



# North Carolina Department of Public Safety

Emergency Management  
North Carolina Geodetic Survey

Pat McCrory, Governor  
Frank L. Perry, Secretary

Michael A. Sprayberry, Director

## Aerial Imagery Quality Control Report – 25 North Carolina Eastern Piedmont counties 2013 Eastern Piedmont Project

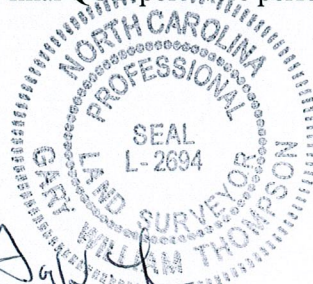
The North Carolina Geodetic Survey (NCGS) performed a horizontal quality control (QC) survey of aerial imagery collected in twenty-five North Carolina coastal counties. The purpose of the QC survey was to test the horizontal accuracy of the aerial imagery collected as part of the 2013 Eastern Piedmont Orthoimagery Project, which is funded by the NC 911 Board.

NCGS contracted private surveying firms to collect the horizontal QC test points and submit a report, which are on file at NCGS.

In addition to the contractor collected QC test points, NCGS personnel, who were under the supervision of Joe H. Scott (L-3254), collected supplemental QC test points using the following GNSS survey parameters:

<b>Class of survey:</b>	Urban Land Class A
<b>Horizontal accuracy:</b>	0.020 meters (0.065 USft) at the 95% confidence level
<b>Type of field procedure used:</b>	North Carolina Real Time Network (NCRTN) and Online Positioning User Service (OPUS)
<b>Dates of survey:</b>	10/02/13 – 5/13/14
<b>Horizontal datum/epoch</b>	North American Datum 83(2011) epoch 2010.0
<b>Vertical datum/epoch</b>	North American Vertical Datum of 1988 (NAVD88)
<b>Published fixed control used:</b>	North Carolina Continuously Operating Reference Station (CORS) Network and North Carolina Real-Time Network (NCRTN)
<b>Geoid model:</b>	Geoid12A
<b>Combined grid factor:</b>	See attached fixed control spreadsheet
<b>Units:</b>	US Survey Feet

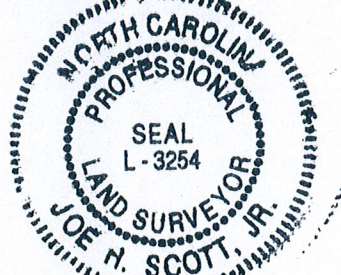
The attached report contains the results of the horizontal QC surveys conducted by the contractors and the supplemental QC surveys conducted by NCGS personnel. The review of the field data and the generation of the final QC report were performed under the supervision of Gary W. Thompson (L-2694).



Gary W. Thompson, L-2694

8-8-14

date



Joe H. Scott Jr., L-3254

8-8-14

date

**MAILING ADDRESS:**  
4298 Mail Service Center  
Raleigh NC 27699-4298  
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4105 Reedy Creek Rd.  
Raleigh, NC 27607  
Telephone: (919) 733-3836  
Fax: (919) 733-4407

This report contains the horizontal QC reports for the following counties:

- Chatham
- Duplin
- Durham
- Edgecombe
- Franklin
- Granville
- Halifax
- Harnett
- Johnston
- Lee
- Nash
- Northampton
- Orange
- Person
- Vance
- Wake
- Warren
- Wayne
- Wilson
- Bladen
- Columbus
- Cumberland
- Hoke
- Robeson
- Sampson

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**2013 Orthoimagery Statistics Summary  
NAD 83/2011 US Survey Feet**

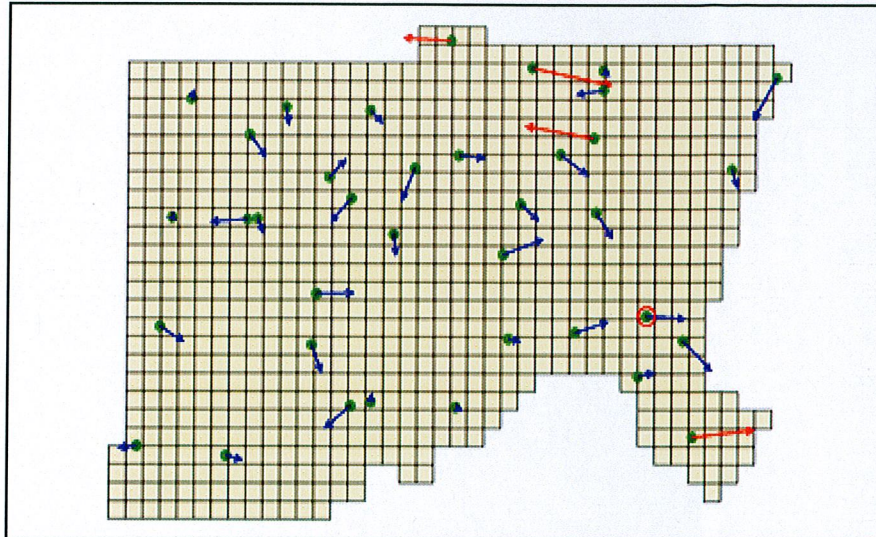
County	MinΔX:	MinΔY:	MaxΔX:	MaxΔY:	MeanΔX:	MeanΔY:	RmseX:	RmseY:	RmseH:	CE90:	CE95:	No.Obs.:	NSSDA:
Chatham	-1.975	-1.107	2.279	0.456	0.215	-0.228	0.842	0.441	0.951	1.296	1.478	37	1.646
Duplin	-0.716	-0.716	0.586	0.846	-0.113	-0.022	0.36	0.302	0.47	0.702	0.801	30	0.814
Durham	-0.716	-0.977	1.107	0.716	0.259	-0.091	0.511	0.447	0.679	0.958	1.093	30	1.175
Edgecombe	-1.845	-1.324	0.846	0.846	-0.207	-0.054	0.629	0.386	0.738	1.063	1.212	34	1.277
Franklin	-1.497	-1.194	0.846	0.456	0.122	-0.258	0.494	0.473	0.684	0.956	1.09	30	1.184
Granville	-0.846	-1.628	0.846	1.497	0.153	-0.174	0.427	0.584	0.724	1.043	1.19	31	1.252
Halifax	-1.367	-0.716	0.977	1.107	-0.122	-0.035	0.536	0.464	0.709	1.075	1.226	30	1.227
Harnett	-0.846	-0.846	1.107	0.846	-0.014	0.054	0.373	0.377	0.53	0.811	0.925	36	0.917
Johnston	-1.367	-0.586	0.716	0.716	-0.132	0.04	0.44	0.31	0.538	0.791	0.902	37	0.932
Lee	-0.716	-0.586	1.107	1.237	0.084	0.125	0.459	0.395	0.606	0.9	1.026	35	1.048
Nash	-1.454	-1.497	1.758	0.803	0.003	-0.092	0.617	0.423	0.748	1.122	1.279	35	1.295
Northampton	-1.367	-1.15	0.977	0.716	-0.091	-0.188	0.52	0.537	0.747	1.108	1.263	30	1.294
Orange	-1.497	-1.107	1.497	0.846	0.166	-0.195	0.645	0.529	0.835	1.217	1.388	31	1.444
Person	-0.89	-0.89	1.02	0.89	0.148	-0.114	0.473	0.462	0.661	0.979	1.117	30	1.144
Vance	-1.628	-2.062	0.977	0.977	0.168	-0.366	0.623	0.736	0.965	1.352	1.542	30	1.67
Wake	-0.76	-1.107	1.237	0.586	0.175	-0.325	0.473	0.512	0.697	0.906	1.033	46	1.206
Warren	-1.107	-1.628	1.628	0.846	0.308	-0.256	0.728	0.633	0.965	1.352	1.542	30	1.67
Wayne	-2.018	-1.194	0.846	1.237	-0.291	-0.046	0.739	0.491	0.887	1.275	1.454	30	1.536
Wilson	-1.411	-0.89	1.584	1.063	0.022	0.12	0.596	0.459	0.752	1.131	1.29	34	1.302
Bladen	-1.107	-0.846	1.628	0.716	-0.113	-0.156	0.585	0.438	0.731	1.073	1.224	30	1.265
Columbus	-1.584	-0.326	0.846	1.237	-0.142	0.122	0.538	0.383	0.66	0.962	1.097	30	1.142
Cumberland	-0.586	-0.716	0.586	0.716	0.091	0.074	0.319	0.408	0.518	0.772	0.881	29	0.897
Hoke	-1.107	-1.497	0.586	0.846	-0.291	0.048	0.55	0.489	0.736	1.041	1.187	30	1.274
Robeson	-1.628	-0.977	0.716	0.846	-0.043	-0.009	0.488	0.441	0.658	1.011	1.153	30	1.138
Sampson	-0.586	-0.716	0.716	0.716	-0.017	0.117	0.354	0.4	0.534	0.803	0.916	30	0.925

