

Recommendation CCTF1(2004)

Recommendation concerning secondary representations of the second

The Consultative Committee for Time and Frequency,

Considering that

--- the CCL/CCTF Joint Working Group (JWG) for the secondary representations of the second in its meeting at the BIPM on 30th March 2004 discussed possible candidates to be included in the list for secondary representations of the second,

--- this group has recommended a transition for this list,

supports this action,

recommends that

--- the unperturbed ground-state hyperfine quantum transition of ^{87}Rb may be used as a secondary representation of the second with a frequency of $f_{\text{Rb}} = 6\,834\,682\,610.904\,324\text{ Hz}$ and an estimated relative standard uncertainty (1σ) of 3×10^{-15}

and recognizes

--- that several optical frequency standards have been reviewed by the JWG. Although none has been proposed at this stage, the JWG believes that the rapid progress with these optical frequency standards requires that they should again be reviewed at its next meeting for their possible use as secondary representations of the second.