Data Types	Legend	
c = Compound		= Mandatory
d = Date		= Mandatory, if applicable
i = Integer		= Optional
r = Real		= Essential to CSDGM compliance
t = Text	✔	= Data entry field
tm = Time	✔	= Reference to a supplemental section
	()	= Can be repeated unlimited times

Element #	Type	Short Name									Domains for Data Entry Fields and Definitions for Compound Elements
1	c	idinfo								**Section 1: Identification Information**	Basic information about the data set.
1.1	c	citation								Citation	Information to be used to reference the data set.
8	c	citeinfo					✔			Citation Information	The recommended reference to be used for the data set.
1.2	c	descript								Description	A characterization of the data set, including its intended use and limitations.
1.2.1	t	abstract					✔			Abstract	free text
1.2.2	t	purpose					✔			Purpose	free text
1.2.3	t	supplinf					✔			Supplemental Information	free text
1.3	c	timeperd								Time Period of Content	Time period(s) for which the data set corresponds to the currentness reference.
9	c	timeinfo					✔			Time Period Information	Information about the date and time of an event.
1.3.1	t	current					✔			Currentness Reference	free text, "ground condition", "publication date"
1.4	c	status								Status	The state of and maintenance information for the data set.
1.4.1	t	progress					✔			Progress	"Complete", "In work", "Planned"
1.4.2	t	update					✔			Maintenance and Update Frequency	free text, "Continually", "Daily", "Weekly", "Monthly", "Annually", "Unknown", "As needed", "Irregular", "None planned"
1.5	c	spdom								Spatial Domain	The geographic areal domain of the data set.
1.5.1	c	bounding								Bounding Coordinates	The limits of coverage of a data set expressed by lat/long values.
1.5.1.1	r	westbc						✔		West Bounding Coordinate	-180.0 <= West Bounding Coordinate < 180.0
1.5.1.2	r	eastbc						✔		East Bounding Coordinate	-180.0 <= East Bounding Coordinate <= 180.0
1.5.1.3	r	northbc						✔		North Bounding Coordinate	-90.0 <= North Bounding Coordinate <= 90.0; North Bounding Coordinate >= South Bounding Coordinate
1.5.1.4	r	southbc						✔		South Bounding Coordinate	-90.0 <= South Bounding Coordinate <= 90.0; South Bounding Coordinate <= North Bounding Coordinate
1.5.2	c	dsgpoly								Data Set G-Polygon	Coordinates defining the outline of an area covered by a data set.
1.5.2.1	c	dsgpolyo							()	Data Set G-Polygon Outer G-Ring {1.5.2.1.1 - OR - 1.5.2.1.2}	The closed nonintersecting boundary of an interior area.
1.5.2.1.1	c	grngpoin							()	G-Ring Point (4 to an unlimited number of repetitions)	A single geographic location.
1.5.2.1.1.1	r	gringlat							✔	G-Ring Latitude	-90.0 <= G-Ring Latitude <= 90.0
1.5.2.1.1.2	r	gringlon							✔	G-Ring Longitude	-180.0 <= G-Ring Latitude < 180.0
1.5.2.1.2	t	gring						✔		G-Ring	-90.0 <= G-Ring Latitude <= 90.0; -180.0 <= G-Ring Latitude < 180.0
1.5.2.2	c	dsgpolyx							()	Data Set G-Polygon Exclusion G-Ring {1.5.2.2.1 - OR - 1.5.2.2.2}	The closed nonintersecting boundary of a void area (or "hole" in an interior area).
1.5.2.2.1	c	grngpoin							()	G-Ring Point (4 to an unlimited number of repetitions)	A single geographic location.
1.5.2.2.1.1	r	gringlat							✔	G-Ring Latitude	-90.0 <= G-Ring Latitude <= 90.0
1.5.2.2.1.2	r	gringlon							✔	G-Ring Longitude	-180.0 <= G-Ring Latitude < 180.0
1.5.2.2.2	t	gring						✔		G-Ring	-90.0 <= G-Ring Latitude <= 90.0; -180.0 <= G-Ring Latitude < 180.0

Element #	Type	Short Name								Domains for Data Entry Fields and Definitions for Compound Elements
1.6	c	keywords							Keywords	Words or phrases summarizing an aspect of the data set.
1.6.1	c	theme						( )	Theme	Subjects covered the data set.
1.6.1.1	t	themekt						✓	Theme Keyword Thesaurus	free text, "None"
1.6.1.2	t	themekey						✓ ( )	Theme Keyword	free text
1.6.2	c	place						( )	Place	Geographic locations characterized by the data set.
1.6.2.1	t	placekt						✓	Place Keyword Thesaurus	free text, "None", "Geographic Names Information System"
1.6.2.2	t	placekey						✓ ( )	Place Keyword	free text
1.6.3	c	stratum						( )	Stratum	Layered, vertical locations characterized by the data set.
1.6.3.1	t	stratkt						✓	Stratum Keyword Thesaurus	free text, "None"
1.6.3.2	t	stratkey						✓ ( )	Stratum Keyword	free text
1.6.4	c	temporal						( )	Temporal	Time period(s) characterized by the data set.
1.6.4.1	t	tempkt						✓	Temporal Keyword Thesaurus	free text, "None"
1.6.4.2	t	tempkey						✓ ( )	Temporal Keyword	free text
1.7	t	accconst				✓			Access Constraints	free text, "None"
1.8	t	useconst				✓			Use Constraints	free text, "None"
1.9	c	ptcontac							Point of Contact	Contact information for an individual or organization that is knowledgable about the data set.
10	c	cntinfo						✓	Contact Information	Identity of, and means to communicate with, person(s) and org.(s) associated with the data set.
1.10	c	browse				( )			Browse Graphic	A graphic that provides an illustration of the data set. The graphic should contain a legend.
1.10.1	t	browsen						✓	Browse Graphic File Name	free text
1.10.2	t	browsed						✓	Browse Graphic File Description	free text
1.10.3	t	browset						✓	Browse Graphic File Type	free text, "CGM" Computer Graphics Metafile, "EPS" Encapsulated Postscript format, "GIF" Graphic Interchange Format, "JPEG" Joint Photographic Experts Group format, "PBM" Portable Bit Map format, "PS" Postscript format, "TIFF" Tagged Image File Format, "XWD" X-Windows Dump
1.11	t	datacred				✓			Data Set Credit	free text
1.12	c	secinfo							Security Information	Handling restrictions imposed on the data set because of national security, privacy, etc.
1.12.1	t	secsys						✓	Security Classification System	free text
1.12.2	t	secclass						✓	Security Classification	free text, "Top secret", "Secret", "Confidential", "Restricted", "Unclassified", "Sensitive"
1.12.3	t	sechandl						✓	Security Handling Description	free text
1.13	t	native				✓			Native Data Set Environment	free text
1.14	c	crossref				( )			Cross Reference	Information about other, related data sets that are likely to be of interest.
8	c	citeinfo						✓	Citation Information	The recommended reference to be used for the data set.
2	c	dataqual				**Section 2: Data Quality Information**				A general assessment of the quality of the data set.
2.1	c	attracc							Attribute Accuracy	An assessment of the accur. of the identif. of entities and assign. of attr. values in the data set.
2.1.1	t	attraccr						✓	Attribute Accuracy Report	free text
2.1.2	c	qattracc						( )	Quantitative Attribute Accuracy Assessment	A value assigned to summarize the accuracy of the identification of the entities and assignments of values in the data set and the identification of the test that yielded the value.
2.1.2.1	t	attraccv						✓	Attribute Accuracy Value	free text, "Unknown"
2.1.2.2	t	attracce						✓	Attribute Accuracy Explanation	free text
2.2	t	logic				✓			Logical Consistency Report	free text
2.3	t	complete				✓			Completeness Report	free text