**Average (USft): 0.53276 0.4608 0.70892 1.02796 1.17236 1.22696**





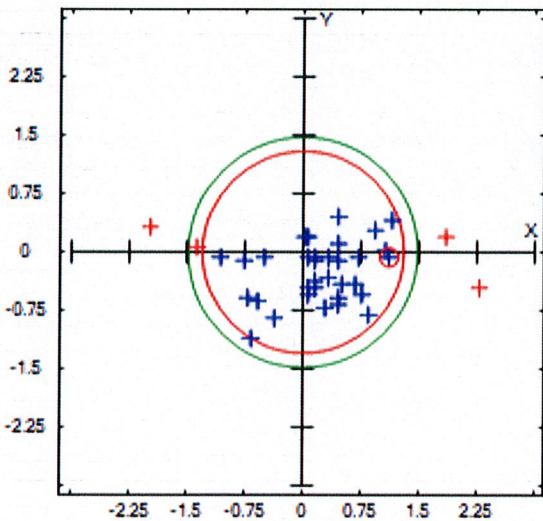
Vector Offset



Scaling Factor: 10000

Circular Error

Error Statistics



Min $\Delta X$ :	-1.975
Min $\Delta Y$ :	-1.107
Max $\Delta X$ :	2.279
Max $\Delta Y$ :	0.456
Mean $\Delta X$ :	0.215
Mean $\Delta Y$ :	-0.228
RmseX:	0.842
RmseY:	0.441
RmseH:	0.951
NSSDA:	1.646
No. Obs.:	37
CE 90:	1.296
CE 95:	1.478



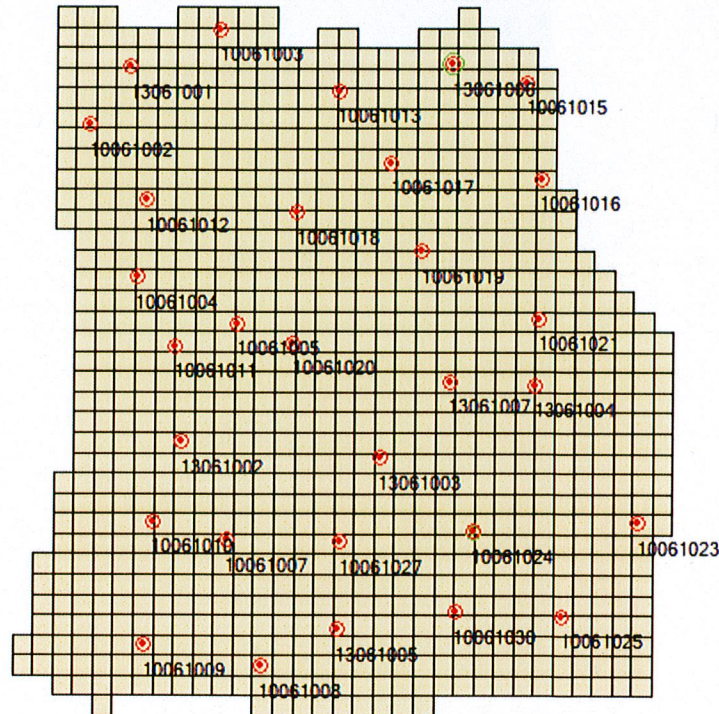
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 11/27/2013 Finish: 11/27/2013

## Metadata Information

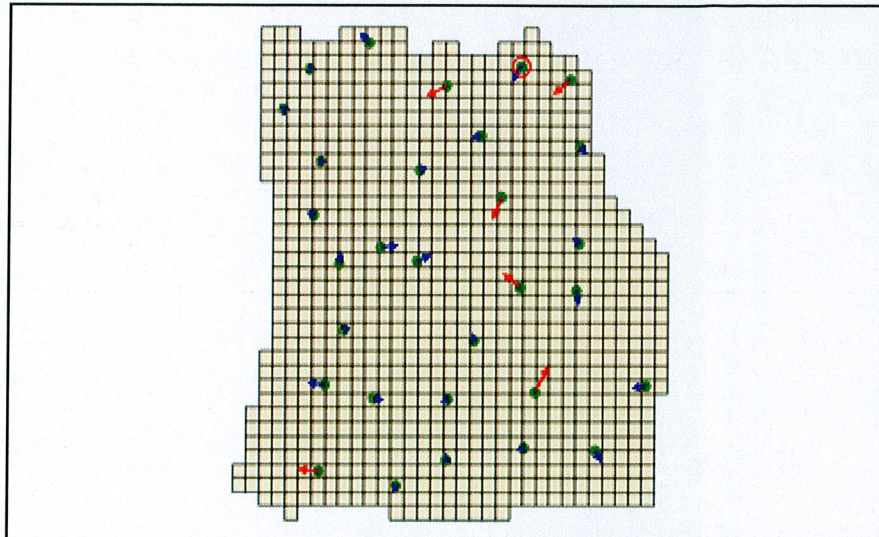
Index File Name: duplin\_index.shp  
# of Polygons: 948  
# of Matching Images: 948  
Polygon ID: location  
Units: Feet  
Image Folder Path: j:\Duplin2013\Imagery\TIFF  
Threshold: CE90: 0.702  
Scaling Used: 1:150

## Tiled-Image Area



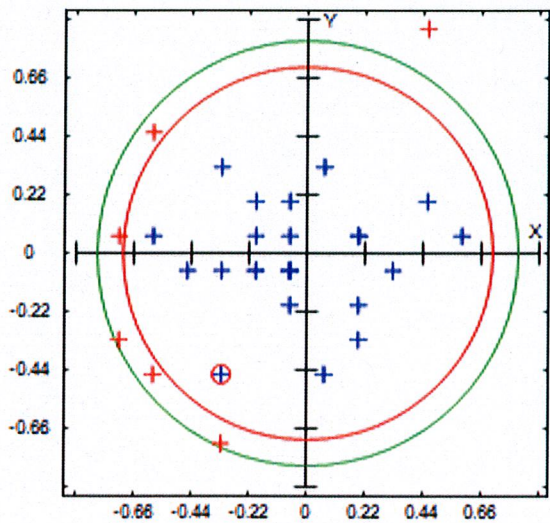


Vector Offset



Scaling Factor: 10000

Circular Error



Error Statistics

Min $\Delta X$ :	-0.716
Min $\Delta Y$ :	-0.716
Max $\Delta X$ :	0.586
Max $\Delta Y$ :	0.846
Mean $\Delta X$ :	-0.113
Mean $\Delta Y$ :	-0.022
RmseX:	0.36
RmseY:	0.302
RmseH:	0.47
NSSDA:	0.814
No. Obs.:	30
CE 90:	0.702
CE 95:	0.801



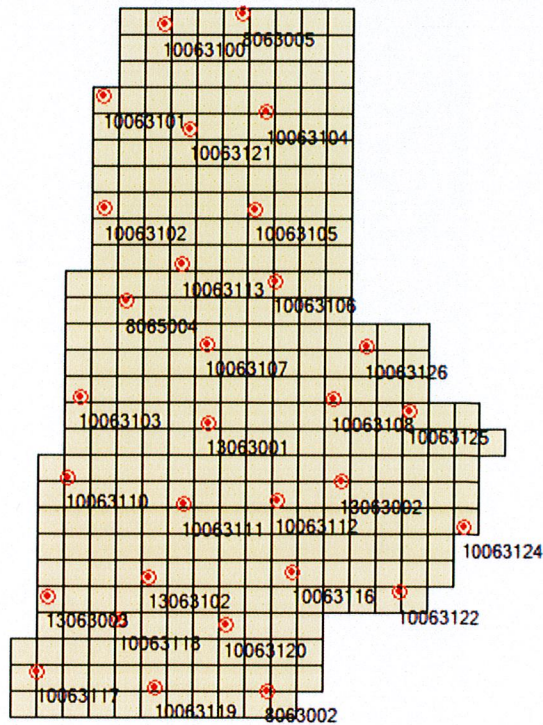
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Photo QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 4/15/2014 Finish: 4/15/2014

