Executive Director's Report by Andy Turnage

It has been more than a few months since I got our last newsletter out, so it's always a relief when the postman comes to pick up a batch and send them on their way to you. Now, of course, the cycle begins again; I hope to do a better job of getting them out on a quarterly basis, but there never seems to be quite enough time to do everything. You know what they say, though: "What you can't do in a 24 hour day, do at night!"

Another year gone by—next year we will celebrate the 15th anniversary of the founding of the Association of Space Explorers. As with any organization, ASE isn't the same organization that it was in 1985; worldwide membership has grown immensely and ASE now represents over 270 current and former fliers from 27 different countries. Our mission has changed as well—the organization's primary purpose was once to create transparency among the world's space travelers and agencies; that mission accomplished, it is perhaps time to move on to something new. Some may argue that change isn't needed, but the organization must, in fact, adapt to the times that we operate in. I think we have been making some progress in the right direction over the past year, particularly towards financial

stability, but we could certainly benefit from some tweaking around the edges. That's where you come in. Take a minute and jot down some thoughts on what you think we ought to be doing better or differently, and let us know how we can better serve the needs of the astronaut community.

Overall, last year was a good year for the Association and 1999 looks even more promising. We accomplished the move to Houston with minimal expense and disruption of operations, which was in large part due to the efforts of the staff at United Space Alliance to get us up and running quickly. Financially, we established an Endowment Fund and significant contributions were generated from among the Board of Directors and the general members. At this point, we have accumulated just over \$46,000 in contributions and pledges. Not a bad start! Thank you to all of our members who have contributed so generously to the cause.

ASE corporate membership has increased and is bringing in more revenue than ever before; we now have 11 corporate members contributing \$28,000 annually, plus the in-

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Executive Director
ANDY TURNAGE

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Please send all correspondence to:
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 1150 Gemini Ave.
 Houston, TX 77058

ASE Charters International Standing Committee on Education

At the 14th Congress in Belgium, the ASE Executive Committee approved the establishment of an International Standing Committee on Education. The committee is comprised of 8 ASE members from 5 countries and is chartered to: 1) develop and distribute space-related curricula and other interactive learning materials for use in educational programs; 2) develop, in coordination with NASA and other appropriate organizations, space and technology-related programs and activities for students, teachers and parents; and 3) promote and assist in the development of internet and exhibit-based materials for facilitating awareness and understanding of human space exploration, astronomy and space science and technology among educators, students and educational institutions.

Under the guidance of committee Chair Millie Hughes-Fulford, the committee will undertake as its first task the redesign of the Association's internet web site. Plans include updating general Association information and activities and adding several interactive exhibits for use by students, educators and the general public. These will include an orbital analysis tool for use in determining space shuttle, Mir and ISS orbital paths and sighting opportunities; ASE member presentations which teachers can download for use in the classroom; and a Web-cast capability for periodic on-line astronaut appearances.

Also available will be a catalogue of memorabilia and other items available from the Association.

Crew Safety Committee News

The ASE International Committee on Crew Safety and Technology Development, after a brief post-Congress hiatus will resume its efforts to develop a set of international standards for caution and warning system designs as well as some advanced crew safety concepts, particularly for long-duration and interplanetary human spaceflight. The Committee, under the guidance of NASA Associate Administrator for Safety and Mission Assurance Fred Gregory presented its initial findings at the 14th Planetary Congress in Brussels, Belgium. In an attempt to generate additional inputs from active ASE members, the Committee is will host an evening technical interchange meeting at the Johnson Space Center's Gilruth Center on Tuesday, April 13. Included in the program will be a general members forum as well as a presentation by astronaut Franklin Chang-Díaz on the Variable Specific-Impulse Magnetoplasma Rocket (VASIMR).

