

Market Access Problems and Solutions

Report of the Satellite Action Plan (SAP) Regulatory Working Group (RWG)

The Satellite Action Plan Regulatory Working Group (SAP RWG) was established as a result of the *EU Action Plan: Satellite Communications in the Information Society* “to look into regulatory and market access issues both from a domestic and extra-European perspective.” The SAP RWG includes representatives from industry, the CEPT and the European Commission, together with representatives from companies whose origins are outside of Europe.

The SAP RWG Report provides details of regulatory and market access barriers experienced by industry and makes recommendations for removal of those barriers. The key messages concern:

- 1 the need for effective and timely implementation of EU Directives,
- 2 the need for timely and effective implementation of CEPT Decisions and Recommendations, and
- 3 the need for Commission support to gain market access in third countries, especially in the view of the open markets in Europe.

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1. EXECUTIVE SUMMARY

1.1 MANDATE OF THE SAP RWG

In the Information Society, regulatory and trade barriers in telecommunications, including the satellite sector, constrain the diffusion of new global services and applications. Removing these barriers will increase competition, improve the quality and range of services, lower prices to consumers and stimulate further research and development. National Regulatory Authorities, therefore, have a fundamental task to remove barriers to the benefit of their countries.

There is already significant competition and liberalisation taking place in the Union, and rapid strides have been made towards a fully open satellite communications market. Nevertheless, some barriers remain. Barriers in third countries are often more formidable.

This Report focuses on market access within the European Union and third countries. It notes recent developments which have helped to improve the regulatory environment and identifies barriers encountered by the satellite industry. It makes recommendations to the European Commission, the Member States and to industry in regard to removal of those barriers.

This Report has its origin in the *EU Action Plan: Satellite Communications in the Information Society*¹. Several actions in that document address the problems of market access. These actions were considered by the Telecommunications Council at its meeting of 27 June 1997. The Council called upon the Commission to:

- take steps to ensure full implementation of existing Community legislation;
- analyse remaining barriers, including those affecting access to the space segment, to the proper functioning of the internal market in the field of satellite communications and, if they exist, take concrete actions for their resolution;
- develop appropriate co-operation with the European Conference of Postal and Telecommunications Administrations (CEPT), for example, with regard to ensuring co-ordination of European positions in the International Telecommunication Union (ITU);
- analyse remaining barriers in third countries relating to market access for European undertakings.

On 21 October 1997, the European Parliament adopted a Resolution on the Commission's Communication. The Resolution stated that there remains incomplete implementation of directives on liberalisation of the satellite market and that progress

¹ Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, COM(97)91 final, released 5 March 1997.

is needed in advancing the European position on market opening through the World Trade Organization.

**Extracts from
the European Parliament Resolution of 21 October 1997 on the
Communication from the Commission on the "EU Action Plan: Satellite
Communications in the Information Society" (COM(97)91)**

[The capabilities of the European telecommunications industry ...] suffer from an incomplete internal market ... which is caused by lack of compliance with the Commission's Directives on the liberalisation of the satellite communications service and equipment sector and by the continued existence of military, industrial and regulatory loopholes, thus making European-scale co-operations and developments difficult in the industry as a whole, and in particular in such important sub-industries as global advanced broadband (multimedia) services for broadcasting and broadcasting-like activities, global satellite personal communications systems (S-PCS) and universal mobile telecommunications services (UMTS).

The European Parliament –

Calls upon the Commission to quickly take all measures in its powers to enforce its Directives on the liberalization of the satellite communications equipment and services sector, by securing firm commitment from member states on the timetables for such liberalization;

Considers that progress needs to be also made in the following areas:
the enforcement of the European position at the international level, and especially within the context of the World Trade Organization...

Shares the view that the ... CEPT has been insufficient in addressing the complex harmonization problems that exist, and that therefore efforts need to be stepped up to resolve such problems;

Urges the Commission to avoid bureaucratic delays and ... make this issue a top priority....

The actions and issues relating to barriers to market access were also considered at meetings of the European satellite industry hosted by the European Commission on 29 April and 29 July 1997. At the 29 July meeting, Inmarsat put forward a proposal "to create a specific Working Group dedicated to look into regulatory and market access issues both from a domestic and extra-European perspective." In response to the 29 July meeting, the Commission suggested that:

"market players provide as in the past their assessment of market barriers in conjunction with regulatory aspects where applicable on a continued basis" and that a systematic survey of third country market barriers be made available by industry by beginning of December.

“In the light of actions identified during the meeting, the Commission urge[s] industry to take the initiative for a Working Group dealing with regulatory and market access matters.”

The first meeting of the Satellite Action Plan Regulatory Working Group (SAP RWG) was held in Brussels on 16 October 1997. More than 35 representatives from industry, the CEPT and the Commission attended this meeting. Membership in the SAP RWG was open and consequently included representatives from companies whose origins are outside Europe (see Annex 6). The SAP RWG met five times between October 1997 and January 1998 and drafted this Report with recommendations. The draft has been widely circulated within the satellite industry in Europe for comments in advance of its presentation at the SAP meeting of the industry and the European Commission scheduled for 29 January 1998.

The establishment of the SAP RWG is an endeavour to promote access to markets free of regulatory barriers and conducive to fair competition. In view of its mandate from the Satellite Action Plan, the Council and the 29 July industry meeting, the RWG agreed to pursue three objectives, as follows:

- determine what regulatory or trade barriers exist around the world which hamper market access by the satellite industry;
- compile a database of such barriers by country;
- by 15 December 1997, prepare a report for the next SAP industry meeting with recommendations for actions by the European Commission, the satellite industry, the Member States, CEPT and other countries to reduce or remove such barriers.

This Report has been prepared based on contributions received from members of the SAP RWG as well as comments received from European industry and from other groups (see Annex 1) dealing with regulatory issues and barriers to market access. For the purpose of this Report, the market for satellite communications has been categorised into four sectors, namely, (1) S-PCS, GMPCS, (2) VSAT, SNG, (3) DTH, DBS and (4) broadband, multimedia. In some cases, the market access barriers are the same, in others, they are particular to the sector.

The satellite industry in Europe is not seeking any special advantages or protection of its regional and global interests. We just want the same rules to apply to everyone in the same market place, especially in view of the open markets in Europe.

Members agreed that the Regulatory Working Group should serve as a forum to exchange information and experiences with regard to market access and regulatory barriers and to identify actions which could be taken to remove them.

1.2 KEY ISSUES

In the European Union

The European Union has made good progress towards creation of an open competitive market. Nevertheless, delays in implementing EU directives have impeded access to markets by the satellite industry and, as a consequence, acted as a brake on expansion of the industry.

Growth of the market is critically dependent on the availability of adequate spectrum. There are far more demands, often from "paper" systems, than can be accommodated within existing allocations. The Commission has given a mandate to the CEPT to manage the spectrum assignments to be made to particular systems and the authorisation of Satellite Personal Communications Services (S-PCS) systems. The approach adopted by the European Commission in regard to S-PCS should provide useful experience.

In the CEPT

Many of the contributions from members of the RWG to the formulation of this Report referred to the lack of implementation of CEPT Decisions and Recommendations and to the weakness of such Decisions and Recommendations because of their non-enforceability.

The delay in implementing CEPT Decisions and Recommendations creates uncertainty which must necessarily be factored in as a risk in business plans. The European Radiocommunications Committee (ERC) has acknowledged that full implementation of regulations is lacking and has directed the European Radiocommunications Office (ERO) to develop a strategy to improve the situation.

In third countries

Outside the Union, barriers to market entry can be even more formidable. Some customers have not purchased or used satellite terminals upon learning of regulatory barriers in those third countries to which they intended to travel.

The SAP RWG agreed on an approach to this Report which considered regulatory barriers and market access within the Union and third countries and agreed that each area should be accorded an equal priority for action by the European Commission and industry.

Among typical regulatory barriers are:

- outright prohibition of use of "foreign" satellite systems, including those of the Intergovernmental Satellite Organizations (ISOs),
- high licence fees for satellite earth stations and for service providers,
- high customs duties on equipment taken into a country either on a temporary basis or for import,

- additional conformity assessment (type approval)² requirements,
- delays in implementing international agreements,
- absence of an appropriate policy and regulatory framework.

The SAP RWG strongly encourages the Commission and the satellite industry itself to make co-ordinated and persistent efforts to remove barriers to market access, taking into account the recommendations made in this Report as well as the regulatory principles in the Agreement on Basic Telecommunications reached within the World Trade Organization (WTO). Trade barriers are often hidden. A clear trade regulation will help satellite operators, service providers and manufacturers to enter the markets of third countries and help to break those non-explicit barriers. Even small barriers to market access should be attacked, although it is, of course, necessary to establish priorities. Nevertheless, many seemingly small but anti-competitive regulatory decisions or circumstances could seem innocent viewed in isolation, but put together, their impact on market access could be enormous. Hence, the regulatory situation of markets should be viewed in totality.

The SAP RWG further urges the Commission to engage in discussion and market-opening negotiations at sufficiently high political levels to achieve positive results in those countries that have not yet liberalised their markets. The WTO is one vehicle for negotiating the removal of barriers in third countries. The SAP RWG agrees with the view expressed in the Rome Communiqué of 7 November 1997 from the Trans-Atlantic Business Dialogue (TABD), which states that "As globalization progresses, our regulatory agencies can no longer continue to function solely on the basis of national considerations."

1.3 MAIN RECOMMENDATIONS

The main recommendations to emerge from the SAP RWG are given here.

1.3.1 to the European Commission

Regarding EU Member States

1. The Commission should, without further delay, initiate infringement actions against those Member States that have not transposed relevant directives in the satellite or licensing field. The Commission should also produce a scorecard on the status of transposition of key directives affecting the satellite industry like that produced by the ERO in Annex 2.

² Conformity assessment and type approval are equivalent terms. Conformity assessment is the term most used in Europe now while type approval has been used elsewhere in the world, for example, in the GMPCS MoU and Arrangements. Note, however, that the Trans-Atlantic Business Dialogue and WTO use the term conformity assessment. Both terms are used in this Report, somewhat interchangeably.

2. The Commission should seek to harmonise the conditions and principles for licence and access fees. The Commission should encourage greater transparency and a simplification of licensing procedures.
3. The Commission should insist that Member States speed up application procedures for earth station approval and encourage non-member countries to do likewise.
4. The Commission should make every effort to ensure that potential new Member States take early steps to implement harmonisation and liberalisation measures in the satellite field and to transpose directives as part of the "acceptance" package into the EU.
5. Satellite services will rely more and more on conditional access³ and will therefore be more exposed to piracy. The Commission should adopt strong, effective measures as necessary to protect satellite services based on, or consisting of, conditional access. The Commission should also ensure Member States adopt appropriate sanctions against piracy at the national level and should push for adoption of strong anti-piracy legislation in other CEPT countries.

Regarding the CEPT

1. The Commission should encourage the effective implementation of CEPT Decisions and Recommendations by *all* EU Member States and those seeking accession to the EU.
2. The Commission, ECTRA, ERC and other organisations should closely monitor the implementation of relevant directives and current regulations in the European Union and CEPT member countries, using a "scorecard" system to assess how well Member States are doing in achieving implementation and to consider what actions should be taken if necessary.
3. The Commission should seek greater harmonisation in the regulation of satellite networks and services amongst CEPT countries, recognising that the satellite industry inherently serves a single European market.
4. Pursuant to Article 13 of the Licensing Directive 97/13/EC, the Commission should work towards "one-stop-shopping" (OSS) arrangements for licensing of satellite networks and services. The Commission should encourage the CEPT to work towards extension of the OSS procedures to satellite services.
5. The Commission should pay special regard to the recommendations set forth in the report from the European Telecommunications Office on "The Licensing of Satellite Networks and Services".

³ The Green Paper on Convergence, section IV.2.3, defines conditional access systems as "the technical means by which content and service providers can recoup their investment either through subscriptions or charges for individual consumption."

6. The Commission should urge National Regulatory Authorities (NRAs) to harmonise the use of the spectrum through appropriate bodies like the Milestone Review Committee for S-PCS or through multilateral meetings for other systems.

Regarding all countries

1. The Commission should treat market access for satellite services as a key part of access for telecommunications services in general. The DGI market access database should include data on third countries with restrictions on the satellite market.
2. The Commission should accord equal priority to ensuring timely and proper implementation in Member States of Community legislation and to removing market access barriers in third countries.
3. The Commission should use every means at its disposal to promote market access for European satellite system operators and service providers abroad. It should aim for a level playing field in each individual market.
 - The satellite industry welcomes the Commission's willingness to provide a copy of its high level agenda to the SAP RWG and to seek contributions and comments from industry as appropriate for bilateral and multilateral meetings.
 - In particularly intractable cases, where the problem country is a WTO member, the Commission should initiate a dispute settlement process under the WTO Agreement on Basic Telecommunications.
4. The Commission should work to ensure that the agreements reached under the aegis of the WTO and ITU are implemented without undue delay in order to ensure a level playing field globally. The international agreements and regulations in place should be monitored closely to detect any anti-competitive behaviour. The Commission should encourage those countries that have exercised exemptions or exclusions regarding satellite broadcasting services to remove barriers so that European satellite operators, service providers and broadcasters enjoy rights of access to those countries in a transparent, objective and non-discriminatory manner, as liberal as those enjoyed by non-EU operators in EU markets.
5. The Commission and industry should co-ordinate their efforts and contributions on access barriers to the forthcoming ITU World Telecommunications Policy Forum (March 1998) which is to focus on trade in services. The SAP RWG has prepared a brief contribution to the ITU in regard to the work of the EC and the SAP RWG.
6. The Commission should actively encourage more countries to sign the WTO's Information Technology Agreement and the Istanbul Convention agreed within the World Customs Organization (WCO) and, in particular, urge countries to reduce or remove customs duties on all satellite equipment.

7. A joint meeting between the Commission, industry and the WCO could be helpful to discuss issues relating to customs duties and to sensitise the WCO and its members about the problems faced by industry and individuals in meeting excessive customs duties on products.
8. The Commission should make use of the Decision 710/97/EC to cover satellite systems operating below 1 GHz and in the 1.5 - 1.6 GHz bands, taking into account international frequency co-ordination agreements reached in the context of the ITU Radio Regulations.
9. The European Commission should continue to address the issue of and conformity assessment (type approval) within and beyond the borders of the Union.
10. The Commission should support a regular forum between the Commission and industry with regard to implementation and market access issues, information flow, co-ordination of policy positions and actions to overcome regulatory barriers.
11. The Commission should devote sufficient resources to ensuring effective implementation of Community legislation and improving market access. The Commission should note the significant human resources which the US and some other governments dedicate to market access and implementation issues.
12. In order to preserve the achievements of the liberalisation of the telecommunication sector as a result of WTO and EU initiatives, and to maintain a competitive environment which permits customers to find the optimal market combinations ("one stop shopping") of different telecommunications services (e.g., combined access to mobile, fixed and satellite communications, additional value-added services such as single billing or information services), the Commission should consider whether existing Community law adequately provides for Network Independent Service Providers.⁴

1.3.2 to the satellite industry in Europe

1. Industry should collectively co-ordinate and organise its input on regulatory barriers to be addressed by National Regulatory Authorities, the European Commission and the CEPT.
2. Industry should identify and document market access barriers in the EU and third countries on a regular basis and communicate problems to their National Regulatory Authorities and to the Commission. See Annexes 3 and 4, which will benefit from further data supplied by industry. Industry should also give the Commission the necessary technical and informative support to facilitate its work, especially in regard to the recommendations in this Report.

⁴ See section 9.4 of this Report where it is stated that this position is not supported by the consensus of entities represented in the SAP RWG.

3. Industry should note that the Commission will prepare a report by 1 January 2000 on telecommunications licensing, under Article 23 of the Licensing Directive 97/13/EC and should make a timely contribution to the report.
4. Industry should prepare briefing documents on the benefits of open markets, which could be delivered to policy-makers and regulators in third countries as well as to the trade press.
5. Industry, with support from and participation by the Commission and the CEPT, should organise workshops for policy-makers, regulators and operators in or from problem countries that restrict market access.
6. European industry should take every opportunity to collaborate with the Commission in regard to the activities of the Trans-Atlantic Business Dialogue and in particular the working group dealing with regulatory issues in telecommunications.
7. Industry should maintain a regular forum with the Commission in order to focus discussion on issues affecting the satellite industry, including matters such as implementation of Community legislation and market access, information flow, co-ordination of policy positions and actions to overcome regulatory barriers.

1.3.3 to EU Member States

1. EU Member States should dedicate a high priority to market access issues.
2. EU Member States should implement EU Directives such as the Satellite Services Directive in a timely and effective manner. Moreover, it is essential that once legislation is in place, further barriers to market entry are not erected through the lack of an efficient, objective and non-discriminatory licensing process.
3. National Regulatory Authorities should provide greater transparency regarding national authorisation procedures of satellite systems. A description of these procedures should be easily accessible, and co-ordination procedures should be implemented for systems which transcend national borders.
4. Member States should recognise the importance of modifying in a harmonised way national legislation with the aim of facilitating the market entry by new satellite systems, network operators and service providers offering innovative applications to European customers.
5. Within the Community legislative framework, operators should be able to use the capacity they lease on INTELSAT and EUTELSAT from any EU country as well as any country member of each Organization. The SAP RWG recognises that certain National Regulatory Authorities currently prevent this, but they are strongly encouraged to remove these barriers as quickly as possible.

1.3.4 to CEPT member countries

1. CEPT Member States should take necessary actions to ensure prompt implementation of CEPT Decisions and Recommendations at national level. The CEPT should continue to monitor implementation and regularly contact those CEPT members which have not implemented the Decisions and Recommendations, determine why they have not yet done so and what actions could be taken to resolve the problems.
2. Once they have adopted CEPT Decisions and Recommendations involving free circulation of satellite terminals, National Regulatory Authorities should ensure customs officials are informed in order to avoid problems such as blockages of trucks, confiscation of equipment, long delays, etc., as have occurred at borders with Russia and Poland.
3. The CEPT should conclude its study on introduction of MSS below 1 GHz in Europe as expeditiously as possible, thus permitting, if necessary, the development of appropriate CEPT Decisions and Recommendations on that matter.
4. The satellite industry in Europe believes that future personal broadband multimedia satellite terminals should not require individual licences and urges the CEPT to take appropriate steps towards that end.

2. GLOSSARY

Abbreviations used in this Report include the following:

AEPOC	Association Européenne pour la Protection des Oeuvres et des services Cryptés
BSS	Broadcasting Satellite Service
CEPT	Conference of European Post and Telecommunications administrations
CTR	Common Technical Regulations
DAB	Digital audio broadcasting
DARS	Digital audio radio satellite
DBS	Direct broadcasting satellite
DISCO	Domestic International Satellite Consolidation Order
DTH	Direct to home
DVB	Digital video broadcasting
ECO-SAT	Effective competitive opportunities test for satellite operators
ECTRA	European Committee of Telecommunications Regulatory Authorities
EET	Greek National Telecommunications Commission
ERC	European Radiocommunications Committee
ERO	European Radiocommunications Office
ETO	European Telecommunications Office
ETS	European Technical Standard
ETSI	European Telecommunications Standards Institute
FNPRM	Further Notice of Proposed Rulemaking
FSS	Fixed Satellite Service
GMPCS	Global Mobile Personal Communications by Satellite
ISO	Intergovernmental Satellite Organization
ISOG	Inter-Union Satellite Operations Group
ITU	International Telecommunication Union
LEOs	Low Earth Orbit satellites
LMES	Land Mobile Earth Station
LMSS	Land Mobile Satellite Service
MES	Mobile Earth Station
MPEG	Motion Picture Expert Group
MRC	Milestone Review Committee
MSS	Mobile Satellite Service
NISP	Network Independent Service Provider
NPRM	Notice of Proposed Rulemaking
NRAs	National Regulatory Authorities
NTMs	Non-tariff measures
OSS	One Stop Shopping
PTO	Public Telecommunications Operator
SAP	Satellite Action Plan
SAP RWG	Satellite Action Plan Regulatory Working Group
SNG	Satellite News Gathering
SPCN	Satellite Personal Communications Network
S-PCS	Satellite Personal Communications Services

TABD	Trans-Atlantic Business Dialogue
TBR	Technical Basis for Regulation
UMTS	Universal Mobile Telecommunications System
VSAT	Very Small Aperture Terminal
WGRR	Radio Regulatory Working Group

3. SATELLITE SECTORS

For the purposes of this Report, the SAP RWG has categorised the market for satellite communications into four sectors, as follows:

1. *Satellite Personal Communications Systems (S-PCS)*, which is subsumed within the ITU terminology of Global Mobile Personal Communications by Satellite (GMPCS⁵). Examples of such systems include EMS-MSSAT, EUTELTRACS and ARCANET, Globalstar, ICO, Inmarsat, Iridium, Thuraya as well as proposed systems such as EAST. Typical services are single channel voice, data, facsimile and messaging using digital transmission rates up to 9.6 kbit/s and in some cases beyond. Little LEOs such as Orbcomm provide low-speed data services for messaging.
2. *VSAT and Satellite News Gathering (SNG)*. Examples of suppliers include BT, EUTELSAT, France Telecom, GE Capital Spacenet, Hispasat, INTELSAT and Orion Network Systems. Typical services are single or multi-channel for voice, data and facsimile from 64 kbit/s up to 2 Mbit/s. Satellite News Gathering offers "contribution" quality audio and video feeds for broadcasting services at transmission rates up to 2 GHz Mbit/s or more.
3. *Broadband, multimedia*. Examples are Celestri (Motorola), Euroskyway (Alenia), EUTELSAT, Hispasat, INTELSAT, SES Astra, Skybridge (Alcatel), Teledesic (Microsoft), WEST (Matra Marconi). Typical services are similar to current DTH and VSAT service using smaller, lower cost terminals. Inmarsat describes its planned fourth generation Horizons system as a mobile broadband satellite service with mainstream data rates of 144 kbit/s.
4. *Direct broadcast satellites (DBS), direct-to-home (DTH)*. Examples are EUTELSAT, Hispasat and SES Astra. These services offer a multiplicity of TV and radio channels.

These categories are somewhat arbitrary and there is overlap between the categories. For example, S-PCS and GMPCS include narrow band as well as broadband systems. VSATs can also be used for broadband services.

Although this Report focuses on the market access barriers encountered by the satellite industry, the European Commission and National Regulatory Authorities should not think that the market access barriers faced by satellite services are so very different from those affecting terrestrial services in the sense that satellites are just another way of transporting information as are optical fibre, coaxial cable and terrestrial radio. It may be useful to recall that the Agreement on Basic

⁵ The GMPCS-MoU Arrangements define a GMPCS System as "Any satellite system (i.e., fixed or mobile, broadband or narrow-band, global or regional, geostationary or non-geostationary, existing or planned) providing telecommunication services directly to end users from a constellation of satellites."

Telecommunications reached within the World Trade Organization in February 1997 was framed so as to be "technology transparent", that is, the focus was on telecommunications services rather than their method of delivery. Nevertheless, satellites do have some important differences compared to terrestrial networks, such as their ability to provide global or regional coverage from day one and the mobility of earth stations, enabling instant connectivity from virtually anywhere in the world, a feature which makes satellite services uniquely suitable in some situations (e.g., disaster relief, remote areas, etc.).

3.1 S-PCS, GMPCS

A number of S-PCS systems are currently under development, some of which will enter into service in 1998. The commercial success of these systems will depend on the ability of S-PCS system operators and service providers to enter regional and global markets with the minimum of regulatory constraint. It is essential that the regulatory environment be simple, transparent and non-discriminatory as provided in the Agreement on Basic Telecommunications in February 1997 within the framework of the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS).

One of the most important issues facing S-PCS operators and service providers is the ability to offer services to consumers in a particular country on equivalent terms to those accorded to other system operators.

European-based S-PCS systems and service providers should be able to gain access to the markets of WTO member countries on terms equivalent to systems licensed by those countries, as a result of the Agreement on Basic Telecommunications. Some countries took exemptions to parts of the agreement; however, the most favoured nation (MFN) provision will apply to all signatories. In most countries, the national treatment provision will also apply.