## Metadata Information

Index File Name: durham\_index.shp  
# of Polygons: 338  
# of Matching Images: 338  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Durham2013\Imagery\TIFF  
Threshold: CE90: 0.958  
Scaling Used: 1:150

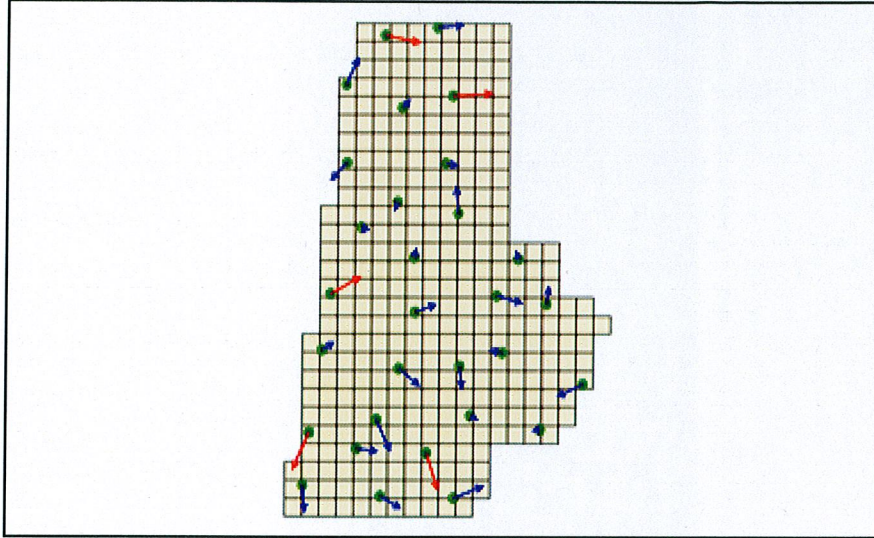
## Tiled-Image Area





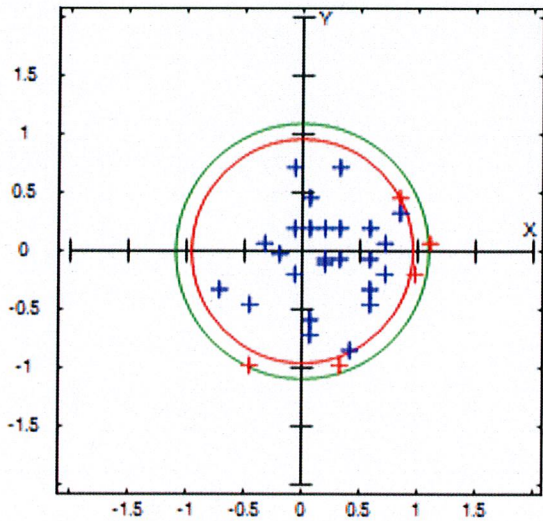


Vector Offset



Scaling Factor: 10000

Circular Error



Error Statistics

Min $\Delta X$ :	-0.716
Min $\Delta Y$ :	-0.977
Max $\Delta X$ :	1.107
Max $\Delta Y$ :	0.716
Mean $\Delta X$ :	0.259
Mean $\Delta Y$ :	-0.091
RmseX:	0.511
RmseY:	0.447
RmseH:	0.679
NSSDA:	1.175
No. Obs.:	30
CE 90:	0.958
CE 95:	1.093



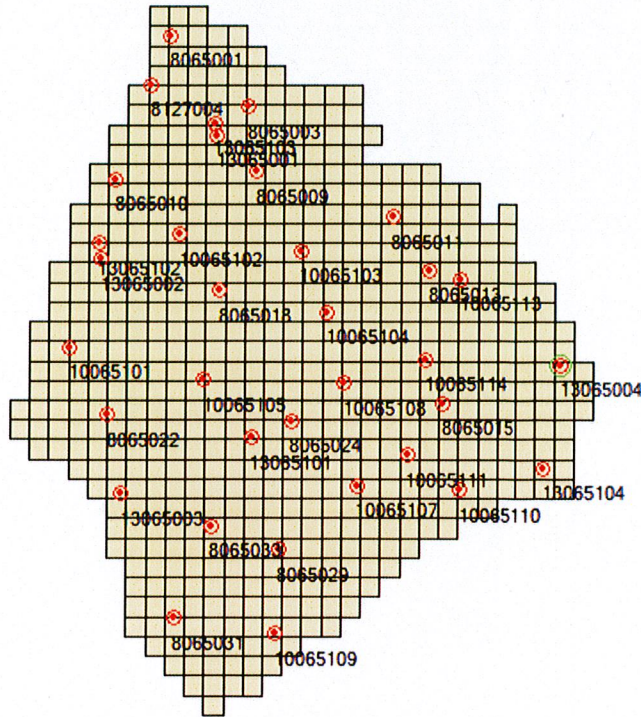
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/28/2014 Finish: 1/28/2014

## Metadata Information

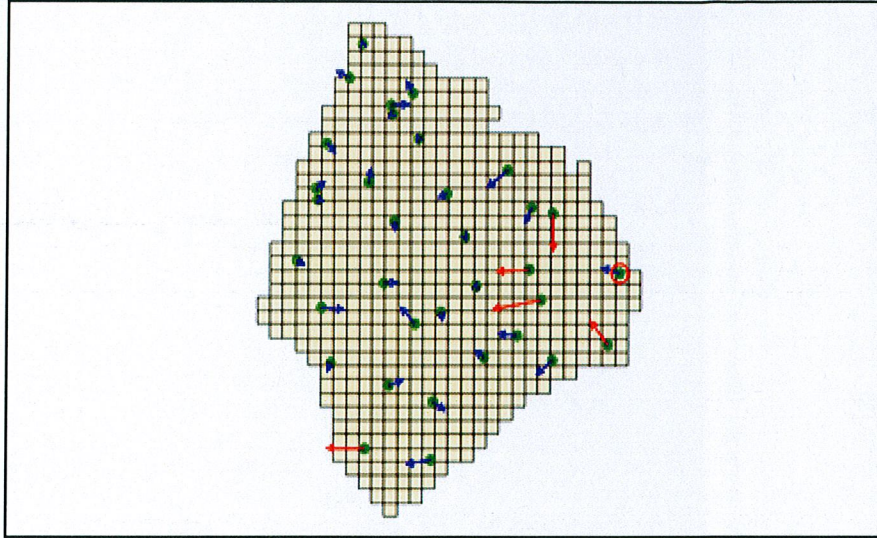
Index File Name: edgecombe\_index\_sid.shp  
# of Polygons: 630  
# of Matching Images: 630  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Edgecombe\_2013\Imagery\SID  
Threshold: CE90: 1.063  
Scaling Used: 1:150

## Tiled-Image Area



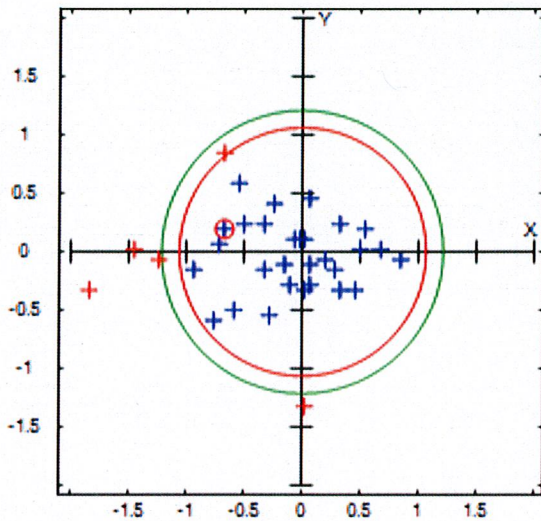


### Vector Offset



Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-1.845
Min $\Delta Y$ :	-1.324
Max $\Delta X$ :	0.846
Max $\Delta Y$ :	0.846
Mean $\Delta X$ :	-0.207
Mean $\Delta Y$ :	-0.054
RmseX:	0.629
RmseY:	0.386
RmseH:	0.738
NSSDA:	1.277
No. Obs.:	34
CE 90:	1.063
CE 95:	1.212



