



**HOMELAND SECURITY GEOSPATIAL ENTERPRISE  
ARCHITECTURE**

**ATTACHMENT G DATA 3  
GEOSPATIAL DATA DICTIONARY**

**GEOSPATIAL MANAGEMENT OFFICE**

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## 1.0 HLS Geospatial Data Dictionary

The *Geospatial Data Dictionary* contained herein defines the primary classes of geospatial data for the Homeland Security (HLS) Geospatial Enterprise Architecture (GEA). There are two top-level super-classes of geospatial data associated with the HLS mission: *HLS Framework Data* and *HLS Auxiliary Data*. *HLS Framework Data* consists of the geospatial data classes that are required for the HLS mission. It includes classes that are created by active participants in the mission, as well as those created by supporting data providers/stewards. *HLS Auxiliary Data* consists of any geospatial data classes that are not required for the HLS mission, but may be used as open source in the mission.

This dictionary also describes the standard geospatial data terminology for use throughout the HLS Enterprise Architecture (EA). [Note: Where terms defined herein are also defined in ‘Attachment G.Bus.1 – HLS Geospatial Business Language: Key Terms’, the later definition takes precedence.]

The dictionary employs a simple three-tier data classification scheme for *HLS Framework Data*. The three tiers consist of Category (data class), Sub-Category (data subclass), and Type. The data dictionary lists all major data categories and sub-categories. Although many data types are listed in the geospatial definitions, they are not defined in full and require elaboration by data providers/stewards of the data.

Below is a brief description of the column headers for the data dictionary:

**Rec. No.** (Record Number)—The record numbers are arbitrary and subject to change.

**HLS Framework Category**—The category is the “top tier” in the geospatial data classification scheme, a data class, and in many instances relates directly to the Data Object defined for version 1.0 of the DHS Target EA.

**HLS Framework Sub-Category**—The sub-category is the “second tier” in the geospatial data classification scheme, a subclass of category.

**Primary Provider**—The primary provider is the suggested authoritative source for the type of data referenced. Sources shown require verification, and where no source is shown, these need to be identified.

**Geospatial Definition**—The definitions defines the category/sub-category, taken directly from various sources, which are listed in parenthesis.

**DHS EA Subject Area**—The subject area is taken directly from version 1.0 of the DHS Target EA to show the mapping between subject area, data object, category and sub-category.

**DHS EA Data Object**—The data object is also taken directly from version 1.0 of the DHS Target EA to show the mapping between subject area, data object, category and sub-category.

**Exhibit 1. HLS Geospatial Data Dictionary**

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
1.	Capital Asset	TBD	TBD-Best Available Data	(GEA) Inventory with location and geospatial extent of land, current and historical location of equipment, and physical and/or virtual location of intellectual property designated as DHS capital assets. Relates to location, party (organization) <sup>1</sup> .	Asset	Capital Asset
2.	Emergency Response Stockpile	TBD	FEMA, State and local agencies	(GEA) Inventory with location of emergency response stockpiles; location of specific categories of materials within a stockpile location. Relates to location, plan, event.	Asset	Emergency Response Stockpile
3.	Incident Response Materials and Equipment	TBD	FEMA, State and local agencies	(GEA) Inventory with current and historical location of response materials and equipment with temporal context of location. Includes identity/location/time/activity/status. Relates to location, plan, event.	Asset	Incident Response Materials and Equipment
4.	Law Enforcement Asset	Weapon  <b>(Recommend change to include all law enforcement assets.)</b>	Federal (including military), State, local, and tribal law enforcement organizations	(GEA) Current inventory and location of law enforcement weapons. Track temporal context of location. Includes identity/location/time/activity/status. Relates to location, event, training resource, plan. <b>(Recommend expansion to include any inventory with current and historical location of law enforcement assets to include personnel, vehicles, other equipment, etc.)</b>	Asset	Law Enforcement Asset
5.	Operational Materials and Equipment	TBD	DHS  Federal, state, regional, and local organizations.	(GEA) Inventory with current and historical location of operational materials and equipment with temporal context (includes tracking equipment locations associated with deployment of assets). Includes identity/location/time/status. Relates to location, plan, event, training resource.	Asset	Operational Materials and Equipment

<sup>1</sup> Relation to other data categories shown is provided for general reference only and should not be taken as authoritative.

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
6.	Record	TBD	DHS	(GEA) Location of records/records management activities. Geospatial and temporal context of data contained within records. Relates to communication, agreement, conveyance, party, risk, case, goods, governance, training resource, event, benefit, plan, location, employment, and financial resource.	Asset	Record
7.	Critical Asset	Emergency Law Enforcement	TBD-Best Available Data	(PDD 63-HSIP) Locations of Federal, State, County, local, and tribal law enforcement facilities. Relates to location, plan, event.	1.1 Asset (HSIP) <sup>2</sup>	None
8.	Critical Asset	Emergency Services and Continuity of Government	TBD-Best Available Data	(PDD 63-HSIP) Location of Federal, state, and local emergency management offices, Evacuation Routes, fire equipment manufacturers, fire hydrants, fire and EMS stations, fire training academies, and Federal, state, local and tribal government buildings. (GEA) Add geospatial context for emergency services networks. Relates to location, plan, event, structures, transportation.	1.2 Asset (HSIP)	None
9.	Critical Asset	Energy	TBD-Best Available Data	(PDD 63-HSIP) Locations of energy distribution control facilities, gas processing plants, gas stations, manifolds, natural gas storage facilities, nuclear fuel plants, nuclear research facilities, nuclear waste processing and storage facilities, nuclear weapons plants, oil and gas fields, petroleum and natural gas extraction wells and injection wells, pipelines, POL storage tanks, power lines, power plants, pumping stations, refineries, substations. (GEA) Add geospatial context for energy distribution networks. Relates to location, plan, event, structures, party, risk.	1.3 Asset (HSIP)	None

<sup>2</sup> Category “Asset (HSIP)” was derived from Presidential Decision Directive (PDD) – 63 as further defined in the joint NIMA-USGS Homeland Security Infrastructure Program (HSIP) Tiger Team Report, September 2002.

