

**IMPLEMENTATION OF THE 2006 OPERATIONAL PLAN
(ACTIVITIES OF TERRESTRIAL SERVICES DEPARTMENT (TSD))**

Executive summary

During the year 2006, TSD activities were focused on two main groups:

- Carrying out a substantive number of activities related to RRC-06 (this comprised a complex and extensive intersessional programme of activities that preceded the RRC-06, providing efficient technical and secretarial support to three parallel conferences (RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89) which included substantive data processing and planning activities, and the implementation of the decisions of the three conferences which were applied provisionally as from 17 June 2006).
- Treatment of submissions from administrations, mainly frequency assignment notices to stations in various terrestrial radiocommunication services, under the relevant provisions of Articles 9, 11, 12 and 20 of the Radio Regulations (RR), as well as under the relevant provisions of various Regional Agreements.

The main objectives in this respect (timely initiation and execution of the relevant activities; processing and examination of the administrations' notices and other submissions within the statutory limits) were generally achieved, despite the extremely high workload. The relevant information resulting from these activities was published according to the standard arrangements:

- on a two-weekly basis, through the International Frequency Information Circular (IFIC), for submissions under Article 9 of the RR, under various plan modification procedures, and under Article 11 of the RR; the content and the publication format of the BR IFIC was appropriately adapted to include information regarding the newly established GE06 Agreement and information regarding the application of the GE06 procedures;
- on a monthly basis, through regular CD publications, for submission under Article 12 of the RR;
- in accordance with pre-established schedules, as indicated in the relevant publication notices, for submissions relevant to the publication of various service documents listed in Article 20 of the RR.

At the same time, TSD continued to meet the increasing demand for assistance from administrations, international organizations, private companies and other entities in the application of regulatory, administrative and operational procedures including detailed calculation results and test calculations. Reports of harmful interference were accorded the highest priority, as were reports of unauthorized emissions in frequency bands reserved for safety services.

TSD also applied the relevant administrative and operational procedures, and the outcome of these procedures (e.g. provision of appropriate means of identification) has been disseminated accordingly (e.g. through the Operational Bulletin).

In addition, TSD continued to maintain several databases (such as the electronic version of the IFL, several worldwide and regional plans, the ship and coast stations databases), which represent reference tools for numerous applications. The uninterrupted on-line availability of the ship stations database, to the registered users, through the Internet, was highly appreciated by the search and rescue authorities as an indispensable tool for their everyday activities.

2.1.1 Activities related to WRC^{1,2}

Staff of the Department continued with the preparatory activities for WRC-07, such as:

- continuing review of the agenda items that are relevant for the TSD activities and appropriate follow-up insofar as BR actions are concerned (e.g., review of the bands that are subject to Resolution 21(Rev.WRC-03) and consequential follow-up actions);
- participation in the relevant meetings of the international organizations (e.g., IMO/COMSAR10) as well as in the relevant ITU-R Study Group activities (6E, 8A, 8B, SC);
- preparation of the relevant background information for detailed consideration of some agenda items (e.g., the form, content and periodicity of the service publications referred to in Article 20 of the Radio Regulations, bearing in mind the carriage requirements referred to in Appendix 16 to the Radio Regulations and their relevance for agenda item 1.14 of WRC-07);
- preparation of the initial drafts of the statutory reports to WRC-07 (e.g., review of the Resolutions and Recommendations from previous WRCs/WARCs, experiences with the application of the radio regulatory procedures, etc.), as well as other special reports (e.g., CUB/USA interference cases, considerations regarding the possible update of Appendix 4 with the data elements decided by RRC-06, etc.), with a view to their initial presentation to other relevant bodies (SC, RAG, CPM, etc.).

Performance indicator (for TSD): Satisfactory (timely initiation of the relevant activities with a view to ensuring appropriate consideration of the relevant issues). The staff resources used were within the forecasts indicated in the Operational Plan.

2.1.3 Activities related to the RRC-06

2.1.3.0 These activities could be subdivided into three main groups: (1) preparatory activities that preceded the RRC-06, (2) activities during RRC-06 and (3) post-conference activities after RRC-06. The activities related to each main group are summarized hereunder.

2.1.3.1 In accordance with the programme of the intersessional activities, as detailed in Annex 2 to Resolution COM5/1 from RRC-04 and the subsequent decisions of IPG-2 (February 2006), staff of the Department undertook the following activities related to the production of the draft plan and the additional activities in the period that preceded RRC-06:

- Continued verification of the new and changed planning software modules provided by EBU, including additional developments as follow-up actions from the developments within the ITU-R Study Groups and IPG-2 decisions (additional working assumptions, complementary analyses, different percentages in the propagation model, etc.) and conduct of associated planning studies (e.g., planning studies using different targets for synthesis process).
- Continued enhancements to the RRC-06 Planning Interface software as the main operational tool for use by administrations in the planning process (for viewing the input data and the results of the planning calculations, for generating administrative declarations, for running small scale planning exercise studies, etc.).

¹ The numbering of the Sections in this report follows the numbering scheme of the Draft Operational Plan for the period 2006 – 2009.