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kind contribution of office space by the USA. We have managed to generate more appearances which have resulted in increased revenue to both our members and the organization. 1998 was the second consecutive year that ASE managed to operate in the black. Individual membership has remained fairly steady at roughly 73% (global) and 54% (US) of the total eligible population of astronauts and cosmonauts, while the number of ASE-USA Life Members have increased from 36 to 51.

In terms of programs, we were a little thin in 1998; the exception to this would be the activities of our internal committees, particularly the Committee on Crew Safety and Technology Development, which developed a set of safety guidelines for the X Prize Competition and has begun work on a set of interna-

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downtown Brussels and hosted by the Belgian Federal Minister for Science Policy, the Vice-Prime Minister of Belgium and the Belgian Minister for National Defense. The Opening Address was made by the Federal Minister for Science Policy, Mr. Yvan Ylieff who welcomed the assembled astronauts to Belgium and introduced Belgian flier and Congress host Dirk Frimout. Frimout introduced the Congress theme and spoke on the inextricable link between space and education, presenting the astronauts and cosmonauts as role models for all humanity and appealing to the assembled students and children everywhere to take advantage of opportunities to pursue a life-long program of education.

ASE Co-Presidents Alexei Leonov and Frederick Gregory followed with a brief history of the Association and its Congresses and the important role that space research and exploration play in the development of modern society. To close out the ceremony, three Belgian students who were chosen to address the session spoke on how space exploration inspired their academic goals and Antonio Rodota, Director General of the European Space Agency recapped

ESA's 1998 activities in space and its plans for the coming century. Following the ceremony, T.M. the King and Queen were introduced to a small group of fliers during a cocktail reception at the Congress Palace.

Monday afternoon, the Theme Session was convened, again at the Congress Palace and European Commissioner for Science, Research and Development Mme. Edith Cresson was awarded the 1998 ASE Planetary Award, the Crystal Helmet, for her efforts to promote education in science and engineering among European youth. Chaired by ASE members Jon McBride and Gennadi Strekalov, the session also featured remarks by Karl Doetsch, president of the International Space University, ASE members Wubbo Ockels and Alexander Serebrov and Hugo Wexks, Chairman of the Belgian Federal Council of Science Policy. That evening, the Award Banquet was held at the Belgian Air & Space Museum in Brussels, where a Certificate of Recognition and Appreciation was awarded to the Euro Space Center in Transinne for their efforts in promoting human space exploration.

Tuesday, October 20 featured the European Academic Session at the Royal Belgian Academy of Sciences, chaired by ASE members Dumitru Prunariu and Ulf Merbold. The session focused on European

space research and activities. After an opening statement by Congress host Dirk Frimout, Mr. Martin Huber, Director of the ESTEC-ESA Space Science Department, reported on European activities in the field of life sciences; Jean-Paul Malingreau of the European Joint Research Center spoke on European achievements in the field of Earth observations; Maurice Praet, Vice-president of Alcatel ETCA gave an overview of European activities in the field of space telecommunications and Matthias Ruete of the European Commission described European policy in the field of satellite positioning/navigation systems.

After a short break for lunch, Ulf Merbold reported on European manned space activities; Dumitru Prunariu and Miroslaw Hermaszewski spoke on the status of space research and development in Central and Eastern Europe; and Jörg Feustel-Büechl, ESTEC-ESA Director of Manned Spaceflight and Microgravity gave a brief summary of European involvement in the International Space Station. While the European Academic Session was taking place, several ASE members traveled to Belgacom headquarters in Brussels to participate in a nationwide internet confer-

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ASE Endowment Fund Contributors

Loren & Evelyn Acton	Bob & Barbara Cenker	Ed & Sheilah Mitchell
Joe & Bonnie Allen	John & Donna Fabian	Mike & Donna Mullane
Mike & Diedra Baker	Martin Fettman	Bill & Grace Nelson
Dan & Susan Barry	Owen & Eve Garriott	Gary & Sue Payton
John & Brenda Blaha	Hank & Fran Hartsfield	Don & Bonnie Peterson
Bo & Diane Bobko	Rick & Jeannie Hieb	Bill & Jean Pogue
Scott & Pat Carpenter	Jon & Sharon McBride	Tom & Linda Stafford
Gerry & Pat Carr	Carl & Celyna Meade	Charlie & Susan Walker

Thank you to all of our members who have so generously contributed to the ASE Endowment Fund!



