

## DISCUSSION CONCLUDING AAS 13-505

DENNIS MCCARTHY asked if there are national regulations in each country that define the actual implementation of each national timescale, regardless of the actual names appearing in the translations of European Commission Directives. PAUL GABOR replied that such regulations surely exist, but the mission of the European Commission is to essentially coordinate things that might be in conflict and are of common interest. Defining legal time is definitely of common interest, so it would be quite within the purview of the European Commission to take the initiative and propose a new definition that could be applied across the European Union (EU). “At the moment we do not have that.”

With regard to what terminology should be preferred, ANDREW MAIN observed that “we have a nice, clear answer: ‘UT’ is the correct term to use when one is not being specific about sub-second differences.” Therefore, to clear up the EU terminology, legislation should be using ‘UT’ rather than ‘UTC’ or any of the others. GABOR said that this was exactly his understanding also—that for “non-technical” texts ‘UT’ could be used, with ‘UTC’ reserved for “technical” texts. GABOR felt there is probably agreement that current usages seem a little strange within the documents for terminology within the EU; however, advisory documents are just employing these terms as non-technical expressions and not defining them technically. JOHN SEAGO therefore asked if GABOR considered the EU summer-time adjustment rules<sup>1</sup> to be an example of a ‘technical’ text or a ‘non-technical’ text. GABOR said such rules should be considered ‘non-technical’ because they really do not focus on the definition of Greenwich Mean Time (GMT), UTC, or UT, but instead they coordinate the dates when countries will adopt daylight-saving time. GABOR considered a ‘technical text’ as one where sub-second differences matter.

GEORGE KAPLAN asked if ‘GMT’ has a technical meaning as it is used within the UK. GABOR said that to address the question, he could only repeat something he read in one of the papers from the Exton colloquium, notably, that there was some sort of a debate in the House of Lords about that issue within the last twenty years or so.<sup>2</sup> Here, the question is exactly how these national legal systems function. The English system essentially recognizes all previous decisions as having a certain value. On the other hand, the Continental system—the type of legal philosophy of the EU—primarily and happily disregards all previous decisions, and can render them irrelevant simply by the stroke of a pen; thus the idea of “legal discontinuities” is quite well aligned with this system. In other words, whatever the British system might be, GABOR understood that a Directive issuing a new definition could render UK’s definition essentially irrelevant because the UK is a part of Europe.

GABOR thought that political decisions via Directives of the European Commission are not going to be very feasible at this point, and thus some potential options are not going to be practical. This is why GABOR feels it would be interesting to consider an option where terminology is translated according to the definitions of institutions that define that terminology. Institutions like the International Earth Rotation and Reference Systems Service (IERS), the International Astronomical Union (IAU), *etc.*, are where this kind of terminology can be legitimately defined. On the level of semantics, translators are always trying to do their best, but if they do not receive any guid-

ance, they will continue with a rather chaotic way of translating these expressions. To somehow improve that situation, GABOR thought the approach of offering translation guidelines was quite feasible and much simpler than getting a European Commission Directive.

RUSSELL REDMAN thought guidelines should indicate that ‘UTC’ is correct, and that ‘GMT’ and ‘UT’ are both obsolete terms, and for guidance purposes the obsolete terms should be interpreted as UTC even though they could mean something different. GABOR said the question here was what sorts of texts require this level of specificity: would ‘UTC’ need to appear in all texts henceforth produced by the translation services of the EU, or is a distinction simply made between ‘technical’ uses and ‘casual’ uses? GABOR felt that it might be viable to explore REDMAN’s proposal to indicate UTC henceforth and designate GMT and UT as obsolete, thereby not permitting any ‘casual’ usage.

ROB SEAMAN thought the heart of the matter was GABOR’s proposed guidelines for ‘technical’ versus ‘non-technical’ texts, *i.e.*, ‘GMT’ is obsolete, ‘UTC’ is *technically* correct, and ‘UT’ is *generally* correct. However, if UTC is redefined, then the symmetry between these three terms is broken, and the argument could then be made that *none* of these is correct. GABOR agreed and thought that SEAMAN made a very good point. GABOR had not looked into the scenarios where UTC is redefined; this represents an entirely new dimension into the question.