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
10.	Critical Asset	Information and Communications	TBD-Best Available Data	(PDD 63-HSIP) Locations of Cable grids, Internet provider facilities and hubs, satellite ground stations, telephone facilities, telephone lines, towers (radio, TV, cellular, microwave), TV and radio broadcast facilities. (GEA) Add geospatial context for fiber-optic networks, telecommunications networks, cellular and microwave networks, internet networks. Relates to location, plan, event, structures, party, risk.	1.4 Asset (HSIP)	None
11.	Critical Asset	Special Functions	TBD-Best Available Data	(PDD 63-HSIP) Locations and geospatial extent of critical government, military, and contractor installations. Probable overlap with Structure and other categories. Relates to location, plan, structures, risk.	1.5 Asset (HSIP)	None
12.	Critical Asset	Water Supply	USGS/The National Map State and local sources	(National Map) Overlaps with USGS National Hydrographic Dataset. (PDD 63-HSIP) Location of water supply (wells, reservoirs, aquifers, lakes, streams and rivers) dams, storage (tanks and towers), treatment and filtration, pumping stations and pipelines. (GEA) Add geospatial context for water supply networks. 1.6 Content overlaps hydrography sub-category. 1.7 Relates to location, plan, event, structures, risk.	1.8 Asset (HSIP)	None
13.	Key Asset	Public Health	TBD-Best Available Data	(PDD 63-HSIP) Locations of Health services, primary care facilities including hospitals, ambulance providers (private), blood banks, day care facilities, diagnostic laboratories, homeless shelters, mortuaries and crematoria, nursing homes, pharmacies, and research laboratories. Relates to location, plan, event, structures, party (including non-governmental organizations).	1.9 Asset (HSIP)	None
14.	Key Asset	Agriculture and Livestock	TBD-Best Available Data	(PDD 63-HSIP) Location of agricultural use areas, private and commercial farms and ranches, feed lots, fish farms and hatcheries, grain elevator complexes, poultry and hog farming complexes, and stockyards. Relates to location, party, risk.	1.10 Asset (HSIP)	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
15.	Key Asset	Chemical and Manufacturing	TBD-Best Available Data	(PDD 63-HSIP) Locations of chemical facilities, hazardous material facilities, landfill, manufacturing facilities, superfund sites, uranium mining, and other mining facilities. Relates to location, party, structures, risk.	1.11 Asset (HSIP)	None
16.	Key Asset	Important Industry, Commercial and Retail	TBD-Best Available Data	(PDD 63-HSIP) Location of corporate headquarters, grocery stores, hotels and motels, shopping malls and complexes, and warehouses. Relates to location, party, structure, risk.	1.12 Asset (HSIP)	None
17.	Key Asset	Food Industry	TBD-Best Available Data	(PDD 63-HSIP) Location of bakeries, beverage manufacturing, canneries, dairies, food distribution centers, grain mills, meat packing and processing plants. Relates to location, party, structures, risk. (GEA) Add geospatial context for food distribution networks.	1.13 Asset (HSIP)	None
18.	Key Asset	Mail and Shipping	TBD-Best Available Data	(PDD 63-HSIP) Location of mail and shipping facilities, post offices, private and express shipping facilities. Relates to location, party, structures, risk. (GEA) Add geospatial context for mail distribution and shipping networks.	1.14 Asset (HSIP)	None
19.	Key Asset	Education	TBD-Best Available Data	(PDD 63-HSIP) Location of colleges, universities, and schools. Relates to location, party, structures, risk.	1.15 Asset (HSIP)	None
20.	Key Asset	Other	TBD-Best Available Data	(PDD 63-HSIP) Locations of border crossings, cemeteries, ice rinks, maintenance yards, mobile home parks, parking lots and facilities, weigh stations and truck stops. Relates to location, base/transportation, party.	1.16 Asset (HSIP)	None
21.	Key Asset	National Symbols	DOI/NPS	(PDD 63-HSIP) Locations of Landmark structures, National symbols, and tourist attractions. (A-16) Cultural resources theme includes historic places such as districts, sites, buildings, and structures of significance in history, architecture, engineering, or culture. Cultural resources also encompass prehistoric features as well as historic landscapes. Relates to location, party, structures, risk.	1.17 Asset (HSIP)	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
22.	Key Asset	High Value or Symbolic Targets, Public Venues	1.18 TBD	(PDD 63-HSIP) Locations of amusement parks, concert halls and theatres, convention centers, fairgrounds, golf courses, houses of worship, libraries, museums, race tracks and drag strips, and sports arenas. Relates to location, party, structures, risk.	1.19 Asset (HSIP)	None
23.	Key Asset	Weather Facilities	NOAA, DoD, Commercial weather, services	(PDD 63-HSIP) Locations of weather data centers, forecast centers, severe weather warning centers, and radar sites nation-wide. Relates to location, party, structures, risk.	1.20 Asset (HSIP)	None
24.	Critical Asset	Banking, Finance, and Insurance	TBD-Best Available Data	(PDD 63-HSIP) Locations of critical financial institutions and bullion repositories. (GEA) Add geospatial context for financial networks. Relates to location, structures, party, risk.	1.21 Asset (HSIP) <sup>3</sup>	None
25.	Case	TBD	DHS  Federal, State, local, tribal, and foreign law enforcement  Foreign intelligence and law enforcement	(GEA) All records associated with an investigative case, specifically the geospatial context (location/time/identity/activity/status) pertaining to an investigation. Current, historical, and predicted location (national and international) with temporal context (tracking) for persons, organizations, incidents, occurrences, conveyances, cargo, etc. associated with an investigative case. Includes locations for related confiscation and seizures of goods, assets, conveyances, etc., and current and historical locations associated with evidence. Location for parties (persons, organizations) receiving benefits. Relates to location, event, party, employment, goods, conveyances, plan, intelligence.	Case	Case

<sup>3</sup> Category “Asset (HSIP)” was derived from Presidential Decision Directive (PDD) – 63 as further defined in the joint NIMA-USGS Homeland Security Infrastructure Program (HSIP) Tiger Team Report, September 2002. Although all categories defined in the HSIP report were identified as “critical infrastructure”, HLS sub-category has been re-defined on the basis of the DHS EA definitions of critical vs. key assets. It is recognized that dependent on context, any asset can be either critical or key. Note that content of some HSIP critical and key asset sub-categories overlap content in other Base sub-categories. These content overlaps will require resolution.



Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
26.	1.22 Communication	Alert	DHS; Federal, State and local agencies (including law enforcement)  Foreign intelligence and law enforcement organizations	(GEA) Communication message with geospatial location and temporal context for threat based sensor alerts that result from observations that meet pre-defined conditions. The geospatial extent and temporal context of an alert or “watch” area associated with a predicted or identified threat, derived from observation, modeling and simulation, correlation of incidents or occurrences, or intelligence. The geospatial and temporal context of a “watch” area associated with an identified person or activity of interest. 1.23 See Geospatial Business Language, Key Term: “Alert”.  Relates to location, party (person or organization), case, event, risk, asset, and intelligence.	Communication	None
27.	1.24 Communication	Emergency Declaration	1.25 TBD	(GEA) Declaration of “state-of-emergency”, or presidential declaration of emergency including location, geospatial extent, and temporal context of area of the emergency. Relates to location, event, and asset.	1.26 Communication	None
28.	1.27 Communication	Notice	1.28 DHS	(GEA) A notification between operational actors that contains geospatial and temporal context.	1.29 Communication	None
29.	Communication	1.30 Warning	Federal agencies with warning responsibilities for specific threats as defined in the National Response Plan. Includes aeronautical notices to airmen (FAA, NGA), and nautical notices to mariners (NOAA, and NGA)	(GEA) Geospatial extent and temporal context of a warning area associated with a predicted or identified threat, derived from observation, modeling and simulation, correlation of incidents or occurrences, or intelligence. Location and geographical extent of warning (area under threat), including temporal context of current, historical or predicted changes in the location or geographic extent of the warning area.  (GEA) Add geospatial context of warning networks Relates to location, risk, intelligence.	Communication	Warning

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
30.	Communication	1.31 Watch	DHS,  Intelligence Community  Federal, state, local, and foreign law enforcement	(GEA) A “lookout” notice for a person, goods, conveyance, activity, etc. of interest that contains geospatial and temporal context for the watch area. Relates to location, conveyance, activity, case, party.	Communication	None
31.	Conveyance	Trains	DOT/Railroad Administration  Intelligence Community	(GEA) Current, historical, and predicted location, route, speed, distance, and direction with temporal context (location/time/identity/status). Includes travel history, travel itinerary, shipping manifests, and license/permit information, location and temporal context of instances of identity verification (e.g. at border entry points, destinations, etc.) Relates to location, event, risk, case, party, goods, intelligence, governance (credential).	Conveyance	Conveyance
32.	Conveyance	Motor Vehicles	1.32 TBD	(GEA) Current, historical, and predicted location, route, speed, distance, and direction with temporal context. (Location/time/identity/status). Includes license/permit information, and location and temporal context of instances of identity verification (e.g. at border entry points, vehicle stops by law enforcement, etc.) Relates to location, event, risk, case, party, goods, intelligence, governance (credential).	Conveyances	Conveyance
33.	Conveyance	Marine Vessels	USCG, NAVY/ONI,  Intelligence Community	(GEA) Marine equivalent of NORAD (per Deputy Commandant, USCG 12/6/03) Current, historical, and predicted location, depth, route, speed, distance, and direction, with temporal context (location/time/identity/activity/status). Relates to location, event, risk, case, party, goods, intelligence and governance (credential).	Conveyances	Conveyance

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
34.	Conveyance	Aircraft	FAA,  NORAD	(GEA) Current, historical, and predicted location, route, speed (airspeed & ground-speed), altitude (above ground level (AGL) & above mean sea level (AMSL)), distance, and direction with temporal context, (Location/time/identity/activity/status). Relates to location, event, risk, case, party, goods, intelligence, governance (credential).	Conveyances	Conveyance
35.	1.33 Event	National Security Special Event (NSSE)	USGS/The National Map, DHS, NGA, FBI, State, Local, commercial	(GEA) Location and geospatial extent and temporal context for NSSE (e.g., Super Bowl, Olympics, etc.). Includes Base data (HLS Framework and Auxiliary), location and temporal context data for individual NSSE activities. Relates to location, activity, asset, event, party, risk, and intelligence.	Event	None
36.	Incident	1.34 TBD	1.35 TBD	(GEA) 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 (preparation, mitigation, response, recovery) associated with the incident. Relates to location, risk, asset, plan, case, party, conveyance, communication, goods, and intelligence.	Event	Incident
37.	Incident	Chemical	EPA, State and local	(GEA) Current, historical, and predicted location and geospatial extent (3-dimensional-above or below ground including airborne distribution) including temporal context of affected areas. Includes tracking of actual or predicted spread of contamination. Relates to location, asset, party, case, structures, plan, and intelligence.	Event	Incident

