



**HOMELAND SECURITY GEOSPATIAL ENTERPRISE  
ARCHITECTURE**

**ATTACHMENT G BUS 1  
GEOSPATIAL BUSINESS LANGUAGE KEY TERMS**

**GEOSPATIAL MANAGEMENT OFFICE**

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## 1.0 HLS GEOSPATIAL BUSINESS LANGUAGE: KEY TERMS

The *Geospatial Business Language* defined herein consists of the key terminology used to define the role of geospatial in the HLS (Homeland Security) Geospatial Enterprise Architecture (GEA). More than a glossary, these definitions form the basis for a consistent language, a *lingua franca* for describing the role of geospatial in all HLS Business Activities. The geospatial semantics of the HLS mission are embodied in these terms. Further, these terms are used to construct the *Geospatial Business Statements*, which describe the role of geospatial for each of the HLS Business Activities (See Geospatial Business Activities, Attachment G.Bus.2.).

The *Geospatial Business Language* is comprised of five basic types of terms:

- **Application** – A computer program with a user interface or computer program component that employs geospatial data and technology; a geospatial business process or sub-process that is implemented as a software program or program component.
- **Data** – A geospatial information class, type or property.
- **Function** – A geoprocessing unit; a geoprocessing user tool; a geospatial service component.
- **Process** – A general business series of actions that employs geospatial data and technology.
- **Technology** – An application of science that generates, displays, manages or otherwise processes geospatial data. (Excluding general-purpose Information Technology.)

Geospatial Term	Type	Definition/Description	Reference
Absolute Location	Data	Specifies a precise position on the earth. Defined by an address, position, feature geometry (e.g., point, line or polygon), or Place of Interest. A subtype of Location Object.	GEA
Activity	Data	Any current, historical or planned exercise of interest with geospatial context (location/time, extent, geographic, national), or a temporal series of actions with a series of geospatial contexts. An Activity may pertain to a plan, event (occurrence, incident, Event—National Security Special Event (NSSE)), asset, party, case, risk, conveyance, goods, governance, training, benefit, communication, etc. A HLS Framework Data category.	GEA
Activity	Process	An HLS business activity. A process or sub-process involving one or more elements of the HLS enterprise architecture.	GEA
Activity Report	Data	Reports that contain the geospatial-temporal context of any HLS function. Reports contain interlinked, multi-media data that characterize the nature, context and status of the function. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Activity Report Service	Technology	Able to generate an Activity Report for any location-based function.	GEA
Address	Data	Specifies street location, postal location or street intersection as used in navigation and locating parties and facilities. As defined by the Open GIS Consortium (OGC), address consists of a street address (or intersection), place name (e.g., country, municipality, etc.), postal code, street locator, building locator, and supplemental address information. As used here, the OGC address model is extended to include postal address. Addresses are the means of referencing primarily residences and buildings (of all types). A subtype of Absolute Location under Location Object.	GEA, OGC
After Action Report	Data	The geospatial-temporal context of post-incident/event lessons learned in location-based account form. Based upon understanding of the root cause, status of recovery and recommended actions. Detailed accounts (reports) contain interlinked, multi-media data that adequately characterize the nature and context of the incident/event. Detailed accounts (reports) may contain references to plans, maps and other reports. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
After Action Report Service	Technology	Able to generate a detailed account (After Action Report) with the geospatial context of the root cause, status and recommendations pertaining to post-incident recovery operations.	GEA
Alert	Data	A communication message with geospatial and temporal context that is triggered by any suspicious or threatening event. Can be determined by evaluating observed or calculated conditions through a “watch” function, an output from a modeling and simulation activity, by correlating incidents, occurrences and/or intelligence and predicting a potential threat or threat condition. Example: A sensor alert that results from one or more observations that meet predefined ‘threat detection’ conditions. Alerts may lead to false alarms or develop into Warnings (as determined by a qualified party). A subcategory of HLS Framework Data under the Communication category.	GEA
Alert-Warning Report Service	Technology	Able to generate a communication message with a detailed account (Alert-Warning Report) containing information about location-based alert or warning messages.	GEA

Geospatial Term	Type	Definition/Description	Reference
Area of Interest (AOI)	Data	A defined parameter (circle, bounding box, or polygon representing a region of concern. Generally, any area of interest within the mission. Used as a search parameter or can be displayed. A designated area of interest in an application. May be represented as a Feature or Coverage. A subtype of Place of Interest under Absolute Location, which is under Location Object.	GEA, OGC
Assessment	Data	Generally, the results of analysis pertaining to a topic of interest, such as a threat, threat consequence, risk, vulnerability, etc. The geospatial-temporal context of geospatial analysis results, which includes supporting facts, interpretations, hypotheses and projections. May consist of maps, annotated images, reports, plans, etc. A subcategory of HLS Framework Data under the Geospatial Product category.	GEA
Asset	Data	A valuable item that is owned. Generally, any equity used in HLS operations. Critical and key assets as defined by the HLS EA team, Presidential Decision Directive (PDD) – 63, and further defined by the joint US Geological Survey – National Geospatial-Intelligence Agency (USGS-NGA) Homeland Security Infrastructure Program (HSIP) Tiger Team Report, September 2002.	HLS EA

Geospatial Term	Type	Definition/Description	Reference
Asset Inventory	Data	The management data associated with equities (Assets critical, key, or other).	GEA
Asset Inventory Management	Application	Enterprise-level application(s) that is used to manage fixed and mobile equities (Assets). In particular, to monitor and track the location/time/identity/activity/status for a set of equities (Assets).	GEA
At Risk Location	Data	A site that is considered to be under possible threat, danger, or harm. Normally associated with critical or key assets. The geospatial extent of the geospatial area surrounding the location. A type of Mission Feature.	GEA
Audit Trail	Data	A history of significant geoprocessing operations. e.g., Records of geospatial database update operations (what, when, where). A subcategory of HLS Framework Data under Administration.	GEA



Geospatial Term	Type	Definition/Description	Reference
Auxiliary Data	Data	Any geospatial information of value to the mission that are not available as HLS Framework Data, but are directly accessible to the Geospatial Enterprise Architecture through sharable external resources. Information (data) used in support of the HLS mission that are available from all possible sources. Collection is triggered by NSSE or significant incidents. Information (data) may not have been merged or integrated in order to conform to or be consistent with any National standards. A category of HLS data.	GEA
Background Check (Records)	Data	The geospatial context associated with historical analysis, examination or exploration. A subcategory HLS Framework Data under Person Records.	GEA
Base	Data	The foundational data required for generating multi-purpose maps and other geospatial products. The data that comprise a Base Map. May consist of one or more features and/or coverages. All Base data should be registered to a common coordinate reference system. An HLS Framework category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Base Map	Data	A multi-purpose representation of the earth (or portion thereof) that conveys general geospatial context, as depicted by predominant geographic features.	GEA
Benefit (Records)	Data	The compensation for a party. Privileges that are granted or provided by the government. Also medical compensation (Benefits), including medical care and crisis counseling, and relief compensation (Benefits), including assistance to victims and their families for emergency relief. The geospatial context of benefits represented as a subcategory of HLS Framework Data under Party (Person or Organization) Records.	HLS EA, GEA
Biographical	Data	The geospatial vita for persons (e.g., physical address, place of birth, citizenship, person/organization affiliations, residence history, travel history, etc). A subcategory of HLS Framework Data under Person.	GEA
Biographical Analysis	Application	The means to examine a person (records) in conjunction with other geospatial data, including events, person/organization affiliations, incidents, threats and intelligence data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Boundary Zone	Data	An area associated with an administrative demarcation that is patrolled and protected, e.g., a buffer zone along the U.S. border. A subtype of Mission Feature.	GEA
Capital Asset	Data	Capital assets are land, structures, equipment, and intellectual property (including software) that are used by the Federal Government and have an estimated useful life of two years or more. Examples include: easements, rights of way, buildings, facilities, and other structures. The geospatial records describing these assets. See Facilities, a category of HLS Framework Data, Critical Assets, Key Assets and Assets.	HLS EA
Cargo (Records)	Data	Current, historical, and predicted location/time/identity/activity/status (e.g., tracked location, route, speed, direction, conveyance, etc.) of payload/freight/shipment/goods and their containers. Includes geospatial context of shipping manifest records (i.e., identification of organization/place of manufacture, place of shipping origin, destination, shipping route, etc.) Includes identity, location, time and status for seized cargo. Cargo locations may relate to mobile conveyances or fixed locations (cargo may be in a warehouse, pier, wharf, etc.) A subcategory of the HLS Framework Data under the Goods category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Case (Records)	Data	Generally, all information (records) associated with an investigation. As used here, specifically the geospatial context (location/time/identity/activity/status) pertaining to an investigation. Current, historical, and predicted geospatial context (tracking) for persons, organizations, incidents, occurrences, conveyances, cargo, etc., as associated with an investigative case. Includes location/time/identity/activity/status for related confiscation and seizures of goods, assets, conveyances, etc., and current and historical locations associated with evidence. May reference conveyance, risk (threat), event (incident, occurrence, Event), or party (person or organization) records. A category of HLS Framework Data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Case Analysis	Application	Generally the evaluation of all information (records) associated with an investigation. The means to (data) mine, integrate, and correlate varied types of case-related data for the purpose of extrapolating, analyzing and deriving geospatial data in the form of profiles, patterns, trends, networks, tendencies, indicators, hypotheses, and conclusions, as it pertains to case understanding. Source data include, but are not limited to, intelligence, incidents, occurrences, criminal and suspicious activities, financial transactions, persons, organizations, goods, cargo, hazmat, conveyances, etc. May also involve geoparsing and geocoding functions to scan and annotate associated textual data for geographic and temporal references.	GEA
Catalog Service	Technology	The Catalog Service defines common information models and standard operations that allow applications and services to interact with registry instances, regardless of their role or content, in order to discover, access and manage geospatial resources (data and services). Specialized Catalog Services may exist for specific data classes, e.g., an Image Catalog Service (ICS).	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Change detection	Function(s)	The assessment of alterations to features or coverages over time to support geospatial/intelligence analysis. This is often accomplished using a time-series of imagery to identify areas or features where any detected change may have occurred. Change is characterized in the spatial-temporal domain. Change may be represented as an alteration in location, identity, activity or status.	GEA
Citizenship	Data (Property)	A person's country of origin or home country, as established through naturalization.	GEA
Collaboration	Function	The means to share information and interact with common resources (data, services and applications). [More than merely sharing data.] Involves timely dissemination of the right actionable information to actors in an operational setting, and thus depends upon interoperable communications to all parties (cross-jurisdictional) and to all operational nodes, including the field. Effective collaboration functions are optimized in terms of the duplication/distribution of shared, collaborative resources.	GEA

Geospatial Term	Type	Definition/Description	Reference
Collaboration (Geospatial)	Process	(Geospatial) collaboration refers to the process of sharing and interacting with common resources that are based on geospatial data, service and application (business) standards, supporting interoperations across all levels of government and private institutions. As used herein, specifically refers to the COP and the MSOP. The COP is comprised of broadly used collaborative HLS workspace capabilities. The MSOPs are mission-specific collaborative workspace capabilities. Collaboration is enabled by collaborative technologies that are based upon common standards for geospatial data, services and applications.	GEA
Collection Plan	Data	The planned schedule, tasking and resource allocations pertaining to a given assemblage asset, asset mission and set of assemblage requirements for geospatial data, imagery or intelligence. A type of HLS Framework Data under the Plan subcategory of the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Collection Requirements	Data	Requests for geospatial data (including remote sensing) and intelligence, including location and geospatial extent of collection area of interest, observables and required geospatial attributes or properties, which can then be converted into data requests for known collection methods and systems. A category of HLS Framework Data.	GEA



Geospatial Term	Type	Definition/Description	Reference
Common Operating Picture (COP)	Data/ Technology	<p>The collective set of time-sensitive, mission-critical, shared resources (data and services) for HLS. Contains geospatial context (a composite of HLS Framework Data and HLS Auxiliary Data), the disposition and nature of threat(s), friendly personnel and assets, as well as incidents, events, observations, related intelligence, and other relevant HLS operations data. A COP represents a collaborative workspace for interoperations between all distributed actors in support of time-sensitive, mission-critical HLS operations. It is not practical to consider a COP as merely a common data view. Rather, many possible views may be generated on the fly for a given mission and/or user (depending on associated services, available data and application context). Related to the COP, MSOP is a collaborative workspace comprised of the subset of shared COP resources that are required for a mission, with additional resources that are unique to the mission. The User-Specific Operating Picture (USOP) is an actionable data view of the MSOP that is specialized for a user, in a specific role, on a specific device. The COP is a category of HLS Framework Data.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
COP Collaboration Server	Technology	A Collaboration Server is a computer connected to clients via a network used for hosting, managing, and monitoring shared COP/MSOP/USOP resources and the cooperative exchange of geospatial data.	GEA

