




Agenda

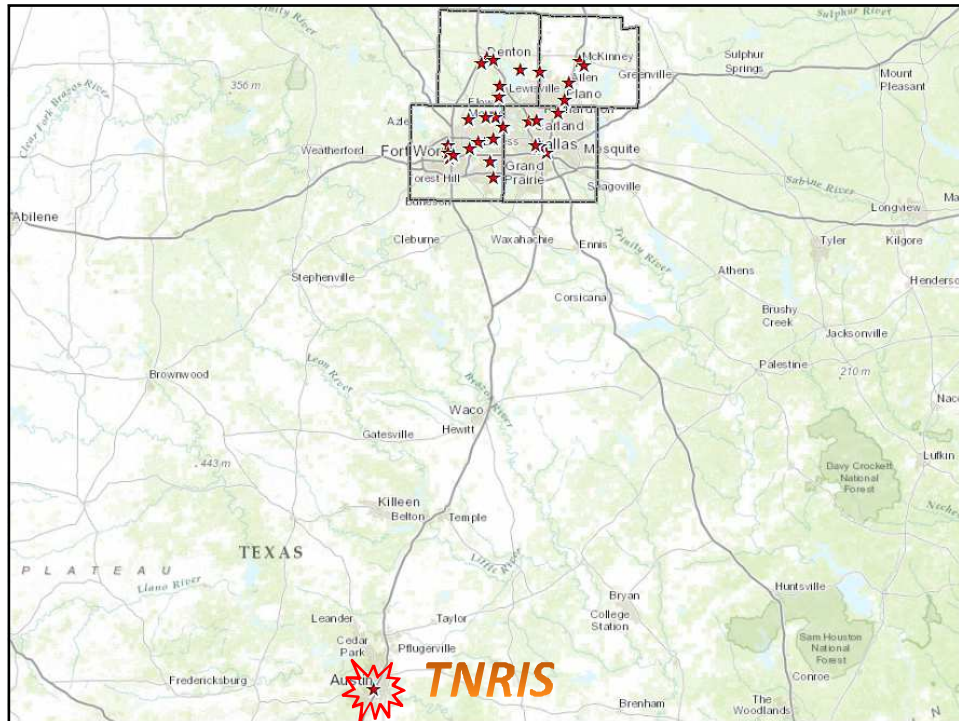
- Background -North Texas GIS Coordinating Council
- Regional GIS Survey Overview
- NTGISCC GIS Surveys – 1 & 2
- Sub-Committees
 1. *Orthos*
 2. *Roads*
 3. *Emergency Management*
 4. *UNT Repository /Data Sharing*
 5. *The Future of GIS*
 6. *NTGISCC Governance / Structure*
- Future Topics
 - *Maps & Apps Development & Field Editing*
 - *Private vs. Public Data Resources*
 - *Keeping data current with data aggregators (Google, Navteq,...)*
 - *Better picture of GIS User Base*



Questions / Confusion / Direction...



- Where will I get other data around me?
- Costs come out of my, already tight, budget.
- Who's coordinating data at NCTCOG?
- Who's normalizing and "*piecing together*" data.
- What needed GIS products from COG? (Orthos, Elevation data, Planimetric)
- Who/what group is coordinating the Regional GIS efforts at COG?
- Do they have the needed dedicated GIS staff?
- They say they have the staff. Are they really just using the GIS software for their forecasts?
- What GIS training do they have?
- Are they GISPs?
- Do they have the knowledge to look at the regional "bigger GIS picture"?
- Membership GIS concerns are not being conveyed to management-level of these requests.
- They say they've tried to get membership feedback on the issues they were having, the COG...
- What GIS services is COG providing (Communities, etc.)?
- What needed GIS layers is COG providing (e.g., 1:250,000 scale, 1:50,000 scale, 1:25,000 scale, 1:10,000 scale, 1:5,000 scale, 1:2,500 scale, 1:1,250 scale, 1:625 scale, 1:312 scale, 1:156 scale, 1:78 scale, 1:39 scale, 1:20 scale, 1:10 scale, 1:5 scale, 1:2 scale, 1:1 scale, 1:0.5 scale, 1:0.25 scale, 1:0.125 scale, 1:0.0625 scale, 1:0.03125 scale, 1:0.015625 scale, 1:0.0078125 scale, 1:0.00390625 scale, 1:0.001953125 scale, 1:0.0009765625 scale, 1:0.00048828125 scale, 1:0.000244140625 scale, 1:0.0001220703125 scale, 1:0.00006103515625 scale, 1:0.000030517578125 scale, 1:0.0000152587890625 scale, 1:0.00000762939453125 scale, 1:0.000003814697265625 scale, 1:0.0000019073486328125 scale, 1:0.00000095367431640625 scale, 1:0.000000476837158203125 scale, 1:0.0000002384185791015625 scale, 1:0.00000011920928955078125 scale, 1:0.000000059604644775390625 scale, 1:0.0000000298023223876953125 scale, 1:0.00000001490116119384765625 scale, 1:0.000000007450580596923828125 scale, 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Original Survey



North Texas GIS Survey Results

North Central Texas
Dallas/Fort Worth Metroplex

February 2014

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SURVEY BACKGROUND



Over concerns on Regional GIS Coordination in the North Texas area, a Grass Roots organization was formed, containing around 38 GIS professionals from around the region, and included employees from:

- Cities
- Counties
- 9-1-1
- Appraisal Districts
- Educational Institutions

This organization is called the North Texas GIS Coordinating Council (NTGISCC) and one of its goals is to review the results of this survey, as well as discuss the direction and coordination that is needed within our region.

These discussions are on-going and the recommendations will be taken to the regional GIS users for further discussions at some point in the future. The thought behind creating this organization was to keep the initial discussions at a manageable level.

In order to get a better understanding of the needs of the GIS Community in North Texas, in November, 2013 we asked the GIS professionals, (mostly in the Dallas/Fort Worth area) what information and services were most important for their every-day tasks. This group was asked the following:

- Type of Entry
- Important GIS Layers
- Needed General Data & Information
- Needed Services
- Needed Training

Overall, there were 107 GIS professionals that responded to the survey.

This publication will review the overall findings of the GIS Survey, with the majority of the focus on the GIS Layers that are needed by our profession and how to coordinate and fund their acquisition and storage.

SURVEY OVERVIEW

The GIS Survey was broken down into the following categories:

BACKGROUND INFORMATION:
Name, Email, City, County, Type of Entry

NEEDED LAYERS

128 Layers Broken Down By Category:

- Boundaries/Grids
- Demographics
- Elevation
- Emergency Operations
- Environmental/Sensitive Areas
- Land use/Planning
- Orthos

- Parcels
- PW-Sanitary Sewer
- PW-Storm water
- PW-Water Distribution
- Reference Data-Hydrology
- Reference Data-Land Related
- Reference Data-Other
- Reference Data-Transportation

This section on "Layers" was the most extensive section of the survey. It was our hope we could get a better understanding of the needs for data at both the local and regional level.

