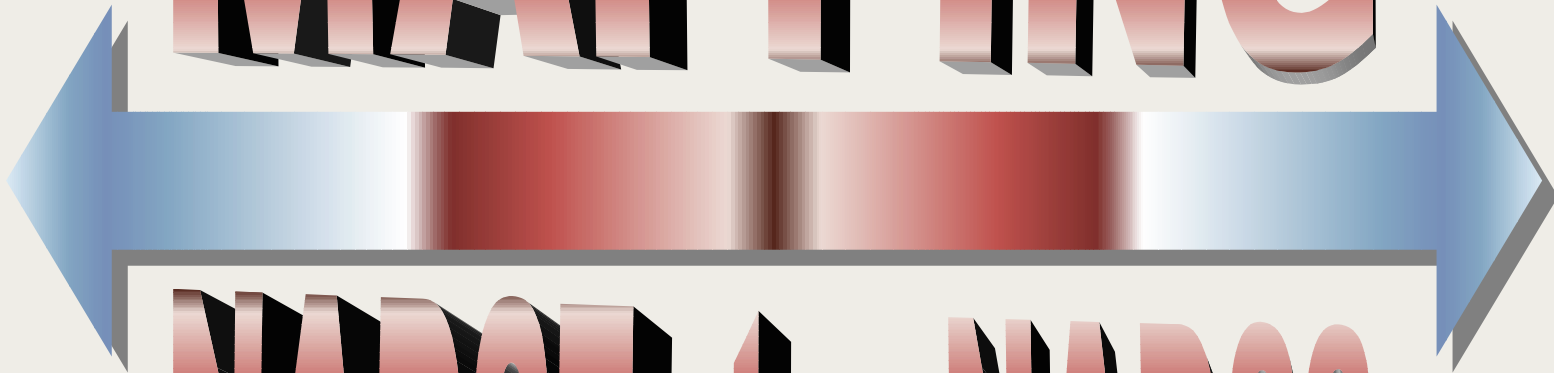




JOHN E CHANCE & ASSOCIATES, INC.

MAPPING



NAD27 to NAD83



Mapping Tools

Corpscon v5.11

(Transformation program)

Developed by:

U.S. Army Corps of Engineers

- Converts single point and point file coordinate values between the NAD27 and NAD83 datums when those values are expressed as state plane coordinates, UTM coordinates, or latitude and longitude.
- Utilizes NADCON - North American Datum Conversion Utility. NADCON is the Federal standard for NAD27 to NAD83 datum transformations.



Mapping Tools

Geographic Calculator v4.01

(Transformation program)

Developed by:

Blue Marble Geographics

- Converts single point, point file, and map file coordinate values from virtually any coordinate system, datum, and map projection to any other.
- Utilizes standard NADCON Utility for NAD27 to NAD83 datum transformations. Allows user defined parameters for customized datum transformations.
- Chance utilizes Geographic Calculator to convert (between projections) and transform (between datum) ASCII point files and DWG files.



Mapping Tools

AutoCAD r14.01

(Computer Aided Design / Mapping program)

Developed by:

Autodesk

- A customizable 2D and 3D design and drafting environment and toolset.
- Chance has customized AutoCAD to create, view, and plot maps and databases in X,Y coordinate grid systems of various map projections.
- Allows import/export of DXF and image files.
- NAD27 to NAD83 transformation **not** available.



Mapping Tools

Terramodel v9.60

(Computer Aided Design / Mapping program)

Developed by:

Spectra Precision

- A 2D and 3D design and drafting tool that integrates aspects of land modeling, mapping, and design.
- Chance utilizes Terramodel to create, view, and plot surface models, contours, and profile/cross-sections in X,Y coordinate grid systems of various map projections.
- Allows import/export of DWG and DXF files.
- NAD27 to NAD83 transformation **not** available.



Mapping Tools

Arcview GIS v3.1

(GIS / Mapping program)

Developed by:

ESRI - Environmental Systems Research Institute

- A visualization and drafting tool to access records from existing databases and display them on maps.
- Chance has customized Arcview GIS to access and update the Chance databases and to create, view, and plot maps in X,Y coordinate grid systems of various map projections.
- Allows import/export of DWG, DXF, and image files.
- Allows exports of data to Starfix.NAV
- NAD27 to NAD83 transformation **not** available.



Mapping Tools

Starfix.NAV v207.02

(Survey and Navigation program)

Developed by:

John E Chance & Associates, Inc.

