

<b>Duties</b>		<b>Tasks</b>													
<b>A</b>	<b>Coordinate Projects</b>	A1 Research analysis methodology	A2 Establish project goals	A3 Create/ establish a data capture plan	A4 Create policies & procedures for storing data	A5 Establish cartographic guidelines	A6 Create status updates (follow-up)								
<b>B</b>	<b>Manage Tools &amp; Equipment</b>	B1 Inventory Hardware (GPS, meters)	B2 Evaluate software / tools	B3 Order / update software, licenses & subscriptions		B4 Identify & report technical issues	B5 Calibrate hardware (GPS, meters)								
<b>C</b>	<b>Manage People</b>	C1 Develop employee training plan	C2 Plan company events	C3 Map skills to tasks	C4 Delegate tasks	C5 Evaluate employee performance	C6 Resolve employee related complaints	C7 Provide informal training / technical support		C8 Conduct employee check-ins					
<b>D</b>	<b>Capture Data</b>	D1 Perform data search	D2 Define attributes	D3 Purchase data	D4 Record field data (GPS)	D5 Collect survey responses (questionnaire)	D6 Create shape files / feature classes	D7 Acquire free data	D8 Capture crowd source data	D9 Connect to live data feeds (web services, crowd sourcing)		D10 Scan media (maps, plats, documents)	D11 Digitize features	D12 Create metadata	
<b>E</b>	<b>Manage Data</b>	E1 Store data according to policies & procedures (versioning, SDE)		E2 Create data update schedule	E3 Create Geodatabases (set environments)	E4 Convert data (GPX, KML, CSV, SHP...)	E5 Process GPS data	E6 Process Imagery data	E7 Load data into databases	E8 Reconcile data discrepancies	E9 Project data	E10 Edit data (follow tracking sheets, organize attributes)		E11 Edit database schema	E12 Update data according to schedule
<b>E</b>	<b>Manage Data (con't)</b>		E13 Quality assurance / quality control (QA/QC) data	E14 Update metadata											
<b>F</b>	<b>Analyze Data</b>	F1 Re-project data	F2 Build geoprocessing models	F3 Create data subsets (joins, relates, queries)	F4 Geocode features	F5 Build geometric networks	F6 Write geoprocessing scripts (python)	F7 Create 3D models	F8 Generate spatial statistics (vector, raster, interpolate)	F9 Generate non-spatial statistics	F10 Classify imagery	F11 Classify LIDAR	F12 Create / repair topology		
<b>G</b>	<b>Produce Deliverables</b>	G1 Generate hard copy maps	G2 Generate soft copy maps	G3 Create maps using data driven pages	G4 Create custom tools	G5 Create graphs, charts, tables & figures	G6 Create videos	G7 Create interactive graphics (FLASH, HTML5)		G8 Publish web services	G9 Create websites	G10 Publish maps online	G11 Export GIS data	G12 Write reports (white papers, brochures)	G13 Create oral presentations
<b>H</b>	<b>Professional Development</b>	H1 Create a personal development plan	H2 Identify / fill gaps in skill set	H3 Expand social / professional connections face to face (networking)		H4 Pursue professional relationships online (forums, emails, LinkedIn)		H5 Pursue higher education / advanced degrees		H6 Pursue professional licensure (GISP, ESRI Certification, Oracle Certification)		H7 Attend conferences & training workshops		H8 Contribute to open source community (widgets, SQL, scripting, web maps...)	
<b>H</b>	<b>Professional Development (con't)</b>		H9 Conduct presentations, workshops, outreach seminars		H10 Participate in volunteer activities	H11 Participate in mentor / mentee programs	H12 Teach classes	H13 Read periodicals	H14 Take on challenging opportunities	H15 Contribute to proposals	H16 Interview interns	H17 Publish papers			

# DACUM Research Chart for Geospatial Analyst

General Knowledge	Skills	Worker Behaviors	Acronyms
Algebra	Cartographic design	Analytical	CSV: Comma Separated Values
Calculus	Communication	Creativity	DBF: DataBase File
Chemistry	Computer	Critical	DEM: Digital Elevation Model
Cultural geography	Map reading & interpretation	Detail Oriented	GIS: Geographic Information System
Current events		Determined	GPS: Global Positioning System
Engineering	Presentation	Flexible	HTML: HyperText Markup Language
Environmental science	Problem solving	Focused	KMZ: Keyhole Markup Language
Geographic principals	Programming (Java, Python, HTML)	Logical	LIDAR - Light Detection And Ranging
Geographic Theory		Multi-tasking	MXD: Map Document File
Geometry	Research	Organized	PDF: Portable Document Format
Industry sector	Spatial database	Patience	PRJ: Projection
Information Technology	Technical writing	Perseverance	SDE: Spatial Database Engine
Math	Time management	Personable	SDK: Software Development Kit
Physical geography	Web design	Pleasant Demeanor	SHP: ShapeFile
Physics		Professional	SPSS: Statistical analysis software
Spatial statistics		Resourceful	SQL: Spatial Query Language
Statistics		Respectful	SWF: Small Web Format
Trigonometry		Self-motivated	TIN: Triangulated Irregular Network
		Spatial Awareness	VB: Visual Basic
		Teachable	VGI: Volunteered Geographic Information (Crowd Sourcing)
			XML: Extensible Markup Language

## Tools, Equipment, Supplies and Materials

Adobe: Photoshop, PDF maps, Flash, SWF, InDesign, Suite	Image Exploration software
Apple: Iphone	Matlab
SOCET GXP (BAE)	Microsoft: Bing Maps, Access, Excel, PowerPoint, Office
Citrix (Dell)	Microstation
CommunityViz	Open Source GIS: QGIS, PostGIS, OpenLayers
Computers: Tablet, portable	Pictometry
ESRI: ArcSDE, ArcGIS, ArcGIS Online, Geoprocessing tools (clip, buffer, erase, project), ArcMap, ArcGIS Extensions	Plotters
ET GeoWizards	PolicyMap
Garmin: GPS Receivers	Scanners
BaseCamp	SPSS
GeoCue	Survey Monkey
Google: Earth, Maps, SDK, Drive	Tablet computer
	Tracking software
	Trimble GPS Receivers

## Future Trends

Adobe Flash is going away  
 ArcGIS Online  
 Big data  
 Change detection will become more automated  
 Cloud technology  
 Crowd sourcing  
 Data mining  
 Data security  
 Data Validation  
 Formalization of geospatial competencies  
 Full text geocoding  
 Licensure requirements  
 Mobile GIS  
 Open source GIS  
 Personal mapping  
 Privacy issues  
 Public awareness of GIS  
 Public participation in GIS  
 Story maps

## DACUM Panel

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## Sponsored by:

**The National Science Foundation;**  
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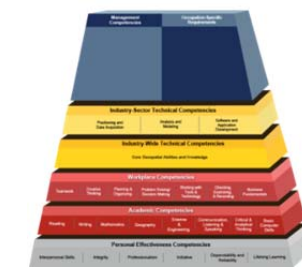
*This material is based upon work supported by the National Science Foundation under Grant No. DUE ATE 1304591. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.*

## Produced by:



United States Geospatial Intelligence Foundation

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U.S. Department of Labor  
 Geospatial Technology Competency Model

Date: October 22 & 23, 2013