Element #	Type	Short Name								Domains for Data Entry Fields and Definitions for Compound Elements
2.4	c	posacc			Positional Accuracy					An assessment of the accuracy of the positions of spatial objects.
2.4.1	c	horizpa				Horizontal Positional Accuracy				An estimate of accuracy of the horizontal positions of the spatial objects.
2.4.1.1	t	horizpar					✓	Horizontal Positional Accuracy Report		free text
2.4.1.2	c	qhorizpa					()	Quantitative Horizontal Positional Accuracy Assessment		Numeric value assigned to summarize the accuracy of the horiz. coord. measurements and the identification of the test that yielded the value.
2.4.1.2.1	r	horizpav						✓	Horizontal Positional Accuracy Value	free real
2.4.1.2.2	t	horizpae						✓	Horizontal Positional Accuracy Explanation	free text
2.4.2	c	vertacc				Vertical Positional Accuracy				An estimate of accuracy of the vertical positions in the data set.
2.4.2.1	t	vertaccr					✓	Vertical Positional Accuracy Report		free text
2.4.2.2	c	qvertpa					()	Quantitative Vertical Positional Accuracy Assessment		Numeric value assigned to summarize the accuracy of the vertical coord. measurements and the identification of the test that yielded the value.
2.4.2.2.1	r	vertaccv						✓	Vertical Positional Accuracy Value	free real
2.4.2.2.2	t	vertacce						✓	Vertical Positional Accuracy Explanation	free text
2.5	c	lineage			Lineage					Info about the events, parameters, and source data which constructed the data set, and info. about the responsible parties.
2.5.1	c	srcinfo				Source Information				List of sources and a short discussion of the info. contributed by each.
2.5.1.1	c	srccite						Source Citation		Reference for a source data set.
8	c	citeinfo						✓	Citation Information	The recommended reference to be used for the data set.
2.5.1.2	i	srcscale					✓	Source Scale Denominator		Source Scale Denominator > 1
2.5.1.3	t	typesrc					✓	Type of Source Media		free text, "paper", "stable-base material", "microfiche", "microfilm", "audiocassette", "chart", "filmstrip", "transparency", "videocassette", "videodisc", "videotape", "physical model", "computer program", "disc", "cartridge tape", "magnetic tape", "online", "CD-ROM", "electronic bulletin board", "electronic mail system"
2.5.1.4	c	srctime						Source Time Period of Content		Time period(s) for which the source data set corresponds to the ground.
9	c	timeinfo						✓	Time Period Information	Information about the date and time of an event.
2.5.1.4.1	t	srccurr						✓	Source Currentness Reference	free text, "ground condition", "publication date"
2.5.1.5	t	srccitea					✓	Source Citation Abbreviation		free text
2.5.1.6	t	srccontr					✓	Source Contribution		free text
2.5.2	c	procstep				()	Process Step			Information about a single event.
2.5.2.1	t	procdesc					✓	Process Description		free text
2.5.2.2	t	srcused					✓ ()	Source Used Citation Abbreviation		Source Citation Abbreviations from the Source Information entries for the data set
2.5.2.3	d	procdate					✓	Process Date		free date, "Unknown", "Not complete"
2.5.2.4	tm	proctime					✓	Process Time		free time
2.5.2.5	t	srcprod					✓ ()	Source Produced Citation Abbreviation		Source Citation Abbreviations from the Source Information entries for the data set
2.5.2.6	c	proccont						Process Contact		The party responsible for the processing step information.
10	c	cntinfo						✓	Contact Information	ID of, and means to communicate with, person(s) and org.(s) associated with the data set.
2.6	i	cloud		✓	Cloud Cover					0 <= Cloud Cover <= 100, "Unknown"

Element #	Type	Short Name		Domains for Data Entry Fields and Definitions for Compound Elements
3	c	spdoinfo	**Section 3: Spatial Data Organization Information** {3.3 - OR - 3.4}	The mechanism used to represent spatial information in the data set.
3.1	t	indspref	Indirect Spatial Reference	free text
3.2	t	direct	Direct Spatial Reference Method	"Point", "Vector", "Raster"
3.3	c	ptvctinf	Point and Vector Object Information {3.3.1 - OR - 3.3.2}	The types and numbers of vector or nongridded point spatial objects in the data set.
3.3.1	c	sdtsterm	SDTS Terms Description	Point and vector object info. using the terms and concepts from "Spatial Data Concepts".
3.3.1.1	t	sdtstype	SDTS Point and Vector Object Type	"Point", "Entity point", "Label point", "Area point", "Node, planar graph", "Node, network", "String", "Link", "Complete chain", "Area chain", "Network chain, planar graph", "Network chain, nonplanar graph", "Circular arc, three point center", "Elliptical arc", "Uniform B spline", "Piecewise Bezier", "Ring with mixed composition", "Ring composed of strings", "Ring composed of chains", "Ring composed of arcs", "G-polygon", "GT-polygon composed of rings", "GT-polygon composed of chains", "Universe polygon composed of rings", "Universe polygon composed of chains", "Void polygon composed of rings", "Void polygon composed of chains"
3.3.1.2	i	ptvctcnt	Point and Vector Object Count	Point and Vector Object Count > 0
3.3.2	c	vpfterm	VPF Terms Description	Point and vector object info. using the terms and concepts from DoD's Vector Product File.
3.3.2.1	i	vpflevel	VPF Topology Level	0 <= VPF Topology Level <= 3
3.3.2.2	c	vpfinfo	VPF Point and Vector Object Information	Info. about VPF point and vector objects.
3.3.2.2.1	t	vpftype	VPF Point and Vector Object Type	"Node", "Edge", "Face", "Text"
3.3.2.2.2	i	ptvctcnt	Point and Vector Object Count	Point and Vector Object Count > 0
3.4	c	rastinfo	Raster Object Information	The types and numbers of raster spatial objects in the data set.
3.4.1	t	rasttype	Raster Object Type	"Point", "Pixel", "Grid Cell", "Voxel"
3.4.2	i	rowcount	Row Count	Row Count > 0
3.4.3	i	colcount	Column Count	Column Count > 0
3.4.4	i	vrtcount	Vertical Count	Depth Count > 0