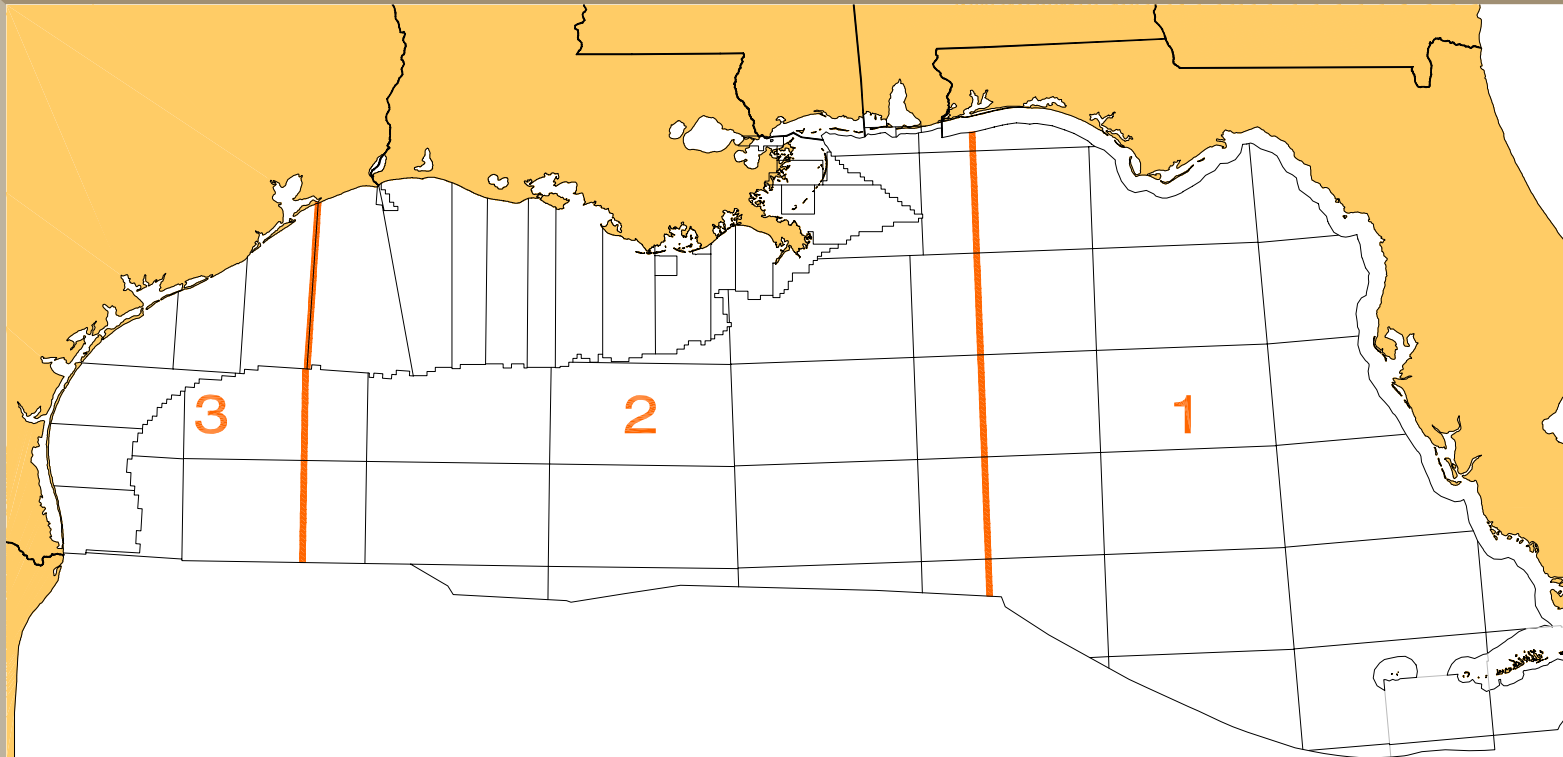
- A survey and navigation system that combines survey, monitoring, and calculation functions with Chance database information.
- A true GIS that provides fast access to reliable data and a real-time system that provides precise positioning and navigation service.
- Allows import/export of DWG, DXF, and image files.
- Utilizes Chance defined GOM parameter datum for WGS84 to NAD27 datum transformations.



Mapping Tools

- Transformation: **Corpscon**
Geographic Calculator
- CAD/Mapping: **AutoCAD**
Terramodel
- GIS/Mapping: **Arcview GIS**
- Survey/Nav.: **Starfix.NAV**

Chance GOM Datum Shift Parameters



AS OBSERVED BY JOHN E. CHANCE & ASSOCIATES AND DEFINED IN THE MID 1980's

INDEX NO.	AREA DESCRIPTION	ELLIPSOID		SHIFTS		
		FROM	TO	X	Y	Z
1	EASTERN GULF (MIAMI to PENSACOLA)	W.G.S. 84	NAD27	+3 M	-154 M	-177 M
2	CENTRAL GULF (PENSACOLA to GALVESTON)	W.G.S. 84	NAD27	+7 M	-151 M	-175 M
3	WESTERN GULF (GALVESTON to MEXICO)	W.G.S. 84	NAD27	+7 M	-151 M	-178 M

