

ECSL



NPOC Austria

*Semi-annual Information
about all **Austrian**
Space Law Activities*

Space Law Newsletter Austria

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P R E F A C E

Another year of dynamic activities

Univ. Prof. Dr. Christian Brünner
Andrea Lauer

This year, again, was a very dynamic one for the NPOC Austria and its team, including a great deal of activities concerning many aspects of space law.

Prof. Brünner's idea of inviting European space law professionals and representatives of the ESA PEC states (cooperating states from Central and Eastern Europe) to a two days conference on national space law at the University of Graz turned out to be a great success. Following the conference, the NPOC's General Meeting of the European Centre for Space Law also took place at the University of Graz and was crowned with success: Prof. Mahulena Hofmann is willing to establish a new NPOC in the Czech Republic and the application form has already been accepted by the ECSL board.

As was shortly reported in our last Newsletter, six students attended the 45th Session of the Legal Subcommittee of the United Nations Committee for the Peaceful Uses of Outer Space (UNCOPUOS) as members of the Austrian delegation. They were very thankful having had the opportunity to take part in an official United Nations event.

The preparations for the publication "Space Flight & Law" are just to be finished and the book will be published in early 2007. All in all the NPOC Austria can be proud of its work and is looking forward to new activities and interesting tasks.

The seventh newsletter edition

Mag. Alexander Soucek

2006 is almost over, 2007 about to start. In the dynamic world of spaceflight and space research, the list of planned activities is long,

new missions to be launched both in space exploration and application areas like Earth observation. The Shuttle flights to ISS will continue, further approaching their end-of-life due to the planned phase-out of the programme. Many symposia, congresses and workshops all over the world are coming up, as every year, some of them listed at the end of this newsletter edition. The IAC 2007 will take place in Hyderabad, India, reflecting the important role India plays in space exploration and technology development today. Tiger countries and emerging powers will – and shall – get increasing influence in the area. Globalisation does not stop vis-à-vis space industry, and we get used to the catchword of "knowledge-based societies". The European Union, with its Seventh Framework Programme (see below) to be launched in January 2007, tries to respond to this development and the global competition of knowledge and "intellectual resources" with an immense seven-year investment programme.

On a more regional level, academic education in space law in Europe must continue. Let's not make the mistake to overestimate the subject, but let's not make the mistake either to neglect it. It's a small area, it is certainly not a "job machine" for young lawyers, but it is the expression of regulatory needs in an increasingly important strategic field. As a matter of fact, new issues will arise, new problems or different points of view. If we see law as the anticipation of and the response to social developments, space law has the privilege, but also the burden to deal with an extremely demanding sector with realistic, but also over-heated expectations for the future, with civil and military components (or, to hide behind a politically more correct term, "security dimensions") and with research and development always looking into tomorrow's possibilities. The European Centre for Space Law is an important, extra-national or super-national institution with a good network of affiliated points of contact all over Europe. To keep the dynamics of this network alive is not easy, but should be a prerogative if the grounds of tomorrow's space law research in Europe are to be prepared well.

This newsletter edition is the first English-only newsletter version. Whether we keep this slimmer version or come back to a bilingual edition remains to be seen. A good new year 2007 to all readers!

LOOKING BACK

15th ECSL Summer Course on Space Law and Policy

Andrea Lenz, Uni Innsbruck

This years Summer Course on Space Law and Policy took place was celebrating a jubilee and even a premiere. It was for 15th time students who were interested in space law and policy get the opportunity to discover and study this subject. For the first time the event took place in the research centre of the European Space Agency at the ESTEC facilities, Noordwijk, The Netherlands.

Here students were able to carry out their project work and take part in lectures close to rockets, satellites and discarded space capsules.



Approx. 50 students from all over the world (more than 15 nations!) were accommodated in two different hotels in the beautiful, picturesque village of Noordwijk.



The hotels were located in about 20 minutes walking distance from each other and therefore communication problems between the students occurred. Apart from that the hotel "Golfzicht" located about 200 meters from the beach was equipped with wireless-LAN and therefore an excellent choice.

