N. H. Brooks

ERRATA

Lecture Notes on Sediment Transportation and Channel Stability *

Page	Item
i	"FORWARD" should read "FOREWORD"
iii	3.4 (d): should read "Typical values of σ_g"
1-8	First equation on the page: "AL sin θ" should read "γAL sin θ"
2-3	3rd line from bottom: "emminently" should read "eminently"
2-9	Line 20: "section 2.2" should read "section 2.3"
3-1	Last line: Correction not clear; should read "except on fall velocity"
3-6	3rd line: "25%" should read "2.5%"
3-14	Corrections not clear in headings of Table 3.2. Delete "Bed" in title; and "Rivers Beds" should be "River Beds".
3-19	Next to last line: 1949 should read 1947
4-3	Line 14: d should read d_s
4-4	Line 8: 600 should read 60
4-5	Delete entire page and renumber following pages.
4-6	Last line of Sec. 4.4: "flat bed" should read "dune-covered bed".
4-6	Sec. 4.5, second line: should read "(fig. 4.2) and the type of problem in which the concept of critical shear stress arises, on example problem . . ."
5-3	Center of page: "y-a/d-a" should read "(y-a)/(d-a)".
5-7	3rd line from bottom: "The" should read "The Σ"
6-2	Eq. 6.1: "$39.25 q^{2/3}$" should read "$39.25 q^{2/3} S^{1/2}$"
6-4	Equation 6.5 a: The denominator of the right hand side should be multiplied by "γ_s"
6-4	Equation 6.6a: Insert square root sign over the product "g d S"

also p. 5-5

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Page	Item
6-7	Fig. 6.2: The expression for ϕ on the ordinate scale should read

$$\phi = \frac{g_s}{\gamma_s \sqrt{g(s_s-1)}\, F\, d_s^{3/2}}$$

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and the expression on the abscissa scale should read

$$\frac{1}{\psi} = \frac{\tau_o}{\gamma(s_s-1)\,d_s} = \frac{dS}{(s_s-1)d_s}$$

7-1	Last line: "West Goose" should read "Mountain"
7-2	1st and 2nd lines below table: Delete the existing text and substitute "Mountain Creek had the coarsest bed material."
7-7	Fig. title: "Niobrary" should read "Niobrara"
8-2	Last line: "vali" to read "valid"
8-5	Line 8: "was" should read "were"
8-5	12th line: "D_{35}" and "35%" should be "D_{65}" and "65%"
8-5	Line 31: "section 2.4" should read "section 2.5"
8-8	Add to reference list: 8.3 Einstein, Hans A., and Barbarossa, Nicolas L., "River Channel Roughness", Trans. A.S.C.E., Vol. 117, 1952. pp 1121-1146. 8.4 Liu, Hsin-Kuon and Hwang, Shoi-Yan, "Discharge Formulas for Straight Alluvial Channels", J. of Hyd. Div., A.S.C.E., Nov. 1959. pp 65-97.
9-2	Last line: "quandry" should read "quandary"
9-9	Line 22: "elope" should read "slope"
10-2	Line 24: "shape and slope" should read "shape, alignment, and slope . . ."
10-3	Line 9: F_b should be F_s in equation for side factor
10-9	Line 11: "change" should read "changes"
10-13, 10-14	Interchange page numbers

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1. Numerical example pp. 10.5 and 10.6
Professor Blench has pointed out in private communication that there appears to be some inconsistency in the data of this example. From the data one can calculate $F_b = V^2/d = 0.52$ and $F_s = V^3/b = .08$. Because F_b is even smaller than F_{bo}(1.07) Blench concludes from regime theory that there is no bed load or perhaps an error in the data, and on the basis of the fact that F_s is much lower than the allowable value, he concludes that the attack on the banks was well below the threshold value for erosion. Additional information kindly furnished by Mr. D. B. Simons reveals that the Fort Morgan I Canal from which data used in the example were taken is excavated in cohesive soil and does not have a loose sand bed, although some loose sand was being transported. Therefore, this stream is not one to which regime theory applies, and it is improper to apply the theory to this particular canal.

✓ 2. Figure 4.2
The horizontal scale should be labeled d_s/δ which is equivalent to $\frac{1}{11.6}\frac{u_* d_s}{\nu}$ where $\delta = 11.6\frac{\nu}{u_*}$ is the so-called thickness of the laminar sub-layer.

✓ 3. Page 4.4
In fifth line from bottom of page, change $\frac{d_s u_*}{\nu}$ to $\frac{1}{11.6}\frac{d_s u_*}{\nu}$ or to $\frac{d_s}{\delta}$.

4a. ✓ Fig. 6.2
In the expression for ϕ on graph, replace γ by γ_s.

b. Eq. 6.7, p. 6-4.
Replace τ'_{oi} by τ'_o.

c. Eq. 6.7a, p. 6-5.
(1) Replace τ'_{oi} by τ'_o.

(2) Replace $d_{si}^{1/3}$ by $d_{50}^{1/3}$.

4d. p. 6-5. Definition of symbols.

(1) Definition of τ'_{oi}, replace τ'_{oi} by τ'_{o} and d_{si} by d_{50}.

(2) Add d_{50} = size of bed material, in feet, for which 50% by "weight is smaller."

e. Fig. 6.3, p. 6-8.

Change "w" in expression for variable in abscissa and ordinate to "w_i."

f. Fig. 7.4 to 7.7 inclusive.

Curves for the Laursen formula are in error and should be ignored.