4	c	spref	**Section 4: Spatial Reference Information**	The descrip. of the reference frame for, and the means to encode, coordinates in the data set.
4.1	c	horizsys	Horizontal Coordinate System Definition {4.1.1 - OR - 4.1.2 - OR - 4.1.3}	The reference frame or system from which linear or angular quantities are measured and assigned to the position that a point occupies.
4.1.1	c	geograph	Geographic	The quantities of lat/long which define the position of a point on the Earth's surface with respect to a reference spheroid.
4.1.1.1	r	latres	Latitude Resolution	Latitude Resolution > 0.0
4.1.1.2	r	longres	Longitude Resolution	Longitude Resolution > 0.0
4.1.1.3	t	geogunit	Geographic Coordinate Units	"Decimal degrees", "Decimal minutes", "Decimal seconds", "Degrees and decimal minutes", "Degrees_ minutes_ and decimal seconds", "Radians", "Grads"
4.1.2	c	planar	Planar {4.1.2.1 - OR - 4.1.2.2 - OR - 4.1.2.3}	The quantities of distances, or distances and angles, which define the position of a point on a reference plane to which the surface of the Earth has been projected.
4.1.2.1	c	mapproj	Map Projection {Only one of 4.1.2.1.2 through 4.1.2.1.23}	The systematic representation of all or part of the surface of the Earth on a plane or developable surface.
4.1.2.1.1	t	mapprojn	Map Projection Name	"Albers Conical Equal Area", "Azimuthal Equidistant", "Equidistant Conic", "Equirectangular", "General Vertical Near-sided Projection", "Gnomomic", "Lambert Azimuthal Equal Area", "Lambert Conformal Conic", "Mercator", "Modified Stereographic for Alaska", "Miller Cylindrical", "Oblique Mercator", "Orthographic", "Polar Stereographic", "Polyconic", "Robinson", "Sinusoidal", "Space Oblique Mercator", "Stereographic", "Transverse Mercator", "van der Grinten", free text

Element #	Type	Short Name								Domains for Data Entry Fields and Definitions for Compound Elements
4.1.2.1.2	c	albers							Albers Conical Equal Area	
4.1.2.1.2.1	r	stdparll						✓ ()	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.2.2	r	longcm						✓	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.2.3	r	latprjo						✓	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.2.4	r	feast						✓	False Easting	free real
4.1.2.1.2.5	r	fnorth						✓	False Northing	free real
4.1.2.1.3	c	azimequi							Azimuthal Equidistant	
4.1.2.1.3.1	r	longcm						✓	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.3.2	r	latprjo						✓	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.3.3	r	feast						✓	False Easting	free real
4.1.2.1.3.4	r	fnorth						✓	False Northing	free real
4.1.2.1.4	c	equicon							Equidistant Conic	
4.1.2.1.4.1	r	stdparll						✓ ()	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.4.2	r	longcm						✓	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.4.3	r	latprjo						✓	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.4.4	r	feast						✓	False Easting	free real
4.1.2.1.4.5	r	fnorth						✓	False Northing	free real
4.1.2.1.5	c	equirect							Equirectangular	
4.1.2.1.5.1	r	stdparll						✓	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.5.2	r	longcm						✓	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.5.3	r	feast						✓	False Easting	free real
4.1.2.1.5.4	r	fnorth						✓	False Northing	free real
4.1.2.1.6	c	gvnsp							General Vertical Near-sided Perspective	
4.1.2.1.6.1	r	heightpt						✓	Height of Perspective Point Above Surface	Height of Perspective Point Above Surface > 0.0
4.1.2.1.6.2	r	longpc						✓	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.6.3	r	latprjc						✓	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.6.4	r	feast						✓	False Easting	free real
4.1.2.1.6.5	r	fnorth						✓	False Northing	free real
4.1.2.1.7	c	gnomonic							Gnomonic	
4.1.2.1.7.1	r	longpc						✓	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.7.2	r	latprjc						✓	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.7.3	r	feast						✓	False Easting	free real
4.1.2.1.7.4	r	fnorth						✓	False Northing	free real
4.1.2.1.8	c	lamberta							Lambert Azimuthal Equal Area	
4.1.2.1.8.1	r	longpc						✓	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.8.2	r	latprjc						✓	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.8.3	r	feast						✓	False Easting	free real
4.1.2.1.8.4	r	fnorth						✓	False Northing	free real
4.1.2.1.9	c	lambertc							Lambert Conformal Conic	
4.1.2.1.9.1	r	stdparll						✓ ()	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.9.2	r	longcm						✓	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.9.3	r	latprjo						✓	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.9.4	r	feast						✓	False Easting	free real
4.1.2.1.9.5	r	fnorth						✓	False Northing	free real

Element #	Type	Short Name								Domains for Data Entry Fields and Definitions for Compound Elements
4.1.2.1.10	c	mercator							Mercator {4.1.2.1.10.1 - OR - 4.1.2.1.10.2}	
4.1.2.1.10.1	r	stdparll						✔	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.10.2	r	sfequat						✔	Scale Factor at Equator	Scale Factor at Equator > 0.0
4.1.2.1.10.3	r	longcm						✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.10.4	r	feast						✔	False Easting	free real
4.1.2.1.10.5	r	fnorth						✔	False Northing	free real
4.1.2.1.11	c	modsak							Modified Stereographic for Alaska	
4.1.2.1.11.1	r	feast						✔	False Easting	free real
4.1.2.1.11.2	r	fnorth						✔	False Northing	free real
4.1.2.1.12	c	miller							Miller Cylindrical	
4.1.2.1.12.1	r	longcm						✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.12.2	r	feast						✔	False Easting	free real
4.1.2.1.12.3	r	fnorth						✔	False Northing	free real
4.1.2.1.13	c	obqmerc							Oblique Mercator {4.1.2.1.13.2 - OR - 4.1.2.1.13.3}	
4.1.2.1.13.1	r	sfctrlin						✔	Scale Factor at Center Line	Scale Factor at Center Line > 0.0
4.1.2.1.13.2	c	obqlazim							Oblique Line Azimuth	
4.1.2.1.13.2.1	r	azimangl							✔ Azimuthal Angle	0.0 <= Azimuthal Angle < 360.0
4.1.2.1.13.2.2	r	azimptl							✔ Azimuth Measure Point Longitude	-180.0 <= Azimuth Measure Point Longitude < 180.0
4.1.2.1.13.3	c	obqlpt							Oblique Line Point	
4.1.2.1.13.3.1	r	obqllat							✔ Oblique Line Latitude	-90.0 <= Oblique Line Latitude <= 90.0
4.1.2.1.13.3.2	r	obqllong							✔ Oblique Line Longitude	-180.0 <= Oblique Line Longitude < 180.0
4.1.2.1.13.4	r	latprjo						✔	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.13.5	r	feast						✔	False Easting	free real
4.1.2.1.13.6	r	fnorth						✔	False Northing	free real
4.1.2.1.14	c	orthogr							Orthographic	
4.1.2.1.14.1	r	longpc						✔	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.14.2	r	latprjc						✔	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.14.3	r	feast						✔	False Easting	free real
4.1.2.1.14.4	r	fnorth						✔	False Northing	free real
4.1.2.1.15	c	polarst							Polar Stereographic {4.1.2.1.15.2 - OR - 4.1.2.1.15.3}	
4.1.2.1.15.1	r	svlong						✔	Straight Vertical Longitude from Pole	-180.0 <= Straight Vertical Longitude from Pole < 180.0
4.1.2.1.15.2	r	stdparll						✔	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.15.3	r	sfprjorg						✔	Scale Factor at Projection Origin	Scale Factor at Projection Origin > 0.0
4.1.2.1.15.4	r	feast						✔	False Easting	free real
4.1.2.1.15.5	r	fnorth						✔	False Northing	free real
4.1.2.1.16	c	polycon							Polyconic	
4.1.2.1.16.1	r	longcm						✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.16.2	r	latprjo						✔	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.16.3	r	feast						✔	False Easting	free real
4.1.2.1.16.4	r	fnorth						✔	False Northing	free real
4.1.2.1.17	c	robinson							Robinson	
4.1.2.1.17.1	r	longpc						✔	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.17.2	r	feast						✔	False Easting	free real
4.1.2.1.17.3	r	fnorth						✔	False Northing	free real