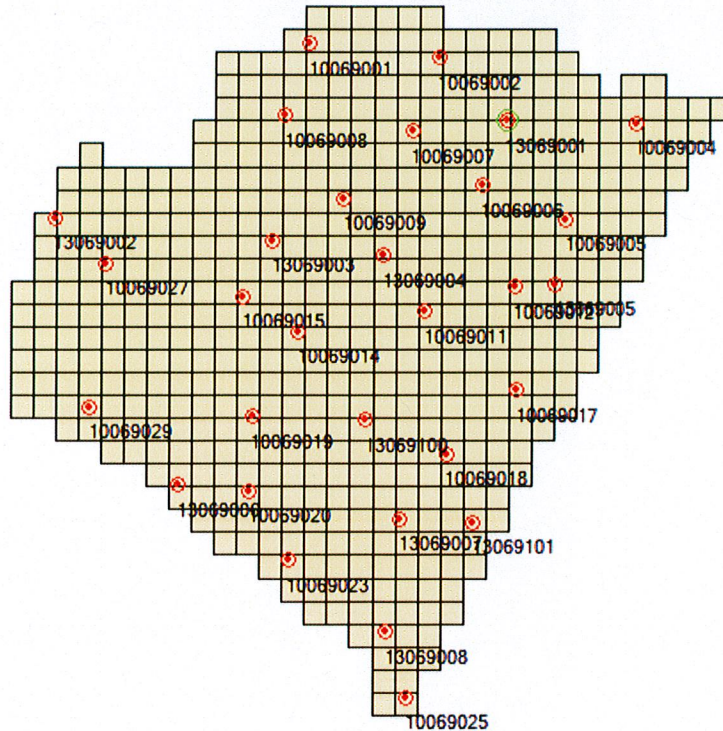
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/27/2014 Finish: 1/27/2014

## Metadata Information

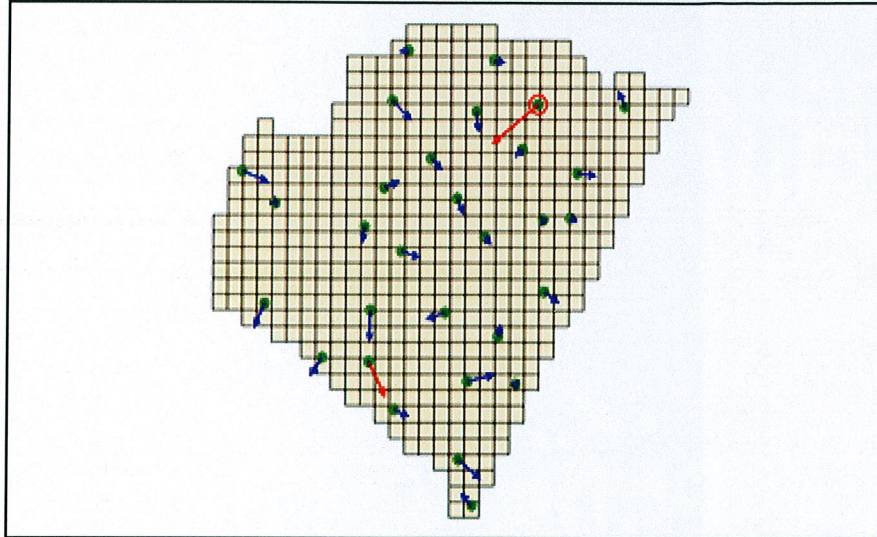
Index File Name: franklin\_index.shp  
# of Polygons: 550  
# of Matching Images: 550  
Polygon ID: location  
Units: Feet  
Image Folder Path: K:\Franklin2013\Imagery\TIFF  
Threshold: CE90: 0.956  
Scaling Used: 1:150

## Tiled-Image Area



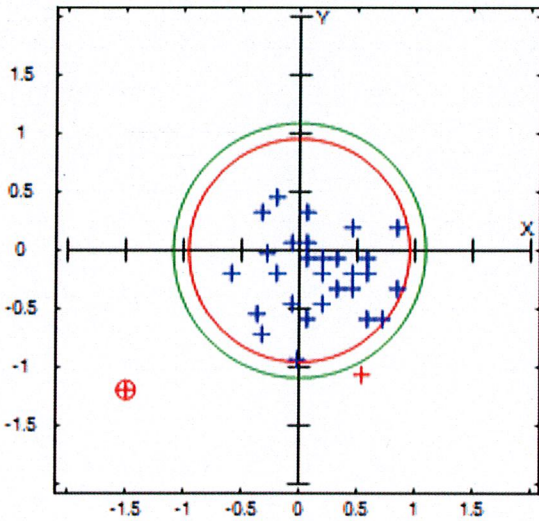


### Vector Offset



Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-1.497
Min $\Delta Y$ :	-1.194
Max $\Delta X$ :	0.846
Max $\Delta Y$ :	0.456
Mean $\Delta X$ :	0.122
Mean $\Delta Y$ :	-0.258
RmseX:	0.494
RmseY:	0.473
RmseH:	0.684
NSSDA:	1.184
No. Obs.:	30
CE 90:	0.956
CE 95:	1.09



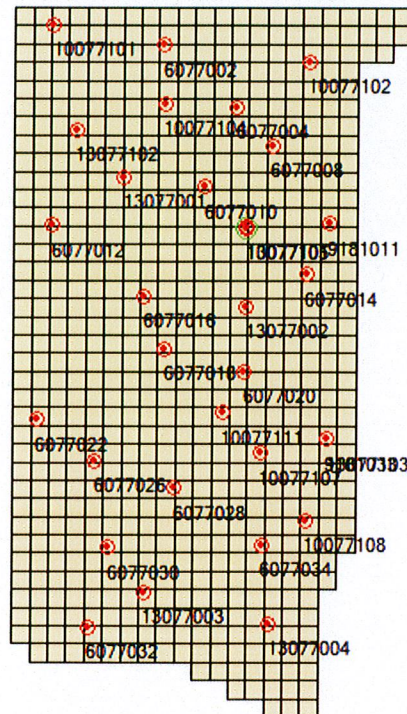
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/6/2014 Finish: 1/6/2014

## Metadata Information

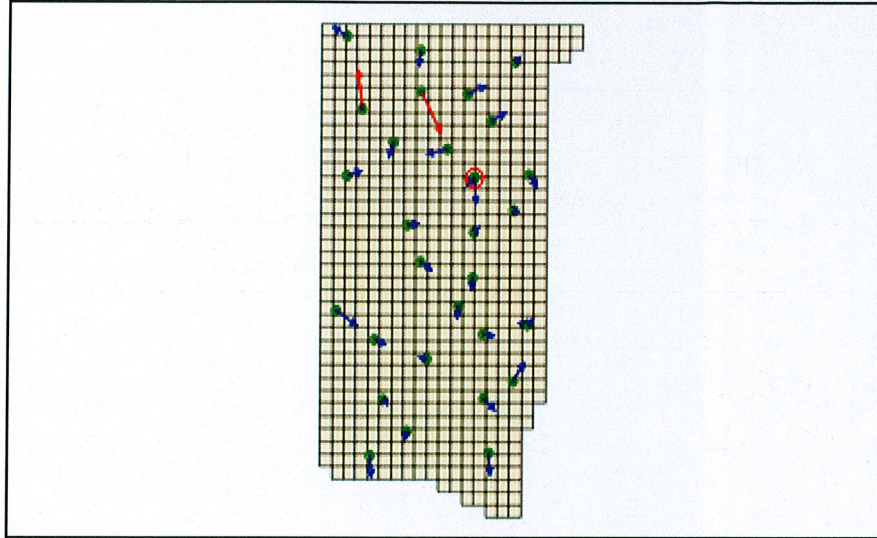
Index File Name: granville\_index\_sid.shp  
# of Polygons: 696  
# of Matching Images: 696  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Granville\_2013\Imagery\SID  
Threshold: CE90: 1.043  
Scaling Used: 1:150

