INTERNATIONAL TELECOMMUNICATION UNION

Radiocommunication Bureau

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Subject: Documentation of 2005 leap second experience

Dear Sir,

Since 2000, ITU-R Radiocommunication Study Group 7 (SG 7) "Science services" has undertaken studies on a possible revision of Recommendation ITU-R TF.460-6, which defines and describes the use of Coordinated Universal Time (UTC) for radiocommunication and telecommunication purposes. The implication of changes to the UTC time-scale, or identification of an alternative time-scale, could have a significant impact on radiocommunication, telecommunication and computer systems.

The studies have been carried out by Working Party 7A (WP 7A) of SG 7 in a series of meetings and activities spanning the period 2000 to 2005. WP 7A has worked with numerous organizations and individuals concerned with the UTC time-scale and in addition, has stimulated a number of cooperating international organizations to conduct their own independent studies of the subject. Some of these actions have not yet been completed.

At the meeting of Working Party 7A in October 2004, a contribution on the future of UTC was presented by one of the national delegations as a preliminary draft revision of Recommendation ITU-R TF.460-6. This document was discussed and sent to administrations together with the Working Party 7A Chairman's Report (Document 7A/21, at: http://www.itu.int/md/meetingdoc.asp?type=sitems&lang=e&parent=R03-WP7A-C-0021) as a basis for further discussion.

The main points in the proposal were:

a) to discontinue the insertion of leap seconds on the UTC time scale starting from December 2007;

b) to allow the maximum difference between UT1 (based on Earth's rotation) and UTC to increase from the current value of ±0.9 second to ±1 hour, the consequence of which being that no correction would occur for several centuries given the present behaviour of the Earth.

As a reaction to the proposal, further contributions were discussed at the meeting of WP 7A held in November 2005. However, since no clear consensus emerged, WP 7A has decided that more time is required for studying the matter.

In addition, WP 7A recognized that the forthcoming leap second just prior to 01 January 2006 00:00:00 hours UTC – the first for seven years – provides an opportunity to further document potential problems. In this respect, we would like to request the assistance of your members, customers and staff to document their experiences, both positive and negative, in coping with the addition of the aforementioned leap second. We would also encourage the widest possible distribution of this request, in order to benefit from maximum participation in this study.

We would request, please, that your responses are sent to the BR by e-mail at alexandre.vassiliev@itu.int. The resulting information will be subsequently submitted to WP 7A for further consideration and your organization will, of course, also receive the results as soon as they are available.

Yours sincerely,

Valery Timofeev
Director, Radiocommunication Bureau

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