

Data Product Specification of *Terrain* Data Set **AREA 1**

Version:	0.1
Latest version	https://www.ans.lt/en/information-publications/digital-datasets-1
Published	2022-07-14
Language	English
Extent of the data product	Republic of Lithuania
Topic category	elevation
Keywords	DEM, Terrain, Elevation

Overview of the data product

Data set contains the digital terrain data of Area 1 of Republic of Lithuania.

The digital terrain data meets the numerical requirements defined in ICAO 15 and ICAO PANS-AIM (Doc 10066), Appendix 1, Table A1-8 for Area 1.

The digital terrain model defines the bare surface of the earth and does not include any vegetation or manmade objects.

Contact Information

Organisation	Aeronautical Information Service
Address	Balio Karvelio St. 25, LT-02184 Vilnius, Lithuania
Phone	+370 706 94 613
Email	ais@ans.lt
Web site	http://www.ans.lt

Content

1. About the data product specification.....	3
2. Identification and purpose of the data product.....	3
3. Scopes.....	3
4. Data content and structure.....	4
5. Reference system.....	4
6. Data quality requirements	4
7. Data capture and production.....	5
8. Maintenance of the data	5
9. Portrayal rules.....	5
10. Data delivery methods	5
11. Metadata	6
12. Additional information.....	6

1. About the data product specification	
Title	Data Product Specification of Terrain Data Set of Area 1
This version	http://www.ans.lt
Latest version	NIL
Published	2022-07-14
Updated	In accordance with AIRAC cycle
Language	English
Contact	Aeronautical Information Service Balio Karvelio St. 25, LT-02184 Vilnius, Lithuania +370 706 94 613 ais@ans.lt
Web location	http://www.ans.lt
Format	PDF
Maintenance	The data product specification is updated regularly.
Handling restrictions	Unrestricted
Terms and definitions	See ICAO Annex 15 and PANS-AIM (Doc 10066).
Abbreviations	See ICAO Annex 15 and PANS-AIM (Doc 10066).

2. Identification and purpose of the data product	
Official title	Terrain Data Set for Area 1 - Lithuania
ID	Area_1_terrain.tif
Abstract	The digital terrain data set covers Area 1. The digital terrain data meets the numerical requirements defined in ICAO 15 and ICAO PANS-AIM (Doc 10066), Appendix 1, Table A1-8 for Area 1.
Purpose	The purpose of the data product is to provide terrain data for air navigation applications. ICAO PANS-AIM, Chapter 5.3.3.2 provides possible uses of the data. It is the responsibility of the users to determine if the data product meets their needs.
Topic category	elevation
Keywords	DEM, Terrain, Elevation
Spatial representation	grid
Spatial resolution	3 arc seconds (approx. 90 m)
Supplemental information	NIL
Restrictions	Use limitations: For aviation use only
Extent	Territory of Lithuania

3. Scopes	
General scope	
Scope id	General scope
Level	Series

Level name	General scope
Level description	The general scope level defines the specifications which are applicable to all aeronautical data of Republic of Lithuania.
Extent	Republic of Lithuania
Coverage	Not applicable
Area 1	
Scope id	Area 1
Level	Dataset
Level name	Area 1
Level description	The Area 1 scope defines the specifications which are for obstacles in Area 1 and deviate from the general scope.
Extent	Republic of Lithuania

4. Data content and structure

General scope	
Narrative description	Digital terrain model of the bare earth surface (does not include vegetation or man-made objects). Along the country border line due to lack of data inaccuracies may appear.
Application schema	Raster grid with 3 arc second post spacing
Feature catalogue	Elevation

5. Reference system

General scope	
Spatial reference system	Horizontal reference system: LKS-94 (local) Vertical reference system: LAS-07 (local)
Temporal reference system	Gregorian Calendar, UTC.

6. Data quality requirements

General scope	
Requirement 1	Data quality element: Assurance (Integrity) Data quality measure: The procedures for processing of the data have been setup to meet the integrity requirements.
Requirement 2	Data quality element: Horizontal accuracy Data quality measure: The horizontal accuracy is 50 m at 90% confidence level.
Requirement 3	Data quality element: Vertical accuracy Data quality measure: The vertical accuracy is 30 m at 90% confidence level.

Requirement 4	Data quality element: Vertical resolution Data quality measure: The vertical resolution is 1 m.
Requirement 5	Data quality element: Traceability Data quality measure: All actions applied to the data are traced and saved in metadata.

7. Data capture and production

General scope

Description	Data has been captured with a LIDAR survey by National Land Service.
Guide	NIL
Inclusion criteria	The data represents the bare earth surface.
Data acquisition and processing	LIDAR survey by National Land Service. Postprocessing applied to raw data: 1. Creation of elevation raster using ArcGIS software 2. Validation using ArcGIS software 3. Verification using terrestrial survey points.

8. Maintenance of the data

General scope

Description	The data set will be updated every 5 years.
Frequency	Continual
User defined	<i>Not applicable</i>

9. Portrayal rules

General scope

Portrayal rules	<i>Not applicable</i>
-----------------	-----------------------

10. Data delivery methods

GeoTIFF

Format name	GeoTIFF
Format version	1.1
Format specification	According OGC GeoTIFF
File structure	GeoTIFF georeferenced raster
Language	English
Character set	UTF-8
Units of delivery	Dataset
Transfer size	Various
Medium name	Digital file transfer
Other delivery	<i>Not applicable</i>

Service property	Terrain dataset can be provided via email or other electronic means.
------------------	--

11. Metadata	
<i>General scope</i>	
Specification	Title: ISO 19115, Geographic information – Metadata
Encoding	Title: ISO 19139, Geographic information – Metadata– XML schema implementation
Metadata elements	The metadata is provided in a separate metadata file as described in ICAO PANS-AIM (Doc 10066) Chapter 5.3.2. The following metadata is provided: • Title of data set • Organisation providing the data set • Abstract • Creation date • Effective date • Validity • Constraint of use • Geographic extent

12. Additional information	
<i>General scope</i>	
Additional information	<i>Not applicable</i>