## Tiled-Image Area





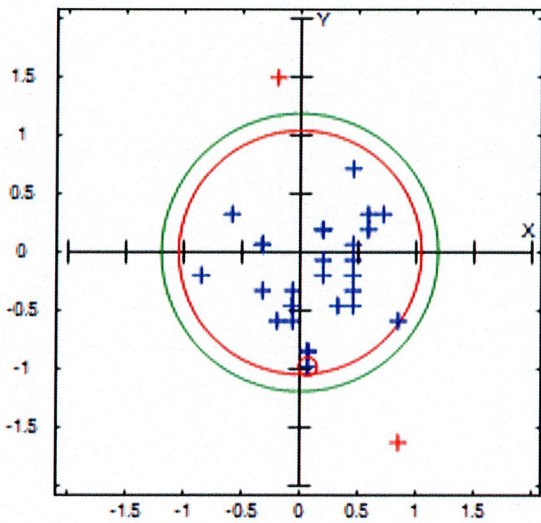
Vector Offset



Scaling Factor: 10000

Circular Error

Error Statistics



Min $\Delta X$ :	-0.846
Min $\Delta Y$ :	-1.628
Max $\Delta X$ :	0.846
Max $\Delta Y$ :	1.497
Mean $\Delta X$ :	0.153
Mean $\Delta Y$ :	-0.174
RmseX:	0.427
RmseY:	0.584
RmseH:	0.724
NSSDA:	1.252
No. Obs.:	31
CE 90:	1.043
CE 95:	1.19



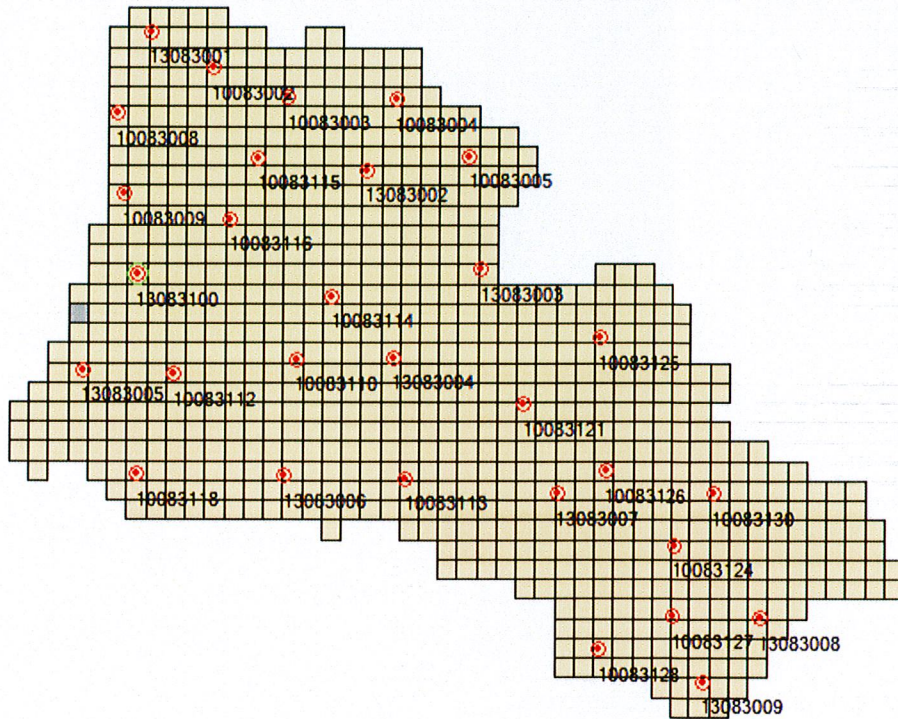
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/27/2014 Finish: 1/27/2014

## Metadata Information

Index File Name: halifax\_index.shp  
# of Polygons: 829  
# of Matching Images: 828  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\HALIFAX2013\Imagery\TIFF  
Threshold: CE90: 1.075  
Scaling Used: 1:150

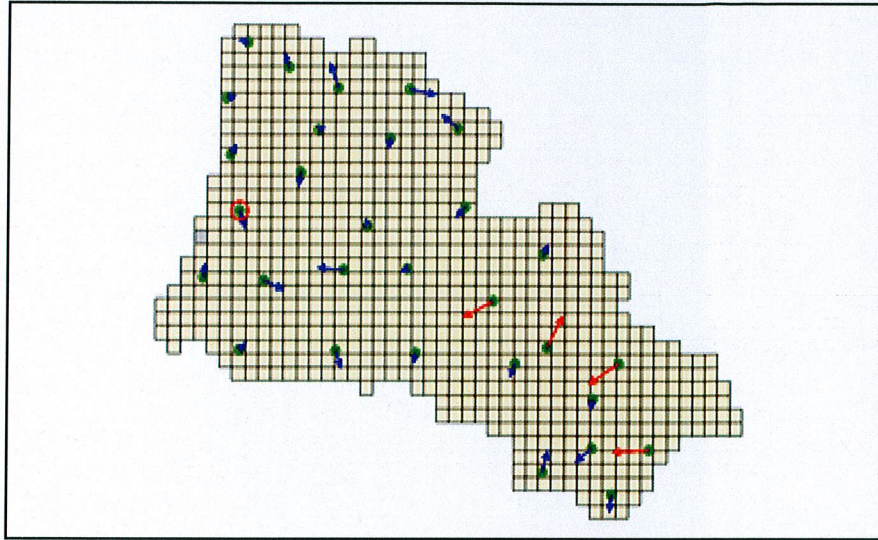
## Tiled-Image Area





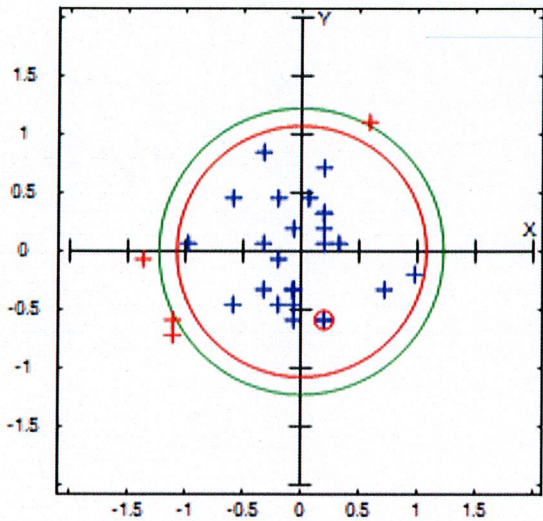


Vector Offset



Scaling Factor: 10000

Circular Error



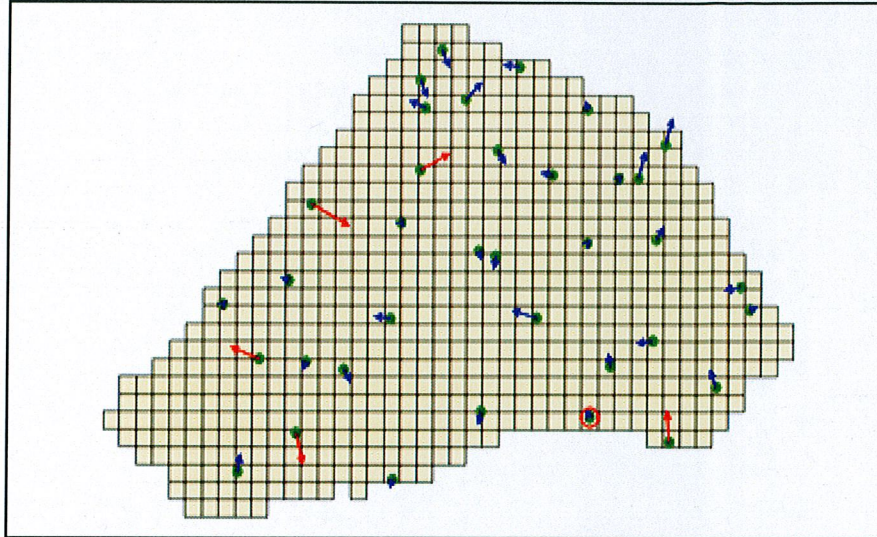
Error Statistics

Min $\Delta X$ :	-1.367
Min $\Delta Y$ :	-0.716
Max $\Delta X$ :	0.977
Max $\Delta Y$ :	1.107
Mean $\Delta X$ :	-0.122
Mean $\Delta Y$ :	-0.035
RmseX:	0.536
RmseY:	0.464
RmseH:	0.709
NSSDA:	1.227
No. Obs.:	30
CE 90:	1.075
CE 95:	1.226