- **Background**

- Name, Email, City, County, Type of Entity

- **Layers**

- 128 Layers Broken Down By Category:
 - Boundaries/Grids
 - Demographics
 - Elevation
 - Emergency Operations
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 - Landuse/Planning
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 - Reference Data-Land Related
 - Reference Data-Other
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- **General Data & Information**

- Demographic-Present
- Demographic-Projections
- Crime
- Traffic Counts
- Building multi-level geocoding
- Help with Emergency Response
- Help in setting up Mobile App
- Help with Esri's Maps & Apps
- Help with Esri's Story Maps
- Help in developing my Web site

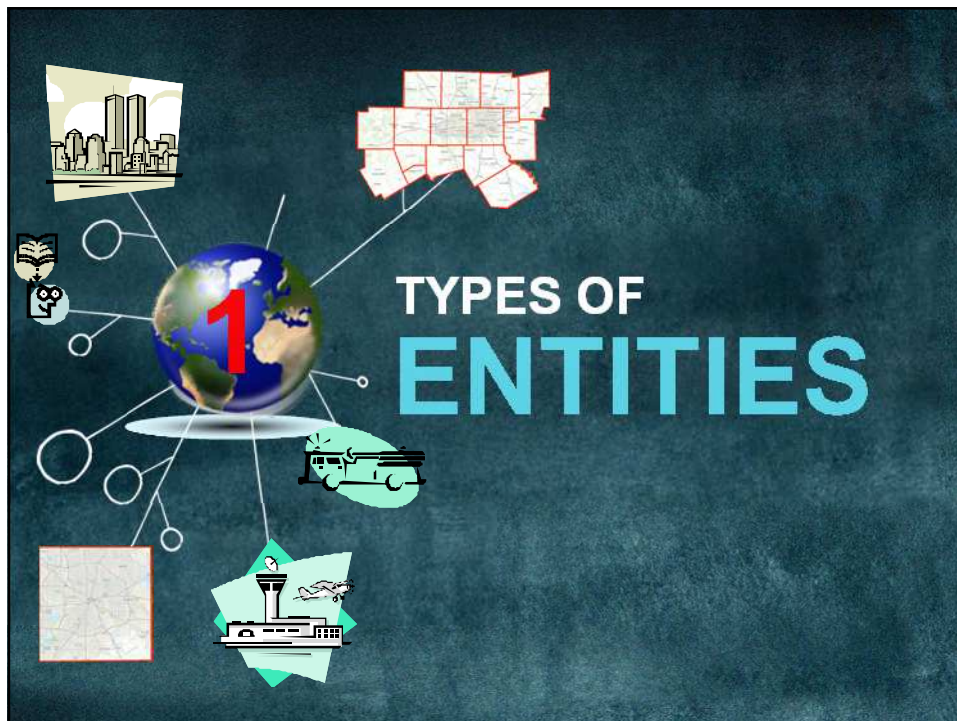
- **Training**

- Various Esri & non-Esri classes

SURVEY OVERVIEW

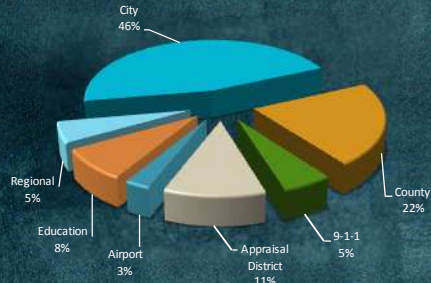
TRAINING

BACKGROUND
LAYERS
GENERAL DATA & INFO
SERVICES

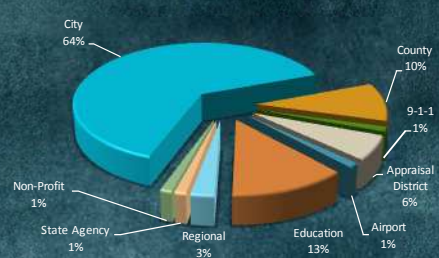


Types of Entities

**34 Individuals
NTGISCC**

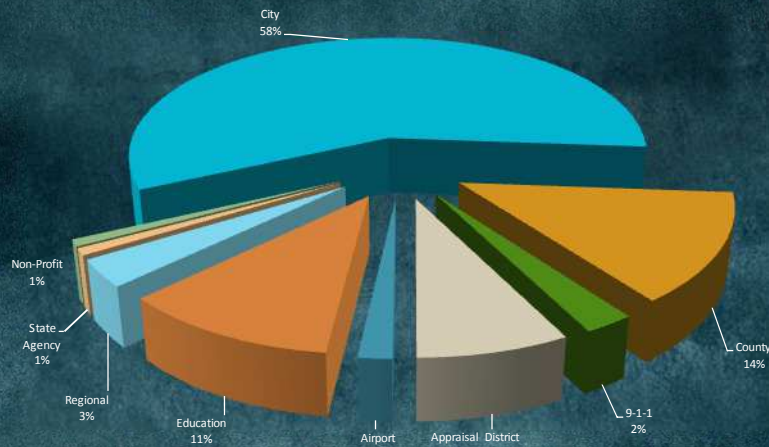


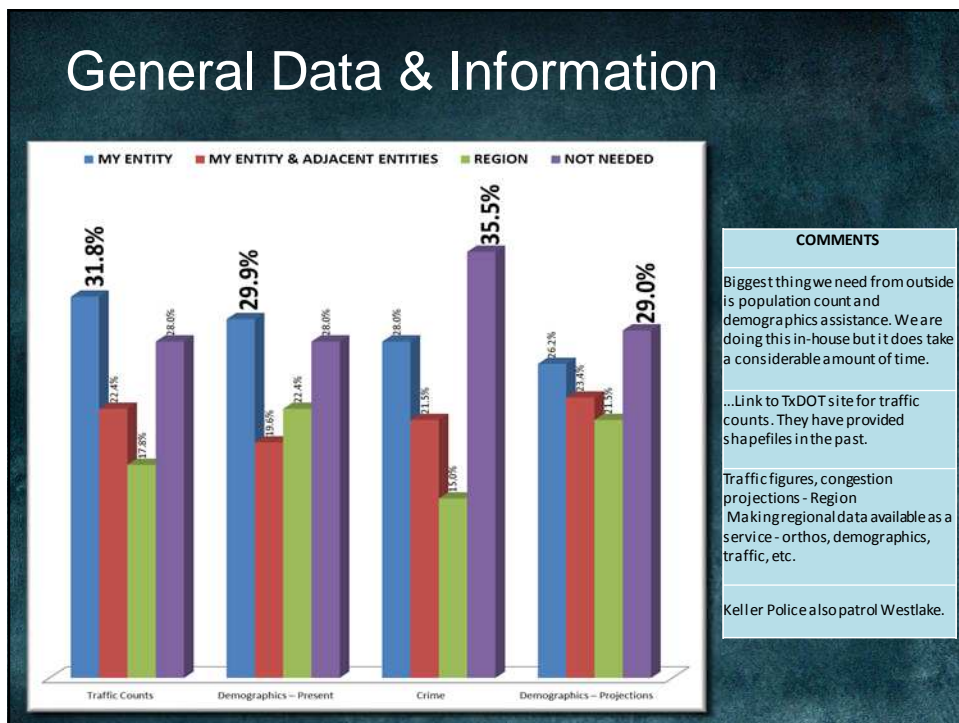
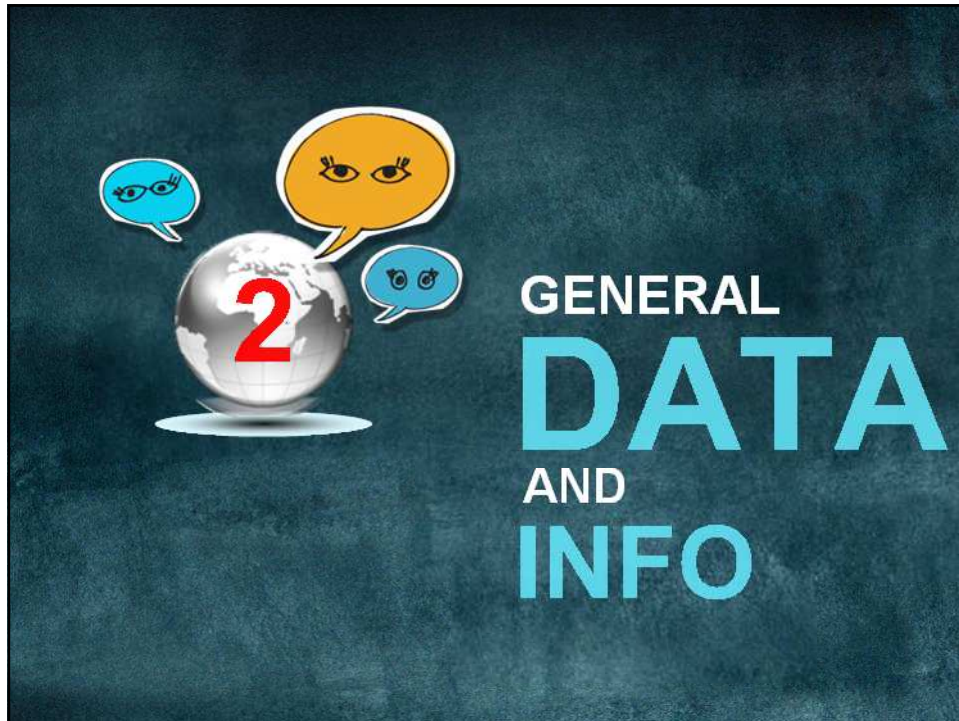
**73 Individuals
GIS COMMUNITY**