After a delicious breakfast the bus collected us every morning around 8.30 and brought us to the ESTEC facilities which took us about 20 minutes. At about 19.30 we were brought back to our hotels and were able to enjoy the nightlife or to go to the beautiful beach.



The coastline in Noordwijk, location of ESA's largest establishment ESTEC

Although the schedule was strenuous it was worthwhile - I was very surprised that we were given the opportunity to meet so many experts and were able to attend very interesting lectures about space law. The lecture of Dr. Jean Clave, leader of the astronomical department of the RSSD, was a very impressive one. He captured the attention of every single student with his exciting presentation "The universe: what we know about it?" Also the lecture "Space Law and the International Court of Justice" given by Judge Vladen S. Vereshchetin, judge at the International Court of Justice was highly interesting.

The majority of the lectures were very informative and gave students a good overview of the five treaties, the up coming space-tourism and why estates should not be bought on the moon or mars. After the lectures it was possible to discuss these topics with the lecturers. Unfortunately the presentation of an astronaut "Working in Space, Living in Space" was cancelled without any reason.

Four to six instructive lectures per day formed the basis for intensive teamwork-projects. From the first day the participants were divided into eight groups of four or five students from different nationalities. The exercise we were given was to form a consortium and to complete a scientific space project. Unfortunately the instructions we were given for the teamwork were very imprecise and lead to some misunderstandings and difficulties. In addition to a power point presentation we had to compile a 10-pages report.

After brain storming periods and long discussions our group suddenly were given the inspiration: D.R.E.A.M. – a machine which is able to discover even the smallest radioactive wave. So we were ready to start work and prepare our presentation.

It goes without saying that our days were not only taken up by teamwork and lectures. We also had the opportunity to visit the Peace Palace and the International Court of Justice in The Hague which was very impressive. After an interesting guided tour we were free to discover The Hague for the remaining day. Also the tour through the ESTEC-facilities was a great experience for us. The latest ESA projects were shown and we were able to take part in an experiment. Finally a spectacular animated 3-D-show took place, in which it was possible to experience the life of an astronaut.

In my opinion the participation in the ECSL summer course was an amazing, informative and outstanding experience. Besides being able to learn much about space law and meet numerous experts we also made many new friends and contacts.



Prof. Brünner and the Austrian participants of the 15th ECSL Summer Course in ESTEC

The Austrian students participating in 2006:

- ▶ Eberle Christoph, Universität Innsbruck
- ▶ Gassner Phillipp, Universität Innsbruck
- ▶ Kaps Phillipp, Universität Wien
- ▶ Lenz Andrea, Universität Innsbruck
- ▶ Thaler Thomas, Universität Innsbruck

! If students are interested in participating in next year's ECSL summer course please contact the NPOC Austria (Email: andrea.lauer@uni-graz.at).

Conference “National Space Law. Development in Europe – Challenges for Small Countries”

**September 21– 22, 2006
University of Graz, Law School**

After the organisation of the ECSL Summer Course on Space Law and Policy in 2004 and of a public information day “Spaceflight and Law” in 2005, this year featured the realisation of a two-day legal symposium on space law in Graz. Since its beginning, the NPOC Austria regarded the fulfilment of a “bridging function” towards Central and Eastern European States as one of its pillars. At several occasions, this concern was also brought forward to the ESCL Board and other NPOC. Even the more the NPOC Austria was glad to function as the organiser for a two day conference this autumn, bringing experts of international law, space law and politics together in Graz for reflecting on the topic of National Space Law Development in Small (European) Countries.

The following conglomerate of articles features the official welcome address of Prof. Brünner as host of the conference, as well as an extensive report of Prof. Stadlmeier and some images from the social events surrounding the academic discussion – for all this, Graz once again showed its best side, adding a chapter to a story of successful events to be continued.

Welcome Adress

Univ.Prof.Dr. Christian Brünner

Austria is a small country but the value of space related activities is considerable. We count 2.3 % of the population of those countries which are members of the ESA but the Austrian contribution to some European Space Projects is up to eight times the population quota.

