IISL-99-IISL.3.12

LOCKHEED MARTIN INTERSPUTNIK (LMI) AS A FORM OF COMMERCIALIZATION IN THE ACTIVITY OF THE INTERGOVERNMENTAL SATELLITE ORGANIZATION

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ABSTRACT

INTERSPUTNIK is an international intergovernmental organization with its principal business in the field of satellite communications. The organization was founded in 1971 for the purpose of establishing and developing an international satellite communication system on behalf of member-countries.

Tougher competition in the international telecommunication engineering market. higher requirements related to the existing satellite systems intensified and privatization and commercialization made the issue of acquiring **INTERSPUTNIK's** satellites own crucial. In order to successfully fulfil this task strategic partners and/or investors should have been attracted. The corresponding resolution was adopted by the Board in 1993 which later resulted the in strategic partnership with one of the leading world manufacturers of satellite systems,

Copyright © 1999 by the author., Published by American Institute of Aeronaustics and Astronaustics, Inc, with permission. Released to AIAA in all forms. Lockheed Martin Corporation. In April 1997. Lockheed Martin and INTERSPUTNIK signed an agreement establish a Lockheed Martin to INTERSPUTNIK joint venture. This document was a unique one as it was the first attempt of a deal between an organization international and а transnational corporation. The purpose of ioint venture is the the implementation of the satellite communications project including a whole technological cycle of satellite communications services starting from the manufacture and launch of the satellite to the geostationary orbit to its long-term operation. The specifics of the Formation Agreement resulted in a number of non-standard statements included into the Agreement. The successful implementation of the LMI project will allow INTERSPUTNIK become one of the leading international operators of the satellite communications able to provide to its potential customers all over the world whole spectrum the of the telecommunications services at a high technological level and on verv competitive conditions.

<u>MODIFICATION OF</u> INTERSPUTNIK LEGAL BASIS

In the context of the processes of liberalization and deregulation of the global telecommunications market INTERSPUTNIK faced the necessity to radically change its principles of activity as well as the strategy of its development. The new challenges of time required from the Organization highly efficient operation of the satellite system in order to obtain the maximum profit. These challenges were met by INTERSPUTNIK while entering into the third phase of establishing an international satellite communications system as stipulated by Article 5 of the Agreement on the Establishment of the INTERSPUTNIK International System and Organization of Space Communications (hereafter -Basic Agreement), i.e. "the commercial operation of the communications system using a space segment owned by the Organization or leased from its members"¹.

In 1993, the XXIInd Session of the Board resolved procure the to Organization's own space segment for the purpose of its commercial use². To this end it was necessary to promptly change INTERSPUTNIK's regulatory basis to adapt it as much as possible to the new requirements. First of all, it related to the above-mentioned Basic Agreement. In 1993-1996 an ad-hoc group of legal experts of the Member of countries the Organization elaborated and coordinated two new Constructive Instruments of the Organization – the Protocol on Amendments to the Basic Agreement and the Operating Agreement. Subsequently, these documents were approved at the XXVth Session of the Board³. The Protocol will take effect as from the date of receipt by the

Depositary of the Basic Agreement, the Russian Government, of notifications of acceptance by two thirds of Organization's Member countries. The Operating Agreement, in its turn, should be signed by the communication entities appointed by the INTERSPUTNIK Member countries no later than three months after the Protocol coming into force.

MEASURES TO PROCURE INTERSPUTNIK OWN SPACE SEGMENT

The above modification of the INTERSPUTNIK legal foundation made it possible to start endeavors aimed at procuring INTERSPUTNIK own space segment. According to the of the resolution Board. the Organization procures it by, firstly, filing INTERSPUTNIK's own orbital slots in geostationary orbit and, secondly, manufacturing and operating Organization's own communications satellites.

Filing of frequency-orbit resource

In view of the fact that in accordance with international law the frequencyorbit resource can belong to states only. but not to international organizations, it was decided to file orbital slots in two ways: firstly, by asking the Member countries to facilitate the filing, coordination and notification of possible INTERSPUTNIK's orbital slots, and, secondly, by using orbital slots, earlier notified by the Member countries of the Organization, which do not use them at present.