Closely linked to the question of market access is the availability of suitable spectrum in all potential markets of the S-PCS system. Through the process of the ITU and its World Radiocommunications Conferences, spectrum has been allocated for use by S-PCS systems on a global basis. The relevant frequency allocations have been made to the Mobile Satellite Service and are in the 1 - 3 GHz frequency range (big LEOs and GEOs) and below 1 GHz (little LEOs).

Recognising the potential long term growth in the use of MSS systems and the likely emergence of new competing systems, the ITU and its member administrations decided at the 1992 World Administrative Radio Conference (WARC 92) to make additional allocations of spectrum to MSS on a world-wide basis: one at 1610-1626.5 MHz (uplink) and 2483.5-2500 MHz (downlink) and the other at 1980-2010 MHz (uplink) and 2170-2200 MHz (downlink). WARC-92 also allocated spectrum at 1970-1980 MHz (uplink) and 2160-2170 MHz (downlink) to MSS only in Region 2. In addition, WARC 92 allocated spectrum at 137-138 MHz (downlink) and 148-149.9 MHz (uplink) to MSS (for little LEOs).

MSS authorisation process within the CEPT

In June-July 1997, the CEPT agreed four Decisions which provide the basis for authorising S-PCS systems throughout Europe. These are:

1. ERC Decision 97(03) relating to the Harmonised Use of Spectrum for Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz;
2. ERC Decision 97(04) relating to the Transitional Arrangements for the Fixed Service and the Mobile-Satellite Service in the Bands 1980-2010 MHz and 2170-2200 MHz in order to Facilitate the Harmonised Introduction and Development of Satellite Personal Communications Services;
3. ERC Decision 97(05) on Free Circulation, Use and Licensing of Mobile Earth Stations of Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz within the CEPT; and
4. ECTRA Decision (97)02 on Harmonisation of Authorisation Conditions and Co-ordination of Procedures in the field of Satellite Personal Communications Services (S-PCS) in Europe, operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz.

It is believed this set of Decisions establishes a clear and transparent process (although the process has not been used yet). Moreover, ECTRA is considering the establishment of a one-stop-shopping procedure in order to complete the Milestone Review Committee (MRC) process.

Among the difficulties faced by S-PCS operators in some countries are the following:

In the European Union

- Delay in implementing European Union Directives and Decisions;
- Lack of a national regulatory framework covering the provision of S-PCS services;

In the CEPT

- Delay in signing or implementing CEPT Decisions. By early December 1997, only 16 Administrations from the 43 member countries of the CEPT had committed to adopt the relevant S-PCS decisions and to implement their provisions. Only one Administration had actually implemented the Decisions. This looks like quite a poor result, but in fairness, it should be noted that those Administrations having signed the relevant Decisions experienced a number of difficulties in trying to reach the 1 October 1997 deadline set by the CEPT. S-PCS operators welcome the efforts made by Administrations, but urges them to continue to pursue efforts in order to be granted licences. The situation is uncertain in most countries, in part because it is not clear who has the responsibility for implementation;
- Difficulty in frequency co-ordination procedures, both at the national and international level. Since the Decisions deal with harmonisation on use of frequencies, amendments are required to the National Tables of Frequencies, which

typically requires additional national co-ordination efforts and Ministerial directives.

In third countries

- Bureaucratic delay in processing licence applications, due to the difficulty in interpreting the already existing regulation and in co-ordinating different authorities' competence (e.g., frequencies, service licences, terminal requirements);
- Lack of harmonised regulation on type approval and free circulation of terminals;
- National treatment not granted to European operators or service providers in some countries such as Russia and the US.

Similar problems of implementation are expected for the ITU GMPCS MoU which the Commission has signed on behalf of EU Member States.⁶

The SAP RWG considered whether it would be useful for ETO, for example, to study and assess national procedures required to sign, commit and implement CEPT Decisions and Recommendations by member countries and to identify solutions to simplify such procedures. This could help in work on one stop shopping (OSS).

3.1.1 Conclusions

The way in which CEPT Decisions are implemented varies significantly from country to country (legislation, Ministerial directive, authorisation by an NRA) as well as in the time it takes to implement them. Regardless of the way they do it, however, **all CEPT member countries should implement the CEPT Decisions relating to S-PCS in an early and timely manner.**

Good results and co-operation have been achieved for the mobile satellite services and S-PCS at the international level. Nevertheless, **barriers still exist and to overcome them, some action is required.** Removing these barriers could benefit all satellite players and strengthen harmonisation in Europe in the field of telecommunications. Any delay in the definition and approval of a fair and transparent regulatory framework negatively influences potential new operators' strategic choices in regard to Europe as a market in which to invest and create job opportunities.

Where possible, the EC should advocate to other countries, including but not limited to WTO Member States, that they adopt an S-PCS licensing regime similar to that adopted by the CEPT. The Commission will need to demonstrate the advantages of adopting such regimes to the countries concerned.

⁶ The GMPCS MoU group has established a Task Force which is to make recommendations for consideration by the group at its next meeting in March in regard to procedures for implementing the Arrangements pursuant to the MoU. See section 8.1.3 of this Report.

The Commission should continue to support non-discriminatory market and spectrum access for European S-PCS systems.

3.2 VSAT, SNG

The lack of a harmonised and/or one-stop-shopping approach to VSAT/SNG licensing within the EU hampers the development of pan-European networks. Outside the EU, there are still delays and difficulties in gaining market access.

3.2.1 Restrictions in Europe

The 1995 study carried out by ERO on VSAT and SNG concluded that most, but not all CEPT administrations require an individual licence for these earth stations. Most administrations were of the opinion that this should remain the case because of site-clearance and/or frequency co-ordination requirements. VSAT and SNG earth stations are typically licensed on an individual basis, although VSATs are sometimes licensed as a network. In a number of countries, additional operator licences are required. The study also concluded that the way VSATs and SNG stations are licensed varies greatly throughout the CEPT and that One Stop Shopping might be envisaged for VSATs.

The CEPT (ERC and ECTRA) decided that OSS should not be pursued at the moment, but decided to create a database with information on national licensing regulations at the ETO's World Wide Web site. Decisions have been adopted that call upon administrations to provide information to the database. The SAP RWG regrets the lack of progress regarding OSS and sees this as an important step in the acceleration of cross-border networks. Steps towards OSS for VSAT and SNG licensing have been implemented in a few Member States (Denmark, France, Netherlands, UK). The SAP RWG would like to see these efforts expanded.

The SAP RWG would like to see the full and effective implementation of the Satellite Services Directive 94/46/EEC in all Member States. Moreover, it is essential that once legislation is in place, further barriers to market entry are not erected through the lack of an efficient, objective and non-discriminatory licensing process.

The SAP RWG was pleased to note the Telecommunications Council's support for the Commission's activities in relation to the Single Market Action Plan and, in particular, the Commission's use of a "scorecard" as a means of assessing how Member States are implementing the relevant legislation. It is essential that the momentum of this approach is maintained if the Single Market is to be a reality and to enable initiatives involving telecommunications and satellites to be accomplished effectively within the EU.

Although market access has improved in Europe during the past few years, several VSAT and SNG service providers still encounter barriers to market entry in EU countries.

In the EU, difficulties in market access can be summarised as being due to the following reasons:

- lack of implementation of EC directives and lack of the necessary regulatory mechanisms at the national level;
- lack of harmonisation between existing legislation further to the implementation of the EC directives;
- slow appraisal of licence requests (causing delays in the provision of the service or the near impossibility in providing it);
- significant differences in the amount of licence fees;
- privileges to the incumbent PTO;
- difficulty to access space segment; and
- complexity of type approval processes.

There is need for greater and continuous monitoring by the Commission of the correct implementation of existing legal instruments as well as the adoption of adequate measures in cases of violations of Community law. Above all, the industry would like to see greater harmonisation and greater focus on one-stop-shopping arrangements, as the ETO itself has recognised.

3.2.2 Rest of the world

The market access problems faced by VSAT and SNG service providers in supplying services to other countries are often the same as in the EU, except there are additional problems such as the absence of a legal framework (or the presence of an unreliable legal framework), high customs duties or requirements for operation in conjunction with an in-country licence holder.

The rest of the world can be divided into three sub-categories:

- a) European States candidate to accession to the EU,
- b) CEPT States which are not EU members and not included in a),
- c) other countries.

As a consequence, the appropriate forum where these issues should be addressed will be different. The pressure that can be made on national authorities will also vary.

In the case of countries under a) above, the adoption of proper national legislation can be considered as a pre-condition to the accession of the candidate State (and maybe some association agreements already require – even though not explicitly – reform of existing legislation).

In the case of countries under b) above, the CEPT is the natural forum for dealing with these issues.

In the case of countries under c) above, the WTO would appear to be best forum.

VSAT

SAP RWG members reported unreasonable delays in a number of countries in responding to enquiries for licences to establish VSATs within their territories. Some SAP RWG members say they have lost business opportunities because of delays in obtaining VSAT licences. High licence fees imposed through multi-level structures (containing registration fees as well as annual network and station fees) are another problem. In some instances, protective strategies are applied in deciding whether specific VSAT networks are closed or open structures.

Some VSAT service providers represented in the SAP RWG have experienced difficulties in gating access to their own leased space segment from a second country.

In its contribution to the SAP RWG, BT said it experiences difficulties in accessing its own leased INTELSAT and EUTELSAT space segment within several European countries. With respect to INTELSAT, the incumbent Signatory has sought to impose an access fee on BT. By preventing BT from using its own INTELSAT capacity, the country puts BT at a distinct disadvantage. There has been direct access in the UK to INTELSAT now for a number of years.

Telenor reported experiencing problems in establishing itself as a VSAT operator in some EU countries, for example, in Finland, France and Portugal. Orion Network Systems has experienced substantial problems in Greece, which has failed to implement Satellite Services Directive 94/46/EEC and still has no regulatory structure in place for licensing satellite networks and VSAT services.

In one EU country, a problem has been encountered where the national Signatory has exerted monopoly functions described by the operating agreement of an inter-governmental satellite organisation, in contradiction to the competition rules reflected in the Satellite Services Directive 94/46/EEC.

Satellite News Gathering

Many telecommunications operators, including BT, Deutsche Telekom and France Telecom, have significant experience in operating SNG services both within the EU and in third countries. Examples of barriers encountered are given below:

In several EU Member States, a stand-alone (e.g., temporary) licence is required for every single event to be covered, be it a sporting event or news event. There is no provision yet for a permanent SNG licence. Officially, the SNG operator must apply giving thirty days notice but under pressure, this has been unofficially reduced to a week or so. This still makes it effectively difficult for any operator to provide an SNG

service in these countries since the time scales for news events are generally less than one week's notice.

Even where it is possible to provide sufficient notice, such as for a recurring weekly sporting event, it may become extremely expensive to submit individual licence applications for every single event. Until recently, the incumbent PTOs were still operating under their old licence so they did not experience these problems and therefore gained a competitive advantage.

When complaints were made to the specific Ministries, the incumbent PTOs were obliged to apply for licences like everyone else.

In Poland, a European country seeking EU membership, legislation prevents VSAT networks operated by a non-local operator being hubbed from outside Poland. Point-to-point links are permitted provided they are operated in conjunction with an in-country licence holder. It is not possible to operate a star network hubbed outside the country to *several* remote sites inside the country. This is a significant barrier to market entry.

A number of SAP RWG members report high licence fees and very slow earth station approval in Turkey, Russia and Poland. Withholding and delays in issuing licences occur in Bulgaria and Slovenia.

There are high licence fees for VSATs in some countries such as India and Mexico. There are restrictions as to which companies may receive VSAT services in India. Numerous barriers have been encountered in China and India.

Deutsche Telekom has been attempting to obtain an SNG licence in the US since 1993. The FCC has not even acknowledged its requests. Within Germany, there is full competition for satellite services. Several US companies – Mobile Satellite Communications Inc., Alpha Lyracom Space Communications Inc., GE American Communications Inc., IDB Communications Group Inc. – are holders of German satellite licences.

Other problems have been encountered by SNG and VSAT service providers:

- where a National Regulatory Authority fails to deal with authorisations or licensing
- in regard to type approval, when more technical tests are required than those required by ETSI standards;
- lack of transparency in licensing/authorisations fees,
- local practical difficulties (e.g., local payment arrangements).

3.2.3 Conclusions

The number of countries where it is relatively easy to provide SNG/VSAT services is still limited. Moreover, the SAP RWG is disappointed to see the lack of progress on developing one-stop-shopping arrangements.

SNG operators and service providers would like to see either a monthly or annual SNG licence that allows an operator to cover an unlimited number of similar events during that period. The licence fee should be fixed and reasonable. Although the need for a notice for site clearance is understandable, regulatory authorities should be more responsive in granting licences in cases of unforeseen events.

Access to space segment should be made available on an equal basis. A limited form of direct access already exists within the EUTELSAT system. There has been direct access to INTELSAT in the UK for some years; some levelling of the playing field should now take place in the rest of Europe as well as around the world. Operators from other EU countries should not be at a commercial or operational advantage or disadvantage compared with the local operator. Any such discrimination in EU Member States violates the Satellite Directive 94/46/EEC and should be vigorously contested by the Commission.

3.3 BROADBAND, MULTIMEDIA

This sector overlaps the previous sectors in certain respects. One defining characteristic of the next-generation satellite services will be the ability to use new digital technologies to transmit vast amounts of data, including multiple video channels, high-speed data and Internet services. Nowhere is the phenomenon of convergence more evident than in the emergence of new broadband, multimedia satellite systems. Hitherto separate services such as data, telephony, radio, TV and multimedia are merging, a process which is facilitated by new digital techniques.

Some satellite operators active in Europe already provide such services on existing satellites, including EUTELSAT, Hispasat, Orion and SES. New operators, such as Matra Marconi Space's WEST, Alenia's Euroskyway and Alcatel's Skybridge, plan to provide greatly expanded services.

Allocation and sharing of Ka-band spectrum was discussed at the World Radio Conference in November 1997. An agreement was reached between the US and Europe which expands the amount of spectrum and the number of operators from both sides of the Atlantic. The agreement is expected to significantly increase the level of competition in an already competitive environment.

Among the proposed Ka-band systems are:

<i>Principal</i>	<i>Name of system</i>	<i>Orbit</i>
Hughes	Spaceway ⁷	8 GEO
PanAmSat	PAS	2 GEO
Loral	Cyberstar	3 GEO

⁷ Hughes recently filed with the FCC for a project involving an eight satellite system in GEO (as envisaged by the original Spaceway, now called Spaceway EXP) and a 20-satellite system operating in medium Earth orbit (called Spaceway NGSO). Both systems will operate in the Ka-band frequency range (17.7GHz-30.0GHz).

Lockheed Martin	Astrolink	9 GEO
GE Americom	GE-Star	9 GEO
McCaw, Gates	Teledesic	288 LEO
Matra Marconi	WEST	2 GEO, 9 MEO
Alenia	Euroskyway	2 GEO
Motorola	Celestri	63 LEO, 9 GEO

Among the Ku-band systems competing with those above are Alcatel's Skybridge system, which will also compete for the frequency band with existing and planned GEO satellites operating in that band. As noted earlier in this Report, Inmarsat is planning a fourth generation system which it describes as a mobile broadband system operating in the 2 GHz band and operating at data rates of 144 kbit/s for its mainstream services.

The phenomenon of convergence will make it more important than ever to separate from a regulatory point of view the content from the means of distribution. An operator should not be responsible for the content. The issue of piracy, as noted in section 3.4, is also a particular concern of the satellite industry in Europe.

3.3.1 Conclusions

According to the Commission's Green Paper on Convergence, released in early December 1997, multimedia systems may create the need for a new regulatory framework in view of the increasing convergence of the telecom, broadcasting, information technology and content industries. However, satellite delivery of broadband and multimedia services are covered by the GMPCS Arrangements.

3.4 DTH, DBS

DTH TV and DBS⁸ services represent more than three-quarters of the utilisation of the capacity of the satellite systems currently providing services over Europe. Satellite TV, both in analogue and digital form, is well developed on the continent. The European digital video broadcast (DVB) standard is the *de facto* global non-proprietary standard for digital TV broadcasting. Digital TV represents one of the most promising approaches to the provision of advanced services, such as multimedia product distribution, Internet services and high definition television.

In the US, more than 7 million households receive satellite broadcasting services,⁹ a number which currently grows by more than 1 million households per year. As of November 1997, the DBS subscriber base was 5.8 million¹⁰. When DTH receivers become a consumer product, prices will decrease radically. Then industry structure and market shares could change dramatically in the same way that consumer

⁸ DTH is the terminology used in Europe. The equivalent term used in the US is DBS.

⁹ *Satellite News*, 10 November 1997, p. 3.

¹⁰ Source: SkyREPORT table on DTH subscriber data. See www.skyreport.com/instruct.htm.

electronics have determined other markets. Access to the Internet via satellite is poised to become widely available in the very near future, and some players in the satellite industry are already preparing for this future.

However, such advanced services will rely more and more on conditional access systems and will therefore be exposed to pirates' attacks. Piracy is already a pan-European plague. Revenues lost as a result of piracy involving hacked decoding devices have been estimated to be in excess of 200 million ECUs a year in Europe, according to AEPOC. It will not be possible to eradicate this plague unless strong effective harmonised measures are adopted at the EU level and on a Europe-wide basis.

Some third countries, such as Saudi Arabia, have forbidden reception of international satellite TV signals. Even satellites covering Europe with a spill-over into certain North African countries seem to be unwanted. Meanwhile, several Arab TV programs are receivable in Europe, for instance, in hotels and by Arab communities. These programs are transmitted by Arab and European satellites.

Direct audio radiobroadcasting satellite services (DARS) was briefly discussed by the SAP RWG but no contributions were received. The market access situation for DARS is also an issue at the global level, but there are, as yet, no dedicated European DARS satellite systems. Three digital audio broadcasting (DAB, another term used interchangeably with DARS) systems – WorldSpace, CD Radio and American Mobile Radio – are expected to launch systems from 1998. WorldSpace satellites are being built under the direction of Alcatel Espace. The first WorldSpace satellite, AfriStar is scheduled for launch in June 1998. American Mobile Radio and CD Radio are expected to serve the US by end 1999.

4. REGULATORY SITUATION WITHIN THE EU (SAP A1, A2)

In the context of the regulatory environment within the European Union, the Satellite Action Plan has two actions, as follows:

- A1. The Commission will **step-up efforts to achieve full implementation of all EU legislation** relevant for satellite communications. The Commission will also **request industry to provide regular information on the basis of a systematic overview of all barriers** found in relation to the introduction of satellite communications systems and services.
- A2. The Commission will **request industry to identify regulatory barriers, allowing the Commission to formulate regulatory measures** needed in the satellite communications sector, as well as report on the effectiveness of the measures taken to date.

The Community legislation affecting the satellite industry in the European Union is described in the following section. Annex 3 of this Report identifies regulatory problems in some Member States.

4.1 APPLICABLE EUROPEAN COMMUNITY LEGISLATION

Several basic telecommunications directives have a direct impact on satellite services. The most important are:

- Council Directive of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of **open network provision** (ONP) (90/387/EEC : OJ L 192/1, 24.07.1990), as amended by Directive of the European Parliament and of the Council of 6 October 1997 for the purpose of adaptation to a competitive environment in telecommunications (97/51/EC : OJ L 295/23, 29.10.1997)
- Commission Directive of 28 June 1990 on **competition in the markets for telecommunications services** (90/388/EEC : OJ L 192/10, 24.07.1990)
- Council Directive of 5 June 1992 on the application of open network provision to **leased lines** (92/44/EEC : OJ L 165/27, 19.06.1992), as amended by the Directive of the European Parliament and of the Council on 6 October 1997 for the purpose of adaptation to a competitive environment in telecommunications (97/51/EC : OJ L 295/23, 29.10.1997)
- Council Directive of 13 December 1995 on the application of open network provision (ONP) to **voice telephony** (95/62/EC : OJ L 321/6, 30.12.95) (currently under review to incorporate provisions relating to universal service for telecommunications in a competitive environment)
- Commission Directive of 16 January 1996 amending Directive 90/388/EEC with regard to **mobile and personal communications** (96/2/EC : OJ L 20/59, 26.01.1996)
- Commission Directive of 13 March 1996 amending Commission Directive 90/388/EEC with regard to the implementation of **full competition** in the telecommunications markets (96/19/EC : OJ L 47/13, 22.03.1996)
- European Parliament and Council Directive of 30 June 1997 on interconnections with regard to ensuring **universal service** and interoperability through application of the principles of Open Network Provision (ONP) (97/33/EC : OJ L 199/32, 26.7.1997)
- Directive of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services (97/13/EC : OJ L 117, 07.05.97). Also referred to as the **Licensing Directive**.

The following are particularly relevant to satellite communications :

- Commission Directive of 13 October 1994 amending Directive 88/301/EEC and Directive 90/388/EEC in particular with regard to satellite communications (94/46/EEC : OJ L268/15, 19.10.94).

This Directive, also referred to as the '**Satellite Directive**', abolished special and exclusive rights for the provision of satellite services and equipment, with a view to removing restrictions on free movement of satellite equipment and the provision of telecommunications services other than voice telephony over satellite systems. The Directive also lays down provisions concerning licensing and declaration procedures. Directive 94/46/EEC has been transposed in almost all Member States with a few exceptions. Some countries had difficulties in meeting the deadline, and a number of infringement proceedings were opened in the past in this regard.

- Council Directive 91/263/EEC of 29 April 1991 on the approximation of the laws of the Member States concerning telecommunications terminal equipment, including the mutual recognition of their conformity (OJ L 128, 23/05/1991).

This Directive, also referred to as the '**Terminal Directive**', established procedures for EU-wide type approval based on mutual recognition of conformity assessment procedures based on harmonised standards. This allows terminal equipment approved against Common Technical Regulations (CTRs) based on harmonised standards to be placed on the market and to circulate freely throughout the Union.

- Council Directive 93/97/EEC of 29 October 1993 supplementing Directive 91/263/EEC in respect of satellite earth station equipment (OJ L 290, 24/11/93).

This Directive extended the scope of Directive 91/263/EEC to include satellite earth station equipment, and introduced **mutual recognition of conformity assessment** procedures for satellite earth-station equipment. In the framework of this directive, appropriate type-approval arrangements are to be put in place for television receive-only equipment, VSAT, and satellite personal communications systems. The Commission has started infringement proceedings against some Member States where national implementing measures have not yet been enacted. In those cases where the judicial stage has been reached, the Court of Justice has ruled against the Member States concerned.

- Decision No 710/97/EC of the European Parliament and the Council of 24 March 1997 on a co-ordinated authorisation approach in the field of satellite personal communication services in the Community.

This decision provided a framework for a co-ordinated authorisation approach in Member States in accordance with ECTRA and ERC decisions to harmonise frequency use necessary for the introduction of **S-PCS systems**, pending the adoption and transposition of the Licensing Directive (97/13/EC, see above).

4.1.1 Other relevant documents

- Towards Europe-wide systems and services : Green paper on a common approach in the field of satellite communications in the European Community (COM(90) 490, 20.11.1990.)

- Proposal for a European Parliament and Council Directive on **connected telecommunications equipment** and the mutual recognition of the conformity of equipment (04.06.1997, COM(97)257 final - 97/0149 (COD)).

Harmonising the laws of the Member States concerning connected telecommunications equipment will support a genuinely competitive multi-vendor market in an environment where there is competitive provision of network services. If adopted, the Directive will replace two Council Directives (91/263/EEC - telecommunications terminal equipment and 93/97/EEC - satellite earth station equipment), will also include radio equipment, and simplify the application of two other Council Directives (93/68/EEC - conformity marking and 89/336/EEC - electromagnetic compatibility). It is based upon the principle of manufacturer's declaration regarding testing and certification. Its provisions regarding manufacturers' liability are equivalent to those contained in Council Directive 85/374/EEC (liability for defective products).

- TBRs

These standards, once adopted by Commission Decision, will become Common Technical Regulations (CTRs). The following table enumerates those satellite-relevant TBRs which should reach CTR status within the first half of 1998 and gives the respective target dates. TBRs 27, 28 and 30 should be approved by ETSI in the course of December and adopted by the Commission in early 1998.

