

ECSL

News

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MAU's into Hardware

Getting an ESA Optional Programme going

Ninety percent of ESA's \$ 2 billion-plus annual budget, measured in Millions of Accounting Units, MAU's, is spent under the optional programmes foreseen in Art. V.1.b of ESA's Convention. A large part of the ESA Department of Legal Affairs' time is thus consumed by work on the legal arrangements of the 60 or so optional programmes.

What are these arrangements like? Annex III to the Convention sets out the requirements and procedure: Programme proposals (from the ESA Executive or a Member State) first go via the ESA Council Chairman to all Member States, followed by detail on technical/financial content. Next, the Council passes by simple majority an 'Enabling' Resolution approving the proposal as an ESA programme. Member States that wish to opt out then have three months to do so.

The remainder, known as the 'participating States', negotiate in these 3 months a Declaration covering the programme's phases, the binding overall, and any phase, financial envelopes (budgets), the scale of States' contributions, and any other requirements for the programme's management and execution.

The Declaration doesn't change ESA's normal way of executing programmes. It really acts to relate agreed financial commitments to programme content among participating States. For any changes in procedure, including decision-making, a set of Implementing Rules is needed, which has to be approved by the Council by simple majority (or by two-thirds, if the powers of an ESA body are altered).

All this sounds simple. Indeed, the ESA Convention attempts to cut out as much complication as possible by saying that its standard rules apply unless a decision to the contrary is taken.

As always, though, practice adds its own complexities, and usually for the same reason: to deal sympathetically with the consequences of inability to make a binding financial commitment. Forbearance



may prove necessary if a potential participating State cannot accept a certain share within the time limit (or in fact any particular provisions of the Declaration or Implementing Rules). It then risks being out of the programme or perhaps joining only later under conditions determined by the Participating States.

Means to help maintain support for the programme are thus often sought. One device is to start work, that is spending funds, before all participating States have confirmed their financial commitments, and so to run the programme with what is called a 'structural deficit'. Another device, rarely used, involves revisiting the financial envelope to avoid a cost overrun beyond the 120% safety net provided under the Convention. (Such an overrun occurred with Spacelab; new legal instruments had to be negotiated.) A further method is to modulate time limits to enable a Delegation to confirm a position on, for example, starting a new programme phase.

This last example should be contrasted with ad referendum voting, which evades firm commitments and which the ESA legal adviser will always oppose. In fact, the optional-programme part of his job

can be summed up as keeping things as simple as the Convention set out to make them.

W.M. Thiebaut

In this Issue

ECSL News No. 7 features salient aspects of internal practice in Europe's main public space organisations (ESA, Eumetsat and Eutelsat) that often miss the prominence they deserve: ESA's R&D-specific patents and procurement practice, Eumetsat, including its data-protection system, Eutelsat, and risk-management/insurance questions that affect all three.

The articles on Eutelsat and Eumetsat also contain organisational details of independent interest, such as Eutelsat's inclusion of a general assembly in its constitution, and Eumetsat's moves towards optional programmes along the lines practised in ESA, which are featured in a further article in this issue. Later issues will pick up other important areas such as ESA's treaty-making and registration practice and EC activities.

Eutelsat

L'Organisation européenne de Télécommunications par Satellites Eutelsat est une organisation internationale dont la Convention est entrée en vigueur en 1985. Vingt-sept Etats européens sont parties à cette Convention (la Roumanie depuis octobre 1990; la Pologne prochainement). Chaque partie désigne un opérateur de télécommunications pour être le Signataire de l'Accord d'exploitation.

Les décisions relatives à l'exploitation sont prises par le Conseil des Signataires alors que l'Assemblée des Parties est chargée d'examiner la politique générale et les objectifs à long terme.

Aux termes de l'article III a) de sa Convention, Eutelsat a pour mission principale de produire et exploiter les satellites et équipements connexes nécessaires pour la fourniture des services publics de télécommunications internationales en Europe. Eutelsat peut aussi fournir du secteur spatial pour des services publics de télécommunications nationales et des services spécialisés autres qu'à des fins militaires.

Eutelsat fonctionne à la manière d'une coopérative comme ses homologues à l'échelon mondial, Intelsat et Inmarsat. Parmi ses services on compte la téléphonie, les services d'affaires, la distribution et l'échange de programmes de radio et de télévision et les services mobiles terrestres.

Eutelsat, dont les satellites de première génération (Eutelsat-I) ont été approvisionnés et contrôlés par l'ESA, a 6 satellites en orbite, 4 Eutelsat-I et 2 Eutelsat-II. Quatre autres Eutelsat-II sont en cours de fabrication par un consortium européen dirigé par l'Aérospatiale. (lanceur: Ariane et, pour Eutelsat-II F3, Atlas.).

