NWCG Geospatial Data Layer Standard

Data Layer Standard Name	Aviation Activity Polygon
Status (DSTS Use Only)	Approved
Next Anticipated Review	
Review Expiration	
Approved	1/8/2015

Name & Description

Geospatial Data Layer Name	Aviation Activity Polygon
Abbreviation	AviationActivity_Pl
Description	This layer captures activities that may present a hazard to pilots during aviation operations.
Version	1

Contact Information

Data Standard Stewardship Group	NWCG Geospatial Subcommittee
Data Standard Steward (POC)	Autumn Mason, USFS

General Information

Source Standard	
System of Record	Local Databases. Digital Aeronautical Flight Information Files (DAFIF), Digital Vertical Obstruction File (DVOF), Federal Aviation Administration (FAA) Data when combined with local data.
Additional Text	
Discussion Papers Text	
Discussion Papers File	NWCG - Aviation Hazards Activity GIS Data Layer Standard.doc, Discussion Paper - Aviation Hazards GIS Data Layers.doc, Wildland Fire Aviation Hazards Data Model.pdf, GLOSSARY Aviation Activity and Obstacle Information.doc

Geospatial Data

Background	Aviation Activities are depicted as point or polygon feature classes. This standard is for a polygon feature class (or shapefile). A geodatabase containing all aviation hazard feature classes (activities and obstacles) is recommended.
Abstract	The layer specific attributes and (domain) values were developed through a review of DAFIF, DVOF, and FAA standards and existing datasets to determine the types of features that would be stored in this feature class. Domains from those standards were revised and grouped to simplify this dataset.
Purpose	The Aviation Activity Point, Activity Polygon, Obstacle Point, Obstacle Line, and Obstacle Polygon Feature Classes are all related and could be part of a Aviation Hazard Feature Dataset or Geodatabase.

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Data Model	Standards for horizontal and vertical accuracies are detailed in Geospatial Positioning Accuracy Standards; Part 3: National Standard for Spatial Data Accuracy (NSSDA), http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/chapter3. NSSDA does not define threshold accuracy values. Agencies are encouraged to establish thresholds for their product specifications and applications and for contracting purposes. Ultimately, users identify acceptable accuracies for their applications. Data and map producers must determine what accuracy exists or is achievable for their data and report it (document) according to NSSDA.
Other Notes	The layer specific attributes and (domain) values were developed through a review of DAFIF, DVOF, and FAA standards and existing datasets to determine the types of features that would be stored in this feature class. Domains from those standards were revised and grouped to simplify this dataset.
Related Layers	The Aviation Activity Point, Activity Polygon, Obstacle Point, Obstacle Line, and Obstacle Polygon Feature Classes are all related and could be part of a Aviation Hazard Feature Dataset or Geodatabase.
Horizontal and/or Vertical Position Accuracy	Standards for horizontal and vertical accuracies are detailed in Geospatial Positioning Accuracy Standards; Part 3: National Standard for Spatial Data Accuracy (NSSDA), http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/chapter3. NSSDA does not define threshold accuracy values. Agencies are encouraged to establish thresholds for their product specifications and applications and for contracting purposes. Ultimately, users identify acceptable accuracies for their applications. Data and map producers must determine what accuracy exists or is achievable for their data and report it (document) according to NSSDA.
Horizontal and/or Vertical Spatial Reference Information	Data layer projection parameters should be documented in a .prj file (shapefile format) or in a geodatabase projection definition. Or, specify the projection parameters via an EPSG code (example EPSG code 4326 = WGS84), http://www.epsg-registry.org . Projection parameters file should include applicable attributes as specified in the FGDC Standards Reference Model, 4.1.2.1.23.

Geospatial Data Layer Standard Attributes & Attribute Definitions

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
NWCGUnitID	UnitID Un_ID	Yes	String	6	Code used in interagency wildland fire to uniquely identify a particular organizational unit (office **administratively responsible** for either managing incidents/projects, providing resources, or providing logistical services) within the government or a non-government organization recognized by NWCG as a wildland fire cooperator	NWCG (PMS 931: Unit Identifiers)	Unit Identifier
NFIRSUnitID	NFIRSUntID	No	Integer	6	National Fire Incident Reporting System (NFIRS) fire department ID used to uniquely **identify a non-federal organizational unit** (office administratively responsible for either managing incidents, providing resources, or providing logistical services).	NFIRS ID	
MapMethod	Map_Method MapMeth	Yes	String	25	Controlled vocabulary to define how the geospatial feature was derived. Map method may help define data quality.	GPS-Driven; GPS-Flight; GPS-Walked; GPS-Walked/ Driven; GPS-Unknown Travel Method; Hand Sketch; Digitized-Image; Digitized-Topo; Digitized-Other; Image Interpretation; Infrared Image; Modeled; Mixed Methods; Remote Sensing Derived; Survey/GCDB/Cadastral; Vector; Other	
DateCurrent	DateCrnt EditDate	Yes	Date		The last edit, update, of this GIS record. Example: mm/dd/yyyy		Date
Comments	Notes GIS_Note	No, but recommended	String	255	Additional information describing the feature.	Free text	
GeometryID	Geometry_ID GIS_ID Spa_ID	Yes	String	50	Primary key for linking geospatial objects with other database systems. **Required for every feature.** This field may be renamed for each standard to fit the feature.	Globally Unique Identifier (GUID). **	
ActivityName	ActName	Yes	String	50	Common Name of activity. "Unknown" is a valid attribute.		
ActivityType	ActType	Yes	String	50	Type of activity or event. (Domain values were developed through a review of DAFIF, DVOF, and FAA data sets) If "Other" is selected please include additional information in Comments field.	Aerobatic Box; Air Route; Agricultural Flying or Spraying; Ballooning Area; Hang Gliding or Paragliding Area; Low Level Sight Seeing Area; Military Operating Area; Model Airplane and Rocket Launch Area; Parachute Jumping Area; Special Use Area; Ultralight Area; Other	
SourceAgency	DataAgency	Yes	String	7	Land management agency with responsibility for creating and administering the data.	BIA; BLM; BOR; DOD; DOE; FAA; NGA; NPS; USFS; USFWS; Foreign; Tribal; City; County; State; Private	

Geospatial Data Layer Standard Attributes & Attribute Definitions

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
HeightAboveGroundLevel	HtAGL	Yes	Double	8	Height above ground level in feet. Scale of 1 decimal place. Feature height should always be calculated to measure the tallest part of the features. For example, the height of a windmill feature will be the height of the blade as opposed to the height of the tower. Null value is acceptable.		
HeightAboveSeaLevel	HtAMSL	Yes	Double	8	Height above mean sea level in feet. Scale of 1 decimal place. Feature height should always be calculated to measure the tallest part of the features. For example, the height of a windmill feature will be the height of the blade as opposed to the height of the tower. Null value is acceptable.		
LongitudeDDM	LongDDM	No	String	20	Longitude in degrees, decimal minutes WGS84 of the polygon centroid for labeling purposes. Include correct symbols. Example, -112˚ 2.688'W. Value should be calculated in ArcGIS.		
LatitudeDDM	LatDDM	No	String	20	Latitude in degrees, decimal minutes WGS84 of the polygon centroid for labeling purposes. Include correct symbols. Example, 36˚ 12.818'N. Value should be calculated in ArcGIS.		

*Standard field names should be used for the core attributes when possible. Alternate field name suggestions are given to accommodate database conflicts and legacy datasets. Alternate name use should be documented in the Other Notes section above.

** GUIDs are unique specially formatted numeric strings generated by a “GUID generation tool.” GUIDs can be generated at http://www.guidgenerator.com/