Austria is becoming a space faring nation. At present the very first Austrian satellite "TUGSAT-1" is being designed by the University of Technology of Graz in collaboration with the University of Vienna, the University of Technology of Vienna and the University of Toronto, a collaboration within the framework of the mission BRITE-Austria. The project is financed by the Austrian Federal Ministry for Transport, Innovation and Technology and the Aeronautics and Space Division of the Austrian Research Promotion Agency.

The future launch of this first Austrian satellite will change Austria's legal position in space activities considerably because for the first time ever Austria will have to be considered a launching state in the sense of the different international space treaties. As a party to the five UN Space Treaties Austria is already now obliged to make provisions for the registration of space objects and liability for damage caused by such space objects, but only for Austria as a launching state these obligations can have significant consequences. According to the international space treaties launching states are the only subjects which are responsible and liable for space activities; as far as damage affects the earth surface or other aircrafts this state liability is even regardless of fault or negligence. National laws can provide for a transfer of responsibility to the private actors, though, or establish the right to recur to the private actor.

This perspective of being a launching state in the near future is therefore an incentive to think of the development of an Austrian national space law which defines space related terms and regulates important questions, like above all the authorisation and supervision of space activities, the national register of space objects and the liabilities for damage.

In Europe several national space laws already exist or are being developed. I would like to mention the United Kingdom, Sweden, Norway, Belgium, The Ukraine, Russia, France, Spain, Germany and The Netherlands. These countries play a leading role in national space legislation. Their space laws or space law drafts already serve as models for other countries which can also benefit from first experiences made. Due to the fact that several members of the EU have developed national space laws or are in the process of development the need for harmonisation within the EU is emerging, too.

Following the personal commitment of Prof. DDDr. Willibald Riedler many years ago Graz has taken over an important and prominent role in Austrian space research. The number of scientists, institutions and companies dealing with space matters are showing this quite well. Above all the Space Research Institute of the Austrian Academy of Sciences, the University of Graz, the University of Technology of Graz and the University of Applied Sciences, the research company "Joanneum Research", Magna International etc have an excellent renown and a good position in technology development as well as in research in the space sector.

In 2001 the Austrian NPOC within the ECSL – the Centre is operated under the auspices of ESA – was founded at the University of Graz. Mr. Gabriel Lafferanderie, chairman of the European Centre for Space Law, and for many years legal advisor of the European Space Agency put much effort into the establishment of a National Point of Contact in Austria. These efforts were especially supported by Ms. Eva-Maria Schmitzer, former head of the Department for Space Research and International Research Organisations within the Federal Ministry of Transport, Innovation and Technology. An important impuls for the establishment of such an NPOC was also given by Mr. Leopold Summerer who wrote a report concerning the possibility of future space law development in Austria in 2001.

The efforts of Mr. Lafferanderie and Ms. Schmitzer were very meritorious because the engagement in space law issues especially in our universities is rather underdeveloped. This was astonishing because Austrian diplomats and law scientists – let me just name Dr. Fasan, Ambassador Jankowitsch and Prof.

Zemanek – contributed considerably to the drafting and negotiating of the UN-space treaties during the sixties and seventies of the last century.

Indeed, there exist a few institutions which deal with space law issues. I just want to mention the Ministry for Foreign Affairs, but if you look through the manual of our five university law schools you will find almost no such activities. This was the main reason for me to accept the offer of Mr. Lafferanderie and Ms. Schmitzer to take care of the Austrian NPOC. The National Point of Contact Austria has been very active in the promotion of space law ever since it has been established.

The conference “National Space Law. Development in Europe – Challenges for Small Countries” would have been impossible without sponsorship and support from the Federal Ministry of Transport, Innovation and Technology, Vienna. Small financial support has been given also by the Science Department of the City of Graz.

The first day of the conference is devoted to different aspects, trends and perspectives of national space legislation in Europe. The session is closed by a two-countries-report on national space legislation efforts which is declaimed by Sweden and The Netherlands. According to Austria’s position in the centre of Europe, its function as a bridge between East and West and the special task of the NPOC Austria to encourage space law efforts in the new EU-member states and candidates the main focus on the second day of the conference is to point out the perspective of new member states which are already included in ESA activities through the “Plan for the European Cooperating States”, PECS in short. Furthermore a panel highlights the needs and perspectives of national space law as a challenge for Austria.