<i>TBR no.</i>	<i>Subject</i>
26	L-band low data rate mobile earth stations 1.5-1.6 GHz
27	Ku-band low data rate mobile earth stations
28	Ku-band VSATs
30	Ku-band SNG transportable
41	S-PCN 1.6, 2.4 GHz
42	S-PCN 1.9, 2.1 GHz
43	6/4 GHz band VSAT
44	1.5-1.6 GHz LMES

- Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the implementation of the telecommunications regulatory package: first update (COM/97/504 final of 8.10.1997)

This Communication provides a status report on the transposition of the Community regulatory package aimed at creation of a liberalised and harmonised European telecommunications market. The Commission intends to provide an updated Communication in early 1998 which will allow to give a broader picture of the state of transposition, together with indicators of the real and effective implementation of the measures.

The Commission will continue its efforts to ensure full implementation of the regulatory package. It will consider carefully any information provided, either informally or by means of formal complaints, by market players concerning any situation where the rules are not being applied correctly. Formal complaints may lead

to infringement proceedings, either by Directorate-General IV (Competition) or Directorate-General XIII (Telecommunications, Information Market and Exploitation of Research). Informal complaints about inadequate implementation of Community legislation will be verified with the authorities of the Member States.

4.1.2 Conclusions

The EU has adopted a regulatory framework which needs only to be implemented in a consistent and accurate way. Hence, additional regulatory measures are not considered necessary for the time being. Surveillance and infringement actions are useful measures to ensure implementation.

The language of some directives is open to interpretation, which makes implementation more difficult and raises questions about whether certain activities are covered by the text of those directives. The Commission should work to improve the specificity and remove possible ambiguities in written texts. If appropriate, the Commission could prepare interpretative texts or guidance for the Satellite Services Directive 94/46/EEC. The Commission previously produced an unofficial paper on the interpretation of the Services Directive 90/388/EEC which circulated for several years before finally becoming a formal communication on the status of that directive.

In preparation of this Report and in discussion among SAP RWG members, the most commonly cited regulatory shortfalls were the following:

- delays in implementing EU regulation,
- disparities in national treatment of satellite operators and service providers,
- uncertainties about the applicable regulatory framework,
- uncertainties about the responsible authority,
- additional type approval requirements.

4.2 CONFORMITY ASSESSMENT

A typical essential requirement for the free circulation of satellite terminals is compliance with appropriate conformity assessment (type approval) standards. Many countries, among which are the following, have national conformity assessment requirements.

Country	EU Member State?	CEPT member country?	Is national type approval required for MESSs?
Armenia			Yes
Australia			Yes
Belarus			Yes
Belize			Yes
Brazil			Yes
Bulgaria		Yes	TBD
Burundi			Yes (tech)
Canada			Yes
China			Yes
Costa Rica			Yes (tech)

Côte d'Ivoire			Yes
Czech Republic		Yes	Yes
Denmark	Yes	Yes	Yes
Dominica			Yes
Finland	Yes	Yes	Only ETSI tech
France	Yes	Yes	Yes
Germany	Yes	Yes	Yes
Greece	Yes	Yes	TBD
Guatemala			Yes
Guyana			Yes
Hong Kong			Yes
Indonesia			Yes
Israel			Yes
Japan			Yes
Kazakhstan			Yes
Lithuania		Yes	Yes
Maldives			Yes
Nepal			Yes
Nigeria			Yes
Russia Federation		Yes	Yes
Spain	Yes	Yes	Yes
Switzerland		Yes	Yes
Thailand			Yes
Uganda			Yes (\$20)
USA			Yes

Source: Inmarsat, January 98

The problem of different conformity assessment requirements around the world seriously hampers manufacturers, increases their cost and time to obtain type approvals. Excessive conformity assessment requirements also affect operators and service providers by delaying the introduction of new services.

The absence of a single, globally accepted standard for conformity assessment of, for example, S-PCS terminals will require the manufacturer to obtain type approvals in all countries where a separate regime exists and where he wishes to sell his products. This has the effect of increasing the ultimate cost of the user terminal and/or limiting the markets open to manufacturers. For manufacturers, operators and users, the ideal would be a single global conformity assessment regime.

Conclusions

A key problem remains the lack of recognised pan-European standards for mutual type approval of VSATs. Efforts should be made to expedite the development towards such standards by promoting a transition from European Technical Standards (ETSS) to Common Technical Regulations (CTRs) to ensure mutual recognition of conformity assessment within the EU.

In the meantime, the Commission should accelerate its efforts in concluding balanced Mutual Recognition Agreements (MRAs) which will help simplify conformity assessment (type approval) for terminal equipment.

The Commission should encourage Member States to speed up the procedures for earth station approval and encourage non-member countries to do likewise. (Experience has shown that type approved earth stations are processed very quickly.)

The SAP RWG agrees with the Trans-Atlantic Business Dialogue which, in its 7 November 1997 communiqué, said industry “stresses the need to work within the Information Technology Agreement discussions at the WTO towards conclusion of a Conformity Assessment Agreement (CAA), based on the principle ‘One Standard – One Test – Supplier’s Declaration of Conformity’.”

The conclusion of a Conformity Assessment Agreement in the WTO framework would imply the development of appropriate radio terminal equipment specifications at the international level according to strict criteria in order to create an environment open to fair competition world-wide (without any barriers due to language or IPRs, for example). These specifications should be stable, published in internationally recognised languages and take into account existing international regulations.

The WTO Committee of Participants on the Expansion of Trade in Information Technology Products have discussed non-tariff measures (NTMs), as they effect IT product trade, during the course of the product review and consultations on NTMs. There have been proposals by participants to examine standards-related barriers in terms of IT products, with the specific mention of conformity assessment. A proposal was put forth to survey participants on standards-related matters (information gathering only), which was agreed in principal at the last meeting. As yet, there is no ‘Conformity Assessment Agreement’.

5. REGULATORY SITUATION WITHIN THE CEPT (SAP A3)

With reference to the CEPT, the Satellite Action Plan has one action, as follows:

A3. The Commission will request **CEPT to accelerate efforts** in the harmonisation of authorisation conditions and in harmonised use of frequency bands, **to review its current structure and procedures with a view to increase the efficiency** of its regulatory decisions making procedures and their implementation. The Commission will seek to improve its co-operative efforts with CEPT in order to enable CEPT **to support better the EU policies.**

The CEPT has two committees (ERC and ECTRA) which have undertaken studies and developed Decisions and Recommendations aimed at overcoming problems associated with market access.

5.1 EUROPEAN RADIOCOMMUNICATIONS COMMITTEE (ERC)

5.1.1 *Free circulation*

The ERC has been addressing the issue of free circulation of radio equipment for a number of years. It has developed various regulations for carrying and using radio

equipment for the mutual recognition of conformity assessment.

The CEPT uses the following definitions of free circulation:

Level 1 – free circulation without permission to use the (mobile) earth stations

Level 2 – free circulation with permission to use the (mobile) earth stations

Level 3 – free circulation with permission of placing the (mobile) earth stations on the market.

The first two Levels mean users have the possibility of bringing into another country their (mobile) earth stations without the need to apply for another licence. Level 3 means suppliers can import and sell (mobile) earth stations.

Three different licensing regimes have been identified for the use and/or possession of radio equipment.

1. The use and possession of radio equipment is totally licence-free. There are no rules or obligations for the owner or user of the radio equipment.
2. The use and possession of radio equipment is free in the sense that the owner or user is not required to apply for a licence for the possession or use of the equipment. The administration does not collect or register any information about the individual users or their radio equipment. There are, however, some general rules that each user must observe.
3. It is necessary to impose rules on the use of radio equipment. An individual radio licence is required for possession and/or use of the radio equipment. The information regarding the licence holder is registered, and usually the licence holder has to pay an annual fee.

From the point of view of manufacturers, users and operators, the first and second regimes are similar. Therefore, they are considered together and only the following two regimes are considered here:

- a regime where individual radio licences are not required; and
- a regime where individual radio licences are required.

The regime where individual licences are not required may be covered by a general licence, a class licence or an exemption depending on the juridical situation in the country in question.

In the past, the ERC has addressed Level 2 free circulation on a case-by-case basis. When there was a request from operators of services to arrange free circulation for certain radio equipment, arrangements were produced when certain conditions were met. The issue of placing equipment on the market was dealt with by developing conformity assessment arrangements. Thus, equipment could qualify for mutual recognition of conformity assessment or mutual recognition of test results, but not

necessarily for Level 2 free circulation. Free circulation was not dealt with systematically. One Recommendation dealing with this issue¹¹ which provides for taking land mobile equipment built into cars, for example, has been implemented in 16 CEPT countries¹² by end 1997.

One of the first radio services where it became obvious in the late 1980s that Level 2 harmonisation measures enabling free circulation of terminals were necessary was the land mobile satellite service.

This resulted in 1989 in T/R 21-07 concerning border crossing and use of mobile transmitter-receivers in CEPT countries. Annexed to this Recommendation was a "Circulation Card". This Recommendation could in principle be used for all kinds of equipment, both satellite and non-satellite, but was only implemented for Land Mobile Inmarsat-C and EUTELTRACS terminals.

Exchanging the required information between the participating administrations, keeping the information on the circulation card up to date and issuing the card to all persons requiring it was, of course, a cumbersome administrative procedure, especially since there was at that time no central office within the CEPT like the ERO which could assist in these procedures. Thus, the procedure was hard to manage by administrations and EUTELSAT volunteered to take over the task of gathering information to be incorporated on the Circulation Cards for EUTELTRACS users and to distribute this information to the CEPT administrations.

Subsequently, two separate Recommendations dealing with Land Mobile Inmarsat-C terminals and OmniTRACS terminals were produced (T/R 31-02 and T/R 21-09 respectively) which regulated the free circulation of these terminals without the necessity of a Circulation Card but on the basis of a conformity assessment mark on the equipment. In addition to free circulation, these Recommendations dealt with conformity assessment and licensing of the equipment.

At a later date, a Recommendation similar to Land Mobile Inmarsat-C terminals was produced for Land Mobile Inmarsat-M terminals (T/R 21-11). A generic Recommendation allowing the free circulation, type testing and licensing of satellite paging terminals was also produced along the same lines as those for Land Mobile Inmarsat-C and -M equipment (CEPT/ERC/REC 21-14). All these Recommendations (except T/R 21-07) were of a temporary nature and were to allow the acceptance of the type testing performed by the satellite operators until a European standard covering Land Mobile Satellite terminals was finalised and accepted.

In 1994, the ERC approved a long term strategy and policy document.¹³ This report dealt with a number of policy issues. On free circulation, the following policy goal

¹¹T/R 21-06 Conditions under which Land Mobile Radio Equipment may be carried but without being operated during short journeys and stays within CEPT countries.

¹² See Implementation of ERC Recommendations and Decisions, www.ero.dk

¹³ ERC Long Term Strategy and Policy, Nicosia, March 1994, Annex I to Doc CEPT/ERC (94)13.

was adopted: "The ERC should provide for the free circulation of radio communications equipment within the CEPT countries and the administrative procedures with respect to free circulation and use of radio equipment applied by the members individually or in co-operation should be converged." As a step towards fulfilling this policy goal, the Radio Regulatory Working Group (WGRR) of the ERC developed a Decision on free circulation of radio equipment in CEPT member countries (**ERC/DEC(95)01**). This Decision was adopted 1 December 1995 and should have been implemented by 1 January 1997 at the latest. However, a year later, not all CEPT administrations have done so, as shown in the following table (which also covers two related Recommendations).

Country	Has implemented ERC/DEC/(95)01 re free circulation?	Has implemented ERC/REC/(21)15 re free circulation & use?	Has implemented ERC/REC/(96)16 re mutual recognition of type approval?
Albania			
Andorra			
Austria	Yes	Yes	
Belgium	Yes		
Bosnia-Herzegovina			
Bulgaria			
Croatia	Yes		
Cyprus			
Czech Republic			
Denmark	Yes	Yes	
Estonia			
F.Y.R. of Macedonia			
Finland	Yes	Yes	
France			
Germany	Yes		
Greece			
Hungary	Yes	Yes	Yes
Iceland	Yes		
Ireland			
Italy			
Latvia			
Liechtenstein	Yes		
Lithuania			
Luxembourg			
Malta			
Moldova			
Monaco			
Netherlands	Yes	Yes	Yes
Norway	Yes	Yes	
Poland			
Portugal		Yes	
Romania			
Russia Federation			
San Marino		Yes	
Slovak Republic			
Slovenia			
Spain			

Sweden	Yes		
Switzerland	Yes		
Turkey	Yes	Yes	
Ukraine			
United Kingdom	Yes		
Vatican City State			

(Data taken from the www.ero.dk Web site, 1 Dec 97)

The Decision ERC/DEC(95)01 deals only with the carriage and use of radio equipment in CEPT countries (Levels 1 and 2) and does not cover the placing of radio equipment on the market (Level 3). The Decision stipulates that whenever use of the radio equipment is permitted in the visitors' home country, administrations shall permit free circulation and use of radio equipment (Level 2 Free Circulation) meeting the following criteria:

- the radio equipment operates on harmonised frequencies with common technical standards;
- no frequency planning or individual frequency assignment is needed.

Currently, the Decision covers GSM mobile equipment, DECT mobile equipment, EUTELTRACS terminals, Inmarsat-C terminals, Inmarsat-M terminals and PR-27 mobile stations.

The WGRR has discussed how to address the requests for adding more equipment categories to the Annex. Since administrations find it difficult to implement the regulation when too many different categories are included, the WGRR decided to have additional Decisions covering other equipment categories. Separate Decisions covering Inmarsat-D, Inmarsat-phone (mini-M), EMS-Produt and EMS-MSSAT were developed. These Decisions are expected to be finally approved in March 1998.

The 95-01 Decision stipulates that the carriage and use of the radio equipment must be allowed without requiring an additional national licence or registration in the country visited. The Decision states further that free circulation without permission to use the equipment (Level 1) is allowed for all types of portable radio equipment permitted in the visitor's home country.

In some countries, implementation of the Decision requires legislative changes that may take considerable time.

Some administrations appear not to understand that the Decision provides that all equipment licensed or allowed in the visitor's home country may always be carried by a visitor in another country. This should cover the free circulation (without use) of MSS, VSAT and SNG terminals.

WGRR next produced a Recommendation (**ERC/REC 21-15**) on **Free Circulation and use of LMSS terminals in Europe**. Although LMSS terminals are covered by the ERC Decision on Free Circulation, it will take some time before the Decision is implemented in most CEPT member countries. Therefore, it was decided to develop an interim regime to safeguard the existing free circulation arrangements for this equipment. The Recommendation also extends the free circulation arrangements to non-CEPT countries.

This Recommendation has been revised several times to include more mobile earth stations. The latest version to be approved by the WGRR in January 1998 covers Inmarsat-C, Inmarsat-M and EUTELTRACS, Inmarsat-D, Inmarsat-phone, EMS-Prodats and EMS-MSSAT. ERC/REC 21-15 supersedes the ERC Recommendations 21-09, 21-11 and 31-02, which were abrogated.

A separate Decision **ERC/DEC/(97)05** has been approved covering the free circulation and use of **S-PCS** mobile earth stations. This Decision states that no individual licences shall be required and that free circulation and use shall be permitted for S-PCS mobile earth stations when certain conditions are met and free circulation without use when the conditions are not met.

With regard to Level 3 Free Circulation for LMSS, VSAT and SNG terminals, the ERC has adopted:

- **ERC/REC 21-16 on Type Approval for Land Mobile Satellite Terminals, LMSS**
- **ERC/REC 11-01 on Type Approval for satellite earth station equipment, VSAT and SNG**

These Recommendations call for the mutual recognition of type approvals given by any CEPT type approval authority for terminals complying with the essential requirements in the relevant European Technical Standard (ETS) adopted by ETSI. The annex to these Recommendations specifies the essential requirements. Type approved equipment shall bear a mark in accordance with the marking specified in this Recommendation. The most recent version of the LMSS Recommendation covers Inmarsat-C, Inmarsat-D, Inmarsat-M, Inmarsat-phone (Inmarsat mini-M), EUTELTRACS, EMS Prodats and EMS-MSSAT mobile earth stations.

With regard to Level 3 Free Circulation in general, **CEPT/ERC/DEC (97)10 on the procedures for mutual recognition of conformity assessment procedures including marking of radio equipment and radio terminal equipment** was developed. This Decision contains procedures for the mutual recognition of conformity assessment of radio equipment.

Licensing of radio equipment has long been treated as a purely national matter, but when equipment was introduced which was meant to be taken over borders, the need for co-ordination, mutual recognition and harmonisation of licences arose¹⁴. A number of CEPT Recommendations have said that the class of equipment covered by the Recommendation should be exempted from an individual licence or be covered by a general licence. Examples are those mentioned above on MSS and S-PCS.

¹⁴ See also ERO report on Licensing and Charging, July 1997.

During the last two years, licensing and harmonisation matters have been taken up more systematically since the ERC adopted policy goals which called for mutual recognition¹⁵, simplification and aligning licensing procedures. Such actions are in accord with the EU Licensing Directive.

A Recommendation **ERC/REC 01-07** on a harmonised regime for exemption from individual licensing of radio equipment was approved in 1995. This Recommendation lists the criteria on the basis of which administrations should exempt categories of radio equipment. The ERC adopted for public consultation in December 1997 a Decision which lists some radio equipment that should be free from individual licensing. WGRR intends to add to this list further equipment categories in the near future in separate Decisions.

The satellite industry in Europe believes that future personal broadband multimedia satellite terminals should not require individual licences and urges the CEPT to take appropriate steps towards that end.

5.1.2 Conclusions

There is certainly no lack of regulation in the areas of free circulation and conformity assessment. With the exception of the conformity assessment Decision ERC/DEC/(97)10, the ERC has produced most of the regulation in a timely manner.

These regulations have not had the positive impact expected because many countries have not implemented them. Implementation of Decisions has been an issue on the agenda of every ERC meeting. With regard to Recommendations, administrations are asked once a year about implementation progress. The response has not been overwhelming. In some cases, the Recommendations have not been implemented, but in other cases the Recommendations may have been implemented but no information is given.

EUTELSAT told the SAP RWG that many of its EUTELTRACS customers had trucks blocked at border points because they were carrying a satellite terminal. These customers subsequently have asked EUTELSAT or the local Service Provider to compensate them financially for the time lost at the border points with customs. The slow progress in the implementation of CEPT regulations in some countries has affected some EUTELSAT customers in other ways. For example, they sometimes have had to find alternative routes in order to avoid transiting through a problem country. As the number of satellite systems in Europe increases, the magnitude of the problem with border police in some countries will probably also grow. EUTELSAT said in a contribution to the SAP RWG that it sees the need for provision of a list of all satellite terminals to customs officials and for provision of a list of countries which permit free circulation to users.

¹⁵ Mutual recognition means a licence obtained in any CEPT country is recognised by all other CEPT administrations. Mutual recognition of licences is also applicable to radio amateurs and to maritime and aeronautical radio equipment.

Since the beginning of 1997, a database on the status of implementation has been available on the ERO's World Wide Web home page.

A complicating factor in the area of free circulation Levels 1 and 2 has been the fact that the regulation of MSS has changed several times. First, there were Recommendations for each type of mobile earth station (see Annex 2), then it was considered that general regulation were more appropriate and ERC/DEC/(95)01 was developed, then interim Recommendations covering the same equipment were developed which were changed a couple of times to include new types of mobile earth stations. There are proposals to consolidate and not to try to improve the existing regulation further.

In the area of licensing and harmonising licensing conditions, work has just started within the ERC. In the area of MSS and S-PCS, the existing regulation states clearly that no individual licence shall be required for this kind of mobile earth stations. So when CEPT administrations still require an individual licence, this can be traced back to the lack of implementation.

The ERO has studied the licensing of VSAT and SNG terminals, but the issue has not yet been fully addressed in the ERC. A Report on individual licensing conditions has been drafted and this, together with the recommendations from the ETO study, might lead to simplification and harmonisation in the near future.

5.2 ECTRA

5.2.1 ETO study on harmonisation of satellite licensing regimes

ETO has produced a report on harmonisation of satellite licensing regimes within CEPT countries. The report was prepared on behalf of ECTRA for the Commission. The ETO report presents the licensing regimes in the EU Member States and four other CEPT countries. It also provides information on licensing fees in these countries. Industry views were reflected in the final report, which was adopted by the ECTRA plenary in December 1997. Some minor modifications were included mainly on the situation in some countries, e.g., the fees in Germany, the licensing regime in Ireland. An annex was added which includes comments from Portugal. The consequences of the adoption of the ETO report will be considered by the ECTRA Project Team (PT) on licensing at the end of January 1997 in conjunction with the ERC, and perhaps by the Licensing Committee established by the Commission. Apart from the definition, no modification was made to ETO's proposals.

Most Member States have implemented new licensing regimes on satellites in conformance with the EC directives by 1 January 1998. Most Member States have also authorised voice telephony over satellite networks just as they have over the PSTN. The Commission has authorised delays by a few Member States. However, some of these Member States will make exemptions on a case-by-case basis, e.g., for S-PCS.

The ECTRA project team on licensing (ECTRA-PTL) will be involved in some issues such as the possible extension of the One-Stop-Shopping (OSS) procedure to S-PCS, the ETO database on licensing regimes and the above-mentioned ETO study.

ETO has already obtained information from CEPT countries on the implementation of EC directives. This task will continue with the collection of information on the licensing regimes for satellites. The information will be available on the ETO Web site in a common format enabling comparisons between countries.

ETO is also prepared to provide information on licensing fees in accordance with a work order funded by the Commission.

Conclusions

The Commission should co-operate with ECTRA and the ERC in encouraging CEPT member countries to remove or reduce regulatory barriers and to implement ERC and ECTRA Decisions and Recommendations. Bilateral discussions with National Regulatory Authorities would be helpful.

The creation of an effective 'one stop shop' in ETO would be helpful to the industry.

The implementation procedures for CEPT Decisions and Recommendations on free circulation of LMSS should be harmonised.

The Commission should review the adequacy of information exchange between itself and CEPT bodies involved in frequency management and market access issues.

6. REGULATORY SITUATION IN THIRD COUNTRIES (SAP A6, A12)

The EU Satellite Action Plan has two actions relating to the regulatory situation in third countries:

A6. On the basis of information to be supplied by Member States and the private sector, the Commission will continue to **review of the developments concerning the International Satellite Organisations** and take the appropriate steps with a view to ensure that these developments contribute to the achievement of a fully competitive satellite communications marketplace.

A12. The Commission will take the appropriate measures to promote effective competition in this field at a world level and continue to ensure that the operation of global satellite systems does not impede competition on the relevant European markets, in conformity with Treaty.

The European satellite industry usually encounters more regulatory barriers to non-EU markets than in the EU. Often there are non-explicit trade barriers. Many developing

countries do not have a clear regulatory environment. The absence of a clear regulatory environment in many countries creates risks in any business plans.

The European satellite industry has encountered numerous barriers to market access in third countries. Among the reasons for such barriers are the following:

- no regulatory body;
- no adequate regulatory framework (licensing, etc.);
- market access limitations;
- limitations restricting the free circulation of satellite terminals;
- no interconnection framework;
- high licence fees;
- high customs duties;
- additional type approval (conformity assessment) regimes.

Even where there is a well established regulator, as in the US, the action of the regulator may favour domestic companies. In implementing its commitments under the WTO Agreement on Basic Telecoms, the FCC's 25 Nov. 1997 Order on International Satellite Services removes some restrictions, notably for satellite operators of other WTO member countries, in their provision of services in the US. Some restrictions remain, such as barring domestic use of INTELSAT and Inmarsat. Even if Comsat agreed to waive immunities and meet other conditions set within the Order so that it could provide Inmarsat services in the US, the FCC would still permit access to the two ISOs by users in the US only through Comsat as the US Signatory to both organizations.

For many systems, the US is a key market for development of a successful business. Until the FCC's Order of 25 November, some service could be initiated only if the lead was a US company (even if most of the capital was non-US). This practical limit created barriers to the satellite industry in Europe with respect to its business strategy, future expansion, employment and investment security. The Order to allow non-US licensed space stations to provide domestic and international satellite services in the United States should improve access to the US market, at least for some operators. The Report and Order are intended to implement the market opening commitments made by the US in the WTO Agreement on Basic Telecommunications, which came into force on 1 January 1998.

