About This Standard

Mandated

Standard Identifier **MIL-STD-2401**

Title of Standard

DoD World Geodetic System 84 (WGS84), 11 January 1994

Standards History

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/ Retired
1996-08-22	n/a	1996-08-22	1996-08-22	2008-04-03	n/a

Standards Body DoD Broken Link?

URL to Access or Acquire http://assist.daps.dla.mil/quicksearch

Working Group

Primary Owner Geospatial Intelligence TWG (GWG)

Secondary Interests Information Transfer TWG
Messaging Format/Symbology TWG
Discovery TWG

Service Area GEOINT: Geospatial

KIPs KIP Family: TRANSPORT - KIP: GPS Space Segments to Ground Segment Interface
KIP Family: TRANSPORT - KIP: Global Positioning System

Standard Applicability

2008-03-27

Geospatial services are also referred to as mapping, charting, and geodesy (MC&G) services. World Geodetic System (WGS 84), a Conventional Terrestrial Reference System (CTRS), is mandated for representation of a reference frame, reference ellipsoid, fundamental constants, and an Earth Gravitational Model with related geoid. Included in the Reference System are parameters for transferring to/from other geodetic datums. The National Imagery and Mapping Agency (NIMA) Technical Report (TR) 8350.2, DoD World Geodetic 1984, Its Definition and Relationships with Local Geodetic Systems, Third Edition, 4 July 1997, with Amendment 1, 3 January 2000, defines the technical content of WGS 84. WGS 84 will be used for all joint operations and is recommended for use in multinational and unilateral operations after coordination with allied commands. This standard is mandated.

2003-10-03

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Standard Abstract

1996-08-22

DoD's standard global reference system developed by the DMA. WGS-84 is employed by the NAVSTAR Global Positioning System (GPS) and modern weapons and systems. Latitude and longitude data shall use WGS-84. This standard specifies the requirements for use of World Geodetic System 1984 (WGS 84), the defining and derived parameters for WGS 84, and methods for transforming between WGS 84 and other geodetic systems. This standard applies to all DoD systems and products which require use of a World Geodetic System. A world geodetic system is a consistent global coordinate system which allows an unambiguous representation of positional information. Navigation solutions from the NAVSTAR Global Positioning System (GPS) and the Navy Navigation Satellite System (NNSS) are referred to this system. A WGS 84 ellipsoid provides a reference surface upon which coordinates are calculated and is particularly applicable to inertial systems. A WGS 84 Earth Gravitational Model (EGM) provides necessary force models for accurate global operation of strategic weapons, navigation, and satellite systems. Many MC and G products produced by other agencies and governments (and DMA products not yet placed on WGS 84) are not referred to the WGS 84. Parameters to transform these products to WGS 84 are part of this standard.

Profiling Questions

GEOINT: Geospatial

- Does your data represent reference frame, reference ellipsoid, fundamental constants, or Earth Gravitational Model with related geoid?

Products Incorporating This Standard

None

Relevant Information

2401 refs NIMA TR 8350.2 for tech content. WGS-84 is employed by the NAVSTAR Global Positioning System (GPS) and modern weapons and systems. Latitude and longitude data shall use WGS-84 in accordance with CJCSI 3900.01, and standard coordinate data elements as discussed in Section 4

Implementation Guidance

None

Standard Selection Criteria

Net-Centric Interoperability

This standard is the basis for geolocation services and is paramount to success of net centric operations. Coalition, Joint and/or Combined Service/Agency operations require the geolocation services built upon the WGS-84 standard.

Technical Maturity

This is a very mature standard that was published in 1994. NGA Technical Report 8350.2, DoD World Geodetic 1984, Its Definition and Relationships with Local Geodetic Systems, Third Edition, 4 July 1997, with Amendment 1, 1 January 2000, defines the technical content of WGS 84. It is the foundation for employing Global Positioning System derived coordination information used in all military operations.

Public Availability

http://assist.daps.dla.mil/quicksearch

Implementability

This standard is embedded in all DoD systems that require earth geolocation information.

Authority

NGA, as the functional manager for GEOINT standards for the National System for Geospatial-Intelligence (NSG), developed and maintains this standard.

Standard Type	Military
Keywords for Search	None