

**Public Notice of the Ministry of Land, Infrastructure, Transport and Tourism  
No. 1144, 2007**

(PROVISIONAL TRANSLATION<sup>\*</sup>)

Pursuant to Article 16, Paragraph 1 of the Basic Act on the Advancement of Utilizing Geospatial Information, the technical standards for the development of Fundamental Geospatial Data that is referred to in Article 2, Paragraph 3 of the said Act shall be prescribed in the attached document.

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*\* This document is an unofficial translation of the new technical standards pursuant to the Basic Act on the Advancement of Utilizing Geospatial Information of Japan. Only the original Japanese text has legal effect, and the translation is to be used solely as a reference material for the standards.*

*The translator shall not be responsible for the accuracy, reliability or currency of this translation, or for any consequences resulting from the use of the information. For all purposes of interpreting and applying the standards to any legal issues or disputes, users should consult the original Japanese text.*

Public Notice on the Technical Standards for the Development of Fundamental Geospatial Data that are referred to in Article 16, Paragraph 1 of the Basic Act on the Advancement of Utilizing Geospatial Information

(Purpose)

Article 1. Technical standards, provided in Article 16, Paragraph 1 of the Basic Act on the Advancement of Utilizing Geospatial Information (hereinafter, “Basic Act”), for the development of Fundamental Geospatial Data (FGD), which is defined in Article 2, Paragraph 3 of the Basic Act, (hereinafter, “Technical Standards”) shall be prepared for the purpose of promoting Geographic Information System through the improvement of the sharing of FGD by providing guidelines for the maximum use of FGD and for the development of seamless FGD as well as by setting standards for data interoperability.

(Scope)

Article 2. The Technical Standards shall be applied to the development or revision of FGD by conducting those surveys referred to in Article 2, Paragraph 1 of the Ordinance of the Ministry of Land, Infrastructure and Transport No. 78.

- (2) The State and local governments that conduct surveys provided in the previous paragraph shall employ these Technical Standards pursuant to Article 16, Paragraph 2 of the Basic Act.

(Criteria for the Use of Existing FGD)

Article 3. When a dataset of FGD is to be developed or revised, if there are already existing datasets of FGD in the targeted area, which are better in positional accuracy and better represents the latest real world situations, the existing datasets of FGD are to be employed for the development or revision of the dataset of FGD.

- (2) If the provision in the previous paragraph causes degradation of overall positional accuracies of the developed or revised dataset of FGD or some other unfavorable results, and hence hinders the advancement of sharing the dataset of FGD, necessary adjustment shall be made on the data.

(Criteria for the Development of Seamless FGD)

Article 4. When a dataset of FGD is to be developed or revised, if there are existing datasets of FGD (hereinafter, “neighboring datasets of FGD”) in areas adjacent to the targeted area (hereinafter, “neighboring areas”) that have better positional accuracies for the same information items, and if the neighboring datasets of FGD properly represent the latest real world situations, the dataset of FGD shall be connected to the neighboring datasets of FGD at the boundaries between the targeted area and the neighboring areas.

- (2) If the provision in the previous paragraph causes degradation of overall positional accuracies of the developed or revised dataset of FGD or some other unfavorable results, and hence hinders the advancement of sharing the dataset of FGD, necessary adjustment shall be made on the data.
- (3) If, pursuant to Paragraph 1 of this Article, the positional adjustment to the dataset of FGD becomes larger than its positional accuracies when it is connected to the neighboring datasets of FGD, the connection shall not be performed. The information on the unconnected dataset of FGD shall be reported to the organizations that have developed the neighboring datasets of FGD.

(Criteria for the Development of Seamless FGD for Large Areas)

Article 5. When a dataset of FGD is to be developed by connecting multiple adjacent datasets of FGD of the same information items at their boundaries, either of the following methods shall be employed:

- (i) When the location of positional information of the dataset of FGD at the boundaries can be determined by employing ground or aerial surveys with positional accuracies no lower than those of the existing datasets of FGD, the coordinates of that location shall be used to connect the relevant existing datasets of FGD.
  - (ii) When the positional accuracies of the datasets of FGD that shall be connected are the same, the coordinates of the mid point between the relevant datasets of FGD at the boundaries shall be used to connect them.
  - (iii) When the positional accuracies of the datasets of FGD that shall be connected are different, the coordinates from the dataset of FGD of the highest positional accuracies shall be used to connect the relevant datasets of FGD at the boundaries.
- (2) If the provision in the previous paragraph causes degradation of overall positional accuracies of the developed seamless dataset of FGD or some other unfavorable results, and hence hinders the advancement of sharing the dataset of FGD, necessary adjustment shall be made on the data.
  - (3) If, pursuant to Paragraph 1 of this Article, the positional adjustment to the datasets of FGD becomes larger than their positional accuracies when they are connected with each other, the connection shall not be performed. The information on the unconnected datasets of FGD shall be reported to the organizations that have developed the datasets.

(Standards that shall be adopted for FGD Distribution)

Article 6. When a dataset of FGD is to be distributed, the following standards shall be adopted.

- (i) Japanese Industrial Standards (hereinafter, "JIS") X7107 (Spatial schema)
- (ii) JIS X7108 (Temporal schema)

- (iii) JIS X7109 (Rules for application schema)
  - (iv) JIS X7110 (Methodology for feature cataloguing)
  - (v) JIS X7111 (Spatial referencing by coordinates)
  - (vi) JIS X7112 (Spatial referencing by geographic identifiers)
  - (vii) JIS X7113 (Quality principles)
  - (viii) JIS X7115 (Metadata)
  - (ix) JIS X7123 (Schema for coverage geometry and functions)
  - (x) JISX7131 (Data product specifications)
  - (xi) JIS X7136 (Geography Markup Language)
  - (xii) ISO/TS 19103 (Conceptual schema language)
  - (xiii) ISO 19118 (2011) (Encoding)
- (2) Metadata of FGD shall be prepared in accordance with the provision in Item (viii) of the previous paragraph with the positional accuracies and other quality information based on the result of data inspection.