The 6th meeting of the Committee of Plenipotentiaries adopted and the Board subsequently approved "The Procedures of ITU notification of satellite networks planned by INTERSPUTNIK their and international legal protection"⁴. Under the above Procedures, the decision in principle to submit a filing for planned satellite networks to the ITU should be the Committee taken by of Plenipotentiaries (Operating Committee). The terms and conditions applicable to the notification and international legal protection of a planned satellite network shall be stipulated by agreement concluded by General the Director of INTERSPUTNIK and the notifyingadministration. Financial terms and conditions shall be stipulated by between additional protocols the Director General and notifying administration. Any terms and conditions applicable to the reimbursement for the allocation by the notifying administration of its geostationary orbital positions to INTERSPUTNIK shall, as soon as these positions are coordinated, be covered by the terms of reference of the Committee. The Director General (Directorate) and Notifving а Administration are responsible for filings and international and legal protection of such satellite networks.

As of mid-1999. 20 geostationary orbital slots were allocated to INTERSPUTNIK . The Republic of Cuba filed two orbital slots for **INTERSPUTNIK's** purposes (Agreement on Cooperation in the Field of International Legal Protection of the LATAMSAT Planned Satellite Networks of November 10, 1998), the Republic of Belarus provided 13 slots orbital (Agreement on Cooperation the in Field of International Legal Protection of the **INTERBELAR** and **INTERSPUTNIK** Planned Satellite Networks of June 2, 1996). INTERSPUTNIK also received two Mongolian slots (Agreement on Cooperation in the Field of International Legal Protection of the Planned Orbital-frequency Assignments to the Broadcasting and Fixed Satellite Service of September 29, 1998) and three Ukrainian slots (Agreement between the Cabinet of the Ukraine and the INTERSPUTNIK International Organization of Space Communications on Cooperation in the Filed of the Utilization of the Satellite Communications Networks of September 24, 1998).

Legal arrangements of the LMI Joint Venture

of In the framework the INTERSPUTNIK Board decisions regarding the Organization's own space segment a strategic alliance with Lockheed Martin Corp. was struck. On April 18, 1997, a Joint Venture between Agreement the **INTERSPUTNIK** International Organization of Space Communications and Lockheed Martin was signed (Joint Venture Formation Agreement between Lockheed Martin Overseas Corporation and INTERSPUTNIK International Organization of Space Communications of April 15, 1997). The document became a unique one as it was the first experience of formalizing such an alliance between an intergovernmental organization and transnational corporation. а The specific feature of the Agreement resulted in a number of non-standard provisions stipulated in it.

The following main conditions⁵ of the Joint Venture were set forth in the resolutions of the Board and Committee of Plenipotentiaries:

- Mutually acceptable percentage of interest was set up;
- INTERSPUTNIK's contribution is its satellite operator experience,

orbital slots and marketing of transponder capacity

- For operating the first satellite, INTERSPUTNIK will get a fixed percentage of the total satellite revenue.
- Joint Venture's name to be Lockheed Martin INTERSPUTNIK (LMI)
- Joint Venture's Board of Directors will consist of directors nominated by LM and INTERSPUTNIK. The directors are not entitled to any compensation from the LMI.
- Principal issues will be decided by a supermajority affirmative vote of the Board of Directors.

The XXVIth Session of the Board resolved to appoint INTERSPUTNIK's Director General and his Deputy to the LMI Board of Directors⁶. The INTERSPUTNIK Board also decided that INTERSPUTNIK's representatives on the LMI Board of Directors should have a consolidated vote which cannot be split without a relevant resolution of the Board (Committee) of the Organization.

LMI satellite communications and broadcasting system

The strategic alliance with Lockheed Martin Corp. will make it possible for INTERSPUTNIK to become a part of a powerful structure with vertical integration ranging from the manufacture of launch vehicles and satellites to the allocation of orbital slots and operation in orbit.

As a result, INTERSPUTNIK will be able to provide high-quality services based on most advanced techologies.

The first LMI-1 satellite with Lockheed Martin's A2100 bus will be injected into geostationary orbit by a Proton rocket in September 1999. It will be deployed at 75 East longitude. This satellite carries 44 high-power transponders both in C and Ku bands. The lifetime of the satellite is 15 years.

LMI-1 will provide communications and broadcasting over Russia and CIS, Eastern Europe, South East Asia, Africa and Australia.

LMI-1 will help to meet the rapidly growing demand of telecommunications companies and broadcasters for satellite capacity. The satellite is expected to serve as a basis for the integration of different regions into the global information community. LMI-1 offers ample opportunities both to small regional TV networks and service providers as well as to multinational telecommunication operators.