Geospatial Term	Type	Definition/Description	Reference
COP Manager	Application	<p>The means to direct or control the scope and resources associated with a COP and MSOP. The scope is defined in terms of geospatial extent (area of interest), timeframe, subject of interest (e.g., threat(s), case, monitor cargo, etc), operations objectives (e.g., respond to incident, recover from disaster, etc), the data required to support the execution of operations (e.g., support threat modeling &amp; analysis, case analysis, cargo tracking, etc), and other operations parameters (e.g., constraints, mission features, etc). Resources may include physical entities (e.g., personnel, assets, conveyances, technology, etc) and logical entities (e.g., business components and processes, data, services). The COP Manager provides the means to select and allocate resources, manage and monitor collaboration activities, monitor status and performance of resources, and monitor and manage external communications. The distinction between the COP Manager and other operations-related applications is that the COP Manager is managing the big picture (COP), and subsets of the COP (MSOPs), whereas other HLS applications focus on USOP in user-specific operations activities.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
COP Manager Client	Technology	COP Manager provides the means to direct or control the scope and resources associated with a COP, select and allocate resources, direct and monitor collaboration activities, monitor status and performance of resources, and monitor and control external communications. The distinction between the COP Manager and other operations applications is that the COP Manager is managing the big picture (COP), and subsets of the COP (MSOPs).	GEA
Communication	Data	Correspondence, outreach content, warnings or alerts. A category of HLS Framework Data.	HLS EA
Community of Interest (COI)	Data	A group of enterprise users who share common data, services and/or business processes. Communities of Interest (COIs) defines the semantics for sharing enterprise resources. These semantics (ontology) form the basis for achieving autonomous, robust interoperability throughout the enterprise.	GEA
Containment Area	Data	The geospatial extent of a target geospatial boundary to contain an incident, and the impact and consequences of the incident. A subtype of Mission Feature.	GEA

Geospatial Term	Type	Definition/Description	Reference
Contingency Plan	Data	A program of action designed for handling possible future circumstances or events. Geospatial and temporal context for contingency plans associated with any plan or operation. A type of HLS Framework Data under the Plan subcategory of the Geospatial Product category	GEA
Conveyance (Records)	Data	A vehicle, vessel, boat, aircraft, truck, or other mode of transportation that is able to transport cargo or passengers. The records for description, tracking and monitoring of conveyances (aircraft, marine vessels, motor vehicles, trains). Includes identity (digital records of credentials, owner's address, etc.) and other tracking and monitoring information. Tracking and monitoring of conveyances produces current, historical and future (planned or projected) location/time/identity/activity/status data. These records may include travel history, travel itinerary, shipping manifest and license/permit information. May reference events (occurrences, incidents, EVENTS), cases, persons and organizations. A category of HLS Framework Data.	HLS EA, GEA

Geospatial Term	Type	Definition/Description	Reference
Coordinate Reference System	Data	A function that associates locations in space to geometries of coordinate tuples in a mathematical space, usually a real valued coordinate vector space, and conversely associates coordinate values and geometries to locations in the real world, e.g., geographic coordinates (latitude, longitude) and Universal Transverse Mercator (UTM) (projected coordinates).	OGC
Coordinate (and Unit) Transformation Service	Technology	The ability to convert geospatial data between different coordinate reference systems, datums and units. Support map re-projections on-the-fly for map viewing, as well as permanent coordinate conversions that result in a converted output data set.	OGC
Correlation (geospatial)	Process	The process of relating data through geospatial-temporal properties.	GEA
Countermeasure (Plan)	Data	Documents the steps in response for protecting persons, assets, goods, conveyances, etc., in map and report form. A type of HLS Framework Data under the Plan subcategory of the Geospatial Product category.	HLS EA

Geospatial Term	Type	Definition/Description	Reference
Countermeasure Planning	Application	The means to determine and document the preventive actions to secure key, critical and other assets, Events, conveyances and persons, in geospatial context. Plans may contain Maps and Reports.	GEA
Coverage	Data	A two- (and sometimes three or higher) dimensional geographic representation of earth phenomena. A subtype of Feature. Common examples include imagery and digital terrain models. An HLS geospatial entity subtype.	OGC
Coverage Portrayal Service	Technology	Coverage Portrayal Service is chained to a Web Coverage Service (WCS) to convert geospatial coverage data (grid/image) to a map. The resultant map can be overlaid with data fetched from other servers for reference and orientation.	OGC

Geospatial Term	Type	Definition/Description	Reference
Critical Asset	Data	Critical infrastructures are those physical and cyber-based systems essential to the minimum operations of the economy and government. They include, but are not limited to, telecommunications, energy, banking and finance, transportation, water systems and emergency services, both governmental and private. Any 'Critical Assets' as defined in PDD – 63. The geospatial context of these assets is represented by a category of HLS Framework Data.	HLS EA
Critical Infrastructure Inventory Management	Application	The means to keep track of and report on the location and status of critical assets and key assets. To generate reports and maps conveying this information.	GEA
Custody (Records)	Data	The custody records for a person. A subcategory of HLS Framework Data under the Person category.	GEA
Damage Assessment	Application	The means to analyze and determine the extent and nature of destruction, harm, injury, and loss of value caused by a threat or natural hazard through the use of imagery and other sensor and human observations. Includes loss estimations. To generate reports and maps conveying this information.	GEA



Geospatial Term	Type	Definition/Description	Reference
Damage Assessment	Data	A map, image and/or related report that characterizes the location, extent and severity of destruction, harm, injury, and loss of value caused by a threat or hazard. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category.	GEA
Data Acquisition/Generation	Application	Generally, the means to acquire, collect, process and/or generate new information (data) for the enterprise. There are many such specialized applications and tools for collecting, reformatting, verifying, editing, integrating and transforming new information (data) for the enterprise. e.g., Supervisory Control and Data Acquisition (SCADA).	GEA
Data Collection Management	Application	The means to submit new information (data) gathering requirements and administer these requests through fulfillment or obsolescence. Includes the means to manage requirements for human/sensor collection activities.	GEA
Data Collection Planning	Application	The means to devise, schedule and allocate requests for new information (data) to gather assets; to develop assembly plans that convey schedule, tasking and resource allocation for collection assets.	GEA

Geospatial Term	Type	Definition/Description	Reference
Data Correlation	Function	The family of functions for determining the spatio-temporal interrelationships and statistical correlation between data sets, and elements and properties within these sets. Correlation functions include intersection (AND, AND NOT), union (OR, NOT), proximity, statistical correlation (as it relates to accuracy and precision), pairings, regression, etc. Also the functions that determine the meanings of geospatial-temporal correlations.	GEA
(Geospatial) Data Dictionary	Data	A repository for well-known data terms (classes, elements, types, properties, relationships) for all data that are to be shared within a COI. The names, definition, schema fragments (format/syntax), legal values/value ranges for these terms.	GEA
Data Discovery Service	Technology	Able to search for and locate desired data through open, standard publish-find mechanisms. Search requests may be defined in terms of geospatial-temporal, mathematical and statistical filters for discovering data and data relationships, and optionally storing the metadata results as a new data set.	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
(Geospatial) Data Mining	Function	The family of search and retrieval functions that employ search filters with Boolean, mathematical (geometric and topological) and statistical operators for discovering patterns, trends, tendencies, etc. in geospatial data.	GEA
Decision Support Aids	Data	Artifacts used to assist in judgments. Broadly, HLS decision support data that have geospatial properties or are defined as geospatial entity subtypes. Consists of plans, reports and maps with geospatial content. A type of HLS Framework Data under the Aids subcategory of the Geospatial Product category.	GEA
Deployment Plan	Data	The procedures to bring forces, material, people, systems into operation. Geospatial and temporal context for deployment plans associated with any operation. Depicts terrain, objectives, threats, (blue & white) assets, etc. A type of HLS Framework Data under the Plan subcategory of the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Digital Rights Management Services	Technology	DRM is the use of a range of techniques to control copyright material and the terms and conditions on which it is made available to users. Digital Rights Management Services provide secure, controlled access to geospatial data provided by private providers/stewards for mission-critical HLS business activities. This is crucial for operations that involve Critical Infrastructure and Key Assets.	GEA
Direction	Data (Property)	The relationship by which the alignment or orientation of any position with respect to any other position is established.	GEA
Disaster Assistance	Application	The means to support hazard/disaster related benefits processing. To share hazards and related assessments [e.g., Digital Flood Insurance Rate Maps (DFIRMs) for lending institutions and flood insurance purposes (Human Services – Individual Assistance & Public Assistance), post disaster Housing Habitability data (individual structures and public infrastructure) for rebuilding purposes, etc.]	GEA
Distance	Data (Property)	A linear extent of space between two points. The travel distance between two places.	GEA

Geospatial Term	Type	Definition/Description	Reference
Electronic Navigation	Application	The use of computerized systems to track movements/shipments/conveyances/aeronautics. The means to determine, verify and simulate navigation guidance for mobile assets. To produce navigation instructions and guidance data for use in computer-assisted navigation. These need to be uploaded to conveyances (for navigation) and simulators (for mission rehearsal). Employ navigation technologies such as Long Range Radio Aid to Navigation (LORAN), Global Positioning System (GPS), digital nautical charts (National Oceanic & Atmospheric Administration (NOAA), and flight planning and management software with digital aeronautical charts (Federal Aviation Administration (FAA)), automatic vehicle locator (AVL) and in-vehicle navigation systems, and inertial navigation systems (INS).	GEA
Emergency Declaration	Data	The geospatial extent and nature of a serious situation or occurrence that happens unexpectedly and demands immediate action, portrayed in map and/or report form. A subcategory of HLS Framework Data under the Communication category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Emergency Declaration Report Service	Technology	Able to generate an Emergency Declaration Report with the geospatial extent and nature of an emergency.	GEA
Emergency Reporting	Application	The means to document and account in detail the nature and geospatial-temporal context of a serious situation or occurrence to proper authorities; to declare state and federal emergencies. Reference threats, threat consequence assessments, warnings, alerts and other location-based content germane to the emergency.	GEA
Emergency Report	Data	The geospatial-temporal context of a disaster/incident/danger/accident. A location-based detailed-account pertaining to a state or federal emergency. Reports may reference maps, mission plans, incidents, occurrences, parties, threat intelligence, risks/threats/vulnerabilities and associated assessments, etc. Reports contain interlinked, multi-media data that adequately characterize the nature and context of the emergency. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Environmental Impact Assessments	Data	The analysis of environmental data for a recovery site(s) and the examination of the impact on the external conditions and surroundings. Analysis of the effectiveness of recovery plans and operations as they pertain to safety and health concerns in a post-incident environment. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category.	GEA
Evacuation Plan	Data	The documented process of departure of people from a particular location, usually due to an emergency or natural disaster. The geospatial-temporal context of the evacuation plan, which includes maps and reports that convey plan objectives, schedules and details, which includes: estimated population densities, threat locations, threat consequences, evacuation routes, mutual aid support facilities, etc. A type of HLS Framework Data under the Plan subcategory of HLS Framework Data under the Geospatial Product category.	GEA
Evacuation Planning & Management	Application	The means to produce and implement plans that convey the details pertaining to evacuation of a current or planned disaster/threat area. Produces Evacuation Plans.	GEA

Geospatial Term	Type	Definition/Description	Reference
Event Analysis	Application	<p>The means to (data) mine, integrate, and correlate varied types of events (occurrences, incidents, activities) for the purpose of extrapolating, analyzing and deriving geospatial data in the form of patterns (e.g., cluster), densities, trends, networks, tendencies, indicators, hypotheses, and conclusions, as it pertains to event understanding. The means to document and share the context for NSSEs. Source data include, but are not limited to, intelligence, incidents, occurrences, case, criminal and suspicious activities, financial transactions, persons, organizations, goods, cargo, hazmat, conveyances, etc. May also involve geoparsing and geocoding functions to scan and annotate associated textual data with geospatial-temporal references.</p>	GEA
Event Plan	Data	<p>The documented process of an organized occurrence. The results of Event Planning &amp; Analysis for major events (e.g., Super Bowl). The geospatial-temporal context of the event plan, which includes maps and reports that convey plan objectives, schedules and details which includes: event venue (location/time/activity), facilities, assets, personnel, security plans, evacuation plans, mutual aid support plans, etc. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.</p>	GEA



Geospatial Term	Type	Definition/Description	Reference
Event Planning & Analysis	Application	The means to produce Event Plans for major events (e.g., Super Bowl), and to examine the potential threats and vulnerabilities in context with event venue (location/time/activity), facilities, assets, personnel, security plans, evacuation plans, mutual aid support plans, etc.	GEA
Event (Records)	Data	Any event (incident, occurrence, or EVENT) of interest with geospatial and temporal context. A category of HLS Framework Data.	HLS EA

Geospatial Term	Type	Definition/Description	Reference
EVENT (Records)	Data	A special event (Olympics, Super Bowl, World Series) that may be the target of a terrorist. A threat to national security. A NSSE includes historical records of interlinked, multi-media data that characterize the EVENT. EVENT records provide a complete historical geospatial and temporal context for all activities associated with the EVENT, and link to intelligence, maps, reports, imagery, analyses (risk, threat, vulnerability), plans (mitigation, preparation, response, recovery, etc.), threat consequence modeling outputs, assessments, and tracking of assets, parties, conveyances, goods, etc. that are related to the EVENT. Includes location/time/identity/activity/status for all occurrences and activities associated with the EVENT. A category of HLS Framework Data.	GEA
Event Venue	Data	A schedule of planned activities and locations for a major event (e.g., Super Bowl). A subtype of Event Plan.	GEA
Evidence	Data	The current and historical location/time/identity/status associated with the collection of individual pieces of data or artifacts associated with a case, and locations of evidence storage to ensure chain of custody. A subcategory of HLS Framework Data under the Goods category. (Also see Case.)	GEA

