

INTERNATIONAL CIVIL AVIATION ORGANIZATION
South American Regional Office

UNDP/ICAO REGIONAL PROJECT RLA/98/019
IMPLEMENTATION OF SAM DIGITAL NETWORK (REDDIG)

FOURTH MEETING OF THE COORDINATION COMMITTEE

(Lima, Peru, 30 – 31 January 2003)

Agenda item 4: **Programme of future activities of the project**
(Paper presented by ICAO)

Summary

This working paper related with Agenda Item 4, presents information on future activities programmed for the REDDIG project, mainly related with the finalization of the installation of REDDIG nodes and the implementation of PSAT.

1 Future activities of the project

1.1 Finalization of the installation of REDDIG nodes

1.1.1 After complying with the installation of the IDU equipment, and making the line-up with PanamSat of the Ezeiza (SAEZ), Montevideo (SUMU), Santiago (SCEL), Asuncion (SGAS), La Paz (SLLP), Lima (SPIM), Maiquetia (SVMI), Bogotá (SKED), Georgetown (SGYC), Paramaribo (SMPM), Cayenne (SOCA), Curitiba (SBCT), and Recife (SBRF) nodes, SEEE initiated during the third week of January 2003, the second visit to the nodes, in order to solve the problems which might have arisen during the period of installation of the IDU, line-up, and the warming period, and also the installation of the nodes of Guayaquil and Manaus (SBMN).

1.1.2 In order to coordinate the activities, the programme PMP V6 being coordinated with the contractor, in which the dates programmed for the visits is detailed, was distributed to the counterparts.

1.1.3 An important issue to be taken into consideration by the Administrations, is the one related to voice interfaces and data, which should be connected to the REDDIG in each of the nodes. With regard to this matter, it is necessary that upon the arrival of the SEEE personnel, the equipment of the CAA (AFTN, PABX, VCSS, RADAR, GNSS and administrative telephone network) be correctly programmed and with the ports identified, and that the circuits be connected to the MDS, if such was the agreement during the site-survey.

1.1.4 With regard to the numeration plan of ATS voice circuits, the TSD document indicates that, where the use of digit "7" has been foreseen in order to access the REDDIG ATS network, and facilitate the management of the dialling plan of the CAAs, this digit has also been foreseen for the SAM Region. The following two digits indicate the code of the State and the other two indicate the terminal. In order to facilitate the transition, the two last digits of the current plan of the ATS voice switched circuits will be those used in the new numeration plan to be implemented through the REDDIG. It is important to point out that the design of the REDDIG network considered the co-existence of the current ATS numeration plan and the new one to be implemented through the REDDIG.

1.1.5 As regard the administrative telephone network plan, within the TSD, a similar scheme to the one used by the ATS speech network is foreseen; however there are some differences in the amount of digits to be used to identify the terminal. For example, the administrative network of Argentina considers 5 digits and the one of Colombia, 4 digits. In this network the communications of maintenance and coordination would be provided among the authorities of the CAAs. That is to say, it is necessary to categorize by type of service to the users of the administrative PABX, in order to avoid that non-authorized users make use of the network. While it is true that the service to be implemented may be semi-automatic, priority should be given to the automatic service, since it does not depend on any operator to distribute the calls.

1.1.6 In order to develop the numeration plans, the dialling plan of the administrative network and the ATS directory was requested to the counterparts. Up to date, only Argentina and Colombia have provided the information requested, and coordinations are being made with the Peruvian administration to implement the new dialling plan.

1.2 **In-site provisional acceptance tests (PSAT) and network operation tests**

1.2.1 It is planned to initiate during the first week of February 2003 the implementation of the acceptance tests, as programmed in the PMP V5 and the new PMP V6 being coordinated by the contractor. The programme of the PMP V6 project was distributed to the counterparts with information and coordination purposes. The mentioned programme is contained in **Appendix A** to this document.

1.2.2 The duration foreseen for the tests is each site if of two days, period that may be extended if necessary. The tests comprise in general the following aspects:

- a) Inventory of the supply;
- b) Installation;
- c) Documentation;
- d) ODU tests;
- e) IDU tests;
- f) NMS tests;
- g) Functional tests;
- h) Circuit tests.

1.2.3 It is programmed to implement each one of the PSAT with two working groups, developing the activities in parallel. One group would be devoted to the provision tests, documentation and installation, and the other group would be in charge of the technical and functional tests. The schedule foreseen for the activities would be from 08:00 to 22:00 hours.

1.2.4 For the execution of the tests, the active participation of the counterparts is required, as well as from the following technical and auxiliary personnel from the CAA:

- a) Technical Counterpart;
- b) Engineer/support technicians;
- c) AFTN Specialist: Programming and maintenance;
- d) VCSS Specialist and ATS speech circuits switcher: programming and maintenance;
- e) Administrative PABX Specialist: programming and maintenance;
- f) RADAR Specialist: programming and maintenance of the radar data processing system and radar circuits;
- g) Support personnel considered appropriate to the Administration.

