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A new resilient time and frequency infrastructure for UTC(NPL)

A Resilient Enhanced Time Scale Infrastructure (RETSI) is being built by the National Physical Laboratory (NPL) as part of the UK National Timing Centre programme. RETSI will comprise four geographically distributed time scale laboratories at sites located across the UK, which will support the generation of the national time scale, UTC(NPL). The purpose of RETSI is to improve the resilience of UTC(NPL) and to reduce the UK's reliance on timing signals from GNSS.

The attached abstract briefly outlines the design concept of RETSI, the distribution of time and frequency signals from its laboratories, its incorporation of primary frequency standards, progress on RETSI's hardware and software infrastructure and RETSI as a platform to help facilitate the future inclusion of optical clocks in the UK's national time scale.

Author: Mr JONES, Douglas

Co-authors: SHEPPARD, Adam; ASHKHASI, Ali; WILSON, Andrew; EGLIN, Belinda; EVERETT, Ben; DEVINE, Bob; WILSON, Charles; SMYTH, Chris; LANGHAM, Conway; GALBRAITH, Daniel; WESTON, Daniela; MARGOLIS, Helen; OWEN, Huw; DAVIS, John; NEWTON-GRIFFITHS, Jonathan; WHALE, Josh; KHATRY, Kathryn; SZYMANIEC, Krzysztof; AIKOMO, Mayokun; WHIBBERLEY, Peter; LEWIS, Rebecca; HENDRICKS, Rich; FOOT, Rob; WALBY, Sam; SHEMAR, Setnam; ASHFORD, Simon

Presenter: Mr JONES, Douglas

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