Geospatial Term	Type	Definition/Description	Reference
Exercise Planning	Application	The means to produce accounts that convey the details pertaining to training drills for simulated threat(s) for a given area/facility/event. Produces Exercise Plans.	GEA
Exercise Plan	Data	The document process for drills related to training and preparation. The results of training exercise planning. The geospatial-temporal context of the plan, which includes maps and reports that convey objectives and situation context for the exercise, including: area/facility/event location detail, simulated threats, threat consequences, response objectives, asset locations, population densities, evacuation routes, mutual aid support facilities, etc. A type of HLS Framework Data under the Plan subcategory, under the Geospatial Product category.	GEA
Facilities	Data	Geospatial representations of surface, above surface and sub-surface structures, and installed Heating, Ventilation & Air Conditioning (HVAC), plumbing, electrical, security systems, and other installed infrastructure for any facility identified as a critical or key asset. Also, associated real property (e.g., rights of way, easements, etc) A category of HLS Framework Data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Facility Mapping & Management	Application	<p>The means to create and maintain detailed geospatial records of structure(s) for the purpose of managing the structure(s) and related land and infrastructure. Used in planning, construction, security and maintenance. Used to produce facility Maps, Plans and Reports. Assure compliance with all applicable laws regulating the development, use or transfer of property. These include National Environmental Policy Act (NEPA), Americans with Disabilities Act (ADA), Clean Water Act (CWA), Occupational Safety and Health Act (OSHA), Superfund Act, state and local permitting, and so on. Any planned construction activity at federally owned/operated facilities requires compliance with these laws. Used to manage space utilization of existing facilities to assure that space, furniture and equipment are adequate to support current and future mission requirements.</p>	GEA
False Alarms	Data	<p>Alerts generated by observation and/or analysis that are determined to be invalid threat indications through subsequent analysis. A type of HLS Framework Data under the Alert subcategory of the Communications category.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Feature	Data	An abstraction of a real world phenomenon. A geographic entity with a location relative to the earth. Usually represented by vector data (points, lines and polygons) with geometry, topology and descriptive properties (attributes). An HLS geospatial entity subtype.	OGC, ISO
Foundation Data (NGA)	Data	Base features or coverages that can be used as a common underlay for more specific mission or project data.	NGA
(HLS) Framework Data	Data	The core types of geospatial data required in support of the HLS mission. Meets HLS geospatial data standards. All HLS Framework Data are registered to a common coordinate reference system.	GEA
Fusion	Process	The process of merging data by exploiting their geospatial-temporal properties. To combine geospatial data. To combine any HLS enterprise data on the basis of their geospatial-temporal properties.	GEA

Geospatial Term	Type	Definition/Description	Reference
Gateway Service	Technology	The Gateway Service is a technology used to determine the geospatial position of a known mobile terminal from a wireless network. Position is expressed in geographic coordinates. Mobile terminals (cell phones, Personal Data Assistant (PDAs), etc) must be equipped with GPS or some other position determination technology. An important service used in Location-Based Services (LBS), in the wireless realm.	GEA
Gazetteer	Data	An authoritative source of geographic names with coordiante locations (see Geographic Names and Geonames).	GEA
Gazetteer Service	Function	The ability to determine the geospatial coordinates for a place, given place name and/or attributes. This function accesses a database of geographic place names, together with their geographic locations and other descriptive information.	GEA

Geospatial Term	Type	Definition/Description	Reference
Gazetteer Service	Technology	<p>Able to access a Gazetteer, which is a directory of well-known places and their locations. It generally consists of point features. A Gazetteer Service is a network-accessible service that retrieves one or more features, given a query (filter) request. This filter request must support selection by well-known feature properties. Queryable feature properties include, but are not limited to, feature type, feature name, authority, or identification code. Each instance of a Gazetteer Service has an associated vocabulary of identifiers. Thus, a Gazetteer Service may apply to a given region, such as a country, or some other specialized grouping of features. The returned features will include one or more geometries expressed in a well-known Coordinate Reference System.</p>	GEA, OGC
Geocode	Function	<p>The ability to determine geospatial coordinates, given an address.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Geodetic Control	Data	Points of known precise location on the earth (latitude, longitude, elevation) as established through surveying or photogrammetric methods. Control points that are expressed in a common coordinate reference system (e.g., World Geodetic System 1984 (WGS – 84)). Geodetic control is required to accurately register spatial data. The National Spatial Reference System is the fundamental geodetic control for the United States. A subcategory of HLS Framework Data under the Base category.	GEA
Geographic Affiliation	Data (Property)	Relates a person, good or asset to a physical location related to the earth (relative or absolute). These geospatial-temporal properties are stored in HLS Framework Data under Party (Person or Organization), Goods or Asset Records.	GEA
Geographic Information System (GIS)	Technology	An integrated system of computer hardware, software, and set of procedures designed to create, store, query, display and analyze geospatial data and related attributes.	GEA



Geospatial Term	Type	Definition/Description	Reference
Geographic Names	Data (Property)	An authoritative source of geographic names with locations. E.g., Trafalgar Square, White House, Washington, D.C. Typically available through an online Gazetteer or Location-based Directory. (See Gazetteer and Geonames). A subcategory of HLS Framework Data, under the Base category.	GEA
GIS Client	Technology	A general-purpose client, either thick or thin, that provides visualization and interaction with geospatial data.	GEA
GIS Server	Technology	The GIS server is comprised of bundled services that support the generation, revision, management, processing, and output of geospatial data. Consists of the server-side components comprising a GIS.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geocoder/Reverse Geocoder Services	Technology	<p>Able to determine geospatial coordinates, given an address (Geocoder), or determine address, given geospatial coordinates (Reverse Geocoder). A Geocoder transforms a description of a feature location, such as a place name, street address or postal code, into a normalized description of the location, which includes coordinates. A Geocoder Service receives a description of a feature location as input and provides a normalized address with coordinates as output. The feature location descriptions are any terms, codes or phrases that describe the features, and that are well known to the Geocoder Service, such as a street addressing or postal coding scheme.</p> <p>These services are very important across the HLS enterprise, as they enable enterprise users to exploit the geospatial-temporal context of the wide diversity of HLS business data that contain Location References, such as address, building name, census tract, etc. They are also key to correlating, integrating and fusing dissimilar data on the basis of geospatial-temporal characteristics.</p>	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Geolink	Data (Property)	A geo-enabled hyperlink (URI). This link may reference any geospatial-temporal resource (data/service). e.g., A geolink may reference a Location Object or a particular Feature on a given map. Geolinks provide the means to link between digital text/voice terms and the geospatial realm.	OGC
Geolocate	Function	The means to determine a geospatial position (the coordinates in a geographic coordinate reference system, a.k.a. position determination), or more generally, a location, for an object of interest (e.g., person, asset, conveyance, goods, cargo, device, etc.)	GEA
Geolocate Service	Technology	The means to determine a location for a fixed or Mobile Object of interest (e.g., geospatial feature, person, asset, conveyance, goods, cargo, device, etc.) Mobile Objects must be equipped with GPS, Radio Frequency Identification Device (RFID), and/or other position determination technologies.	GEA, OGC
Geometry (Geospatial)	Data (Property)	The geometric properties of geospatial data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geoname	Data (Property)	The designation/identifier (name) associated with a specific geographic location/place. A place name. E.g., Trafalgar Square, White House, Washington, D.C. Typically available through an online Gazetteer or Location-based Directory.	GEA
Geoparse	Function	The means to decompose text data in order to pinpoint geospatial and temporal terms. Optionally, also the means to geocode the terms and establish geospatial hyperlinks to geospatial-temporal resources (e.g., Location on a particular Map).	GEA
Geoparser Service	Technology	Geoparsing refers to the capability to scan and decompose a textual document, identifying key words and phrases that have geospatial-temporal context. A Geoparser Service works in the context of two bodies of information: a reserved vocabulary (a dictionary of place names, a gazetteer or a directory of Points of Interest (POIs) and a text source (e.g., a newspaper or cable.) The Geoparser returns all occurrences of the use (in the text source) of any term in the reserved vocabulary. Each occasion establishes a geolinks (geospatial/temporal-aware hyperlink) between text terms and the geospatial location associated with the reserved word. That result is an annotated text document with geolinks.	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Geoprocessing	Process	The process of creating, updating, analyzing, modeling, rendering and otherwise utilizing geospatial data.	GEA
Georeferenced	Data	Any geospatial data. Earth associated data employing a geographic coordinate reference system.	GEA
Geosecurity	Data	The means to control and manage access on the basis of geospatial properties.	GEA
Geospatial Analysis	Data	The information products (data) that results from geospatial analysis. An Assessment. A type of HLS Framework Data under the Assessment subcategory of the Geospatial Product category.	GEA
Geospatial Analysis	Process	The process of mining, integrating, correlating, extrapolating, or otherwise analyzing geospatial data to determine geospatial-temporal patterns (e.g., cluster), densities, trends, networks, line of sight, tendencies, indicators, hypotheses and conclusions. See Threat Analysis, Threat Consequence Analysis, Vulnerability Analysis, Case Analysis, Damage Assessment, Event Analysis, Mitigation Planning & Analysis, Performance Planning & Analysis, and Screening and Risk Analysis.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geospatial Application Components	Technology	Specialized Geospatial Applications may have one or more server-side Geospatial Application Components. These server-side components contain geospatial business logic and reference Geospatial Enterprise Services, which are common geospatial services that are available throughout the enterprise.	GEA
Geospatial Context	Data	Broadly, the geospatial characterization (classes, types and properties) of HLS data.	GEA
Geospatial Coordinate	Data (Property)	The coordinates of a geospatial position expressed in a geospatial coordinate reference system, e.g., geographic – latitude, longitude, and elevation.	GEA
Geospatial Data	Data	Broadly, HLS data that have geospatial properties or are defined as geospatial entity subtypes. HLS geospatial entity subtypes include: Location Object, Feature, Coverage, Observation, Route, Mobile Object and Structure. HLS requires standards for common exchange of all geospatial entity subtypes embedded in any network messages, e.g., an Observation encoded in Geography Markup Language (GML).	GEA, OGC, ISO

Geospatial Term	Type	Definition/Description	Reference
Geospatial Data Format Conversion, Import/Export Services	Technology	Able to import/export, manipulate and convert geospatial data, through standard services. Formats include GML, MapInfo, ESRI, Intergraph, etc.	GEA, OGC
Geospatial Data Rollup (GDR)	Process	The means by which geospatial data are “rolled up” from data producer/steward nodes to common higher-level enterprise nodes, and then replicated as necessary. GDR is made possible by standards that are strictly and rigorously enforced between all nodes involved in rollup operations. Strict rules and guidelines for data creation and update transactions and reporting must also be followed. The objective of GDR is to optimize automation of the process so that all operational elements involved in HLS always have the best data.	GEA
Geospatial Data Standards	Data	The accepted models of authority associated with geospatial information (data). A type of standard under the Mandate subcategory of the Governance category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geospatial Data Transfer	Application	The means to move, copy, or exchange geospatial data between enterprise database nodes, which cuts across the HLS enterprise. Includes operations to support periodic synchronizations of databases based upon update transactions to the master database. Used to accomplish replication operations between redundant nodes to support continuous 24/7 assured mission operations. Used to accomplish data rollup operations for HLS Framework Data (synchronize data up the local-state-federal chain). Includes the required management tools. Produces Transaction Reports and Audit Trails.	GEA
Geospatial Data Transfer Standard	Data	Geospatial data format specifications to facilitate the exchange of geospatial data between organizations in a common data format. A type of standard under the Mandate subcategory of the Governance category.	GEA
(HLS) Geospatial Entity Type	Data	The basic data type for HLS geospatial data that are used in geospatial services. Includes the subtypes: Location Object, Feature, Coverage, Observation, Route, Mobile Object and Structure.	GEA
Geospatial Extent	Data	The area of a geospatial entity type, as defined by a minimum bounding rectangle or polygon.	GEA



Geospatial Term	Type	Definition/Description	Reference
Geospatial Information Technology (GIT)	Technology	Broadly applies to all geospatial information processing technologies. e.g., Position determination (GPS, etc.), GIS, Remote sensing (sensors and observations), Surveying, LBS, Location-Based Tag & Track, Telematics, AVL, Modeling & Simulation, Image Processing, Terrain Visualization, AM/FM and SCADA.	GEA
Geospatial Infrastructure	Technology	The underlying base or foundation geospatial technologies required for the HLS enterprise.	GEA
Geospatial Integration Broker	Technology	A key component used in moving geospatial data between systems. Involved in data sharing and collaboration operations in support of the COP and MSOP. Involved in GDR Operations.	GEA
Geospatial Integration & Test Tools	Application	Tools that support examining and uniting of geospatial component services and applications. Consists of geospatial standards registry, reference implementations and test tools (including simulations and modeling for threat scenarios). Part of the Reference Architecture for the HLS GEA.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geospatial Metadata	Data	Data about geospatial data. Any metadata that has geospatial properties.	GEA
Geospatial Model	Data	Data that define a geospatial schema. A subcategory of HLS Framework Data under the Model category.	GEA
Geospatial One-Stop Portal	Technology	An e-government initiative designed to facilitate the sharing and dissemination of geospatial data and resources over the Internet. A Web-based Portal for one-stop access to maps, data and other geospatial services.	GEA
Geospatial Processing Workstation	Technology	A Geospatial Processing Workstation is a high-end computer dedicated to GIS, Image Processing and other demanding geospatial processing tasks. Geospatial Processing workstations may be Unix or Windows based. They typically are characterized by large memory, large screen video, and massive disk storage.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geospatial Product	Data	Broadly, any HLS 'product' (i.e. artifact, data, map, widget, etc.) that have geospatial properties or are defined as geospatial entities. Any geospatial information that are published in accordance with standards for consumption by HLS users, government officials and the public. Includes maps, imagery, location-based reports, assessments, analyses, plans, aids, profiles and so forth that characterize the earth and also the geospatial-temporal context of risks, threats, vulnerabilities, facilities, intelligence, events, hazards, plans, etc. A category of HLS Framework Data.	GEA
Geospatial Property	Data (Property)	The spatial geometry or attributes (including references) that define position on the earth (or location).	GEA
Geospatial Information Dissemination Protocols	Data	The standard procedures for passing geospatial content on a network (geospatial data and intelligence reporting and dissemination). A subtype of Standard under the Mandate subcategory of the Governance Category.	GEA
Geospatial Service (Component) Standards	Data	The conventions associated with geospatial service components. A subtype of Standard under the Mandate subcategory of the Governance Category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Geospatial Standards	Data	Generally, the accepted and widely recognized models of authority or excellence that apply to HLS geospatial capabilities. Consists of standards for geospatial services, data and communication protocols. A subtype of Standard under the Mandate subcategory of the Governance Category.	GEA
Global Positioning System (GPS)	Technology	A radio navigation system consisting of 24 earth-orbiting satellites that enable users to determine accurate geospatial position, velocity and time using a GPS receiver and associated computational capabilities. Determines geographic coordinates expressed in World Geodetic System 1984 (WGS - 84. Key technology for positioning, navigation and timing (PNT) in support of HLS mission. Useful for tracking and monitoring of assets, goods, cargos, persons and conveyances, especially for real-time operations.	GEA