KEVIN BIRTH asked about the table representing the different timescale terms appearing in translations of the EU summer-time Directive. BIRTH particularly noticed that the terms in Slovakian and Czech were different, and he wondered if there was a tangle of national sentiments lurking there greater than ‘GMT’. GABOR felt reasonable sure that there was no politics or animosity behind the different Slovak and Czech translations. Instead, GABOR thought that this was a very good illustration of the chaotic way this terminology was translated. Specifically, it appeared that there was very little coordination between the translations, and the Slovak and Czech translators did not consult each other. GABOR also clarified that the Czech term as listed in Table 1 of Seago, Seidelmann, and Allen (2011) is most accurately translated “world time” instead of ‘universal time’.<sup>2</sup>

KEN SEIDELMANN asked if the Directives of the European Commission have the force of law within the participating EU nations, or if countries reserve the option to not accept the Directives. GABOR replied that Directives supersede national laws and that national legislatures are obligated to legislate according to European Commission Directives. GABOR observed the very curious situation of the European Commission having a mandate from the EU member states to coordinate various types of policies at a level that is sometimes quite strange and minute, and indeed the issue of time terminology would fall under this mandate. However, the European Commission can only act if the European Council agrees, which is the head of government that makes the ultimate decision. If for some reason they do not agree, there is some sort of process whereby the draft of the new Directive is reworked until everybody agrees. However, most Directives do not go into minute detail and very often they are simply ratified by the European Council without any discussion.

The people who oversee the documents are, in fact, the staff of ambassadors to the European Union. Except for the members of the UN Security Council, these are the only other ambassadors within GABOR’s knowledge that actually make decisions. Specifically, they decide what is debated by the current government or not. They cannot consult with their government on every detail and thus they exercise some level of discretion. GABOR added that the goal of the European Directive process is to arrive at a consensus. Thus, as soon as somebody objects (say, the UK ambassador did not like the idea of dropping the term GMT altogether), then some sort of compromise would need to be drafted.

RUSSELL REDMAN said these Directives sound similar to Canadian orders in council; currently, the order in council on this subject directs all lawyers to interpret time on the Greenwich meridian, GMT, and Universal Time, to be equivalent to UTC for legal purposes, and new laws should be generally written to use UTC directly. GABOR replied that issuing such a Directive is certainly a possibility, but pointed out that a similar objective could be reached without a Directive, simply by introducing this recommendation into the terminological database. This essentially becomes the default for translators if there is no political decision going against it. So there might not be a need to achieve that particular result through a European Commission Directive; the equivalent may be achieved by going through translators. It would simply mean that new documents will include the default anytime the definition of time is required. An example might be a court decision saying exactly when a particular period starts, such as 0<sup>h</sup> GMT, UTC, *etc.*; again, this would be a ‘casual use’ because the document is not focusing on the meaning of any of the terms, but simply employing them.

The entire discussion was successfully conducted with GABOR from Europe via a remote Skype™ video-conferencing connection. SEAGO concluded the remote discussion by promising to revive the topic during a later round-table discussion.\* GABOR looked forward to that outcome.

## REFERENCES

<sup>1</sup> Directive 2000/84/EC of the European Parliament and of the Council of 19 January 2001 on summer-time arrangements, Official Journal of the European Communities (English ed.), 02/02/2001, L 31, p. 21

<sup>2</sup> Seago, J.H., P.K. Seidelmann, S.L. Allen (2011), “Legislative Specifications for Coordinating with Universal Time.” Paper AAS 11-662, from Seago *et al.* (2001), *Decoupling Civil Timekeeping from Earth Rotation—A Colloquium Exploring Implications of Redefining UTC*. American Astronautical Society Science and Technology Series, Vol. 113, Univelt, Inc., San Diego. pp. 29-48.

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\* *Editors’ Note*: The Concluding Round-Table Discussion of May 30, 2013 briefly continues the subject.