Eutelsat souscrit plusieurs types d'assurances:

- *responsabilité civile générale* (sans limitation de sommes pour les dommages corporels et jusqu'à 50 MFF pour les dommages matériels et immatériels);
- *protection de son secteur spatial* (une police couvre les satellites Eutelsat-II du décollage à la fin de recette en orbite du satellite) et de ses équipements au sol.

Le principe qu'Eutelsat ne peut être tenue responsable par suite de tout arrêt, retard ou mauvais fonctionnement des services de télécommunications est reflété dans les contrats de location de capacité de secteur spatial entre l'organisation et ses Signataires et dans l'accord

passé directement entre Eutelsat et l'Union Européenne de Radiodiffusion.

Eutelsat est partie à la Convention sur la responsabilité, mais ne l'est pas à la Convention sur l'immatriculation, car une condition de majorité est à remplir: seuls 12 Etats membres sont également parties à la Convention. Dans la pratique, les satellites de première génération ont été immatriculés par l'ESA et la France a accepté à titre transitoire d'immatriculer les satellites Eutelsat-II pour le compte de l'organisation.

C. Roisse

Risk Management at ESA

Following a trend set by large industrial companies with complex operations and costly assets, ESA recently initiated a Risk Management Programme consisting of a systematic approach to exposures and possible consequences through:

- 1) risk identification;
- 2) risk reduction (organisational measures/risk transfer in legal clauses);
- 3) risk financing (insurance).

1. ESA's risk profile includes loss or damage to unique assets — its sites and physical/informatics infrastructure, which are subject to explosive and other hazards. As a procurement agency ESA could become involved in a potentially vast legal exposure for the operations from design through manufacture and testing to launch, even accepting that its privileges and immunities provide an effective shield against direct claims.

2. Rigorous site and computer security is one way to reduce risk. Another is strict attention to clauses on indemnification, transfer of custody and title, third party and professional liability, types of damage, subrogation, etc. But the ideal of a full ESA disclaimer of liability for all or certain kinds of loss may in practice run contrary to ESA's very role of encouraging industry.

3. Therefore, in many situations insurance will be the only possible remedy against a class of exposure. Here, ESA's decision process has to take account of the traditional public-sector policy of non-insurance. The result that seems to be emerging is self-insurance in the regular ESA budget for small losses and insurance for major catastrophic loss.

H. Schimrock

Patenting the Non-Obvious

Every year ESA files about 20 patent applications, most for inventions made by its staff. The 1990 applications include a debris capture device for pyro-boltcutters, and a frequency scanning antenna. They join some 250 inventions since Europe's early days in space; the active patent portfolio holds about 70 available for licensing.

Why does ESA, which is not an industrial company, go to the trouble of protecting its inventions? The main reason is its industrial policy: to improve Europe's world-wide competitiveness by free licences on ESA-invented technology. Examples of how this works are European industry's use of such inventions in response to Calls for Tender from Inmarsat and Intelsat.

How does ESA go about filing patents? After an internal Patents Group has recommended patenting an invention to the Director General, a patent application may be filed first in a country (usually France), which is signatory of the Paris Patent Convention. This Convention allows ESA to file extensions to other countries (often the US and Japan) within one year of the first filing. Once the original patent application has been made public (18 months after the filing date), the invention is included in the Catalogue of ESA Patents (the latest catalogue being ESA SP-1131) to inform the public it is available for licensing.

The problems facing ESA are different from those encountered by industry, in which profit is the prime objective.

A first problem would be related to maintaining discretion, calling for the use of confidentiality agreements with industry. A second relates to stimulating European companies to use technological devices invented by ESA, for which the Catalogue provides a partial solution. A third relates to cooperation with industry on the breadth of protection of ESA patents. And a fourth relates to safeguarding ESA's rights in inventions made jointly by ESA staff and industrial contractors, and obtaining information on their use.

The main improvement to be made would be a stronger interface with industry.

P. Kallenbach

Eumetsat

Eumetsat is an intergovernmental Organisation founded in 1983 by 16 European Member States and their Meteorological Services. The Convention entered into force in 1986. Eumetsat's primary objective is to operate meteorological satellites. The well known Meteosat satellites developed by ESA represent its initial system but further systems worth ECU 2.5 billion are under preparation.

Eumetsat's legal practice is already manifold, spanning constitutional, copyright, contract and cooperation aspects.

Convention

The new systems now being prepared would normally require a unanimous decision by Member States and changes to the Convention's annexes, where each programme is defined. That any Member could bring all new activity to a standstill is of concern to many Member States. Proposed amendments to the Convention would thus continue basic activities (geostationary and polar satellite observations) as mandatory programmes but allow for optional programmes.

