List of Errors and Corrections


Identification of locations: First by page number, then by formula number: (x.y), or by line identification: n lines from top or bottom, or (x.y)+n to indicate n lines after formula (x.y), or something similar. If a formula number (x.y) consists of several equations, a subscript will be used to identify the one intended: e.g., (x.y)3 for the third equation.

I am grateful to the many colleagues who have informed me of errors. Without their help the list would be much less complete.

p. 447, line 2: “und” should be “and”.

p. 449, (2.10') delete + following $\frac{1}{2}$.

p. 452, (3.4): $a -$ should precede the term $\mu(w_y + v_z)$.

p. 453, (3.8'): delete the exponent $\frac{1}{2}$ in the two denominators where it occurs.

p. 454, footnote: in the last term on the right $F_j$ should be $F_{i,j}$.

p. 457, (7.5), comment: $(x,y)$ must be submerged.

p. 460, (8.8): In the last integral $d_s$ should be $ds$.

p. 461, (9.4)+1: “orce fon” should be “force on”.

p. 468, (10.34): the correctness of the fifth equation has been questioned.

p. 469, 4 lines from the top: (10.32) should be (10.33).

p. 469, (10.36)-2: $\alpha \eta^{(01)}$ should be followed by a $+$.

p. 475, line 3: for $\phi(x,y)$ read $\phi(x,z)$.

p. 475, (13.8)+8: for $(x-a)^2$ read $(x-a)^2$.

p. 475, (13.9)+2: delete the final “n” from “ben”.

p. 479, (13.21): in the third term on the first line the denominator should be $r_1^{n+2}$.

p. 481, bottom equation: in the exponential term $c$ should be $\bar{c}$.

p. 482, (13.31)2: the two occurrences of $-\frac{(-1)^{n-1}}{(n-1)!}$ should be replaced by $\frac{1}{(n-1)!}$.

p. 482, (13.31)3: the two occurrences of $\frac{(-1)^{n-1}}{(n-1)!}$ should be replaced by $\frac{1}{(n-1)!}$.

p. 482, the unnumbered formula below (13.31): the + following log $r$ should be $-$.

p. 483, (13.34): in the second line $-\frac{e^{-kh}}{k}$ should be $+\frac{e^{-kh}}{k}$; in the last line $\sin \sigma t$ should be $\cos \sigma t$.

p. 484, (13.35)5: $\text{grad } \phi = O(((x-a)^2 + (z-c)^2)^{-1/4})$ as $x \to \infty$.
p. 484, (13.37): in each of the two integrals the terms on the second line should be inserted in
the numerator after the two coshterms so that all four terms multiply \((k \cos^2 \theta + \nu)\). I
would also like to call attention to the fact that a “corrected” version of this equation
in my article on wave resistance in Advances in Applied Mechanics, 13, equation
(3.51b) is also in error because of some misplaced multipliers.

p. 485, (13.38): in the last line there is a missing \{ before \sec^3 \theta \}.

p. 489, (13.43): in the third line the denominator should be \(u - \bar{c}\); in the fifth line the exponent
should be \(-i\nu(z - \bar{c})\).

p. 490, (13.46-48): in order that \(f(z) \to 0 \) as \(x \to \infty\), one must subtract a term \(\frac{Qu}{2i\nu h - 1} (z - a + ih)\) from (13.46), add a term \(\frac{\Gamma_{\nu(b+h)}}{2i\nu h - 1}\) to (13.47), and add a term \(\frac{M\nu}{2i\nu h - 1} \cos \alpha\) to
(13.48).

p. 491, 11 lines from top: second term on right-hand side should be \(mr_1^{-1}\).

p. 492, (13.49): on the last line, in the exponential term \(\alpha\) should be \(a\).

p. 495, (13.54): the numerator in the second term should be \(\Gamma(t) - iQ(t)\).

p. 496, (14.2)+3: add to the equation “, \(A = a\sigma/g\)” and to the equation below add
“, \(A = (a\sigma/g) \cosh m_0h\)”.

p. 497, lines 9 and 10 from bottom: the final \(t\) on line 9 should be interchanged with the final
period on line 10.

p. 497, line 6 from bottom: \(\chi(x,y)\) should be \(\chi(x,z)\).