Types of Entities

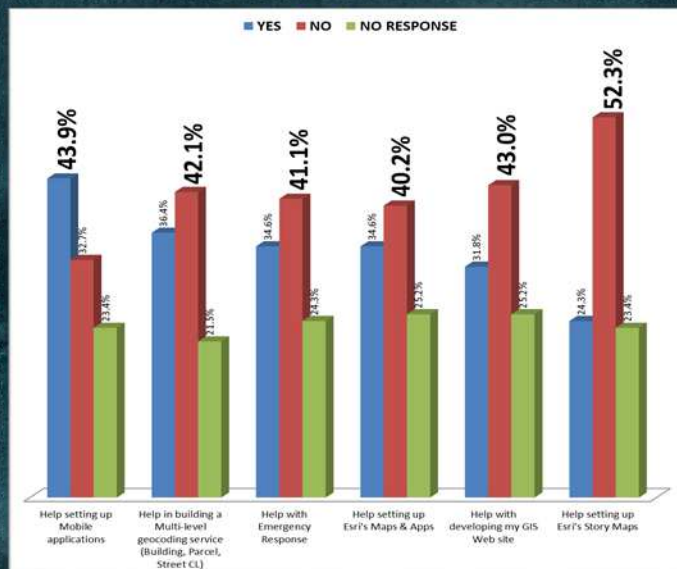
**107 Total Individuals
OVERALL**







Needed Services



COMMENTS

Hiring outside consultants is almost a fantasy thing here. Our budget simply doesn't allow it.

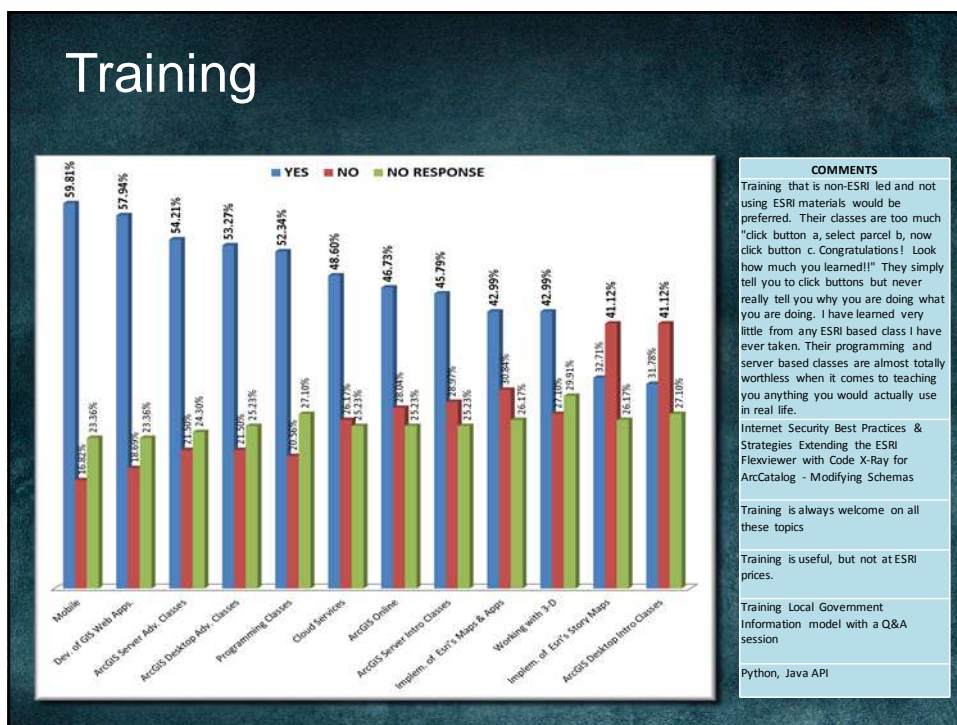
A current list of qualified consultants?

Google Coordinate

Help with optimizing configuration of existing GIS services
Help with the Local Government Information Model

Help with sharing standards - in quality control & management, in multi-user environments, in data maintenance, etc

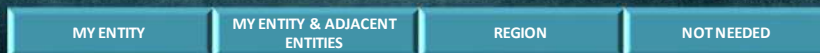
Most of the services we do in-house.





