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Hydrometry — Measurement in meandering river and in streams with unstable boundaries

bsi.

National foreword

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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This document was prepared by Technical Committee ISO/TC 113, *Hydrometry*, Subcommittee SC 1, *Velocity area methods*.

This second edition cancels and replaces the first edition (ISO/TR 9210:1992), which has been technically revised.

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Introduction

Various methods of measurements of discharge in open channels are available, of which the velocity-area method is most extensively used. The principles of this method are published in ISO 748.

However, there are rivers and streams, in which there are no river sections with constant bed levels and constant flow conditions. This document deals specifically with measurements of flow in meandering and braided rivers, and elaborates some of the provisions in ISO 748.

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Hydrometry — Measurement in meandering river and in streams with unstable boundaries

1 Scope

This document provides guidelines for discharge measurements in meandering and braided rivers, and from bridges, following the provisions of ISO 748.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 772, *Hydrometry — Vocabulary and symbols*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 772 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
alluvial river
river, which flows through alluvium, formed from its own deposits

Note 1 to entry: The sediment carried by an alluvial river, except for the wash load, is similar to that in the bed.

3.2
braided river
river characterized by a wide and shallow open channel, in which flow passes through a number of small-interlaced channels separated by shoals

Note 1 to entry: Frequently, there is little or no erosion of the main banks of a braided river.

Note 2 to entry: Generally, there is little or no meandering of the main channel of a braided river, but meandering in the minor channels is usual.

3.3
meandering river
channel following a sinuous path, characterized by curved flow leading to bank erosion alternating with shoaling

3.4
transition
crossover
inflection reach between two meander loops in which the main flow crosses from one side of the channel to the other

Note 1 to entry: The depth of flow in a transition is usually reduced from normal depth and is more uniform than in the curved reach.

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