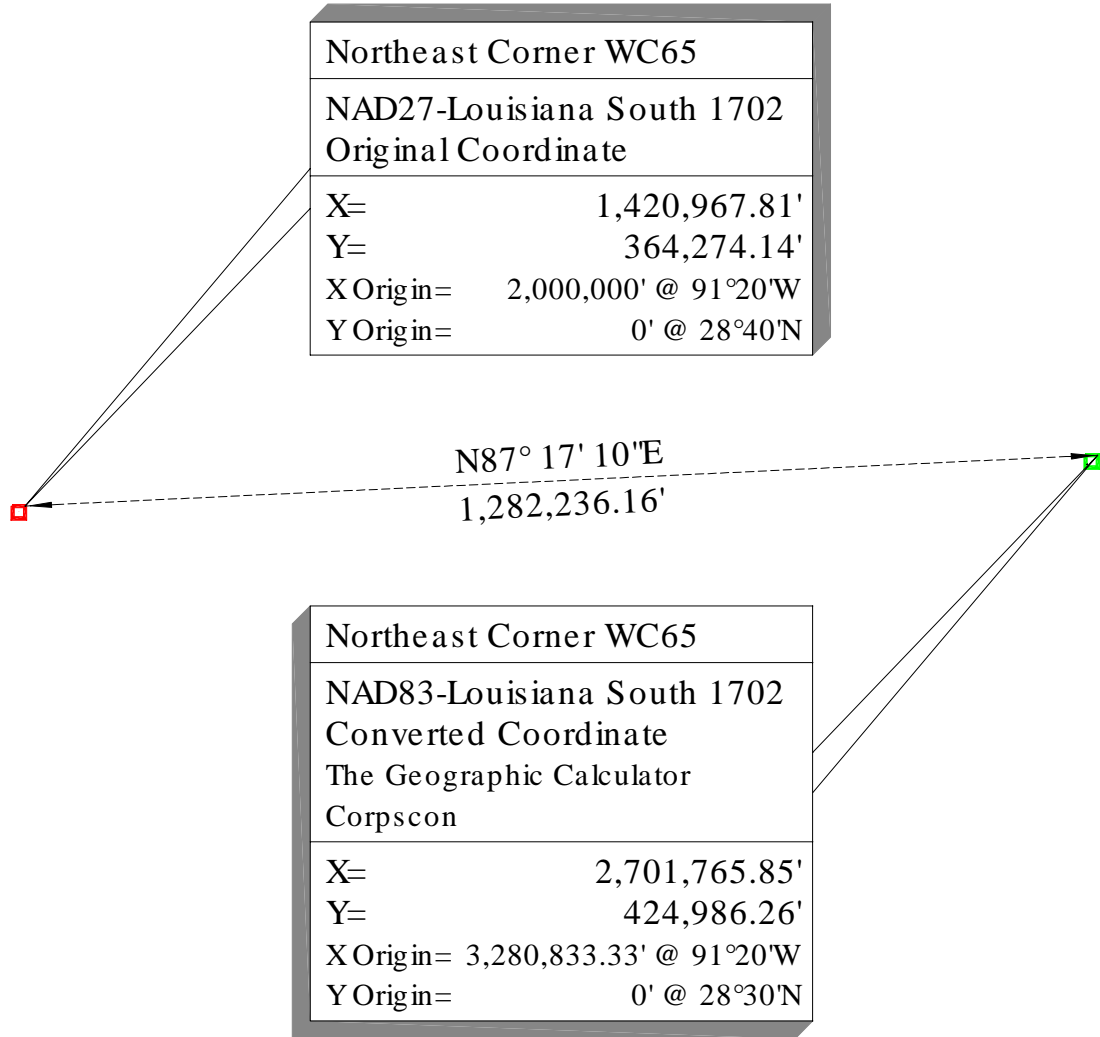


NAD27 to NAD83 Grid Relation (Lambert)