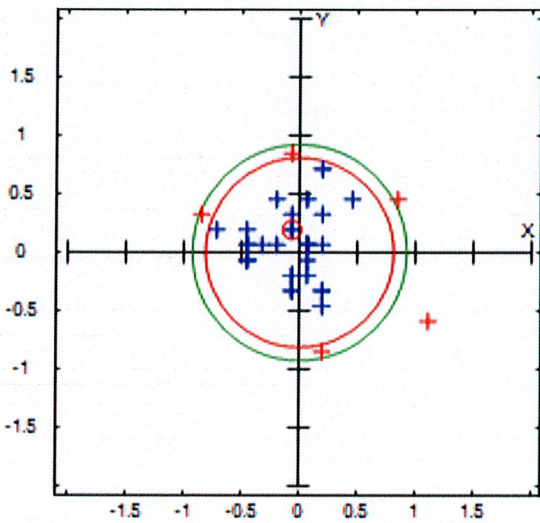


### Vector Offset



Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-0.846
Min $\Delta Y$ :	-0.846
Max $\Delta X$ :	1.107
Max $\Delta Y$ :	0.846
Mean $\Delta X$ :	-0.014
Mean $\Delta Y$ :	0.054
RmseX:	0.373
RmseY:	0.377
RmseH:	0.53
NSSDA:	0.917
No. Obs.:	36
CE 90:	0.811
CE 95:	0.925



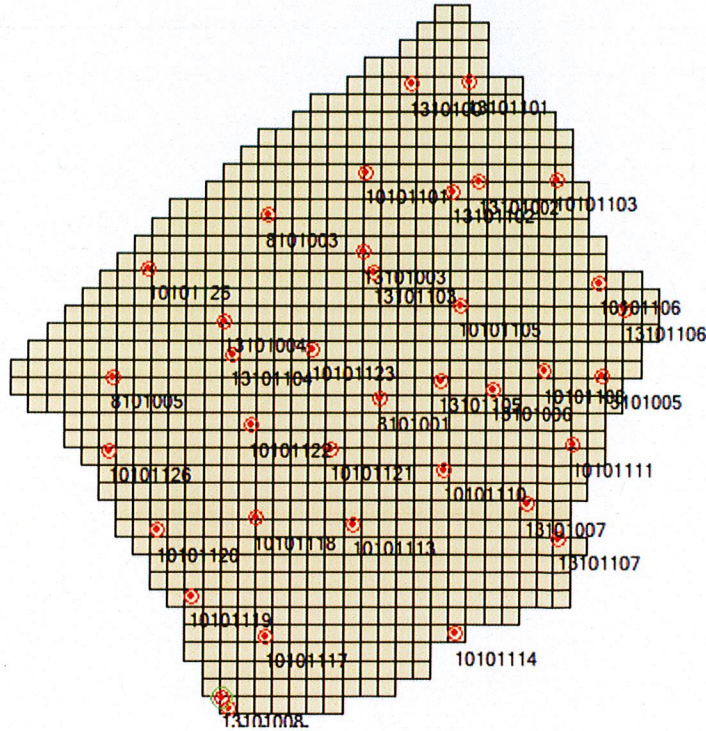
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/27/2014 Finish: 1/27/2014

## Metadata Information

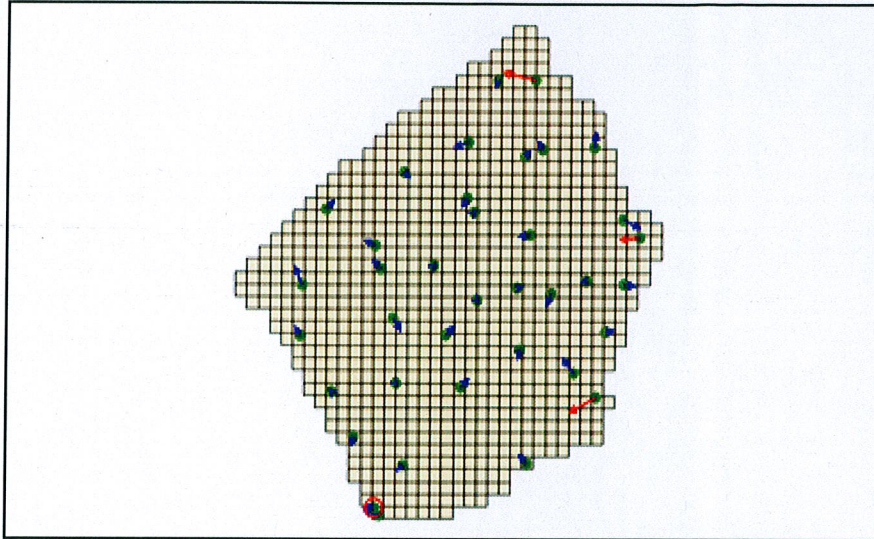
Index File Name: johnston\_index.shp  
# of Polygons: 888  
# of Matching Images: 888  
Polygon ID: location  
Units: Feet  
Image Folder Path: K:\Johnston2013\Imagery\TIFF  
Threshold: CE90: 0.791  
Scaling Used: 1:150

## Tiled-Image Area



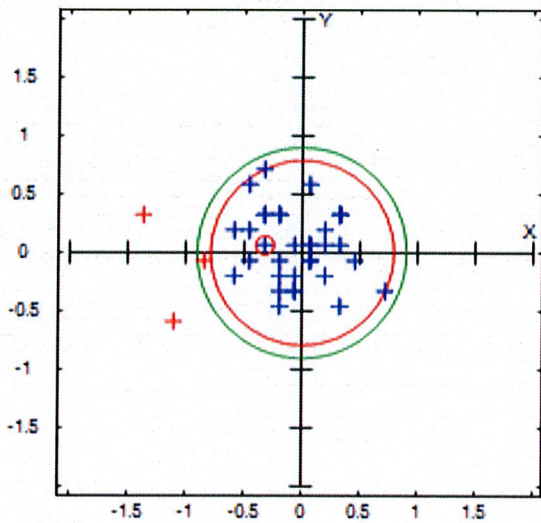


Vector Offset



Scaling Factor: 10000

Circular Error



Error Statistics

Min $\Delta X$ :	-1.367
Min $\Delta Y$ :	-0.586
Max $\Delta X$ :	0.716
Max $\Delta Y$ :	0.716
Mean $\Delta X$ :	-0.132
Mean $\Delta Y$ :	0.04
RmseX:	0.44
RmseY:	0.31
RmseH:	0.538
NSSDA:	0.932
No. Obs.:	37
CE 90:	0.791
CE 95:	0.902



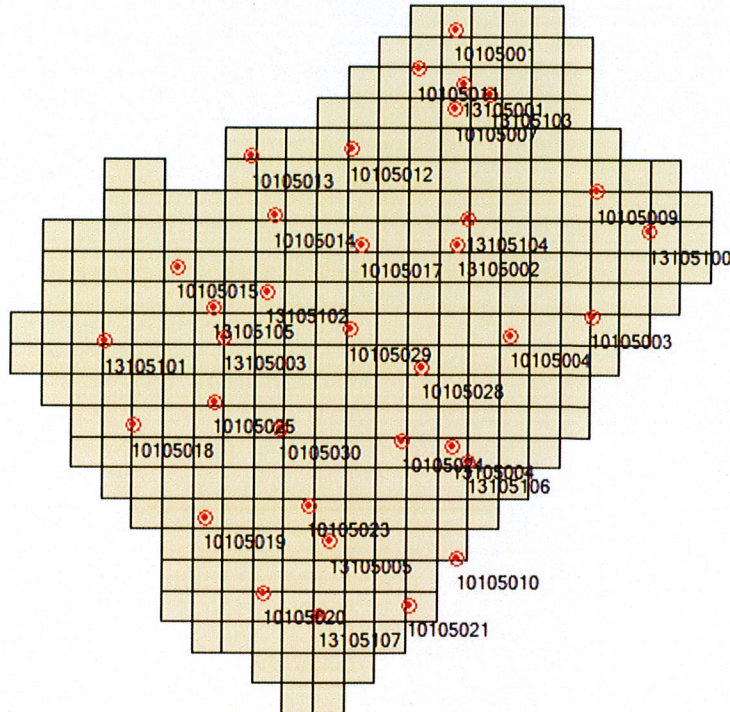
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/27/2014 Finish: 1/27/2014