p. 498, (14.6): in the second line the right-hand side should be \((\sigma^2/g)^2\).

p. 498, (14.11)−2: last word should be “depth”.

p. 504, (14.35)+10: (14.39) should be (14.33).

p. 511, (15.11)+14: insert “near the observer” after \(\eta_R\).

p. 512, second displayed formula: the numerator in the third term should be
\(-k_1^2 x^2/t^2 - \sigma(k_1) + \sigma'(k_1)k_1'(x/t^2)t\).

p. 515, line 4: \(2\rho g\) should be \(\rho g\).

p. 515, top graph on the right and bottom one on left: in second displayed formula \(\sigma = \) should
be \(\sigma' =\). In bottom graph on right in second formula numerator of last term should
be \(2Tk^2/\rho g\).

p. 519, (15.23): the lower limit for the integral should be \(-h\).

p. 520, (15.28): in the first summation \(\sigma\) should be \(\sigma_j\).

p. 520, (15.29)−1: \(+b_j\) should be \(+ib_j\).

p. 521, second displayed formula after (15.33): at the end of the formula \(dy\,dx\) should be
\(dy\,dx\).

p. 523, (16.4)−1: add an “s” to “function”

p. 527, six lines from bottom: \([A_1^2 + B_1^2]\) should be \([A_1^2 - B_1^2]\).
p. 527, (17.2): in the coefficient of the second term \( m_0^2 \) should be \( m_0^{(2)} \).

p. 528, (17.3)+3 and 4: in each occurrence the word “wave” should be followed by “potential”.

p. 528, (17.3)+7: I note that I have inserted a comment at the bottom of the page:
If \( A_1, B_1, A_2 \) are actually wave amplitudes then with \( R = |B_1/A_1|, T = |A_2/A_1|, R^2 + T^2[\cosh m_1 h_1/\cosh m_2 h_2]^2 = 1 \).

p. 529, 15 lines from bottom: \( = 0 \) is missing from the equation that begins \( \Phi_{tt} + \ldots \).

p. 529, bottom line: \( l \) should be \( -l \).

p. 530, line 3: in the second equation \( f_1 \) should be \( \nu f_l \).

p. 531: in the middle of the page the sentence beginning “Let \( E_1 = \ldots \) \( D \) should be \( D_1 \).

p. 532, (17.4): in the second equation \( +\beta_T \) should be \( -\beta_T \).

p. 537, line following \( \beta \) Waves on beaches: The first inequality statement should be replaced by \( \tan \gamma \geq \frac{x}{2} \geq 0 \); in the next line \( \alpha \) should be \( \gamma \).

p. 540, line 4: eliminate the word “both”.

p. 541, (17.52)+3: “or” should be “of”.

p. 543, (18.4): in the third equation \( \nu \) should be \( m \).

p. 544, (18.9): \( \cos \theta \) should be \( \cos n \theta \).

p. 545, (18.11)−2: \( Y \) should be \( y \).

p. 547, (18.24): The upper limit of the integral should be \( +y \) and the term beginning \( -2\pi i \) should begin \( +2\pi i \).

p. 547, (18.25)4: the last term should begin \( k_1^2 \).

p. 550, (18.33): in the summation the argument of the exponential on the first line should terminate with \( \gamma \], as in the similar exponential on the second line.

p. 551, line 2: \( \cos(z - \zeta) \) should be \( \cos k(z - \zeta) \).

p. 556, (19.11): I have the following note in the margin: Here \( n \) points out of \( S_1 \).


p. 563, Fig. 18: the numbers in the abscissa scale should be multiplied by \( \pi \).

p. 566, (19.66): read \( \Phi_f = \text{Re}\{-i\sigma[\varphi^1 a_0 + \varphi^2 b_0 + \varphi^3 c_0 + \varphi^4 \alpha_0 + \varphi^5 \beta_0 + \varphi^6 \gamma_0]e^{-i\sigma t}\} \).

p. 570, (20.17)−1: for (20.10) read (20.16).

p. 575, (20.42): in the second integral the upper limit should be \( z \).

p. 575, (20.45): for second term read \( f_2 = \mathcal{R}\{f_1\} \).

p. 576, (20.51)+11: (1939b) should be (1936b).