- Denotes NAD27

- Denotes NAD83

All distances and bearings referenced to grid

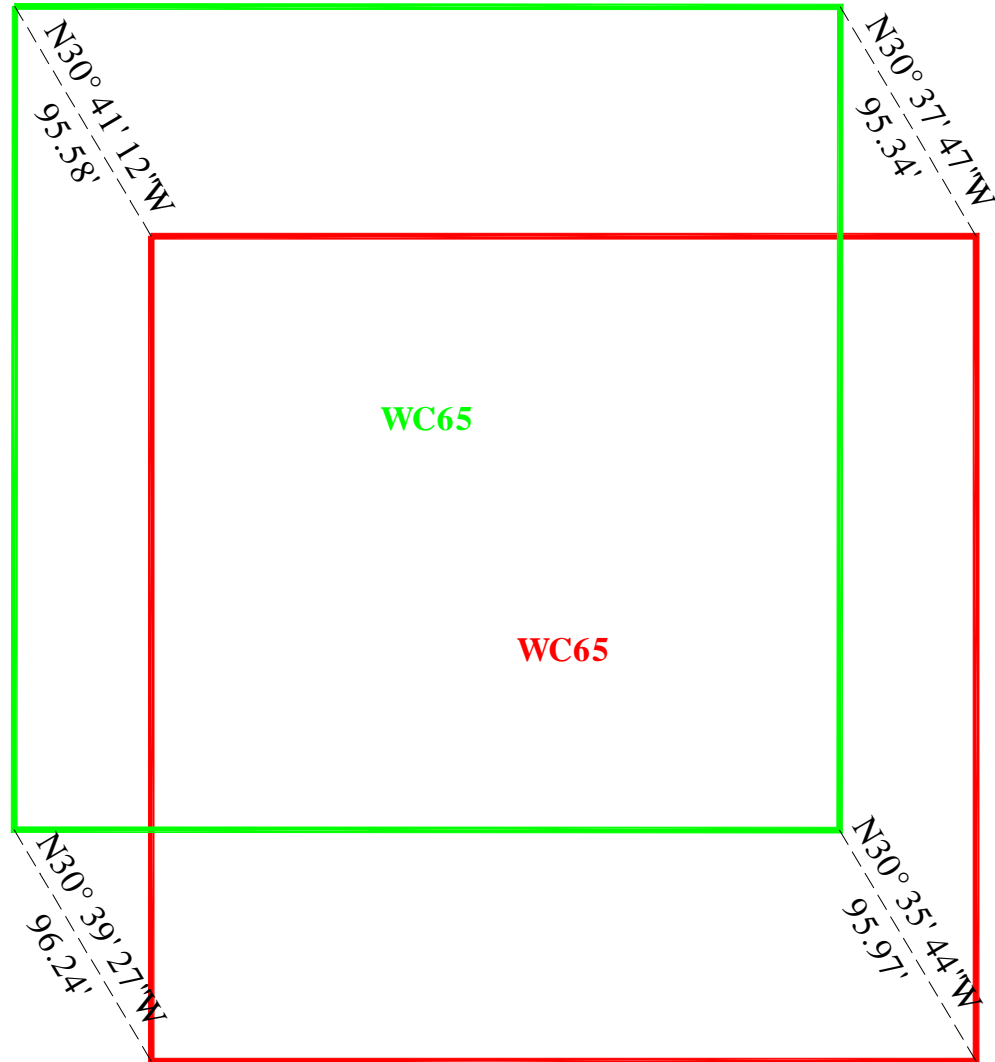




NAD27 to NAD83 Geo. Inverse Dist. (Lambert)

- Denotes NAD27
- Denotes NAD83

All distances and bearings true

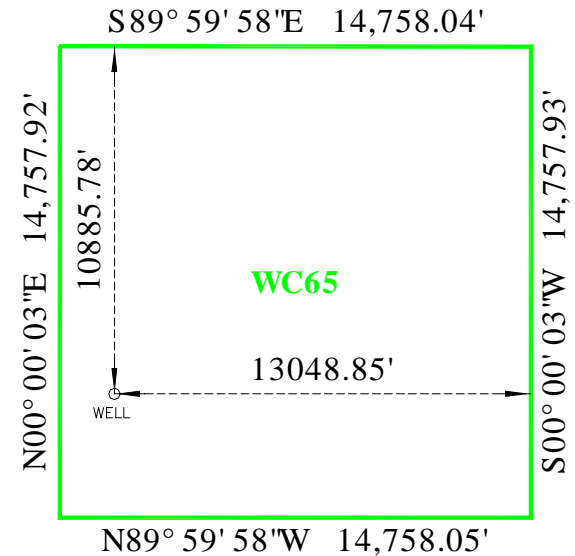
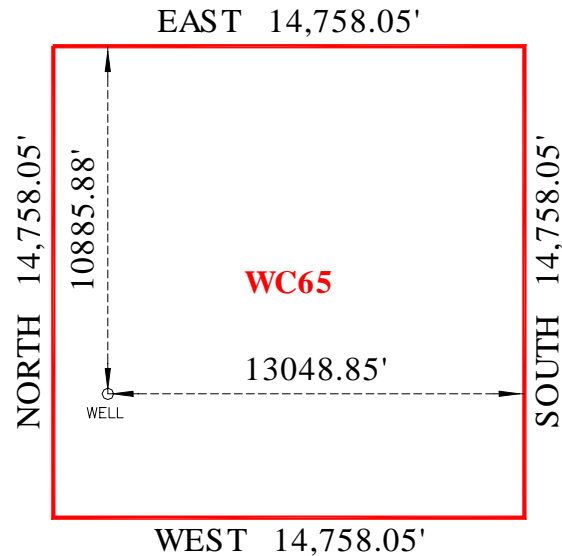