## Metadata Information

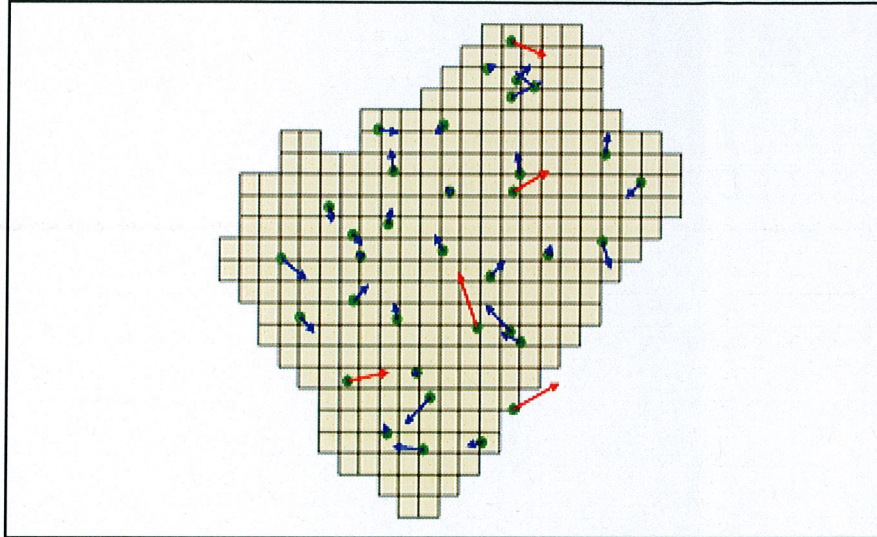
Index File Name: lee\_index.shp  
# of Polygons: 303  
# of Matching Images: 303  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Lee2013\Imagery\TIFF  
Threshold: CE90: 0.9  
Scaling Used: 1:2800

## Tiled-Image Area





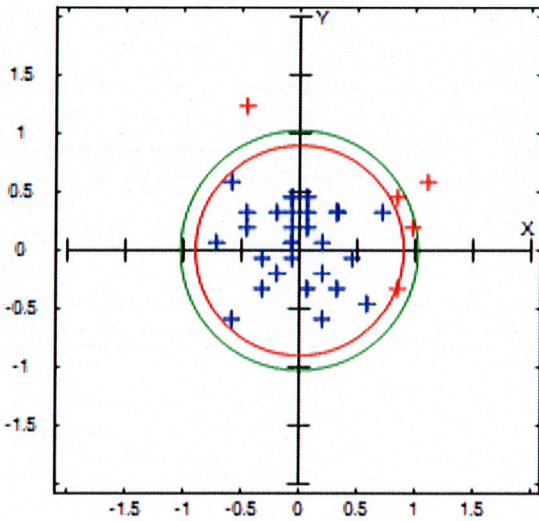
Vector Offset



Scaling Factor: 10000

Circular Error

Error Statistics



Min $\Delta X$ :	-0.716
Min $\Delta Y$ :	-0.586
Max $\Delta X$ :	1.107
Max $\Delta Y$ :	1.237
Mean $\Delta X$ :	0.084
Mean $\Delta Y$ :	0.125
RmseX:	0.459
RmseY:	0.395
RmseH:	0.606
NSSDA:	1.048
No. Obs.:	35
CE 90:	0.9
CE 95:	1.026



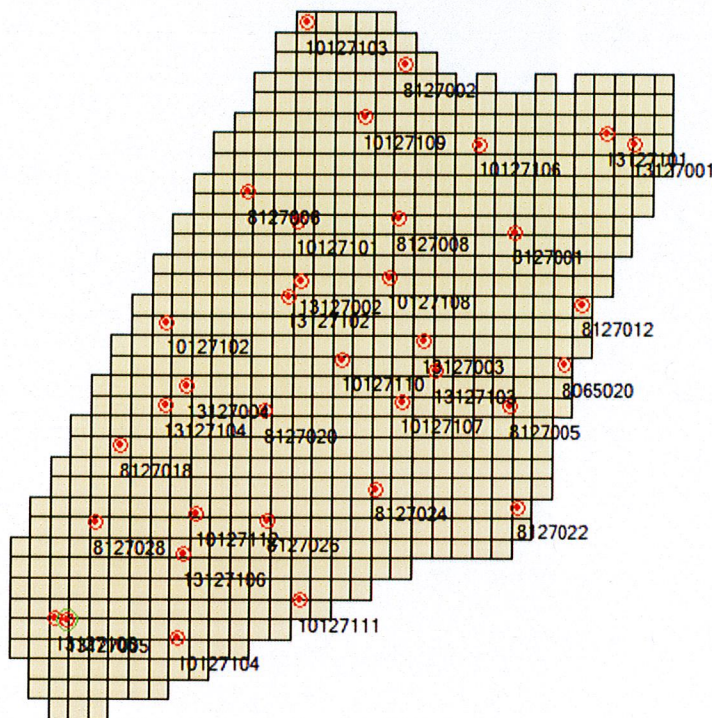
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 4/25/2014 Finish: 4/25/2014

## Metadata Information

Index File Name: nash\_index\_sid.shp  
# of Polygons: 677  
# of Matching Images: 677  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Nash\_2013\Imagery\SID  
Threshold: CE90: 1.122  
Scaling Used: 1:150

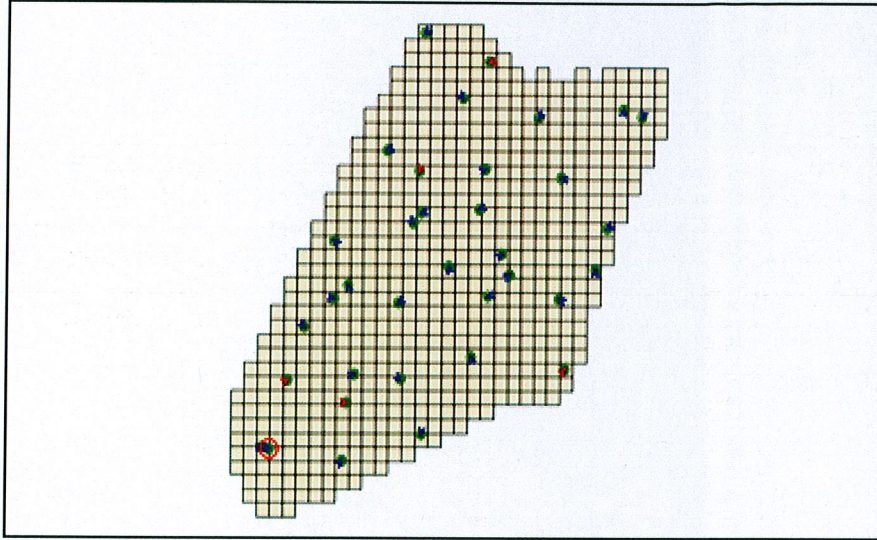
## Tiled-Image Area





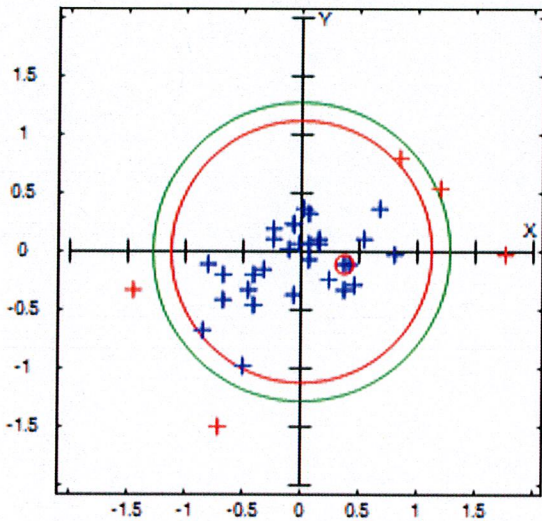


### Vector Offset



Scaling Factor: 200

### Circular Error



### Error Statistics

Min $\Delta X$ :	-1.454
Min $\Delta Y$ :	-1.497
Max $\Delta X$ :	1.758
Max $\Delta Y$ :	0.803
Mean $\Delta X$ :	0.003
Mean $\Delta Y$ :	-0.092
RmseX:	0.617
RmseY:	0.423
RmseH:	0.748
NSSDA:	1.295
No. Obs.:	35
CE 90:	1.122
CE 95:	1.279



