



INTERNATIONAL TELECOMMUNICATION UNION TELECOMMUNICATION DEVELOPMENT BUREAU

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PLENARY MEETING

Director, Telecommunication Development Bureau

SPACECOM PROJECT IMPLEMENTATION REPORT

SPACECOM is a project designed by the BDT, within the framework of the Buenos Aires Action Plan (BAAP), to promote optimum use of space telecommunication technology by developing countries for the improvement of their telecommunication networks and services, especially in rural and isolated areas.

1 1994 developments

The Project was formally launched on 1 September 1994, following the conclusions of the first SPACECOM Sponsors Meeting (Geneva, 6-7 July 1994) during which some eighteen (18) participants - representing several world telecommunications manufacturers and operators as well as international and regional organizations and institutions - expressed full support to SPACECOM Project objectives and endorsement of its planned activities, stressing at the same time the need for:

- close coordination between the Project activities and the ITU-D Study Groups activities;
- ensuring that the Project results are responsive to the needs of countries, taking into account technological, regulatory investment/financial aspects.

Based on the work of SPACECOM Project's components, the meeting defined a three-phase implementation plan (see Annex 1) and established a mechanism for the execution of the Project, calling for:

- participation of all interested parties, i.e.: members of ITU-D; sponsors who commit resources to the Project; developing countries and user communities; regional intergovernmental institutions; manufacturers; space segment service providers;
- close coordination with Chairmen of ITU-D Study Groups 1 and 2;
- sponsors to make either cash contribution or in-kind contribution with the aim to securing for the project a budget at a minimum level of \$US 500 000;
- ITU to reserve part of its internal resources to encourage participation of developing countries in the Project activities.

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to bring their copies to the meeting since no others can be made available.

A very active campaign to promote SPACECOM was conducted towards ITU-D members and at the international level, with briefing meetings in Paris, London, Bangkok and Tokyo. As of November 1994, financial pledges reached already a total of \$US 175 000 of which \$US 85 000 were effectively received by ITU.

2 1995 developments

The second meeting of sponsors took place at Inmarsat Headquarters (London, 6-7 July 1995). Several new decisions were taken:

- creation of a Steering Committee comprising those sponsors having committed in cash for at least \$US 20 000. Its functions are to determine plans, review budgets and allocate resources for the conduct of the project;
- programming the first meeting of the Steering Committee to take place in Geneva in October 1995, during Telecom 95, in order to:
 - adopt the terms of reference for the Steering Committee;
 - fix a cut-off date for joining the SPACECOM Steering Committee;
 - set criteria for SPACECOM information/documentation/data collection;
 - elaborate criteria for selection of pilot projects and their distribution among designated working teams providing the necessary expertise for the finalization of the selected pilot projects' technical, financial and regulatory aspects;
- issuance of a call for proposals including guidelines for the preparation of a pilot project proposal, addressed to developing countries;
- continuation of the efforts for financial resources mobilization with world financing institutions, development agencies and international/regional telecommunication organizations;
- provision by ESA of in-kind expertise to assist in the completion of Work-Package 1 tasks;
- provision by the European Commission of the necessary expertise for the:
 - analysis of responses received to the "Questionnaire" sent to developing countries to determine their requirements for space technology and satellite telecommunications (Annex 2);
 - development of Work-Packages 2 and 5 tasks;
 - development of models for the evaluation of the social and economical benefits of satellite communications for integrated rural development (Work-Package 4).

The first Steering Committee Meeting took place in Geneva on 15 November 1995, with the participation of 14 out of the 16 eligible members. Several decisions were taken:

- adoption of terms of reference for the SPACECOM Steering Committee;
- creation of working groups to facilitate information exchange of and decisional process:
 - WG on electronic communication (Chairman: Mr. J. Mack, US Department of State);
 - WG on budget matters (Chairman: Mr. I. Wright, Inmarsat);
 - WG on pilot projects (Chairman: SPACECOM Project Coordinator);
- adoption of programme activity for SPACECOM Work-Packages (in-kind contributions).