One contributor to this Report suggested that market access to third countries could be considered against a number of key success factors, including the following:

1. *Quality of service*

Satellite services are destined to compete in a global environment. Quality of service for the end user (the customer) is improved where there is market access.

2. *High initial investment requires a broad customer base.*

Global satellite services are characterised by high initial investments. Hence a basic precondition for competitiveness is timely access to a global customer base.

3. *Certainty of market access*

Apparent market access is not sufficient. The lack of certainty about market access in major markets may stop potential investors from investing in European satellite initiatives. If the Commission and/or the industry in Europe fails to gain access to important markets, then satellite services controlled by Americans or others will be a more attractive opportunity to investors, including investors from Europe.

4. Domestic liberalisation must imply external market access

The high degree of liberalisation in the European Union would in the long term damage the global competitiveness of European services and systems if other markets are not opened quickly enough.

5. Priority to competitive countries and regions

Countries with their own competitive global satellite systems and significant markets are in a strong position to hinder the success of global satellite initiatives in the European Union. For example, if European-based satellite operators and service providers were unable to gain entry to the US market, the effect would be two-fold: first, the competitiveness of the European service would be harmed. Second, the competitiveness of the US services would be enhanced because US satellite networks would be more attractive partners for service providers even in the EU Member States.

Some members have been concerned about the disparity in market access between the Union and other countries.¹⁶ American companies, for example, can invest in Europe and offer competitive satellite services, yet Europeans have not had comparable access to the American market. A position was advocated within the SAP RWG that industry should urge that a high priority be given to implementation of the WTO Agreement by National Regulatory Authorities, CEPT and other competition authorities. DGIV should be asked to evaluate market access within Europe and third countries.

6.1 CUSTOMS DUTIES

Customs duties add to the cost of equipment for users and reduce the potential market for operators and manufacturers. Customs duties must be paid on equipment imported into a country, sometimes even on equipment taken into a country on a temporary basis. Customs duties are not a problem in the Union, but they are a formidable barrier to market access in many other countries. Examples of countries charging high customs duties are the following:

Country	How much are import	Do import duties differ if the
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¹⁶ Note that the Licensing Directive has a provision which says that "Community undertakings should have effective and comparable access to third countries' markets and enjoy treatment in third countries similar to that offered in the Community to undertakings owned wholly, controlled through majority ownership or effectively controlled by nationals of the third countries concerned."

	duties on MESs?	MES is in the country temporarily?
Tanzania	45-85%, up 105%	Bond
Niger	55-80%	Yes
India	53 to 75%	No < 6 months
Algeria	68%	Yes
Côte d'Ivoire	max. 65%	No duty<3 months
Comoros	65%	
Burundi	61%	
Mauritania	60%	Yes (10%)
Ghana	57.5%	No < 3 months
Sri Lanka	57.5%	Yes
Burkina Faso	56.65%	
Argentina	23% to 50%	No duty
Cameroon	50%	Yes
Kenya	50%	
Seychelles	50%	Yes
Togo Republic of	48.84%	
Uruguay	up to 48%	No
Angola	47%	No duty
Central African Republic	46%	
Bangladesh	45%	
Zambia	37.5 to 42.5%	
Brazil	40%	Yes (5%)
Benin	40%	Yes - 10-15%
Trinidad & Tobago	40%	
Nigeria	40%	Deposit
Guyana	35%	Yes
Bahamas	35%	Yes (7%)
Pakistan	35%	
Slovak Republic	34.8%	
Australia	up to 32.72%	
Malawi	32%	Deposit
Dominica	32.25%	Deposit
Chile	up to 31%	Yes
Laos	30%	No
Indonesia	25%+10% VAT	Yes
Malaysia	25% + 10% Tax	
Bermuda	22.5-33.5%	Yes

Source: Inmarsat, January 98

The WTO's Information Technology Agreement and the World Customs Organization's Istanbul Convention will help reduce customs duties.

6.1.1 Information Technology Agreement

Under the WTO's Information Technology Agreement (ITA), signed in Singapore in December 1996, customs duties are to be reduced to zero on a range of telecom and information technology products in four progressive reductions from July 1997 (when the ITA came into force) to the year 2000. Satellite terminals would most likely come under the category of 'HS-96-8517 Other telephone sets and videophones' and/or 'HS-96-8525 Transmission apparatus incorporating reception apparatus', which are among the product headings in Attachment A to the ITA.

Twenty-eight countries signed the ITA in Singapore. As of January 1998, 43 countries have so far signed the ITA including:

Australia	India	Philippines
Canada	Indonesia	Poland
Chinese Taipei	Israel	Romania
Costa Rica	Japan	Singapore
Czech Republic	Korea	Slovak Republic
El Salvador	Liechtenstein	Switzerland
Estonia	Macao	Thailand
European Union	Malaysia	Turkey
Hong Kong	New Zealand	United States
Iceland	Norway	

The current ITA signatories represent 92.5% of world trade in the telecom sector.¹⁷ Those that have not signed are often the ones that could benefit most from new satellite services and equipment to shore up their limited national infrastructures. Thus, these countries represent good potential markets for new satellite equipment and services, even though their share of the global telecommunications market may be small. The Commission and the satellite industry should obviously continue to encourage more countries to sign the ITA.

6.2 GLOBAL COMPETITION

The global satellite communications market is very competitive. It is dominated by the US. The largest European manufacturers are small compared to the two big US conglomerates.¹⁸ The European market share in satellite terminals is small. European participation exists in only a few US satellite systems such as Orion, Globalstar and Iridium.

The world-wide market (excluding the former USSR) represents a total of 7.2 billion ECU per annum (1996) for satellites, 53 per cent of which comes from the commercial market, while another 21 billion ECU per annum comes from operations and services.

The market for communication satellites and launch services is increasing at a rate of some 20 per cent per annum. In a decade, satellites are expected to represent a market of US \$15-20 billion; terminals three to four times more, and services, five to eight times more.

¹⁷ Although it has not yet signed the ITA, China indicated in a joint statement released after the October 1997 visit to the US by Chinese President Jiang Zemin, that it intended to participate in the agreement "as soon as possible." The US has said signing the agreement was one condition for US support for China's bid to join the WTO.

¹⁸ Lockheed Martin had revenues of \$7.9 billion from its missiles & space divisions in 1996, while Hughes had revenues of \$4.1 billion from its comparable divisions. In Europe, the companies with the biggest revenues from this sector were Aerospatiale (\$1.6 billion) and Matra Marconi (\$1.6 billion).

Non-geostationary communications satellites are expected to represent a market of the same order as geostationary satellites in the period 1997-2007, and terminals and services for non-geostationary satellites are expected to represent a market superior to that for geostationary satellites.

The global market for communications satellites comprised the Intergovernmental Satellite Organisations (ISOs) –INTELSAT, Inmarsat, Intersputnik, EUTELSAT and Arabsat – and the national or regional systems operated by government agencies. Some systems have been developed by the private sector, particularly in the US. More than US \$65 billion will be needed from investors to pay for new satellites planned in the next 10 years.

As the telecommunications market becomes increasingly liberalised and the range of services offered by satellites increases, a significant change is taking place in the relationship between the satellite services industry and the satellite manufacturing industry. Major industrial players are now sponsors or significant investors in almost all the recently proposed systems. Examples from the US include Iridium (Motorola), Teledesic (Boeing), Globalstar (Loral), and Celestri (Motorola). Examples from Europe include EAST (Matra Marconi Space), Skybridge (Alcatel), WEST (Matra Marconi Space) and Euroskyway (Alenia). Vertical integration is also apparent as part of the consolidation process in the US aerospace industry. For example, Hughes acquired PanAmSat, which complements its existing DirectTV service, and Loral has acquired Orion.

As they change their structure and either create new organisations or become national law companies, the ISOs may try to attract the participation of strategic investors, including satellite suppliers, in the new companies. Nevertheless, the SAP RWG does not believe it is in the interest of the transformed ISOs (or any other operator) to be forced to buy satellites from a particular supplier.

The difference in the structure and size of the satellite manufacturing industry and in the mechanism and level of governmental support between the US and Europe is important. The US manufacturing industry has become globally dominant, and it is likely that the US will also dominate the operation and provision of satellite services. The position of European manufacturers of communications satellites and related equipment is not strong compared with the US competition.

In its Resolution adopted on 21 October 1997, the European Parliament

- “Calls upon the Commission to support the projects of common interest in the field of trans-European networks in order to speed up the development of satellite networks;
- “Calls upon the Commission to undertake efforts to encourage the market-based development of commercially viable European Global Positioning Systems (GPS);
- “Considers that the Commission should include in co-operation programmes with neighbouring Central and Eastern European and Mediterranean countries the establishment of satellite services on a bilateral and multilateral basis to improve telecommunication and transport infrastructures of common interest and to support development, training and cultural exchange programmes.”

Many novel satellite services have their roots in US government systems, and vice versa. Novel applications are also supported by long-term launch rental contracts of the government (e.g., Iridium, GPS-Navsat, Space Imaging). There is no comparable support for the satellite industry in Europe.

Export/import licensing may pose another barrier to market access. Through an unfavourable use of such regulation, it is possible to distort competition.

Working in a US-led commercial programme, Alenia told the SAP RWG that it had invested money in a number of activities, but it had not been possible to accomplish any of those activities because the US prime contractor was hampered by the US Department of Defense (DoD) in obtaining an export licence for military-classified design documents.

6.2.1 Conclusions

Competition rules constitute the best regulatory framework for telecommunications including the satellite sector. Market forces should apply and every operator should be entitled to participate in new technology projects. Valuable experience from existing telecommunications providers should not be excluded *a priori*.

The Commission and European industry should document and consider the extent to which competition is distorted taking into account factors such as:

- the dominance US companies have achieved over European industry through support from or their origin in the defence industry;
- the role of the US government as a customer of US satellite systems;
- US export restrictions.

7. WTO (SAP A7)

One action can be found in the EU Satellite Action Plan relating to the activities within the World Trade Organization:

A7. The Commission will now focus on the full implementation of the commitments of countries in the framework of the recently concluded WTO Negotiations on Basic Telecommunications. Furthermore, the Commission will carry out, whilst consulting industry, an in-depth **analysis of trade policy implications regarding international satellite communications** issues and, for those areas where appropriate, make **proposals to remove in a systematic fashion the remaining market access barriers**. The Commission will also put forward **proposals for the co-ordination of positions of EU Member States** in international fora.

Global deployment of satellite services will depend on suppliers gaining access to world-wide markets. Several recent international agreements have facilitated the

opening of markets. Notable among these are those which come within the purview of the World Trade Organization (WTO), i.e., the Information Technology Agreement (ITA, which is referenced in a later section of this Report) and the Agreement on Basic Telecommunications.

7.1.1 Agreement on Basic Telecommunications

The Agreement was signed by 69 of the 132 WTO member countries on 15 February 1997. The Agreement covers market access, investment and pro-competitive regulatory principles.

The signatories¹⁹ account for 95 per cent of the world telecommunications market, worth an estimated \$600 billion in 1995. The commitments of these governments (contained in 55 schedules) are annexed to the Fourth Protocol of the General Agreement on Trade in Services (GATS). The Protocol was open for acceptance until 30 November 1997 and enters into force on 1 January 1998. In a number of schedules, a member's commitments for particular services are to be phased in, in some instances over a period of several years.

Market access commitments cover the cross-border supply of telecommunications as well as services provided through the establishment of foreign firms (commercial presence), including the ability to own and operate independent telecom network infrastructure.

Unless a member country noted otherwise in its offer, any basic telecom service may be provided through any means of technology.

The countries participating in the Agreement also agreed a set of principles on competition, contained in the so-called Reference Paper, covering matters such as interconnection guarantees, transparent licensing processes, the independence of regulators, universal service and allocation of scarce resources, such as the radio spectrum. This was the first time that competitive concepts have been brought into a trade agreement.

The results of the agreement are extended to all WTO members on a non-discriminatory basis through most favoured nation (MFN) treatment. However, each WTO member could decide whether to file an MFN exemption. Without an MFN exemption, a member must treat the services or service suppliers of every other

¹⁹Antigua & Barbuda, Argentina, Australia, Bangladesh, Belize, Bolivia, Brazil, Brunei Darussalam, Bulgaria, Canada, Chile, Colombia, Côte d'Ivoire, Czech Republic, Dominica, Dominican Republic, Ecuador, El Salvador, European Communities and its Member States, Ghana, Grenada, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Israel, Jamaica, Japan, Korea, Malaysia, Mauritius, Mexico, Morocco, New Zealand, Norway, Pakistan, Papua New Guinea, Peru, Philippines, Poland, Romania, Senegal, Singapore, Slovak Republic, South Africa, Sri Lanka, Switzerland, Thailand, Trinidad & Tobago, Tunisia, Turkey, United States and Venezuela.

member as favourably as those of any other country, member or not. Nine governments submitted MFN exemptions to be annexed to the Protocol.

Of the 69 countries to make offers, 47 made offers that permit foreign ownership and control of all telecom services and facilities (most from January 1998, but others to be phased in over time). Ten countries permit foreign ownership or control of certain telecom services, while 10 countries do not permit foreign control (but accept some lower percentage of foreign ownership). For its part, the US retained the provisions in the Communications Act of 1934 – and, in particular, section 310(b) – which limits direct foreign ownership to 25 per cent of an American telecommunications firm that is a licensee of radio spectrum and provides common carrier service. Europe does not retain such a restriction.

Fifty-three countries guarantee market access to international telecom services and facilities. Six more countries are open for selected international services, while eight countries have limited or no market access commitments for international services.

Forty-two countries guarantee market access for satellite services and facilities (domestic and international).²⁰ Six countries guarantee market access for selected services and facilities.²¹ Nine countries made no market access commitments re satellite services.²²

Limitations of the agreement

While the commitments made under the WTO agreement are a step in the right direction, SAP RWG members were of the firm belief that more countries should make commitments under the new regime and some of those which have already made commitments need to make further improvements in their regulatory regimes and that they should do so in view of the positive impacts of the emerging Global Information Society.

Also, while there is no doubt that the WTO agreement will benefit suppliers and consumers of satellite services, some countries nevertheless qualified their offers with limitations such as when competition will be introduced (in some cases after the year 2012), the extent of competition (in some cases no more than two operators), which services will be open to competition, foreign ownership, etc.

²⁰ The 42 countries which committed to market access for satellite services and facilities (domestic and international) from 1998 included Australia, Austria, Belgium, Chile, Colombia, Denmark, Dominican Republic, El Salvador, Finland, France, Germany, Guatemala, Iceland, Israel, Italy, Japan, Korea, Luxembourg, Malaysia, Netherlands, New Zealand, Spain (end 1998), Sri Lanka, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, United States. From 1999, Peru. From 2000, Argentina, Canada (for fixed, 1998 for mobile), Ireland, Singapore, Venezuela, Portugal. From 2001, Bolivia, Czech Republic. From 2002, Mexico, Bulgaria (for closed user groups, all public services as of 2004). From 2003, Greece, Hungary, Poland, Romania, Slovak Republic. From 2004 and later, Brunei, Indonesia, Jamaica, Grenada, Thailand, Turkey, Senegal.

²¹ Brazil, Côte d'Ivoire, Ghana, Hong Kong, Mauritius, South Africa.

²² Antigua and Barbuda, Bangladesh, Colombia, Ecuador, India, Morocco, Pakistan, Philippines.

The list of 69 countries which made commitments does not include some important markets, such as China²³ and Russia.

Inmarsat and INTELSAT were excluded in the GBT negotiations because neither organisation is "of a country". However, Inmarsat is of the view that satellite services supplied by ISO Signatories, which are of a country, are covered unless specifically excluded. In any event, both Organizations are well advanced in the process of being restructured, in Inmarsat's case as a company under UK national law. Inmarsat could be helped by Commission efforts to ensure its treatment in the US just like any other national law company when the restructuring is finally approved by member countries in 1998.

The audio-visual sector was excluded from the agreement. It is not clear how the terms of the WTO agreement will reconcile market similarities between images transmitted over the Internet with those transmitted via broadcast media to the same consumers.

The regulatory principles contained in the Reference Paper are rather general.

Paragraph 5 of the GATS Annex on Telecommunications already provides some basic regulatory precepts for access to and use of public telecommunications transport networks and services, but it may still leave loopholes for protectionist-minded regulatory agencies. For example, paragraph 5(e)(ii) allows regulators to impose access conditions to protect the 'technical integrity' of the system. It is not clear when and how such a condition can be attacked as an illegitimate non-tariff trade barrier, nor when and how a WTO panel can review the validity of such a regulatory condition.²⁴

It is not clear whether efforts by some WTO members to restrict voice over the Internet will be deemed a violation of the agreement and subject to WTO enforcement penalties.

Disputes over the implementation of market access commitments can be subject of a process equivalent to mandatory binding arbitration, conducted on a government-to-government basis. How well this process will work for telecoms disputes involving

²³ China is not likely to become a member of the World Trade Organisation (WTO) until at least the year 2000. China's telecom minister has said China will not open its telecommunications market to foreign firms. The US has said China will have to open its telecoms market to foreign competition before it is allowed to join the WTO. Currently, foreign firms are not allowed to own or manage telecom networks in the country. China does not have a telecom law that would provide requisite guarantees of transparency for all regulatory and licensing decisions.

²⁴ Alexander W. Sierck, "The Role of the World Trade Organization's Dispute Resolution Process in Ensuring That Foreign Governments Faithfully Implement Their Commitments in the WTO Telecoms Agreement", *The WTO Telecom Agreement: Engineering the Global Information Highway: a Conference Report of the Global Information Infrastructure Commission*, Washington, D.C., 1997, p. 99.

novel regulatory and competition policy issues remains to be seen. There have been no dispute settlement cases yet completed under the GATS, thus, the first few dispute cases under the Agreement on Basic Telecoms will be especially significant.²⁵

Many developing countries lack the experience in setting and enforcing clearly defined and pro-competitive regulations. Many developing countries do not have a national telecommunications policy in place.

The WTO agreement does not cover defence department contracts, sponsorships, support or other arrangements with industry (which is a distinct advantage for the US industry)²⁶. Nor does it take patents into account.

While the US is trying to open more markets abroad, procurements of satellite services and equipment by US cities and states may not always abide by international rules such as those contained in the WTO Agreement.

Implementation of the Agreement

Forty developing countries signed the Agreement on Basic Telecoms, but some of them may have difficulties in improving their regulatory frameworks in line with the requirements of GATS. Developing countries, like the other signatories to the Agreement, must consider several issues in implementing the Agreement, notably:

- a body of law that enshrines a basic telecom regime in the domestic laws;
- an independent and transparent regulatory authority in each country;
- a process for dealing with anti-competitive behaviour;
- clear rules for interconnection;
- a way to deal with hidden and not-so-hidden subsidies;
- a domestic independent appeals process²⁷.

²⁵ The new WTO dispute settlement system does not give a panel any formal power to order the defending country to change its laws. In response to an adverse panel report, the defending country may choose to make a change in its laws or it may decide instead to offer trade 'compensation', such as lower tariffs. Alternatively, the defending country could do nothing. In that event, the complaining country could retaliate by suspending unrelated trade benefits equivalent to the trade benefits it lost. A company could get the WTO dispute settlement process started by asking its WTO representative to file a complaint at the WTO. In the case of a EU company, it would inform its national authorities and ask the European Commission to raise the complaint at the WTO. The company will need to be involved in the process by providing detailed factual and legal memoranda to help the European Commission to decide when and how to raise the issue with the foreign government involved and whether to bring a case at the WTO. The company may need to show that it has exhausted its foreign administrative and appellate remedies; that there is factual and economic evidence to support the complaint; that the company can spell out exactly why the foreign government agency's position is not in accord with the WTO agreement; and what it would propose as a solution to the complaint.

²⁶ Defence in particular represents a large share of the space turnover of US companies, with defence space expenditures amounting to approximately the same as NASA's space budget of approximately US \$14 billion.

²⁷ In the US, there is no private right of action for any of the US obligations in the WTO agreements. No supplier could take the US or the FCC to court on the grounds that it had not undertaken or carried out its WTO obligations. A supplier can take the FCC to court on the grounds that a particular rule is

The European Parliament's Committee on External Economic Relations gave its backing to the WTO Agreement on liberalising the global telecommunications market. The Committee unanimously approved a report and a draft legislative Resolution providing the Parliament's Opinion on the WTO Agreement. The report highlights the need:

- to monitor the application of the WTO general principles;
- to soften the Agreement's impact on developing countries and adopt specific measures to ensure they do not suffer inordinate difficulties;
- to examine the likely effects of the restrictions made in many areas to the proposals of numerous countries, particularly with the US;
- to clarify the situation regarding whether audio-visual services are covered by the Agreement.²⁸

The European Parliament approved the Resolution on 22 October 1997.

On 25 November 1997, the FCC adopted two Orders addressing US implementation of its WTO commitments. The first Order addresses foreign participation in the US market for provision of telecommunications services, while the second Order creates a framework for opening the US market to foreign satellite carriers.

In its 25 Nov. 1997 press release, the FCC says that with the *International Satellite Service Order*, along with its companion *Order* liberalising market access for foreign telecom providers, it "has carried out the letter and spirit of the commitments made by the United States in February." Nevertheless, the FCC has maintained some restrictions for operators from non-WTO countries and against INTELSAT and Inmarsat.

Contrary to what had been agreed at the time of the conclusion of the WTO Agreement, the Agreement did not enter into force on 1 January 1998, due to the position taken by the US on the basis of what they considered to be an insufficient number of WTO Member countries having ratified the Agreement by the agreed 30 November 1997 deadline. To provide time to allow those countries to complete their ratification procedures, it was agreed to extend the ratification deadline to 31 July 1998.

unconstitutional or that it exceeds the FCC's authority, but they cannot contest the validity of a particular ruling of the FCC vis-à-vis the WTO agreement. See Sierck, *op cit.*, p. 43.

²⁸ Don Abelson of the USTR has said the US classifies and regulates these services, as well as digital audio satellite services, as telecom services, but because no other country was willing to accept this regulatory classification, the US withdrew these services from its offer. Thus, the US does not guarantee market access or national treatment for these "telecom" services and reserved its right to treat other countries preferentially by taking an MFN treatment exception for these services. See *The WTO Telecom Agreement: Engineering the Global Information Highway*, pp. 33-4.

Some of those countries who made commitments under the Agreement gave dates for “phase-in” beyond the 1 January 1998 deadline for implementation of the Agreement. Among these, together with their phase-in date, are:

Antigua & Barbuda (2012)

Argentina (2000)

Belize (2003)

Bolivia (2001)

Brunei (2010)

Bulgaria (2003)

Dominica – no international commitments

Grenada (2007)

Papua New Guinea – no international commitments

Poland (2003)

Spain (1 December 1998) – bound through European Community

Most of above are expected to be able to ratify.

7.1.2 Conclusions

The WTO Agreement offers a useful framework for removing trade barriers encountered in third countries.

Individual Member States may not have sufficient economic weight to obtain particular trade conditions to balance those obtained by the US, although the combined weight of the EU does have considerable negotiating strength. Fair competition conditions should be negotiated by the EU either on a bilateral basis or within the framework of the WTO.

The Commission should take non-regulatory trade barriers into account in its negotiations with third countries to improve market access.

The application of WTO protection clauses and exemptions may result in new regulatory barriers. Hispasat expressed its concern to the SAP RWG about the exemptions in the commitments to the WTO Agreement of Argentina, Brazil and the US, regarding DTH services.

The Commission should be empowered by the Council and the Parliament to conduct negotiations either within the WTO framework, where possible, or on a bilateral basis. Results coming from the SAP RWG will help to find where trade barriers are encountered and what cases could be solved through negotiations. Article 18 of the Licensing Directive 97/13/EC permits negotiating mandates to be issued by the Telecom Council to the Commission. If the European satellite industry wants the Commission to negotiate, it must explicitly support grant of this mandate.

In the rest of the world, the Commission should encourage separation between operational and regulatory functions among the countries which have not done so. In particular, an independent regulator should be created to ensure the prevention of anti-competitive practices in the telecommunications sector, transparent and non

discriminatory licensing and interconnection regimes, etc. in accordance with the WTO Reference Paper.