Element #	Type	Short Name							Domains for Data Entry Fields and Definitions for Compound Elements
4.1.2.1.18	c	sinusoid						Sinusoidal	
4.1.2.1.18.1	r	longcm					✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.18.2	r	feast					✔	False Easting	free real
4.1.2.1.18.3	r	fnorth					✔	False Northing	free real
4.1.2.1.19	c	spaceobq						Space Oblique Mercator (Landsat)	
4.1.2.1.19.1	i	landsat					✔	Landsat Number	0 < Landsat Number < 5
4.1.2.1.19.2	i	pathnum					✔	Path Number	0 < Path Number < 251 for Landsats 1_ 2_ or 3_ 0 < Path Number < 233 for Landsats 4 or 5
4.1.2.1.19.3	r	feast					✔	False Easting	free real
4.1.2.1.19.4	r	fnorth					✔	False Northing	free real
4.1.2.1.20	c	stereo						Stereographic	
4.1.2.1.20.1	r	longpc					✔	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.20.2	r	latprjc					✔	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.20.3	r	feast					✔	False Easting	free real
4.1.2.1.20.4	r	fnorth					✔	False Northing	free real
4.1.2.1.21	c	transmer						Transverse Mercator	
4.1.2.1.21.1	r	sfctmer					✔	Scale Factor at Central Meridian	Scale Factor at Central Meridian > 0.0
4.1.2.1.21.2	r	longcm					✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.21.3	r	latprjo					✔	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.21.4	r	feast					✔	False Easting	free real
4.1.2.1.21.5	r	fnorth					✔	False Northing	free real
4.1.2.1.22	c	vdgrin						van der Grinten	
4.1.2.1.22.1	r	longcm					✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.22.2	r	feast					✔	False Easting	free real
4.1.2.1.22.3	r	fnorth					✔	False Northing	free real
4.1.2.1.23	c	?						Map Projection Parameters	A complete parameter set of the projection that was used for the data set. The information provided shall include the names of the parameters and values used for the data set that describe the mathematical relationship between the Earth and the plane or developable surface for the projection.
4.1.2.1.23.1	r	stdparll					✔	Standard Parallel	-90.0 <= Standard Parallel <= 90.0
4.1.2.1.23.2	r	longcm					✔	Longitude of Central Meridian	-180.0 <= Longitude of Central Meridian < 180.0
4.1.2.1.23.3	r	latprjo					✔	Latitude of Projection Origin	-90.0 <= Latitude of Projection Origin <= 90.0
4.1.2.1.23.4	r	feast					✔	False Easting	free real
4.1.2.1.23.5	r	fnorth					✔	False Northing	free real
4.1.2.1.23.6	r	sfequat					✔	Scale Factor at Equator	Scale Factor at Equator > 0.0
4.1.2.1.23.7	r	heightpt					✔	Height of Perspective Point Above Surface	Height of Perspective Point Above Surface > 0.0
4.1.2.1.23.8	r	longpc					✔	Longitude of Projection Center	-180.0 <= Longitude of Projection Center < 180.0
4.1.2.1.23.9	r	latprjc					✔	Latitude of Projection Center	-90.0 <= Latitude of Projection Center <= 90.0
4.1.2.1.23.10	r	sfctrlin					✔	Scale Factor at Center Line	Scale Factor at Center Line > 0.0