Geospatial Term	Type	Definition/Description	Reference
Goods (Record)	Data	Assets being transported by Conveyance. The records for description (including a digital record of credentials), tracking and monitoring of assets (e.g., place of manufacture, shipping history in geospatial context – location/time/identity/status), and including money. May reference location, case, conveyance, risk, event (incident, occurrence, Event) or Party (person or organization) records. Subcategories include Cargo, parcels/packages, evidence, money, Hazmat and any other types of goods/things of interest. A category of HLS Framework Data.	HLS EA, GEA
Graphics Viewer Plug-in	Technology	The means to visualize and interact with 2D and 3D geospatial data in pictorial representation, where the user may interact/change geospatial elements. Provides tools to select geospatial features/locations/structures/routes/observations/mobile-objects for viewing, set view window, display chosen view, measure and pinpoint, navigate through view with pan and zoom, etc. Optionally choose symbology, graphics display template or select previous views.	GEA
Hazard	Data	A risk/danger (i.e., hazard) assessment in geospatial-temporal context, e.g., the floodplain for 100 year flood. May be Geospatial Data or Geospatial Product.	GEA

Geospatial Term	Type	Definition/Description	Reference
Hazard Map	Data	A graphic representation that conveys a risk/danger (i.e., hazard) assessment in geospatial-temporal context. A type of assessment, under the subcategory Assessment, under the Geospatial Product category.	GEA
Hazard Modeling, Analysis & Mapping	Application	The means to create, represent, break down, simulate and maintain detailed geospatial records of hazards for the purpose of characterizing and managing the threats (risks) associated with the hazard. Used in emergency preparedness, response and recovery planning and operations. Used to produce Hazard Maps and related Reports.	GEA
Hazmat (Records)	Data	The records for description (including a digital record of credentials), tracking and monitoring of hazardous materials, e.g., place of manufacture, or current, historical and scheduled location/time/identity/activity/status (shipping history). May reference location, case, conveyance, risk, event (incident, occurrence, Event), Party (person or organization), or case records. A subcategory of HLS Framework Data under Goods.	GEA

Geospatial Term	Type	Definition/Description	Reference
Health & Safety Monitoring	Application	The means to track the locations of Notice of Violations (NOV) and reported incidents to assess problem work sites or otherwise dangerous conditions. Perform pre-deployment environmental health and safety evaluations of potential work sites, such as Disaster Field Offices (DFOs) or other temporary work environments.	GEA
Hydraulic-Hydrographic Modeling	Application	The means to create, control, display and store the results of hydraulic and hydrographic models, e.g., Hydrologic Engineering Center 2 (HEC2), Better Assessment Science Integrating Point and Nonpoint Sources (BASINS), and others.	GEA
Hyper-spectral Scanners	Technology	Any device that is specialized for measuring radian energy using contiguous bands of spectral data across a broad range of electromagnetic spectra. The resulting image can be visualized as a 3-dimensional dataset with two spatial and one spectral dimension, which is often referred to as an image cube.	GEA

Geospatial Term	Type	Definition/Description	Reference
Identity (Records)	Data	The current descriptive geospatial information about a person, organization, or goods that defines their identity. For persons, can include place of birth, citizenship, current address(es), etc. Descriptive geospatial and identity information about goods, like place of manufacture, address, etc. Includes digital records of credentials. A type of HLS Framework Data under Person or Organization category, or the Goods category.	GEA
Image Archive Service	Technology	The Image Archive Service accesses digitally stored photographs (i.e., raster data). It makes use of WCS and Image Catalog Service Tier 3 components.	GEA
Image Processing Client	Technology	A desktop client, either thick or thin, that provides visualization and interaction with geospatial imagery data. Many specialized geospatial imagery applications may exist within the HLS EA.	GEA
Image Processing Server (IPS)	Technology	The IPS server is comprised of bundled services that support the generation, revision, management, processing, and output of geospatial image data. Consists of the server-side components comprising an IPS.	GEA



Geospatial Term	Type	Definition/Description	Reference
Image Viewer Plug-in	Technology	The means to visualize and interact with geospatial images (rectified or unrectified). Provides tools to select image and optional graphics overlays for viewing (geospatial features/locations/structures/routes/observations/mobile-objects), set view window, display chosen view, measure and pinpoint, navigate through view with pan and zoom, etc. Optionally choose symbology, image display template or select previous views.	GEA
Image(ry)	Data	A graphic representation of an object or scene, typically produced by an optical or digital electronic device. May be in still or motion format. Common examples include remotely sensed data (e.g., satellite data and airborne data), scanned data, aerial photographs, motion imagery, and photographs. An image is normally stored as a raster data set of binary or integer values that represent the intensity of reflected light, heat, or other range of values on the electromagnetic spectrum. An HLS Framework Data category. A subtype of coverage.	GEA
Imagery Analysis	Process	The process of examining (analyzing) and interpreting remotely sensed imagery in order to discern spatial patterns or features of interest.	GEA

Geospatial Term	Type	Definition/Description	Reference
Incident	Data	<p>A specific instance of carrying out a threat that may or may not result in harm to a party or asset. It requires a response above and beyond the normal daily operations. Current and historical geospatial and temporal context associated with any type of incident, whether natural or man-made. Incidents may be occurrences of an instance of a single threat type, or include combinations of occurrences of multiple threats (e.g., high explosive combined with radiological-dirty bomb; hurricane or typhoon with flooding, etc). Incident data provide a complete historical geospatial and temporal context for all activities associated with the incident (preparation, mitigation, response, recovery), and may link to intelligence, maps, reports, analyses (risk, threat, vulnerability), plans (mitigation, preparation, response, recovery, etc.), consequence modeling outputs, assessments, and tracking of assets, parties, conveyances, goods, etc. associated with the incident. Includes location/time/identity/activity/status for all occurrences and activities associated with the incident. A category of HLS Framework Data.</p>	HLS EA, GEA

Geospatial Term	Type	Definition/Description	Reference
Incident (/Event) Management	Application	The means to support command and control for an occurrence or event, including situation awareness, monitoring threats and threat assessments, coordinating and monitoring response activities, assets, personnel, etc., and reporting status to persons in the command and control chain (see incident reporting). Create and manage incident/event data. Generate and disseminate alerts and warnings. Support pertinent communications. Reference relevant weather and other supporting geospatial data. Determine containment areas, logistics and deployment plans and ingress/egress routes for incidents. Update incident/event records to reflect response results.	GEA
Incident Reporting	Application	The means to generate detailed accounts about occurrences for proper authorities.	GEA
Incident Report	Data	The geospatial-temporal context of occurrences in detailed account form(i.e., reports). Reports contain interlinked, multi-media data that adequately characterize the nature and context of the incident. Reports may contain references to plans, maps and other reports. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Incident Report Service	Technology	Able to generate an Incident Report (detailed account of an occurrence) with information about a location-based incident message.	GEA
Integration	Process	The process of relating two or more physical data sets by exploiting geospatial-temporal properties, creating a virtual whole. To cross-reference related geospatial data. To integrate any HLS enterprise data on the basis of their geospatial-temporal properties.	GEA
Intelligence	Data	Knowledge concerning threats and potential threats as it applies to the broad HLS mission. A category of HLS Framework Data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Interferometric SAR	Technology	Interferometric Synthetic Aperture Radar (InSAR) is a technique that enables measurement of very small movements of the earth's surface, as subtle as centimeters or less. The SAR interferometry technique acquires a pair of images from two radar measurements, taken from two marginally displaced coherent observations of the surface. For each pixel corresponding to the same ground area in both images, phase values are differenced to produce an interferogram, which, using the orbit parameters, is subsequently used to produce a Digital Elevation Model (DEM).	GEA
Interoperability (Geospatial)	Process	Ability of different processors, middleware, software and networks to interface and communicate with each other in order to share geospatial data and/or services.	GEA
Interview (Records)	Data	The geospatial context associated with conversations conducted to elicit specific information (i.e., interviews). A type of HLS Framework Data under the Person subcategory of the Party category.	GEA
Intervisibility	Function	The means to determine whether or not there is clear visibility between two locations, or from an observation point/platform to an observation area. See line-of-sight.	GEA

Geospatial Term	Type	Definition/Description	Reference
Itinerary (Records)	Data	The detailed account(s) pertaining to a person's planned travel. The location/time/identity/planned-activities/status of places, persons and organizations to be visited. May include the means of transit, route(s), and travel guidance. A type of HLS Framework Data under the Person subcategory of the Party category	GEA
Key Asset	Data	Individual equities whose destruction would not endanger vital systems, but could create local disaster or profoundly damage our Nation's morale or confidence. Key assets include symbols or historical attractions, such as prominent national, state, or local monuments and icons. Key assets also include individual or localized facilities that deserve special protection because of their destructive potential or their value to the local community. Examples include: National Icons, Monuments, and Marine Resources. Any 'Key Assets' as defined in PDD – 63. The geospatial context of these assets is represented by a category of HLS Framework Data.	HLS EA
Law Enforcement Assets	Data	A law enforcement officer's equipment: gun, munitions, baton, etc. These may be tracked by Asset Inventory Management and may or may not have geospatial context.	HLS EA

Geospatial Term	Type	Definition/Description	Reference
License/Permit (Records)	Data	The geospatial-temporal context associated with documented official or legal permissions. A type of HLS Framework Data under the Person or Organization subcategories of the Party category, or a type under the Goods category.	GEA
Light Detection and Ranging (LiDAR)	Technology	The Light Detection and Ranging (LiDAR) is an active remote sensing system that can be operated in either a profiling or scanning mode using pulses of light to illuminate the terrain. By accurately measuring the round trip travel time of the laser pulse from the aircraft to the ground, a highly accurate spot elevation and topology can be calculated.	GEA
Line-of-Sight	Function	The means to determine whether or not there is intervisibility (visual line-of-sight) between two or more points in space, e.g., from a viewpoint to a target, between a point and an area or line, or between a line (e.g., flight path) and a point(s), line(s) or area(s). Also, the means to determine electronic line-of-sight for a signal.	GEA
Locate	Process	The ability to determine the position of a person, thing, or phenomenon.	GEA

Geospatial Term	Type	Definition/Description	Reference
Location	Data	A broadly used term that refers to any place of interest on the earth. See Location Object for precise meaning and use as an HLS Data Object.	GEA
Location Object	Data	Any place or site on the earth of interest in the HLS mission. A position with geospatial coordinates. Generally, as used in HLS business, a place or point of interest. Also, the location of a person, thing or any other phenomenon referenced to the earth. Includes Absolute Location and Relative Location. As defined by OGC (Location), the extensible, abstract data type for all expressions of location that can be used by geospatial applications and services to specify the location of a target, asset, conveyance, person, etc. As used in LBS, a Location is the root of a semantic tree that includes a Point, Position, Address, and Point of Interest as its subtypes. An HLS geospatial entity subtype.	GEA, OGC
Location-Based Messaging Client	Technology	The means to visualize location-based messages (communications with embedded geospatial elements). Example messages include alerts, warnings, emergency declarations, location report and situation reports.	GEA



Geospatial Term	Type	Definition/Description	Reference
Location-Based Messaging Service	Technology	<p>The means to represent location-based messages (communications with embedded geospatial elements). Location-based messages include alerts, after action reports, warnings, emergency declarations, location reports, situation reports and NSSE Reports.</p> <p>The Location Organizer Folder (LOF) is a standard message container model for capturing multi-media data in a geospatial context. It is based upon XML (Extensible Markup Language) and GML.</p>	GEA, OGC
Location-Based Services (LBS)	Technology	Location-Based Services combine Web, wireless and geospatial technologies to provide the means to exploit positional information anywhere, anytime, and on any device. Generally, any services involving a mobile terminal (e.g., cell phone, PDA or notebook) and mobile users.	GEA
Location-Based Tag & Track	Technology	Technology for designating and following assets, equipment, goods, cargos, conveyances, and persons. e.g., GPS with RFID.	GEA

Geospatial Term	Type	Definition/Description	Reference
(Location) Directory Service	Technology	The (Location) Directory Service provides access to online lists (databases) of persons, places, products and/or services (e.g., Yellow/White/Green/Blue Pages, Restaurant/Travel/Entertainment Guides, Community Services, etc). This service is ordinarily used to find the location of a specific or nearest person, place, product and/or service. It is an important service used in LBS.	GEA, OGC
Location Reference	Data	Any means for representing location. A direct or indirect association to a physical location. Examples include an address, census block, geoname, coordinates, etc. Comprised of the standard geospatial elements/properties associated with any 'geospatial data' (i.e., any data which are captured, stored and managed within the HLS enterprise as geospatial data), or with any 'non-geospatial data', which are any HLS business data that are predominantly non-geospatial, and yet they have geospatial elements/properties that can be exploited through geospatial services.	GEA
Location Search & Reporting	Application	The means to search person, case, event, facility and property records using geospatial-temporal criteria, and then generate Location Reports conveying query results.	GEA