A special focus should be put on the application of national treatment in countries outside the EU.

8. ITU (SAP A9)

One action in the *EU Satellite Action Plan* relates to the ITU:

A9. The Commission, together with CEPT and industry, **will review the European strategy in ITU sectors** i.e. standardisation, radiocommunications, development on satellite communications.

8.1.1 *Spectrum issues*

For any satellite operator, as serious as any regulatory barrier to market access is the challenge of getting adequate spectrum. Co-ordination of satellite systems has traditionally taken place under ITU Rules and, in particular, the principle of “first come, first served”. However, economic and technology developments proceed at different speeds in different regions of the world, which has meant later entrants were handicapped by this rule. Since the US has by far the most advanced satellite industry, it has been the country to benefit most. European ventures have also profited from these rules. However, this advantage is disappearing as new satellite systems are announced – it seems almost daily – somewhere in the world. The “first come, first served” rule has led the ITU to adopt *a priori* planning of access to certain spectrum resources, at Ku-band in particular, which in practice has resulted in increased difficulties for accessing adequate resources, for Europe especially. The CEPT in co-ordination with the Commission should use their weight in the ITU to ensure adequate spectrum can be accessed more easily by a greater number of real systems. The issue of “paper” systems was discussed at the 1997 World Radiocommunications Conference (WRC 97) and administrative due diligence procedures were agreed.

The results of WRC 97 will come into force from January 1999 with changes made to the Radio Regulations.

8.1.2 *Conclusion*

Access to spectrum is increasingly used as a competitive tool. The Commission should develop mechanisms to strengthen the European position at the ITU via the CEPT.

The Commission should develop a position on the future of ITU Radiocommunications sector in consultation with Member States and industry. The Commission should be an active in preparation and agreement of the ITU Strategic Plan for 1999-2003, which presents a good opportunity for considering the sector's future.

The Commission should also support actions in the Standardisation Sector which could contribute to implementation of the principles contained in the WTO Agreement. Although the WTO is responsible for the GATS regulations and establishing dispute settlement panels, the ITU may need to take on certain tasks in regard to developing measures of a regulatory nature to accompany and supplement the commitments made by the signatories of the WTO.

Industry should increase its presence in the ITU in order to monitor progress and participate in ITU activities related to the allocation of spectrum for satellite services, in particular for UMTS and future multimedia satellite services. The Commission, together with the satellite industry in Europe, can play an important role in maintaining the momentum aimed at achieving good results from the Plenipotentiary conference in 1998 and the next WRC in 1999.

8.1.3 GMPCS issues

Global Mobile Personal Communication by Satellite (GMPCS) was the subject of the first ITU World Telecommunication Policy Forum (WTPF, October 1996)²⁹. This ITU initiative has to be placed in the context of new global communications technologies, which have raised questions about global regulation and trade issues. This first Policy Forum had to find a solution which would facilitate the deployment of global systems while addressing concerns about perceived threats to national sovereignty, as well as other regulatory issues, in view of the concern that GMPCS systems could bypass national terrestrial networks.

Many of the issues raised during the Policy Forum are applicable to all satellite systems (i.e., fixed and mobile, broadband and narrow band, global and regional, geostationary and non-geostationary, existing and planned) providing telecommunication services directly to end users from a constellation of satellites.

The Policy Forum adopted five Opinions, agreed not only by traditional ITU members (the Administrations, representing the sovereign nations), but also by industry (GMPCS satellite operators, service providers and manufacturers). Opinion 4 led to agreement on a Memorandum of Understanding, which was finalised in February.

²⁹ The Policy Forum was held in the Geneva from 21-23 October 1996. It was attended by 833 delegates representing 128 Member States and 70 Sector Members. Jonathan Parapak, Secretary-General of the Department of Tourism, Posts and Telecommunications of Indonesia, was elected Chairman.

1997, and associated Arrangements, finalised in October 1997, both of which address matters relating to licensing, type approval and marking of terminals, customs duties and access to traffic data.

The Opinions adopted by the Policy Forum

The WTPF was not mandated to produce prescriptive regulatory outcomes or outputs with binding force. Rather, the mandate of the Policy Forum was to prepare reports and/or opinions for consideration by ITU Members. The five Opinions agreed by the Policy Forum concern:

1. the role of GMPCS in the globalisation of telecommunications;
2. a Shared Vision and Principles for GMPCS. Ten voluntary Principles were agreed in this Opinion³⁰, which calls upon Administrations to facilitate the early introduction of GMPCS services and to co-operate internationally in developing and harmonising policies regarding GMPCS, and to recognise that GMPCS system operators will take steps to inhibit the use of their systems in any country that has not authorised their service.
3. preparation of studies by all the three sectors of the ITU to facilitate introduction of GMPCS;
4. establishment of a Memorandum of Understanding (MoU) to facilitate the circulation of GMPCS user terminals. This Opinion says urgent action is needed to facilitate the global circulation and transborder roaming of terminals and recognises that some systems are already in operation and others soon will be;
5. implementation of GMPCS in developing countries. Opinion 5 invited the Director of the ITU Telecommunication Development Bureau (BDT) to establish a group of experts tasked with preparation of a checklist of factors which developing countries may take into account in authorising GMPCS services and of a report which would consider the policy, technical and operational issues regarding provision of GMPCS service, as well as the socio-economic impacts of GMPCS on developing countries. As a result of Opinion 5, the satellite industry and BDT collaborated in organising five regional workshops to debate the implications and evolution of GMPCS among satellite operators, National Regulatory Authorities and/or Administrations.

³⁰ The principles relate to early introduction of GMPCS services, international co-operation of national policy-makers and regulators, global service availability, GMPCS regulation (creation of a simplified, non-discriminatory and transparent regulatory environment, particularly with respect to such matters as service licensing, gateway station authorisation, interconnection arrangements and user terminals), conditions for investment and participation, unauthorised use, user terminals and free circulation, universal access (provision of basic telecommunication services particularly in rural and remote areas), interconnectivity between GMPCS systems and public networks, and further co-operation to facilitate co-ordinated solutions.

The Forum did not directly address the issue of “global” licences for satellite operators. The notifying Administration will continue to assign frequencies and regulate the satellite service domestically. However, it was recognised that the local service providers of GMPCS operators would need to obtain national authorisation.

The GMPCS-MoU

The MoU, finalised on 14 February 1997, is open for signature by administrations, system operators, service providers and manufacturers. By this MoU, the signatories agree to co-operate, according to their respective roles and competencies, on the six following issues, in order to facilitate circulation³¹ of user terminals:

Article 1 - Type approval of terminals

The Signatories will develop arrangements on the essential requirements necessary for the type approval of terminals, and the means by which such approvals will be mutually recognised. The type approval standards should be based on the relevant ITU Recommendations, and should be impartial with respect to all GMPCS technologies.

Article 2 - Licensing of terminals

The Signatories will develop arrangements on the means by which licences should be granted based on general licences (e.g., class licences or blanket approvals). Such arrangements would include the means by which these general licences could be used to best advantage.

Article 3 - Marking of terminals

The Signatories will develop arrangements on the marking of terminals which will permit their recognition and allow for implementation of those sections of the Arrangements dealing with mutual recognition of type approval and licensing.

Article 4 - Customs arrangements

The Signatories will develop recommendations to their competent authorities proposing exemption of GMPCS terminals from customs restrictions when brought into a country on a temporary or transitory basis.

Article 5 - Access to traffic data

The Signatories will develop arrangements for GMPCS operators to provide, on a confidential basis, within a reasonable period of time to any duly authorised national authority which so requests, appropriate data concerning traffic originating in or routed to its national territory, and to assist it with any measures intended to identify unauthorised traffic flows therein.

³¹ Some developing countries raised objections to use of the terminology “free circulation”, which is used in Europe, partly on the grounds that authorisation of GMPCS services by each country would not necessarily be “free”.

Article 6 - Review

The Signatories will periodically review the results and consequences of their co-operation under this Memorandum of Understanding. When appropriate, the Signatories will consider the need for improvements in their co-operation and make suitable proposals for modifying and updating the Arrangements, and the scope of this GMPCS-MoU.

By November 1997, 65 administrations and operators had signed this MoU. The European Commission signed on behalf of all EU Member States.

The success in reaching agreement in regard to GMPCS is significant. Participants reached a consensus and produced an original regulatory process, without binding force, but facilitating co-operation in order to facilitate the availability of GMPCS systems. Essentially, however, this MoU was an agreement to produce more detailed arrangements for authorisation of GMPCS systems.

The GMPCS-MoU Arrangements

The objective of these Arrangements is to provide a framework for the introduction of GMPCS, including:

- permission to carry a terminal into a visited country and to use it, within the framework of a licensing scheme (i.e., without the need for obtaining individual authorisation for the terminal in the visited country);
- permission to carry the terminal into a visited country but not to use it;
- technical conditions for placing terminals on the market.

Under the provisions of these Arrangements, the participants will be able to co-operate in the development of GMPCS to the benefit of users world-wide. The benefits of GMPCS will be fully realised when a significant number of Administrations and/or Competent Authorities offer necessary authorisation for service provision and access to spectrum.

National implementation of the Arrangements should cover:

- mutual recognition of type approvals of GMPCS terminals;
- simplified licensing of GMPCS terminals;
- identification (marking) of GMPCS terminals;
- access to traffic data by authorised authorities;
- the Recommendation on the principles for customs procedures to facilitate unrestricted transborder movement of GMPCS terminals.

The GMPCS-MoU group meeting, held on 6-7 October 1997, decided to create a special Task Force to finalise the detailed procedural aspects of the implementation and review of the Arrangements.

The Task Force

The Task Force was set the following goals:

- to develop proposals for assisting the implementation of the GMPCS Arrangements in the most effective and efficient manner (covering models or representative forms, notices, and letters; the role of the ITU as Depository of the Arrangements; consideration of the issues associated with the GMPCS-MoU Mark);
- to develop proposals on the roles, responsibilities, and financial arrangements concerning the administration of the GMPCS-MoU, and to propose a budget for activities such as the Depository.

The Task Force is expected to complete its work in one meeting, and compile a report in time for the next meeting of Signatories and Intended Signatories of the GMPCS-MoU, scheduled for 3-4 March 1998. An issue which is generating considerable discussion is whether the GMPCS mark should incorporate the ITU symbol.

8.1.4 Conclusions

Several conclusions can be drawn from this whole process:

Although the Arrangements themselves have now been finalised, the details of the implementation process (including the depository function, and any financial implications) are not expected to be finalised until the GMPCS MoU meeting of 3-4 March 1998.

Contention between the US and Europe contributed to delays in finalising the Arrangements, particularly in the area of type approval and marking. This delay was one of the contributing factors which led to reduced participation in the later meetings, particularly by developing countries for whom cost was an important factor in attending all of the meetings.

In type approval discussions, the legal differences between "approval to place terminals on the market" and "acceptance of approval for temporary purposes" (equivalent to Levels 1 and 2 free-circulation in the CEPT) were difficult to define. In EU directives, the difference is not clearly made with the result that disparities can be found in the ways in which the directives are implemented under national law. The satellite industry would like to see a more accommodating interpretation of the case of "acceptance of approval for temporary (free-circulation) purposes" in terms of demonstrating compliance and marking.

The work of the GMPCS-MoU group has nominally taken place outside the ITU (although the ITU has hosted the meetings and facilitated the work) and outside the traditional manner of doing things in the ITU. The ITU Council agreed that the groups working to elaborate the MoU and Arrangements should not be part of the normal ITU budget.

The CEPT played a useful role in co-ordinating and representing the satellite industry in Europe. The CEPT made several written contributions to the GMPCS meetings.

In view of the utility of the five regional GMPCS workshops, the Commission, CEPT and the satellite industry in Europe should organise similar regional workshops for emerging markets to promote the evolution of new regulatory frameworks covering satellite services.

8.1.5 *Second WTPF*

The second World Telecommunication Policy Forum is scheduled to take place in Geneva 16-18 March 1998. On the agenda are three main items:

- The general implications of the World Trade Organization (WTO) Agreement on trade in basic telecommunication services for the ITU membership with respect to:
 - the telecommunication policies, regulations and regulatory structures of ITU Member States; and
 - the implications of the WTO Agreement for developing countries, particularly with respect to policies, regulations and financial strategies to promote the development of telecommunication networks and services, as well as on their national economy.
- Actions to assist member states and sector members in adapting to the changes in the telecommunications environment, for example, by analysing the current situation through the use of case studies, and formulating possible co-operative actions to help adapt to the new environment;
- The evolution of the international telecommunications environment, particularly the accounting and settlement system.

The SAP RWG intends to make available to the ITU a copy of this Report and to encourage the ITU to take into account the information and recommendations in this Report in preparation of the document from the Secretary General of the ITU to the WTPF in March.

8.1.6 *Accounting authorities*

Restrictions on establishing and accrediting Accounting Authorities (AAs) can be used to protect national maritime markets. There are three typical cases:

1. According to ITU regulations, only 25 AAs are allowed in each country. This makes it difficult to establish a new AA in those countries which have already accredited 25 AAs. In some cases, there are even lower limits set by national regulations.
2. Some countries do not allow accreditation of AAs which are not located in the country concerned.
3. In some countries where there are still monopolies, only one AA is allowed.

Restrictions on establishing Accounting Authorities make it impossible in many cases to keep an established customer relationship when a ship is transferred to a flag of convenience or to another country not allowing accreditation of an already established AA in the country from which the ship's registry was transferred. Thus, there are both ITU and national restrictions which inhibit competition between AAs.

9. REGULATORY BARRIERS AND NEW TECHNOLOGIES (SAP A10, A11)

A10. The Commission, in partnership with industry, will **assess on a systematic basis the global market opportunities, intellectual property rights issues relating to technology, and the role of potential European-led initiatives** and formulate the appropriate supporting political actions.

A11. The Commission, assisted by industry, will **evaluate the opportunities arising from increased political and technological/industrial co-operation between EU and third countries including the US, Russia, Canada, Japan and developing countries**. In view of the importance to associate the developing countries in this area, the Commission will also evaluate the use of the EU development funds. Moreover, the Commission will propose the necessary measures to stimulate a stronger presence of Europe in international markets.

9.1 DEPLOYMENT OF NEW TECHNOLOGIES

Deployment of the satellite component of UMTS may be affected by the same regulatory barriers which affect existing types of satellite systems and services.

Technologies such as S-PCS and the new broadband systems are aimed at creating a mass market. While these new technologies create new opportunities for the satellite industry, some countries perceive these technologies as a threat to existing national infrastructures, consequently they may be tempted to introduce new regulatory barriers.

Some new satellite services have failed to reach their full potential in the Union in the absence of a harmonised regulation of telecommunications services (service provision as opposed to content). This problem will especially disadvantage broadband multimedia services if it is not overcome.

9.1.1 Conclusions

It is difficult to predict what might impede new technologies, but already there are a significant number of factors that the Commission should closely watch, in order to avoid new barriers being created.

The satellite industry's growing co-operation with regard to an appropriate regulatory framework for GMPCS could set an important precedent for establishing appropriate licensing structures for other new satellite services, including multimedia, broadband applications.

9.2 GREEN PAPER ON CONVERGENCE

The Commission released its Green Paper on Convergence³² in December 1997. Among other things, it discusses regulatory implications of convergence and makes these points:

The future regulatory environment will be of crucial importance. The European Union has already developed a comprehensive framework for managing the transition in telecommunications from a monopoly to a fully competitive world from 1 January 1998. We have also put in place a framework supporting an internal market for broadcasting. Getting the right regulatory framework must be firmly placed within these existing achievements. At the same time, this Green Paper represents a milestone in allowing the Community to look beyond the 1998 deadline and to assess the implications for the sectors affected by convergence.

This Green Paper argues that the development of new services could be hindered by the existence of a range of barriers, including regulatory barriers, at different levels of the market. There are, however, differing views on the adequacy of existing regulatory frameworks to deal with the changing environment. One view is that the development of new products and services is being held back by regulatory uncertainty - that existing rules were defined for a national, analogue and mono-media environment, but that services increasingly cut across different traditional sectors and geographical boundaries, and that they may be provided over a variety of platforms. This calls into question the underlying rationale beneath regulatory approaches in the different sectors affected by convergence. Proponents of this view would argue that such regulatory uncertainty holds back investment and damages the prospects for the implementation of the Information Society.

An alternative view would hold that the specific characteristics of the existing separate sectors will limit the scope for service convergence. It further would contend that the role of the media industry as the bearer of social, cultural and ethical values within our society is independent of the technology relied upon to reach the consumer. This would mean that regulation of economic conditions and that of the provision of information services should be separated to ensure efficiency and quality.

These matters need to be debated and resolved. Finding solutions will need to take account of the full range of interests in the various sectors affected by convergence. At the same time, the potential for change will be felt in different ways and at different levels (e.g. technology, industry, services and markets). Whilst digitalisation means that convergence is well advanced at the level of technology, this Green Paper does not automatically assume that convergence at one level inevitably leads to the same degree of convergence at other levels. Equally, there is no assumption that convergence in technologies, industries, services and/or markets will necessarily imply a need for a uniform regulatory environment.

³² *Green Paper on the Convergence of the telecommunications, media and information technology sectors, and the implications for regulation: Towards an Information Society Approach*, Brussels: European Commission, 3 December 1997. For more information about convergence, see also the Report on *Opportunities for Content and Service Provision*, prepared by PA Consulting Group, London, for the UK Department of Trade and Industry (DTI). The DTI set a deadline for public comment of 28 Nov 1997 on, among other issues, "whether... there are further initiatives in the regulatory, marketing or technical areas that could be introduced that would benefit this sector." The ITU has also published a report on convergence entitled *Regulatory Implications of*

The Green Paper analyses issues, identifies options and poses questions for public comment. It does not take positions at this stage nor reach conclusions. It identifies actual and potential barriers, which serve as a basis for considering the need, if any, to adapt current regulatory frameworks in the light of the convergence phenomenon. On the basis of the comments received within five months from publication of the Green Paper, the Commission intends to produce a Communication by June 1998.

9.2.1 Conclusion

An appropriate regulatory environment for multimedia services should be developed and implemented in a way that fosters harmonised regulations and promotes competition.

Access to markets is critical to implementation of new multimedia broadband satellite services. Full and liberal implementation of GATS commitments is important to development of this sector. European industry should be able to rely on both full implementation within the Community and strong efforts by the Community to ensure that other WTO members implement their commitments.

The economic structure of multimedia broadband service will often be based on conditional access systems. Incomplete or conflicting rules for such systems will thwart development of this market.

9.3 SPECTRUM PRICING

Many administrations are considering the introduction of new methods for assigning frequencies, namely using instruments such as auctioning and comparative bidding. The ERC WGRR has drafted a Report on the introduction of economic criteria in spectrum management and the principles of fees and charging in the CEPT, which is to be considered at the WGRR meeting to be held in late January 1998. It is clear from the WGRR draft Report as well as other studies (the UMTS Forum also has a task group looking at these issues) that spectrum pricing policies vary a great deal within the CEPT.

The SAP RWG agrees that assignment of frequencies should be left to National Regulatory Authorities but regulators should co-ordinate the assignment of the frequencies when necessary and where those frequencies would facilitate transborder use of satellite equipment in a timely way.

A number of countries have implemented spectrum auctions either as a method of resolving situations where the demand exceeds the available spectrum or simply as a means of raising revenues for the government. These approaches may be appropriate in a national context for terrestrial systems where coverage areas are naturally

confined and high orders of frequency re-use are possible. There is a widespread consensus, however, that it is not appropriate to auction spectrum used for international satellite services for several reasons:

- The total auction cost to a satellite operator would be the sum of the costs in all countries where auctions are operated. This could amount to a figure exceeding the cost of implementing the system, could make the system unattractive to investors and could result in uneconomic service charges.
- Even the uncertainty as to the level of auction cost to be paid and of the time to finalise the necessary arrangements would undermine investment in new satellite systems.
- Rather than accelerate the implementation of satellite systems, auctioning the satellite spectrum is likely to thwart their implementation.
- International satellite systems require access to spectrum on a global basis, ideally the same spectrum in all countries. An auction process would likely result in different assignments in different countries and would lead to inefficient use of spectrum.
- Auctions could result in a reduction in competition once the winner has his assignment.
- Auctions may inhibit investments in new technologies.

Nevertheless, the satellite industry recognises that, generally speaking, setting a value for spectrum leads to a more rational usage of it. The SAP RWG recognises the importance of optimal use of radio frequency spectrum. Sometimes satellites offer the most effective spectrum use, sometimes terrestrial spectrum use is more efficient.

9.4 NETWORK INDEPENDENT SERVICE PROVIDERS

A Network Independent Service Provider (NISP) operates without a network infrastructure of its own. It offers the services of other network operators in its own name. It manages its own subscriber base, including its acquisition, registration, billing, accounting and customer support. NISP activities may include reselling air time, offering co-branded products of the network operators, providing enhanced, value-added services and developing their own products based on one or several networks. NISPs may focus on convergent products integrating mobile, fixed and satellite networks. They may offer mobile and fixed network services which they repackage. They have plans to offer satellite communications services, either in combination or separately. A NISP may combine and repackage telecommunication services using networks all over Europe.

NISPs believe it is vital to fair competition in the European satellite communications market that access to networks and products be made available to the highest possible number of players, including NISPs. They argue their support for competition in the telecommunication market will lead to better services for the customer.

An example of a NISP is *debitel*, which operates its business as a private telephone company without its own network infrastructure. It is *debitel*'s intention to create European-wide convergent products integrating mobile, fixed and satellite networks in

order to match the needs of customers. In its input to the SAP RWG, debitel said it has encountered market barriers in mobile communications. In the past, such barriers have been built up by government authorities as well as network operators. As a result, debitel has not been able to start its business in some European countries, nor been able to enlarge the scope of its business from simple reselling to the creation of its "own" products.

debitel believes the Commission should monitor and support competition within and outside the EU in order to ensure that the customer's needs are served in an optimal way. Service providers are essential to the market because of their independent status and their promoting competition. Further liberalisation of the telecommunications market will increase the significance of NISPs.

One industry group contributed the following thoughts³³ in an effort to overcome market entry barriers for NISPs:

Some regulatory authorities and some network operators have created market entry barriers which discourage competition from NISPs with the result that NISPs have not been able to create and sell their own branded services. Instead they are restricted in some countries to reselling value-added services produced by network operators.

NISPs informed the SAP RWG that they want the following:

- All relevant legal provisions must grant the right to service providers to market satellite services, irrespective of whether those services have been created by the service provider himself or whether they are modified or original network operator products.
- Service providers must be guaranteed access to all satellite networks and products. To this end satellite network operators should be obliged to conclude contracts with service providers regarding reselling and network access. This is highly important for the independent service provider's creation of integrated and convergent products which are not restricted to individual countries or networks.
- Equality of network independent and network dependent service providers must be guaranteed. Discrimination must not be allowed.
- General applicability of the ONP principles of equality of access, transparency and non-discrimination should be ensured. The ONP principles should apply to the interface between satellite operators and service providers.
- Service providers should be authorised to offer original and modified products of the network operators, and network operators should be held to conceive their

³³ These views were put forward in a contribution to the SAP RWG by VAT, an association founded in 1992 as Verband der Anbieter von Mobilfunkdiensten (VAM, an association of mobile service providers). Its founding members are providers of mobile telecommunications services in Germany. At the start of 1997, the name of the association was changed to Verband der Anbieter von Telekommunikationsdiensten (association of telecommunications service providers), or VAT, for short. One of the aims of the VAT is to help establish a regulatory framework that encourages fair competition in the liberalised market.

products in a configuration allowing service providers to modify and remarket them.

- Satellite network operators should be obliged to accept all reasonable requests by service providers for conclusion of a contract, whether it is a request for simple resale or special access to the network.
- Independent service providers should enjoy the same rights and conditions as service providers that are part of the organisation of satellite network operators.

In conclusion, NISPs seek the unconditional provision of open network and product access in satellite communications as a basis for fair competition in this field in Europe and other markets. This position is not supported by the consensus of entities represented in the SAP RWG.

