Item class GeodeticCRS

Name JGD2011 - XYZ

Item statusVALIDIdentifier229

Alias Japanese Geodetic Datum 2011

Information source Title Revision of the Results of Control Points after the

2011 off the Pacific coast of Tohoku Earthquake

Author Y. Hiyama, A. Yamagiwa, T. Kawahara, M. Iwata,

Y. Fukuzaki, Y. Shouji, Y. Sato, T. Yutsudo, T. Sasaki, H. Shigematsu, H. Yamao, T. Inukai, M. Ohtaki, K. Kokado, S. Kurihara, I. Kimura, T. Tsutsumi, T. Yahagi, Y. Furuya, I. Kageyama, S. Kawamoto, K. Yamaguchi, H. Tsuji, S.

Matsumura

Publisher Geospatial Information Authority of Japan (GSI),

Tsukuba, Japan

Publication date 2011-12

Series/Journal name Bulletin of the Geospatial Information Authority of

Japan

Issue identification Voume 59
Page 31-42
ISO Geodetic Registry

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum Japanese Geodetic Datum 2011

Coordinate System Geocentric 3D right-handed Cartesian CS. Axes: Geocentric X,Y,Z.

Orientation: Z to North Pole, [X and Y in the equatorial plane, X at Prime Meridian  $\mid$  X in the equatorial plane at the Prime Meridian]. UoM:

m.

### Extent

Description	Japan - onshore and offshore		
Geographic Bounding Box	West-bound longitude	122.9	
	North-bound latitude	45.6	
	East-bound longitude	154.0	
	South-bound latitude	20.4	

Item class GeodeticDatum

Name Japanese Geodetic Datum 2011

Item statusVALIDIdentifier138AliasJGD2011

Information source Title Revision of the Results of Control Points after the

2011 off the Pacific coast of Tohoku Earthquake

Author Y. Hiyama, A. Yamagiwa, T. Kawahara, M. Iwata,

Y. Fukuzaki, Y. Shouji, Y. Sato, T. Yutsudo, T. Sasaki, H. Shigematsu, H. Yamao, T. Inukai, M. Ohtaki, K. Kokado, S. Kurihara, I. Kimura, T. Tsutsumi, T. Yahagi, Y. Furuya, I. Kageyama, S. Kawamoto, K. Yamaguchi, H. Tsuji, S.

Matsumura

Publisher Geospatial Information Authority of Japan (GSI),

Tsukuba, Japan

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Series/Journal name Bulletin of the Geospatial Information Authority of

Japan

Issue identification Voume 59
Page 31-42

Data source ISO Geodetic Registry

Remarks Replaces Japanese Geodetic Datum 2000 from 2011-10-21.

Anchor definition Equivalent to ITRF2008 at epoch 2011.395 (2011-05-24, 12:00

UTC) in Northern Honshu area. Fundamental point: Tokyo-Taisho, latitude: 35°39'29.1572"N, longitude: 139°44'28.8869"E (of Greenwich).

Equivalent to JGD2000 elsewhere.

Release date 2011-10-21 Coordinate Reference Epoch 2011.395

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

#### Extent

Description	Japan - onshore and offshore		
Geographic Bounding Box	West-bound longitude	122.9	
	North-bound latitude	45.6	
	East-bound longitude	154.0	
	South-bound latitude	20.4	

Item class Ellipsoid

Name GRS 1980

Item status VALID Identifier 27

Alias Geodetic Reference System 1980

Alias GRS1980
Alias IAG GRS80

Alias International 1979

Alias GRS80

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher Springer International Publishing

Publication date 2003-03

Series/Journal name Journal of Geodesy Issue identification Volume 74, No. 1

Page 128–162

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher International Association of Geodesy

Publication date 1984

Series/Journal name Bulletin Geodesique Issue identification Volume 58, No. 3

Page 395-405

Data source ISO Geodetic Registry

Remarks Adopted by IUGG 1979 Canberra. Inverse flattening is derived from

geocentric gravitational constant GM = 3986005e8 m\*m\*m/s/s, dynamic form factor J2 = 108263e-8 and Earth's angular velocity =

7292115e-11 rad/s.

 Semi-major axis
 6378137.0 m

 Inverse flattening
 298.257222101 m

Item class PrimeMeridian

Name Greenwich

Item status VALID
Identifier 25

Alias Zero meridian

Information source Title Why the Greenwich meridian moved

Author S. Malys, J.H. Seago, N.K. Pavlis, P.K.

Seidelmann, G.H. Kaplan

Publisher Springer International Publishing

Publication date 2015-12

Series/Journal name Journal of Geodesy Issue identification Volume 89, No. 12

Page 1263–1272

Information source Title IERS Conventions (2010)

Author G. Petit, B.J. Luzum (eds)

Publisher Verlag des Bundesamts fur Kartographie und

Geodasie

Publication date 2010

Edition date

Series/Journal name IERS Technical Notes

Issue identification 36.0

Other citation details ISSN: 1019-4568

Data source ISO Geodetic Registry

Greenwich longitude 0.0 °

CartesianCS Item class

Name Geocentric 3D right-handed Cartesian CS.

> Axes: Geocentric X,Y,Z. Orientation: Z to North Pole, [X and Y in the equatorial plane, X at

Prime Meridian | X in the equatorial plane at the

Prime Meridian]. UoM: m.

Item status **VALID** Identifier 45

Alias Earth centred, earth fixed, right-handed 3D coordinate system,

> consisting of 3 orthogonal axes with X and Y axes in the equatorial plane, positive Z-axis parallel to mean earth rotation axis and pointing

towards North Pole. UoM: m.

Alias **ECEF** 

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization Author

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Second Edition Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Used in geocentric coordinate reference systems. Remarks

#### Axes

Item class CoordinateSystemAxis Name **Geocentric X** Item status **VALID** Identifier 33 Information source Title ISO 19111 Geographical information - Spatial referencing by coordinates Author International Organization for Standardization Publisher International Organization for Standardization (ISO) Publication date 2007-07-01 Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007 Data source ISO Geodetic Registry Abbreviation Χ Direction Geocentre > equator/0°E Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Y** 

**VALID** Item status Identifier 37

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01

Edition Second Edition

Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Abbreviation Y

Direction Geocentre > equator/90°E

Unit metre

Item class CoordinateSystemAxis

Name Geocentric Z

Item statusVALIDIdentifier39

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01

Edition Second Edition

Series/Journal name International Standard

Issue identification ISO 19111:2007

ISO Geodetic Registry

Abbreviation Z

Data source

Direction Geocentre > north pole

Unit metre