² Sections 2.1.1 to 2.1.5 are part of **Objective 1** (*Promote coordination and collaboration among members*)

- Continued investigation of the optimization of the distributed computing arrangement for the RRC-06, including alternatives outside ITU (e.g., use of the GRID infrastructure of CERN) and implementation of these arrangements. This included a simulation of the complete planning process, with real data regarding the draft plan. Staff of the Department also presented the relevant experience at the GRID EGEE User Forum (Geneva, 1-3 March 2006).
- Continued provision of assistance to administrations in analysis of results of the planning exercises, in understanding of the planning software and on how to use the planning software and RRC Planning Interface applications.
- Processing of the Member States requirements for the draft plan, including extensive correspondence in this respect. In addition to the standard processing of the received requirements, requirements were generated for those Member States which did not submit any requirements; such a course of action involved additional correspondence with these Member States.
- Publication of the requirements related to the preparation of the draft plan (CR/250): In summary, 109 Member States from the planning area and one observer (the Palestinian Authority) submitted **72 343** digital broadcasting requirements for the draft plan and **5 263** descriptions of allotment areas.
- Establishment of the reference situation for the draft plan concerning the broadcasting services. In this connection, the Bureau compiled the pertinent data from the relevant databases (the updated versions of the ST61 and GE89 Plans, the MIFR and the RCC List), using the specific indications from the Member States concerned, where applicable, through BC6 notices or otherwise. In summary, some 18 687 analogue television broadcasting assignments have been included in the planning process associated with the draft plan (out of 93 984 potentially eligible assignments).
- Establishment of the reference situation for the draft plan concerning the primary terrestrial services other than broadcasting. In this connection, the Bureau compiled the relevant data from the MIFR, using the specific indications from the Member States concerned, where applicable, through R06 notices or otherwise. In summary some **8 222** assignments to other primary services from 12 administrations have been included in the planning process associated with the draft plan.
- Processing of the administrative declarations, under the new arrangement decided by IPG-1 and WPIPG. In summary, some 1 490 941 *formatted* administrative declarations were received from 81 administrations. After the validation and crosscheck regarding the existence of reciprocal declarations, some **982 421** “usable” administrative declarations were included in the first synthesis of the draft plan.
- Conduct of the first synthesis of the draft plan, for four study cases and three additional variants, and their submission to the IPG-2; further refinement of these case studies (after consideration by the IPG-2) and their publication on the web. This activity also comprised further enhancements, by the BR/TSD, to the software dealing with the RRC planning interface (previously referred to as data display software).
- Processing of additional administrative declarations, within the timeframe decided by IPG (some 3 785 266 additional administrative declarations were received from 86 administrations, conduct of the second synthesis of the draft plan for four study cases, publication and distribution these results to the membership (CR/253). This activity also comprised further enhancements, by the BR/TSD, to the software dealing with the RRC planning interface.

- Organization and necessary support to the meetings of the Planning Exercise Team (26–27 January 2006; 30–31 March 2006), including preparations of several contributions for these meetings, preparation of the output of these meetings and participation in the additional tests of the planning software.
- Organization and necessary support to the second meeting of the IPG (20–24 February 2006), including the preparation of relevant contributions to this meeting (documents on the input data and on the results of the draft plan, document on the additional working assumptions adopted for the draft plan, document on the possible working arrangements for RRC-06, etc.), as well as preparation of the output of IPG-2 and its distribution to the membership (CA/158).
- Based upon the conclusions of the IPG-2, a tool was developed, for validation and crosscheck of the additional administrative declarations, to be used by the administrations when submitting additional administrative declarations for the second synthesis of the draft plan (Addendum 2 to CR/246).
- Processing of the Member States requirements for the first iteration at RRC-06 (some 83 Member States from the planning area submitted modifications to their digital broadcasting requirements in this respect and the processed requirements were presented to the RRC-06, which decided to carry out the first iteration at RRC-06 on the basis of these requirements).
- Accelerated treatment of proposals for modification to the ST61 and GE89 Plans and to the RCC List, in the bands 174-230 MHz and 470-862 MHz, which were received by 15 March 2006, with a view to creating conditions, for RRC-06, to consider a reference situation date posterior to 31 October 2005 (RRC-06 eventually decided on this new reference situation date, provided that the associated information, such as TB3 notices or their equivalents, has been received by the Bureau by 21 April 2006).
- Accelerated treatment of notifications, under Article 11 of the Radio Regulations, related to frequency assignments to stations in other primary terrestrial services, in the bands 174-230 MHz and 470-862 MHz, which were received by 15 March 2006, with a view to creating conditions, for RRC-06, to consider a reference situation date posterior to 31 October 2005 (RRC-06 eventually decided on this new reference situation date, provided that the associated information, such as R06 notices or their equivalents, has been received by the Bureau by 21 April 2006).
- Preparation of the relevant documents for RRC-06, RRC-06-EUR and RRC-06-AFR (Director's report with several addenda summarizing the results of the intersessional activities, including the results of the PXT studies regarding the IPG-2 decisions; issues concerning the conduct of the first planning iteration at RRC-06 including the inventory of the input data in this respect; consolidated document on the working assumptions used for the preparation of draft plan, considerations regarding some regulatory and procedural issues, etc.);
- Staff of the Department followed the activities of the ITU-R Study Groups, including participation in the meetings of the concerned Working Parties, with special attention to the Working Parties involved in the consideration of the issues relevant for RRC-06 (WP 6E, 8A, 8B).
- Staff of the Department continued with the necessary liaison activities with the relevant departments of the General Secretariat regarding the organizational arrangements for RRC-06, including preparation and participation in the relevant meetings of the Task Force (19 January 2006, 2 March 2006).