9.5 NUMBERING AND ADDRESSING ISSUES

Numbering in Europe is being addressed within the ITU and CEPT fora. The Commission should ensure that the requirements of transnational networks, such as those that will be established as part of new multimedia or broadband satellite systems, are taken into consideration. In addition, numbering issues should not be used to restrict the ability of satellite network operators to provide services, including Internet telephony.

9.6 REFORM OF EUROPEAN PATENT LAW FOR SPACE USE

Until now, only the United States has extended its patent law into outer space for enforcement purposes via its Space Bill. The US Space Bill adds an article to US patent law, which reads in part: "Any invention made, used or sold in outer space on a space object or component thereof under the jurisdiction or control of the United States, shall be considered to be made, used or sold within the United States for the purposes of this title, except with respect to any space object or component thereof that is specifically identified and otherwise provided for by an international agreement to which the United States is a party, or ... carried on the registry of a foreign state in accordance with the Convention of Registration of Objects Launched into Outer Space."

Europe has no intellectual property protection in space which puts European industry at a competitive disadvantage with respect to US competitors. The European Commission is currently considering reforming European patent law to install a European Community patent, similar to that foreseen by the Luxembourg convention, which was never ratified. The Commission issued a Green Paper (COM(97) 314 final) in June 1997, asking for comments from interested parties by the deadline of 7 November 1997. With the support of ESA, Alcatel garnered support from some in the satellite industry in Europe for a position paper to be presented to the European Commission.

The European Space Agency prepared a letter pointing out the competitive disadvantage of the industry in Europe with regard to its US counterparts because of the imbalance in the applicability of the relevant patent laws. The letter pointed out

that a modification of European patent law is supported by the European space players polled, including the satellite industry, national space agencies and operators.

10. ANNEX 1 : REGULATORY BODIES AND INTEREST GROUPS

Following is a list of some of the key bodies based in Europe concerned with regulatory issues which affect the satellite industry.

EUROPEAN UNION

In addition to the National Regulatory Authorities, there are several directorates within the European Commission which could be involved in trade and regulatory barriers, such as:

DGI – External Relations: Commercial policy

DGIV – Competition

DGXIII – Telecommunications

DGXV – Internal market

CEPT

ERC Radio Regulatory Working Group (WG RR)

ERC Frequency Management Working Group

ERC Joint Civil/Military Project Team

ERC TG 1

ECTRA project team on licensing (ECTRA-PTL)

ERO

ETO

GLOBAL BODIES

ITU-R

ITU-D Study Group 1

ITU World Telecommunication Policy Forum (WTPF)

WTO

World Customs Organization

SECTOR REPRESENTATIVE BODIES

ONP-CCP

ECTEL

ETNO

EITIRT

UMTS RAG

11. ANNEX 2: IMPLEMENTATION OF CEPT REGULATIONS

This Annex indicates the status of implementation of various CEPT Decisions and Recommendations.

CEPT/ERC/DEC(95)01

ERC Decision of 1st December 1995 on the free circulation of radio equipment in CEPT member countries

Adm 34	Impl	Remarks
AUT	Yes	Radar warning equipment and laser warning equipment is excluded from the Decision. General Licences Ordinance. Published in Federal Law Gazette No. 228/1994, latest revision in Federal Law Gazette No. 314/1996 dated 5 July 1996
BEL	Yes	
D	Yes	
DNK	Yes	Implementation through reference in the national table of frequency allocations
EST	Planned	
FIN	Yes	National instruments used for implementing the ERC Decision (95)01: Radio Decree (869/92). THK 12 I THK 15 H illegal equipment: 1)equipment intended to disturb or detect road traffic speed in dictating radars 2)equipment intended to remove from radiocommunication its privacy protection 3)equipment on a foreign vessel or aircraft intended for broadcasts from the vessel or aircraft

³⁴ AUT=Austria, BEL=Belgium, D=Germany, DNK=Denmark, E=Spain, EST=Estonia, FIN=Finland, G=United Kingdom, HNG=Hungary, HOL=The Netherlands, HRV=Croatia, I=Italy, IRL=Ireland, ISL=Iceland, LIE=Liechtenstein, LTU=Lithuania, LVA=Latvia, MKD=FYRof Macedonia, NOR=Norway, POL=Poland, POR=Portugal, ROU=Roumania, S=Sweden, SMR=San Marino, SUI=Switzerland, SVN=Slovenia, TUR=Turkey

Adm 34	Impl	Remarks
G	Yes	<p>Implemented mainly by administrative means.</p> <p>The circulation of most kinds of radio equipment is permitted in the UK whether or not it may be legally used. There are some exceptions to this:</p> <p>CB equipment: There is free movement (into the UK) and use (under licence) of MPT type approved UK CB apparatus. There is similarly free movement and use (under individual licence) within CEPT of PR-27 equipment that is properly marked and type approved.</p> <p>Nevertheless, there are restrictions on all other kinds of CB apparatus that cannot be legally used in the UK. To comply with EU single market requirements, the UK does allow imports of such equipment from the EU. However its possession, advertisement, sale and manufacture is prohibited. Furthermore imports of such equipment are prohibited from countries outside the EU (including, because they are not EU members, some CEPT countries).</p> <p>Cordless telephones: Those cordless telephones that do not meet MPTs 1322, 1334 or 1371 - and thus may not be used in the UK - are restricted as to importation from all countries, manufacture, advertisement, sale or possession. The UK does, however, allow imports for re-export and for sale to overseas visitors by special authority.</p> <p>Videosenders: The UK is making an Order prohibiting imports from any country, manufacture, advertisement, sale or possession of videosenders. At present clearance has been obtained from the European Commission and approval from GATT/WTO is currently being sought.</p>
HNG	Under study	<p>Free circulation and use have already been allowed for GSM mobile phones, OmniTRACS terminals for the EUTELTRACS system, Inmarsat-C terminals, Inmarsat-M terminals, PR-27 mobile stations and TRAK-SAT terminals.</p> <p>Decides 5 not implemented</p>
HOL	Yes	
HRV	Yes	
I	Planned	
ISL	Yes	<p>Regulation issued by the Ministry of Communications. Circular letter from National Telecom Inspectorate to the Customs Authorities</p>
LIE	Yes	<p>Verordnung über Teilnehmeranlagen (TAV) Art.11 Bst.h; Verordnung über die technischen Anforderungen für Teilnehmeranlagen; FKV Art. 6 Abs.1 Bst.g. illegal equipment: Speed radar detection devices</p>
LVA	Under study	
NOR	Yes	

Adm 34	Impl	Remarks
POL	Planned	
POR	Planned	Under consideration due to a revision of National Regulations
ROU	Under study	
S	Yes	
SUI	Yes	Verordnung über Teilnehmeranlagen (TAV) Art.11 Bst.h; Verordnung über die technischen Anforderungen für Teilnehmeranlagen; FKV Art. 6 Abs.1 Bst.g. illegal equipment: Speed radar detection devices
SVN	Planned	Nov. 1997. Ministerial decree
TUR	Yes	

CEPT/ERC/DEC(97)05

ERC Decision of 30 June 1997 on free circulation, use and licensing of Mobile Earth Stations of Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz within the CEPT

Adm	Impl	Remarks
AUT	Planned	Planned 1-10-1998. General Licenses Ordinance
D	Planned	
E	Planned	
FIN	Planned	
G	Planned	
HOL	Planned	
I	Planned	
IRL	Planned	
LIE	Yes	Decree of the Federal Council on Licensing in Telecommunications, article 6, 1st paragraph, letter g and article 33, 2nd paragraph (SR784.102.1); Decree of the Federal Council on Terminal Equipment, article 11, letter h (SR 784.103.1)
LTU	Planned	This Decision shall be implemented amending accordingly the National list of radio equipment allowed for restricted border- crossing and use, as from 1 January 1998
NOR	Yes	
S	Planned	
SUI	Yes	Decree of the Federal Council on Licensing in Telecommunications, article 6, 1st paragraph, letter g and article 33, 2nd paragraph (SR784.102.1); Decree of the Federal Council on Terminal Equipment, article 11, letter h (SR 784.103.1)

CEPT/ERC/DEC(97)09

ERC Decision of 30 June 1997 on the provision of information for a data base of licensing requirements for VSAT/SNG

Adm	Impl	Remarks
AUT	Planned	1.10.1997. Ministerial order
D	Planned	
FIN	Planned	
G	Planned	
HOL	Planned	
I	Under study	
IRL	Planned	
LIE	Yes	Decree of the Federal Council on Licensing in Telecommunications, article 55, 2nd paragraph (SR 784.102.1);
NOR	Yes	
POR	Planned	
S	Planned	
SUI	Yes	Decree of the Federal Council on Licensing in Telecommunications, article 55, 2nd paragraph (SR 784.102.1);

CEPT/ERC/DEC(97)10

ERC Decision of 30 June 1997 on the mutual recognition of conformity assessment procedures including marking of radio equipment and radio terminal equipment

Adm	Impl	Remarks
AUT	Planned	1.10.1998. General Licenses Ordinance and Radio equipment and Terminal equipment Ordinance
FIN	Planned	
G	Planned	
HOL	Planned	
I	Committed	
IRL	Planned	
LIE	Yes	Federal Telecommunications Act, article 37, 3rd paragraph (SR 784.10); Decree of the Federal Council on Terminal Equipment, article 17, 2nd paragraph and article 18, 1st paragraph (SR 784.103.1)
NOR	Yes	
S	Planned	
SUI	Yes	Federal Telecommunications Act, article 37, 3rd paragraph (SR 784.10); Decree of the Federal Council on Terminal Equipment, article 17, 2nd paragraph and article 18, 1st paragraph (SR 784.103.1)

CEPT/ERC/REC 01-07

Harmonised regime for exemption from individual licensing of radio equipment

Adm	Impl	Remarks
AUT	Yes	
DNK	Yes	
EST	Planned	
FIN	Yes	
HNG	Planned	Partial implementation
HOL	Yes	
I	Under study	
NOR	Under study	
POR	Planned	
SUI	Yes	
SVN	Yes	2.9.2997. Regulation on radio licenses, art. 5 and 9 (Off. Gaz. of SVN, No. 50/97)

CEPT/ERC/REC 11-01

Type approval for satellite earth stations equipment VSAT (Very Small Aperture Terminals) and SNG (Satellite News Gathering)

Adm	Impl	Remarks
AUT	Under study	
DNK	Planned	Will be implemented in short time, subject to modification of the relevant order
EST	Under study	
FIN	Planned	
HNG	Yes	
HOL	Yes	Pending mutual recognition
NOR	Under study	
POR	Under study	
SUI	Yes	
SVN	Planned	Nov 1997. Ministerial decree

CEPT/ERC/REC 13-03

The use of the band 14.0 - 14.5 GHz for Very Small Aperture Terminals (VSAT) and Satellite News Gathering (SNG)

(None)

CEPT/ERC/REC 21-14

Satellite paging service terminal equipment in Europe

Adm	Impl	Remarks
AUT	Yes	
DNK	Planned	Will be implemented in short time, subject to modification of the relevant order
E	Planned	
F	Yes	
FIN	Yes	
G	No	
HNG	Planned	
HOL	Planned	
HRV	Planned	
IRL	Planned	Under consideration due to a revision of National Regulations
ISL	Yes	
LIE	Planned	
LUX	Yes	
MKD	Planned	
NOR	Yes	
POR	Planned	Under consideration due to a revision of National Regulations
S	Yes	
SUI	Planned	
SVN	Planned	Nov 1997. Ministerial decree
TUR	Yes	

CEPT/ERC/REC 21-15

Free circulation and use of land mobile satellite service terminals in Europe

Adm	Impl	Remarks
AUT	Yes	Inmarsat C, Inmarsat M and EUTELTRACS terminals may be carried and used. Operating authorisation from satellite organisation is sufficient for free circulation
DNK	Yes	
EST	Under study	
FIN	Yes	
HNG	Yes	Questionnaire of Appendix IV will be sent later
HOL	Yes	
I	Planned	

Adm	Impl	Remarks
NOR	Yes	
POR	Yes	Inmarsat C, Inmarsat M and EUTELTRACS terminals can be carried and used when accompanied by a Circulation Card
SMR	Yes	Inmarsat C, Inmarsat M and EUTELTRACS terminals may be carried and used A Circulation Card is not required
SUI	Planned	
SVN	Planned	Nov 1997. Ministerial decree
TUR	Yes	Inmarsat C/Inmarsat D/Inmarsat M/Inmarsat Mini-M terminals and EUTELTRACS terminals can be carried and used, marking is sufficient

CEPT/ERC/REC 21-16

Type approval for Land Mobile Satellite Service terminals, LMSS

Adm	Impl	Remarks
AUT	Under study	
DNK	Planned	Will be implemented in short time, subject to modification of the relevant order
EST	Under study	
FIN	Planned	
HNG	Yes	Partial implementation. Implemented for Inmarsat-C and EUTELTRACS
HOL	Yes	
LVA	Under study	
NOR	Planned	
POR	Under study	
SUI	Planned	
SVN	Planned	Nov 1997. Ministerial decree

12. ANNEX 3 : MARKET ACCESS BARRIERS IN THE EU

This Annex identifies the regulatory barriers to market access encountered by industry in European Union Member States. The format used for countries referenced here corresponds to that of the country fiches in the Commission's market access database. The information presented in this and the following Annex does not provide a comprehensive review of the situation. Only some problems in some countries have been highlighted. The SAP RWG intends to do more work on this Annex and the following Annex, which must be regarded as drafts only at this stage (end January 1998).

The information provided in this Report highlights the specific concerns of market players. It is not intended to give a detailed description of the regulatory situation. Lack of transparency, in particular with regard to the applicable regulation, can lead to misunderstanding in assessing the regulatory situation in some countries.

The European Commission has announced that it will initiate formal infringement procedures against seven European Union Member States and send a reasoned opinion (second stage of the infringement procedure) to another Member State to speed up the transposition into national law of the EU 1998 telecoms liberalisation package.

12.1 BELGIUM

3.- NON-TARIFF BARRIERS.

Other.

Difficulty in getting permission to install DTH dishes.

12.2 GREECE

Background and status of Greek regulation

Commission Directive 94/46/EEC required liberalisation of the satellite service market as of November 1994. Member States were supposed to submit information on their implementation of these obligations by August 1995. Not long after Directive 94/46/EEC was published, Greek officials noted ongoing efforts to create a regulatory structure to implement Directive 94/46/EEC. Despite these promises, Greece failed to act, and the Commission noted a lack of Greek compliance in its June 1997 decision granting an additional implementation period to Greece under Service Directive 90/388/EEC.

At the time it requested this derogation, Greece pledged to implement Directive 94/46/EEC by 1 August 1997. The Commission in part based the derogation on that promise. Nevertheless, that promise was not successfully implemented. Instead, Greece adopted Presidential Decree 212/97 on 28 August 1997, which in turn permits the later adoption of a Ministerial Decree. The Presidential Decree in essence adopts Satellite Directive 94/46/EEC wholesale. It does not, however, supply sufficient – or

any – details for the directive to be implemented, which will be left to the regulations adopted through the Ministerial Decree.

This later decree will be based on regulations to be prepared by the National Telecommunications Commission (EET based on the Greek acronym), the National Regulatory Authority. Unofficial drafts of the regulations have circulated for over a year in Greece, but as of early December have not been officially issued. Moreover, there is no certainty as to when the regulations will be released or in what form. One operator was told in early October 1997 that the regulations will be published “in a few days”, which did not happen. In mid October, it was told that the regulations might be adopted in November, which again did not happen.

The Commission’s derogation decision stated that EET now will accept applications for satellite communications and grant those applications in so far as they meet the criteria set out in the Presidential Decree. Greek authorities did not comply with this commitment, however, since (a) the Presidential Decree itself contains no criteria and (b) no applications had been granted as of December 1997.³⁵ For instance, one application for satellite facilities was submitted in April 1996 and remains pending.

Problems with Proposed Regulations

The following discussion is preliminary, based on unofficial drafts of possible regulations. As noted below, the Commission should conduct a more thorough and in-depth review of these problems with the aim of assisting the EET to adopt final regulations consistent with Community law in a reasonable time frame. Thus, this discussion is intended to identify possible problems and questions, but is not a comprehensive catalogue of all such issues.

(a) Timing

The biggest problem is that there is no guarantee of when the regulations will be adopted. Since Greece has missed every single deadline required under Community law so far, this lack of a guarantee is a problem. Moreover, since a draft of the regulations also had not been issued as of late 1997, there must be significant doubt that anything can be adopted soon.

EET has informally stated that it plans to conduct public hearings or give formal opportunity for comment on the draft, although this is not formally defined in any Greek regulation or notice. Final regulations, however, depend on approval by the Ministry. This last factor introduces yet another element of delay that causes great concern, especially to companies that have been working for more than two years to obtain legal authority to operate.

³⁵ The Commission’s 18 June Greek derogation decision is published at O.J. L 245/6, 9 September 1997. The reference to EET accepting and granting applications is set forth at section 44, sixth paragraph, indent (1). This Greek pledge was also stated in Commission press release IP/97/373, dated 30 April 1997.

This element of timing could to some extent be minimised if EET accepts and grants applications during the interim. Indeed, current Greek law 2246/96 appears to permit applicants generally to apply and immediately commence operation pending action on an application. Legal questions remain, however, whether this approach extends to satellite services and, if so, whether a similar approach will apply to frequency co-ordination. The draft regulations appear to require applicants to obtain service or facilities license first, and then to seek frequency co-ordination through yet another process that is not defined.

The lack of assured deadlines for satellite licensing procedures violates Satellite Directive 94/46/EEC, Article 4.³⁶ The inaction of the Greek authorities and the resulting uncertainty are a serious barrier to providing satellite services in Greece and prevent achievement of the single market in this area.

(b) Discriminatory licensing structure

One version of the draft Greek regulations would establish four categories of licences related to satellite facilities and services. Different appendices to the regulations apply to these categories.

These draft regulations might be changed substantially when they are finally issued. Thus, these comments are necessarily tentative, given the non-transparent nature of the process. The preliminary view is that there is no need to establish the License 3 category, particularly as early draft regulations do so by discriminating against new entry to the Greek market in favour of established monopoly providers.

License categories in draft Greek regulations
1. Satellite Network Services
2. Satellite Services
3. Space Segment
4. Own Use Services

For instance, early drafts of the Space Segment License 3 requirements contained exceptions for International Satellite Operators such as INTELSAT and would have applied only to new entrants such as Orion Network Systems Inc or other new satellite operators. Such a discriminatory requirement clearly would violate Community law.³⁷ Such an approach also would be a serious barrier to expansion into the Greek market. Officials of the European Telecommunications Office stated in recent workshop

³⁶ At a minimum, these questions of timing impede realisation of the goals of Satellite Directive 94/46. They also independently conflict with requirements of the Licensing Directive 97/13 which calls for Member State implementation "as soon as possible". (Article 25) The Licensing Directive provides an outside time limit of 31 December 1997 for Member State *publication* of implementing legislation.

³⁷ In particular, see the provision in Satellite Directive 94/46 Article 2 requiring Member States to abolish regulatory restrictions on the offer of space segment capacity.

presentations that no other Member State in the Community seeks to license space segment in a similar manner.

(c) Non transparent rules

The proposed regulations are difficult to assess and appear to leave key concepts undefined or vague. For example, draft versions of the regulations do not define with any clarity standards for when Network licences are required instead of Own Use Service licenses. Distinctions between hub, dependent and point-to-point earth stations are also not clear, and there is no clear demarcation of when declaration procedures rather than individual licensing requirements will be applied.

(d) Non proportionate requirements

The regulatory burdens and filing requirements set forth in the draft regulations are not proportionate to the EET's need to oversee licensed activities. By contrast, the Greek licensing approach for international private line services (which rely on OTE's monopoly infrastructure) are extremely simple and require a four page submission. The proposed satellite licensing procedures, even those not connected with frequency co-ordination issues, by contrast, would be far more intrusive. Satellite licensing should not be more burdensome than the procedures for other comparable services.

For instance, one condition set forth in the draft appendices, which would apply to Space Segment licenses, requires extensive information on an applicant's business plan. The applicant would have to submit to EET the applicant's business plan or summary, including information on sales, invoices, revenue, staff, and development schedules for three periods during the licensing term. These requirements are uncalled for and clearly disproportionate. There is no provision for treating such information as confidential.

(e) Unlawful conditions for providing service

The draft regulations also require satellite network operators to certify that their facilities technically cannot be used in ways that violate the monopoly rights of OTE, the national monopoly operator. This requirement is set forth in Chapter 1 of the draft regulations, Articles 3 and 6, which apply to licenses for Satellite Networks and Own Use Services, respectively. These articles place a burden of proof on the operator that on its face is impossible to demonstrate. In so doing, they violate Satellite Directive 94/46/EEC and Services Directive 90/388/EEC. The Commission has made clear that the burden of proof that a new service constitutes reserved voice telephony rests with the regulator.³⁸

Recommendations

³⁸ Communication on the status and implementation of Directive 90/388/EEC..., O.J. No. C 275/2, 20 October 1995, Section IV (b) at page 11.

Operators have urged the Commission to assist Greece in appropriate implementation of obligations established in Satellite Directive 94/46/EEC. If no Greek regulations have been issued by January 1998, or if the regulations as adopted contain some of the flaws discussed preliminarily above, the Commission must take immediate and strenuous efforts to insist on compliance with the Satellite Directive.

(a) Urge expedited action on the satellite regulations

The Commission issued its June 1997 derogation to Greece premised on implementation actions that the Greek administration pledged to undertake. One of these pledges was to accept applications and commence to grant them as early as 1 August 1997. That did not happen, and the Commission should have insisted that Greece commence no later than 31 December 1997 to act on this pledge, or reconsider the grant of the derogation. The December deadline is the date that the Licensing Directive 97/13/EC became effective and seems an appropriate new target for action.

Problems with current draft regulations may take time to fix. Nevertheless, the time needed to modify the current draft regulations should not further delay the development of the entire satellite industry. Thus, for instance, EET should begin to accept applications and permit the applicants to commence operation immediately, which appears to be consistent with Greek Law 2246/94.

(b) Advise on the draft regulations

In order to help ensure that the Greek authorities develop transparent pro-competitive regulations, Commission officials should offer immediate assistance, formally or informally, to EET.

(c) Call on EET to set forth declaration procedures and delete space segment licensing

Draft regulations have not clearly delineated when declaration procedures are permissible for satellite facilities and services. As drafted, the regulations appear to establish a regime of individual licensing for most services and facilities. This approach is directly contrary to the principles of Licensing Directive 97/13/EC, are disproportionate and will impede market entry into Greece. The Commission should call upon EET to adopt declaration procedures to the maximum extent, consistent with Directive 97/13/EC.

The Commission should also call upon EET to delete any new discriminatory restrictions on the provision of space segment. Any such rule would violate Satellite Directive 94/46/EEC and Community competition rules. No other country in the Community has adopted such an approach.

(d) Include satellite issues when assessing Greek implementation

The Commission has indicated its intent to engage in frank and serious discussion with the Greek administration over implementation of telecommunications

liberalisation. Satellite services and facilities are a critical part of that liberalisation in Greece, due to its geography, network development and economy. Thus, the Commission should not only include implementation of Directive 94/46/EEC in its discussion points, but it should also strongly emphasise this aspect.

12.3 IRELAND

3.- NON-TARIFF BARRIERS.

Other.

Delays in implementing European liberalisation requirements. Proceedings for service licensing and frequency allocations remain unclear. Initiation of licensing proceedings has been delayed due to lack of appropriate application forms. The Office of the Director of Telecommunications Regulation has not been responsive to efforts by industry to clarify the applicable regulatory framework and enable filing of service licence applications. There is a lack of understanding of the regulatory framework established through S-PCS Decision and CEPT Decisions.

12.4 ITALY

3.- NON-TARIFF BARRIERS.

Other.

Slow implementation of Directives. However, a Decree was issued in September 1997 concerning the implementation of EU directives in the telecommunications sector.

12.5 NETHERLANDS

3.- NON-TARIFF BARRIERS.

Standards and other technical requirements.

Additional VSAT type approvals required.

12.6 PORTUGAL

REGULATORY SITUATION

General regulatory situation

The provision of satellite communications services is governed in Portugal mainly by Decree-Law 120/96 of 7 August 1996, which provides for implementation of the European Commission Directive 94/46/EEC of 13 October 1994 concerning satellite communications.