Geospatial Term	Type	Definition/Description	Reference
Location Report	Data	The query results pertaining to a person, case, event, facility or property expressed in location-based report form (detailed positional account). Reports contain interlinked, multi-media geospatial data. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA
Location (Site) Report Service	Technology	Able to generate a Location Report (detailed positional account) with information about an HLS data object's location, related entities, and geospatial context. Example objects include geospatial feature, person, asset, conveyance, goods, cargo, device, etc.	GEA
Logistics Plan	Data	The documented management of the details of an operation. The geospatial-temporal context of an logistics plan, which includes maps and reports that convey objectives, schedules, deployments and contingencies concerning the distribution and use of goods (materials and supplies), assets, conveyances and related personnel in meeting the needs of emergencies. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Logistics Planning	Application	The means to produce logistics plans that convey the movement and deployments of goods, cargo, conveyances, assets and related personnel, for HLS operations.	GEA
Manifest	Data	A list of passengers and cargo carried on a ship. A type of HLS Framework Data under the Cargo subcategory of the Goods category.	GEA
Map (and Charts)	Data	Generally, an annotated, symbolized graphical representation of select geospatial-temporal data for an intended purpose. Also, a map created by an orthorectified image. May contain annotations and marginalia. May be in hardcopy or softcopy form. May reference a Report or Plan. May be referenced by or embedded in a Report or Plan. A subcategory of HLS Framework Data under the Geospatial Product category.	GEA
Map Publication	Application	The means to produce finished softcopy and hardcopy maps for use in HLS operations. Includes the assembly and integration of data, symbolization, annotation, legend/marginalia generation and placement, and cartographic finishing. This capability is required throughout the HLS enterprise.	GEA

Geospatial Term	Type	Definition/Description	Reference
Map Publication Service	Technology	Able to automatically generate and broadcast Maps of interest for inclusion in a plan, report, or other Geospatial Product, with select content and symbolization (map template). To produce a Map for inclusion in a word or graphic document.	GEA
Map Viewer Plug-in	Technology	The means to visualize and interact with geospatial data in rendered map form. Provides tools to select base map/image data for viewing, select optional graphics overlays (geospatial features, locations, structures, routes, observations, mobile-objects), set view window, display chosen view, measure and pinpoint, navigate through view with pan and zoom, etc. Optionally choose symbology, map display template or select previous views.	GEA
Metafeature	Data	An entity (feature) that synoptically represents and/or references other features. A complex or compound feature.	GEA

Geospatial Term	Type	Definition/Description	Reference
Mission Feature	Data	A geospatial entity that represents a pursuant target (object) or constraint in some HLS operational context. Types of Mission Features include: At Risk Location (typically an area), Containment Area, Boundary Zone, Observation Area/Point, etc. Also see AOI, POI, and Place of Interest. An HLS Framework Category.	GEA
Mission-Specific Operating Picture (MSOP)	Data/ Technology	The collective set of time-sensitive, mission-critical, shared resources (data and services) associated with an area and subject of interest that conveys situational context for a mission. Contains geospatial context (a composite of HLS Framework Data and HLS Auxiliary Data), the disposition and nature of threat(s), friendly personnel and assets, as well as incidents, events, observations, related intelligence, and other relevant mission data. A MSOP draws upon the shared resources of the COP. A subcategory of HLS Framework Data, under COP.	GEA

Geospatial Term	Type	Definition/Description	Reference
Mission Plan	Data	The scheme designed to reach specific objectives or assignments. The geospatial-temporal context of a mission plan, which includes maps and reports that convey objectives, threats, deployment/route details, contingencies and situation context for the mission, as well as the navigation instructions and guidance data to support electronic navigation. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Mission Planning	Application	The means to scheme, program, schedule and allocate assets to a mission; to develop data collection plans that convey schedule, tasking and resource allocation for collection assets.	GEA
Mission Rehearsal	Application	The means to verify and simulate pre-planned missions involving navigation guidance for mobile assets. Employs Mission Rehearsal Models. Input to these models consists of terrain, threats, threat avoidance constraints, features, weather, other environmental conditions, planned/predicted navigation guidance, asset operating constraints, etc. Outputs consist of 4D, simulated rehearsals, in their projected operating environments.	GEA

Geospatial Term	Type	Definition/Description	Reference
Mission Rehearsal Models	Data	Schematics that characterize the behaviors of mobile/dynamic mission (plan of action) assets and the effects of these assets in a mission rehearsal context. These models are associated with simulations of mission assets in their projected operating environments. A subcategory of HLS Framework Data under Models.	GEA
Mitigation Plan	Data	The scheme designed to minimize and alleviate risks, hazards, emergencies or general occurrences. The geospatial-temporal context of a mitigation plan, which includes maps and reports that convey the planning, scheduling and allocation of all resources required to contain and minimize the impact of a disaster. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA



Geospatial Term	Type	Definition/Description	Reference
Mitigation Planning & Analysis	Application	The means to determine and assess impact of the root cause of an incident/event and to produce mitigation plans and supporting Geospatial Products (assessments, maps, reports, etc) for natural and human induced threats, hazards and disasters, in order to support future emergency response and recovery efforts for impending or possible disasters. Also, the means to analyze post-disaster response effectiveness (post mission assessments and after action reports) and create mitigation plans and supporting Geospatial Products to enhance future planning, safety, preparations, response and recovery operations, countermeasures and training for cases, threats, hazards and disasters.	GEA
Mobile Object	Data	Any entity (object) of interest that is in motion, or is otherwise dynamic, and is monitored and/or tracked. A person, good, conveyance or asset. Mobile objects have location, time, identity, activity, status, and optionally speed and direction of motion. Historical records of location/time/identity/activity/status/speed/direction may be recorded for tracking purposes. An HLS geospatial entity subtype.	GEA

Geospatial Term	Type	Definition/Description	Reference
Model	Data	The schematic description of data that accounts for its properties and characteristics. Geospatial-oriented model to support simulation and autonomous operations. Models have a data perspective (model input and output parameters) and a behavior perspective (software). A category of HLS Framework Data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Model Access Service	Technology	<p>Able to determine and access the extent and nature of a Toxic Dispersion Model (e.g., plume) for a chemical or biological event in air or water. The model output is characterized by features.</p> <p>“Toxic Dispersion” refers to the effects of introducing a chemical, radioactive or biological agent into the atmosphere or a water supply at a point source. Simulation is employed to understand the effects of a toxic agent within its medium. The objective of the simulation is to ascertain contamination levels in a geospatial-temporal context, and thus, to understand the nature of toxic plumes, danger zones, warning zones, and related features, and to be able to view or analyze the output from a simulation run in conjunction with any other geospatial data, e.g., as plumes or danger/warning zones within a geospatial decision support tool.</p> <p>Also, the ability to determine and access weather, hydrographic and other environmental parameters through environmental simulation. The simulation output is characterized by observations.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Modeling & Simulation	Process	The means to predict aspects of the behavior of some system by creating an approximate (mathematical) model of it. Modeling in space and time through a special-purpose software package, or a more general simulation package aimed at a representation of the attributes of a system.	GEA
Monitor	Process	The ability to systematically observe and report on a location (place/area/point of interest), feature (e.g., building), person, goods, assets, conveyances etc. with the purpose of collecting information about location/time/identity/activity/status.	GEA
Monitor Assets	Application	A program that observes, supervises, manages, or controls the equities or items of value. The means to monitor Assets for change in location/activity/status. To determine and record the current and historical location/time/identity/activity/status of mobile assets, including capital assets, key assets, law enforcement assets, and operational materials and equipment, through observation, tracking and analysis. To perform situation awareness. May lead to reporting of occurrences (e.g., Suspicious Activity Reporting), alerts or Situation Reports.	GEA

Geospatial Term	Type	Definition/Description	Reference
Monitor Conveyances	Application	A program that observes, supervises, manages, or controls transports. The means to monitor Conveyances for change in location/activity/status. To determine and record the current and historical location/time/identity/activity/status of conveyances through observation, tracking and analysis. To perform situation awareness. May lead to reporting of occurrences (e.g., Suspicious Activity Reporting), alerts or Situation Reports.	GEA
Monitor Goods & Cargo	Application	A program that observes, supervises, manages, or controls freight, merchandise, payload, or equities. The means to monitor Goods and Cargo for change in location/activity/status. To determine and record the current and historical location/time/identity/status of goods and cargo through observation, tracking and analysis. To perform situation awareness. May lead to reporting of occurrences (e.g., Suspicious Activity Reporting), alerts or Situation Reports.	GEA

Geospatial Term	Type	Definition/Description	Reference
Monitor Locations	Application	A program that observes, supervises, manages, or controls places, sites, positions, streets, neighborhoods, venues, localities, etc. The means to monitor Locations for change in activity/status. To determine and record the current and historical time/activity/status at a location through observation and analysis. To perform situation awareness. May lead to reporting of occurrences (e.g., Suspicious Activity Reporting), alerts or Situation Reports.	GEA
Monitor Parties	Application	A program that observes, supervises, manages, or controls people, persons, citizens, crowds, etc. The means to monitor Parties (Persons or Organization) for change in location/activity/status. To determine and record the current and historical location/time/identity/activity/status of persons in geospatial context and cyberspace, through observation, tracking and analysis. To perform situation awareness. May lead to reporting of occurrences (e.g., Suspicious Activity Reporting), alerts or Situation Reports.	GEA

Geospatial Term	Type	Definition/Description	Reference
Monitor Recovery	Application	A program that observes, supervises, manages, or controls cleanup, decontamination and restoration. The means to monitor incident locations for change in activity/status pertaining to cleanup, decontamination and restoration. Employ recovery plans to support recovery operations. Determine and record the current and historical time/activity/status at recovery locations through observation and analysis for subsequent analysis and legal implications. Produce location-based After Action Reports that contain recovery progress, and environmental impact assessments.	GEA
Monitoring Service	Technology	Able to determine (or fetch a predetermined) location/time/identity/status/activity series for a Location.	GEA
Multi-spectral Scanners	Technology	Any device that is specialized for measuring radian energy of the earth's surface using discrete bands of spectral data ranging from the blue to the near-infrared portions of the electromagnetic spectrum.	GEA

Geospatial Term	Type	Definition/Description	Reference
Mutual Aid Support Plan	Data	May result from certain planning and analysis activities for major events (e.g., Super Bowl), emergency preparations/response/recovery, etc. The geospatial-temporal context of the mutual aid support plan, which includes maps and reports that convey plan objectives (deployment sites, logistics, etc), schedules and activities in geospatial context. A type of HLS framework data under subcategory Plan, under the Geospatial Product category.	GEA
National Affiliation	Data (Property)	Relates a person, good or asset to a nation. A property of HLS Framework Data under Person, Goods or Asset data.	GEA
(The) National Map (TNM)	Data	A seamless, continuously maintained set of Base data for the U.S., consisting of both feature and coverage data that meet consistent National standards. The National Map (TNM) will serve as the central portal for the sharing and dissemination of critical geospatial information. The 'Base Map' for HLS operations.	USGS



Geospatial Term	Type	Definition/Description	Reference
National Security Special EVENT (NSSE) Report	Data	A location-based detailed-account (report) describing a NSSE. Reports may reference mission plans, incidents, occurrences, assets, persons, organizations, cases, risks/threats/vulnerabilities, risk/threat/vulnerability assessments, threat intelligence, conveyances, goods, cargo, or hazmat records. Reports may contain interlinked, multi-media data that characterize the nature and context of the EVENT. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA
National Security Special EVENT (NSSE) Reporting	Application	The means to generate detailed-accounts about NSSEs; also to document suspicious activities in a geospatial context for consideration as NSSEs.	GEA
National Security Special EVENT (NSSE) Report Service	Technology	Able to generate a NSSE Report for an EVENT.	GEA
National Spatial Data Infrastructure	Data, Technology	Provides a consistent means to share geographic data among all users. This includes all technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community.	USGS

Geospatial Term	Type	Definition/Description	Reference
Native Spatial DBMS	Technology	The Enterprise Database Management System (DBMS) should provide native support for storing and managing all types of geospatial data. Capabilities should include geospatial indexing, open Structured Query Language (SQL) query support with geometry and topology operators, geospatial analytics, geospatial data mining, coordinate transformation and linear referencing.	GEA
Nautical Navigation	Data	Data which pertains to nautical navigation, like waterways, ports, harbors, bridges, navigation aids, traffic, traffic control, (electronic) navigation guidance, fixed hazards and dynamic hazards. A subcategory of HLS Framework Data under the Base category.	GEA
Navigation	Process	The guidance of conveyances or persons from place to place. The act of navigating; the act of passing on water in ships or other vessels or in the air in aircraft; the state of being navigable.	GEA
Navigation Guidance	Data	The navigation instructions and directional data for use in computer-assisted navigation (e.g., Notice to Mariners). A subcategory of HLS Framework Data under the Base category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Navigation Service	Technology	An enhanced version of the Route Service, which determines routes between two or more points with enhanced navigation information. An important service used in Location-Based Services (LBS).	GEA, OGC
Network	Data	A complex interconnected group or system. Includes the following type (of networks): terrorist, hostile interest affiliation, road transportation (road, air, rail, and sea), logistical, energy distribution, communications, water supply, food distribution, emergency response, financial, sociological, etc.	GEA
Network Analysis	Function	The examination of a complex interconnected group or system. The means to analyze transportation, telecommunications, energy supply, water supply and any other networks in geospatial context. The means to determine a Route.	GEA
Notice	Data	Alert information or messaging (notification) between operational actors containing geospatial and temporal context.	GEA

