

ISO/TS 19159-2:2016-04 (E)

Geographic information - Calibration and validation of remote sensing imagery sensors and data - Part 2: Lidar

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Conformance	1
3	Normative references	1
4	Terms and definitions	1
5	Symbols and abbreviated terms	9
5.1	Abbreviated terms	9
5.2	Symbols	10
5.3	Conventions	10
6	Calibration	10
6.1	Project	10
6.2	Coordinate Reference Systems	11
6.2.1	General	11
6.2.2	Sensor frame - s	13
6.2.3	Body frame - b	13
6.2.4	Earth-centred, earth-fixed - e	14
6.2.5	Mapping frame - m	16
6.3	Transformations	16
6.3.1	General	16
6.3.2	Airborne laser scanner observation equation	17
6.3.3	Strip adjustment	18
6.4	Intensity	18
6.5	Error model	18
6.5.1	General	18
6.5.2	Trajectory positioning and orientation	19
6.5.3	Boresight error and misalignment matrix	19
6.5.4	Lever-arm	20
6.5.5	Scanner	20
6.5.6	Scanner assembly error	20
6.6	In-flight calibration	20
6.7	Residual strip errors	22
6.8	Validation	22
Annex A (normative) Abstract test suite		23
Annex B (normative) Data dictionary		25
Annex C (informative) Rotations		30
Bibliography		32