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
38.	Incident	Biological	CDC, USDA, State and local Public health	(GEA) Current, historical, and predicted location and geospatial extent including temporal context of affected areas. Includes tracking of actual or predicted spread of contamination. Relates to location, asset, party, case, plan, and intelligence.	Event	Incident
39.	Incident	Nuclear	DOE, NRC	(GEA) Current, historical, and predicted location and geospatial extent including temporal context of damage and contamination. Includes tracking of actual or predicted spread of contamination. Relates to location, asset, party, case, plan, and intelligence.	Event	Incident
40.	Incident	Radiological	DOE	(GEA) Current, historical, and predicted location and geospatial extent (3-dimensional) including temporal context of contaminated areas. Includes tracking of actual or predicted spread of contamination. Relates to location, asset, party, case, plan, and intelligence.	Event	Incident
41.	Incident	High Explosive	ATF, FBI, State and local	(GEA) Current location and geospatial extent (3-dimensional) of damage, including temporal context. Also includes geospatial location, extent and tracking of contaminated areas. Relates to location, asset, party, case, plan	Event	Incident
42.	Incident	Cyber	FBI, federal, state, local and private	(GEA) Locations (physical and virtual) with temporal context for computer systems affected by a cyber attack. Relates to location, asset, party, case, plan, and intelligence.	Event	Incident
43.	Incident	Hostage	Federal, State, local, tribal law enforcement	(GEA) Location and temporal context for a hostage incident. Relates to location, asset, party, case, plan, and intelligence. <b>Recommend inclusion of spatial context for location of hostages within a structure or conveyance.</b>	Event	Incident

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
44.	Incident	Hazmat	EPA, State and local	(GEA) Stand-alone incident or associated with other incident types (chemical). Current and historical location and geospatial extent (3-dimensional) including temporal context for affected areas. Includes tracking of actual or predicted spread of contamination by hazardous materials. Relates to location, asset, and plan.	Event	Incident
45.	Incident	Power Grid Failure	Power companies, state and local	(GEA) Current and historical location and geospatial extent including temporal context of affected areas. Includes location of energy network nodes or segments impacted. Relates to location, asset, structure, plan, and intelligence.	Event	Incident
46.	Incident	Earthquake	USGS	(GEA) Location and depth of epicenter, and geospatial extent of area impacted including temporal context. Includes location and depth of epicenter of aftershocks and geospatial extent of areas affected. Relates to location, asset, structure, plan.	Event	Incident
47.	Incident	Tsunami	NOAA, USGS	(GEA) Location of triggering event (earthquake epicenter or underwater landslide), geospatial extent for areas that are or may be affected, with geospatial context for predicted arrival times for waves, and geospatial extent of predicted areas of inundation including temporal context. Relates to location, asset, plan.	Event	Incident
48.	Incident	Landslide	USGS	(GEA) Current, historical, and predicted location and geospatial extent including temporal context. Relates to location, asset, weather, plan.	Event	Incident
49.	Incident	Volcanic Eruption	USGS	(GEA) Current, historical, and predicted location of eruptions and geospatial extent of lava flows and areas affected, including temporal context. Relates to location, asset, plan.	Event	Incident
50.	Incident	Tornado	NWS and private weather services, State and local	(GEA) Current and historical location and geospatial extent of areas of damage, with storm track, including temporal context. Relates to location, asset, weather, plan.	Event	Incident

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
51.	Incident	Hurricane	NWS and private weather services, State and local	(GEA) Current, predicted, historical location and geospatial extent with storm track, including temporal context. Includes location and geospatial extent of damaged areas categorized by severity of damage. Relates to location, asset, weather, plan.	Event	Incident
52.	Incident	Typhoon	NWS and private weather services, foreign govt. and news services, CNN	(GEA) Current, predicted, and historical location and geospatial extent with storm track, including temporal context Includes location and geospatial extent of damaged areas categorized by severity of damage. Relates to location, asset, weather, plan.	Event	Incident
53.	Incident	Severe Weather	NWS and private weather services, State and local	(GEA) Current, predicted and historical location and geospatial extent with storm track, including temporal context. Includes location and geospatial extent of damaged areas categorized by severity of damage. Relates to location, asset, weather, plan.	Event	Incident
54.	Incident	Flood	NWS and private weather services, State and local	(GEA) Current, predicted and historical location and geospatial extent of areas of inundation, including temporal context. Can include depth, and speed of floodwaters, area of inundation, etc. Includes location and geospatial extent of damaged areas categorized by severity of damage. Relates to location, asset, weather, and plan.	Event	Incident
55.	Incident	Drought	USDA, State and local	(GEA) Current, predicted and historical location and geospatial extent of affected areas including temporal context. Relates to location, asset, weather, plan.	Event	Incident
56.	Incident	Wildfire	USFS, BLM, NIFC, State and local	(GEA) Current, predicted, and historical location and geospatial extent including temporal and geospatial context of fire spreading behavior, locations of fire lines and hot spots, etc. Includes geospatial context of environmental impact of fires, and planning of recovery efforts. Relates to location, asset, imagery, plan.	Event	Incident
57.	Incident	Plane Crash	FAA, State and local	(GEA) Current location and geospatial extent including temporal context. Also includes geospatial location, extent and tracking of contaminated areas. Relates to location, asset, navigation, plan, and intelligence.	Event	Incident

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
58.	Incident	Train Wreck	State and local	(GEA) Current location and geospatial extent including temporal context Also includes geospatial location, extent and tracking of contaminated areas. Relates to location, asset, plan, and intelligence.	Event	Incident
59.	Incident	Shipwreck	USCG, shipping companies	(GEA) Current location including temporal context Also includes geospatial location, extent and tracking of hazardous material spills areas resulting from the incident, depth and bathymetry and sinking site, etc. Relates to location, asset, navigation, plan, and intelligence.	Event	Incident
60.	Incident	Structural Failure	State and local	(GEA) Current location, geospatial extent and temporal context of damage. Includes location and geospatial extent, and tracking of release of any hazardous materials (e.g. World Trade Center). Relates to location, asset, structure, party, case, plan, and intelligence.	Event	Incident
61.	Occurrence	1.36 TBD	Federal, State, local, and tribal organizations including law enforcement,  Foreign intelligence and law enforcement organizations.	(A-16) <b>Law enforcement statistics</b> describe the occurrence of events (including incidences, offenses and arrests) geospatially located, related to ordinance and statutory violations and the individuals involved in those occurrences. Relates to location, plan, asset, party, case, risk, conveyance, goods, event, and intelligence.	Event	Occurrence

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
62.	Goods	1.37 Cargo	USPS, commercial (shipping companies)  Intelligence community  Law enforcement community	(GEA) Current, historical, and predicted locations (tracking-location, route, speed, direction, conveyance, etc, national and international) of cargo and cargo containers with temporal context. Includes identity/location/time/status. Includes geospatial context of shipping manifest records (Identification of organization/place of manufacture, place of shipping origin, destination, shipping route. Includes identity, location, and status for seized cargo. Cargo locations may relate to mobile conveyances, or fixed locations (cargo may be in a warehouse, pier, wharf, etc. Location and temporal context of instances of identity verification (e.g. at border entry points).  Relates to location, party, case, event, conveyance, risk (factors including place of origin, place of manufacture, shipping route, destination, and association with hostile interests as determined by geographic/national affiliations), and intelligence.	Goods	Cargo
63.	Goods	1.38 TBD		(GEA) Money, things, parcels/packages, and any other types of goods of interest.  Relates to location, party, case, event, conveyance, risk (factors including place of origin, place of manufacture, shipping route, destination, and association with hostile interests as determined by geographic/national affiliations), and intelligence.	Goods	None
64.	Goods	1.39 Evidence	DHS	Location for collection of individual pieces of evidence associated with a case, and current and historical locations of evidence storage to ensure chain of custody. (Also see Case). Includes identity/location/time/activity/status.  Relates to location, case, event, party.	Goods	None



Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
65.	Goods	Hazardous Materials 1.40 (Hazmat)	DOE, EPA, CDC, USDA, DoD  Commercial Shipping Companies	(GEA) Current, historical, and predicted locations (includes tracking-location, speed, direction, conveyance, status, etc, national and international) of any hazardous material (chemical, biological, radiological, nuclear, high explosive) of interest, with temporal context. Locations may relate to mobile conveyances, or fixed storage locations. Includes identity/location/time/status. Relates to location, party, conveyance, risk, event, and case.	Goods	None
66.	Goods	1.41 Seized Property	DHS	Current and historical location for property other than cargo (e.g., cars, marine vessels, aircraft, houses, currency, merchandise, etc.) seized by DHS law enforcement components. (Also see Case) Relates to location, case, party, conveyance, and event.	Goods	None
67.	Credential	1.42 TBD	DOS US Customs DOC Shipping Companies	(GEA) Geospatial context for information contained in passports, travel itineraries, shipping manifests, import/export licenses, personal identification, work permits, visas, etc. Includes biographical data for persons, current and historical location information, organization affiliations, etc. Relates to location, goods, party, employment, conveyance, case, and benefit.	Governance	Credential
68.	Mandate	Geospatial Data Content Standards	ISO, ANSI	(GEA) Standards for common geospatial data and metadata content within a geospatial data category or sub-category.	Governance	Mandate
69.	Mandate	Geospatial Data Transfer Standard	ISO, ANSI	(GEA) Geospatial data format standards to facilitate the exchange of geospatial data between organizations in a common data format.	Governance	Mandate
70.	Mandate	Geospatial Service (Component) Standards	OGC	(GEA) Digital specification of the interface(s) for the geospatial service (e.g., geocoder, etc.) used in service discovery and access.	Governance	Mandate

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
71.	Mandate	Geospatial Information and Intelligence Reporting, and Dissemination Protocols	ISO, ANSI	(GEA) Protocols for passing geospatial content (data and products-geospatial data and intelligence reporting and dissemination) on a network.	Governance	Mandate
72.	Location	Physical Location	1.43 TBD	(GEA) Includes absolute or relative location defined by address; or position (x,y,z point within a geospatial coordinate system); or feature geometry; or place of interest (point or area with name); or relative position (“vicinity of”) based on distance, and direction (and speed) from a feature of known location. Includes temporal context. Relates to all Base categories, activity, party, conveyance, risk, case, goods, training resource, event, plan, agreement, benefit.	Location	Location
73.	Activity	1.44 TBD	DHS	(GEA) Current, historical or planned activities of interest that have geospatial and temporal context (location and geospatial extent-national or international). Relates to location, event, plan, training resource, benefit	None	None
74.	Administration	Audit trail	DHS	(GEA) A history of significant geoprocessing operations, e.g. records of database update operations (what, where, when). Relates to location, base, auxiliary.	None	None
75.	Administration	Transaction Report	DHS	(GEA) Reports that summarize geospatial transactions for specified time periods. Relates to location, base, auxiliary.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
76.	Auxiliary	Geologic	USGS	<p>(A-16) The geologic spatial data theme includes all geologic mapping information and related geoscience spatial data (including associated geophysical, geochemical, geochronologic, and paleontologic data) that can contribute to the National Geologic Map Database as pursuant to Public Law 106-148.</p> <p>(A-16) Offshore minerals include minerals occurring in submerged lands. Examples of marine minerals include oil, gas, sulfur, gold, sand and gravel, and manganese. Relates to location, risk.</p>	None	None
77.	Auxiliary	Soils	USDA	<p>(A-16) Soil data consist of georeferenced digital map data and associated tabular attribute data. The map data describe the spatial distribution of the various soils that cover the Earth's surface. The attribute data describe the proportionate extent of the various soils as well as the physical and chemical characteristics of those soils. The physical and chemical properties are based on observed and measured values, as well as model-generated values. Also included are model-generated assessments of the suitability or limitations of the soils to various land uses. Relates to location, risk.</p>	None	None
78.	Auxiliary	Vegetation	1.45 TBD	<p>(A-16) Vegetation data describe a collection of plants or plant communities with distinguishable characteristics that occupy an area of interest. Existing vegetation covers or is visible at or above the land or water surface and does not include abiotic factors that tend to describe potential vegetation.</p> <p>(GEA) Location and geospatial extent of a collection of plants or plant communities with distinguishable characteristics that occupy an area of interest. Associated with (but is separate from) Land Cover sub-category.</p>	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
79.	Auxiliary	Wetlands	USFWS	(A-16) The wetlands data layer provides the classification, location, and extent of wetlands and deepwater habitats. There is no attempt to define the proprietary limits or jurisdictional wetland boundaries of any federal, state, or local agencies.	None	None
80.	Auxiliary	Public Health	HHS/CDC	(A-16) Public health themes relate to the protection, improvement and promotion of the health and safety of all people. For example, public health databases include spatial data on mortality and natality events, infectious and notifiable diseases, incident cancer cases, behavioral risk factor and tuberculosis surveillance, hazardous substance releases and health effects, hospital statistics and other similar data. (GEA) Current, historical, and predicted location, geospatial extent, and temporal context for outbreaks of infectious and notifiable diseases, including tracking the geospatial extent of spread of infectious and notifiable diseases. Relates to location, risk, and event.	None	None
81.	Auxiliary	Biological Resources	USGS	(A-16) Includes data pertaining to or descriptive of (nonhuman) biological resources and their distributions and habitats, including data at the suborganismal (genetics, physiology, anatomy, etc.), organismal (subspecies, species, systematics), and ecological (populations, communities, ecosystems, biomes, etc.) levels. Relates to location, risk.	None	None
82.	Auxiliary	Outer Continental Shelf Submerged Lands	NOAA	(A-16) Includes lands covered by water at any stage of the tide, as distinguished from tidelands, which are attached to the mainland or an island and cover and uncover with the tide. Tidelands presuppose a high-water line as the upper boundary whereas submerged lands do not.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
83.	Auxiliary	Weather/Climate	NOAA  Private weather services	(GEA) Location and geospatial extent and properties of current, historical, and forecasted weather conditions to support situational awareness. Includes incident specific current, predicted, and historical weather data. (A-16) Climate data describe the spatial and temporal characteristics of the Earth's atmosphere/hydrosphere/land surface system. These data represent both model-generated and observed (either in-situ or remotely sensed) environmental information, which can be summarized to describe surface, near surface and atmospheric conditions over a range of scales. Relates to location, event, and plan.	None	None
84.	Auxiliary	Demography/ Cultural	Census  DHS/IAIP  NGA	(GEA) Incident specific current, predicted, and historical geospatial and temporal context of distribution of population related to an actual or predicted event or incident. May include data on occupancy of buildings or geographic areas temporally referenced. Relates to location, event, asset, and plan.	None	None
85.	Auxiliary	1.46 TBD	Regional, state, local, commercial	(GEA) High-resolution base and thematic data (all sub-categories) plus imagery not available in the common HLS geospatial framework. Collection is triggered by NSSE, or significant incidents. Data has not been merged or integrated in order to conform to or be consistent with any National standards. Relates to location, asset, event, case, and plan.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
86.	Base	Boundaries	USGS (The National Map) and other Federal, State, local, and tribal organizations. (National), NGA (international)	<p>(The National Map) The boundary layer depicts administrative and jurisdictional information important to the general map user. Boundaries data is comprised of data from the U.S. Census, business partners, State and local agencies, with USGS as the provider of last resort. (National coverage currently limited to State and County) (GEA) Locations of National, international, Federal, State, Province, county, municipal, tribal, jurisdictional, administrative boundaries.</p> <p>(A-16) Governmental units describe, by a consistent set of rules and semantic definitions, the official boundary of federal, state, local, and tribal governments as reported/certified to the U.S. Census Bureau by responsible officials of each government for purposes of reporting the Nation's official statistics. International boundary data include both textual information to describe, and GIS digital cartographic data to depict, both land and maritime international boundaries, other lines of separation, limits, zones, enclaves/exclaves and special areas between States and dependencies. Marine boundaries depict offshore waters and seabeds over which the United States has sovereignty and jurisdiction.</p> <p>Watershed Boundaries data theme encodes hydrologic, watershed boundaries into topographically defined sets of drainage areas, organized in a nested hierarchy by size, and based on a standard hydrologic unit coding system.</p> <p>Relates to location, plan, event, benefit, training resource, risk, party, agreement, and communication.</p>	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
87.	Base	Elevation/ Bathymetry	USGS/The National Map (national elevation), NOAA (bathymetry), NGA (international elevation)	<p>(The National Map) Equates to the National Elevation Dataset (NED). High-resolution girded elevation data (30-meter post spacing National coverage being updated to 10-meter post spacing, limited 3.3-meter post spacing data from TNM partners), including shaded relief, and limited LIDAR. National multi-resolution Raster dataset that provides the National Map elevation information in a seamless form with a consistent datum, elevation unit, and projection.</p> <p>(A-16) Elevation-Terrestrial. This data contains georeferenced digital representations of terrestrial surfaces, natural or manmade, which describe vertical position above or below a datum surface. Data may be encapsulated in an evenly spaced grid (raster form) or randomly spaced (triangular irregular network, hypsography, single points). The elevation points can have varying horizontal and vertical resolution and accuracy.</p> <p>Bathymetric data for Inland and Intercoastal waterways is highly accurate bathymetric sounding information collected to ensure that federal navigation channels are maintained to their authorized depths. Bathymetric survey activities support the Nation's critical nautical charting program. This data is also used to create Electronic Navigational Charts. The bathymetric sounding data supports the elevation layer of the geospatial data framework.</p> <p>(NOAA bathymetry) – NOAA Digital Coast shoreline data, coastal elevation data.</p> <p>(A-16) Shorelines represent the intersection of the land with the water surface. The shoreline shown on NOAA Charts represents the line of contact between the land and a selected water elevation. In areas affected by tidal fluctuations, this line of contact is the mean high water line.</p> <p>(NGA Elevation Data) Digital Terrain Elevation Data level 1 and 2 data.</p> <p>Relates to location.</p>	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
88.	Base	Geographic Names	USGS/The National Map (national), NGA (international)	<p>(GEA) An authoritative source of geographic names with locations (see Geonames). Typically available through an online Gazetteer.</p> <p>(The National Map) Equates to the Geographic Names Information System (GNIS). Information about the proper names (and point locations) for places, features, and areas in the 50 States, the District of Columbia, and the territories and outlying areas of the United States, as well as Antarctica.</p> <p>(A-16) This dataset contains data or information on geographic place names deemed official for federal use by the U.S. Board on Geographic Names as pursuant to Public Law 80-242. Geographic Names information includes both the official place name (current, historical, and aliases) and locative direct (i.e., geographic coordinates) and indirect (i.e., State and County where place is located) geospatial identifiers and categorized as populated places, schools, reservoirs, parks, streams, valleys, and ridges.</p> <p>Relates to location, asset, party, goods, training resource, plan, event, communication, benefit, risk, case, agreement, and employment.</p>	None	None



Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
89.	Base	Hydrography	USGS/The National Map NGA (international)  NOAA (Digital Coast)	(The National Map) Equates to National Hydrography Dataset (NHD). USGS hydrographic and EPA River reach positional, geometry, and descriptive information for naturally occurring and man-made bodies of water, paths through which water flows, and related features (entities). Proposed National Map content overlaps recommended HSIP content for water related features (see transportation, and water supply). (A-16) Hydrography data theme includes surface water features such as lakes, ponds, streams and rivers, canals, oceans, and coastlines. Each hydrography feature is assigned a permanent feature identification code (Environmental Protection Agency Reach Code) and may also be identified by feature name. Spatial positions of features are encoded as centerlines and polygons. Also encoded is network connectivity and direction of flow. Watershed boundaries data theme encodes hydrologic, watershed boundaries into topographically defined sets of drainage areas, organized in a nested hierarchy by size, and based on a standard hydrologic unit coding system. (NOAA) Digital Coast water quality data. Relates to location, asset, risk, goods, and conveyances.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
90.	Base	Land Cover	<p>USGS/The National Map (Derived from consortium of sources including USGS, USFS, USPS, BLM, EPA, NRCS, USFWS, NOAA, NASA)</p> <p>NOAA Digital Coast</p>	<p>(The National Map) Equates to the National Land Cover Dataset (NLCD). Derived from LANDSAT satellite images; data classifies (Anderson level 2) land surface cover into categories (e.g., open water, perennial ice/snow, evergreen forest, high density residential, cropland, etc.) National coverage from 1992 being updated to 2001 by eco-regions (30-meter post spacing data). (A-16) Hierarchical classification system based on observable form and structure, as opposed to function or use. This system transitions from generalized to more specific and detailed class divisions, and provides a framework within which multiple land cover and land use classification systems can be cross-referenced. This system is applicable everywhere on the surface of the Earth. This theme differs from the Vegetation and Wetlands themes, which provide additional detail. (NOAA) Digital Coast land use data. Relates to location, risk.</p>	None	None
91.	Base	Structures	<p>USGS/The National Map</p> <p>Other Federal, State, local, and tribal organizations. (National)</p> <p>NGA (International)</p>	<p>(The National Map) Contains pilot project data only, content inconsistent. Man-made features; locations of critical structures, which are of vital interest to emergency responders. Man-made structures theme is comprised of data from the Army Corps of Engineers, National Geospatial Intelligence Agency, and USGS Business Partner retailers. State and local agencies, and the private sector, with USGS as the provider of last resort. High degree of overlap with critical and key assets data defined by PDD-63, and Base category data contained in other categories. (GEA) 133-Urban Areas -footprints and 3-dimensional spatial characterization of exterior of structures (from LIDAR). Relates to location, asset (capital asset, key asset, critical asset, custodial property), event, party, risk, and case.</p>	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
92.	Base	Demography/ Cultural	Bureau of Census  NOAA (Digital Coast)	(Tait) Current census demographic statistics and geographies (distribution of populations) and business demographic statistics by census geographies. (A-16) These geospatially referenced data describe the characteristics of people, the nature of the structures in which they live and work, the economic and other activities they pursue, the facilities they use to support their health, recreational and other needs, the environmental consequences of their presence, and the boundaries, names and numeric codes of geographic entities used to report the information collected. (NOAA) Digital Coast demographics. Relates location, risk, and party. <b>Recommend adding geospatial context for sociological networks.</b>	None	None
93.	Base	Aeronautical Navigation	DOT/FAA (national)  NGA (international)  Commercial (e.g. Jeppsen)	(GEA) Aerial navigation data representing the U.S. National Airspace System (NAS) in 3-dimensions. Data is updated every 56-days (e.g., visual navigation data, instrument approach data, minimum safe altitude data, high and low altitude routes, locations of electronic aids and hazards to navigation, military operating areas, restricted operating areas, terminal control areas, etc). Includes geospatial context for notices to airmen, airspace and airport facilities data. Supports aerial navigation of DHS (USCG, Customs, etc.) aircraft, and tracking of aircraft of interest in the NAS. Includes navigation guidance data. <b>Overlap with HSIP definition of Transportation sub-category.</b>	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
94.	Base	Nautical Navigation	NOAA (national) U.S. Army Corps of Engineers NGA (international) Commercial	(GEA) Nautical navigation data (e.g., waterways, ports, harbors, bridges, navigation routes, locations of electronic and analog navigation aids, and hazards to navigation, etc). Includes navigation guidance data and supports navigation of DHS (USCG, etc.) marine vessels. Includes geospatial context for notices to mariners. (A-16) Transportation-Marine. The Navigation Channel Framework consists of highly accurate dimensions (geographic coordinates for channel sides, centerlines, wideners, turning basins, and River Mile Markers) for every federal navigation channel maintained by U.S. Army Corps of Engineers. The Navigation Framework will provide the basis for the marine transportation theme of the geospatial data framework. Includes waterway and sea-lane transportation networks. Supports navigation of DHS marine vessels and tracking of marine vessels of interest. <b>Overlaps with Transportation and hydrography sub-categories.</b>	None	None
95.	Base	Navigation Guidance	1.47 TBD	(GEA) Nautical, aeronautical, vehicle, or land navigation data with guidance instructions for use in computer assisted navigation of aircraft, marine vessels, motor vehicles, and ground assets.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
96.	Base	Cadastral	BLM, DoD, and local sources	<p>(A-16) Cadastral data describe the geographic extent of past, current, and future right, title, and interest in real property, and the framework to support the description of that geographic extent. The geographic extent includes survey and description frameworks such as the Public Land Survey System, as well as parcel-by-parcel surveys and descriptions.</p> <p>(A-16) Offshore Cadastre is the land management system used on the Outer Continental Shelf. It extends from the baseline to the extent of United States jurisdiction. Existing coverage is currently limited to the conterminous United States and portions of Alaska. Maximum extent of United States jurisdiction is not yet mathematically calculated.</p> <p>(A-16) Federal land ownership status includes the establishment and maintenance of a system for the storage and dissemination of information describing all title, estate or interest of the federal government in a parcel of real and mineral property. The ownership status system is the portrayal of title for all such federal estates or interests in land.</p> <p>(A-16)) Public land conveyance data are the records that describe all past, current, and future, right, title, and interest in real property. This is a system of storage, retrieval and dissemination of documents describing the right, title, and interest of a parcel.</p> <p>BLM (Federal and public lands, and Public Land Survey boundaries).</p> <p>(Local govt. sources) land parcel ownership, zoning.</p> <p>Relates to asset, event, case, party, and risk.</p>	None	None

