

Response to the House of Lords European Union Committee:
EU International Market call for evidence on discontinuing seasonal changes of time
August 2019

1. The National Physical Laboratory (NPL) is the UK's National Metrology Institute and is at the heart of both the National Measurement System and UK's leadership in the international system of measurement that underpins UK and international trade.
2. Timekeeping today is coordinated globally, with around 70 national timing institutes contributing to the generation of the international reference time scale, Coordinated Universal Time (UTC). All precise timekeeping and frequency measurement worldwide is based on UTC.
3. NPL as the UK's National Metrology Institute holds the primary time standard for the UK, the NPL time scale is termed UTC(NPL). UTC(NPL) provides the reference for precise timekeeping in the UK. UTC(NPL) is based on continuously-running commercial atomic clocks of two complementary types: active hydrogen masers and caesium clocks. Together, these clocks form a highly resilient system that ensures uninterrupted operation of the time scale. Measurements of the clocks are also supplied to the International Bureau of Weights and Measures (BIPM) for use in the calculation of UTC.
4. Ending seasonal time changes in the UK, or maintaining seasonal time changes in the UK, would have no technical consequences for the UK's time scale - UTC(NPL). UTC(NPL) would be unaffected as all parts of the time scale operate continuously using Coordinated Universal Time.
5. The UK's national radio time signal, known as MSF, is operated by NPL. The signal carries a time code that provides the current UK civil time, taking into account the existing seasonal time changes, and indicates whether summer time is in effect. If the proposal to end seasonal time changes is adopted in the UK, the service can be configured to disseminate the new form of UK civil time and the large number of clocks in the UK synchronised to the signal should continue to operate correctly.
6. If UK time does not align with the EU, we acknowledge that there may be logistical implications in sectors such as transport and energy that may need to be addressed, especially with our nearest neighbour Ireland. However, existing constant and variable time differences with other countries are already handled routinely.

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