ISO/TS 19130-2:2014-01 (E)

Geographic information - Imagery sensor models for geopositioning - Part 2: SAR, InSAR, lidar and sonar

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Conformance 1

3 Normative references 1

4 Termsanddefinitions 2

5 Symbols and abbreviations 12
5.1 Symbols 12
5.2 Abbreviated terms 17
5.3 Notation 18

6 Sensor Model Extensions 19
6.1 Introduction 19
6.2 SE_SensorModel 19
6.3 SE_Dynamics 19
6.4 SE_PlatformDynamics 20

7 RefinementofSARphysicalsensormodel 20
7.1 Introduction 20
7.2 SE_SAROperation 21

8 Interferometric SAR 22
8.1 Introduction 22
8.2 InSAR geometry 22
8.3 Interferometric SAR operation 24

9 Lidar physical sensor model 26
9.1 Description of sensor 26
9.2 Information required for geolocating 27

10 Sonar physical sensor model 28
10.1 Description of sensor 28
10.2 Information required for geolocating 32

11 Aerial triangulation 36
11.1 Introduction 36
11.2 SE_AerialTriangulation 37
11.3 SE_ATObservations 37
11.4 SE_ATOtherResults 38
11.5 SE_ATUnknowns 39

Annex A (normative) Conformance and testing 40

Annex B (normative) Data dictionary 42

Annex C (informative)Syntheticaperturerадarsensormodelmetadataprofilesupporting precise geopositioning 74

Annex D (informative)Lidarsensormodelmetadataprofilesupportingprecisegeopositioning 98

Annex E (informative)Sonarsensormodelmetadataprofilesupporting precise geopositioning 129

Bibliography 151