ASE-USA Life Members

Loren Acton	Charlie Duke, Jr.	Mike Mullane
Buzz Aldrin	Bonnie Dunbar	Ellen Ochoa
Joe Allen	John Fabian	Ron Parise
James Bagian	Martin Fettman	Gary Payton
Mike Baker	Jake Garn	Don Peterson
Dan Barry	Owen Garriott	Ken Reightler, Jr.
John-David Bartoe	Hank Hartsfield, Jr.	Jerry Ross
Bo Bobko	Rick Hauck	Mario Runco, Jr.
Roy Bridges, Jr.	Susan Helms	Albert Sacco, Jr.
Scott Carpenter	Rick Hieb	Tom Stafford
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Eugene Cernan	Jeff Hoffman	Richard Truly
Mary Cleave	Fred Leslie	James van Hoften
Mike Coats	Jack Lousma	Janice Voss
Charles Conrad, Jr.	Jon McBride	Dave Walker
Dick Covey	Carl Meade	Charlie Walker
Bob Crippen	Edgar Mitchell	Don Williams

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ence with students from all over Belgium.

That afternoon, the fliers returned to the Hotel Metropole for the first working session of the Congress on Crew Safety and Technical Issues. Chaired by Frederick Gregory and Gennadi Strelakov, the session featured a presentation by Hank Hartsfield Jr., who proposed a series of high-level caution and warning standards developed by the ASE Crew Safety Committee's Sub-committee on Advanced Crew Safety Concepts. Alexander Lazutkin gave a behind-the-scenes and personal account of the MIR-Progress collision in June, 1997 with additional commentary by TsUP Flight Controller Vladimir Solovyov.

Presentations were also made by KSC personnel Don Doerr and Pat Simpkins on "Bioregenerative Life Support System Safety Issues for Long-Duration Spaceflight" and the "Human Factors Event Evaluation Model," respectively. Following the session, the astronauts and cosmonauts gathered for the traditional Congress poster signing ceremony. That evening, the delegations were treated to a buffet dinner hosted by the Minister-President of the Flanders Region at

Technopolis, a newly developed technology exhibition featuring interactive displays and educational space- and technology-related materials. Wednesday was Community Day at the 14th Congress. All attending astronauts and cosmonauts traveled in small groups to visit over 20 venues all across Belgium. The fliers visited schools in the communities of Hasselt-Kermt, Koersel, Koksijde, Lier, Waasmunster, Antwerp, Heule, Mechelen, Rumst-Reet, Zottegem, Sint-Niklaas, Genk, Gent-Oostakker, Haacht and Ieper. Additionally, 8 fliers participated in debates at UFSIA in Antwerp, the Europlanetarium in Genk, the CTL Campus in Gent, and at the University of Leuven in Leuven. That evening, the fliers and spouses attended the opera La Noce de Figaro at the Palais de La Monnaie Opera House in Brussels.

Thursday morning the delegates traveled to Transinne for a day at the Euro Space Center and Space Camp Belgium. The first session of the day was the traditional International Space Programs Review, chaired by Michael Lopez-Alegria and Vladimir Titov; Taldat Musabayev recounted his last flight aboard the MIR space station and showed a video of the EVA performed by he and Nikolai Budarin to replace an external thruster assembly, Don Peterson presented the second

half of the work done by the ASE Crew Safety Committee's Sub-Committee on Advanced Crew Safety Concepts and Michael Lopez-Alegria discussed ISS assembly requirements and schedules. That afternoon, the Executive Session was held at the Space Center and Mirosław Hermaszewski and Dorin Prunariu were re-elected to the ASE Executive Committee. Additionally, Romania was approved as the site for the 15th Congress and Spain was tentatively approved to host the 16th Congress. A proposal for ASE to issue a statement in support of keeping the MIR station flying through ISS construction was defeated by the general assembly and ASE participation at UNISPACE III was approved. Following the Executive Session, the Closing Ceremony was held and the 14th Congress was officially adjourned.

