FINAL DRAFT
International Standard

ISO/FDIS 19152-3

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Geographic information — Land Administration Domain Model (LADM) —

Part 3: Marine georegulation

Information géographique — Modèle du domaine de l'administration des terres (LADM) —

Partie 3: Géoréglementation marine

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 211, *Geographic information/Geomatics,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 287, *Geographic Information,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement), and in collaboration with the International Hydrographic Organization (IHO).

This edition of ISO 19152-3, together with all other parts in the ISO 19152 series, cancels and replaces the first edition (ISO 19152:2012), which has been technically revised. This document is a new part to the ISO 19152 series and makes no changes to the original ISO 19152:2007.

A list of all parts in the ISO 19152 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

ISO 19152:2012 specifically addressed the land registration aspects of land administration. This document (ISO 19152-3:2023) introduces the broader term "georegulation", which addresses any area of geographic information in which rights, restrictions or responsibilities (RRR) can be applied. Georegulation is the activity of delimiting and asserting control over geographical spaces through regulations. This document allows the objects of georegulation to be documented in a systematic and consistent manner. Although the broader term "georegulation" is used throughout the document, the main element of the title of the document remains “Land Administration Domain Model” to retain compatibility with the previous edition of the document.

This document addresses georegulation in the marine environment. Rights and obligations created by georegulation share a basic structure, as described in ISO 19152-1. Marine activity, including transportation, resource extraction and food production (fishing and marine aquaculture), is of great importance. Different rights and obligations can exist on the surface, in the water column and on the seabed. The model defined in this document can be used for marine cadastres as well as other use cases (such as conservation areas, living resources and fishery management areas, non-living resources management areas, seabed tenure, etc.), and to describe data in support of the United Nations Convention on the Law of the Sea (UNCLOS)[27] or other conventions, e.g. administrative areas described in support of safe navigation under the International Convention for the Safety of Life At Sea (SOLAS).[28]

The oceans are of importance to all humankind, and specific areas along coastlines are under the jurisdiction of nation states. The jurisdiction of coastal states extends to certain maritime zones. Users and states have rights, restrictions and responsibilities in specific zones. The area beyond coastal states’ zones is without exercise or claim of sovereignty and the rights regarding the resources are vested in mankind.[27] In specific cases there are private rights, such as the rights associated with fishing or resource extraction. Some individuals can have property rights on land adjacent to water potentially extending into the area covered by water. This can be described in a marine cadastre, described using the structures available in this document.

International marine rights are addressed in international treaties globally through UN conventions and between nations; in particular, the United Nations Convention on the Law of the Sea (UNCLOS).[27] Marine safety and navigation are addressed by the International Maritime Organization (IMO) international convention on Safety Of Life At Sea (SOLAS) 1974.[28] Other international conventions, treaties and national laws establish rights and obligations.

The International Hydrographic Organization is an international standards development organization that specializes in the marine space. It develops standards for safe navigation, marine jurisdictions, oceanography and other aspects of the marine space in close cooperation with other international organizations such as the UN DOALOS[29] and ISO. In particular it supports several UN conventions such as the UNCLOS[27] and the SOLAS[28] conventions in cooperation with the UN IMO.[30] Alignment between ISO International Standards for the marine space and the IHO is important.

United Nations’ Sustainable Development Goal 14C and United Nations’ General Assembly Resolution A/RES/59/24 directed the IHO to provide technical standards for maritime zones. The IHO supports standards development for oceanography, marine science and the UN SOLAS and the UNCLOS conventions.[31] In particular, as part of the S-100 Universal Hydrographic Data Model,[18] IHO has developed a series of standards and specifications that address the marine space.[32] These include IHO S-121[20] on maritime limits and boundaries and IHO S-122[33] on marine protected areas.

A characteristic of georegulation objects in the marine space is that their geometry structure can need to be aligned with IHO S-100[18] and ISO 19107. As such, there can be different “feature” types. This is in alignment with the way "feature" is defined in the general feature model from ISO 19109 and the approach to feature cataloguing defined in ISO 19110. For their geographic information aspects, the IHO suite of hydrographic standards is based on many of the ISO/TC 211 suite of Geographic Information documents, through S-100. S-121[20] on maritime limits and boundaries directly supports the UNCLOS[27] and is built upon the ISO 19152 series. due to the close links between S-121[20] and the ISO 19152 series, this document makes direct reference to S-100 and S-121.

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