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
97.	Base	Geodetic Control	1.48 TBD	(A-16) Geodetic control (points with precise location and/or elevation established through photogrammetric or surveying methods) provides a common reference system for establishing coordinates for all geographic data. All NSDI framework data and users' applications data require geodetic control to accurately register spatial data. The National Spatial Reference System is the fundamental geodetic control for the United States. Relates to base categories, location, imagery, intelligence.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
98.	Base <sup>4</sup>  (PDD 63-HSIP) Critical Asset	Transportation	<p>USGS/The National Map (national coverage)</p> <p>State, local sources (high resolution local roads data not included in National Map)</p> <p>NGA (international)</p>	<p>(The National Map) Data includes roads, railroads, airports, and miscellaneous transportation features. Includes best available data from U.S. Census Bureau, Department of Transportation, Business Partner retailers, State and local agencies, and private industry. Currently proposed National Map content does not correspond to proposed HSIP content.</p> <p>(PDD 63-HSIP) Airports and airfields, airport facilities, navigation aids runways and taxiways, railroads (tracks), railroad facilities, railroad yards, bus stations, roads, bridges, interchanges, rest stops/oasis, toll plaza, tunnels, anchorages and fairways, breakwater, canals, channels, commercial ports, ferries, locks, marine railway, navigable waterway network, navigational aids, piers, wharfs, quays, and moles, and port facilities.</p> <p>HSIP definition overlaps DHS EA definitions for nautical and aeronautical navigation.</p> <p>(A-16) Transportation data are used to model the geographic locations, interconnectedness, and characteristics of the transportation system within the United States. The transportation system includes both physical and non-physical components representing all modes of travel that allow the movement of goods and people between locations.</p> <p>(GEA) Add geospatial context for logistical networks, road networks, air transport networks, rail networks, sea lane and waterways networks.</p> <p>Relates to location, asset, structures, goods, conveyance, party, risk, training resource, and plan.</p> <p><b>Overlaps with Aeronautical Navigation, Nautical Navigation sub-categories.</b></p>	None	None

<sup>4</sup> Also Critical Assets

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
99.	Base <sup>5</sup>	Orthoimagery	<p>USGS/The National Map (consistent national coverage),</p> <p>NGA (133 Urban Areas)</p> <p>State and local sources (high resolution DOQ not included in National map)</p>	<p>(The National Map) Equates to the National Digital Orthophoto Program (NDOP) database. High-resolution digital orthoimagery in USGS quarter-quadrangle (3.75 X 3.75-minute) format, 1-meter GSD, derived from aerial photographs and satellite imagery.</p> <p>(GEA) Baseline high-resolution orthorectified imagery from civil, DoD, or commercial satellite and/or aerial sources, and NTM; Includes indices of location and geospatial extent of coverages.</p> <p>(A-16) Contains georeferenced images of the Earth's surface, collected by a sensor in which image object displacement has been removed for sensor distortions and orientation, and terrain relief. For very large surface areas, an Earth curvature correction may be applied. Digital orthoimages encode the optical electromagnetic spectrum as discrete values modeled in an array of georeferenced pixels. Digital orthoimages have the geometric characteristics of a map, and image qualities of a photograph.</p> <p>Relates to location, asset, and risk.</p>	None	None
100.	Collection Requirements	1.49 TBD	DHS components	<p>(GEA) Prioritized geospatial data (including remote sensing) and intelligence collection requirements including location and geospatial extent of collection area of interest, and observable and geospatial attributes or properties required.</p> <p>Relates to Base, intelligence, and imagery.</p>	None	None
101.	Facilities	Mapping Data	<p>Federal, State, local</p> <p>Private companies (that own or operate critical or key assets)</p>	<p>(GEA) Location and spatial relationship of surface and sub-surface structures, and installed HVAC, plumbing, electrical, security systems, and other installed infrastructure for any facility identified as a critical or key asset.</p> <p>Relates to asset, asset (HSIP).</p>	None	None

<sup>5</sup> Also Mission-specific



Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
102.	Geospatial Product	Assessment	FBI, DHS  Other federal agencies with responsibility for warning of natural hazards  State, local  Commercial (companies that own & operate key or critical assets)	(GEA) Data characterizing geospatial and temporal context of risks, hazards, threats, and vulnerabilities derived from risk, threat, vulnerability and geospatial analysis. Includes supporting facts, interpretations, hypotheses, and projections. Includes maps, reports, annotated images, plans, etc. Relates to location, risk, intelligence, imagery, case, and plan.	None	None
103.	Geospatial Product	Aids	1.50 TBD	(GEA) Includes decision support, training, and other aids that provide geospatial and temporal context. May include maps, reports, annotated images, etc. Relates to location, asset, event, training resource.	None	None
104.	Geospatial Product	Maps	DHS components  NGA  USGS  Other federal, state, local	(GEA) An annotated or symbolized graphical representation of select geospatial-temporal data for an intended purpose. May contain annotations or marginalia. May be in hardcopy or softcopy form, and may reference or be imbedded in a report or plan. Relates to all other categories.	None	None
105.	Geospatial Product	Mission-Specific Operating Picture (MSOP)	DHS components	(GEA) A Mission-Specific Operating Picture (MSOP) is a specialized, mission view of a collaborative Common Operating Picture (COP). An MSOP is created for a mission specific need.	None	None
106.	Geospatial Product	User-Specific Operating Picture (USOP)	DHS components	(GEA) A User-Specific Operating Picture (USOP) is a specialized, actionable data view of a collaborative COP or MSOP. An USOP is created for a user specific need/device.		

