The atomic hydrogen line at 21 cm has been measured to a precision of 0.001 Hz (L. Essen, R. W. Donaldson, M. J. Bangham, and E. G. Hope, 1971, Nature 229, 110). The average spontaneous emission lifetime of the three $F = 1$ states is $2.876 \times 10^{-15}$ sec$^{-1}$. 