How Layers Were Rated

- 128 Total Layers Grouped Into 15 General Categories
- Voting in four categories



- Responses For “Not Needed” Ignored
- Total Responses Counted For:
 - *My Entity*
 - *My Entity & Adjacent Entities*
 - *Region*



ORDER		LAYER NAME	POSSIBLE SOURCE	NOTES
1	A	Building Footprints		
2	B	City (Municipal) Boundaries	TNRIS	Accuracy?
3	B	School Districts	ISD's	Coordination between ISDs
4	A	Easements (Electrical, Cable, Gas...)	Individual utility companies?	Availability? Coordination?
5	B	County Boundaries	AI Green	Accuracy?
6	B	Road Blocks	VOTES ONLY IN "MY ENTITY"	
7	A	Swimming Pools	AI Yellow	Good
8	B	Access Points	VOTES ONLY IN "MY ENTITY & ADJACENT"	
9	B	ZIP Codes		City? Digital? Accuracy?
10	A	Neighborhood / Subdivisions	AI Red	Coordination between counties
11	B	Evacuation Routes	VOTES ONLY IN "REGION"	
12	B	FEMA Boundaries	REMA / DIRM	Good
13	A	Pavement (Streets - Curb to Curb polyg	Green to Yellow	
14	B	Fire Districts	VOTES IN BOTH "MY ENTITY" & "MY ENTITY & ADJACENT"	
15	B	Rivers / Streams / Creeks	Yellow to Red	Good
16	A	Sidewalks	USGS NHD	Good
17	B	DEMs	VOTES IN BOTH "MY ENTITY & ADJACENT" & "REGION"	
18	B	Unlabeled Points	Green to Red	Good
19	A	A=My Entity	VOTES IN ALL THREE - "MY ENTITY", "MY ENTITY & ADJACENT" & "REGION"	
20	B	B=My Entity & Adjacent	Individual	Good
21	C	C=USGS Quads	USGS	Good
22	A	C=Region	Individual	Good
23	B	6" Orthos (Color)		
24	B	Evacuation Areas		
25	A	Telephone Poles	Individual	Good
26	C	State Congressional Districts (House)	TNRIS	Good
27	A	Contours - Two Foot		
28	A	Zoning	Individual	Good
29	B	Airports	FAA? or TNRIS?	Accuracy?
30	A	Hydrants	Individual	Good
31	A	R.O.W.	Individual	Good
32	B	Railroads	Federal IRR Administration? or TNRIS	Accuracy?
33	A	Street Intersection	Individual	Good
34	C	State Congressional Districts (Senate)	TNRIS	Good
35	C	Grid - National Grid	U.S. National Grid (USNG)	Good

ORDER	LAYER NAME	POSSIBLE SOURCE	NOTES
36 A	Edge-of-Curb		
37 B	Parcels	Appraisal Districts	Coordination between counties
38 C	Aquifers	TNRIS	Good
39 A	Historic Sites	Individual	Good
40 B	Road Centerlines	Individual	Coordination
41 A	Junction Box	Individual	Good
42 B	Watersheds	USGS	Good
43 C	State Boundaries	TNRIS	Good
44 A	Manholes (Stormwater)	Individual	Good
45 A	Open Drains (Improved or Unimproved)	Individual	Good
46 B	LIDAR		
47 A	Outfalls	Individual	Good
48 B	Census Block Groups	Census Bureau	Good
49 B	Census Tracts	Census Bureau	Good
50 A	Pumps	Individual	Good
51 A	Proposed Land Use	Individual	Good
52 B	Census Blocks	Census Bureau	Good
53 A	Speed limits (assigned to street cl segments)	Individual	Good
54 A	Traffic Lights	Individual	Good
55 A	Valves (Water Distribution)	Individual	Good
56 A	Water Meters	Individual	Good
57 B	Wetlands	U.S. Fish & Wildlife	Good
58 A	Blocks (Parcels)		
59 A	Current Land Use	Individual	Good
60 B	Conservation Areas	Texas Parks & Wildlife	
61 A	Culverts	Individual	Good
62 B	Hillshade		
63 B	Soils	National Resources Conservation Service	Good
64 A	Detention Areas	Individual	Good
65 B	Trails - Hike / Bike	Individual	Good
66 A	Driveways		
67 A	Parks	Individual	Good
68 B	Landcover (Impervious, Vegetation, etc...)		
69 A	Mains (Water Distribution)	Individual	Good
70 B	Pictometry		

ORDER	LAYER NAME	POSSIBLE SOURCE	NOTES
71 C	Grid - MapscO	MAPSCO?	Legalities? Accessibility?
72 A	Pavement assessment (to determine maintenance, replacement)	Individual	Good
73 B	Open/Green spaces	Individual	Good
74 B	Spot Elevations		
75 A	Test Stations	Individual	Good
76 B	Facilities (Businesses, Schools, Hospitals, Government...)	Individual	Good
77 A	Water Towers	Individual	Good
78 B	Slope		
79 A	Abandoned Lines	Individual	Good
80 C	Bus Routes	Individual	Good
81 A	Inlets	Individual	Good
82 B	Address Entrance Points		
83 A	Lateral Lines (Water Distribution)	Individual	Good
84 B	Breaklines		
85 C	Bridge Points	Individual	Good
86 A	Manholes (Sanitary Sewer)	Individual	Good
87 B	Police Districts / Beats	Individual	Good
88 C	Archaeological sites	Texas Historical Commission?	Availability?
89 A	Network Structures (Headwalls, etc..)	Individual	Good
90 C	RR Crossings	Individual	Good
91 A	Service Connections (Taps)	Individual	Good
92 A	Valves (Sanitary Sewer)	Individual	Good
93 C	Levees	Individual	Good
94 A	Clean Outs	Individual	Good
95 B	Capital Improvement Projects	Individual	Good
96 A	Gravity Mains	Individual	Good
97 A	Lateral Lines (Sanitary Sewer)	Individual	Good
98 C	Vegetation		
99 A	Mains (Stormwater)	Individual	Good
100 B	Control Corners	Individual	Good
101 C	Contours - Ten Foot		
102 A	Pressure Zones	Individual	Good
103 A	Pressurized Mains	Individual	Good
104 B	3" Orthos (Color)		
105 A	Sampling Stations	Individual	Good

Missing Source

ORDER	LAYER NAME	POSSIBLE SOURCE	NOTES
1 A	Building Footprints		
2 B	Building Footprints (Color)	Field	Authority?
3 B	Building Footprints (Color)	Field	Coordinate/georeference (50)
4 B	Building Footprints (Color)	Field	Coordinate/georeference (50)
5 B	Building Footprints (Color)	Field	Coordinate/georeference (50)
6 B	Building Footprints (Color)	Field	Coordinate/georeference (50)
7 A	Swimming Pools		
8 B	Access Points		
9 B	Access Points (Color)	Field	Coordinate/georeference (50)
10 B	Access Points (Color)	Field	Coordinate/georeference (50)
11 B	Evacuation Routes		
12 B	Evacuation Routes (Color)	Field	Coordinate/georeference (50)
13 A	Pavement (Streets - Curb to Curb polygons)		
14 B	Pavement (Streets - Curb to Curb polygons)	Field	Coordinate/georeference (50)
15 B	Pavement (Streets - Curb to Curb polygons)	Field	Coordinate/georeference (50)
16 A	Sidewalks		
17 B	DEMs		
18 B	DEMs (Color)	Field	Coordinate/georeference (50)
19 B	DEMs (Color)	Field	Coordinate/georeference (50)
20 B	DEMs (Color)	Field	Coordinate/georeference (50)
21 B	DEMs (Color)	Field	Coordinate/georeference (50)
22 B	DEMs (Color)	Field	Coordinate/georeference (50)
23 B	6" Orthos (Color)		
24 B	Evacuation Areas		
25 B	Evacuation Areas (Color)	Field	Coordinate/georeference (50)

