



**World
Meteorological
Organization**

Weather · Climate · Water

MANUAL ON STREAM GAUGING (WMO-No. 1044)

Volume I – Fieldwork

ERRATUM No. 1

Insert text in the following:

- Page I.5-7 5.3.3, third paragraph, fourth line from bottom:
Insert “max” after “would register V ”.
- Page I.5-16 5.3.11, under “Conditions for satisfactory calibration”, first paragraph (f), third line, and second paragraph, seventh line:
Insert “(see the UNESCO/WMO *International Glossary of Hydrology* (WMO-No. 385), second edition, 1992)” after “*Epper* effect”.
- Page I. 7-1 7.1, seventh line:
Insert “(available under HWRP Publications)” after “(WMO-No. 280)”.
- Page I. 7-13 References, penultimate line:
Insert “(available under HWRP Publications)” after “(WMO-No. 280)”.
- Page I. 9-6 Figure I.9.5:
Insert “The angle θ is measured in radians.” at bottom of figure.

Delete text in the following:

- Page I.2-8 References:
Delete “International Organization for Standardization, 1997: *Liquid flow measurement in open channels – General guidelines for selection of method*. ISO 8363, Geneva.”
- Page I.3-7 References:
Delete “(in publication)” in the two entries “International Organization for Standardization, 2005”.
- Page I.5-15 5.3.11, first paragraph, last line:
Delete “, being revised in 2009”.
- Page I.5-39 5.5.2, under “Depth corrections for downstream drift of current meter and weight”, paragraph below subparagraph (d):
Delete “A more detailed method of determining wet-line corrections is described in ISO TR 9209 (1989). This procedure takes into account various types of sounding cables and sounding weights. Although this more detailed procedure may be slightly more accurate, the difference between the method described herein and the method in ISO TR 9209 is not significant.”
- Page I.5-61 References:
Delete “International Organization for Standardization, 1989: *Measurement of liquid flow in open channels – Determination of wetline correction*. ISO 9209, Geneva.”
Delete “(being revised in 2009)” under “International Organization for Standardization, 2007 (being revised in 2009)”.
- Page I.6-46 6.5.8, penultimate line:
Delete “ISO 7066-1 (1997) and”

- Page I.6-46 References:
Delete “International Organization for Standardization, 1997: *Assessment of uncertainty in calibration and use of flow measurement devices – Part 1: Linear calibration relationships*. ISO 7066-1, Geneva.”
Delete “International Organization for Standardization, 1998: *Measurement of liquid flow in open channels – Computing stream flow using an unsteady flow model*. ISO 11627, Geneva.”
- Page I.8-9 8.8, first paragraph, third line from bottom:
Delete “ISO 11656 (1993),”.
- Page I.8-13 References:
Delete “International Organization for Standardization, 1993: *Liquid flow measurement in open channels – Mixing length of a tracer*. ISO/TR 11656, Geneva.”
- Page I.8-14 References:
Delete “(in press)” under “Wilson, J.F., Jr., Cobb, E.D., and Kilpatrick, F.A., 1984”.
- Page I.10-16 References:
Delete full stop and space after “South” under “González-Castro, J.A, 2002”, so that the entry underneath, “Florida Water Management District and IIHR-Hydroscience & Engineering, West Palm Beach, Florida.”, is incorporated in this entry.
Delete “International Organization for Standardization, 2005: *Measurement of liquid flow in open channels – Velocity-area methods*. ISO 748, Geneva.”
- Delete* “, in publication” in the following:
- Page I.5-1 5.2, second paragraph, last line
- Page I.5-36 5.4.8, first paragraph, fourth line
- Page I.5-44 5.6.1, first paragraph, eleventh line
- Page I.5-45 5.6.2, first paragraph, last line
- Page I.8-4 8.3, last paragraph, last line
- Page I.10-6 10.3.1, under “Example computation of uncertainty”, third paragraph, eleventh line and 10.3.2, first paragraph, sixth line
- Page I.10-8 10.3.2, under “Horizontal distribution errors”, fifth line

Replace text in the following:

- Page I.2-1 2.2, third line:
Replace “WMO-No. 168 – *Guide to Hydrological Practices*, Fifth edition, 1994” by “the *Guide to Hydrological Practices* (WMO-No. 168), sixth edition (2008)”.
- Page I.2-8 References:
Replace “World Meteorological Organization, 1994: *Guide to Hydrological Practices* Fifth edition, WMO-No. 168. 735 pp., Geneva.” by “World Meteorological Organization, 2008: *Guide to Hydrological Practices* (WMO-No. 168), Sixth edition. Volume I: Hydrology – From Measurement to Hydrological Information, 296 pp., Geneva.”
- Page I.3-7 References:
Replace “International Organization for Standardization, 2007 (in publication): *Liquid flow measurement in open channels – Velocity-area methods*. ISO 748, Geneva.” by “International Organization for Standardization, 2007: *Measurement of liquid flow in open channels using current-meters or floats*. ISO 748, Geneva.”