Friday the fliers and their spouses traveled by bus to Bruges, where they took a canal boat tour of the historic city and were welcomed by the Mayor of Bruges at a City Hall reception. Returning to Brussels that evening, the delegations attended the Closing Banquet at the Concert Noble, hosted by the Executive Club of Belgium. Included in the program was the presentation of awards to the members of the local or-

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Association. Among these activities will be a cooperative effort with the United Nations Programme on Space Applications to coordinate international lecture tours by astronauts, scientists and engineers with the aim of increasing public knowledge about the benefits of space exploration, research and development; a

program to increase the number of astronaut visits to schools, universities and science centers nation-wide; promote public support for the US space program; and develop a scholarship fund for outstanding graduate students in science and engineering who elect to work in the field of aeronautics or astronautics.

Under the guidance of an investment committee, contrib-

uted principal and interest will be invested in no-load mutual stock funds for a period of five years, at which point asset growth will be applied to the ASE-USA operating budget. The accumulated principal will remain in the fund in perpetuity. Ownership of individual stocks will be avoided, to assure no conflict of interest with any of our individual or corporate members.

ASTRONAUT DREAMS: AN ART PROJECT

Dreams create vivid and often unexpected images and narratives from past and present experiences and memories. Encountering startling and novel experiences through space flight -- such as microgravity or viewing the earth from above -- may trigger for space pioneers intriguing dreams relating to space exploration.

As an artist interested in the connection between art and science and the space program, Anne Willieme would like to create a series of artworks using as subject matter the actual dreams of the astronauts. Dreams astronauts have had in orbit as well as dreams occurring on the "ground" will be considered. The works will make use of a wide variety of media: sculpture, installation, photographic imagery, or video.

Ms. Willieme's work has been exhibited in solo and group exhibitions in galleries in the United States and in Europe, including Change, Studio d'Arte Contemporanea in Rome, and l'Escale, Espace d'Art Contemporain in Brussels. With a special interest in art in public spaces, her projects have been featured in Rome at the Leonardo da Vinci Airport and at the Roma X Post Office, and she was selected to participate in "Arte a Roma" organized in collaboration with the city's Museum of Modern Art. In addition, she created projects for DanubeFilm which traveled to Vienna, Bratislava, and Budapest.

Astronauts interested in the project will be asked to describe dreams they wish to share that are evocative of astronomy and the space program.

"Astronaut Dreams" will reveal a poetic facet of the space program and generate a bridge between art and science. In addition, the project will create an unusual record from the main participants of space exploration: the astronauts. "Astronaut Dreams" shown in an art or science museum or gallery can generate interest for the space program by providing a new perspective on the great adventure of human space exploration.

14th Planetary Congress of the Association of Space Explorers

General Statement

Bearing in mind that the theme of the 14th Planetary Congress of the Association of Space Explorers is "Space and Education – a Message to the Youth", we submit the following statement to all nations, governments and peoples of the world, and in particular to the youth.

We, astronauts and cosmonauts of the world, representing 28 nations, support the idea that access to education is a fundamental human right and that no person should be deprived of their right to a basic and continued education. We firmly believe that space technology plays an important role in expanding education to all people in all countries of the world, regardless of race, nationality or socio-economic status.

Science and technology have been significant factors in improving the quality of life on Earth in the last century; we are about to embark on a new millennium, and education will undoubtedly be the key to our success in the next. But education is not only the responsibility of parents and educators. It is also the responsibility of governments and nations to provide the proper support, to invest in schools and infrastructure which will allow the world's children to pursue their dreams and to build a better future for us all.