24 Layers - Questionable/No Source

LAYER NAME	POSSIBLE SOURCE
7 Swimming Pools	
68 Landcover (Impervious, Vegetation, etc...)	Derived from NIR 6" Orthos? Could be done with one classification.
98 Vegetation	
23 6" Orthos (Color)	Google does 6" / <1-meter accuracy / Multi-spectral
1 Building Footprints	
13 Pavement (Streets - Curb to Curb polygons)	
16 Sidewalks	
17 DEMs	
27 Contours - Two Foot	
36 Edge-of-Curb	
46 LIDAR	
58 Blocks (Parcels)	
62 Hillshade	
66 Driveways	
74 Spot Elevations	
78 Slope	
82 Address Entrance Points	
84 Breaklines	
101 Contours - Ten Foot	
70 Pictometry	Pictometry coordinated at County
8 Access Points	
11 Evacuation Routes	
24 Evacuation Areas	
104 3" Orthos (Color)	

24 Layers - Questionable/No Source

3 Items

	LAYER NAME	POSSIBLE SOURCE
7	Swimming Pools	Derived from NIR 6" Orthos? Could be done with one classification.
68	Landcover (Impervious, Vegetation, etc...)	
98	Vegetation	
23	6" Orthos (Color)	Google does 6" / <1-meter accuracy / Multi-spectral
1	1-Digit Roadwidth	One UDAR 3D project could produce all of these products
13	Demarcated Streets - Curb to Curb (Impervious)	
16	Streetsides	
17	DEMs	
27	Contours - Two Foot	
46	Grass Cover	
46	LiDAR	
50	Roof (Impervious)	
62	Wetlands	
66	Wetlands	
70	Spot Elevations	
75	Slope	
82	Address Entrance Points	
86	Driveways	
101	Contours - 3 Feet Foot	
70	Pictometry	Pictometry coordinated at County
8	Access Points	?
11	Evacuation Routes	
24	Evacuation Areas	
104	3" Orthos (Color)	

24 Layers - Questionable/No Source

1 Item

	LAYER NAME	POSSIBLE SOURCE
7	Swimming Pools	Derived from NIR 6" Orthos? Could be done with one classification.
68	Landcover (Impervious, Vegetation, etc...)	
98	Vegetation	
23	6" Orthos (Color)	Google does 6" / <1-meter accuracy / Multi-spectral
1	1-Digit Roadwidth	One UDAR 3D project could produce all of these products
13	Demarcated Streets - Curb to Curb (Impervious)	
16	Streetsides	
17	DEMs	
27	Contours - Two Foot	
46	Grass Cover	
46	LiDAR	
50	Roof (Impervious)	
62	Wetlands	
66	Wetlands	
70	Spot Elevations	
75	Slope	
82	Address Entrance Points	
86	Driveways	
101	Contours - 3 Feet Foot	
70	Pictometry	Pictometry coordinated at County
8	Access Points	?
11	Evacuation Routes	
24	Evacuation Areas	
104	3" Orthos (Color)	

24 Layers - Questionable/No Source

	LAYER NAME	POSSIBLE SOURCE
7	Topographic Profile	
53	Land cover / Impervious / Vegetation / etc.	Derived from NIR 5" Orthos? Could be done with one classification.
58	Vegetation	
73	6" Orthos (Color)	Google does 6" / ±1-meter accuracy / Multi-spectral
1	Building Footprints	One UDAR 3D project could produce all of these products
13	Pavement (Streets - Curb to Curb polygons)	
16	Sidewalks	
17	DEMs	
27	Contours - Two Foot	
36	Edge-of-Curb	
46	LIDAR	
58	Blocks (Parcels)	
62	Hillshade	
66	Driveways	
74	Spot Elevations	
78	Slope	
82	Address Entrance Points	
84	Breaklines	
101	Contours - Ten Foot	
70	Pictometry	Pictometry coordinated at County
8	Access Points	
11	Evacuation Routes	
24	Evacuation Areas	?
104	3" Orthos (Color)	

15 Items

24 Layers - Questionable/No Source

	LAYER NAME	POSSIBLE SOURCE
7	Topographic Profile	
53	Land cover / Impervious / Vegetation / etc.	Derived from NIR 5" Orthos? Could be done with one classification.
58	Vegetation	
73	6" Orthos (Color)	Google does 6" / ±1-meter accuracy / Multi-spectral
1	Building Footprints	One UDAR 3D project could produce all of these products
13	Pavement (Streets - Curb to Curb polygons)	
16	Sidewalks	
17	DEMs	
27	Contours - Two Foot	
36	Edge-of-Curb	
46	LIDAR	
58	Blocks (Parcels)	
62	Hillshade	
66	Driveways	
74	Spot Elevations	
78	Slope	
82	Address Entrance Points	
84	Breaklines	
101	Contours - Ten Foot	
70	Pictometry	Pictometry coordinated at County
8	Access Points	
11	Evacuation Routes	
24	Evacuation Areas	?
104	3" Orthos (Color)	

1 Item

24 Layers - Questionable/No Source

	LAYER NAME	POSSIBLE SOURCE
7	3" Orthos (Color)	Derived from NAD 83 Orthos? Could be done with one classification.
58	Landcover (Impervious, Vegetation, etc...)	
98	Vegetation	
23	6" Orthos (Color)	Google does 6" / <1-meter accuracy / Multi-spectral
1	6" Orthos (Color)	
13	Downward Streets - Curb to Curb polygons	
15	Driveways	
17	Drains	
27	Contours - Tree Root	
38	Contours - Tree Root	
45	LiDAR	
58	Blocks (Parcels)	
62	Buildings	
66	Contours - Tree Root	One LiDAR 3D project could produce all of these products
73	Spot Elevations	
75	Slope	
82	Address Entrance Points	
84	Break Lines	
101	Contours - Tree Root	
70	Pictometry	
		Pictometry coordinated at County
4 Items {		?
8	Access Points	
11	Evacuation Routes	
24	Evacuation Areas	
104	3" Orthos (Color)	

Remove My Entity Layers

LAYER NAME	LAYER NAME
1 Building Footprints	54 Traffic Lights
2 City (Municipal) Boundaries	55 Valves (Water Distribution)
3 School Districts	56 Water Meters
4 Easements (Electrical, Cable, Gas...)	57 Wetlands
5 County Boundaries	58 Blocks (Parcels)
6 Road Blocks	59 Current Land Use
7 Swimming Pools	60 Conservation Areas
8 Access Points	61 Culverts
9 ZIP Codes	62 Hillshade
10 Neighborhood / Subdivisions	63 Soils
11 Evacuation Routes	64 Detention Areas
12 FEMA Boundaries	65 Trails - Hike / Bike
13 Pavement (Streets - Curb to Curb polygons)	66 Driveways
14 Fire Districts	67 Parks
15 Rivers / Streams / Creeks	68 Landcover (Impervious, Vegetation, etc...)
16 Sidewalks	69 Mains (Water Distribution)
17 Ditches	70 Pictometry
18 Utilities / Ponds	71 Grid - Mapscro
19 Cemeteries	72 Pavement assessment (to determine maintenance, replacement)
20 Survey monuments	73 Open Green spaces
21 Grid - USGS Quads	74 Spot Elevations
22 Slope	75 Land Stationing
23 6" Orthos (Color)	76 Utilities (Water, Sewer, Gas, etc...)
24 Evacuation Areas	77 Utilities (Water, Sewer, Gas, etc...)