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
107.	Geospatial Product	Plan	DHS components NGA USGS Other federal, state, local	(GEA) Geospatial-temporal context of current and historical plans. Includes the following plan types: collection, counter-measure-deterrence, mitigation, logistics, preparation, response, recovery, program, security, site, mission, exercise, training, deployment, search and rescue, operations, contingency, evacuation, etc. Plans may include multi-media data and may contain or be interlinked to maps, location enabled reports, annotated imagery, etc. Relates to asset, risk, event, case, intelligence, communication, and training resource.	None	None
108.	Geospatial Product	(Threat) Profile	TBD	(GEA) 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. [Note: Other types of location-based profiles may be defined for the HLS mission.]. Relates to asset, risk, threat, event, party, case, and intelligence.	None	None
109.	Geospatial Product	Report	DHS components NGA USGS Other federal, state, local	(GEA) Includes current and historical geospatial and temporal context contained in any report. Reports are geospatially enabled and contain interlinked, multi-media data and may reference other reports, maps, plans, incidents, occurrences, parties, risks/threats/vulnerabilities, suspicious activities, intelligence, and assessments, etc. pertaining to a topic of interest. Relates to event, party, case, and intelligence.	None	None
110.	Imagery	Satellite	USGS, NOAA, NASA, Commercial	(GEA) Location, geospatial extent, and geospatial properties for current and historical satellite imagery. Includes multiple digital sensor types including panchromatic, multispectral, hyperspectral, radar, etc. Relates to location, event, case, intelligence, risk, goods, and conveyances.	None	None

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
111.	Imagery	Aerial	USGS, NASA, NOAA, USDA, Commercial	(GEA) Location, geographic extent, and geospatial properties of current and historical aerial film or digital imagery with temporal context. Includes Panchromatic, natural color, B&W infrared, color infrared, multispectral, hyperspectral, radar, LIDAR, Thermal infrared, and georeferenced motion video. Relates to location, event, case, intelligence, risk, goods, and conveyances.	None	None
112.	Imagery	UAV	DHS, NASA, Commercial	(GEA) Location, geospatial properties, geographic extent, and temporal context of current and historical UAV imagery from civil and commercial sources. Includes Panchromatic, natural color, color infrared, multispectral, hyperspectral, radar, LIDAR, georeferenced motion video, thermal and B&W IR). Relates to location, event, case, intelligence, risk, goods, and conveyances.	None	None
113.	Imagery	National Technical Means	NGA	(GEA) Current and historical geospatial location and extent of NTM imagery (satellite, aerial, and UAV) with temporal context. Relates to location, event, case, intelligence, risk, goods, and conveyances.	None	None
114.	Imagery	Still Images	1.51 TBD	(GEA) Still photographs with geospatial and temporal context. Relates to location case, event, asset, goods, party, risk, and conveyance.	None	None
115.	Intelligence	Imagery Intelligence (IMINT)	NGA	(GEA) Current and historical location, geospatial properties, geospatial extent and temporal context for imagery, and intelligence derived from NTM or commercial sources to identify, predict, and characterize risks, threats, and vulnerabilities. Relates to location, asset, event, case, risk, goods, and conveyances.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
116.	Intelligence	Signals Intelligence (SIGINT)	NSA, and Federal, State, local, tribal law enforcement	(GEA) Current, and historical locations and temporal context for communications and electronic signals intercepts from NTM or terrestrial law enforcement assets associated with criminal and terrorist activities, to identify, predict, and characterize risks, threats, and vulnerabilities. Relates to location, asset, event, case, party, risk, goods, and conveyances.	None	None
117.	Intelligence	Measurement and Signatures Intelligence (MASINT)	NGA, DIA	(GEA) Geospatial and temporal context of MASINT used to identify, predict, and characterize risks, threats, and vulnerabilities. Relates to location, asset, event, case, risk, goods, and conveyances.	None	None
118.	Intelligence	Human Intelligence (HUMINT)	CIA, DIA, Foreign	(GEA) Current and historical location and temporal context of data and information contained in reports derived from clandestine human source reporting, used to identify, predict, and characterize risks, threats, and vulnerabilities. Includes locations of occurrences/activities of interest related to actual, suspected, or predicted criminal or terrorist activities. Includes identification and geospatial context for terrorist networks, criminal networks, and affiliations of hostile interests. Relates to location, asset, event, case, party, risk, goods, and conveyances.	None	None
119.	Intelligence	Law Enforcement Intelligence	Federal, State, local, tribal, and foreign law enforcement	(GEA) Current and historical location and temporal context of all source law enforcement intelligence related to actual, suspected, or predicted criminal or terrorist activities, used to identify, predict, and characterize risks, threats, and vulnerabilities. Includes identification and geospatial context for criminal networks, terrorist networks, affiliations of hostile interests. Relates to location, asset, event, case, party, risk, goods, and conveyances.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
120.	Intelligence	Open Source Intelligence (OSINT)	Intelligence and law enforcement communities	(GEA) Current and historical location and temporal context for open source intelligence information and review of open source publications, related to actual, suspected, or predicted terrorist activities, used to identify, predict and characterize risks, threats, and vulnerabilities. Relates to location, asset, event, case, party, risk, goods, and conveyances.	None	None
121.	Intelligence	Threat Intelligence	1.52 TBD	(GEA) Threat intelligence derived from IMINT, SIGINT, MASINT, and OSINT, with geospatial and temporal context. Relates to asset, risk goods, conveyance, party, event.	None	None
122.	Intelligence	Threat Prediction	1.53 TBD	(GEA) Predicted location/time/identity/ activity/status information for a threat. Relates to asset, risk goods, conveyance, party, event.	None	None
123.	Mission Feature	TBD	DHS Components	A geospatial feature that represents a mission 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 Area of Interest, Point of Interest, and Place of Interest, etc.	None	None
124.	Model	Geospatial Data Model	DHS, NGA, USGS  DoD and Intelligence communities  State and local	(GEA) Data and encoded procedures to support geospatial simulations and modeling to test how geospatial data and technology will perform in local conditions and in different scenarios. Relates to location, risk, event, asset, plan, and communication.	None	None
125.	Model	Mission Rehearsal Model	1.54 TBD	(GEA) Geospatial and temporal context for models that characterize the behaviors of mobile/dynamic mission assets and the effects of these assets in a rehearsal context. These data are associated with simulations of mission assets in their projected operating environments. Relates to plan, training resource, and case.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
126.	Model	Performance Model	TBD	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.	None	None
127.	Model	Test Model	DHS	(GEA) Data and encoded procedures to support simulations and modeling to test how geospatial data and technology will perform in local conditions and in different scenarios. Relates to location, plan, and technology.	None	None
128.	Model	Threat Consequence Model	DHS, FBI, NGA	(GEA) Data and encoded procedures to support simulations and modeling to characterize the potential consequences of any threat/incident in different scenarios. Relates to risk, event, asset, and plan.	None	None
129.	Model	Threat Model	FBI, DHS	(GEA) Data and encoded procedures to support simulations and modeling to identify and characterize threats in different scenarios. Relates to asset, risk, event, and plan.	None	None
130.	Model	Training Model	DHS Components	(GEA) Data and encoded procedures to support training simulations and modeling in order to test how geospatial data and technology is going to perform in different attack scenarios. Relates to risk, event, technology, training resources, and plan.	None	None

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
131.	Model	Weather Model	NWS  Private weather services	(GEA) Data and encoded procedures to support simulations and modeling to test how weather conditions will vary in local conditions and in different scenarios. 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 at specified locations. Relates to location, risk, event, plan, and training resource.	None	None
132.	Sensor	Observations	1.55 TBD	(GEA) Location, geospatial extent, and temporal context of terrestrial in-situ sensor observations/detects. Relates to asset, plan, case, and event.	None	None
133.	Sensor	1.56 TBD	1.57 TBD	(GEA) Information that describes a sensor for sensor management and geospatial exploitation of data collected by the sensor. Relates to intelligence, imagery.	None	None
134.	Party	1.58 Organization	TBD-Best Available Data  Intelligence and law enforcement communities	(GEA) Current and historical addresses (physical location-national and international) and virtual addresses (virtual location) of all known branches of an organization. Includes geospatial context of relationship to other organizations. Includes geospatial context associated with tariffs, credentials, licenses, permits, shipping manifests, and benefits. Add geospatial context of affiliation with criminal organization networks, terrorist networks, networks of hostile interests, and tracking of organizational activities to include activity identity/location/time/activity/status. Includes reference to persons associated with the organization. Relates to location, party (person), risk, event, case, conveyance, goods, and structure.	Party	Organization