Conference Report

Prof.Dr. Sigmar Stadlmeier, Uni Linz

Why should a small, non-space faring nation such as Austria pay any particular attention to – or even draft its own – national space law? First, because Austria is not so small after all; while representing only 2.3 % of the aggregate population in ESA’s member states, its contribution towards some European space

projects and efforts is nearly eight times as high. Second, because Austria is going to join the club of spacefaring nations once BRITE AT, a small cubic-shaped satellite designed by professors and students of Technical University Graz, will be launched in 2008.

These statements opened the Conference “National Space Law – Developments in Europe / Challenges for Small Countries”, which was convened in Graz by Professor Dr. Christian Brünner, ECSL NPOC Austria, from 21st to 22nd September 2006. During the first session, chaired by Ass.Prof. Dr. Irmgard Marboe of Vienna University, the speakers concentrated on the basis of space law in public international law and the amazing development of space activities which emerged after the adoption of the relevant international instruments which center around the Outer Space Treaty.

Professor Dr. Elisabeth Back-Impallomeni of Padova University and Dr. Michael Gerhard of the Deutsches Zentrum für Luft- und Raumfahrt (DLR) focussed on the core treaties regulating outer space affairs. The system of authorisation and supervision of, as well as liability for, activities in outer space and of registration of spacecraft launched and used for such purposes invites – and with regard to some of these obligations mandatorily requires – national implementing legislation, once a state has become a party to these treaties.



Elisabeth Back-Impallomeni, University of Padua

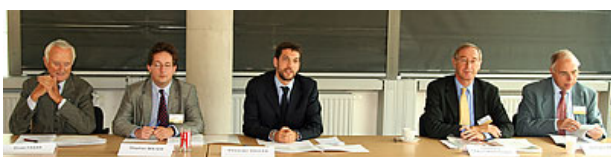
Moreover, as Ing. Harald Posch of the Austrian Research Promotion Agency and Professor Back-Impallomeni and Frans van der Dunk of IIASL Leiden agreed, “space has changed” and has been commercialised and “privatised”, at least with regard to the key actors: Earth observation, satellite-based navigation and disaster prevention, telecommunication and

microgravity experiments, rather than trips to the moon or spectacular interplanetary missions, form the bulk of activities in outer space and bring much closer a once remote subject “for a happy few”.



Harald Posch, Austrian Research Promotion Agency (FFG)

These non-governmental activities had not been expected at so large a level when the core treaties on international space law were drafted and adopted and add to the need for national legislation, as any state which qualifies as a launching state under the Outer Space Treaty remains both responsible under public international law for the safe and orderly conduct of these activities and liable for any third-party damage which might be caused by such activities. Should there be recourse for liability payments? Should there be a limit for such recourse? Should an insurance for such liability be required from any applicant for a launching authorisation? Those questions should be answered by national legislation before a spacecraft is launched.



Ernst Fasan, Stephan Mayer, Alexander Soucek, Ambassador Trauttmansdorff, Gerhard Hafner during the panel discussion

During the panel discussion on the second day of the conference, moderated by Mag. Alexander Soucek of ESA/ESRIN, Professor Dr. Gerhard Hafner of Vienna University, Member of the International Law Commission, concurred in the latter point: Even if the Outer Space Treaty and the other core treaties were self-executing, liability issues would – due to the shift toward private actors – in any case require implementing (and not just

supplementing) legislation. Ambassador Dr. Ferdinand Trauttmansdorff of the Austrian Ministry for Foreign Affairs concurred in substance, though not with regard to the preferred approach: The necessity for individual pieces of legislation is not necessarily equivalent to the need for one comprehensive statute; individual amendments of existing statutes (e.g. on the liability issue) could be sufficient. Political consensus might be more easily achieved for the latter than for the former. Dr. Ernst Fasan, Honorary Director of IISL, concurred and pointed out that no specific competence on space affairs was available in the Austrian constitution as a legal basis for comprehensive legislation.