1.2.5 Only the technical counterpart and the engineer / CAA support technician would participate directly of the tests execution. The other personnel would provide the required support in the systems in which they are specialists. It is necessary to have available the complete technical information of the REDDIG equipment and of the terminal equipment of the CAA in each of the sites, likewise, for the terminal equipment of the CAA during PSAT all tools and necessary facilities should be available to modify the configuration of the corresponding equipment. The participation of the counterpart and the engineer / support technician is completely necessary since the effected tests would serve as OJT and the obtained results would provide de reference data for the future operation of the node.

1.2.6 During the execution of the tests the corresponding forms of the tests will be filled in and a copy will be handed to the Administration. The tests will be executed with the participation of the contractor personnel and with the Project expert. The corresponding documentation will be forward opportunely to the counterparts.

1.2.7 The material and equipment to be transported for carrying out PSAT tests are presently being coordinated with the contractor. The list of corresponding equipment would be communicated to the Administrations as son as possible and opportunely before the arrival of personnel the give initiation to the tests. In **Appendix B** of the present working paper the tentative itinerary of the flights is being provided.

1.2.8 The acceptance tests in Network (NAT) would be initiated once satisfactorily finalized the PSATs. The exact date for these tests as well as of the corresponding documentation would be submitted to the counterparts later. After the NATs has been satisfactorily finalized, the process of service transference will be initiated (cut over), such as established in the TSD, and, finally, the network operation period by the project will be started, period that presently is planned to be carried out in six months.

1.3 **Satellite segment**

1.3.1 Regarding this item, the deadline to make a reservation and hiring the segment to PanamSat has been extended up to March 2003; the contractual and financial conditions would be the one indicated in RCC/3 meeting. It is expected that more information in this regard be presented during the meeting.

1.4 **ISDN/LL backup network**

1.4.1 It has been noted that the ISDN backup lines and / or LL Leased Line are not available in a significant number of nodes. In other cases it has been noted, likewise, that the LL lines that the CAA would be providing generally converge in specific nodes, which surpasses the capacity of administration of the circuits of the respective FRAD / SW system.

1.4.2 In order to solve this problem and complete the establishment of the backup Network, the project is studying a solution and exploring existing possibilities in the market. It is expected to complete the study and to present the corresponding information to the next Meeting of the Coordination Committee of the REDDIG. The implementation of the backup network should be produced before the deactivation of the present network.

1.5 **REDDIG future training**

1.5.1 ICAO has planned to carry out an additional training course aside from the REDDIG contract. The second REDDIG course would be imparted in Lima, within Objective No. 2 of the Project, by the project expert. The mentioned course, depending of the number of participants registered, could be carried out up to two times.

1.5.2 This second course would cover practical aspects of the operation, maintenance and configuration of the NCC and the local node; and it would complement the course imparted by the contractor. The participants to this course should count with knowledge on open architecture networks and of the REDDIG satellite network, as well as of the basic principals of operation and maintenance of the network.

1.5.3 Other goal of this course would be to carry out maintenance procedures for the Operation of the Network, in correspondence with paragraph 1.3.3 of the Project Document.