Geospatial Term	Type	Definition/Description	Reference
Observation	Data	Data derived from sensor measurement, human detection, and other sensing and measurement techniques. An HLS geospatial entity subtype.	OGC
Observation Point	Data	A location from which observations (detecting, viewing, sensing) are made by human and/or sensors for monitoring or tracking purposes. A type of Mission Feature.	GEA
Observation Area	Data	An area under observation (detection, surveillance, supervision) by human and/or sensors for monitoring or tracking purposes. A type of Mission Feature.	GEA
Occurrence	Data	An activity (routine transaction) that is of interest in the HLS mission. Can be something that happens at a specific point in time or over a period of time. It requires an expected response as part of normal operations. The geospatial-temporal context of current and historical locations of any suspicious, criminal, terrorist activities of interest, including arrests, offenses, confiscations and seizures. May reference multi-media geo-referenced data (e.g., maps, reports, motion video, still images, etc.) Defines the identity/location/time/activity/status for any activity of interest. A category of HLS Framework Data.	HLS EA, GEA

Geospatial Term	Type	Definition/Description	Reference
Operational Plan	Data	<p>A documented process for a particular method of efficient, productive activity. The geospatial-temporal context of an operations plan, which specifies the allocation of funds, activities and resources by organization and geographic area (congressional district, state, territory, county, reservations, and cities). May also include maps and reports that convey objectives, schedules, deployments, contingencies and the situation context for projected operations, including: threat disposition, blue force disposition, contingency deployments, environmental constraints, etc. Plans may also include standard operating procedures for geospatial data acquisition, management and sharing, as well as the geospatial management and investment plans for all levels of government, developed in cooperation with private and public sector entities. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.</p>	GEA
Operational Planning	Application	<p>A program designed to document the process for a particular method of efficient, productive activity. The means to scheme, schedule and allocate personnel and assets for emergency operations. To develop Operational Plans.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Organization (Records)	Data	An administrative or functional entity established formally or informally to represent interests or issues or to conduct an activity, as opposed to an individual or person representing oneself. The records for describing and monitoring organizations of interest. Description includes relevant geospatial locations. Monitoring produces current and historical location/time/identity/activity/status data. May reference events (occurrences, incidents, EVENTS), alerts, cases, assets, conveyances, persons, and affiliations with hostile interests. A subcategory of HLS Framework Data, under the Party category.	HLS EA, GEA
Party	Data	A unique individual (living or dead). Can be characterized or identified by historical, biographic, and biometric information. A person or organization of interest in the HLS mission for which geospatial-temporal context is required. A category of HLS Framework Data.	HLS EA, GEA
Patrol	Process	Moving about an area or along a border for the purpose of observation and inspection. Includes engaging adversaries, suspected threats, and perpetrators.	GEA

Geospatial Term	Type	Definition/Description	Reference
Performance Criteria	Data	The rules or standards for assessing system accomplishment (performance) based upon geospatial considerations. A type of HLS Framework Data under the Performance Measure subcategory of the Plan category.	HLS EA
Performance Model	Data	Schemas (models) that characterize the key performance indicators of HLS systems. These models are associated with system performance simulations that are used in performance analyses. Input to these models consists of performance criteria and geospatial performance factors (incidents, events, districts, etc), i.e., geospatial entities of interest for performance monitoring purposes. Model output consists of performance measures by geographic entity/locations. A subcategory of HLS Framework Data under Model.	GEA
Performance Plan	Data	The planned/projected/predicted performance of a system or system resources based upon geospatial factors and criteria. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Performance Planning & Analysis	Application	The means to determine system performance based upon geospatial-temporal factors and criteria. Track and report on Events, incidents, key assets, vulnerabilities, grants, expenses and funding by geospatial areas (congressional district, state, territory, county, reservations, and cities) for DHS activities. Create and evaluate performance criteria and annual performance plans (including accountability reports).	GEA
Person (Record)	Data	The records for description, tracking and monitoring of persons. Includes identity (digital records of credentials, place of birth, citizenship, address) and other biographical information including travel history, geographical/national affiliations, etc. Tracking and monitoring of persons produces current, historical and future (planned or projected) location/time/identity/activity/status data. Person records may include subcategories of other business data including records containing background check, interview, custody, travel, history, itinerary, and license/permit information. May reference events (occurrences, incidents, EVENTS), cases, conveyances and organizations, employment, activity, asset, and risk. A subcategory of HLS Framework Data under the Party category.	HLS EA



Geospatial Term	Type	Definition/Description	Reference
Personal Map Software	Technology	Personal Map Software includes a variety of tools for viewing, annotating and manipulating map data. Typically include map data for standalone operations. Often includes GPS capability for mobile applications. Commercial software for desktop or PDA.	GEA
Photogrammetric Cameras	Technology	Cameras that are specialized for the remote capture and measurement of panchromatic (350-1100 nm) data of the earth's surface. These units are typically mounted on airborne craft and produce photographs that can be transformed into a geo-registered image product using specialized photogrammetric software applications.	GEA
Place of Birth	Data	Location associated with a person's birth. A subtype of LocationObject.	GEA
Place of Destination	Data	Shipping or travel destination. A subtype of LocationObject.	GEA
Place of Interest	Data	May be represented as a point (i.e., point of interest) or an area (i.e., area of interest). A subtype of LocationObject.	GEA

Geospatial Term	Type	Definition/Description	Reference
Place of Manufacture	Data	Place where a good is manufactured. A subtype of Location Object.	GEA
Place of Origin	Data	Shipping or travel origin. A subtype of LocationObject.	GEA
Plan	Data	A documented course of action to be taken in order to achieve a specified goal or objective that is officially designated as a Plan. The results of planning pertaining to a topic of interest, such as an exercise, mission, recovery, etc. The geospatial-temporal context of a Plan. Plans include supporting facts, objectives and projections. May reference one or more Reports, Plans or Maps. A subcategory of HLS Framework Data under the Geospatial Product category.	HLS EA, GEA
Point of Interest (POI)	Data	A place or entity with a fixed position that may be used as a reference point or a target. Generally, any point of interest within the mission. A location of interest represented as a point in a known coordinate reference system, with metadata describing the location. May also contain name, type, category, address, phone number and other information about a place. A subtype of Location Object. (Also see Place of Interest)	OGC

Geospatial Term	Type	Definition/Description	Reference
Position	Data	Any observed or calculated position, in the broad semantic context of the use of the term. Primarily contains a geographic position and quality of position. The geospatial coordinates, accuracy and precision of a point or vertices of a line or polygon.	OGC
Post Mission Analysis	Application	The means to assess the performance of a mission and assess effectiveness of mission, event, preparation, logistics, response, deployment, evacuation, search & rescue, security, countermeasures, (training) exercise and recovery plans, and the effectiveness of mission operations (assess incident and situation reports). The ability to compare plans with mission operations details and determine lessons learned. The means to produce post mission assessments that convey analysis results (maps and location-based reports), and to produce and after action reports.	GEA
Post Mission Assessments	Data	The analysis output from Post Mission Analysis. Assessments of the effectiveness of plans, operations and training in response to an incident/event/case. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Preparation Plan	Data	The geospatial-temporal context of an emergency preparedness plan, which includes maps and reports that convey preparation objectives, schedules, deployments, contingencies and geospatial-temporal situation context for planned operations. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Preparation Planning	Application	The means to preplan, schedule and allocate personnel and assets to a potential disaster/threat; to develop operations plans that convey schedule, tasking and resource allocation for preplanned operations, in a geospatial-temporal context. The means to produce deployment and contingency plans.	GEA
(Threat) Profile	Data	A geospatial-temporal pattern, trend, network, tendency or indicator that characterizes threat and risk behaviors. Used in determining location, identity, severity and probability of the risk/threat. A subcategory of HLS Framework Data under category Geospatial Product. [Note: Other types of location-based profile may be defined for the HLS mission.]	GEA

Geospatial Term	Type	Definition/Description	Reference
Profiling	Function	To detect or calculate a geospatial-temporal pattern, trend, network, tendency or indicator by evaluating a set of geospatial entities and/or a set of HLS business data with geospatial properties. Used for detecting new risks and threats. e.g., Detect a visitation pattern by analyzing immigration data for suspected terrorists and their associates.	GEA
Program Plan	Data	The geospatial-temporal context of a program plan, which includes maps and reports that convey program objectives, schedules and geospatial-temporal situation context for planned activities. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Program Planning	Application	The means to preplan, schedule, and allocate personnel and assets for an HLS activity; to develop activity plans that convey schedule, tasking and resource allocation for preplanned activities, in a geospatial-temporal context. The means to produce Program Plans.	GEA

Geospatial Term	Type	Definition/Description	Reference
Public Information Outreach	Application	<p>The means to inform the public on the basis of location. Portray maps (e.g., NFIP (National Flood Plain Insurance Program) floodplain maps) and location-based information reports, alerts, warnings and emergency declarations concerning threats, threat consequences, response and recovery status, mitigation and situation reports, and benefits locations through public information (media) channels. Allow the public to interact through these channels (e.g., explore what's happening in their area of interest). Support electronic registration (geocoding) for the application of benefits. Numerous types of geospatial products produced by geospatial applications across the enterprise may be distributed through public information channels.</p>	GEA
Raster	Data	<p>An abstraction of the real world where spatial data is expressed as a matrix of cells or pixels, with spatial position implicit in the ordering of the pixels. Unlike vector data, there are no implicit topological relationships. Coverages are often represented in raster form. e.g., imagery.</p>	OGC

Geospatial Term	Type	Definition/Description	Reference
Recovery Plan	Data	The geospatial-temporal context of an emergency recovery plan, which includes maps and reports that convey recovery objectives, schedules, resource deployments, contingencies and geospatial-temporal situation context for planned recovery operations. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Recovery Planning	Application	The means to preplan/plan, schedule, and allocate personnel and assets for incident recovery; to develop recovery (operations) plans that convey schedule, tasking and resource allocation for recovery operations, sharing amongst government and non-government relief organizations. Publish locations and route directions to crisis counseling, housing and other recovery centers; share with public.	GEA
Reference Architecture (Geospatial)	Technology	Consists of reference implementations of key geospatial components and applications with standard interfaces. Also consists of a registry of associated geospatial standards and conformance test tools. The Reference Architecture for the HLS GEA. (Managed by the Geospatial Management Office).	GEA

Geospatial Term	Type	Definition/Description	Reference
Relative Location	Data	A location stated as a relative position with respect to an Absolute Location (i.e., address, position, feature geometry, e.g., point, or Place of Interest). A subtype of HLS geospatial entity subtype Location Object.	GEA
Report	Data	A location-enabled, multimedia report. The results of reporting pertaining to a topic of interest, such as an emergency, incident, suspicious activity, etc. The report has geospatial-temporal context, which includes supporting data like locations, features, imagery, etc. May reference one or more Reports, Plans or Maps. A subcategory of HLS Framework Data, under the Geospatial Product category.	GEA
Response Plan	Data	The geospatial-temporal context of an emergency response plan, which includes maps and reports that convey response objectives, schedules, resource deployments, contingencies and the geospatial-temporal situation context for planned response operations. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA



Geospatial Term	Type	Definition/Description	Reference
Response Planning	Application	The means to preplan/plan, schedule and allocate personnel and assets to a disaster/threat/incidents/events, given possible risks, public safety considerations and potential affected locations, facilities, key or critical assets, etc.; to develop response operations plans that convey schedule, tasking and resource allocation for response operations, in a geospatial-temporal context. The means to produce Response Plans.	GEA
Reverse Geocode	Function	The ability to determine an Address from geospatial coordinates.	GEA
Risk	Data	The nature of the risk associated with a threat, vulnerability or weapon. Risks correlate threats with vulnerabilities. The geospatial context of a risk is defined in a Risk Assessment. A category of HLS Framework Data.	HLS EA

Geospatial Term	Type	Definition/Description	Reference
Risk Analysis	Application	The means to determine and assign risks and risk assessments for key assets, critical assets, key persons or conveyances. To analyze associated geospatial risk factors, in conjunction with related threat, vulnerability, threat intelligence and other intelligence. Consists of mapping and correlating threats to vulnerabilities. Means of analysis may consist of: (data) mine, integrate, correlate, extrapolate, and analyze data for patterns, densities, trends, networks, line of sight, tendencies, indicators, hypotheses, and conclusions, as it pertains or may pertain to risks. May also involve geoparsing and geocoding functions to scan and annotate textual risk, risk assessment, threat, threat assessment, vulnerability, vulnerability assessment, person, conveyance, threat intelligence and other all-source intelligence for geographic and temporal references.	GEA
Risk Assessment	Data	The modeling and analysis output from Risk Analysis. May consist of maps and/or reports. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category. (See Risk Analysis)	GEA

Geospatial Term	Type	Definition/Description	Reference
Route	Data	<p>The representation of a route for navigation purposes. The route's overall characteristics, such as its start point, waypoints, end point, transportation type, total distance, travel time and bounding box. Route geometry is defined as a list of geographic positions along the route, ordered in the sequence of planned travel, starting with the position of the route's origin and ending with the position of the route's destination, including waypoints. Also, a list of travel instructions consisting of turn-by-turn directions and advisories along the route, ordered in sequence of their occurrence. Routes are derived from navigable transportation networks. An HLS geospatial entity subtype.</p>	OGC
Route Service	Technology	<p>Able to determine (or fetch a predetermined) route and navigation information for autonomous or semi-autonomous navigation between two or more points on a network. An important service used in LBS, in the wireless realm.</p>	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Screening & Risk Analysis	Application	The means to determine and assign risks and risk assessments for parties (persons or organizations) and goods, and to screen accordingly. Analyze geospatial risk factors (e.g., physical address, place of birth, citizenship, travel history, travel itineraries, geographic/national affiliations, etc. for persons and organizations, and place of origin, place of manufacture, shipping route and place of destination for goods) in conjunction with party and goods records and related intelligence. Data mining and correlation applies here. May also involve geoparsing and geocoding functions to scan and annotate associated textual data for geographic and temporal references.	GEA
Search & Rescue Plan	Data	The geospatial-temporal context of search and rescue plan, which includes maps and reports that convey search & recovery objectives, schedules, resource deployments, contingencies and geospatial-temporal situation context for planned search & rescue operations. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Search & Rescue Planning	Application	The means to preplan/plan, schedule and allocate personnel and assets for search and rescue missions. The means to develop Search & Rescue Plans that convey schedule, tasking and resource allocation for search & rescue operations, in a geospatial-temporal context. Create and manage related incident/event data. Generate alerts and warnings, as needed. Support pertinent communications.	GEA
Search & Rescue Response	Application	The means to support command and control for an incident or event that requires search and rescue. Involves creating and managing situation awareness, monitoring threats and threat assessments, coordinating and monitoring response activities/assets/personnel, communicating with response personnel, etc., and reporting status to persons in the command and control chain (Situation Reports). Create pertinent communications. Update incident/event records to reflect response results.	GEA
Security Planning	Application	The means to determine and document the security plans, in geospatial context, to secure and protect fixed and mobile assets, persons, goods, conveyances, etc.	GEA

