



PUBLISHED ON BEHALF OF
THE INTERNATIONAL CARTOGRAPHIC ASSOCIATION

WORLD SPATIAL METADATA STANDARDS



HAROLD MOELLERING

Editor

HENRI J.G.L.AALDERS

AARON CRANE

Associate Editors



INTERNATIONAL CARTOGRAPHIC ASSOCIATION
ASSOCIATION CARTOGRAPHIQUE INTERNATIONALE

Contents

Dedication	v
Presidential Foreword	xi
ISO/TC 211 Foreword	xiii
GIS Foreword	xv
Editors' Preface	xvii
Part 1 – Introduction to Spatial Metadata Standards in the World	1
An Introduction to Metadata for Geographic Information by Henri J.G.L. Aalders	3
Part 2 – Regional Summaries of Spatial Metadata Developments and Associated Activities	29
edited by Henri J.G.L. Aalders	
European Efforts in the Field of Geographic Metadata and Related SDI Activities . by Henri J.G.L. Aalders, François Salgé & Alexander I. Martynienko	31
North American Metadata Standards Developments in Canada and the United States of America by Kian Fadaie, Julie Binder Maitra, Valerie E. Hume, Harold Moellering & Henri J.G.L. Aalders	63
Metadata Standards Development Activities in the Asia – Pacific Region by Craig Macauley, <i>lead author, editor</i> , Du Dao-sheng, Kazuhiko Akeno & Tae-jung Min	83
Metadata Standards Development Activities in Central and South America and the Caribbean by Tatiana Delgado-Fernández, Dora Inés Rey-Martinez & Martha Ivette Chaparro-Dominguez	103

Spatial Metadata in Africa and the Middle East	123
<i>by Antony Cooper & Elizabeth J.O. Gavin</i>	
Global Spatial Metadata Activities in the ISO/TC211 Geographic Information Domain	141
<i>by Olaf Østensen & David M. Danko</i>	
Part 3 – Scientific and Technical Characteristics for Assessing Metadata Standards for Geographic Datasets	167
<i>edited by Harold Moellering & Aaron Crane</i>	
Introduction to the Scientific and Technical Characteristics for Assessing Metadata Standards for Geographic Datasets	169
<i>by Harold Moellering & Aaron Crane</i>	
Scientific and Technical Characteristics of Metadata Standards for Geographical Datasets	179
<i>edited by Harold Moellering & Aaron Crane</i>	
Part 4 – Scientific and Technical Assessments with Full Descriptions of the Spatial Metadata Standards	195
<i>edited by Aaron Crane, Charles Ruhl & Harold Moellering</i>	
Introduction to the Scientific and Technical Assessments of Spatial Metadata Standards	197
<i>by Harold Moellering</i>	
National Spatial Metadata Standards	199
Australia and New Zealand: ANZLIC Metadata Guidelines	201
<i>by Craig Macauley</i>	
Canada: Directory Information Describing Digital Geo-referenced Data Sets; Information de répertoire décrivant les ensembles de données numériques à référence spatiale CAN/CGSB-171.3-95	219
<i>by Kian Fadaie & Valerie E. Hume</i>	
China: 地理信息 元数据; Geographic Information – Metadata GB/T 19710–2005 . . .	237
<i>by Jiang Jing-tong & Liu Ruo-mei</i>	
Czech Republic: Standard ISVS pro strukturu a výměnný formát metadat informačních zdrojů; Standard for Structure and Transfer Format of Metadata on Geo-data Sets 011/01.02	257
<i>by Petr Rapant, Bronislava Horakova & Jan Ruzicka</i>	

Denmark: Infodatabase Om Geodata; National Danish GI Metadata Service <i>by Anders Neilsen & Peter Kjeld</i>	277
Finland: JHS 137 Tietotuoteseloste; JHS 137A Tietotuoteseloste – Paikkatiedot JHS 137 Data Product Description; JHS 137A Data Product Description – Geographic Information JHS 137; JHS 137A <i>by Paula Ahonen-Rainio</i>	297
Hungary: KIKERES Térinformatikai Profil; KIKERES Spatial Metadata Profile . <i>by Istvan Kadar & Tamas Prajczar</i>	317
Israel: Israel Metadata Standard 2000 <i>by Ammatzia Peled</i>	337
Japan: 日本メタデータプロファイル; Nihon Metadeta Purofairu; Japanese Metadata Profile <i>by Kazuhiko Akeno, Shoji Okuyama & Shinji Takazawa</i>	355
Korea: 국가지리정보체계(NGIS)의 자료이력서(메타데이터) 잠정표준; National Geographic Infor- mation System Metadata: Interim Standard <i>by Tae-jung Min & Heung-muk Cho</i>	375
The Netherlands: NCGI Metadata <i>by Henri J.G.L. Aalders</i>	393
Russian Federation: Государственный стандарт Российской Федерации ГОСТ Р 51353-99 “Геоинформационное картографирование. Метадан- ные электронных карт. Состав и содержание”; State Standard of the Russian Federation GOST R 51353-99 “Geoinformatic Mapping. Metadata of the Electronic Maps. Composition and Content”, November 11, 1999 <i>by Alexander I. Martynenko</i>	411
South Africa: Content Standard for Digital Geospatial Data <i>by Nic Scheepers & Antony Cooper</i>	431
Spain: MIGRA (Mecanismo de Intercambio de Información Geográfica Relacional formado por Agregación); Aggregated Relational Geographic Information Inter- change Mechanism UNE 148001 EX <i>by Sebastián Mas</i>	451
United States of America: Content Standard for Digital Geospatial Metadata FGDC- STD-001-1998 <i>by Richard A. Pearsall & Richard Hogan</i>	469

International Spatial Metadata Standards	491
The Dublin Core Metadata Element Set ISSN:1041-5653 by Stuart L. Weibel	493
CEN/TC287: Geographic Information – Data Description – Metadata prENV 12657:1998 by François Salgé	515
ISO/TC211: Geographic Information – Metadata ISO 19115 by David M. Danko	535
Subject Matter Metadata Standards/Profiles	557
EuroGeographics: LaClef Core Metadata: Topography by Marcus Wandinger & Claude Luzet	559
EU/JRC/SSSA: Recommendations on Metadata SSSA/ES/001 by Bernd Eckhardt	577
EuroGeoSurveys: GEIXS: Geological Exchange Information System – Description – Metadata by Denis Bonnefoy	601
USA/NBII: Biological Data Profile of the Content Standard for Digital Geospatial Metadata, FGDC-STD-001.1-1999 by Susan Stitt	619
Part 5 – Crosstable of National and International Spatial Metadata Standards and Associated Characteristics by compiled and edited by Harold Moellering	643
Introduction to the Crosstable of Spatial Metadata Standards and Their Scientific and Technical Characteristics by Harold Moellering	645
Appendices edited by Henri J.G.L. Alders	653
Annex A: Acronyms Used	655
Annex B: ICA Standards Commission Membership List	667
Annex C: Book Contributors	671
Subject Index	675