- Staff of the Department participated in the meetings of the Informal Group of regional representatives for the preparation of the RRC-06.

2.1.3.2 Staff of the Department provided substantive organizational, secretarial and technical support to the RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89, notably:

- All the data processing activities during RRC-06 were carried out by the Data Processing Team of RRC-06, composed of TSD staff. This comprised establishment of secure arrangements for web submission, collection and processing of digital requirements for the four iterations at RRC-06 including their publication and distribution, collection and processing of administrative declarations for the four iterations at RRC-06 including their publication and distribution, consolidation of the databases regarding the reference situations for analogue television and other primary terrestrial services associated with the date of 15 March 2006, collection and processing of the additional administrative declarations for the conduct of the final complementary analysis at RRC-06. All these activities were carried out within very tight schedules and were completed in accordance with the time schedule established by RRC-06. Table 2-1 hereunder provides statistical data in this respect:

Table 2-1: Statistics regarding data processing activities at RRC-06

	First iteration	Second iteration	Third iteration	Fourth iteration	Final compl. analysis
No. of requirements	87 288	84 647	80 362	78 511	-
No. of administrative declarations	2 130 747	4 220 211	1 056 918	413 320	10 040

- The Core Conference Processing Unit, composed of TSD staff and some EBU staff, carried out all the planning activities at RRC-06 (four planning iterations, three complementary analyses and the final complementary analysis), on time and within the very tight schedules. This included implementation of special arrangements for distributed computing (for using the pool of the ITU computers as well as the GRID infrastructure of the CERN). This also included additional software development during RRC-06 (complementary analysis, enhancements to the RRC-06 Planning Interface, special software for the preparation of the digital Plan in pdf format, special software for supporting the work of the CNGs, etc.).
- Staff of the Department provided technical support to the Planning Committee of the RRC-06 and to the five CNGs established by RRC-06, as well as assistance to many delegations. Staff of the Bureau also represented the absent Member States, in accordance with the decisions of the RRC-06. Staff from other BR Departments also supported these activities.
- Staff of the Department undertook prompt actions regarding the update of the reference situations for analogue television and for other primary services, in accordance with the decisions of RRC-06 and the subsequent developments. These activities included: review of the situation with many delegations concerning the status of their pending modifications to ST61 and GE89 Plans; analyses of the coordination situations with respect to some objected assignments that were included in the reference situation and related follow-up actions including correspondence; assistance to delegations in assessing interference between OPS and analogue broadcasting (to AZE, IRN, JOR, ISR, ALG), etc.
- Staff of the Department, together with staff from other BR Departments, provided secretarial support to the three conferences (RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89) and to their substantive committees.

2.1.3.3 After the RRC-06, staff of the Department analysed the results of the three conferences (RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89) and commenced with the required follow-up actions immediately after the end of these conferences, in accordance with the decisions regarding the provisional application of the relevant provisions of these conferences as from 17 June 2006. These activities included the following:

- Publication of the definitive versions of the Final Acts of the three conferences (RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89), including the publication of the final Plan (analogue and digital) and the final List in the formats decided by RRC-06. These activities also included partition of the relevant assignments and allotments of the former ITU Member State “Serbia and Montenegro” into two separate geographical areas (corresponding to the territories of the two separate member States SRB and MNE) as well as correspondence with the Member States which did not attend the RRC-06.
- Preparation of CR/259 (issued on 5 July 2006) informing the membership of the applicable regulatory arrangements for processing of frequency assignment notices, as from 17 June 2006, in the bands governed by the three agreements (GE06, ST61 as amended by RRC-06-Rev.ST61, GE89 as amended by RRC-06-Rev.GE89);
- Updates to the TerRaSys software so as to cope with the modified scope of the ST61 and GE89 Agreements, as decided by RRC-06-Rev.ST61 and RRC-06-Rev.GE89. In this connection, some **16 830** transactions in progress, in the bands 174-230 MHz and 470-862 MHz, which did not result in a Plan entry by BR IFIC No. 2569 of 16 May 2006 (i.e., up to an including Special Sections ST61/1514 and GE89/28), were deleted as requested by Resolution 1 (RRC-06-Rev.ST61) and Resolution 1 (RRC-06-Rev.GE89). Each of the administrations concerned (**72** administrations) was informed accordingly (on 22 August 2006) and was provided with the relevant extract containing its transactions that were deleted pursuant to the decisions of RRC-06-Rev.ST61 and RRC-06-Rev.GE89, as appropriate. The required modifications to the relevant Rules of Procedure (Parts A2 and A6) were initiated accordingly (Circular Letter CCRR/29 of 3 August 2006) and the concerned Rules of Procedure were approved in December 2006.
- The processing of the frequency assignment notices in the bands 174-230 MHz and 470-862 MHz (under Article 11 of the Radio Regulations), which were received by 16 June 2006, was completed on 27 July 2006, in accordance with the regulatory arrangement being in force by 16 June 2006. The TerRaSys software was thereafter updated, so as to enable processing and examination of the submissions under the Article 11 of the Radio Regulations, received after 16 June 2006, in accordance with the decisions of the three conferences. The associated validation software modules for processing of the notices submitted under the GE06 Agreement were developed accordingly. The first batch of 62 notices under Article 11 of the RR, related to digital broadcasting, was successfully validated and published in BR IFIC No. 2585 (publication date 9 January 2007).
- The structure of the BR IFIC (Terrestrial services) was amended so as to reflect the new regulatory arrangements established by the three conferences. The fragments ST61 and GE89 were amended so as to correspond to the newly defined scope of the ST61 and GE89 Agreement. Two new fragments were created under TerRaSys: **GE06A** (corresponding to the analogue television broadcasting plan adopted by RRC-06) and **GE06L** (corresponding to the List of other primary terrestrial services established by RRC-06). The relevant databases corresponding to GE06A and GE06L were included in BR IFIC No. 2576 of 22 August 2006. The fragment **GE06D** (digital broadcasting plans), with the appropriate interface, was included in BR IFIC No. 2580 of 17 October 2006. The membership was informed about the changes to the contents of the BR IFIC (Terrestrial services) in CR/264