However, the Steering Committee decided to postpone the selection process of pilot projects to its next meeting, scheduled for the spring of 1996, considering "that the call for proposals was issued

only on 20 September 1995 and solely in English". Thanks to its translation into French and Spanish by INTELSAT, the document was distributed to all concerned later on.

3 1996 developments

In 1996, the SPACECOM Project recorded several new developments and events:

- The Working Group on pilot projects, created by the first Steering Committee, met in Geneva on 22-23 April 1996, with the participation of 17 sponsors. A first set of pilot projects proposals (from Benin, Buthan, Cameroon, Guyana, Indonesia, Kenya, Mongolia, Somalia, Gambia, Suriname, Tanzania, Sri Lanka, Zambia) and a Telehealth application in Africa (involving also UNEP and FAO) were reviewed, discussed and then distributed among ad hoc working groups, set up in order to determine the viability of each one of the proposed projects, to draft the corresponding specifications and to promote partnership agreements to implement them.
- During the second African Regional Telecommunication Development Conference (AF-RTDC-96, Abidjan, 6-10 May 1996), the benefits of the SPACECOM Project for the socio-economical development of Africa were recognized and administrations were urged to provide all necessary support to ensure its success.
- Likewise, SPACECOM was the object of interest of Arab countries during the preparatory meeting of the Regional Telecommunication Development Conference for the Arab States held in Damascus, 3-5 June 1996, and the Regional Development Conference (AR-RTDC-96) held in Beirut, 11-15 November 1996. On both occasions, Arab States were encouraged to participate in the SPACECOM Project in order to make use of its vital coverage.
- A Coordinator for the SPACECOM Project was formally appointed as of 1 October 1996.
- Increasing expression of interest worldwide from developing countries, as well as from equipment manufacturers, satellites operators, governmental and/or financial institutions. As a result:
 - more responses to the "Questionnaire" and the "Call for pilot projects proposals" were received; and
 - additional pledges were registered. By the end of 1996:
 - 65 countries returned the "Questionnaire";
 - 13 pilot projects proposals were received; and
- the total pledges from sponsors amounted to \$US 335 000, with \$US 297 110 effectively received by the ITU.

4 1997 developments

During the year 1997 - the transitional year for moving the SPACECOM Project from its present stage of "development" to a "field implementation" stage through the initiation of concrete fields applications - the efforts focused mainly on:

- continuation of the coordination process with the European Commission for completion of the analysis of developing countries responses to the SPACECOM "Questionnaire";
- promotion of pilot projects and of development of partnership between the satellite operators, the equipment manufacturers and the beneficiary countries;
- preparation for the 1997 Steering Committee Meeting;

- additional mobilization of cash and in-kind contributions.

All interested parties contacted, manufacturers, operators and beneficiary countries, all confirmed their availability to continue to contribute and participate to SPACECOM activities.

The European Commission selected in April the consultant for the analysis of responses of the SPACECOM Questionnaire. The contract was awarded to the French "Institut de l'Audiovisuel et des Télécommunications en Europe" (IDATE).

This consultant's conclusions, or at least a preliminary report on such conclusions, were expected to be available in September in order to be submitted to the Steering Committee meeting originally planned for October/November during the 1997 World Radiocommunication Conference.

Unfortunately for a budgetary procedure problem, the European Commission was unable to give formal authorization to the consultant to start his work.

This budgetary problem was only resolved in late November 1997 and the contract signed in December.

The coordination and cooperation with other ITU/BDT activities (telemedicine, environment protection, teledistance learning), or worldwide initiatives, having objectives similar to SPACECOM ones, were reinforced.

Specifically a direct link between SPACECOM and the new GMPCS systems has been established, within the framework of the implementation of the provisions of Opinion No. 5 approved by the First World Telecommunication Policy Forum (Geneva, 21-23 October 1996) on the introduction of GMPCS services in the developing countries and the organization by BDT during the period July-October 1997 of a series of five regional GMPCS workshops for the benefit of the developing countries in the five ITU development regions.