Element #	Type	Short Name								Domains for Data Entry Fields and Definitions for Compound Elements
4.1.2.1.23.11	c	obqlazim							Oblique Line Azimuth	Method used to describe the line along which an oblique mercator map projection is centered using the map projection origin and an azimuth.
4.1.2.1.23.11.1	r	azimangl						✓	Azimuthal Angle	0.0 <= Azimuthal Angle < 360.0
4.1.2.1.23.11.2	r	azimptl						✓	Azimuth Measure Point Longitude	-180.0 <= Azimuth Measure Point Longitude < 180.0
4.1.2.1.23.12	c	obqlpt							Oblique Line Point	Method used to describe the line along which an oblique mercator map projection is centered using two points near the limits of the mapped region that define the center line.
4.1.2.1.23.12.1	r	obqllat						✓	Oblique Line Latitude	-90.0 <= Oblique Line Latitude <= 90.0
4.1.2.1.23.12.2	r	obqllong						✓	Oblique Line Longitude	-180.0 <= Oblique Line Longitude < 180.0
4.1.2.1.23.13	r	svlong						✓	Straight Vertical Longitude from Pole	-180.0 <= Straight Vertical Longitude from Pole < 180.0
4.1.2.1.23.14	r	sfprjorg						✓	Scale Factor at Projection Origin	Scale Factor at Projection Origin > 0.0
4.1.2.1.23.15	i	landsat						✓	Landsat Number	0 < Landsat Number < 5
4.1.2.1.23.16	i	pathnum						✓	Path Number	0 < Path Number < 251 for Landsats 1_ 2_ or 3_ 0 < Path Number < 233 for Landsats 4 or 5
4.1.2.1.23.17	r	sfctmer						✓	Scale Factor at Central Meridian	Scale Factor at Central Meridian > 0.0
4.1.2.1.23.18	t	?						✓	Other Projection's Definition	free text
4.1.2.2	c	gridsys							Grid Coordinate System {Only one of 4.1.2.2.2 through 4.1.2.2.6}	A plane-rectangular coordinate system usually based on, and mathematically adjusted to, a map projection so that geog. positions can be readily transformed to and from plane coords.
4.1.2.2.1	t	gridsysn					✓		Grid Coordinate System Name	"Universal Transverse Mercator", "Universal Polar Stereographic", "State Plane Coordinate System 1927", "State Plane Coordinate System 1983", "ARC Coordinate System", "other grid system"
4.1.2.2.2	c	utm							Universal Transverse Mercator (UTM) -- Transverse Mercator	A grid system based on the transverse mercator projection, applied between latitudes 84 degrees north and 80 degrees south on the Earth's surface.
4.1.2.2.2.1	i	utmzone						✓	UTM Zone Number	1 <= UTM Zone Number <= 60 for the northern hemisphere; -60 <= UTM Zone Number <= -1 for the southern hemisphere
4.1.2.2.3	c	ups							Universal Polar Stereographic (UPS) -- Polar Stereographic	A grid system based on the polar stereographic projection, applied to the Earth's polar regions north of 84 degrees north and south of 80 degrees degrees south.
4.1.2.2.3.1	t	upszone						✓	UPS Zone Identifier	"A", "B", "Y", "Z"
4.1.2.2.4	c	spcs							State Plane Coordinate System (SPCS) -- [Lambert Conformal Conic | Transverse Mercator | Oblique Mercator | Polyconic]	A plane-rectangular coordinate system established for each state in the United States by the National Geodetic Survey.
4.1.2.2.4.1	t	spcszone						✓	SPCS Zone Identifier	Four-digit numeric codes
4.1.2.2.5	c	arcsys							ARC Coordinate System -- [Equirectangular | Azimuthal Equidistant]	The Equal Arc-second Coordinate System, a plane-rectangular coordinate system est. in Dept. of Defense, 1990, Military specification ARC Digitized Raster Graphics (ADRG).
4.1.2.2.5.1	i	arczone						✓	ARC System Zone Identifier	1 <= ARC System Zone Identifier <= 18
4.1.2.2.6	t	othergrd					✓		Other Grid System's Definition	free text
4.1.2.3	c	localp							Local Planar	Any right-handed planar coordinate system of which the z-axis coincides with a plumb line through the origin that locally is aligned with the surface of the Earth.
4.1.2.3.1	t	localpd					✓		Local Planar Description	free text
4.1.2.3.2	t	localpgi					✓		Local Planar Georeference Information	free text
4.1.2.4	c	planci							Planar Coordinate Information {4.1.2.4.2 - OR - 4.1.2.4.3}	Information about the coordinate system developed on the planar surface.
4.1.2.4.1	t	plance					✓		Planar Coordinate Encoding Method	"coordinate pair", "distance and bearing", "row and column"
4.1.2.4.2	c	coordrep							Coordinate Representation	The method of encoding the position of a point by measuring its distance from perpendicular reference axes (the "coordinate pair" and "row and column" methods).
4.1.2.4.2.1	r	absres						✓	Abscissa Resolution	Abscissa Resolution > 0.0
4.1.2.4.2.2	r	ordres						✓	Ordinate Resolution	Ordinate Resolution > 0.0

Element #	Type	Short Name							Domains for Data Entry Fields and Definitions for Compound Elements
4.1.2.4.3	c	distbrep						Distance and Bearing Representation	A method of encoding the position of a point by measuring its distance and direction (azimuth angle) from another point.
4.1.2.4.3.1	r	distres					✓	Distance Resolution	Distance Resolution > 0.0
4.1.2.4.3.2	r	bearres					✓	Bearing Resolution	Bearing Resolution > 0.0
4.1.2.4.3.3	t	bearunit					✓	Bearing Units	"Decimal degrees", "Decimal minutes", "Decimal seconds", "Degrees and decimal minutes", "Degrees_ minutes_ and decimal seconds", "Radians", "Grads"
4.1.2.4.3.4	t	bearrefd					✓	Bearing Reference Direction	"North", "South"
4.1.2.4.3.5	t	bearrefm					✓	Bearing Reference Meridian	"Assumed", "Grid", "Magnetic", "Astronomic", "Geodetic"
4.1.2.4.4	t	plandu				✓		Planar Distance Units	free text, "meters", "international feet", "survey feet"
4.1.3	c	local						Local	A description of any coordinate system that is not aligned with the surface of the Earth.
4.1.3.1	t	localdes				✓		Local Description	free text
4.1.3.2	t	localgeo				✓		Local Georeference Information	free text
4.1.4	c	geodetic						Geodetic Model	Parameters for the shape of the Earth.
4.1.4.1	t	horizdn				✓		Horizontal Datum Name	free text, "North American Datum of 1927", "North American Datum of 1983"
4.1.4.2	t	ellips				✓		Ellipsoid Name	free text, "Clarke 1866", "Geodetic Reference System 80"
4.1.4.3	r	semiaxis				✓		Semi-major Axis	Semi-major Axis > 0.0
4.1.4.4	r	denflat				✓		Denominator of Flattening Ratio	Denominator of Flattening > 0.0
4.2	c	vertdef						Vertical Coordinate System Definition	The reference frame or system from which vertical distance (altitudes or depths) are measured.
4.2.1	c	altsys						Altitude System Definition	The reference frame or system from which altitudes (elevations) are measured. The term "altitude" is used instead of the common term "elevation" to conform to the terminology in Federal Information Processing Standards 70-1 and 173.
4.2.1.1	t	altdatum				✓		Altitude Datum Name	free text, "National Geodetic Vertical Datum of 1929", "North American Vertical Datum of 1988"
4.2.1.2	r	altres				✓ ( )		Altitude Resolution	Altitude Resolution > 0.0
4.2.1.3	t	altunits				✓		Altitude Distance Units	free text, "meters", "feet"
4.2.1.4	t	altenc				✓		Altitude Encoding Method	"Explicit elevation coordinate included with horizontal coordinates", "Implicit coordinate", "Attribute values"
4.2.2	c	depthsys						Depth System Definition	The reference frame or system from which depths are measured.
4.2.2.1	t	depthdn				✓		Depth Datum Name	free text, "Local surface", "Chart datum; datum for sounding reduction", "Lowest astronomical tide", "Highest astronomical tide", "Mean low water", "Mean high water", "Mean sea level", "Land survey datum", "Mean low water springs", "Mean high water springs", "Mean low water neap", "Mean high water neap", "Mean lower low water", "Mean lower low water springs", "Mean higher high water", "Mean higher low water", "Mean lower high water", "Spring tide", "Tropic lower low water", "Neap tide", "High water", "Higher high water", "Low water", "Low-water datum", "Lowest low water", "Lower low water", "Lowest normal low water", "Mean tide level", "Indian spring low water", "High-water full and charge", "Low-water full and charge", "Columbia River datum", "Gulf Coast low water datum", "Equatorial springs low water", "Approximate lowest astronomical tide", "No correction"
4.2.2.2	r	depthres				✓ ( )		Depth Resolution	Depth Resolution > 0.0
4.2.2.3	t	depthdu				✓		Depth Distance Units	free text, "meters", "feet"
4.2.2.4	t	depthem				✓		Depth Encoding Method	"Explicit depth coordinate included with horizontal coordinates", "Implicit coordinate", "Attribute values"