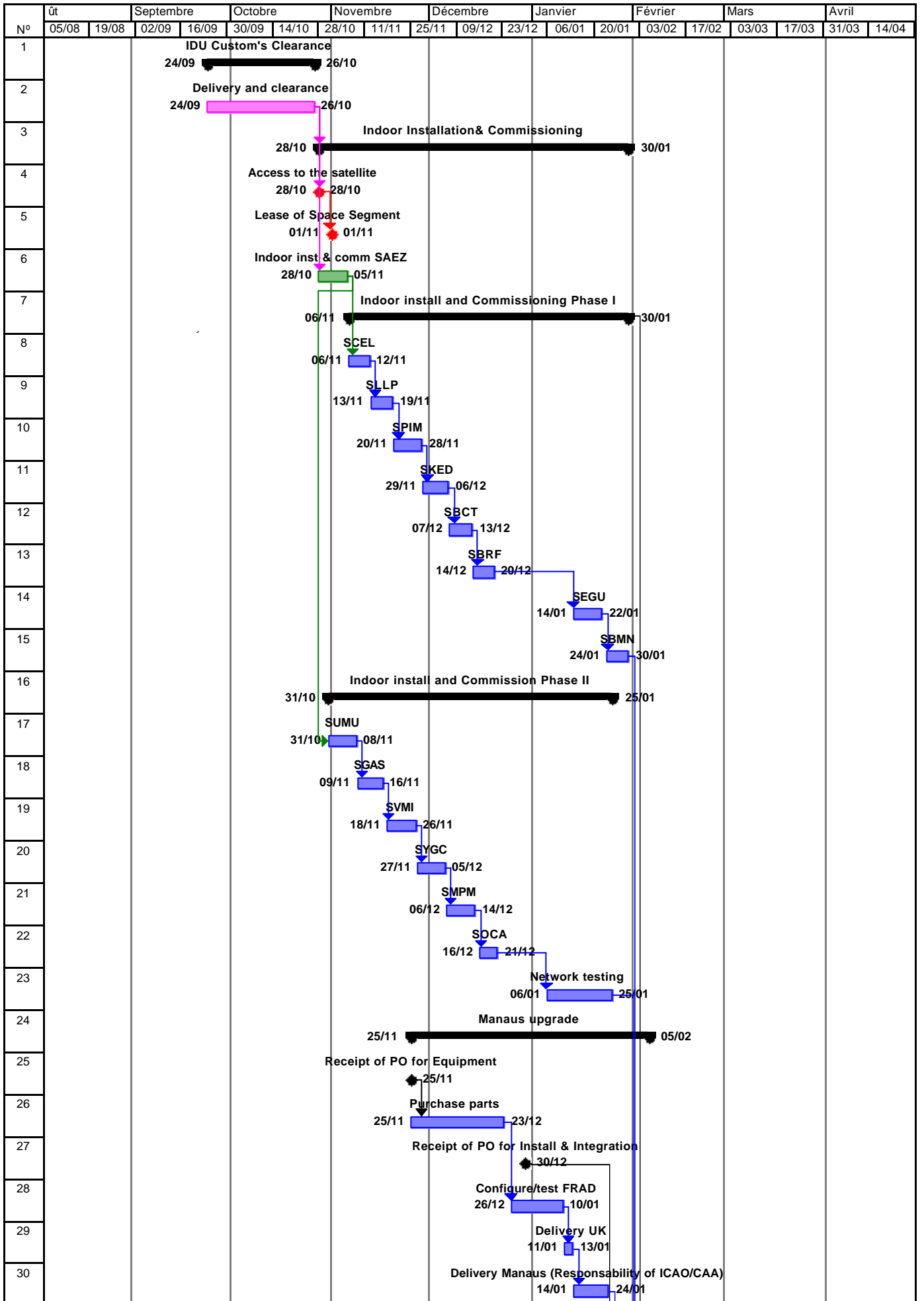
1.5.4 Perdiems and air tickets would be covered directly by the Administrations of through a technical cooperation project funds.