45 After Questionable/No Source AND My Entity Were Removed

	LAYER NAME
2	City (Municipal) Boundaries
3	School Districts
5	County Boundaries
6	Road Blocks
9	ZIP Codes
10	Neighborhood / Subdivisions
12	FEMA Boundaries
14	Fire Districts
15	Rivers / Streams / Creeks
18	Lakes / Ponds
20	Survey Monuments
21	Grid - USGS Quads
26	State Congressional Districts (House)
28	Zoning
29	Airports
31	R.O.W.
32	Railroads
34	State Congressional Districts (Senate)
35	Grid - National Grid
37	Parcels
38	Aquifers
40	Road Centerlines
42	Watersheds

	LAYERNAME
43	State Boundaries
48	Census Block Groups
49	Census Tracts
51	Proposed Land Use
52	Census Blocks
57	Wetlands
59	Current Land Use
60	Conservation Areas
63	Soils
65	Trails - Hike / Bike
67	Parks
71	Grid - Mapsco
73	Open/Green spaces
76	Facilities (Businesses, Schools, Hospitals, Government...)
80	Bus Routes
85	Bridge Points
87	Police Districts / Beats
88	Archaeological sites
90	RR Crossings
93	Levees
95	Capital Improvement Projects
100	Control Corners

24 Layers Available At A State or Federal Level, Or From Private Sector

	LAYER NAME	POSSIBLE SOURCE	NOTES
2	City (Municipal) Boundaries	TNRIS	Accuracy?
5	County Boundaries	TNRIS	Accuracy?
9	ZIP Codes	USPS	Availability? Digital? Accuracy?
12	FEMA Boundaries	FEMA/D FIRM	Good
15	Rivers / Streams / Creeks	USGS-NHD	Good
18	Lakes / Ponds	USGS-NHD	Good
21	Grid - USGS Quads	USGS	Good
26	State Congressional Districts (House)	TNRIS	Good
29	Airports	FAA? or TNRIS?	Accuracy?
32	Railroads	Federal RRA Administration? or TNRIS	Accuracy?
34	State Congressional Districts (Senate)	TNRIS	Good
35	Grid - National Grid	U.S. National Grid (USNG)	Good
38	Aquifers	TNRIS	Good
42	Watersheds	USGS	Good
43	State Boundaries	TNRIS	Good
48	Census Block Groups	Census Bureau	Good
49	Census Tracts	Census Bureau	Good
52	Census Blocks	Census Bureau	Good
57	Wetlands	U.S. Fish & Wildlife	Good
60	Conservation Areas	Texas Parks & Wildlife	
63	Soils	National Resources Conservation Service	Good
71	Grid - Mapsco	MAPSCO?	Legality? Accessibility?
88	Archaeological sites	Texas Historical Commission?	Availability?
90	RR Crossings	Individual	Good

24 Remaining Layers That Need Coordination After *My Entity / No Source / State, Federal & Private Sector* Were Removed

LAYER	SOURCE	LAYER	SOURCE
School Districts	ISD's	Trails	Individual Entities
Neighborhood/ Subdivisions	Appraisal Districts	Parks	Individual Entities
Fire Districts	Individual Entities	Open Spaces	Individual Entities
Survey Monuments	Individual Entities	Facilities	Individual Entities
Zoning	Individual Entities	Bus Routes	Individual Entities
R.O.W.	Individual Entities	Bridge Points	Individual Entities
Parcels	Appraisal Districts	Police Districts	Individual Entities
Road Centerlines	Individual Entities	Levees	Individual Entities
Proposed Land Use	Individual Entities	Capital Imp. Projects	Individual Entities
Current Land Use	Individual Entities	Control Corners	Individual Entities

5 “Sources” For Layers

1. Those generated & maintained by individual Entities
2. Those available from other Entities but needs coordination/assembly
3. Those available from other “*Outside*” Entities as a complete layer
4. Those generated by a cooperative purchase
5. Those coordinated before/after Emergency Response

5 "Source Breakdowns" For All 105 Layers

37 - GENERATED & MAINTAINED BY INDIVIDUAL ENTITY		24 - AVAILABLE FROM OTHER "OUTSIDE" ENTITIES AS COMPLETE LAYER		20 - GENERATED BY COOPERATIVE PURCHASE	
ORDER	LAYER NAME	ORDER	LAYER NAME	ORDER	LAYER NAME
1	Elements (Electrical, Cable, Sew...)	1	City (Municipal) Boundaries	1	Building Footprints
2	Counties	2	County Boundaries	2	Swimming Pools
3	Signage	3	ZIP Codes	3	Pavement (Streets - Curb to Curb polygons)
4	Telephone Poles	4	FEMA Boundaries	4	Streets
5	Hydrams	5	Severe Storms / Cycles	5	Other
6	Street Intersection	6	Lakes / Ponds	6	8" Orthes (Color)
7	Historic Sites	7	Grid - USGS Quads	7	Contours - Two Foot
8	Junction Box	8	State Congressional Districts (House)	8	Curb to Curb
9	Wastholes (Stormwater)	9	Counties	9	Liars
10	Open Drains (Improved or Unimproved)	10	Railroads	10	Blocks (Parcels)
11	Outfalls	11	State Congressional Districts (Senate)	11	Hillshade
12	Pumps	12	State National Grid	12	Orthoreads
13	Speed Limits (assigned to street segments)	13	Auditors	13	Landcover (Impervious, Vegetation, etc...)
14	Traffic Lights	14	Waterbodies	14	Pictometry
15	Valves (Water Distribution)	15	State Boundaries	15	Spot Elevations
16	Water Meters	16	Conservation Areas	16	Shape
17	Culverts	17	Conservation Areas	17	Address Entrance Points
18	Detention Areas	18	Conservation Areas	18	Breaklines
19	Mains (Water Distribution)	19	Grid - MapInfo	19	Vegetation
20	Pavement (Assigned to street segments)	20	Archaeological Sites	20	Contours - Ten Foot
21	Trail Stations	21	Archaeological Sites		
22	Water Towers	22	Archaeological Sites		
23	Abandoned Lines	23	Archaeological Sites		
24	Trails	24	Archaeological Sites		
25	Lateral Lines (Water Distribution)	25	Archaeological Sites		
26	Manholes (Sanitary Sewer)	26	Archaeological Sites		
27	Manholes (Sanitary Sewer)	27	Archaeological Sites		
28	Manholes (Sanitary Sewer)	28	Archaeological Sites		
29	Manholes (Sanitary Sewer)	29	Archaeological Sites		
30	Manholes (Sanitary Sewer)	30	Archaeological Sites		
31	Manholes (Sanitary Sewer)	31	Archaeological Sites		
32	Manholes (Sanitary Sewer)	32	Archaeological Sites		
33	Manholes (Sanitary Sewer)	33	Archaeological Sites		
34	Manholes (Sanitary Sewer)	34	Archaeological Sites		
35	Manholes (Sanitary Sewer)	35	Archaeological Sites		
36	Manholes (Sanitary Sewer)	36	Archaeological Sites		
37	Manholes (Sanitary Sewer)	37	Archaeological Sites		