Panel discussion

Dr. Kai-Uwe Schrogls contribution (which was presented by his colleague Dr. Michael Gerhard of DLR) explored problems and potential for legislation at European Union and Community levels. While there still is no genuine competence for the Union in space affairs as such, there certainly are competences to regulate space-related industrial activities within the Common Market, including competences for approximation and harmonisation of national laws to these ends (as demonstrated by the 1994 Satellite directive). Dr. Stephan Mayer of the Austrian Research Promotion Agency supplemented the legal debate with technical and operational issues calling for legislation.

Niklas Hedman of UNOOSA Vienna and Professor Dr. Frans G. van der Dunk of IIASL Leiden, presented the Swedish and Dutch (draft) space laws respectively and explained the key concepts of activities covered and the authorisation, supervision and liability regimes. On the second day, chaired by Jean Monnet Professor Dr. Sigmar Stadlmeier of Linz

University, Dr Elöd Both of the Hungarian Space Office, Professor Dr. Mahulena Hofmann of Max Planck Institute for Comparative Public and International Law (and soon Giessen University) and Ambassador Dr. Krzysztof Kocel of the Polish Ministry for Foreign Affairs presented the Hungarian, Czech and Polish perspectives respectively.

Although formally some countries can rely on constitutional provisions granting direct applicability and supremacy over national law to certain kinds of treaties including the Outer Space Treaty and other core treaties of international space law, implementing legislation may still be required to clarify issues which do not lend themselves to direct implementation. This was highlighted by a debate as to whether air law provisions could be relied upon by way of analogy for registration purposes; it turned out that even Germany provisionally enters satellites into an annex to its aircraft registry ("Luftfahrzeugrolle"), without any particular legal basis for what appears to be a convenient practice.



Christian Brünner, NPOC Austria

Professor Dr. Brünner, organiser of the conference, concluded that the need for national space law could hardly be overlooked; the transformation and diversity of space activities however rendered the drafting of comprehensive legislation difficult.

BRITE AT, the Austrian nano-satellite to be launched in early 2008, might not only help in exploring bright stars in outer space but also serve as a catalyst in the process toward national space law in Austria.

Conclusions

Univ.Prof.Dr. Christian Brünner

For me, and this means from a more or less theoretical point of view, two things are quite clear:

First: It could and even would make sense to develop an Austrian space law which primarily focuses on the implementation of the United Nations space law treaties. Therefore points to be dealt with in an Austrian space law could be the registration, authorization and supervision of space activities. For instance the conditions under which private space activities can be authorized and alienated to another private actor could be defined including penalties of such conditions which are infringed. Another issue could be the allocation of liabilities or damages and the limitation of liability in favour of a private actor. Also a compulsory insurance regarding private space activities could be considered.

Second: Space activities and the transformation of the results of space research and space exploitation in daily life are expanding. It is almost impossible to list the regulations which are applicable to such activities and transformations, furthermore these regulations are highly complex. So a national space law should not and cannot include all legal aspects which are connected with different space activities and space related aspects. Therefore special legal provisions could be made in different laws.

If I stay away from a more or less theoretical point of view I have to take into consideration political and practical restrictions. Among these is eg the lack of awareness of the parliamentarians. Following the VIIIth European Interparliamentary Space Conference 2006 in Brussels which dealt especially with the Belgian space law I wrote a letter to a leading parliamentarian. Until now I didn't get an answer. Further restrictions are the political and administrative problems to coordinate all the ministries which have competences in space related matters. Last but not least we have to take into consideration constitutional restrictions, especially the question of competence - federal or regional - to release a national space law. Due to all those facts I doubt that a process of elaborating an Austrian space law which is ready to be handed over to the parliament can be started in a near future.

However, it might be that the BRITE satellite will be an incentive.