Data Distribution

Eumetsat recently adopted distribution and charging principles for data generated by its geostationary satellites. Rules for polar satellites are under consideration, as well as means for technical control.

The rules reconcile free exchange of a data set within the worldwide meteorological community with the needs for attracting investment. They make satellite data subject to copyright by Eumetsat, the exclusive owner. Utilisation rights are granted to the Member States and their National Services. For Non-Member States or other international organisations, 'general' and 'limited' licences are foreseen. A general licence extends generally to a whole territory, a limited licence to the user only. Standard agreements apply.

Contracts, Liability and Insurance

Eumetsat will in future have to procure satellites and ground systems of high value. Its Convention obliges Eumetsat to provide reliable technology at optimum cost, thus further legal provisions require international competition (not 'industrial return') as a baseline. Under the Convention, too, Eumetsat offers no warranty for its services. If a Member State, however, is made liable under the Liability Convention, Eumetsat will indemnify it (registration has so far been performed by ESA). While insurance was originally foreseen, Eumetsat decided not to insure its Meteosat systems, due to the availabil-

ity of spares, high premiums (then more than 20%) and the view of some Member States that 'governments, in principle, never insure themselves'.

Cooperation

Eumetsat contributes part of a global system of operational geostationary/polar meteorological satellites, and so has close relations with a number of international partners. The legal basis for cooperation varies and ranges from informal arrangements and Memoranda of Understanding to binding Agreements. The aim is to endorse and strengthen global efforts.

V. Thiem

ESA Contracts

US colleagues are often amazed to hear that out of the many thousands of contracts placed by ESA there has never been a court dispute. Why not? NASA has been taken to court on numerous occasions by its suppliers. Perhaps ESA's contracts are so perfect!

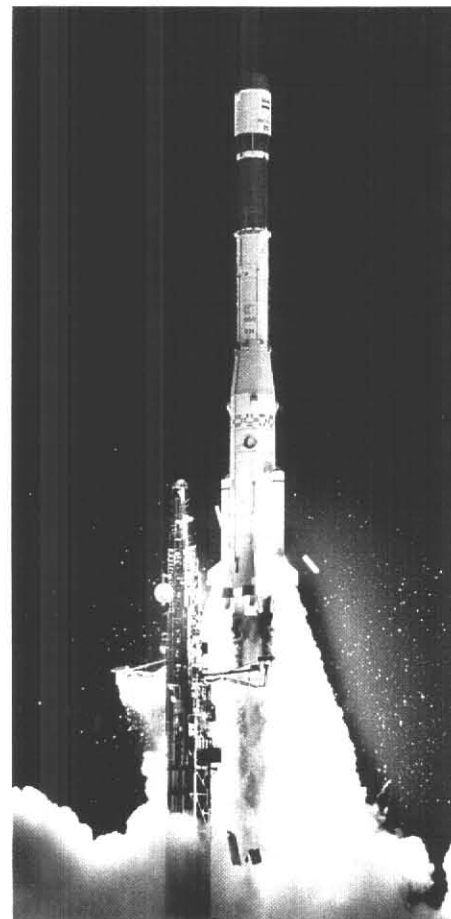
The real explanation is that ESA's procurement lawyers see their vocation as avoiding conflicts, not seeking them. All effort is concentrated on professional preparation and follow-up over three phases:

1. Proposal Phase

ESA's proposal selection procedure does not vary much from that of other public procurement agencies. But especial care is taken to make technical specifications unambiguous, and proposed requirements and conditions easily understandable. Tender evaluation boards are composed of different technical services and nationalities and follow strictly standardised evaluation procedures. Both the procedures and the results are documented and visible. Any major procurement is endorsed by ESA's Industrial Policy Committee (IPC) of all Member States. The IPC decides by simple majority on the procurement method (open or restricted competition, direct negotiation) taking account of industrial policy considerations such as fair industrial return for Member States.

2. Negotiation Phase

ESA is a development agency, promoting technology in industry, and European competitiveness. Its contracts should thus avoid taking economic advantage, yet safeguard European taxpayers' interests and efficiency. The main art of negotiating major development



contracts is to motivate contractors to stay within cost and schedule and to achieve good performance. For this purpose profit can be modulated by an incentive system and a cost sharing system.

3. Contract Performance

During a contract's life ESA's contracts lawyer is more than an adviser, even though performance, schedule and cost control is exercised by project teams. For projects of major size and duration can go badly astray if changes in technical content and schedule and their cost impact are not properly negotiated with the contractor. Each ESA project thus has a Change Review Board for such negotiations. ESA's representatives are the contracts lawyer and project manager. In case of disagreement, the contractor can appeal to the Head of ESA Contracts Department and higher technical management.