Three Surveys

#1 North Texas GIS Survey Results

Survey Background

Survey Overview

Survey Results

Survey Summary

Survey Details

Survey Data

Survey Analysis

Survey Conclusions

Survey Recommendations

Survey Appendix

Survey Glossary

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#2 NTGISC Winter Survey

Survey Background

Survey Overview

Survey Results

Survey Summary

Survey Details

Survey Data

Survey Analysis

Survey Conclusions

Survey Recommendations

Survey Appendix

Survey Glossary

Survey Index

#3 NTGISC Winter Survey Part Deux

Survey Background

Survey Overview

Survey Results

Survey Summary

Survey Details

Survey Data

Survey Analysis

Survey Conclusions

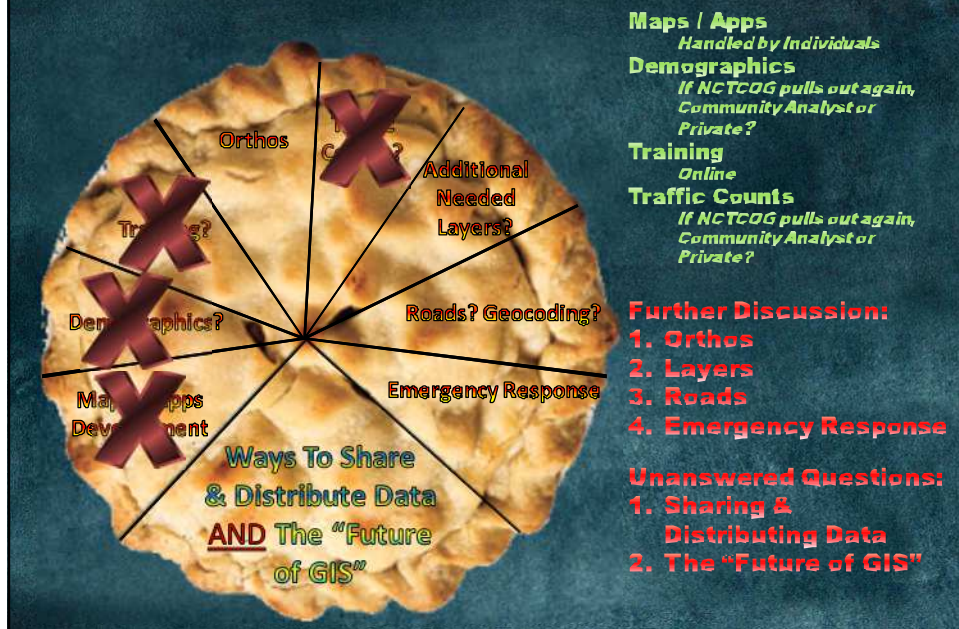
Survey Recommendations

Survey Appendix

Survey Glossary

Survey Index

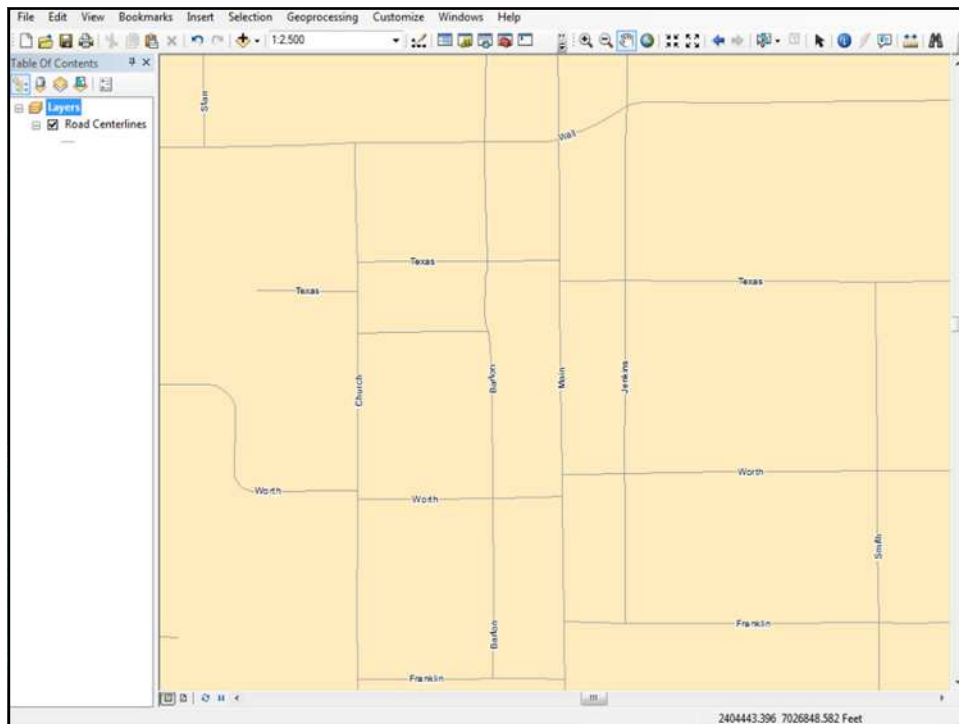
What Are The Pieces Of The “Pie?”



Orthophotography

Discuss alternative sources for orthophotography. Look further into the Google orthos, and explore other possible sources. This group will also verify resolution, accuracy, frequency, cost, deliverables... for these alternate sources. **Frank Cangelosi (Tarrant County)** will head this group.





Orthophotography

- Ways to store orthos – Advantages / Disadvantages:
 - *SDE/SQL in-house*
 - *Mosaic / Raster Datasets & Raster Catalog*
 - *Image Services*
- Alternatives to connecting to orthos:
 - *Image Services (Google, Bing, In-house, ...)*
 - *Resolution and Accuracy of alternative sources*
 - *Costs of alternative sources*
 - *Fly-times of alternative sources*
 - *Turn-around times*
 - *Ownership / distribution*

Roads

*This group will look into better / newer ways to keep all of our roads up-to-date. Not only updating the linework, address ranges, road names, etc..., but how all of us can better coordinate with our County 9-1-1 agency where there is a 2-way flow of data and information. **Bret Fenster (Collin County)** will be heading up this group.*



Road Topics

COORDINATION WITH COUNTY 9-1-1 ENTITIES

- Data back-and-forth
- Unique ID?

BEST PRACTICES FOR INPUTTING LINEWORK

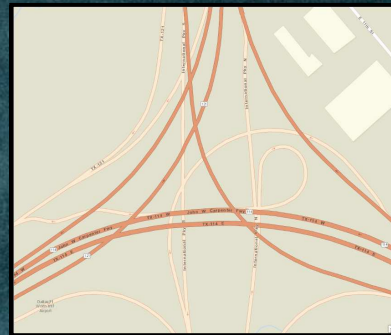
- Arc directions
- Splitting lines
- Address ranges
- Turn-arounds, U-Turns, Crossovers
- 1 line vs. 2 lines for divided roads

ADDRESSING / GEOCODING

- How many different ways do you need addresses?
 - Actual
 - Potential
- Naming conventions for ramps, access roads, etc...
- How to geocode on long driveways
- How to geocode on suites, etc...
- How to geocode on multi-stories (apartments, businesses, etc...)
- Road aliases
- Multi-level Geocoding
 - Roads
 - Parcels
 - Buildings
- Using outside agencies for geocoding (Esri, Google, etc...)