(issued on 19 October 2006). The relevant GE06 interface application was subsequently enhanced to deal with Special Sections in the GE06D series.

- The electronic formats for submission of frequency assignment/allotment notices in the bands governed by the GE06 Agreement, for the application of the procedures of Articles 4 and 5 of the GE06 Agreement, have been consolidated and dispatched to the membership (CR/261 of 3 August 2006 dealing with file formats for submission of electronic notices related to assignments of terrestrial services other than broadcasting in the planning area and bands governed by the GE06 Agreement; CR/262 of 11 August 2006 dealing with file formats for submission of electronic notices related to analogue and digital broadcasting assignments/allotments for the application of Articles 4 and 5 of the GE06 Agreement). The associated validation software modules were developed accordingly.
- Based on the RRC-06 data capture software, the Department developed a PC tool to assist administrations in creating electronic notices in the file formats defined in CR/262. The software was made available for all notices in October 2006, except the notice GB1, and was also demonstrated during the biennial BR Seminar (October/November 2006).
- The Department completed the development of several software modules related to data processing, examination and publication of digital broadcasting service notices (frequency assignments and frequency allotments) in the bands 174-230 MHz and 470-862 MHz under Article 4 of the GE06 Agreement and implemented them in a form of standalone system with the necessary interface to TerRaSys. Some modules (e.g., coordination conformity check) were made available on the ITU web site, in October 2006, for use by administrations. The implemented configuration enabled the preparation of the first special section in the GE06 series (dealing with some 142 assignments and allotments, from four administrations) in mid-December 2006 (published in BR IFIC No. 2585 on 9 January 2007). The BR IFIC publication software was amended accordingly so as to include the GE06 Special Sections. The Department also developed and implemented a web application dealing with the display of the relevant data elements (including graphics) associated with the GE06 Plan and the concerned special sections.
- The Bureau reviewed the findings of the MIFR assignments to other primary services (some **23558** assignments), in the bands and the areas governed by the GE06 Agreement, so as to indicate their status with respect to the GE06 List, as required by RR8.3. The new findings are reflected in the MIFR as from BR IFIC No. 2576 of 22 August 2006. The review of the findings for the MIFR assignments to the broadcasting service, in the bands and areas governed by the GE06 Agreement, has been completed, after the approval by the RRB of the relevant Rule of Procedure in December 2006, and will be reflected in one of the forthcoming BR IFICs.
- In the frame of the implementation of the necessary examination software for the application of the procedures of Articles 4 and 5 of the GE06 Agreement, the Department identified a need for some Rules of Procedure. The concerned drafts were dispatched to Member States by Circular Letter CCRR/30 (22 September 2006) and the RRB approved the Rules of Procedure in December 2006.

Performance indicator (for TSD): Satisfactory (all activities initiated and executed in a timely manner to the satisfaction of the membership). The staff resources used were within the forecasts indicated in the Operational Plan.

2.1.4 RAG-related activities

Staff of the Department participated in the preparation of the relevant inputs to the 14th RAG meeting (January 2007), such as the review of the Resolutions and Recommendations from previous WRCs/WARCs, the Director's report to RAG, Status report on the post-conference activities resulting from the decisions of RRC-06, draft version of the quadrennial Operational Plan for 2007-2010, etc.

Performance indicator: Satisfactory (timely initiation of the required activities and timely input to the statutory documents). The staff resources used were within the forecasts indicated in the Operational Plan.

2.1.5 RRB-related activities

2.1.5.1 Staff of the Department prepared the required input for the Director's reports to the 40th, 41st and 42nd RRB meetings, including the special reports dealing with specific cases of harmful interference and related case studies, and implemented the relevant follow-up actions.

2.1.5.2 Staff of the Department prepared proposals for consequential amendments to the relevant Rules of Procedure dealing with the ST61 and GE89 Agreements, so as to reflect the decisions of the RRC-06-Rev.ST61 and RRC-06-Rev.GE89 conferences (CCR/29).

2.1.5.3 Staff of the Department prepared proposals for new Rules of Procedure dealing with the GE06 Agreement, so as to enable timely commencement of the relevant processing activities in the bands governed by the GE06 Agreement (CCR/30).

2.1.5.4 Appropriate consideration was given to the possible conversion of some Rules of Procedure into provisions of the Radio Regulations, including formulating of example texts. Elements of these considerations, which have been presented to the 41st and 42nd RRB meetings, have been included in the BR contributions to the SC meeting (December 2006) and to CPM-07 (February 2007).