NAD27 to NAD83 Grid Dist. & Bear. (Lambert)

- Denotes NAD27
- Denotes NAD83

All distances and bearings referenced to grid



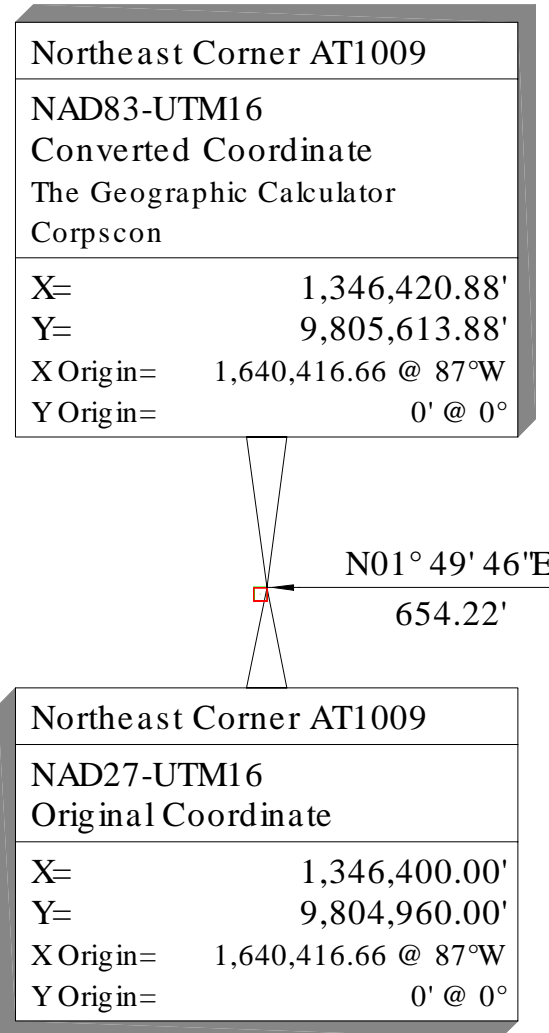


NAD27 to NAD83 Grid Relation (UTM)

- Denotes NAD27

- Denotes NAD83

All distances and bearings referenced to grid

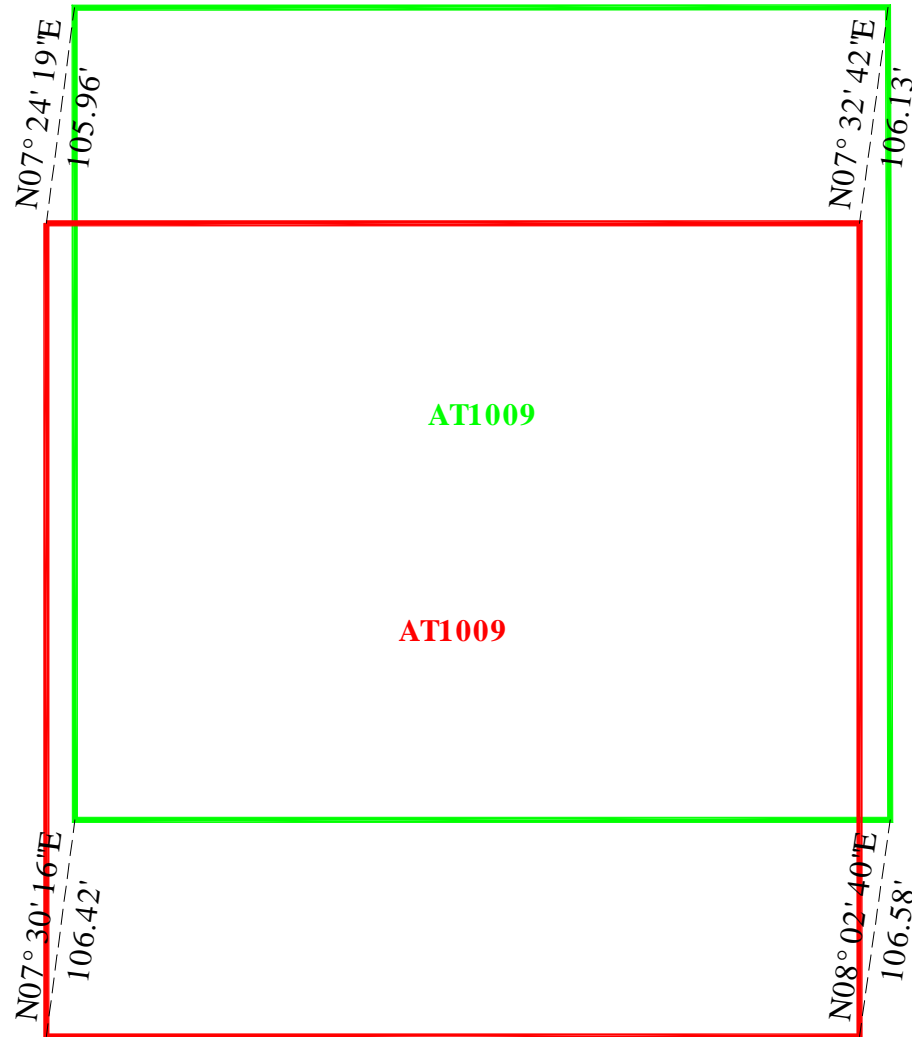




NAD27 to NAD83 Geo. Inverse Dist. (UTM)