- Page I.5-4 5.3.1, second paragraph, last line:
Replace “ISO 2537 (2005, in publication)” by “ISO 2537 (2007)”.
- Page I.5-16 5.3.11, under “Current meter tow tanks”, first paragraph, tenth line:
Replace “⁻¹” by “two”.
- Page I.5-61 References:
Replace “2005” by “2007” under “International Organization for Standardization, 2005: Measurement of liquid flow in open channels – Rotating element current-meters. ISO 2537, Geneva.”
Replace “International Organization for Standardization, 2007: Measurement of liquid flow in open channels – Velocity-area methods. ISO 748, Geneva.” by “International Organization for Standardization, 2007: Measurement of liquid flow in open channels using current-meters or floats. ISO 748, Geneva.”
- Page I.8-13 References:
Replace “International Organization for Standardization, 2007 (in publication): Measurement of liquid flow in open channels – Velocity-area methods. ISO 748, Geneva.” by “International Organization for Standardization, 2007: Measurement of liquid flow in open channels using current-meters or floats. ISO 748, Geneva.”
- Page I.10-2 10.3.1, first paragraph, fifth line:
Replace “current-meters or floats (2007, in publication)” by “current-meters or floats (2007)”.
- Page I.10-12 10.4, second paragraph, fourteenth line:
Replace “Gonzalez-Castro” by “González-Castro”.
- Page I.10-12 10.4, second paragraph, fourth line from bottom, and third paragraph, penultimate line:
Replace “Gonzales-Castro and Muste (2007, in press)” by “González-Castro and Muste (2007)”.
- Page I.10-13 10.4.2, first paragraph, fifth line:
Replace “Gonzales-Castro and Muste (2007, in press)” by “González-Castro and Muste (2007)”.
- Page I.10-16 References:
Replace “González-Castro, Juan.A. and Muste, Marian, 2007 (in press)” by “González-Castro, Juan A. and Muste, Marian, 2007”.
Replace “International Organization for Standardization, 2007 (in publication): Measurement of liquid flow in open channels – Velocity-area methods. ISO 748, Geneva.” by “International Organization for Standardization, 2007: Measurement of liquid flow in open channels using current-meters or floats. ISO 748, Geneva.”
- Replace “shall” by “should” in the following:*
- Page I.2-5 2.3 (f), penultimate line
- Page I.6-30 6.4.4, under “Crossed path systems”, first paragraph, fifth line
- Page I.6-41 6.5.2, second paragraph, fifth and thirteenth lines, and the first line in the third, sixth and seventh paragraphs
- Page I.6-42 6.5.2, last paragraph, third line
6.5.3, first paragraph, third line, and second paragraph, first line
6.5.4 (g), third line
6.5.5, under “The field coil” – third paragraph, last line and fourth paragraph, first line

- Page I.6-43 6.5.5, under “The field coil”, fifth paragraph, third, sixth, eighth and ninth lines; sixth paragraph, third line from bottom; seventh paragraph, second and third lines; and eighth paragraph, second line
6.5.5, under “The electrodes”, second paragraph, second and last lines; fourth paragraph, second line, third line from bottom and penultimate line; and fifth paragraph, third line, third line from bottom and last line
6.5.5, under “Insulating membrane”, first paragraph, second and last lines
- Page I.6-44 6.5.5, under “Insulating membrane”, second paragraph, first, third and last lines; third paragraph, fourth and last lines; fourth paragraph, first and penultimate lines; and sixth paragraph, penultimate line
6.5.5, under “Instrumentation unit”, first paragraph, first and last lines; third paragraph, second, fourth and penultimate lines; fourth paragraph, first, fifth (two times), ninth and tenth lines
6.5.5, under “Equipment housing”, first, third and sixth lines
6.5.5, under “Water level gauge”, first and third lines
6.5.6, first paragraph, fourth line and second paragraph, second line
- Page I.6- 45 6.5.6, second paragraph, penultimate line
6.5.7, first paragraph, first, third and fifth lines; second paragraph, fourth line and fifth paragraph, first and second lines
- Page I. 7-3 Figure 1.7.9, in “The invert over this length shall be truly level”
- Page I.10-2 10.3.1, under “Uncertainties in depth”, first paragraph, first line
- Page I.10-4 10.3.1, under “Total uncertainty in discharge”, last paragraph, penultimate line
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