Performance indicator: Satisfactory (the statutory activities were initiated on time and completed according to established schedules). The staff resources used were within the forecasts indicated in the Operational Plan.

2.2.2 Treatment of notices and other submissions related to terrestrial services³

I) General observations

I.1 Staff of the Department continued to process notices pertaining to terrestrial services under various arrangements:

- Using those TerRaSys tools that have been brought into production;
- Using local data management systems and similar equivalents outside TerRaSys (such arrangements are used in the context of the AP26, GE75, RJ81 and GE06 (digital broadcasting) Plans; in the context of the LF/MF BC submissions under Article 11 of the RR, as well as in the context of the HF Broadcasting under Article 12 of the RR – see also paragraph 2.2.2.a3);
- Using semi-automated or manual procedures (such an arrangement is used in the context of the Article 9 submissions and for some type of examinations under AP25, and GE85-MM Plans as well as for some types of examinations of submissions under Article 11).

³ Section 2.2.2 pertains to **Objective 2** (*Meet requirements relating to spectrum and orbit access*)

I.2 At the time of the preparation of this report, the Department was still without any operational tool (either standard or provisional) in the following areas and no activity is being performed yet in these areas:

- Processing and examinations of new submissions related to the plan modification procedures, which necessitate assessment of the compatibility, in the context of the following plans: AP25 and GE85-EMA;
- Examination of the FXM notices governed by Article 11 of the RR (in the bands governed by AP30/30A Plans, the GE85-EMA Agreement and the RJ88 Agreement).

2.2.2.a1: Processing of coordination requests pertaining to terrestrial radiocommunication services

Table 2.2.2.a1-1 indicates the activities related to coordination requests (under 9.21) pertaining to terrestrial services. This activity is being performed in a manual or semi-automated manner, outside TerRaSys.

Table 2.2.2.a1-1: Treatment of coordination requests (under 9.21)

Expected input	100
Received notices	10
Examined notices (including previous periods)	16
Remaining number of active cases	410
Performance indicator for examination	Satisfactory
Backlog (weeks)	0

2.2.2.a2 Application of Plan modification procedures to submissions pertaining to terrestrial radiocommunication services

Tables 2.2.2.a2-1 and 2.2.2.a2-2 summarize the activities related to plan modification procedures pertaining to terrestrial services.

Table 2.2.2.a2-1: Submissions under plan modification procedures (BC/BT services)⁴

Procedure	ST61	GE75	RJ81	GE84	GE89	GE06
Expected input	1500 (Note 1)	80	45	2000	500 (Note 1)	Note 2)
Received notices	2 030	124	22	3 912	765	287
Capture and Validation						
Captured notices	2 030	124	22	3 912	765	156
Performance indicator for data capture	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Backlog (weeks)	0	0	0	0	0	4 weeks
Examination and publication						
Published notices (Part A)	826	69	31	1 871	198	140
Notices awaiting publication in Part A	0	117 (52 weeks)	1 (29 weeks)	513 (11 weeks)	0	0
Published notices (Part B+C)	2 323 ⁵	56	6	1 398	798	2
Notices awaiting publication in Part B or C	2 (4 weeks)	1 (2 weeks)	12 (18 weeks)	398 (11 weeks)	0	0
Performance indicator for examination and publication	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory

NOTE 1: The Regional Radiocommunication Conferences RRC-06-Rev.ST61 and RRC-06-Rev.GE89 (Geneva, 15 May–16 June 2006) decided to suspend the plan modification procedures governed by the ST61 and GE89 Agreements, in the bands 174-230 MHz (for Morocco, 170-230 MHz) and 470-862 MHz, after the publication of BR IFIC No. 2569 (date of publication 16 May 2006). The relevant plan modification procedures, in the indicated bands, were abrogated as from 17 June 2006.

NOTE 2: The relevant procedures entered into force on 17 June 2006. The associated processing and examination software for treatment of digital broadcasting notices under Article 4 of the Agreement became operational in early December 2006.

Performance indicator: The objectives set forth in the Operational Plan (timely processing within the statutory limits) have been achieved by using two different arrangements: under TerRaSys in the context of the VHF/UHF Plans (ST61, GE84 and GE89), and outside TerRaSys in the context of the LF/MF Plans (GE75 and RJ81) and the GE06 Plan (digital broadcasting). The resources used were proportional to the forecasts indicated in the Operational Plan.

⁴ Submissions under ST61, GE84 and GE89 Agreements are treated under TerRaSys; submissions under GE75, RJ81 and GE06D are treated outside TerRaSys (using local database systems).

⁵ In addition, some 340 notices have been processed and returned to administrations due to incomplete coordination.

Table 2.2.2.a2-2: Plan modification procedures (other than BC/BT)

Procedure	AP 25	AP 26	GE85
Expected input	20	10	40
Received notices	0	0	1 (<i>Note 3</i>)
Examination			
Treated cases (including previous periods)	4	0	3
Performance indicator for examination	Partially satisfactory	N/A	Partially satisfactory
Backlog (weeks)	0	0	0 (<i>Note 3</i>)
Remaining active cases	20	0	4 (<i>Note 3</i>)
Earliest date of receipt	15.01.2002	-	08.06.2005 - (<i>Note 3</i>)

NOTE 3: There are some 141 notices, under RR Article 11 procedure, in the bands governed by the GE85-EMA Agreement, which may be eligible for the application of the Plan modification procedure (earliest date of receipt: 29 September 2000). These notices will be processed once the relevant tools are made available.