Further details with regard to regulatory issues concerning the provision of satellite services will be dealt with by legislation that was to be enacted in the course of this year.

Type approval

Additional type approvals are required.

Licensing

Portugal has been granted an extension of the deadline for abolishing the existing state monopoly rights for the provision of voice telephony services until 1 January 2000. Thus, it will not be possible to obtain a licence for the provision of voice telephony services until then. Apparently, this monopoly right covers the provision of voice telephony services through satellites as well.

The National Regulatory Authority, Instituto das Comunicações de Portugal (ICP), does not yet have a clear view as to how S-PCS systems are to be considered under Portuguese law. The current legal framework applicable to telecommunications services and operators' licensing does not provide the necessary rules for global systems such as S-PCS systems.

Furthermore, ICP officials have expressed doubt as to the applicability of Decree-Law 120/96 of 7 August 1996, to LEO systems. Currently Decree-Law 120/96 is the only Portuguese legislation dealing with licensing requirements for the provision of satellite communications services. The filing of any licence application for S-PCS systems is not possible at present.

Frequency assignment

The use of frequencies is, in principle, subject to frequency assignment requirements. No specific application procedure has been established as yet.

A new Decree Law is expected to be published in January which will establish provisions with regard to frequency assignment. The new Decree Law is to provide proceedings for applications for frequency assignment and to determine the responsible authority. Furthermore, ICP intends to establish a working group whose task will be to propose a specific regulatory framework for S-PCS. However, it is not expected that the results of the working group will be presented before mid-March of 1998.

12.7 SPAIN

REGULATORY SITUATION IN SPAIN

Legal regime applicable to satellite services

In Spain, satellite telecommunications are governed by the Act on Satellite Telecommunications of 1995³⁹, which introduces the liberalisation of telecommunications services using satellites in application of Directive 94/46/EEC⁴⁰.

³⁹ Act 37/1995 of 12 December 1995 on Satellite Telecommunications (Official Gazette no. 297 of 13 December 1995).

⁴⁰ Commission Directive of 13 October 1994 amending Directive 88/301/EEC and Directive 90/388/EEC in particular with regard to Satellite Communications (94/46/EEC; OJ L268/15, 19.10.1994).

The Act on Satellite Telecommunications abolishes the special rights for the provision of satellite services. Satellite services are subject to a prior authorisation, granted under an open-ended, "first in, first served" frame, unless there are limitations on frequency availability, in which case a public tender process will be required. Basic telephony, Hertzian television and radio broadcasting, and carrier services for Hertzian television are not covered by the Act. The granting of the authorisation implies the concession of the radioelectric public domain necessary to provide the service.

The Spanish National Chart of Assignment of Frequencies, approved 29 July 1996, reserves the 1613.8 - 1626.5 MHz band for mobile satellite communications as well as for other uses. It expressly indicates that the frequencies allocated for use by satellites which are not geostationary are considered to be available but limited resources. Thus, under the provisions in force at present the authorisation required for the rendering of Satellite Personal Communication Services (S-PCS) would be granted on the basis of a public tender procedure.

The Act on Satellite Telecommunications requires specific Technical Regulations developing and detailing the provisions of the Act and, in particular, establishing the procedure for the granting of licences to provide the services. On 30 January 1997, the Spanish government approved a Technical Regulation for Satellite Telecommunications. The Regulation expressly excludes low earth orbit satellites (LEOs) and medium earth orbit satellites (MEOs) from its scope of applicability.

At present, there is no Technical Regulation for non-geostationary satellites, which would regulate the services to be provided and the procedure for the granting of licences to provide such services.

Nevertheless, Spain has signed the three decisions adopted by the CEPT in July 1997 (the "CEPT Decisions")⁴¹ and, therefore, has committed to apply these decisions enabling the authorisation of S-PCS entities wishing to be authorised within the terms in the Decision 710/97/EC⁴².

⁴¹ European Radiocommunications Committee (ERC) Decision of 30 June 1997 on Free Circulation, Use and Licensing of Mobile Earth Stations of Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz within the CEPT (ERC/DEC/(97)05).

ERC Decision of 30 June 1997 on the Harmonised Use of Spectrum for Satellite Personal Communication Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz (ERC/DEC/(97)03).

European Committee on Telecommunications Regulatory Affairs (ECTRA) Decision of 2 July 1997 on the Harmonisation of authorisation Conditions and Co-ordination of Procedures in the field of Satellite Personal Communication Services (S-PCS) in Europe, operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz (ECTRA/DEC(97)02).

⁴² Decision of 6 March 1997 of the European Parliament and of the Council on a Co-ordinated Authorisations Approach in the field of S-PCS in the Community (710/97/EC; OJ L105, 23.04.1997).

The signing of the CEPT Decisions implies that Spain has accepted the provisional designation of frequency bands as determined by CEPT/ERC in Decision 97/03 and should therefore not conduct a bidding procedure, but follow the recommendation of the CEPT Milestone Review Committee (MRC) with regard to the eligibility of an applicant for frequency assignment.

However, for national adoption of the CEPT Decisions and before Spanish regulatory authorities can issue S-PCS licences, appropriate implementing legislation would be required.

Relevant authorities

The authority in charge of preparing the regulation for S-PCS is the Ministry of Development⁴³ ("Ministerio de Fomento"). The specific department within the Ministry involved in the process is the General Subdirectorate of Management of Scarce Resources⁴⁴.

The Telecommunications Market Commission⁴⁵ (the regulatory independent entity which has been granted authority to process certain licence applications) could be given authority for satellite mobile licences or be, to some extent, involved in the legislative process.

SPECIFIC ISSUES

VSAT

Additional VSAT type approvals are required.

Obstacles for obtaining a S-PCS License

The major obstacle to obtaining an S-PCS licence in Spain is the fact that there is no Technical Regulation applicable to mobile satellite services through LEOs and that such Technical Regulation or other piece of legislation establishing the specific licensing procedure would in principle be necessary for the Spanish telecommunications regulator to issue a licence.

Even though Spain has signed the CEPT Decisions and, therefore, is bound to enable the authorisation of S-PCS entities wishing to be authorised within the time frame spelled out in the S-PCS Decision 710/97/EC, a legal process of issuing the appropriate regulations will be required. Taking into account the transitional period in which Spanish telecommunications are at present (with a draft General Telecommunications Act being discussed in Parliament), the risk exists that the Spanish Government decides to postpone the issue of a regulation on mobile satellite services until the new General Telecommunications Act is approved. Even though approval of a new law was expected by the end of 1997 or the beginning of 1998, it seems now that the passing of the law may be delayed for a few more months at least. If that were the case, the lack of appropriate legislation on S-PCS until such

⁴³ Ministro de Fomento, Pº de la Castellana, 67, 28046 MADRID

⁴⁴ Subdirección General de Gestión de Recursos, Escasos de Telecomunicaciones, Dirección General de Telecomunicaciones, Palacio de Comunicaciones, Plaza de Cibeles s/n, 28071 MADRID

⁴⁵ Comisión del Mercado de las Telecomunicaciones, Velázquez, 164, 28002 MADRID

approval would delay the granting of S-PCS licences for a long period. Therefore, it would be desirable that the Spanish Government regulate the S-PCS before approval of the new General Telecommunications Act.

13. ANNEX 4 : MARKET ACCESS BARRIERS IN THIRD COUNTRIES

This Annex identifies barriers to market access encountered by the European satellite industry. The subheadings under each country are those used in the European Commission's country fiche (see Annex 5) for the market access database maintained in DGI (<http://mkacddb.eu.int>). In this Annex, the only subheadings from the country fiche which are given here are those which relate to specific barriers encountered by the satellite industry. [Note: Like the preceding Annex, this Annex must be considered as only a draft at this stage, as at end January 1998. The SAP RWG intends to do more work in regard to specific countries.]

13.1 ANGOLA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

Empresa do Telecomunicacoes de Angola is the only company that can provide Inmarsat services.

2.- TARIFF BARRIERS.

Applied tariffs.

Customs duties: 47%

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

The licence can be obtained by sending a request and indicating the following information: Time of stay, characteristics of the mobile earth station (MES): capacity, model, number, etc., where it is commissioned, name and contact details of the applicant. The visitor will receive by fax a copy of the licence. He has to bring the copy with him and in customs he must declare the MES and leave a deposit. Afterwards, the person goes to the Controller Chief of Direcção Nacional de Correios e Telecom (DNCT), gets the original licence and pays the licence fee.

Levies and charges (other than import duties).

The price of the licence fee is approximately \$300 for 6 months. For one year is approximately \$500.

Import prohibitions.

The licence is difficult to obtain if it is perceived to have a negative effect on the national PTO company.

Import licensing.

For visitors the licence fee is \$300 per 6 months.

Other.

There is no policy covering the Mobile Satellite Services.

13.2 ARGENTINA

1.- INTRODUCTION.

General features of trade policy.

A) schedules of specific commitments

- exclusions: provision of fixed satellite services (FSS) through geostationary orbit satellites (GSO).

B) lists of Article II (MFN) exemptions

- access to markets for FSS through GSO satellites on a reciprocity basis, at governmental level.
- duration indefinite
- need for the exemption: development of domestic satellite systems.

Domestic structure of the sector. Competitive analysis.

Since the 9 November 1997, Inmarsat Service Providers are allowed in Argentina after obtaining approval from Comisión Nacional de Comunicaciones. Argentina has given three experimental licences to Iridium, Globalstar and Orbcomm.

Domestic satellite systems are protected.

2.- TARIFF BARRIERS.

Applied tariffs.

For personal importation as baggage the customs duties are 50% of the value of the equipment, though until US\$ 300 of equipment value, no duties are paid. For permanent importation of equipment as merchandise (import of equipment) customs duties for Inmarsat terminals will be assimilated to other telecommunication equipment which is around 20% + 3% import CIF.

3.- NON-TARIFF BARRIERS.

Standards and other technical requirements.

Current regulation tends toward a general licence for type approval in order to facilitate free circulation.

Other.

There are laws concerning satellite telecommunication services and basic telecommunication services. There is no specific law regarding mobile satellite services.

13.3 BELARUS

3.- NON-TARIFF BARRIERS.

Other.

Trucks carrying satellite terminals often encounter the same problems at border points as occur at the Russian borders.

13.4 BOLIVIA

1.- INTRODUCTION.

General features of trade policy.

Need of commercial presence in Bolivia.

Entel has exclusive rights in long distance services until 2001.

13.5 BRAZIL

1.- INTRODUCTION.

General features of trade policy.

Under the WTO Agreement on Basic Telecoms, Brazil committed to an open market access for all non-public domestic and international services for closed user groups (not connected to the public switched networks). It will in future reform legislation which is expected to cover all services within one year of enactment. There is a requirement to route all international traffic through Brazilian gateways. Foreign ownership restrictions to be removed from July 1999.

Under the schedules of specific commitments, Brazil tabled the following:

- A specific governmental licence is required for each service.
- There must be a representative office in Brazil for all legal effects.
- Embratel has exclusive rights to link with INTELSAT and Inmarsat.
- Use of other foreign satellites allowed whenever they offer better conditions.
- There are exclusions in the audio-visual sector (see below), i.e., distribution of radio or television programming for direct reception.

Article II (MFN) exemptions were tabled for:

- distribution of radio or television programming for direct reception;
- access to market on a reciprocity basis, or differential treatment of specific countries;
- duration indefinite.

The exemption is said to be needed in order to provide effective market access for Brazilian suppliers.

Domestic structure of the sector. Competitive analysis.

No Inmarsat Service Providers are allowed except for Embratel, the Brazilian Signatory. Direct market access denied.

Local content schemes.

Licence fees apply only to non-Brazilian registered terminals.

Other.

Brazil has not yet established a policy and regulatory framework covering the mobile satellite services. Embratel and the Brazilian Ministry of Communications have been working on defining a clear procedure to authorise use of a non-Brazilian registered Inmarsat terminals in Brazil. One of the criteria being considered is reciprocity, i.e., if

the Telecommunications Authority of the country where the satellite terminal is registered accepts use of a Brazilian-registered satellite terminal on its territory on a temporary basis.

Telecommunications Equipment

General Features of Trade Policy (Industry)

There are no strong domestic suppliers. NEC, Alcatel, Ericsson and Siemens have set up local production facilities.

The Brazilian market was estimated at US\$ 3.6 billion in 1996, and the trade deficit in this sector was about US\$ 1 billion. The Brazilian government indicated in March 1997 its intention to promote production of local telecom equipment.

Applied Tariff Levels

Customs duties for mobile earth stations are 60% over FOB prices for permanent importation, and 5% for temporary importation.

Tariff Predictability (Maximum Rates Permitted Under WTO Bindings)

Tariff Quotas

Registration, Documentation, Customs Procedures

Visitors to Brazil must provide Embratel with details of any satellite terminals which they wish to take into Brazil. Temporary use is permitted for a maximum of 3 months. An amount of US\$ 735 must be deposited in the account of Embratel in New York, and a copy of the deposit receipt must be sent to Embratel. A temporary licence, written in Portuguese, is then delivered to the user within 7 days. This fee only applies to non-Brazilian registered terminals.

Embratel and the Brazilian Ministry of Communications have been working on defining a clear procedure to authorise use of a non-Brazilian registered Inmarsat terminal in Brazil. One of the criteria being considered is reciprocity, i.e., if the Telecommunications Authority of the country where the satellite terminal is registered accepts use of a Brazilian-registered satellite terminal on its territory on a temporary basis.

Standards and Other Technical Requirements

There are national type approval requirements.

Government Procurement

Decree No 1070 of 2 March 1994 grants a preference to Brazilian suppliers with respect to government procurement of telecommunications and computer goods and services.

Local Content Schemes

In order to obtain a contract for manufacturing a satellite system, one has to guarantee at least 50% of the work share to Brazilian companies.

13.6 BULGARIA

2.- TARIFF BARRIERS.

Applied tariffs.

Customs duties are 36% of the price written on the invoice.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Inmarsat terminals can not be used in Bulgaria at the moment

Levies and charges (other than import duties).

The licence fee for an Inmarsat terminal will be around \$200.

Local content schemes.

As of January 1995, the Republic of Bulgaria has a restrictive regime for land mobile earth stations.

Other.

Withholding or delays in issuing VSAT licences.

No licensing regime is in place for mobile satellite services. Frequency assignment for S-PCS is dependent on tender proceeding.

13.7 CHILE

1.- INTRODUCTION.

General features of trade policy.

A) schedules of specific commitments

- limitations: none.
- exclusion: one-way satellite transmission of DTH and DBS television services and of digital audio services, as well as radio broadcast services.

B) lists of Article II (MFN) exemptions

- none

13.8 CHINA

1.- INTRODUCTION.

Domestic structure of the sector.

Telecommunications Services

China is in a transitional period. It has to establish a nation-wide basic telecom infrastructure. With a telephone penetration of 6% (Chinese sources speak of 10% by end 1997 and 30 - 40 % for the urban population), China feels a definite need for government monopoly. However, that does not mean that China will wait until the

entire network is set up to pursue reform. A new law is currently drafted. The new law is considered to cover only telecommunications. It will cover neither broadcasting, nor manufacturing of telecom equipment. It will concentrate on building of networks and provision of telecom services.

The market for telecom services remains monopolistic. China Telecom acts under the authority of the Ministry of Posts and Telecommunications (MPT). The only licensed competitor is China Unicom, but the success of this company is still unsatisfactory with a reported stock of only 30,000 clients. However, Unicom represents for the moment the only company which is open to foreign capital. MPT foresees an opening of the market for foreign investors on the basis of pilot projects in some selected cities. These projects might concern services in e-mail, fax transmission and electronic data transmission.

Prices for telecom services are still fixed by the state.

Mobile communications is a rapidly growing market. In this sector, foreign investment is already strong with Nokia, Ericsson, Motorola, Siemens and others. Most of these companies build important production facilities (e.g., Motorola with 2.1 million phones, Ericsson with 300,000 mobile phones and a foreseen capacity of 600,000). Chinese sources estimate the number of mobile telephones until the end of 1997 at over 4 million compared to 1 million in 1996.

Satellite Telecommunication Services

No Inmarsat Service Providers are allowed except for Beijing Marine Communication and Navigation Company, the Chinese Signatory. Direct market access has been denied.

A foreign user is not allowed to apply for a licence in China without a Chinese partner. A temporary licence could be applied for a special reason and approved by the local government but only on a case-by-case basis.

Inmarsat terminals in China must use the Chinese gateway station (i.e., the Beijing Land Earth Station) unless use of some other LES is explicitly permitted by the Chinese authorities.

Information Services

So far, the government has been suspicious about the Internet. A 1996 regulation introduced the mandatory registration of computer networks and a ban on political information as well as of pornography. However, recent estimations show an enormous growth in the number of Internet users in China which accounts to about 200,000. The first joint venture for Internet services has been recently realised by the US firm Prodigy together with China North Industries. North Industries, the former Ministry of Munitions, covers activities in civil and military sectors.

Audio-visual Services

Private operators are forbidden to uplink from the Chinese territory for broadcasting programmes.

2.- TARIFF BARRIERS.

Applied tariffs.

Import duties: 9% of value of the communication instrument.

Registration, documentation, customs procedures.

Foreign licensed mobile earth stations (MESs) can be used in China if approved. A temporary licence can be requested for special reasons and it will be given if it is approved by the State Radio Regulatory Commission (SRRC), through the same procedure as for the permanent licence.

Levies and charges (other than import duties)

17% VAT. Additional 2% tax if the company has not got the right to import.

Frequency usage charges: RMB 250 per year (\$30) for each Inmarsat terminal.

Registration fee: RMB 15 (\$2, a one-off fee).

Licence fees also apply to disaster relief agencies.

The commissioning fee for each Inmarsat terminal is RMB 2000 (\$240).

The licence fee for temporary use of Inmarsat-phone will be RMB 15 as a registration fee and RMB 250 per year for frequency usage fee through the same procedure as for the permanent licence. If the visitor stays less than a year, the frequency usage fee depends on how long frequencies will be used.

Temporary licences can be issued for special reasons. Approval by the State Radio Regulatory Commission (SRCC) is necessary.

Standards and other technical requirements

According to China's Regulation on the Management of Import of Radio Transmission Equipment, for any radio transmission equipment imported into China, the visitor should hold a "Radio Transmission Equipment Type Approval Certificate" issued by the SRRC. Inmarsat equipment manufacturers or their designated agents should apply and obtain a licence of approval if they wish to import terminals into China.

The fee for type approval is RMB 5000 (\$605).

13.9 COLOMBIA

1.- INTRODUCTION.

General features of trade policy.

A) schedules of specific commitments

- limitation: none.
- need of a representative office in Colombia to get a licence, for all legal effects.

- exclusions: broadcast and television services.

B) lists of Article II (MFN) exemptions

- none.

2.- TARIFF BARRIERS.

Applied tariffs.

High customs duties and other taxes

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).

High licence fees for service providers

13.10 CZECH REPUBLIC

2.- TARIFF BARRIERS.

Applied tariffs.

High custom duties

3.- NON-TARIFF BARRIERS.

Standards and other technical requirements.

Additional VSAT type approvals required.

Other.

Delays in implementing European liberalisation requirements

Monopoly rights continue to exist in the telecoms sector and prevent provision of telecoms services by private entities. A policy decision on liberalisation of the telecoms sector has been announced by the Czech Telecommunications Office for beginning of 1998.

Frequencies for S-PCS (1610 - 1626.5 MHz) are reserved for military use. A new national frequency plan is in preparation which is supposed to release the frequencies for civil use.

13.11 ECUADOR

1.- INTRODUCTION.

General features of trade policy.

Emetel, SA, has exclusive rights in local, national and international telephony services until 60 months after the privatisation of Emetel.

13.12 EL SALVADOR

1.- INTRODUCTION.

General features of trade policy.

The Signatory has exclusive rights to link with INTELSAT.

13.13 ETHIOPIA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.
No Inmarsat Service Provider is allowed.

2.- TARIFF BARRIERS.

Applied tariffs.
Custom duties: 5% on the value of the equipment.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.
The user should submit his application before importing the Inmarsat terminal into the country.

Levies and charges (other than import duties).
Sales tax of 12% of the value of the equipment after custom duty is added.
For all terminals: \$ 2250 / month + \$ 330 / year.

Import prohibitions.
Temporary importation can be accepted. There must not be transfer of the terminal.

Import licensing.
Conditions attached to the licensing and use of MES: the place of use should be without any other communications means or unreliable communication.

13.14 GEORGIA

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).
The licence fee for an Inmarsat terminal is US\$ 1000-2000.

Other.
Trucks carrying satellite terminals have been blocked at the border, although such blockages have been solved either by paying a licence at the border or thanks to Ministry's intervention.

13.15 GUATEMALA

1.- INTRODUCTION.

General features of trade policy.
Provision of international services requires a certificate given by La Superintendencia de Telecomunicaciones.

13.16 HUNGARY

3.- NON-TARIFF BARRIERS.

Standards and other technical requirements.

Additional VSAT type approvals required

Other.

Delays in implementing European liberalisation requirements.

The licensing regime for mobile satellite services under the Telecommunications Act of 1992, as last amended in October 1997, remains unclear. Clarification by the Ministry of Communications is required.

13.17 INDIA

1.- INTRODUCTION.

General features of trade policy.

Restriction as to which companies may receive VSAT services.

Direct market access denied.

Domestic structure of the sector. Competitive analysis.

Inmarsat Service Providers are not allowed.

2.- TARIFF BARRIERS.

Applied tariffs.

Custom duties: 50%, with countervailing duties probably closer to 70%. Visitors are exempted if they have a certificate of re-exportation.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Users are obliged to route their calls through Indian Land Earth Station when available. Mobile Earth Station will be permitted if their needs cannot be met by PSTN network

Levies and charges (other than import duties).

The current annual licence fee for an Inmarsat MES is US\$550. For temporary use: US\$140 per quarter.

VSAT licence fees are high.

13.18 IRAN

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

Only Telecommunication Company of Iran has been allowed to be an Inmarsat Service Provider.

2.- TARIFF BARRIERS.

Applied tariffs.

Custom duties on telecommunications equipment are not fixed but vary according to a number of elements. Visitors need a letter or fax from the person/company inviting them to explain that the terminal is necessary and what will be its use.

13.19 JAMAICA

1.- INTRODUCTION.

General features of trade policy.

Until 2013, the exclusive company of operation has priority right to establish agreements within the provider of satellite services.

13.20 JAPAN

3.- NON-TARIFF BARRIERS.

Other.

Bilateral agreements with the US favour American satellite service

13.21 KENYA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

No competition to Kenya Posts and Telecommunications Corporation (KPTC) is permitted.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Importation of Inmarsat terminals is decided on a case by case basis.

Levies and charges (other than import duties).

If use is allowed, the licence fee is \$400 year or about \$200 a month.

Import prohibitions.

Use of Inmarsat terminals by residents is not allowed at the moment. New regulations are being drafted and currently requests are being dealt with on a case by case basis by KPTC.

Local content schemes.

Inmarsat terminal use in ports and territorial waters is forbidden, except transmissions concerning safety of life at sea, medical and navigational information.

Other.

A new telecommunications policy is being drafted.

13.22 MAURITANIA

2.- TARIFF BARRIERS.

Applied tariffs.

Customs duties: 60% + 15000 UM tax per unit imported into the country.

There is a "special temporary admission" category with very low customs duties (maximum 10%), calculated according to length of stay.

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).
66,661.30 FF (approximately \$11,670 per year).

Import prohibitions.

Temporary admission is granted on only an exceptional basis (e.g., if the equipment is to be used for a procurement contract or contract with a public company (Société de l'Etat).

Local content schemes.

Inmarsat terminals can be used only in areas not served or reached by the public telecom operator (OPT).

13.23 MEXICO

1.- INTRODUCTION.

General features of trade policy.

A) schedules of specific commitments

- limitations: use of Mexican satellite infrastructure until 2002.
- exclusions: distribution of radio or television for direct reception (DTH and DBS), as well as digital audio.
- licences given by Secretaria de Comunicaciones y Transportes (SCT).
- Telecomm has exclusive rights to link with INTELSAT and Inmarsat.
- access to markets based on bilateral agreements.

