

World timekeepers split on scrapping leap second

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A Pentagon clock knocked from a wall in the September 11 attacks, now on display at Washington's Smithsonian Museum. Timekeepers meeting in Geneva on Thursday failed to agree on a proposal to abolish a 40-year-old practice of adding the occasional second to world time.

Timekeepers meeting in Geneva failed to agree Thursday on a proposal to abolish a 40-year-old practice of adding the occasional second to world time.

The International Telecommunication Union put off a decision, saying more study was needed into whether to scrap the leap second -- the extra moment added to atomic clocks to keep them in sync with the earth's rotation, which is slowed by the gravitational pull of the Sun and the Moon.

"The decision that we will take is that it is not approved and the matter is to be referred to study group seven for more study," Alan Jamieson, chairman of the ITU's Radiocommunication Assembly, said at the close of the meeting.

The decade-long debate has split ITU member countries.

Every time a second is added, the world's computers need to be manually adjusted, a costly practice that also boosts the risk of error.

Without the leap second, hi-tech clocks would race ahead of solar time, amounting to a discrepancy of about 15 seconds every 100 years, experts believe.

"The social, legal, religious implications (of scrapping the leap second) have not been studied properly," said British representative Stephen Bond, while the US said the increasing use of satellite-based navigation systems favoured its suppression.

A leap second has been added on 24 occasions since the ITU defined Coordinated Universal Time (UTC) 40 years ago.

When required, they are always introduced at midnight on June 30 or December 31.

Seventy countries were represented at Thursday's gathering, with the US, France and Japan among those favouring the scrapping of the leap second, while Britain, China and Canada said further study was needed.

"The use of these seconds introduces the possibility of technical problems each time they are inserted into UTC," said US representative Dick Beard.

"This can impact the safety and reliability of systems dependent on precision time keeping.

"Systems for space activity, global navigation, satellite systems and so forth require a continuous, uninterrupted time reference."

Bond said the decision was one of "great significance" that would be reflected on by future generations and its approval would be premature.

"The common public understanding of the civil time of day is that it is closely linked to the earth's rotation," he said.

"There may be public opposition to ending the linkage and the fact that the day will no longer be matched by a single rotation of the earth."

The future of the leap second will be further debated at the ITU's World Radiocommunication Conference beginning next week.

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