As it might be, the NPOC Austria will not stop the respective discussions. During the next months I will try to clarify whether we are able to establish a working group of experts in the field of space law. The working group should at least have three tasks:

1. **To summarize the pros and cons of a national space law on the basis of the results of this conference, on the basis what has been done in other countries, on the basis of the specific Austrian situation, on the basis that a “cheap flag” situation should be avoided and on the basis of the necessity to achieve harmonisation of legal standards at least on an informal level within the EU;**
2. **To elaborate the idea of a draft and furthermore a draft of a draft.**
3. **To bring such a draft in a discussion process.**

Whether we will be successful or not, the need for elaborating a national space law will remain on the agenda. Political considerations for the elaboration of a national space law and international legal obligations are the sources of such a need.

Conference excursion to the Wine region of Styria

Andrea Lauer



“Blauer Wildbacher”, the grape were the famous Styrian wine is made of

Within the two days conference Prof. Brünner invited the participants to an excursion to the Wine region of Western Styria where a very

particular vine type is produced – the so called Schilcher.



Ambassador Kocel, Frans von der Dunk, Elisabeth Back-Impallomeni

The participants enjoyed the impressive panorama of the Buschenschank Klug and the so called “Brettljause” and tasted the famous Styrian wine.



Elöd Both, Mahulena Hofmann, Michael Gerhard, Bruno Besser, Norbert Pruscha

The atmosphere was very nice and everyone had a lot of fun during this Thursday afternoon.



Wolfgang Rathgeber, Anna Burzykowska

We were given very warm thanks from Ambassador Kocel from the Polish Ministry for Foreign Affairs for the perfect organisation and the hospitality of our staff. Almost all of the participants thanked us for the nice trip to Western Styria and told us that they've had a wonderful time.



Niklas Hedmann and Mum

NPOCs General Meeting

22 September 2006

University of Graz, Law School

Andrea Lauer

At the NPOCs general meeting which took place on September 22nd, 2006, at the University of Graz, the following NPOCs were represented: **The NPOC Netherlands by Prof. Frans von der Dunk, the NPOC Italy by Dr. Viviana Iavicoli (on behalf of Prof. Sergio Marchisio) and the NPOC Austria by Prof. Christian Brünner, Dr. Irmgard Marboe, Prof. Sigmar Stadlmeier, Mag. Alexander Soucek MSS and Ms. Andrea Lauer. Furthermore Prof. Back Impallomeni, member of the ECSL board, attended the meeting.**

The main point of the discussion concentrated on considerations to found new NPOCs in those new EU member states which were represented at the meeting - Prof. Hofmann represented the Czech Republic, Ms. Anna Burzykowska Poland and Dr. Laurits Leedjärv was the representative from Estonia.

Prof. Brünner underlined the interest of the ECSL to establish NPOCs in the new Member States and offered immaterial help by the NPOC Austria in establishing an NPOC in all

respective countries. Everyone was given a copy of his article "The Organisation and the Function of the National Point of Contact" as a guideline.

Prof. Hofmann expressed her concern whether the output of an NPOC justifies the input especially the administrative efforts. For the Czech Republic she pointed out that the best way would be the establishment of an NPOC close to the Czech Space Office.

Ms. Burzykowska showed her interest in establishing an NPOC in Poland. For her the NPOC could function on the one hand as a promoting point for space questions in general and on the other hand to attract law professionals to raise public interest in space law issues in particular. The possible working platform could be the Polish Space Office, a university or a law school.

Dr. Leedjärv from Estonia pointed out that he is not particularly confronted with space law issues because he is working as an astronomer at the Tartu Observatory and was brought into the space business by the respective ministry two years ago. Nevertheless he showed his willingness to bring the idea of an NPOC into the Space Policy Group of Estonia as well as into the Ministry of Economic Affairs and Communication which deals with space related activities.

Dr. György Mihalka from the University of Szeged/Hungary, who unfortunately could not participate in the NPOCs general meeting, informed Prof. Brünner that he, too, is interested in establishing an NPOC in Hungary, probably at the University of Szeged. He will contact Prof. Brünner in the near future.

Prof. Back Impallomeni and Prof. Frans von der Dunk expressed their point of view how the NPOCs are working in their respective countries. Prof. von der Dunk sees the NPOC as an instrument which should basically work as a contact point of ECSL in every country and that the definition of the concrete working field should be up to the respective NPOC, its staff and resources. Prof. Brünner pointed out that the main task of the NPOC Austria is to promote space law within the universities and to raise public awareness concerning space law issues.