B) lists of Article II (MFN) exemptions

- none

Domestic structure of the sector. Competitive analysis.

The provision of satellite telecommunication services in Mexico is determined in the first instance by the "Federal Law of Telecommunications" of 7 June 1995, and in the second instance by the "Regulation of Satellite Communications" of the 1 August 1997. Both are published in the "Diario Oficial de la Federación".

Article 30 of the Telecommunications Law establishes that the Secretary General of Communications may award concessions or rights of transmissions or reception to foreign satellite systems that may cover Mexican territory, providing that a treaty has been signed with the country of origin of the signals in terms of reciprocity.

The Regulation – in its Articles 8, 32 and following – develops the conditions that have to be met to obtain a concession to operate over non-Mexican satellites. In addition to the provision of considerable technical information, those conditions include a business plan and the need to obtain a favourable opinion from the "Comisión Nacional de la Competencia".

A reciprocity treaty has been signed with the USA. The Mexican Solidaridad satellite system has been privatised and a large portion (49%) appears to have been acquired by US firms (notably Loral). This situation puts non-Mexican, non-American operators at a disadvantage.

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).

High VSAT licence fees

Standards and other technical requirements.

Additional type approvals required

13.24 MOROCCO

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

There has been a state monopoly regarding routing and telephone services, although the specific decrees to the new Posts and Telecommunications Law might change the situation.

Direct market access denied

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Levies and charges (other than import duties).

The current annual licence fee for an Inmarsat terminal is US\$2000, plus a fee for communications. For visitors it is calculated proportionate to the length of stay if under 6 months.

13.25 NIGERIA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

No Inmarsat Service Provider is allowed other than NITEL.

2.- TARIFF BARRIERS.

Applied tariffs.

Import duties are applicable to all telecommunications equipment at 40% of equipment value as estimated by the Customs inspectors (not value on invoice).

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).

VAT is 5% of the custom duty. There is also a 1% CIS tax and 7% handling tax (on custom duty).

Users must pay an annual operation fee (in foreign currency) which is:

Inmarsat-A: \$ 1,000, Inmarsat-B/M: \$ 500, Inmarsat-C and Inmarsat-phone: \$ 250.

Users must all pay for a one-off equipment licence of \$ 100 and an annual radio frequency fee of 500 Naira (\$23 official rate, \$5 market rate).

Standards and other technical requirements.

National type approval is required.

Local content schemes.

Any establishment wishing to carry out any form of telecommunications activity in Nigeria must acquire a licence from the Nigerian Communications Commission (NCC).

13.26 PAKISTAN

2.- TARIFF BARRIERS.

Applied tariffs.

Customs duties of 40-60 % are levied on the cost of the item.

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).

There is a royalty fee: \$ 1,000 one-time-off and a licence fee of PAK Rs 5,000 (\$135) per year.

Standards and other technical requirements.

National type approval is not required.

Other.

Pakistan Telecommunication Authority (PTA) has been recently established. The authority is presently working on issues of a regulatory framework, covering the mobile satellite services.

Customers report difficulties in gaining permission to take satellite terminals into Pakistan and, when permitted, there is often a requirement to make "payments" to local officials.

13.27 PERU

1.- INTRODUCTION.

General features of trade policy.

The national operator has exclusive rights in long distance and international services until 1999.

13.28 PHILIPPINES

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

Domestic and land mobile use of Inmarsat has been completely blocked for the last several months as a consequence of bypass complaints by the domestic long distance carrier. No Inmarsat Service Providers are permitted except for the Signatory.

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).

The current annual licence fee is US\$125 approximately, plus a fee radio station licence renewable every 3 years costing US\$37.5. Visitors do not need a licence but have to pay a registration fee (US\$5) and the radio station licence.

Standards and other technical requirements.

There is a national type approval procedure

13.29 POLAND

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Use of Inmarsat terminals is not allowed in the country.

Standards and other technical requirements.

Additional VSAT type approvals required.

Local content schemes.

The majority of shares for companies operating as service providers shall be Polish.

Other.

There is no regulation for mobile satellite services.

There have been delays in implementing European liberalisation requirements.

The State monopoly for international telecoms traffic continues to exist and thus prevents the provision of any services by private entities. Foreign ownership restrictions prevent activities of foreign entities on the telecoms market.

Trucks carrying satellite terminals have been blocked at borders, even though Poland has partly implemented the free circulation licence for the EUTELTRACS terminals. Very slow Earth Station Approval process for VSATs.

13.30 RUSSIA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

The only Inmarsat Service Provider is Morsviazspudnik.

2.- TARIFF BARRIERS.

Applied tariffs.

Customs duties for residents are 615000 Rbls (\$136) + VAT 20% and for foreigners = \$250 + VAT 20%.

Customs clearance is issued only on the basis of the import licence obtained from "Gossviaznadzor". The application for the licence should normally be faxed by the customer directly. Intermediaries are not accepted.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

To be properly authorised to use any Inmarsat terminal in Russia, a "Gossviaznadzor" operation licence is required

Levies and charges (other than import duties).

Licence fees for residents is \$800 for three years. For foreigners up to 3 months: US \$ 1,500, from 3 months to 1 year: US \$ 2,500 and from 1 to 3 years: US \$ 5,000.

High VSAT licence fees.

Standards and other technical requirements.

All imported Inmarsat equipment must be supported by a national type approval certificate which is obtained from Morsviazspudnik.

Additional VSAT type approvals required. Slow type approval procedure for VSATs bureaucratic reasons.

Other.

Problems with customs or with the police because of EUTELTRACS, because customs officers and police officers lack information regarding the satellite communications systems equipment authorised to circulate freely and be used on Russian territory. This leads to trucks blocked at the border.

13.31 SAUDI ARABIA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

Direct market access denied

2.- TARIFF BARRIERS.

Applied tariffs.

Custom duties: 20% .

No custom duties for temporary importation

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties)

All Inmarsat terminals: US\$533 per year, plus \$1330 or \$2600 one-off. There is no special fee for temporary use.

Sales tax: 25%

13.32 SERBIA

3.- NON-TARIFF BARRIERS.

Other.

Trucks carrying satellite terminals have been blocked at the border, although such blockages have been solved either by paying a licence at the border or thanks to Ministry's intervention.

13.33 SLOVAKIA

3.- NON-TARIFF BARRIERS.

Standards and other technical requirements.

Additional VSAT type approvals required

13.34 SLOVENIA

3.- NON-TARIFF BARRIERS.

Other.

Withholding or delays in issuing VSAT licence

13.35 SYRIA

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Foreign-registered Inmarsat terminals cannot obtain a licence for use in Syria at the moment. Syria leases terminals (Inmarsat-phone) for a fee.

Levies and charges (other than import duties).

To lease one of Syria's own terminals: 25000 Syrian Pounds one-off fee plus 25555 SP per month and 315 SP per minute charge.

Other.

There have been reports of Inmarsat terminals being confiscated by the security forces even though the terminals were duly licensed.

13.36 TANZANIA

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.

Tanzania has not yet established a policy and regulatory framework but plans to do so. Inmarsat Service Providers are allowed through Tanzania Telecommunications Company Limited (TTCL), the PTO. Tanzania is a signatory to the GMPCS MoU

2.- TARIFF BARRIERS.

Applied tariffs.

Custom duties: 30% on all satellite telecommunication equipment.

Exemption can be obtained for temporary importation, with the deposit of a bond refunded at departure.

Sales tax: 25%.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

The licence is not transferable and the equipment should not cause harmful interference to other radio stations.

Levies and charges (other than import duties)

All Inmarsat terminals: US\$ 4096 per year. A rebate can be granted by the Tanzanian Communications Commission for humanitarian use as well as for short stays (under 3 months), down to US\$ 1000.

13.37 TURKEY

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.
Direct market access denied

3.- NON-TARIFF BARRIERS.

Levies and charges (other than import duties).
High VSAT licence fees. Licence fees have doubled in 1997.

Other.
Extremely slow earth station approval procedure.

13.38 UKRAINE

1.- INTRODUCTION.

Domestic structure of the sector. Competitive analysis.
Only Ukrspace is allowed as an Inmarsat Service Provider.

2.- TARIFF BARRIERS.

Applied tariffs.
The custom duties are 10% of equipment value for permanent or temporary importation.
For the first three months, the custom duties on Inmarsat terminals are 250 US\$. Then add 50 US\$ for each additional three months.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.
Before an Inmarsat terminal can be operated in the Ukraine, permanent or temporary permission for use must be obtained from the State Inspection of Communication (SIC) with payment of registration and commission fees.

Levies and charges (other than import duties).
Licence fees for all type of Inmarsat terminals are: \$ 1,800 (for two years) plus \$ 350 for each following quarter.
There is an Import Commission fee of \$100.

Local content schemes.
There is a provision by State Inspection of Communication of Ukraine according to which the use of an Inmarsat terminal with a foreign ID for more than three months is prohibited.

Other.
The licensing regime for the provision of S-PCS services is unclear. Frequencies for S-PCS are reserved for military use. It is unclear if and when frequencies will be released for civilian use.
Delays in implementing European liberalisation requirements.
Trucks have been blocked at the border points several times in the last three years.

13.39 UNITED STATES

The European Commission is very well aware of the market access barriers in the US for non-US satellite services and has taken several actions.

The US Federal Communications Commission (FCC) issued two Notices of Proposed Rulemaking (NPRMs) concerning access by non-US-licensed satellite systems to the US market:

- the Domestic International Satellite Consolidation Order (DISCO-I), issued in January 1996, applies to US-licensed satellite systems.
- the DISCO-II NPRM issued in May 1996 would apply to non-US-licensed satellite systems. Under the proposed terms of the DISCO-II, ICO (for example) would probably not have been able to provide services in the US.

On 18 July 1997, the FCC issued a Further Notice of Proposed Rulemaking (FNPRM) to DISCO-II seeking comment on "how best to open up US markets in a manner consistent with our goal of promoting a competitive satellite market in the United States." The FNPRM proposed that satellite systems licensed by WTO member countries would not be subject to the so-called ECO-Sat test which called for evidence that US-licensed operators enjoyed effective competitive opportunities in the satellite service market of the licensing or notifying administration. Instead, parties opposed to the grant of market access to a non-US-licensed system would need to demonstrate a very high risk to competition in the US satellite market that could not be cured by additional conditions attached to the licence. The FNPRM proposed that the FCC may condition or deny authorisation to provide satellite services in the United States based on other important public interest factors, including national security, law enforcement, foreign policy and trade concerns.

The FNPRM would have created the following market access barriers for European investment and satellite systems:

- Market access for non-US systems (e.g., European systems), which are of a WTO member country, would be granted under a rebuttable presumption that no very high risk to competition is created. But this presumption could be contested by third parties, e.g., US competitors. Some (but not all) RWG members felt this concept is inherently vague and incompatible with GATS (MFN, national treatment) and the WTO (US schedule).
- Market access for satellite systems licensed by non-WTO member countries would be subject to the ECO-Sat test, even if their route markets were WTO member countries.
- Market access for Intergovernmental Satellite Organizations (ISOs) would only be possible if the "home markets" of the ISO members were open. No market access would be granted if only one of its route markets or one of its member's home market was not open. Alternatively access to the US market would only be open if a "critical mass" of ISO member countries were open to US systems.
- Market access for ISO affiliates would be subject to a review of the relation to its parent to prevent "competitive distortions" which would be a violation of GATS.
- Market access for non-US satellite systems would be subject to a "public interest" test.

Conditioning market access to US consumers, based on foreign policy and trade concerns, would be discriminatory and contrary to both the spirit and the letter of the WTO Agreement on Basic Telecoms. The NPRMs were characterised by vague definitions, the possibility of intervention by third parties and market access tests such as the ECO test, the ECO-Sat test, the “public interest” test or the “benchmarking” test for interconnection. The NPRMs would have created uncertainty for the global business of European telecommunication players.

The NPRMs led to the adoption on 25 November 1997 by the FCC of two Orders addressing US implementation of its WTO commitments. The first Order addresses foreign participation in the US market for provision of telecommunications services, while the second Order⁴⁶ creates a framework for opening the US market to foreign satellite carriers.

Under the new Order, the US will drop the ECO-Sat test for satellite providers from all WTO member countries and will review their applications “under a presumption in favour of entry”. The FCC will, however, retain the “public interest test” and will reserve the right to deny applications which it does not view as favourable to the public interest (for national security reasons or because the applicant is viewed as a strong threat to the competitive environment). Under the Order, the FCC will also “treat satellites of affiliates of INTELSAT and Inmarsat that are licensed by a WTO member the same as other WTO member-licensed systems.” However, the FCC says that “In determining whether an application to serve the US market by an IGO affiliate raises the potential for competitive harm, we will consider any potential anticompetitive or market distorting consequences of continued relationships or connections between an IGO and its affiliate.” As expressed in the comments of the EC and its Member States in September 1997, “some of the ‘tests’ to which the FCC intends to submit IGO affiliates ... could potentially lead to an over-regulation of these affiliates”, as “IGO affiliates will already be subject to the prohibition of anti-competitive practices, and to safeguards preventing *inter alia* cross-subsidisation.”

The ECO-Sat test will remain in place for satellite providers from non-WTO member countries, and for services not covered in the US commitment to the WTO (DTH, DBS and DARS). The FCC also established a “basis upon which it will consider requests from Comsat to provide US domestic service via INTELSAT and Inmarsat” that will require Comsat to waive any immunities that it derives from its relationship “and then to show that use of those satellites will enhance competition in the US satellite market.”

Status of market access of competitors

Access to the US market by ICO Global Communications is affected by the above-mentioned trade barriers. Meanwhile, ICO’s competitors – Iridium and Globalstar – are licensed in the US and have unlimited access to the US market. They also do not

⁴⁶ Amendment of the Commission’s Regulatory Policies to Provide Domestic and International Satellite Service in the United States (IB Docket No. 96-111 – DISCO II).

face any trade barriers in the European Union like those faced by ICO in gaining access to the US market.

1.5/1.6 GHz allocations in the US

More than a decade ago, when the FCC instituted its Notice of Proposed Rulemaking (NPRM) on the mobile satellite services, it said there was not enough spectrum in the L-band to allow anyone other than AMSC to provide service within the United States.⁴⁷ Since then, AMSC has co-ordinated with Inmarsat, but still the US market remains closed to Inmarsat. Subsequently, the reason given for barring access to the US market was that Inmarsat, as an intergovernmental satellite organisation (ISO), might distort competition. In reality, Inmarsat faces exactly the same difficulties as its competitors in gaining access to markets.

1.6/2.4 GHz allocations

In 1994, in accord with the WARC-92 Final Acts, the FCC allocated 1.6/2.4 GHz to MSS in the United States. The European Commission, in filing comments on the FCC's allocation for the Big LEO MSS systems, expressed concerns that the FCC Notice of Proposed Rulemaking:

“does not address the important issue of access to the 2 GHz frequency band, the relation between access to the 2 GHz band and access to the bands under discussion in the Notice, potential unfair competitive situations resulting from the availability scenarios of the bands, and the relation to the planned future generation mobile and mobile satellite services.”

In its Order establishing service rules for the provision of MSS at 1.6/2.4 GHz, the FCC responded that it was “aware of proposals to use the 2 GHz bands for services similar and competitive to those envisaged by the Big LEO applicants” and that the United States “would like to facilitate access to these bands, as does the EC.” Since then, the FCC has licensed three domestic entities – Iridium, Globalstar and Odyssey⁴⁸ – to operate in that band. In July 1997, the FCC authorised two additional US-based MSS systems to operate in these bands, namely Ellipso/MCHI and Constellation. The US 1.6/2.4 GHz licensees were not required to pay either for spectrum or for the relocation costs of any incumbent licensees in the US.

It should be noted that no formal opportunity was available by the FCC for non-US S-PCS systems to access the 1.6/2.4 GHz bands.

⁴⁷ In its NPRM released 28 January 1985, the FCC said (paras 23 and 24): “we believe that only one entity can be authorized to operate on the frequencies allocated for MSS. The high cost of an MSS system probably means economic viability will require full use of the system, making unlikely the authorization of a second (or additional) licensee(s)... we do not foresee the development of a competitive market in the near term.”

⁴⁸ The Odyssey project has since been abandoned due to lack of funding.

2 GHz MSS allocations

On 31 January 1995, the FCC initiated a proceeding to allocate 70 MHz to MSS in the 1990-2025 MHz and 2165-2000 MHz bands. In its Notice of Proposed Rulemaking, the FCC noted that it intended its proposed 2 GHz MSS allocation to be consistent with the WARC-92 allocations as well as forthcoming proposed MSS allocations at WRC-95. The FCC also proposed to require MSS entities at 2 GHz to pay to relocate incumbent terrestrial users in the US in the proposed MSS bands and to pay for the use of 2 GHz spectrum through auctions.

The FCC requirement for S-PCS operators to pay the relocation costs of incumbent users in the 2 GHz band represents an additional barrier to entry to the US market. These costs are potentially of the order of the total cost of a global S-PCS system.

At WRC-95, the date for access to the 2 GHz MSS bands was advanced, in most countries, to 1 January 2000, subject to certain regulatory conditions. Subsequent to the 1992 WARC, however, the FCC auctioned several blocks of the 2 GHz MSS spectrum to terrestrial personal communication services ("PCS") systems in the United States, an action inconsistent with the WARC-92 MSS allocation. The United States proposed to the WRC-95 conference to alter the global MSS allocations to accommodate the FCC's domestic allocations to PCS. Regions 1 and 3 did not accept the proposals at WRC-95, but some accommodation was made in Region 2 where the allocated MSS bands are, in effect, 1990-2025 MHz (earth-to-space) and 2165-2200 MHz (space-to-earth).

On 22 July 1997, the FCC issued a Public Notice inviting, inter alia, letters of intent to use non-US licensed space stations to provide mobile satellite service to, from and within the United States to be considered in the First 2 GHz Band Processing Round in accordance with the Commission's 2 GHz Allocation Order released on 14 March 1997.

Specifically, the Notice invited those entities seeking to operate in the United States using non-US licensed space stations to file an earth station application, or to file a letter of intent to provide service in the 2 GHz bands. The FCC stated that it does not intend to require MSS systems licensed by other administrations to seek an additional space segment licence before providing services in the US.

Letters of Intent were submitted by ICO, Iridium, Globalstar, MCHI, Constellation, Boeing, Celsat, Inmarsat and TMI.

Conclusion

The FCC has issued several NPRMs and Orders relating to spectrum and market access in the US for non-US-licensed satellite systems but the conditions for access have not yet been resolved. The continued legal uncertainty raised by this situation creates a less than favourable environment for potential investors and service providers of European licensed S-PCS systems.

In consequence, non-US-licensed S-PCS systems such as ICO will not be allowed to compete on a fair and equitable basis in the US market, and may be placed at a significant disadvantage in that market to comparable US-licensed systems such as Iridium, Globalstar and Odyssey, unless the conditions for access are resolved quickly.

Auctioning spectrum for S-PCS in the 2 GHz band (considered, but not yet decided) would create a barrier to market access. No US-licensed competitor such as Iridium and Globalstar has had to endure a spectrum auction. In the EU, S-PCS frequencies are due to be assigned without auctioning.

A fundamental residual market access barrier in the US (although not in direct conjunction with satellite services) is the limitation on foreign ownership for a common carrier radio licence to 20 per cent (direct) or 100 per cent (indirect). The European telecommunications market, the world's second largest, is open to competitive satellite systems with significant US investment (e.g., the US-licensed S-PCS systems). Foreign ownership restrictions do not occur (except in France and Portugal) in the EU for foreign satellite networks or services. In contrast, market access for European satellite systems (or with significant European investment) to the world's largest telecommunications market is not secured and is subject to vague preconditions or subject to costs in the order of the total system costs (e.g., for the UK-licensed ICO system). In contrast to US companies operating in the EU (except in France and Portugal), European enterprises in the US are barred from decisive freedom of decision-making (a direct share greater than 20 per cent is not possible).

Each of the US trade barriers identified above leads to an unbalanced disadvantage for the competitiveness of European enterprises seeking access to global markets.

United States – Telecommunications Equipment

Government procurement

The issue of procurement in the telecommunications sector remains **unresolved** between the EU and the US. Buy America rules continue to apply to purchases of telecom equipment by rural telephone co-operatives financed by the Rural Electrification Administration. Furthermore, US telecommunication companies have historically bought equipment from North American suppliers.

Although the EU has sought negotiated solutions to these problems, neither the new GPA nor bilateral obligations cover this sector. One of the principal difficulties is the criteria for establishing which particular utilities should be included. The EU believes that coverage should not specifically distinguish between public and private companies, but should focus on the underlying conditions which lead telecommunications companies to pursue procurement policies that tend to favour particular national suppliers. These conditions include, first, insulation from market forces through the possession of a monopoly or a dominant position over a network, or through the possession of special rights relating to the management of the network; and second, the means which government may use to influence the operations of an

entity, such as regulation of tariffs and financing, or authorisation to operate. Thus, the EU argues that both publicly owned and private status utilities operating under monopoly or dominant conditions should be covered – this would introduce a higher level of transparency and would lead to improved market access.

As a result of the failure to liberalise purchases of telecom equipment, the US decided in 1993 to impose **sanctions** against the EU and certain Member States under Title VII of the Omnibus Trade and Competitiveness Act of 1988. The sanctions bar EU suppliers from bidding, *inter alia*, for US Federal government contracts that are below the threshold values of the WTO Agreement of Government Procurement. The EU responded with counter-sanctions (Regulation 1461/93) that also bar US bidders from applying for contracts awarded by central government agencies below the threshold values. Following the bilateral Marrakesh procurement agreement of April 1994, which liberalised around US \$100 billion of procurement opportunities on both sides, the EU considers that sanctions are an unnecessary impediment to the bilateral relationship, and is urging a reciprocal lifting of sanctions.

13.40 VENEZUELA

1.- INTRODUCTION.

General features of trade policy.

A) schedules of specific commitments

- need for a representative office in Venezuela to get a licence, for all legal effects.
- exclusions: broadcast and television services.

B) lists of Article II (MFN) exemptions

- none.

14. ANNEX 5: COUNTRY FICHE STRUCTURE COUNTRY

1.- INTRODUCTION.

General features of trade policy.

Domestic structure of the sector. Competitive analysis.

2.- TARIFF BARRIERS.

Applied tariffs.

Tariff predictability (bindings).

Tariff quotas.

3.- NON-TARIFF BARRIERS.

Registration, documentation, customs procedures.

Levies and charges (other than import duties).

Minimum import prices.

Import prohibitions.

Import licensing.

Import quotas.

Import surveillance.

State trading enterprises.

Import cartels.

Standards and other technical requirements.

Government procurement.

Local content schemes.

Import balancing requirements.

Pricing and marketing arrangements.

Anti-dumping, countervailing duty actions and safeguard measures.

Export restrictions.

Subsidies.

Other.

4.- INVESTMENT RELATED MEASURES.

Direct foreign investment limitations.

Profit repatriation limits.

Foreign-exchange measures.

Tax discrimination.

15. ANNEX 6: SAP RWG MEMBERS

The Satellite Action Plan Regulatory Working Group is open to any interested organisation. It currently includes representatives from the following organizations:

Alcatel
Alenia Aerospazio Space Division
BT
Cable & Wireless
Compagnie des Signaux
CISI
Daimler-Benz Aktiengesellschaft
DeTeMobil Deutsche Telekom MobilNet GmbH (T-Mobil)
debitel
ECTEL
ETNO
ERO
ETO
ETSI
European Commission
EUROSPACE
EUTELSAT
France Telecom
GE Capital Satellites Europe
Gleiss Lutz Hootz Hirsch
Hispasat, S.A.
Hogan & Hartson LLP
I-CO Global Communications
Inmarsat
Iridium Italia
Iridium LLC
Matra Marconi Space
MCS Europe
Odyssey
o.tel.o
PTT Telecom BV
Siemens AG
Skybridge
Société Européenne des Satellites
Squire, Sanders & Dempsey
Swedish Space Corporation
Telecom Italia
Telenor Satellite Services
Telespazio
Telia
VAT - Association of Telecom Companies in Germany
WRG Consultants Ltd