ROUTING

- One-ways
- Multi-level (Overpasses, Underpasses)



Emergency Management

Discuss ways the region can coordinate data, efforts and methodology with David Allen and the Texas Emergency GIS Response Team (EGRT). By supporting and learning EGRT, it will help us not only for large-scale emergencies, but will give everyone some direction in dealing with smaller emergencies in their own jurisdictions. David Allen (City of Euless) will head this group.



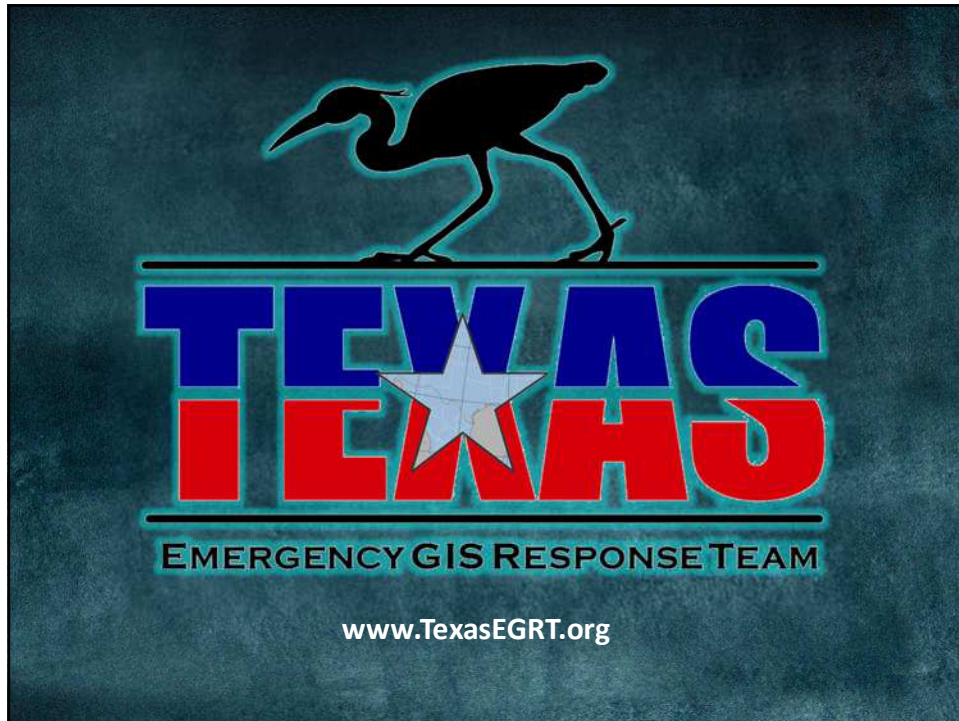
Emergency Response Topics

DATA:

1. What data is needed?
 - a. Orthos – State vs. Local
 - b. Vector – State vs. Local
 - i. Roads
 - ii. Parcels (Point location or building footprint if available) with owner name and value.
 - iii. Other local data
2. Emergency Response Data vs. Public data. (Non-distributed vs. Distributed to public)
3. Coordination with UNT Repository? (What counties to cover)
4. Formatting of data / updates. Data cleanup and transfer
5. Optimizing data performance/delivery. ie., Field structure? Number of fields.

MECHANICS?:

1. Type of facilities, hardware, etc... needed?
2. Integrating online capabilities for remote support
3. Level of involvement with EGRT (support training, exercises, recruitment)



EGRT Response

- ▣ Texas EGRT follows the same response areas as DPS to maintain consistency.
- ▣ The Region 1 EGRT covers 42 counties and 8.1 Million people



UNT Repository / Data Sharing

Explore different ways to serve and share data between entities (Map Services, ftp sites, etc...) AND best ways to upload and merge data into a usable form. Uploading data to both NCTCOG and the UNT Repository. - Serving out data to their internal maps/apps. - Interfacing with contractors, etc... that need access to our data. - Using data/services from other providers and integrating with our own data. **Bruce Hunter (UNT)** will be heading up this group.



The Future Of GIS

Data collecting & updating in the future / Sensor derived data / Analysis / Mainstreaming of GIS. **Ron Briggs (UTD)** will be heading up this group.



Future of GIS Topics

THREE MAIN TOPICS:

DATA GENERATION - Change in how data is collected and updated.

1. Switching to sensor-derived data. Focus on needed City/County data. What sensors are out there that GIS could tap into?

- Traffic Cameras & Sensors
- Security Cameras
- Smart Meters
- Cell Phone Traffic
- Live feed from public
- Store Check-out Systems
- NIR Orthos
- LIDAR
- ?????

2. Sort by priority based on majority of Cities/Counties needs

3. How do you grab, manipulate, and push out the above data/information

4. What Big Data items does the region need, and how/what is the best way to generate/acquire it?

ANALYSIS - Analysis becoming more & more important in the near future.

1. Nobody wants a GIS system, they just want a system that helps them do some sort of business process(es).

2. What kind of processes/analysis are most needed by most Cities/Counties:

- Crime
- Traffic
- Vacant Land (Economic Development)
- ???

3. How can we serve that out?

a. Analysis done on the fly by citizens / Employees

b. Web tools available for analysis. What is available. ArcGIS Online? Private 2nd party tools?

WITHERING OF GIS - Mainstreaming of GIS. Name virtually disappears and it gets integrated into other systems - IT, Web apps, navigation

1. Who are we? (GIS Community) and how do we market that / how do you make decisions with GIS.

2. Here's what a GIS career would look like if your major focus of study was:

- Planning
- Crime
- Environmental
- IT ...
- Programmer
- ????

3. Lack of understanding of older group of how younger generation communicates. Need to pull in some newer breed GISers to get a better handle, and possibly steer, the future of GIS.

INCORPORATION OF GIS INTO BUSINESS PROCESSES

- Emergency Solutions
- Transportation Systems (Police, Fire, Field-Crews...)
- Smart Sector Input
- Emergency Response Input

IMPLEMENTATION - In house or external?

Flow Of Data With Maps from Collection To Distribution

How To Manage Volumes Of Data

Private/Outside Development - Cost, Risk, Return

What Maps/Apps Most Needed / Created by

Private/Outside Development - Cost, Risk, Return

Private/Outside Development - Cost, Risk, Return

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NTGISCC Governance / Structure

Governance / structure of NTGISCC / role / responsibility. What will we produce?

John Hunt (City of Grapevine) will head this committee.

BY-LAWS
Name • Purpose
Membership
Officers • Meetings
Motions



Governance / Structure Topics

- Co-operative Model.
- Purpose / Mission.
- Officers. Board.
- Membership.
- Size of organization.
- Minutes and records.
- Basic Values.
- Attendance / Participation.
- How do members deal with decisions when we disagree?
- Interfacing / Communicating with rest of GIS Community.
- Structure / membership of sub-committees.
- Publications.
- Social Media?
- Spreading responsibilities.

TOPICS NEEDING FURTHER DISCUSSION IN THE FUTURE

1. Maps & Apps Development & Field Editing
2. Private vs. Public Data Resources
3. Keeping data current with data aggregators (Google, Navteq,...)
4. Better picture of GIS User Base:
 - # employees
 - Software
 - Big ticket projects
 - General news
 - Etc...