It is expected that a bouquet of 30 to 40 TV channels will be available in the Northern Ku band beam on LMI-1.

Given the growing importance of the Internet as a mass medium and the rapid convergence of computer and technologies, telecommunication traditional services are gradually replaced by a variety of novelties. Today, telephone, text and data as well as motion and still images are integrated into what call we multimedia.

Digital TV/radio and multimedia transmissions via LMI-1 are costeffective and require cheaper receivers. Information can be delivered quickly and cheaply to customers whose satellite dishes are connected to a highspeed PCs.

The global telecommunications network is an enormous and complex mechanism, which makes it possible to be connected practically with any country. Today, there are about one billion telephone sets in the world but nevertheless about 70% of the planet's population do not have access to telephony while 50% require two hours to get to the nearest telephone.

One of INTERSPUTNIK's top-priority tasks at the beginning of the third millenium is to technologically support operators telecommunication in bridging the gap between industrially developed and developing countries by means of introducing new technologies such as the series of LMI KA satellites utilizing the Ka band (20/30 GHz) with signal on-board switching and processing as well as inter-satellite communication capability.

In the Ka band, the bandwidth and data rates on LMI satellites will be allocated on demand thus reducing the cost for most end users.

The LMI KA fleet is expected to consist of five satellites with Lockheed Martin's A2100 bus. Services will be provided on demand and directly to end users across the world.

Cheap terminals will be used not only inside the system but will have access via large stations to public networks for bidirectional communications, telephony, data and video transmission. The system offers cheap last mile solutions for optical fiber cables wherever there is no welldeveloped ground infrastructure for economic or geographic reasons.

The system will provide 16 kbps to 2048 kbps telephone and data transmission based on ultra small antenna terminals (USAT) with dishes ranging from 60 to 120 cm and transmitter power from 0.25 to 10W. The cost efficiency of these systems is based on the fact that they will supplement and expand domestic public-use networks mostly in the countries with an underdevloped infrastructure.

The latest developments in the LMI project

In July 1998, in Vienna, the LMI Board of Directors decided to implement the participation for Khninichev State Research and Production Space Center (Russia) as a class B shareholder which do not provide for voting at the Shareholder's Meetings and don't give any rights to dividends. The Board of Directors was extended and one director from Khrunichev State Research and Production Space Center was nominated with the right to vote at the Board of Directors

The fourth LMI Board of Directors meeting held in May 1999 took an important decision that the Company should implement the goals and purposes it was established for. Therefore, the potential and resources of its shareholders should be used to the maximum extent to ensure management, administrative and operational services of the Company. In the light of the signed Memorandum on itemizing the interaction principles between INTERSPUTNIK and LMGT. the Board noted that LMI was responsible for operative control of the LMI-1 satellite and INTERSPUTNIK, in its turn, was responsible for the customer network control and LMI-1 payload. The interaction conditions between the Parties are subject to a tripartite agreement between INTERSPUTNIK, LMI and State Unitary Enterprise "Kosmicheskava Svvaz" (Russia), which is being finalized.

CONCLUSION

INTERSPUTNIK's 'breakthrough' to a qualitatively new technological level has become the result of enormous work done in the last few years. A great number of negotiations were conducted in order to find mutually acceptable algorithms of interaction with partners. The establishment of the Lockheed Martin INTERSPUTNIK joint venture has become a milestone in the history of INTERSPUTNIK Today, the Organization is fully commercial and highly competitive.

All these measures made INTERSPUTNIK more flexible to quickly respond to the changing environment. On the threshold of the XXIst century the Organization is going to fully renew and greatly increase its satellite capacity.

² Protocol of the XXIInd session of the INTERSPUTNIK Board (October 1993, Havana)

³ Protocol of the XXVth session of the INTERSPUTNIK Board (November 1996, Moscow)

⁴ Protocol of the XXIInd session of the INTERSPUTNIK Board (October 1993, Havana)

⁵ Joint Venture Formation Agreement between Lockheed Martin Overseas Corporation and INTERSPUTNIK International Organization of Space Communications of April 15, 1997, Article 5

⁶ Protocol of the XXVIth session of the INTERSPUTNIK Board (November 1997, Warsaw)

¹ Agreement on the Establishment of the "Intersputnik" International System and Organization of Space Communications of November 15, 1971