Meanwhile an application form conceived by Prof. Hofmann in cooperation with Prof. Kopal was brought into the meeting of the ECSL Board in October 2006. The board agreed to establish an NPOC in the Czech Republic.

Interdisciplinary training course “Environmental information transfer”

**Universität Graz, winter semester
2006 / 2007
Alexander Soucek**

The Austrian academic landscape offers so called “interdisciplinary training courses” (Interdisziplinäres Praktikum, IP) to bring together students from different backgrounds and fields of research under the umbrella of a specific topic. Over the course of half a year, the students meet once per week for several hours to both hear academic experts and work on a case study. New knowledge across academic disciplines and hand-on experience with an added value beyond the pure elaboration of a seminar paper – these are the ingredients of an increasingly successful model of University education (NB: complementing, not replacing “classical” focused education).

In autumn 2006, **Mag. Katja Bedenik** from Graz University organised, together with some student colleagues, an IP with the promising title “Environmental Information Transfer”. The idea behind: to understand and pool environmental information, to transfer this information to groups and institutions with need or interest, to teach the use of information-gathering tools and of the information itself, to advance basic lobbying work for the protection of the environment. Professionals from various fields such as Public Communication, Economics, Geography, Space Flight, Law, Environmental Sciences and others were giving lectures and practical advice; then, the students started to work on two case studies (rain forest Borneo and urban development Graz) including the set-up of an extensive internet-based geo information pool for NGOs. The output of the IP shall therefore bring added value to users in terms of knowing how to find, how to process and how to apply sources and information of concern for environmental work.

Beside many other topics, law and space law were listed on the curriculum of the IP. Alexander Soucek from the NPOC Austria was invited as guest lecturer for two half-day

sessions of the training course, teaching basics of space law and intellectual property rights, the institutional space landscape in Europe, Earth observation data policies and user programmes.

In the next edition of the Space Law Newsletter Austria, the initiator of the IP, Ms. Bedenik, shall be given the opportunity to reflect on the importance and conduct of this unique IP, and show the results the very enthusiastic student group will deliver in January / February 2007. These results shall be presented to the public during a press conference. The NPOC Austria wishes good luck for the final phase of this training course.

Manfred Lachs Space Law Moot Court

World Final in Valencia

This year’s space law moot court concluded during the IAC in Valencia, Spain, with a team from New Zealand as winner. The official news statement reads as follows: „*The World Finals were completed (...) with the team from the University of Auckland (New Zealand) (...) emerging as the winner over McGill University (...)*” (www.spacemoot.org). The NPOC Austria congratulates the winning team and is looking forward to the 2007 round, working on a problem which has been released already in September: “Emeralda versus Mazonia”, a case concerning international liability.

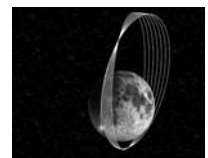
News in short...

... from the past months

SMART-1 mission to the moon ended

3 SEPTEMBER 2006

▶ With a more or less controlled crash into the surface of the moon, the ESA mission SMART-1 came to its end early autumn. The impact site – nice detail – was situated in a lunar region named “lake of excellence”. SMART-1 had been studying the moon for 16 months, transmitting a huge amount of data and contributing to our understanding of the Earth’s only natural satellite.



Colloquium on space, defence and European security

19-22 SEPTEMBER 2006

The European Interparliamentary Space Conference, together with the Western European Union (WEU) Assembly, held a conference on the security dimension of space in Kourou, French Guyana. Main topics were the application areas of the space sector to various aspects of security and the capabilities of European industry to answer to needs and support arising processes. The event was attended by high-level space actors and members of parliament across Europe.

METOP launched

19 OCTOBER 2006

Mid October, the first polar-orbiting European meteorological satellite, MetOp, was launched successfully from Baikonur, Kazakhstan. It will complement the fleet of the geostationary MeteoSat satellites, orbiting much lower at an altitude of 837km with 98.7 degrees orbital inclination. MetOp is a cooperative programme between ESA and EUMETSAT, the European



Organisation for the Exploitation of Meteorological satellites. Two more satellites shall be launched in the future.