Geospatial Term	Type	Definition/Description	Reference
Security Plan	Data	Documents the security measures for protecting persons, assets, goods, conveyances, etc., in map and report form (e.g., Where to place barriers, guard posts, sensors, etc.). Includes details concerning sensor deployments. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Security Protection & Management	Application	The means to secure and protect fixed and mobile assets, persons, goods, conveyances, etc. (in geospatial context). (e.g., Where to place barriers, guard posts, sensors, etc. Where are the guards, sensor alerts, etc.). Includes integration with sensors and other security monitoring tools and the means to process and display observations. May lead to reporting of events or alerts.	GEA
Semantic Business Profiles (SBP)	Data	Business semantic schemas that define the common semantic framework (terms and their meanings within the enterprise environment) associated with shared geospatial business processes and procedures. SBPs are exposed through registry services. Defined by COI.	GEA

Geospatial Term	Type	Definition/Description	Reference
Semantic Data Profiles (SDP)	Data	Data semantic schemas that define the common semantic framework (terms and their meanings) associated with shared geospatial data description and access. SDPs are exposed through registry services. Defined by Communities of Interest.	GEA
Semantic Interoperability Services	Technology	Fully autonomous business, service and data interoperability is only possible when clients can locate and access business, service and data on-the-fly through publish-find-bind-orchestration patterns that subscribe to well-known business, service and data semantics.	GEA
Semantic Service Profiles (SSP)	Data	Service semantic schemas that define the common semantic framework (terms and their meanings) associated with shared geospatial service description and access. SSPs are exposed through registry services. Defined by Communities of Interest.	GEA
Sensor	Data	The description and parameters associated with a sensor for the purpose of sensor management and the exploitation of observations from the sensor. A category of HLS Framework Data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Sensor	Technology	An electronic device that is used for detection and monitoring through signature and pattern recognition.	GEA
Sensor Alert Service	Technology	The Sensor Alert Service produce alert messages when given observation conditions are met by a sensor. Provides the means for client services/users to specify and register user profiles that contain user information, applicable sensors/observations, alert conditions (e.g., maximum/minimum values), and alert actions (what happens if conditions are met). Also, the means for client services/users to update user profiles. Clients are able to control the nature of alerts. For example, a client is able to activate/deactivate an alert capability. Also provides the means to support push/pull capabilities, e.g., to wait for observation input from associated sensors (for on/off sensors like a detector), or to actively poll for (current/historical/predicted) sensor observations.	GEA
Sensor Management	Application	The means to manage sensor assets and the allocation of data collection requirements and tasks to sensors.	GEA



Geospatial Term	Type	Definition/Description	Reference
Sensor Collection Service	Technology	A service by which a client can obtain observations from one or more sensors/platforms (can be mixed types). Clients can also obtain information that describes the associated sensors and platforms.	GEA
Sensor Planning Service	Technology	A service by which a client can determine sensor collection feasibility for a desired set of collection requests for one or more mobile sensors/platforms, or the client may submit collection requests directly to these sensors/platforms.	GEA
Service Discovery Service	Technology	Able to search for and locate desired services through open, standard publish-find mechanisms. Search requests may be defined in terms of filters for discovering services and service-data relationships, and optionally storing the metadata results as a new data set.	GEA
Share	Process	The means for two or more actors in a system to access and utilize the same resources (data, services, devices, etc.). Commonly refers to sharing data between federal, state, local, tribal and private users through network-accessible, standards-based services.	GEA

Geospatial Term	Type	Definition/Description	Reference
Site Modeling & Analysis	Application	The means to analyze, model and delineate areas based upon site characteristics (e.g., to locate ideal sites for a facility). To produce Site Plans.	GEA
Site Plan	Data	The results of site planning. The geospatial-temporal context of the plan, which includes maps and reports that convey site objectives/schedules, activity locations and the situation context for the site (e.g., facility/infrastructure locations, other key features, current imagery, etc.). A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Situation Awareness	Data	A coherent representation of data for an area of interest that conveys geospatial situational context, disposition and behaviors of threat(s), friendly personnel and assets, incidents, events, observations and related intelligence and HLS Framework Data. Closely related to a COP, MSOP, or a specialized view of the COP/MSOP, a.k.a. USOP. A subcategory of HLS Framework Data under COP.	GEA

Geospatial Term	Type	Definition/Description	Reference
Situation Awareness	Application	The means to combine varied sources of data to create the situational context associated with threats, vulnerabilities and friendly forces for the purpose of understanding their nature and disposition and to support decision making for threat response and mitigation. In particular, view near-real time threat disposition, related observations, and friendly force disposition in geospatial context, with the appropriate level of detail. Leads to a shared, collaborative COP, MSOP, or specialized views of the COP/MSOP that convey actionable information, a.k.a. USOP. The means to generate Situation Reports.	GEA
Situation Reports	Data	Reports that contain relevant geospatial-temporal situation context for any activity/event/incident/occurrence for command and control purposes. A type of HLS Framework Data under the Report subcategory of the Geospatial Product category.	GEA
Situation Report Service	Technology	Able to generate a Situation Report with the geospatial extent and nature of an operational situation.	GEA

Geospatial Term	Type	Definition/Description	Reference
Spatial Reference System	Data (Property)	A function that associates locations in space to geometries of coordinate tuples in a mathematical space, usually a real valued coordinate vector space, and conversely associates coordinate values and geometries to locations in the real world, e.g., coordinate reference systems, linear reference systems.	OGC
Spatial Relationship	Data (Property)	The relationship between two objects as described in geospatial terms (distance, coordinates, etc). Also topological relationships, e.g., adjacent, connected, surrounded by, etc.	GEA
Specialized Geospatial Clients (Various)	Technology	A desktop client, either thick or thin, that provides visualization and interaction with geospatial data. Also provides access to underlying Application Components and Geospatial Services. Many specialized geospatial applications will exist within the HLS EA, each which may have a Geospatial Client and one or more Application Components and/or Geospatial Services.	GEA
Speed (velocity)	Data (Property)	The rate of motion or a measure of the rate of motion. Distance traveled over an interval of time. Often represented by a vector(s) indicating direction of motion.	GEA

Geospatial Term	Type	Definition/Description	Reference
Structure	Data	The geospatial representation of a man-made structure, e.g., building or bridge. An HLS geospatial entity subtype.	GEA
Style Management Service (SMS)	Technology	The means to create, update and manage styles and symbols. The SMS must manage distinct objects that represent styles and symbols and provide the means to discover, query, insert, update, and delete these objects. Styles provide the mapping from feature types and feature properties and constraints to parameterized Symbols used in drawing maps. Symbols are bundles of predefined graphical parameters and predefined fixed graphic “images”.	GEA, OGC
Suspicious Activity	Data	Represents any suspicious activity or occurrence of interest (identity/activity/status) that poses a risk (threat or vulnerability) or potential risk, with geospatial context (location/time, extent, geographic, national), or a series of suspicious activities/occurrences with geospatial-temporal contexts. A subcategory HLS Framework Data under the Occurrence category.	GEA

Geospatial Term	Type	Definition/Description	Reference
Suspicious Activity Report	Data	The geospatial-temporal context of suspicious activities captured in report form. May reference maps, incidents, occurrences, parties, threat intelligence, risks/threats/vulnerabilities, etc. Reports contain interlinked, multi-media data that adequately characterize the nature and context of the activity. A type of HLS Framework Data under subcategory Report, under the Geospatial Product category.	GEA
Suspicious Activity Report Service	Technology	Able to generate a Suspicious Activity Report for a location-based suspicious activity.	GEA
Suspicious Activity Reporting	Application	The means to analyze and report suspicious/criminal/terrorist activities to proper authorities (e.g., indications of a threat, notifications of suspected criminal activities, etc).	GEA
Surveillance	Process	Observing activities in an area of interest or at a point of interest through visual/listen inspection or sensors.	GEA

Geospatial Term	Type	Definition/Description	Reference
Synthetic Aperture Radar (SAR)	Technology	A microwave instrument that transmits radar pulses very rapidly. In fact, SAR is generally able to transmit several hundred pulses while the platform passes over a particular object. Many backscattered radar responses are therefore obtained for that object, which can be manipulated such that the resulting image looks like the data were obtained from a big, stationary antenna. In general, the synthetic aperture is the distance traveled by the spacecraft while the radar antenna collected information about the object.	GEA
Tariff Management	Application	The means to manage tariffs for goods, in a geospatial context.	GEA
Temporal Reference System	Data (Property)	A function that associates time to a coordinate (usually one dimensional points and intervals) and conversely associates coordinate geometries to real world time.	OGC
Temporal Relationship	Data (Property)	The relationship between two events with respect to time; or pertaining to a specified period of time.	GEA

Geospatial Term	Type	Definition/Description	Reference
Test Model	Data	The test models (data and encoded procedures) to support simulations and modeling to test how geospatial data and technology will perform in local conditions and in different attack scenarios. A subcategory of HLS Framework Data under Models.	GEA
Threat	Data	An intended or unintended indication of imminent danger, harm, evil, etc. Includes infestation of a commodity by living pest. The geospatial context of a Threat is defined in a Threat Assessment. A subcategory of HLS Framework Data under the Risk category.	HLS EA



Geospatial Term	Type	Definition/Description	Reference
Threat Analysis	Application	<p>The means to define threats and threat assessments. For terrorism, the means to (data) mine, integrate, and correlate varied types of geospatial data for the purpose of extrapolating, modeling, analyzing and deriving geospatial data in the form of patterns (e.g., cluster), densities, trends, networks, line of sight, tendencies, indicators, hypotheses, and conclusions, as it pertains to threats and the understanding of threat behaviors in their environment, in order to minimize the risks associated with the threat. Source data include, but are not limited to, intelligence, incidents, events, criminal and suspicious activities, financial transactions, persons, organizations, goods, etc. For terrorism and natural hazards, this includes the means to conduct Threat Consequence Assessments and Hazard Modeling, Analysis &amp; Mapping. May also involve geoparsing and geocoding functions to scan and annotate associated textual data for geographic and temporal references.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Threat Assessment	Data	The modeling and analysis output from Threat Analysis. For natural hazards, this includes floodplains and areas of high susceptibility from tidal storm surge, hurricane, tornado, landslide, earthquake, fire, tsunami, volcanic events, high winds and other types of natural disasters. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category. (See Threat Analysis)	GEA
Threat Consequence Assessment	Application	The means to understand the consequences of terrorist and natural threats as determined by modeling/simulation and analysis (e.g., Consequence Assessment Tool Set (CATS)). The means to produce Threat Consequence Assessments for threats to key assets, critical assets, key persons or conveyances (and associated routes). Means of analysis may consist of: (data) mine, integrate, correlate, extrapolate, and analyze data for patterns, densities, trends, networks, tendencies, indicators, hypotheses and conclusions, which pertains or may pertain to threats. May also involve geoparsing and geocoding functions to scan and annotate associated textual data for geographic and temporal references.	GEA

Geospatial Term	Type	Definition/Description	Reference
Threat Consequence Assessment	Data	The modeling and analysis output from Threat Consequence Assessment. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category. (See Threat Consequence Assessment)	GEA
Threat Detection	Application	The means to detect chemical and biological threats in air and water through the employment of sensors. The means to access sensors as network resources to meet rapid response and risk mitigation requirements. Detect threats through screening and analysis of sensor observations. Create, reference and share alerts.	GEA
Threat Intelligence	Data	Intelligence data that pertains to a threat and the associated risks that the threat poses. A subcategory of HLS Framework Data under the Intelligence category.	GEA
Threat/Vulnerability Mitigation Strategy	Data	Generally, the geospatial-temporal context of a threat/vulnerability mitigation strategy. Specifically: Security Plans, Countermeasures or Mission Plans.	GEA

Geospatial Term	Type	Definition/Description	Reference
Threat Prediction	Data	The predicted location/time/identity/activity/status information for a threat. A subcategory of HLS Framework Data under Intelligence.	GEA
Threat Models	Data	Models that characterize threats and threat behaviors in a specified environment, under specified conditions/constraints. Behaviors are represented by operational constraints/patterns/preferences/tendencies/etc. (e.g., for attack, deployment, etc.), threat consequences, etc. A subcategory of HLS Framework Data under the Model category.	GEA
Threat Warnings & Alerts	Data	A Warning or Alert pertaining to a threat. Determined by observation, modeling or analysis, and correlation with one or more incident(s), occurrence(s) or observation(s). Warnings and Alerts are subcategories of HLS Framework Data under Communication.	GEA
Topology Services	Technology	Able to detect topology errors (e.g., overshoots and undershoots of common linear and polygonal features within a definable tolerance), automatically correct errors, if possible, and define topological relationships between connected/collocated linear, polygon, and point features.	GEA