Element #	Type	Short Name		Domains for Data Entry Fields and Definitions for Compound Elements
5	c	eainfo	**Section 5: Entity and Attribute Information** {5.1 - AND/OR - 5.2}	Details about the information content of the data set, including the entity types, their attributes, and the domains from which attribute values may be assigned.
5.1	c	detailed	Detailed Description	Description of the entities, attributes, attribute values, and related characteristics encoded in the data.
5.1.1	c	enttype	Entity Type	The definition and description of a set into which similar entity instances are classified.
5.1.1.1	t	enttypl	Entity Type Label	free text
5.1.1.2	t	enttypd	Entity Type Definition	free text
5.1.1.3	t	enttypds	Entity Type Definition Source	free text
5.1.2	c	attr	Attribute	A defined characteristic of an entity.
5.1.2.1	t	attrlabl	Attribute Label	free text
5.1.2.2	t	attrdef	Attribute Definition	free text
5.1.2.3	t	attrdefs	Attribute Definition Source	free text
5.1.2.4	c	attrdomv	Attribute Domain Values {5.1.2.4.1 - OR - 5.1.2.4.2 - OR - 5.1.2.4.3 - OR - 5.1.2.4.4}	The valid values that can be assigned for an attribute.
5.1.2.4.1	c	edom	Enumerated Domain	The members of an established set of valid values.
5.1.2.4.1.1	t	edomv	Enumerated Domain Value	free text
5.1.2.4.1.2	t	edomvd	Enumerated Domain Value Definition	free text
5.1.2.4.1.3	t	edomvds	Enumerated Domain Value Definition Source	free text
5.1.2.4.1.4	c	attr	Attribute (See 5.1.2 above)	
5.1.2.4.2	c	rdom	Range Domain	The minimum and maximum values of a continuum of valid values.
5.1.2.4.2.1	t	rdommin	Range Domain Minimum	free text
5.1.2.4.2.2	t	rdommax	Range Domain Maximum	free text
5.1.2.4.2.3	t	attrunit	Attribute Units of Measurement	free text
5.1.2.4.2.4	r	attrmres	Attribute Measurement Resolution	Attribute Measurement Resolution > 0.0
5.1.2.4.2.5	c	attr	Attribute (See 5.1.2 above)	
5.1.2.4.3	c	codesetd	Codeset Domain	Reference to a standard or list which contains the members of an established set of valid values.
5.1.2.4.3.1	t	codesetn	Codeset Name	free text
5.1.2.4.3.2	t	codesets	Codeset Source	free text
5.1.2.4.4	t	udom	Unrepresentable Domain	free text
5.1.2.5	d	begdatea	Beginning Date of Attribute Values	free date
5.1.2.6	d	enddatea	Ending Date of Attribute Values	free date
5.1.2.7	c	attrvai	Attribute Value Accuracy Information	An assessment of the accuracy of the assignment of attribute values.
5.1.2.7.1	r	attrva	Attribute Value Accuracy	free real
5.1.2.7.2	t	attrvae	Attribute Value Accuracy Explanation	free text
5.1.2.8	r	attrmfrq	Attribute Measurement Frequency	free text, "Unknown", "As needed", "Irregular", "None planned"
5.2	c	overview	Overview Description	Summary of, and citation to detailed description of, the information content of the data set.
5.2.1	t	eaover	Entity and Attribute Overview	free text
5.2.2	t	eadetcit	Entity and Attribute Detail Citation	free text

Element #	Type	Short Name		Domains for Data Entry Fields and Definitions for Compound Elements
6	c	distinfo	**Section 6 : Distribution Information**	Information about the distributor of and options for obtaining the data set.
6.1	c	distrib	Distributor	The party from whom the data set may be obtained.
10	c	cntinfo	Contact Information	Identity of, and means to communicate with, person(s) and org.(s) associated with the data set.
6.2	t	resdesc	Resource Description	free text
6.3	t	distliab	Distribution Liability	free text
6.4	c	stdorder	Standard Order Process {6.4.1 - OR - 6.4.2}	The common ways in which the data set may be obtained or received, and related instructions and fee information.
6.4.1	t	nondig	Non-digital Form	free text
6.4.2	c	digform	Digital Form	The description of options for obtaining the data set on a computer-compatible media.
6.4.2.1	c	digtinfo	Digital Transfer Information {6.4.2.1.2 - OR - 6.4.2.1.3}	Description of the form of the data to be distributed.
6.4.2.1.1	t	formname	Format Name	free text, "ARCE" ARC/INFO Export format, "ARCG" ARC/INFO Generate format, "ASCII" ASCII file, formatted for text attributes, declared format, "BIL" Imagery, band interleaved by line, "BIP" Imagery, band interleaved by pixel, "BSQ" Imagery, band interleaved sequential, "CDF" Common Data Format, "CFF" Cartographic Feature File (U.S. Forest Service), "COORD" User-created coordinate file, declared format, "DEM" Digital Elevation Model format (U.S. Geological Survey), "DFAD" Digital Feature Analysis Data (Defense Mapping Agency), "DGN" Microstation format (Intergraph Corporation), "DIGEST" Digital Geographic Information Exchange Standard, "DLG" Digital Line Graph (U.S. Geological Survey), "DTED" Digital Terrain Elevation Data (MIL-D-89020), "DWG" AutoCAD Drawing format, "DX90" Data Exchange '90, "DXF" AutoCAD Drawing Exchange Format, "ERDAS" ERDAS image files (ERDAS Corporation), "GRASS" Geographic Resources Analysis Support System, "HDF" Hierarchical Data Format, "IGDS" Interactive Graphic Design System format (Intergraph Corporation), "IGES" Initial Graphics Exchange Standard, "MOSS" Multiple Overlay Statistical System export file, "netCDF" network Common Data Format, "NITF" National Imagery Transfer Format, "RPF" Raster Product Format (Defense Mapping Agency), "RVC" Raster Vector Converted format (MicroImages), "RVF" Raster Vector Format (MicroImages), "SDTS" Spatial Data Transfer Standard (Federal Information Processing Standard 173), "SIF" Standard Interchange Format (DOD Project 2851), "SLF" Standard Linear Format (Defense Mapping Agency), "TIFF" Tagged Image File Format, "TGRLN" Topologically Integrated Geographic Encoding and Referencing (TIGER) Line format (Bureau of the Census), "VPF" Vector Product Format (Defense Mapping Agency)
6.4.2.1.2	t	formvern	Format Version Number	free text
6.4.2.1.3	d	formverd	Format Version Date	free date
6.4.2.1.4	t	formspec	Format Specification	free text
6.4.2.1.5	t	formcont	Format Information Content	free text
6.4.2.1.6	t	filedec	File Decompression Technique	free text, "No compression applied"
6.4.2.1.7	r	transize	Transfer Size	Transfer Size > 0.0
6.4.2.2	c	digtopt	Digital Transfer Option {6.4.2.2.1 - OR - 6.4.2.2.2}	The means and media by which a data set is obtained from the distributor.
6.4.2.2.1	c	onlinopt	Online Option	Information required to directly obtain the data set electronically.
6.4.2.2.1.1	c	computer	Computer Contact Information {6.4.2.2.1.1 - OR - 6.4.2.2.1.2}	Instructions for establishing communications with the distribution computer.
6.4.2.2.1.1.1	c	networka	Network Address	The electronic address from which the data set can be obtained from the distrib. computer.
6.4.2.2.1.1.1.1	t	networkr	Network Resource Name	free text