p. 578, (20.60)−11: (1958) should be (1959).

p. 581, (20.69)1: in numerator of first coefficient eliminate \( c \).
p. 585, the second of two lines in the middle of the page: delete the final “s” in “summations”.

p. 592, (20.101)+1: “There” should be “These”.

p. 593, (21.1): replace $p(x, y, z t)$ by $p(x, z, t)$.

p. 593, (21.3): $-i\sigma$ should be $+i\sigma$; lower limit of third integral should be 0; the sign of the last term should be changed from $+$ to $-$.


p. 594, (21.6): in both lines the initial signs should be changed; the second integral in line one goes from 0 to $\infty$.

p. 594, (21.6)+1: “simpel” should be “simple”.

p. 594, (21.7): the right-hand side should be preceded by a $-$.


p. 594, (21.7)+5: lower limit should be 0.

p. 594, (21.7)+6: I have written a note at the bottom of the page: Note that these are not really ‘sources’, for the source at $y = b$ is accompanied by a sink at $y = -b$. As $b \to 0$ these two cancel and the integral above is left.

p. 595, (21.10): the sign of each term should be reversed.

p. 596, (21.16): the right-hand side should be preceded by a $-$ sign.

p. 596, (21.17): both terms on the right should be preceded by $-$ signs.

p. 596, (21.18): the right-hand side should be preceded by a $-$ sign.

p. 597, (21.19), (21.21), (21.22): in all these equations the signs on the right-hand sides should be changed.

p. 597, line 2 from bottom: $c$ should be $c > 0$.

p. 598, (21.26): on the third line, the exponent $-\nu \sec^3 \theta$ should be replaced by $\nu \nu y \sec^3 \theta$.

p. 599, (21.30)+1: after “potential” insert “as calculated by Lunde (1951b),”.

p. 600, (21.34): on the first line, $p$ in the denominator should be $\rho$; in the second denominator replace $\sec^2$ by $\sec^2 \theta$.

p. 604, (22.1): the $=$ in the second term should be deleted.

p. 604, (22.4): on the first line, in $G(...)$ and $G_t(...)$ the correct arguments should be be $(x, y, z; \xi, 0, \zeta; t, \tau)$.

p. 604, (22.4)+6: replace $\xi, \zeta$ by $\xi, \eta, \zeta$ in the first occurrence of $G$.

p. 605, (22.8): the upper limit for the two single integrals should be $t$; a subscript $t$ should be added to the $G$ in the third line and removed from the $G$ in the fourth line.

p. 606, line 4: the multiplier of $\Phi_t$ should be $-\frac{1}{2}$.

p. 606, second displayed formula $-$ 1: replace “$f, F$” by “$\eta(x, z, 0), \eta_t(x, z, 0)$”.

"Surface Waves Online" - Copyright 2002, Regents of the University of California. All Rights Reserved.
p. 609: in the first group of three equations determining $K$, multiply the second equation by \( 2/\pi \) and the third equation by \( 1/\pi \); in the second group of three equations determining $K$, divide all terms by $\pi$; in the third equation (single line) determining $K$ delete $\pi$ from the coefficient; in (22.20) and all three equations of (22.21) replace $\pi^2$ by $\pi$.

p. 613, (22.42)+2 and 5: in line 2 delete “of”; in line 5 insert “in” before “the form”.

p. 615, lines 1 and (22.50)–5: delete “’s” in “Green’s”.

p. 615, (22.49): an overbar is missing over $gk\tanh kh$.

p. 616, lines 7, 15, 26, 28: eliminate the “’s” in “Green’s”.

p. 616, (22.52)+2: delete the final “s” in “computations”; in the next line (1937) should be (1939).

p. 618, (22.60): insert $J_0(kR)$ before $\sigma(k)$.

p. 619, (22.65)+2: delete “’s” in “Green’s”.

p. 620, line 3: replace “an analytic” by “a closed”.

p. 623, (23.13)+13: replace “McKnown” by “McNown”.

p. 628, (23.35)1: in the second term replace $\bar{x}_y$ by $\bar{x}$.

p. 631, line before 24. Gravity waves: replace “with” by “within”.

p. 633, (24.13)+1 and +3: in line 1 delete the 2 before $\rho g$; in line 3 replace 0.33 by 0.47.