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
135.	Party	1.59 Person	<p>Commercial white pages, commercial internet providers</p> <p>Federal, State, and local law enforcement</p> <p>US Customs, TSA</p> <p>Commercial passenger travel records</p> <p>Intelligence or law enforcement communities</p>	<p>(GEA) Identification, current and historical addresses (physical location-national and international) and virtual addresses for any person of interest with temporal context. Location and temporal context of instances of identity verification (e.g. at border entry points) for any person of interest. If currently or previously in custody as a detainee or prisoner, includes current and historical locations while in custody, and/or locations associated with deportation. Current, historical, and predicted travel locations (destinations with temporal context-itineraries-national and international) for any person of interest, including location and temporal context of point of entry into the country. Current, historical, and predicted relative locations (national and international) for any person of interest. Biographic data for persons, including geospatial context for permits, licenses, benefits, credentials, etc. (Identity/location/time/activity/status). Add geospatial context for affiliation with terrorist networks, criminal networks, criminal organizations and hostile interests. Geospatial-temporal context for background check or interview data associated with a person of interest. Relates to activity, asset, location, risk, event, case, party (organization), employment, benefit, and conveyance.</p>	Party	Person
136.	Threat	Economic	TBD-Best Available Data	<p>(GEA) Terrorist threat data with current, historic and predicted geospatial and temporal context of threats to economic sectors (location of economic critical and key asset, geospatial extent of economic impacts to key sectors (e.g., financial, food supply, etc.) Relates to location, asset, intelligence, and plan.</p>	Risk	Threat
137.	Threat	Chemical	FBI	<p>(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, intelligence, and plan.</p>	Risk	Threat



Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
138.	Threat	Biological	FBI	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, intelligence, and plan.	Risk	Threat
139.	Threat	Nuclear	FBI	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, intelligence, and plan.	Risk	Threat
140.	Threat	Radiological	FBI	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, intelligence, and plan.	Risk	Threat
141.	Threat	High Explosive	FBI	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, intelligence, and plan.	Risk	Threat
142.	Threat	Cyber Attack	FBI	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (physical and virtual location, geospatial extent, and tracking) of threatened systems. Relates to location, asset, intelligence, and plan.	Risk	Threat
143.	Threat	Hostage Situation	Federal, State, local, tribal law enforcement	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, party, intelligence, and plan.	Risk	Threat
144.	Threat	Hazardous Material	USCG, Private,	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
145.	Threat	Power Grid failure	Private	(GEA) Terrorist threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
146.	Threat	Earthquake	USGS	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
147.	Threat	Tsunami	NOAA	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
148.	Threat	Landslide	USGS	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
149.	Threat	Volcanic Eruption	USGS	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
150.	Threat	Tornado	NWS, Private weather services	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
151.	Threat	Hurricane	NWS, Private weather services	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
152.	Threat	Typhoon	NWS, Private weather services	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
153.	Threat	Severe Weather	NWS, Private weather services	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
154.	Threat	Flood	COE, FEMA	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
155.	Threat	Drought	NOAA/NWS, USDA	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
156.	Threat	Wildfire	USFS, BLM, NIFC, FEMA, State, local	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
157.	Threat	Plane Crash	State and local, Private (Airlines), FBI	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
158.	Threat	Train Wreck	State and local	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
159.	Threat	Shipwreck	USCG, NOAA, Private	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat
160.	Threat	Structure Failure	State and local	(GEA) Threat data with current, historical, and predicted geospatial and temporal context (location, geospatial extent, and tracking). Relates to location, asset, and plan.	Risk	Threat

Rec. No.	HLS Framework Category	HLS Framework Sub-Category	Primary Provider	Geospatial Definition	DHS EA Subject Area	DHS EA Data Object
161.	Threat	1.60 Party	1.61 TBD	(GEA) Current and historical locations, and temporal context for persons or organizations known to be a threat to U.S. Interests. For persons, includes tracking current, historical and predicted location; location of place of birth, citizenship, travel history, travel itineraries, associations with organizations, persons, and hostile interests as determined by geographic/national affiliations. For organizations includes associations with organizations, persons, and hostile interests as determined by geographic/national affiliations. Includes geospatial and temporal context for association with suspicious, criminal, or terrorist activities (identity/location/time/activity/status). Overlaps with Party category, organization and person sub-categories. Relates to location, asset, party, intelligence, and plan.	Risk	Threat
162.	Vulnerability	Vulnerability (type)	Federal, State, local, and private organizations FBI	(GEA) (Physical threats) Identification, location, geographic extent, and temporal context of vulnerabilities. (Virtual threats) Virtual AND physical location, geographic extent, and temporal context of vulnerability. Relates to location, asset, intelligence, and structures.	Risk	Vulnerability
163.	Weapon	Chemical	FBI, EPA	(GEA) Current, historical, and predicted physical location of weapon (tracking, national and international) Includes identity/location/time/activity/status. Relates to location, event (occurrence), intelligence, transportation, conveyance, party, case, and plan.	Risk	Weapon
164.	Weapon	Biological	FBI, CDC, USDA	(GEA) Current, historical, and predicted physical location of weapon (tracking, national and international) Includes identity/location/time/activity/status. Relates to location, event (occurrence), intelligence, transportation, conveyance, party, case, and plan.	Risk	Weapon
165.	Weapon	Nuclear	FBI, DOE	(GEA) Current, historical, and predicted physical location of weapon (tracking, national and international) Includes identity/location/time/activity/status. Relates to location, event (occurrence), intelligence, transportation, conveyance, party, case, and plan.	Risk	Weapon

<b>Rec. No.</b>	<b>HLS Framework Category</b>	<b>HLS Framework Sub-Category</b>	<b>Primary Provider</b>	<b>Geospatial Definition</b>	<b>DHS EA Subject Area</b>	<b>DHS EA Data Object</b>
166.	Weapon	Radiological	FBI, DOE	(GEA) Current, historical, and predicted physical location of weapon (tracking, national and international) Includes identity/location/time/activity/status. Relates to location, event (occurrence), intelligence, transportation, conveyance, party, case, and plan.	Risk	Weapon
167.	Weapon	High Explosive	FBI, ATF	(GEA) Current, historical, and predicted physical location of weapon or high explosive device (tracking, national and international). Includes identity/location/time/activity/status. Relates to location, event (occurrence) intelligence, transportation, conveyance, party, case, and plan.	Risk	Weapon
168.	Weapon	Cyber	FBI	(GEA) Current, historical, and predicted virtual location of computer virus/worm origins (tracking, national and international). Includes identity/location/time/activity/status. Relates to location, party, event (occurrence), and intelligence.	Risk	Weapon



## 2.0 Acronyms

Acronym	Definition
AGL	Above Ground Level
AMSL	Above Mean Sea Level
ANSI	American National Standards Institute
ATF	Alcohol, Tobacco & Firearms
BLM	Bureau of Land Management
CDC	Center for Disease Control
CIA	Central Intelligence Agency
CNN	Cable News Network
COP	Common Operating Picture
DHS	Department of Homeland Security
DIA	Defense Intelligence Agency
DOC	Department of Commerce
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of Interior
DOQ	Digital Orthophoto Quadrangles
DOS	Department of State
DOT	Department of Transportation
EA	Enterprise Architecture
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
GEA	Geospatial Enterprise Architecture
GIS	Geographic Information System
GNIS	Geographic Names Information System
GSD	Ground Sampling Distance
HHS	Health and Human Services
HLS	Homeland Security
HSIP	Homeland Security Infrastructure Program
HUMINT	Human Intelligence
HVAC	Heating, Ventilation and Air Conditioning
IAIP	Information Analysis and Infrastructure Protection
IMINT	Imagery Intelligence
IR	Infrared
ISO	International Standardization for Organization
LANDSAT	Land Remote-Sensing Satellite
LiDAR	Light Detection and Ranging
MASINT	Measurement and Signatures Intelligence
MSOP	Mission-Specific Operating Picture
NAS	National Airspace System

NASA	National Aeronautics & Space Administration
NDOP	National Digital Orthophoto Program
NED	National Elevation Database
NGA	National Geospatial-Intelligence Agency
NHD	National Hydrography Dataset
NIFC	National Interagency Fire Center
NIMA	National Imagery & Mapping Agency
NLCD	National Land Cover Characterization
NOAA	National Oceanic and Atmospheric Administration
NORAD	North American Aerospace Defense Command
NPS	National Park Service
NRC	Nuclear Regulation Commission
NSDI	National Spatial Data Infrastructure
NSRS	National Spatial Reference System
NSSE	National Security Special Event
NTM	National Technical Means
NWS	National Weather Service
OGC	Open GIS Consortium
ONI	Office of Naval Intelligence
OSINT	Open Source Intelligence
PDD	Presidential Decision Directive
POL	Petroleum, Oil & Lubricants
SIGINT	Signals Intelligence
TSA	Transportation Security Administration
UAV	Unmanned Aerial Vehicle
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USPS	United States Postal Service