Element #	Type	Short Name										Domains for Data Entry Fields and Definitions for Compound Elements
6.4.2.2.1.1.2	c	dialinst									Dialup Instructions	Info. required to access the distribution computer remotely through telephone lines.
6.4.2.2.1.1.2.1	i	lowbps								✓	Lowest BPS	Lowest BPS >= 110
6.4.2.2.1.1.2.2	i	highbps								✓	Highest BPS	Highest BPS > Lowest BPS
6.4.2.2.1.1.2.3	i	numdata								✓	Number DataBits	7 <= Number DataBits <= 8
6.4.2.2.1.1.2.4	i	numstop								✓	Number StopBits	1 <= Number StopBits <= 2
6.4.2.2.1.1.2.5	t	parity								✓	Parity	"None", "Odd", "Even", "Mark", "Space"
6.4.2.2.1.1.2.6	t	compress								✓	Compression Support	free text, "V.32", "V.32bis", "V.42", "V.42bis"
6.4.2.2.1.1.2.7	t	dialtel								✓ ()	Dialup Telephone	free text
6.4.2.2.1.1.2.8	t	dialfile								✓ ()	Dialup File Name	free text
6.4.2.2.1.2	t	accinstr						✓			Access Instructions	free text
6.4.2.2.1.3	t	oncomp						✓			Online Computer and Operating System	free text
6.4.2.2.2	c	offoptn							Offline Option			Information about media-specific options for receiving the data set.
6.4.2.2.2.1	t	offmedia						✓			Offline Media	free text, "CD-ROM", "3-1/2 inch floppy disk", "5-1/4 inch floppy disk", "9-track tape", "4 mm cartridge tape", "8 mm cartridge tape", "1/4-inch cartridge tape"
6.4.2.2.2.2	c	reccap									Recording Capacity	The density of information to which data are written. Used in cases where different recording capacities are possible.
6.4.2.2.2.2.1	r	recden								✓ ()	Recording Density	Recording Density > 0.0
6.4.2.2.2.2.2	t	recdenu								✓	Recording Density Units	free text
6.4.2.2.2.3	t	recfmt						✓ ()			Recording Format	free text, "cpio", "tar", "High Sierra", "ISO 9660", "ISO 9660 with Rock Ridge extensions", "ISO 9660 with Apple HFS extensions"
6.4.2.2.2.4	t	compat						✓			Compatibility Information	free text
6.4.3	t	fees				✓	Fees					free text
6.4.4	t	ordering				✓	Ordering Instructions					free text
6.4.5	t	turnarnd				✓	Turnaround					free text
6.5	t	custom			✓	Custom Order Process						free text
6.6	t	techpreq			✓	Technical Prerequisites						free text
6.7	c	availabl				Available Time Period						The time period when the data set will be available from the distributor.
9	c	timeinfo				✓	Time Period Information					Information about the date and time of an event.
7	c	metainfo			**Section 7: Metadata Reference Information**							Information on the currentness of the metadata information, and the responsible party.
7.1	d	metd			✓	Metadata Date						free date
7.2	d	metrd			✓	Metadata Review Date						free date; Metadata Review Date later than Metadata Date
7.3	d	metfrd			✓	Metadata Future Review Date						free date; Metadata Future Review Date later than Metadata Review Date
7.4	c	metc				Metadata Contact						The party responsible for the metadata information.
10	c	cntinfo				✓	Contact Information					ID of, and means to communicate with, person(s) and org.(s) associated with the data set.
7.5	t	metstdn			✓	Metadata Standard Name						free text, "FGDC Content Standards for Digital Geospatial Metadata"
7.6	t	metstdv			✓	Metadata Standard Version						free text
7.7	t	mettc			✓	Metadata Time Convention						"local time", "local time with time differential factor", "universal time"
7.8	t	metac			✓	Metadata Access Constraints						free text
7.9	t	metuc			✓	Metadata Use Constraints						free text
7.10	c	metsi				Metadata Security Information						Handling restrictions imposed on the metadata because of national security, privacy, etc.
7.10.1	t	metscs				✓	Metadata Security Classification System					free text
7.10.2	t	metsc				✓	Metadata Security Classification					free text, "Top secret", "Secret", "Confidential", "Restricted", "Unclassified", "Sensitive"
7.10.3	t	metshd				✓	Metadata Security Handling Description					free text

Element #	Type	Short Name						Domains for Data Entry Fields and Definitions for Compound Elements
7.11	c	metextns				()	Metadata Extensions	A reference to extended elements to the standard which may be defined by a metadata producer or a user community. Extended elements are elements outside the Standard, but needed by the metadata producer. If extended elements are created, themust follow the guidelines in Appendix D, Guidelines for Creating Extended Elements to the Content Standard for Digital Geospatial Metadata.
7.11.1	t	onlink				✓ ()	Online Linkage	free text
7.11.2	t	metprof				✓	Profile Name	free text
8	c	citeinfo					**Section 8: Citation Information**	The recommended reference to be used for the data set.
8.1	t	origin				✓ ()	Originator	free text, "Unknown"
8.2	d	pubdate				✓	Publication Date	free date, "Unknown", "Unpublished material"
8.3	tm	pubtime				✓	Publication Time	free time, "Unknown"
8.4	t	title				✓	Title	free text
8.5	t	edition				✓	Edition	free text
8.6	t	geoform				✓	Geospatial Data Presentation Form	"atlas", "diagram", "globe", "map", "model", "profile", "remote-sensing image", "section", "view"
8.7	c	serinfo					Series Information	The identification of the series publication of which the data set is a part.
8.7.1	t	sername				✓	Series Name	free text
8.7.2	t	issue				✓	Issue Identification	free text
8.8	c	pubinfo					Publication Information	Publication details for published data sets.
8.8.1	t	pubplace				✓	Publication Place	free text
8.8.2	t	publish				✓	Publisher	free text
8.9	t	othercit				✓	Other Citation Details	free text
8.10	t	onlink				✓ ()	Online Linkage	free text
8.11	c	lworkcit					Larger Work Citation	The information identifying a larger work in which the data set is included.
8	c	citeinfo				✓	Citation Information	The recommended reference to be used for the data set.
9	c	timeinfo					**Section 9: Time Period Information** {9.1 - OR - 9.2 - OR - 9.3}	Information about the date and time of an event.
9.1	c	sngdate					Single Date/Time	Means of encoding a single date and time.
9.1.1	d	caldate				✓	Calendar Date	free date, "Unknown"
9.1.2	tm	time				✓	Time of Day	free time, "Unknown"
9.2	c	mdattim					Multiple Dates/Times	Means of encoding multiple individual dates and times.
9.2.1	d	caldate				✓	Calendar Date	free date, "Unknown"
9.2.2	tm	time				✓	Time of Day	free time, "Unknown"
9.3	c	rngdates					Range of Dates/Times	Means of encoding a range of dates and times.
9.3.1	d	begdate				✓	Beginning Date	free date, "Unknown"
9.3.2	tm	begtime				✓	Beginning Time	free time, "Unknown"
9.3.3	d	enddate				✓	Ending Date	free date, "Unknown", "Present"
9.3.4	tm	endtime				✓	Ending Time	free time, "Unknown"