- Denotes NAD27
- Denotes NAD83

All distances and bearings true

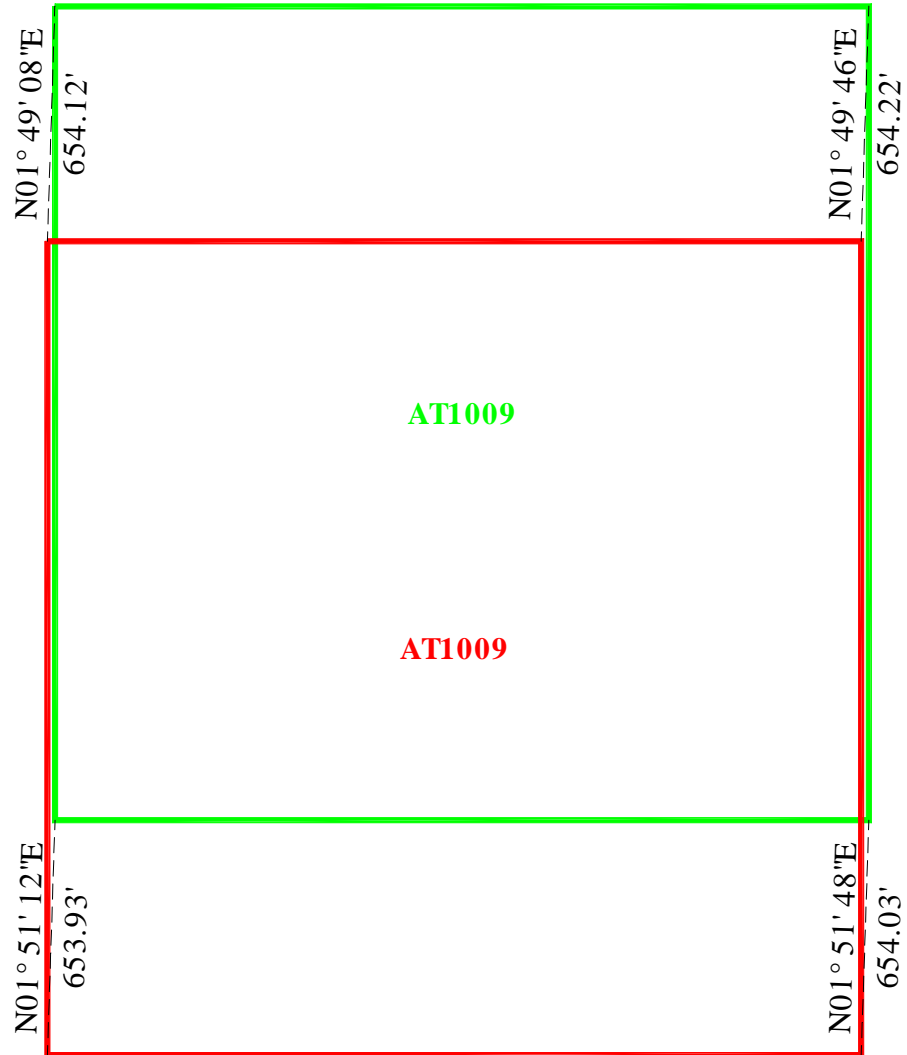




NAD27 to NAD83 Grid Dist. (UTM)