Geospatial Term	Type	Definition/Description	Reference
Track	Data	A sequence of observations and/or predictions concerning the location/time/identity/activity/status for persons, goods, assets, conveyances or any other mobile objects for a given period of time (current, historical and planned/projected). Optionally, to also represent speed and direction of motion. A subcategory of HLS Framework Data under Person, Goods, Conveyance or Asset.	GEA
Tracking	Function	The means to observe or otherwise determine the location/time/identity/activity/status for persons, goods, assets, conveyances or any other mobile objects for a given period of time (current, historical and planned/projected).	GEA
Tracking Service	Technology	Able to determine (or fetch a predetermined) location/time/velocity/identity/status/activity series (track) for a Mobile Object (e.g., persons, goods, assets, devices, etc.)	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Traffic Service	Technology	<p>The means to access traffic information regarding incidents and/or conditions for a specified area of interest, road, or road segment, for a specified time period.</p> <p>Also, the means to access traffic information regarding incidents and/or conditions for a designated route (that has been determined by a Route Service or Navigation Service) for a specified time period.</p>	GEA
Training Aids	Data	<p>The means to produce geospatial training aids in support training exercises, and in the form of maps, reports and plans. A type under the subcategory Aids in the Geospatial Product category.</p>	GEA
Training Exercise Simulation	Application	<p>Provide training simulations capabilities to support training exercises. The simulations employ geospatial data and technology to simulate different attack scenarios. Uses training models and supporting databases.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Training Models	Data	The training models (data and encoded procedures) to support training simulations in order to test how geospatial data and technology is going to perform in local conditions and in different attack scenarios. A subcategory of HLS Framework Data under Models.	GEA
Training Planning & Support	Application	The means to plan training exercises and produce geospatial training aids in the form of maps, reports and plans.	GEA
Training Plan	Data	The results of training planning and support. The geospatial-temporal context of the resulting training plan, which includes maps and reports that convey objectives/schedules, activity locations and situation context for the (training) exercise, including: potential threat locations, threat consequences, asset locations, population densities, evacuation routes, mutual aid support facilities, etc. A type of HLS Framework Data under subcategory Plan, under the Geospatial Product category.	GEA
Transaction Report	Data	Reports that summarize geospatial transactions for specified time periods. A subcategory of HLS Framework Data under Administration.	GEA

Geospatial Term	Type	Definition/Description	Reference
Transshipment Point	Data	An intermediate location (waypoint) in a shipping route for goods and cargo where the means of conveyance changes. A subtype of Route.	GEA
Travel History (Records)	Data	The record(s) pertaining to a person's or conveyance's past travel. The location/time/identity/activity/status of places, persons, organizations that are visited. Includes the means of transit. A subcategory of HLS Framework Data under Person, Good or Conveyance.	GEA
Travel Planning	Application	The means to plan secure and safe travel for individuals. Produces itineraries.	GEA



Geospatial Term	Type	Definition/Description	Reference
User-Specific Operating Picture	Data	The User Specific Operating Picture (USOP) is an actionable data view of an MSOP that is specialized for a user, in a specific role, on a specific device. USOPs are application-dependent data views that are created through the COP and MSOP collaborative workspaces, and are dependent upon the specific user/application context. USOPs will vary from activity to activity and from individual/device to individual/device. [Thus, each HLS activity/application will have to be evaluated to consider collaboration needs and the scope of each USOP.] A type of HLS Framework Data, under COP/MSOP.	GEA
Vector	Data	An abstraction of the real world where positional data is represented in the form of coordinates. The basic units of spatial information are points, lines and polygons, where each is composed as a series of one or more coordinate points. Features are generally represented by vector geometry.	OGC
Verification Event (Records)	Data	The records of identity verification events associated with a Person or Good, A subcategory of HLS Framework Data under Person, Good or Conveyance.	GEA

Geospatial Term	Type	Definition/Description	Reference
Visualization	Process	The rendering of geospatial data into a product or medium which allows an analyst or user to review, visually assess and draw conclusions about the underlying information.	GEA, NGA
Vulnerability	Data	Potential targets where the United States and its interests are open to attack by armed forces, terrorists, etc. The geospatial context of a vulnerability is defined in a Vulnerability Assessment. A subcategory of HLS Framework Data under Risk.	HLS EA
Vulnerability Analysis	Application	The means to determine and assign vulnerabilities and vulnerability assessments for key assets, critical assets, key persons or conveyances (and associated routes). Means of analysis may consist of: (data) mine, integrate, correlate, extrapolate, and analyze data for patterns, densities, trends, networks, tendencies, indicators, hypotheses and conclusions, which pertains or may pertain to vulnerabilities. May also involve geoparsing and geocoding functions to scan and annotate associated textual data for geographic and temporal references.	GEA

Geospatial Term	Type	Definition/Description	Reference
Vulnerability Assessments	Data	The modeling and analysis results from Vulnerability Analysis, as it pertains to key and critical assets. A type of HLS Framework Data under subcategory Assessment, under the Geospatial Product category. (See Vulnerability Analysis)	GEA
Warning	Data	An expression of threat to those who need to know. A (warning) message that is indicative of a current or predicted threat, based upon modeling, analysis, and/or correlation with one or more incident(s), occurrence(s) or observation(s). A subcategory of HLS Framework Data under the Communication category.	HLS EA, GEA
Warning/Alert Management	Application	The monitoring and processing of Alerts in a geospatial-temporal context. The means to generate Warnings.	GEA
Watch	Function	A function that determines Alerts, which are triggered by any suspicious or threatening event with geospatial and temporal context, as determined by evaluating observed or computed conditions.	GEA

Geospatial Term	Type	Definition/Description	Reference
Watch	Data	A “lookout” notice for a person, goods, conveyance, activity, etc. of interest that contains geospatial and temporal context for a Watch Area. A subcategory of HLS Framework Data under the Communication category.	GEA
Waterway Management	Application	The means to perform waterways management to provide a safe, efficient and navigable waterway system to support domestic commerce, international trade and military sealift. Provide long-range and short-range aids to navigation (buoys/sensors/breaking ice), electronic charting and tide/current/pilotage information through Notices to Mariners services, weather services, vessel traffic services, technical assistance and advice, vessel safety standards and inspection, and bridge administration standards and inspections.	GEA
Weather	Data	Weather conditions at specified locations. Hindcasts, nowcasts, forecasts and climate data. A category of HLS framework data. Also might enter the HLS environment as Auxiliary data.	GEA

Geospatial Term	Type	Definition/Description	Reference
Weather Alerts & Warnings	Data	A warning or alert message that is indicative of a current or predicted storm threat, based upon modeling, analysis, and/or correlation with one or more incident(s), occurrence(s) or observation(s). A type of warning/alert under the warning/alert subcategory of HLS Framework Data, under the Communication category.	GEA
Weather Model	Data	Models that characterize the behaviors of weather systems and the effects of these systems. These models are associated with weather simulations that are influenced by terrain and features. Input to these models consists of terrain and feature data, meteorological sensor observations and model control parameters. Outputs consist of hindcast, nowcast and forecast weather conditions and climate at specified locations. A subcategory of HLS Framework Data under Models.	GEA
Weather Modeling & Analysis	Application	The means to model/simulate and analyze weather conditions at specified locations. The means to determine hindcasts, nowcasts and forecasts for a location and share this information with HLS users. The means to generate and disseminate Weather Alerts & Warnings.	GEA

Geospatial Term	Type	Definition/Description	Reference
Weather Service	Technology	The means to access weather conditions for an area of interest or location for a specified time period.	GEA
Web Annotation Service	Technology	The Web Annotation Service is a specialized WFS that accesses map/image annotations. It is based upon the XML for Image and Map Annotation (XIMA), which defines an XML vocabulary to encode annotations on imagery, maps, and other geospatial data. This vocabulary draws on the GML to express the positions of these annotations in geographic (real world) or image-pixel coordinates, and to associate each annotation with the geospatial resource(s) it describes. The XIMA encoding is useful for any activity that requires linking or tagging geospatial data in order to present and discuss it with others, to make joint decisions, or to communicate spatially.	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Web Coverage Service (WCS)	Technology	<p>Able to access geospatial coverage data (e.g., imagery and Digital Terrain Model (DTM)). WCS supports the networked interchange of geospatial data as “coverages” containing values or properties of geographic locations. Unlike the Web Map Service (WMS), which filters and portrays spatial data to return static maps (server-rendered as pictures), the WCS provides access to intact (unrendered) geospatial information, as needed for client-side rendering, multi-valued coverages (such as multi-spectral images and terrain models), and input into scientific models and other clients beyond simple viewers.</p>	GEA, OGC

Geospatial Term	Type	Definition/Description	Reference
Web Feature Service (WFS)	Technology	<p>The WFS supports the query and discovery of geographic features (represented in vector form). In a typical Web access scenario, Web Feature Service (WFS) delivers Geography Markup Language (GML) representations of geospatial features. Clients (service requestors/consumers) access geographic feature data through a WFS by submitting a query for just those features that are needed for an application. The client generates a request and posts it to a WFS server on the Web. The WFS instance executes the request, returning the resulting geographic features to the client encoded in GML. A GML-enabled client can manipulate or operate on the returned geographic features.</p>	GEA, OGC



Geospatial Term	Type	Definition/Description	Reference
Web Map Service (WMS)	Technology	<p>A WMS is able to access vector and raster data and render it in the form of a map for display (combines access and portrayal). Independent of whether the underlying data are features (point, line and polygon) or coverages (such as gridded digital terrain model or images), the WMS produces an image of the data that can be directly viewed in a web browser or other picture-viewing software. A WMS labels its data as one or more “Layers,” each of which is available in one or more “Styles.” Upon request a WMS makes an image of the requested Layer(s), in either the specified or default rendering Style(s). Typical output formats include Portable Network Graphics (PNG), Graphics Interchange Format (GIF), Joint Photographic Expert Group format (JPEG), and Tagged Image File Format (TIFF).</p>	GEA, OGC
Web Notification Service	Technology	<p>A service by which a client may conduct a dialog with one or more other services. This service is useful when many collaborating services are required to satisfy a client request, and/or when significant delays are involved in satisfying the request, which is often the case in the geoprocessing realm.</p>	GEA

Geospatial Term	Type	Definition/Description	Reference
Web Registry Service (WRS)	Technology	The WRS provides a common mechanism to classify, register, describe, search, maintain and access information about geospatial resources available on a network. Resources are network addressable instances of typed data or services. Types of registries are differentiated by their role such as registries for cataloging geospatial resource types (e.g., types of geographic features, coverages, sensors, symbols, services, etc), online data instances (e.g., geospatial and image datasets and repositories, application schema, and symbol-style libraries), and online instances of services.	GEA
Web Terrain Service (WTS)	Technology	The WTS extends the WMS interface to allow the access and portrayal of three dimensional geospatial data. This service can be exploited to perform tasks such as terrain analysis, mission planning, and fly-throughs.	GEA, OGC

## 2.0 ACRONYMS

Acronym	Definition
ADA	Americans with Disabilities Act of 1990
AOI	Area of Interest
AVL	Automatic Vehicle Locator
BASINS	Better Assessment Science Integrating Point and Nonpoint Sources
CATS	Consequences Assessment Tool Set
COI	Community of Interest
COP	Common Operating Picture
CWA	Clean Water Act
DBMS	Database Management System
DEM	Digital Elevation Model
DFIRM	Digital Flood Insurance Rate Map
DFO	Disaster Field Office
DHS	Department of Homeland Security
DTM	Digital Terrain Model
EA	Enterprise Architecture
ESRI	Environmental Systems Research Institute
FAA	Federal Aviation Administration
GDR	Geospatial Data Rollup
GIF	Graphics Interchange Format
GIS	Geographic Information System
GIT	Geospatial Information Technology
GML	Geography Markup Language
GMO	Geospatial Management Office
GPS	Global Positioning System
HEC2	Hydrologic Engineering Center 2
HLS	Homeland Security
HSIP	Homeland Security Infrastructure Program
HVAC	Heating, Ventilation & Air Conditioning

ICS	Image Catalog Service
INS	Inertial Navigation System
InSAR	Interferometric Synthetic Aperture Radar
IPS	Image Processing System
JPEG	Joint Photographic Expert Group
LBS	Location-Based Service
LiDAR	Light Detection and Ranging
LOF	Location Organizer Folder
LORAN	Long Range Radio Aid to Navigation
MSOP	Mission-Specific Operating Picture
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NGA	National Geospatial-Intelligence Agency
NIMA	National Imagery and Mapping Agency
NOAA	National Oceanic & Atmospheric Administration
NOV	Notice of Violation
NSSE	National Security Special Event
OGC	Open GIS Consortium
OSHA	Occupational Safety and Health Act of 1970
PDA	Personal Digital Assistant
PDD	Presidential Decision Directive
PNG	Portable Network Graphics
PNT	Positioning Navigation Targeting
POI	Point of Interest
RFID	Radio Frequency Identification Device
SAR	Synthetic Aperture Radar
SBP	Semantic Business Profiles
SCADA	Supervisory Control and Data Acquisition
SDP	Semantic Data Profiles
SMS	Style Management Service
SQL	Structured Query Language

SSP	Semantic Service Profiles
TIFF	Tagged Image File Format
TNM	The National Map
URI	Uniform Resource Identifier
USGS	US Coast Guard
USGS	U.S. Geological Survey
USOP	User-Specific Operating Picture
WCS	Web Coverage Service
WFS	Web Feature Service
WGS	World Geodetic System
WMS	Web Map Service
WRS	Web Registry Service
WTS	Web Terrain Server
XIMA	Image and Map Annotation
XML	Extensible Markup Language