One might conclude from this short summary that ESA has an enormous technocratic bureaucracy for procurement. It doesn't – only 80 people (including secretaries and informatics experts). The scope of their work in 1990 was 510 tender actions and placement of 921 contracts and riders worth some ECU 0.79 billion.

W. Thoma

ECSL Activities

ECSL Research Workshop Programme

ECSL Workshop 'Legal Aspects Protection of Satellite Data', 16/17 May 1991 ESRIN, Frascati, Italy. This major event brought together experts and policy-makers from across Europe. Members will be provided with the Workshop's interim report on request.

ECSL/ German NPOC/ ESA European Astronauts Centre/ DLR Workshop on 'Legal Aspects of Manned Space Flight', 6 February 1991, at EAC, Cologne. Speakers: Prof. Böckstiegel (space law provisions), Dr Ripoll (ESA's astronaut programme), Dr Merbold (an astronaut's perspective) and Dr Madders (penal and disciplinary regime).

1991 General Meeting (14 June 1991)

Preparations for this meeting are in their final phase. *ECSL News* No. 8 will cover the outcome. All members will receive a copy of the 1989-1991 Report.

ECSL 1992 3-week Summer Course

The Board endorsed this idea at its 19 April meeting. Bodies willing to participate in or sponsor this event for postgraduate students please contact the ECSL Secretary for details.

Inventory/ESALEX

An update of Inventory of space-law related material available at the ESA HQ library is now available. It and new full texts of international and national space law will be loaded in ESALEX this summer.

Membership

Over 300. Please send any change of address to ECSL Secretary!

New Publication and Research Planned

ECSL will present the General Meeting with an expanded research programme. 'ECSL Collected Papers' will contain contributions resulting from this programme.

Recent Conferences

- Colloquium 'The Spaceplane and the Law', organised by the French Society for Air and Space Law, Paris, 14-15 May. Following a technical presentation on the development status of first and second generation space shuttles in ESA

(Hermes), the US (NASP), UK (HOTOL), Germany (Sänger), Japan (HOPE) and France, contributions focused on some major legal questions: applicability of air vs. space law regimes, plus the need for new rules, and the operator's and manufacturer's liability (as well as insurance aspects). Publication of proceedings to follow. (T. Beer)

- IISL Seminar at UNCOPUOS Legal Sub-Committee, New York, 4 April 1991, on Space Insurance.

Forthcoming Conferences

IISL Colloquium, Montreal, 7-12 Oct. 1991: 'Legal Aspects of Settlements on the Moon and Mars', 'Definitional Issues in Space Law', 'Legal Implications of Nuclear Power for Satellites' and 'Other Legal Subjects' (tel. +33.1.45674260).

6th Intl. Conf. on Commercial & Industrial Activities in Space in the 1990's: Insurance Implications, Rome 16-17 Sept. 1991. Contact: Generali (+39-40-671942)

9th IAA Colloquium on Man in Space, 17-25 June 1991, Cologne (tel. +33-1-47238215).

ITU, Telecom '91, 7-15 Oct. (fax +41227401013)

ECSL/Dutch NPOC workshop, CEC Green Paper on Satellite Communications, 27 Sept., ESTEC Noordwijk (tel. ECSL).

Publications/Theses

K-H. Bockstiegel (ed.), *Handbuch des Weltraumrechts*, Heymanns, 1991.

S. Courteix (ed.), 'Le droit de l'espace', Documents d'Etudes, No. 3.04 (1990).

CNES, *Space Activities in France* (1989).

Agreements Signed

ESA-Finland, 3 June 1991, Helsinki: Renewal of Finland's Association Agreement.

ESA-Hungary, Venice, 10 April 1991: Cooperation Agreement.

ESA-Canada, Paris, 21 Mar. 1991: Canadian participation in ESA Hermes, ERS-2, Polar Earth Observation, Data-Relay/Technology Mission (DRTM), Advanced Systems and Technology (ASTP) programmes.

ESA-Finland, 18 Jan. 1991: Finnish participation in ERS-2, DRTM ASTP and POEM programmes.



Mr M. Häkkinen, Ambassador of Finland to France, and Mr J.-M. Luton, ESA Director General, signing the Agreement concerning Finland's participation in ESA programmes (Paris, 18 January 1991).

Space Law Notepad

- 21 March 1991, Brussels, European Parliament: Informal Hearing on European Space Policy. Speakers included ESA DG Jean-Marie Luton who expressed desire to see reinforcement of ESA-EC relations.

- UNCOPUOS Legal Sub-Committee, New York, 25 Mar. – 12 Apr. 1991: US attempts to revisit consensus on Nuclear Power Sources radiological dosage principles (see *ECSL News* No. 5).

- International Space Station project under threat by Congress. ESA strongly opposed funding cut-off by letters to President Bush, Secretary of State Baker and Administrator Truly, and in statement to Congress on 4 June 1991.

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