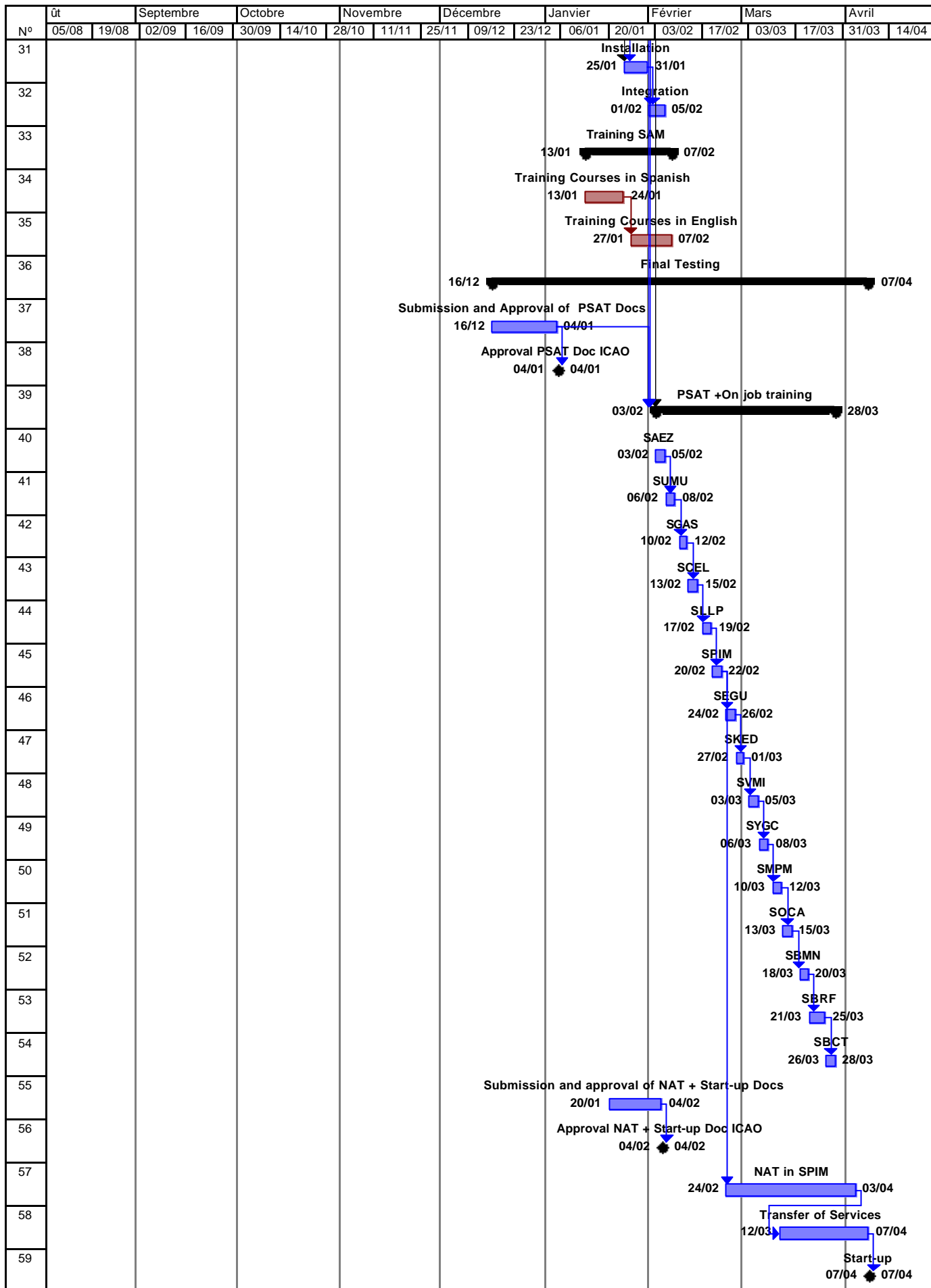
1.6 **WEB page of the REDDIG**

1.6.1 As future activity in the WEB page of the REDDIG, it is planned to incorporate a technical forum regarding problems and solution provided by the technical personnel in charge of the maintenance of the network. In conformity with policy adopted to authorize the access to the WEB, the counterparts should provide a list of the technical personnel participating directly in the Network maintenance to be authorized.

2 **Suggested action**

2.1 The meeting is invited to take note of the information herein presented and to consider the activities that require of the active participation of the States.





APENDICE B / APPENDIX B

ITINERARIO DE VUELOS PSATs / PSATs FLIGHTS ITINERARY

	Khalil FOURATI	Departure	Flight Nb	Arrival
1	Paris->Buenos Aires	01/02 CDG 23 :25	AF416	02/01 EZE 09:10
2	Buenos Aires->Montevideo	05/02 EZE 19:50	PZ701	05/02 MVD 20:30
3	Montevideo->Buenos Aires	09/02 MVD 19:55	UA854	09/02 EZE 20:45
	Buenos Aires->Asuncion	09/02 EZE 22:00	PZ700	09/02 ASU 23:50
4	Asuncion->Santiago	12/02 ASU 11:25	PZ707	12/02 SCL 14:10
5	Santiago->La Paz	16/02 SCL 07:45	LA960	16/02 LPB 11:20
6	La Paz->Lima	20/12 LPB 08:40	TA34	20/12 LIM 09 :35
7	Lima->Guayaquil	23/02 LIM 10:45	TA020	23/02 GYE 14:35
8	Guayaquil->Bogota	27/02 GYE 06:45	AV70	27/02 BOG 08:45
9	Bogota->Caracas	02/03 BOG 15:30	AV76	02/03 CCS 18:20
10	Caracas->Port/Spain	06/03 CCS 10:45	BW832	06/03 POS 12:25
	Port/Spain->Georgetown	06/03 POS 13:30	BW425	06/03 GEO 14:35
11	Georgetown->Port/Spain	09/03 GEO 19:45	BW468	09/03 POS 21:15
	Port/Spain->Paramaribo	09/03 POS 22:30	BW883	09/03 PBM 00:55
12	Paramaribo->Cayenne	13/03 PBM 11:30	PY9915	13/03 CAY 12:15
13	Cayenne->Belem	17/03 CAY 17:30	PY9915	17/03 BEL18:45
	Belem->Manaus	17/03 BEL 21:15	VP4198	17/03 MAO 22:30
14	Manaus->Brasilia	20/03 MAO 14:00	JJ3291	20/03 BSB 17:45
	Brasilia->Recife	20/03 BSB 20:40	JJ3574	20/03 REC 23:14
15	Recife->Curitiba	25/03 REC 17:55	JJ3529	25/03 CWB 23:05
16	Curitiba->Sao Paulo	29/03 CWB 17:00	AF8037	29/03 GRU 17:50
	Sao Paulo->Paris	29/03 GRU 20:30	AF455	30/03 CDG 12:50