7th Framework Programme information event at FFG

6 NOVEMBER 2006

The Austrian Research Promotion Agency (FFG) organised an informative evening for Austrian industry, research and other stakeholders concerning the launch of the 7th EU Framework Programme on Research (see also below in detail). Expectations and opportunities for the Austrian research communities as well as major goals were presented: more competitiveness for Austrian enterprises, easier access for SME, international positioning of Austrian universities and keeping the return coefficient for Austria on a high level.

ESA cooperation with Google Earth

16 NOVEMBER 2006

ESA launched a cooperation in the field of Earth observation with the highly successful internet service "Google Earth". For this, the

Agency has created a special layer of content featuring more than 130 satellite images of natural and artificial landmarks with the aim of enhancing public interest and understanding in this important field of space research and applications.

ESA astronauts in space

9 DECEMBER 2006



Usually not leading the astronauts flight statistics, Europe had, for several days, two members of its Astronaut Corps in outer space, living and working aboard the ISS and even participating in EVA (extravehicular activities) outside the station, so called space walks. Christer Fuglesang from Sweden was launched on 10 December 2006, during NASA's first night launch since November 2002, to ISS, where he joined Thomas Reiter from Germany, whose long-term space mission came to an end with STS-116 bound to take him back to Earth.

Space Law Newsletter Austria

PANORAMA

AustroMars – Austria's largest analogue science mission

Text provided from the Austrian Space Forum (ÖWF)

AustroMars was the simulation of a crewed expedition on the surface of planet Mars in April 2006 at the Mars Desert Research Station in Utah. Six carefully selected individuals performed 20 experiments in the fields of robotics, analogue planetary and life sciences as well as human exploration itself.

Preparatory activities and previous heritage

Based upon previous activities of the Austrian Space Forum, like the construction of a Mars-analogue rover and a parabolic flight, the idea for an integrated Mars mission simulation was submitted to the Austrian Research Promotion Agency's Aerospace Division within the Austrian Space Applications Programme.

Science and Technology Programme

AustroMars was focused on science and technology: 20 experiments were conducted in close cooperation with various academic institutions ranging from geology to human factors research, from robotics to micro-biology. This report only describes the experiments in principle, the scientific findings are still "work in progress": The amount of data obtained through the mission "suffices for another 2 or 3 years of research", as one of the principal investigators put it. In September 2006 there was a first Scientific Conference on AustroMars which will lead to a first proceeding in early 2007. The quality of some of the experiments, especially in the human factors research was remarkable: e.g. one of the experiments, the Fatigue Monitoring System which was conducted in cooperation with the company Object Tracker and Sowoon Technologies under the lead of Luzian Wolf was awarded a technology spin-off prize (CAST-award) in December 2006.

Flight crew selection and training



Since September 2005, a crew selection process took place which originally involved

182 applications which had to be down-selected to a flight crew of 6 highly skilled, motivated and well-trained individuals as well as a 3-person back-up crew. Modeled after training principles of astronauts and pilots, in a nutshell, the crew underwent a detailed training including education in science and engineering skills as well as physical and mental training, plus many manual skills such as applying a cast for a broken leg, driving an all-terrain vehicle in an off-road environment, giving media interviews and presentations to physiotherapeutic practices and getting to know the main space players in Europe.

Mission Control Center & Simulation period

The Mission Control Centre (MCC) for AustroMars was the headquarters of all technical and administrative activities in Austria during the actual simulation phase. The MCC was responsible for the contact to the „Mars“ base and the crew, the on-site support team in Hanksville, Mars Society's mission support in Denver and the science teams. The actual simulation took place from 8 to 22 April 2006, when the 6 person crew (Frischaut / Grömer / Hutsteiner / Kandler / Soucek / Spiess) boarded the Mars Desert Research Station, a 25m² habitat, to work two weeks in isolation, following the very dense flight plan elaborated by Austrian scientists and psychologists. The mission was accompanied by an extensive nationwide outreach campaign.

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EDITORIAL

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