p. 636, (24.31)–3: (24.38) should be (24.28).

p. 637, second displayed equation: the ± should be reversed.

p. 637, (24.32)–5 (constant $c$): according to a marginal note $c$ has been found by Pursco (reference missing); $c = \left[ \sqrt{3} \left( 2 - \sqrt{3} \right) \right]^{-1} = 2.1547$.

p. 640, (25.1)1: $w_y$ should be $w_z$.

p. 641, (25.10)+1: delete “n” in “wheren”.

p. 642, (25.23): for $T'\omega^3$ read $T'm^3$.

p. 644, (25.39)+3: read “he” for “the”.

p. 645, line 3: for $\omega_1$ read $\omega$.

p. 646, line 18: for “Pulsing” read “Pulsating”.


p. 654, (27.2): the last term on the left should be $c\eta_x$.

p. 655, (27.7)2: in the second line $+\text{grad}$ should be $-\text{grad}$; in the third line $+\eta^{(1)}\text{grad}$ should be $-\eta^{(1)}\text{grad}$, and $-T'$ should should be $+T'$.

p. 655, (27.8): in the first equation $C_0$ should be $c_0$; in the next line (27.9) should be (27.6).

p. 657, line 6: “seen” should be “seem”.

p. 657, last displayed equation: in the last term it should be $\sin nmx$. 

“Surface Waves Online” - Copyright 2002, Regents of the University of California. All Rights Reserved.
p. 658, (27.25): I have a ? beside the = in front of $A'$.

p. 659, (27.30): $\cos m$ should be $\cos mx$.

p. 660, (27.34): $A$ should be $A'$, where $A' = A \left\{ 1 + A^2 m^2 \frac{2 \sinh^4 mh + 14 \sinh^2 mh + 3}{16 \sinh^4 mh} \right\}$.

p. 661, (27.43): in the double integral the limits of the second one should be $-\infty$ and $\eta$.

p. 662, (27.45): on line two, in both the exponential and the denominator $(m_1 - m_2)$ should be $|m_1 - m_2|$.

p. 664, (27.55): in the second equation $c_0$ should be $\sigma_0$.

p. 664, (27.55)+4: replace “they” by “these”.

p. 664, (27.56)+2: in the last line $\cos 2my$ should be $\cos 2mx$.

p. 665, (27.60)+2: there should be a bracket [ after $\cos 3mx$.

p. 666, line 8: in the margin I have written Concus (1962).

p. 666, (27.63),1,2: In line 2 the second appearance of $\coth^2 mh$ should be preceded by a + and not a −; in the fourth line the initial + should be −.

p. 666, (27.67): I have added an extra term $+A^2 \sigma_0 m \exp(-4 \nu m^2 t) \sin 2my$ together with a reference to Longuet-Higgins [1960, p. 296] for a correction to Harrison.

p. 668, line 12: after “converges” insert “asymptotically”.

p. 683, (30.22)+8: $\chi_n$ should be $\chi_u$.

p. 695, (30.47)+8: delete first $t$ in “relations”.

p. 714, line 5: insert “irrotational” before “motion”.

p. 715, (32.1)−2: $\varphi$ should be $\Phi$.

p. 717, (32.17)+1: after “transport” insert “velocity”.

p. 720, (32.44)−1: for (32.88) read (32.38).


p. 721, (32.50): at the end of the right-hand side insert $> \frac{1}{2}$.

p. 725, middle of the page: beside the reference to Lamb I have written: Lamb does not assume irrotational motion.

p. 728, (32.89)+1: for “It” read “If”.

p. 730, (32.104): the factor preceding the integral should be $\frac{1}{6\pi}$; the limits should be $-\pi$ to $\pi$.

p. 734, (33.24): $\sqrt{2}$ should be $\sqrt[3]{2}$, i.e. $2^{1/3}$.

p. 744, (34.49)+5: At the end of the sentence I have written “See also Boussinesq (1877)”.

p. 755, end of paragraph beginning with Moiseev: in the margin I have written: Seems to contradict p. 570 and Gerber.
p. 767, Kochin, fifth entry: “Sobranie” is misspelled.


p. 770, McKnown: should be McNown.