- Denotes NAD27
- Denotes NAD83

All distances and bearings referenced to grid

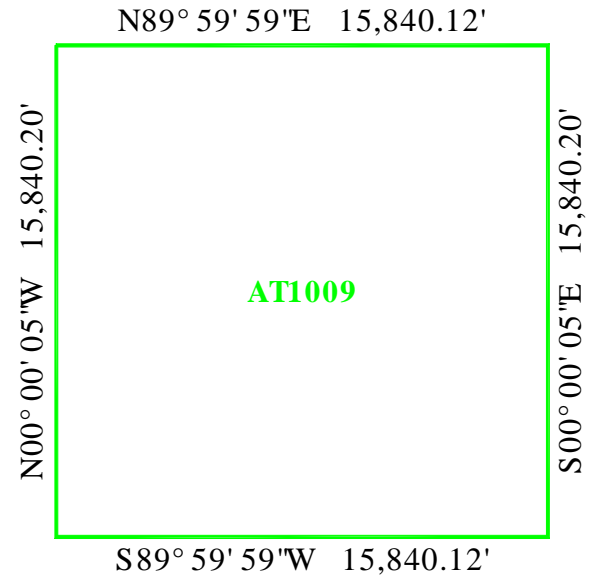
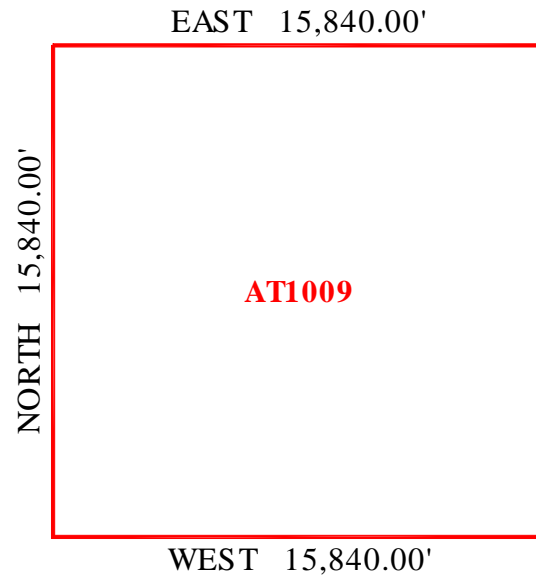




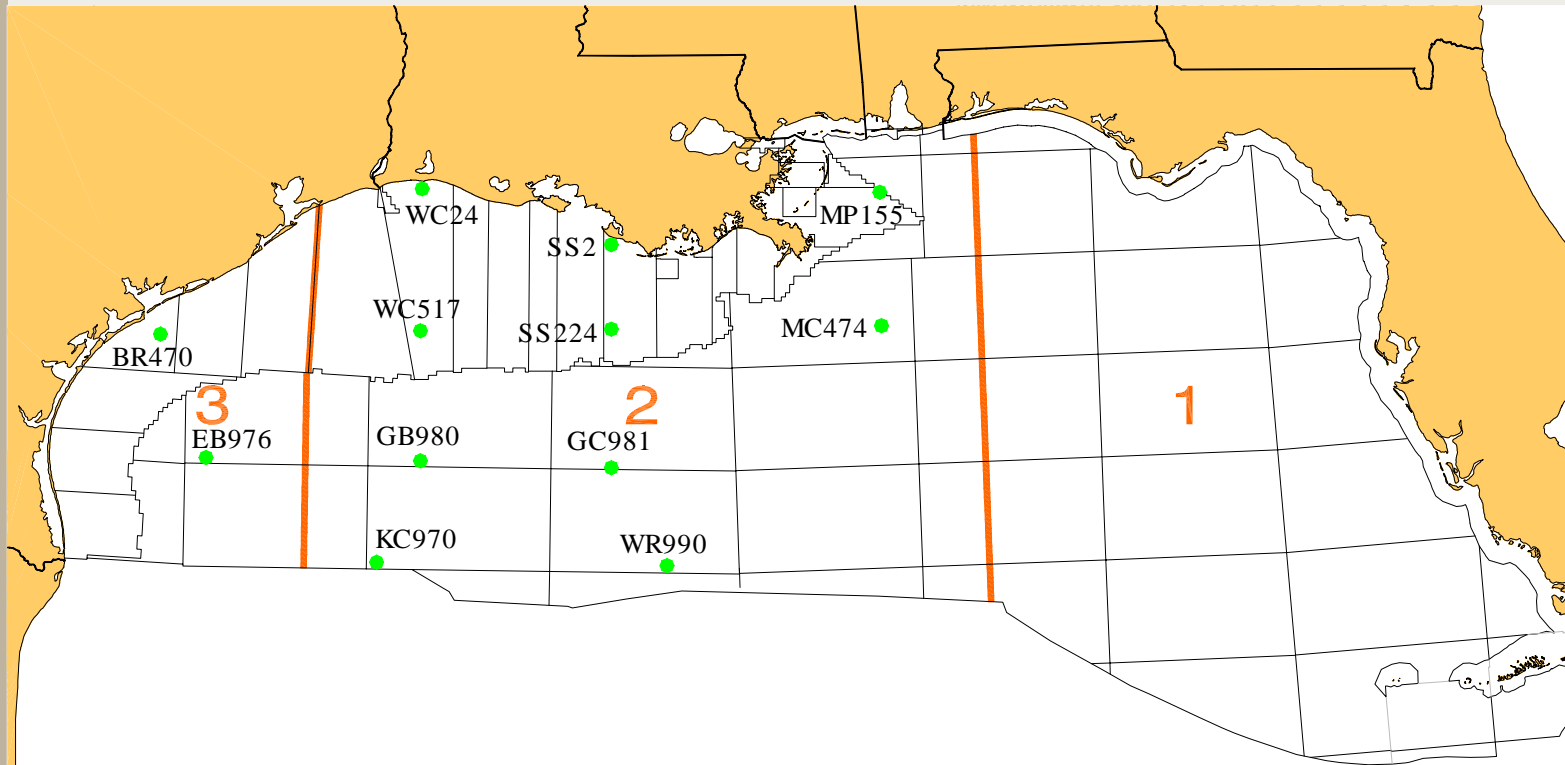
NAD27 to NAD83 Grid Dist. & Bear. (UTM)