Performance indicator: Partially satisfactory (for AP25 and GE85): BR has followed the relevant steps of the procedure without being in a position to perform the required compatibility assessment.

2.2.2.a3 Processing of submissions to broadcasting service in the HF bands

The treatment of these submissions has followed the standard pattern (for details see Table 2.2.2.a4-1): all valid notices received up to two weeks before each publication are incorporated in the database and included in the appropriate technical examination process. In the reporting period, eleven CD-ROMs have been published, which contain, *inter alia*, HFBC schedules, results of compatibility analysis and the latest version of the HFBC software. This activity also comprises exchange of correspondence with administrations and regional coordination groups concerning possible improvements to software, update of reference data, improvements in the presentation of calculation results, and maintenance of web pages with the latest software updates and reference data.

Performance indicator: Satisfactory. All activities completed in accordance with the schedule indicated in Article 12. The resources used were within the forecasts indicated in the Operational Plan.

2.2.2.a4 Notification, examination and recording procedures pertaining to terrestrial services (Article 11 of the Radio Regulations)

Table 2.2.2.a4-1 summarizes the activities related to notification and other regulatory procedures pertaining to terrestrial services:

Table 2.2.2.a4-1: Notification and other regulatory procedures in 2006

Procedure	Art. 11	Art. 12
Expected input	50 000	22 500 ⁶
Received notices	79 721	31 754
Capture and Validation		
Captured notices	79 721	31 754
Performance indicator for data capture	Satisfactory	Satisfactory
Backlog (weeks)	0	0
Examination		
Examined notices (under TerRaSys)	3 480 (FMTV) 89 262 (FXM)	-
Examined notices (outside TerRaSys)	5 (LFMF)	53 103
Performance indicator for examination	Satisfactory (FMTV+LFMF) Partially satisfactory (FXM)	Satisfactory
Backlog (weeks)	10 weeks (FMTV) 6 weeks (LF/MF GE75) 36 weeks (LF/MF RJ81 & RJ88) 326 weeks (FXM) (<i>see Note 3 under 2.2.2.a2</i>) 8 weeks (GE06D)	0
Number of notices waiting for standard examination	415 (FMTV) 9 (LF/MF GE75) 3 (LF/MF RJ81 & RJ88) 1 462 (FXM) 62 (GE06D)	0

Performance indicator: The objectives set forth in the Operational Plan (timely processing within the statutory limits using standard tools) have been achieved in the context of the BC/BT notices and have been partially achieved in the context of the FXM notices. The objectives set forth in the Operational Plan could not be achieved with respect to FXM notices in the bands governed by the GE85 and RJ88 Agreements. The resources used were generally within the forecasts indicated in the Operational Plan, with an emphasis on testing of the delivered components. The relevant statistics on processing of notices is given in Table 2.2.2.a4-2.

Table 2.2.2.a4-2: Notices processed in TerRaSys for Publication in Parts I, II and III of BR IFIC

	Broadcasting			FXM (outside shared bands)			FXM (within shared band)			Totals			Gr. Total
	Pt I	Pt II	Pt III	Pt I	Pt II	Pt III	Pt I	Pt II	Pt III	Pt I	Pt II	Pt III	
1Q06	1160	637	41	30440	15118	209	5038	2617	0	36638	18372	250	55260
2Q06	1049	575	3	25688	22216	182	3092	586	2	29829	23377	187	53393
3Q06	1058	1599	0	6696	18334	309	2924	836	0	10678	20769	309	31756
4Q06	488	612	8	5029	1908	1738	3401	20670	418	8918	23190	2164	34272
Total	3755	3423	52	67853	57576	2438	14455	24709	420	86063	85708	2910	174681

⁶ Number of submissions expected for the Seasons A-2006, B-2006 and A-2007.

2.2.2.a5 Other regulatory procedures, including assistance in the application of the regulatory procedures

2.2.2.a5.1 Special assistance in the application of coordination, plan modification and notification procedures

In the reporting period, TSD provided the following assistance to administrations related to the application of various regulatory procedures:

- Detailed calculation results and test calculations for GE84: to **one** administration (BHR): 3 person-days,
- Detailed calculation results and test calculations for GE75: to **two** administrations (INS, LUX): 10 person-days
- Detailed calculation results and test calculations for RJ81: to **one** administration (ARG): 3 person-days
- Detailed calculation results and test calculations for GE89: to **one** administration- (YEM): 2 person-days
- Assistance in the determination of suitable frequencies in the frame of the Article 12 procedure (12.12, 12.33) and in resolving cases of harmful interference: to **three** administrations (NMB, UGA, USA): 5 person-days.
- Assistance and clarifications in the context of the implementation of Resolution 21 (Rev.WRC-03): to **five** administrations (BEL, BHR, E, JOR, SEY): 12 person-days.