Investment in education is an investment in human knowledge, which is the only truly inexhaustible resource in this world. To this end, we cosmonauts and astronauts call on all political leaders all over the world to invest more in proper education for every child and on all spacefaring nations to invest a part of their annual space exploration budgets on innovative, creative space-related programs for the youth.

But we also appeal to the youth of the world to commit to a life-long process of learning; set your goals at a level where you must continually strive to reach them, and never be deterred from pursuing your dreams.

You will be responsible for the future of planet Earth. We live on a fragile planet with limited resources and delicate environmental balances and we all share an important responsibility to protect and preserve our natural heritage for our children and for all future generations.

And so we give this mission to the youth : as we hand over to you the responsibility for the protection of our common home, reach for the stars, wherever you may live, and follow in our footsteps to continue the work that we have begun.

**Adopted
Brussels, October 22nd 1998**

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tional standards for caution and warning and some advanced crew safety concepts. Additionally, an ASE International Standing Committee on Education was established at the 14th Congress in Belgium; its first task will be to redesign the ASE web site and to develop internet-based space-related educational tools and activities for use in K-12 classrooms. In 1999 we hope to establish a more regular program of activities for our members—while these will be primarily in the Houston area, we also hope to be able to create opportunities for regional activities as well.

We will be convening the 15th Congress in Romania in August, during which, by the way, we ordered up the last total solar eclipse of the millennium for your viewing pleasure. We are also tentatively planning a multi-day event at Disney World in July, to coincide with the 30th anniversary of Apollo 11; those of you who attended the grand opening of Tomorrowland in Anaheim last May know that Disney knows how to throw a good party. I'll keep you posted and will hope that if you can't make it to the Congress, you'll find the time to join us in Orlando!

Best wishes to all and good luck and safe journeys to those of you traveling up and away into the wild blue yonder in 1999.

1999 Flights

STS 96

5/20/99

OV-103

INC: 51.6 DEG / ALT: 173 NM

SPACEHAB-DM

10 Days

Kent Rominger, CDR

Rick Husband, PLT (R)

Ellen Ochoa, MS

Tamara Jernigan, MS

Daniel Barry, MS

Julie Payette, MS (R)

Valery Tokarev, MS (R)

STS 93

7/9/99

OV-102

INC: 28.45 DEG / ALT: 153 NM

CHANDRA

4 Days

Eileen Collins, CDR

Jeff Ashby, PLT (R)

Steven Hawley, MS

Catherine Coleman, MS

Michel Tognini, MS

STS 99

9/16/99

OV-105

INC: 57 DEG / ALT: 126 NM

SRTM

11 Days

Kevin Kregel, CDR

Dominic Gorie, PLT

Janet Kavandi, MS

Janice Voss, MS

Mamoru Mohri, MS

Gerhard Thiele, MS (R)

STS 101

10/14/99

OV-104

INC: 51.6 DEG / ALT: 173 NM

SPACEHAB-DM/ICC

11 Days

James Halsell, CDR

Scott Horowitz, PLT

Mary Ellen Weber, MS

Ed Lu, MS

Jeffrey Williams, MS (R)

Yuri Malenchenko, MS

Boris Morukov, MS (R)

1999 Anniversaries

5th

Soyuz TM-18

STS 60

STS 62

STS 59

Soyuz TM-19

STS 65

STS 64

STS 68

Soyuz TM-20

STS 66

10th

STS 29

STS 30

STS 28

Soyuz TM-8

STS 34

STS 33

15th

STS 41B

Soyuz T-10

Soyuz T-11

STS 41C

Soyuz T-12

STS 41D

STS 41G

STS 51A

20th

Soyuz 32

Soyuz 33

25th

Soyuz 14

Soyuz 15

Soyuz 16

30th

Soyuz 4

Soyuz 5

Apollo 9

Apollo 10

Apollo 11

Soyuz 6

Soyuz 7

Soyuz 8

Apollo 12

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