Advantage was taken of these workshops to present the SPACECOM Project to some 600 participants representing more than a hundred countries, ten regional and international organizations and eighteen GMPCS operators. The GMPCS systems operators not yet members of SPACECOM were encouraged to join SPACECOM, participate in its activities and contribute to its success.

5 1998 activity plan

- 1) On 16 January 1998, a meeting with the participation of E.C., IDATE and BDT representatives took place in Brussels at the European Commission Headquarters, to formally launch the analysis of the responses to the SPACECOM Questionnaire by IDATE in order to:
 - identify and analyse the present difficulties and underline the constraints which are still hampering the exploitation of satellite communications technology in many countries;
 - assess the present situation and the needs in various regions to extend telecommunication to remote and rural areas.
- 2) The meeting set up an agenda for delivering the study outcomes as follows:
 - IDATE will prepare and present a preliminary report on the study outcomes to the Members of the SPACECOM Project Steering Committee during an extraordinary meeting tentatively scheduled in Valletta prior to the Second World Telecommunication Development Conference (WTDC-98, 23 March - 1 April 1998).
 - The final study report and recommendations will be available by the end of July 1998.

- The 1998 ordinary meeting of the SPACECOM Project Steering Committee will be held in Geneva in October/November 1998 to examine the final IDATE report and recommendations to:
 - evaluate the present studies and achievements within the SPACECOM Project;
 - update the programme and activities of the SPACECOM Project;
 - identify appropriate solutions and concrete projects to be implemented with the participation of the Space industry and world financing institutions.
- 3) By the end of 1998 a report on the IDATE studies, SPACECOM Project achievements and on the action plan adopted by the 1998 Steering Committee Meeting, will be prepared and distributed to the sponsors and developing countries as part of an reactivation of the SPACECOM Project and as update of its objectives and activities to take into account the changes which have occurred in the telecommunications world and its environment since 1995.

ANNEX 1

SPACECOM implementation plan

- The activities of the project have been divided into 11 (eleven) work packages in order to share the project activities according to their capacities and interests.
- Both the industry and the participating countries will be intimately associated with the activities of each work package.
- According to the working structure decided together with the core of the initial sponsors the project will be implemented in three subsequent phases.

Phase 1

- Review of current and new Space Communications Technologies. Potential applications and implications for exploitation in developing countries.
- Assessment of the current situation in the various regions through the use of questionnaire designed for developing countries.
- Identification of major constraints (technical, financial, regulatory and others) hampering a wide exploitation of the space communications technology.
- Identification of concrete pilot project structures.

Phase 2

- Elaboration of pilot projects:
 - System configuration definition
 - Engineering requirements analysis
- Economic/financial evaluation of pilot projects:
 - Cost estimate
 - Tariff structures and revenues forecast
 - Return on investment
- Policy/Regulatory aspects:
 - Analysis/elaboration of answers to questionnaires
 - Current status and trends in the various countries
 - Review of the changing regulatory environments in the satellite communications sector
 - Elaboration of guidelines/recommendations
- Implementation considerations:
 - Definition of required resources (technical, human, financial)
 - Identification of possible local partners
 - Elaboration of partnership/joint venture schemes applicable for pilot projects implementation

Phase 3

- Workshops/seminars:
 - Presentation of results of the study
 - Presentation of current and new proposed products/systems
 - Presentation of pilot projects
- Preparation of performance specifications and evaluation guidelines for pilot projects, including indications to be monitored.
- Follow-up activities - Evaluation of pilot projects - Preparation of a final report.

ANNEX 2

Questionnaire for developing countries

In the context of Phase 1 activities a questionnaire has been prepared and sent to more than 160 telecommunication organizations of different developing countries. The questionnaire covers a total of 63 questions grouped in three different sections:

- Section 1 Current situation in rural telecommunications
- Section 2 Current and future plans, strategies and projects for rural telecommunications development
- Section 3 Current and planned applications of satellite communication technology
- Section 4 Policy and regulatory environment
- Section 5 Competition
- Section 6 Licensing
- Section 7 Custom duties
- Section 8 Billing and tariffs issues
- Section 9 Case studies