2.2.2.a5.2 Special monitoring and treatment of cases of harmful interference

In the reporting period, TSD continued to treat the reports of harmful interference, as a special case of assistance defined in the RR, on a priority basis (normally within 48 hours from their receipt). Several cases were drawn to the attention of the RRB, as requested by the administrations concerned. Furthermore, TSD/TPR continued with the special monitoring program referred to in Resolution 205. The relevant statistics in this regard are summarized in Table 2.2.2.a5-1:

Table 2.2.2.a5-1: Statistics on special monitoring and harmful interference cases

	1Q06	2Q06	3Q06	4Q06	Total year
<u>406-406.1 MHz</u>					
Reports received	8	10	9	7	34
No. of Administrations involved	8	3	1	3	
No. of unauthorized emissions	12	4	1	3	20
No. of unauthorized emissions ceased	2	1	0	2	5
<u>Harmful Interference</u>					
No. of new cases (total no. of active cases)	10 (69)	21 (71)	6 (68)	14 (84)	51
No. of Administrations involved	12	17	9	12	
No. of cases closed	2	3	1	4	10
Cases of assistance to Administrations	4	7	3	2	16

2.2.2.a5.3 Regular Monitoring Programme in the HF bands

In the reporting period, the Bureau received a total of **49 895** monitoring observations, as detailed in Table 2.2.2.a5-2. All monitoring observations are available in zipped dBase format and pdf format for internal and external download at <http://www.itu.int/ITU-R/terrestrial/monitoring/index.html>.

Table 2.2.2.a5-2 Monitoring observations received from administrations

Quarter	Observations received on paper	Observations received in electronic format	Total
1Q06	-	14 737	4 737
2Q06	-	10 849	0 849
3Q06	-	7 055	7 055
4Q06	-	17 254	7 254
Grand Total	0	9 895	9 895

2.2.2.a6 Application of administrative and operational procedures

2.2.2.a6.1 In the reporting period, TSD/FMD handled **27** requests dealing with allocation of series of call signs, blocks of selective call numbers and Maritime Identification Digits, in accordance with Article 19, Resolution 13(Rev.WRC-97), as well as ITU-R and ITU Recommendations.

2.2.2.a6.2 In the reporting period, the following means of identification were allocated/modified to administrations/international organizations:

- call sign series: -
- blocks of coast station identification numbers: 2 (1 for BIH, 1 for ROU)
- predetermined group of ship stations: 1 (BIH)
- MID: 5 (1 for ATG, 1 for BIH, 1 for F, 1 for KGZ, 1 for PNR),

2.2.2.a6.3 Assistance and clarifications concerning administrative provisions of the RR were given to several administrations, as well as to a number of entities outside the administrations (operating agencies, private companies and general public). Necessary liaison with IMO, IMSO, ICAO, Inmarsat and the UN was provided with regard to the application of the ITU treaty texts within these organizations. A total of **368** communications was exchanged.

2.2.2.a6.4 The electronic version of the ITU Master List for means of identification has been maintained and updated using the Global Administration Database (GLAD).

Performance indicator: Satisfactory. All requests were treated on time and administrations in almost all cases follow the course of actions and other guidance suggested by BR. The staff resources used were within the forecasts indicated in the Operational Plan.

2.4.1 ITU-R publications⁷

2.4.1.1 Regulatory publications (including service publications)

2.4.1.1.1 In the reporting period, the preparation of the regulatory publications and the service publications followed the standard pattern, as foreseen in the Operational Plan, notably:

⁷ Section 2.4.1 pertains to **Objective 4: Disseminate information and know-how**

- The BR International Frequency Information Circular (BR IFIC) was published regularly, every two weeks, in DVD-ROM format and the concerned website was updated on a regular basis. Its content was modified according to the decisions of RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89. It is to be noted that, due to the implemented arrangements (publication outside ITU), the dispatch is regularly delayed (3-4 days beyond the publication date).
- List of Coast Stations (List IV): The 20th edition was published in April 2006. The presentation of this edition was changed, i.e. information concerning stations participating in the GMDSS, previously published in the annexes, was moved to the beginning of the publication (Part II). Supplement No 1 was published in October 2006. Preparatory work for the 2nd supplement is currently underway.
- List of Ship Stations (List V): The 46th edition was published in March 2006 and Supplements Nos. 1, 2 and 3 were published in June, September and December 2006, respectively.
- List of Radiodetermination and Special Service Stations (List VI): The 16th edition was published in January 2006. All required tasks, including the page setting (previously handled by the Composition Service), for the publication of this edition was carried out by the group. Supplement No. 1 was published in July 2006. Preparatory work for the 2nd supplement is currently underway.
- List of Call-signs of Maritime Mobile Stations (List VIIA): Supplement Nos. 3, 4, 5 and 6 were published in January, April, July and October 2006 respectively.
- List of Monitoring Stations (List VIII): Preparatory work is currently underway for the inclusion, in the Operational Bulletin, of data received from the Administration of Brazil.
- Optional Provision: Circular letter CR/255, concerning the application of RR 25.1, was dispatched to Administrations on the 7 April 2006 with a follow-up fax on the 22 May 2006. The replies were consolidated (fifty administrations have replied) and the relevant information was published in an Annex to the Operational Bulletin No.867 dated 1 September 2006.

Relevant details are included in Table 2.4.1-1.

