(A subsequent report is promised.) However, we can estimate the accuracy obtainable by using (1) with $n = 6$ and the 70D tables of $c_{j,k}$. Let $M_j = \max_{-1 \leqslant z \leqslant 1} |\Phi_j(z)|$. From [1] (which gives M_j for $j = 0(1)64$) we have $M_7 < 2 \times 10^{-5}$ and $M_8 < 3 \times 10^{-6}$. Thus, so long as τ is large enough for exponentially decreasing terms to be negilgible, the error in the computed $R(t)$ should be bounded by $A\tau^{-15/4} + B$, where A is of order 3×10^{-5} and B of order 10^{-40}. For $\tau \simeq 1000$ this gives an accuracy of about 16D. To obtain greater accuracy, more terms (given in [1]) could be used in (1), or the Euler-Maclaurin formula could be used [4], [5]. For $\tau \simeq 3 \times 10^5$ (at the limit of the computation of [6]) an accuracy of about 25D is obtainable, and this should be more than enough for most applications.

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12 [13.20].—OVE SKOVGAARD, IB A. SVENDSEN, IVAR G. JONSSON & OLE BRINK-KJAER, *Sinusoidal and Cnoidal Gravity Waves—Formulae and Tables*, Institute of Hydrodynamics and Hydraulic Engineering, Technical University of Denmark, Lyngby, Denmark, 1974, 8 pp., 21 cm. Price Dkr. 5.

This is an eight-page fold-out booklet made of plastic-covered cardboard. It contains basic formulas derived from linear theory (sinusoidal) and from nonlinear theory (cnoidal) pertaining to progressive surface water waves. The formulas provide expressions to calculate various water wave properties such as phase velocity, group velocity, mean energy density, and pressure. Evaluation of the formulas requires the use of tables of complete elliptic integrals of the first and second kind. In particular, the formula for the wave profile of a cnoidal wave is expressed in terms of the Jacobian elliptic function $\mathrm{cn}(\theta, m)$, hence the term cnoidal, analogous to sinusoidal.

For the case of sinusoidal waves basic formulas are given together with deep-water and shallow-water approximations. For the case of cnoidal waves only the basic formulas are given, as cnoidal wave theory is applicable only for shallow water (water depth small compared to wave length). In addition to the formulas there are tables (to 3 and 4S) of functions that are used to evaluate the formulas for various parameters such as wave period and wave length. Furthermore, directions are provided for using the formulas and tables to determine wave properties such as length and celerity, given other properties, as water depth, wave height, and wave period. The directions apply to the use of the formulas for waves progressing over water of constant depth (referred to as "local parameters" by the authors) as well as waves progressing over water of one depth to water of a different depth (shoaling).

It seems appropriate here to point out that, for the most part, similar and more comprehensive formulas and tables can be found elsewhere, as for example in publications of Wiegel [1], [2]. Although nothing new appears to have been presented in this booklet, nevertheless the convenient assembly in condensed form of the information herein should prove very useful to those engaged in water-wave calculations.

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