Element #	Type	Short Name						Domains for Data Entry Fields and Definitions for Compound Elements
10	c	cntinfo				**Section 10: Contact Information** {10.1 - OR - 10.2}		Identity of, and means to communicate with, person(s) and org.(s) assoc.'d with the data set.
10.1	c	cntperp					Contact Person Primary	The person, and the affiliation of the person, assoc.'d with the data set. Used in cases where the assoc. of the person is more significant than the assoc. of the organization to the data set.
10.1.1	t	cntper				✓	Contact Person	free text
10.1.2	t	cntorg				✓	Contact Organization	free text
10.2	c	cntorgp					Contact Organization Primary	The organization, and the member of the org., assoc.'d with the data set. Used in cases where the assoc. of the organization is more significant than the assoc. of the person to the data set.
10.2.1	t	cntorg				✓	Contact Organization	free text
10.2.2	t	cntper				✓	Contact Person	free text
10.3	t	cntpos			✓		Contact Position	free text
10.4	c	cntaddr			()		Contact Address	The address for the organization or individual.
10.4.1	t	addrtype				✓	Address Type	"mailing address", "physical address", "mailing and physical address"
10.4.2	t	address				✓ ()	Address	free text
10.4.3	t	city				✓	City	free text
10.4.4	t	state				✓	State or Province	free text
10.4.5	t	postal				✓	Postal Code	free text
10.4.6	t	country				✓	Country	free text
10.5	t	cntvoice			✓ ()		Contact Voice Telephone	free text
10.6	t	cnttdd			✓ ()		Contact TDD/TTY Telephone	free text
10.7	t	cntfax			✓ ()		Contact Facsimile Telephone	free text
10.8	t	cntemail			✓ ()		Contact Electronic Mail Address	free text
10.9	t	hours			✓		Hours of Service	free text
10.10	t	cntinst			✓		Contact Instructions	free text

Essential Elements for FGDC CSDGM-Compliant Metadata

Element #	Element Name		Description of Compound Fields and Input Elements
0	Metadata		Data about the content, quality, condition, and other characteristics of data.
1	Identification Information		Basic information about the data set.
1.1	Citation		Information to be used to reference the data set.
1.1/8	Citation Information		The recommended reference to be used for the data set.
1.1/8.1	Originator	1	The name of an organization or individual that developed the data set. If the name of editors or compilers are provided, the name must be followed by "(ed.)" or "(comp.)" respectively.
1.1/8.2	Publication Date	2	The date when the data set is published or otherwise made available for release.
1.1/8.4	Title	3	The name by which the data set is known.
1.2	Description		A characterization of the data set, including its intended use and limitations.
1.2.1	Abstract	4	A brief narrative summary of the data set.
1.2.2	Purpose	5	A summary of the intentions with which the data set was developed.
1.3	Time Period of Content		Time period(s) for which the data set corresponds to the currentness reference.
1.3/9	Time Period Information		Information about the date and time of an event.
1.3/9.1	Single Date/Time		Means of encoding a single date and time.
1.3/9.1.1	Calendar Date	6	The year (and optionally month, or month and day) of an event.
1.3/9.2	Multiple Dates/Times	or	Means of encoding multiple individual dates and times.
1.3/9.2.1	Calendar Date	6	The year (and optionally month, or month and day) of each event.
1.3/9.3	Range of Dates/Times	or	Means of encoding a range of dates and times.
1.3/9.3.1	Beginning Date	6	The first year (and optionally month, or month and day) of the event.
1.3/9.3.2	Ending Date		The last year (and optionally month, or month and day) of the event.
1.3.1	Currentness Reference	7	The basis on which the time period of content information is determined.
1.4	Status		The state of and maintenance information for the data set.
1.4.1	Progress	8	The state of the data set.
1.4.2	Maintenance and Update Frequency	9	The frequency with which changes and additions are made to the data set after the initial data set is complete.
1.5	Spatial Domain		The geographic areal domain of the data set.
1.5.1	Bounding Coordinates		The limits of coverage of a data set expressed by lat/long values in the order W-,E-,N-, & S-most.
1.5.1.1	West Bounding Coordinate	10	Western-most coordinate of the limit of coverage expressed in longitude.
1.5.1.2	East Bounding Coordinate	11	Eastern-most coordinate of the limit of coverage expressed in longitude.
1.5.1.3	North Bounding Coordinate	12	Northern-most coordinate of the limit of coverage expressed in latitude.
1.5.1.4	South Bounding Coordinate	13	Southern-most coordinate of the limit of coverage expressed in latitude.
1.6	Keywords		Words or phrases summarizing an aspect of the data set.
1.6.1	Theme		Subjects covered by the data set.
1.6.1.1	Theme Keyword Thesaurus	14	Reference to a formally registered thesaurus or a similar authoritative source of theme keywords.
1.6.1.2	Theme Keyword	15	Common-use word or phrase used to describe the subject of the data set.
1.7	Access Constraints	16	Restrictions and legal prerequisites for accessing the data. These include any access constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the data set.
1.8	Use Constraints	17	Restrictions and legal prerequisites for using the data after access is granted. These include any use constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on using the data set.
7	Metadata Reference Information		Information on the currentness of the metadata information, and the responsible party.
7.1	Metadata Date	18	The date that the metadata were created or last updated.
7.4	Metadata Contact		The party responsible for the metadata information.
7.4/10	Contact Information		Identity of, and means to communicate with, person(s) and organization(s) associated with the data set.
7.4/10.1	Contact Person Primary		The person, and the affiliation of the person, associated with the data set.
7.4/10.1.1	Contact Person	19	The name of the individual to which the contact type applies.
7.4/10.2	Contact Organization Primary	or	The organization, and the member of the organization, associated with the data set.
7.4/10.2.1	Contact Organization	19	The name of the organization to which the contact type applies.
7.4/10.4	Contact Address		The address for the organization or individual.
7.4/10.4.1	Address Type	20	The information provided by the address. E.g., "mailing", "physical", "mailing and physical"
7.4/10.4.3	City	21	The city of the address.
7.4/10.4.4	State or Province	22	The state or province of the address.
7.4/10.4.5	Postal Code	23	The ZIP or other postal code of the address.
7.4/10.5	Contact Voice Telephone	24	The telephone number by which individuals can speak to the organization or individual.
7.5	Metadata Standard Name	25	The name of the metadata standard used to document the data set.
7.6	Metadata Standard Version	26	Identification of the version of the metadata standard used to document the data set.

XML Tag Structure of Essential Elements for FGDC CSDGM-Compliant Metadata

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  </citation>
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  </descript>
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    <sngdate>
     <caldate>Date</caldate>
    </sngdate>
    <!-- OR -->
    <mdattim>
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    </mdattim>
    <!-- OR -->
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