Table 2.4.1-1: Cumulative statistics concerning preparation of Service Publications in 2006

Service Documents	Publication	Pages	No. of incoming notifications (all formats)	No. of transactions (including magnetic tapes & diskettes)
List IV (COAST STATIONS)	20 th Edition & 1 supplement	991	24	1 139
LIST V (SHIP STATIONS)	46 th edition & 3 supplements	1 627	1 767	123 669
LIST VI (RADIODETERMINATION)	16 th edition & 1 supplement	782	8	519
LIST VIIA	4 supplements	772	Internal extraction	
LIST VIII			59	287
OPTIONAL PROVISION	Annex to OB 867	123	63	278
OPERATIONAL BULLETIN	854, 856, 867, 868, 872	9	6	

2.4.1.1.2 In addition to the standard treatment of notifications from administrations related to the above publications, the Bureau continues to maintain and to update, on a regular basis, the ship-station database for use by the maritime mobile access and retrieval system (MARS). In the reporting period, the ship station database had been modified to allow for the incorporation of multiple EPIRB HEX Id codes. Administrations were advised accordingly (BR Circular Letter CM/15 dated 14 September 2006).

2.4.1.1.3 Staff of the Department attentively follows the activities (within ITU-R WP 8B) regarding the carriage requirements for service publication (Appendix 16), as well as the possible revision of the maritime service publications (Article 20).

Performance indicator (for TSD): Satisfactory (all activities initiated and/or completed according to pre-established schedules; some complaints are still being received from users, on the difficulties in installing the BR IFIC: they are normally forwarded to IAP and they seem to be resolved on a case-by-case basis). The staff resources used were within the forecasts indicated in the Operational Plan.

2.5 Assistance, cooperation and other activities⁸

2.5.1 General assistance and co-operation

In the reporting period, TSD continued to provide various kinds of assistance to administrations, as listed in paragraphs 2.2.2.a5.1, 2.2.2.a5.2 and 2.2.2.a6.3.

The Bureau maintained liaison and cooperation with many international and regional organizations, particularly with a view to ensuring effective preparation for WRC-07 and appropriate follow-up for RRC-06 (IMO, CEPT, CITELE, EBU, etc.). Staff of the Department participated in the meetings of the CEPT/CPG (Gdansk, 11-14 July 2006), CEPT/WG-RRC06 (Ljubljana, 31 January-2 February 2006; Riga, 11-13 April 2006), CEPT/WGFM (Moscow, 25-29 September 2006), CEPT/PT1 (Copenhagen, 28-30 November 2006), CEPT/PT4 (Bournemouth, 7-9 November 2006), CITELE PCC II (Puerto Ordaz, VEN, 17-20 October 2006), IMO/COMSAR10 (London, 6-10 March 2006), Joint ITU/IMO Experts group (London, 5-7 July 2006), in the EGEE Conference (Geneva, 25-29 September 2006) and in various meetings of the EBU in Geneva (e.g., Forecast 2006, Geneva, 14-15 November 2006).

Performance indicator: Satisfactory (all requests treated on time, satisfaction has been expressed by Member States). The staff resources used were within the forecasts indicated in the Operational Plan.

2.5.2 Liaison with and support to development activities

Staff of the Department was involved in some of the ongoing BDT assistance programmes dealing with spectrum management and conference related activities, including the participation in the BDT seminar on digital broadcasting (Moscow, 28-30 November 2006).

The Department ensured prompt actions to the requests for fellowships, to the participants in the IPG-2 in Geneva (February 2006, 12 fellowships); all logistic support was provided by the BDT.

Performance indicator: Satisfactory (timely response to all seminar-related activities). The staff resources used were within the forecasts indicated in the Operational Plan.

2.5.3 Seminars, workshops and related activities

2.5.3.1 Staff of the Department prepared the necessary inputs for the biennial BR Seminar (Geneva, 30 October–3 November 2006), and conducted the concerned seminar and workshop

⁸ Sections 2.5.1 to 2.5.3 pertain to **Objective 5**: support and assist membership, in particular developing countries

activities related to terrestrial services, including comprehensive programme related to the implementation of the GE06 Agreement.

2.5.3.2 Staff of the Department participated in BR/BDT Seminar on Digital Broadcasting for RCC administrations (Moscow, 28-30 November 2006) and in EBU Workshop "Forecast 2006" (Geneva, 14-15 November 2006) and made presentations on RRC-06 related issues.

Performance indicator: Satisfactory (timely initiation of relevant activities). The staff resources used were within the forecasts indicated in the Operational Plan.

3.5.10 TSD activities in software development for processing of terrestrial notifications (TerRaSys-related)⁹

In the reporting period, staff of the Department continued with the testing of various components of the new TerRaSys. The major activities in this regard are listed below:

- Review of Validation Rules with a view to their clarifying and adaptation to the changing circumstances (e.g., decisions of the RRC-06, RRC-06-Rev.ST61 and RRC-06-Rev.GE89), and associated testing of the implemented changes.
- On-going testing of all components made available (TerRaQ, TerRaNV, TerRaTron, TerRaRevFdg, TerRaRevQ, TerRaPub), identification of possible improvements and enhancements, submittal of related change proposals and subsequent testing of the modified software, as delivered.
- Ongoing support in fixing bugs and in system development.
- Development and implementation of software applications required for updating of lfmf data in TerRaBase.

Performance indicator (for TSD): Partially satisfactory (some statutory activities, e.g., examinations of the FXM notices in the bands governed by the GE85 and RJ88 Agreements are still not performed due to unavailability of examination tools). The staff resources used were within the forecasts indicated in the Operational Plan.

⁹ This Section pertains to **Objective 6: Improve efficiency and effectiveness of BR actions**