- Denotes NAD27
- Denotes NAD83

All distances and bearings referenced to grid



Transformation Comparison





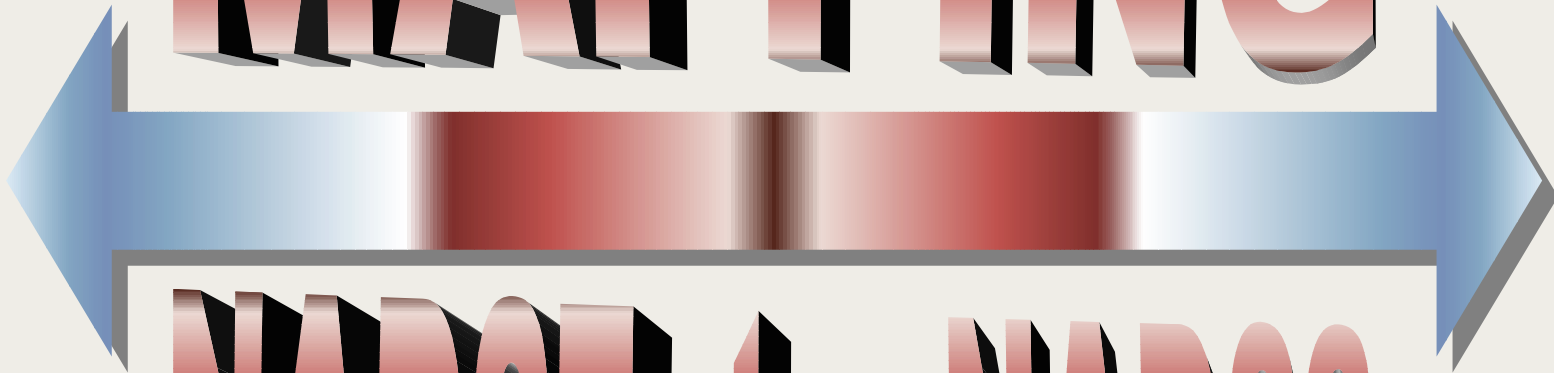
Transformation Comparison

DESC.	TRANSFORMED WITH CORPSCON & GEO. CALC.		TRANSFORMED WITH CHANCE GOM SHIFTS			DELTA DISTANCES FROM CORPSCON TO CHANCE	
	X COOR.	Y COOR.	X COOR.	Y COOR.	SHIFT	X DIST.	Y DIST.
WC 24	2,613,218.43'	454,503.09'	2,613,214.95'	454,493.30'	CENTRAL	3.48'	9.79'
SS 2	3,280,798.23'	272,065.37'	3,280,798.84'	272,063.32'	CENTRAL	-0.61'	2.05'
MP 155	4,240,660.66'	442,035.27'	4,240,653.82'	442,032.98'	CENTRAL	6.84'	2.29'
WC 517	2,613,219.15'	-17,760.63'	2,613,214.94'	-17,766.67'	CENTRAL	4.21'	6.04'
SS 224	3,280,801.13'	-7,168.32'	3,280,798.83'	-7,168.90'	CENTRAL	2.30'	0.58'
MC 474	1,219,689.04'	10,360,019.06'	1,219,680.76'	10,360,018.18'	CENTRAL	8.28'	0.88'
GB 980	1,520,602.66'	9,805,614.65'	1,520,590.52'	9,805,614.06'	CENTRAL	12.14'	0.59'
GC 981	2,185,888.95'	9,805,610.45'	2,185,874.08'	9,805,614.10'	CENTRAL	14.87'	-3.65'
BR 470	3,079,877.76'	13,368,957.23'	3,079,880.87'	13,368,954.32'	WESTERN	-3.11'	2.91'
EB 976	807,791.03'	9,805,624.70'	807,786.90'	9,805,622.93'	WESTERN	4.13'	1.77'
WR 990	2,328,463.83'	9,441,284.44'	2,328,434.89'	9,441,292.16'	CENTRAL	28.94'	-7.72'
KC 970	1,362,210.26'	9,441,290.47'	1,362,189.67'	9,441,292.11'	CENTRAL	20.59'	-1.64'



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NAD27 to NAD83