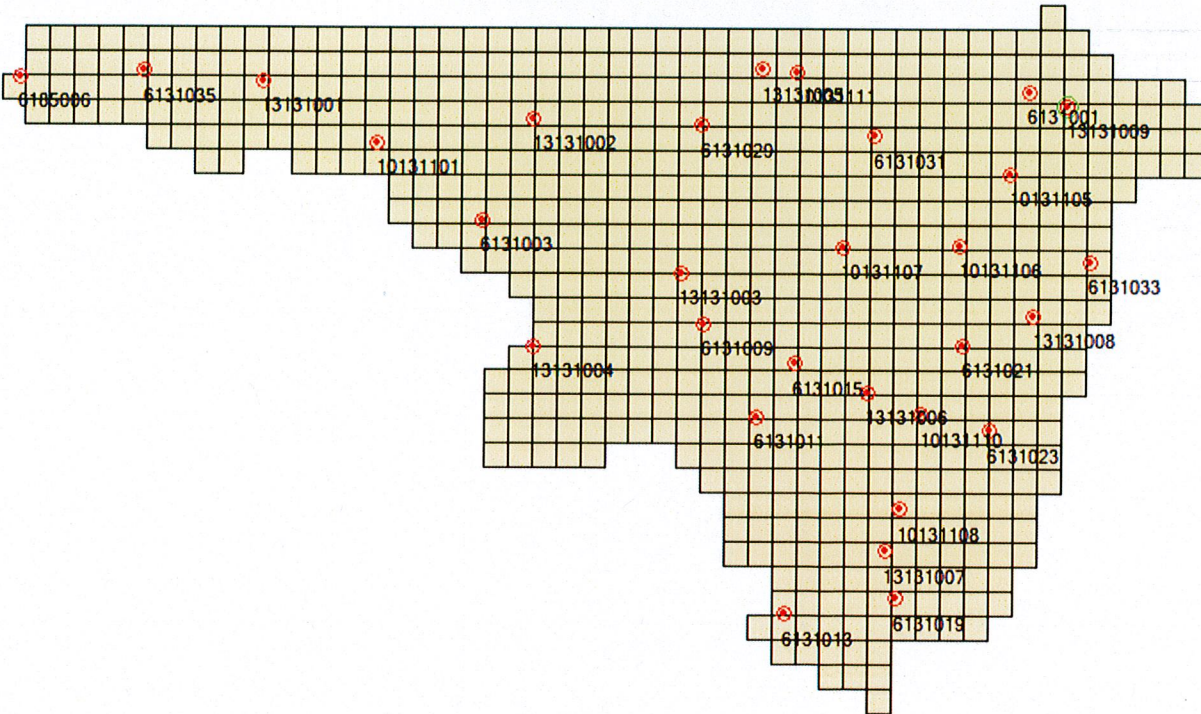
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Acquisition: Start: 12/11/2013 Finish: 12/11/2013

## Metadata Information

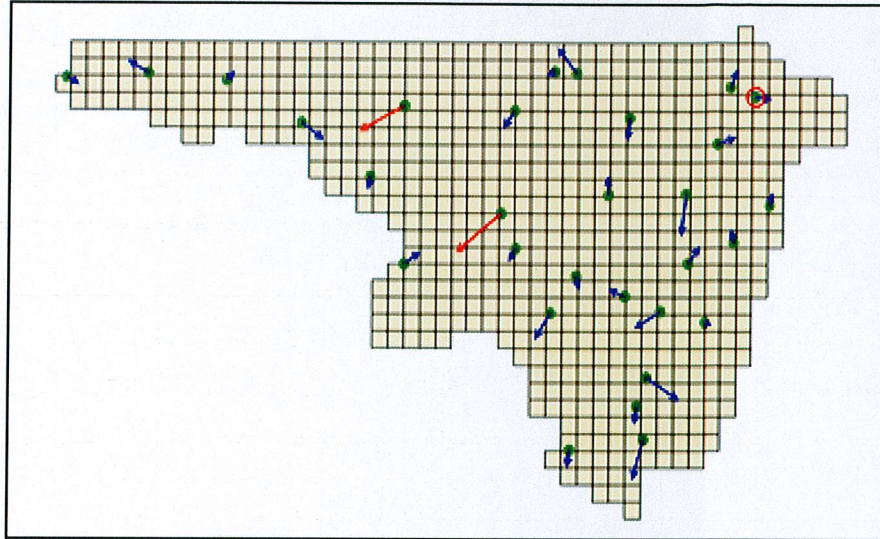
Index File Name: northhampton\_index.shp  
# of Polygons: 672  
# of Matching Images: 672  
Polygon ID: location  
Units: Feet  
Threshold: NSSDA: 1.294  
Scaling Used: 1:150

## Tiled-Image Area



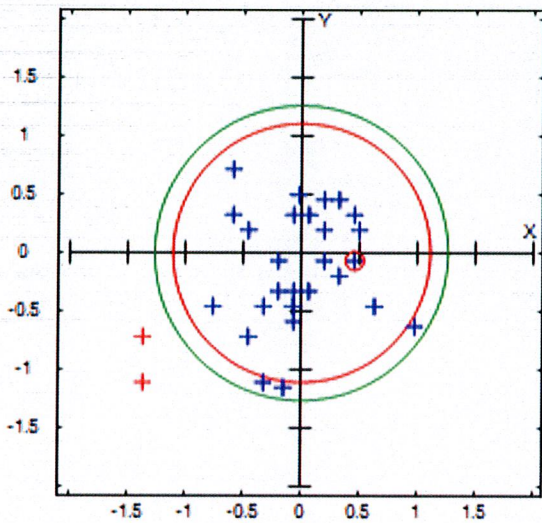


### Vector Offset



Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-1.367
Min $\Delta Y$ :	-1.15
Max $\Delta X$ :	0.977
Max $\Delta Y$ :	0.716
Mean $\Delta X$ :	-0.091
Mean $\Delta Y$ :	-0.188
RmseX:	0.52
RmseY:	0.537
RmseH:	0.747
NSSDA:	1.294
No. Obs.:	30
CE 90:	1.108
CE 95:	1.263



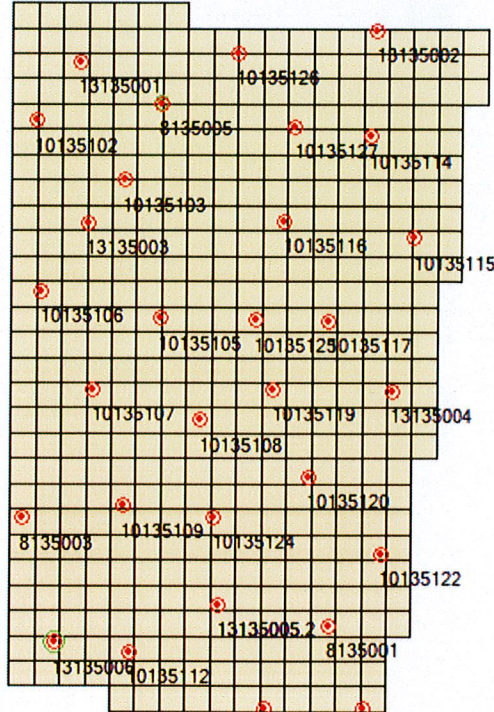
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/3/2014 Finish: 1/3/2014

## Metadata Information

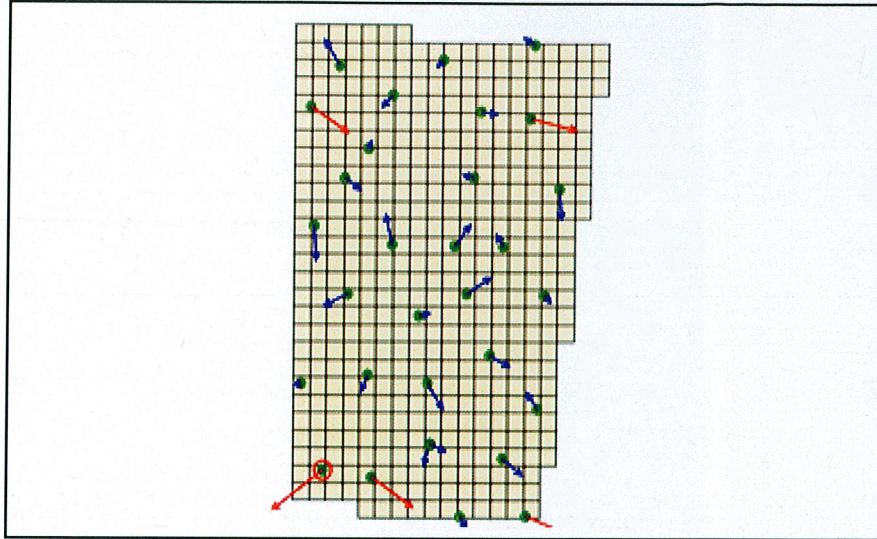
Index File Name: orange\_index.shp  
# of Polygons: 462  
# of Matching Images: 462  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Orange2013\Imagery\TIFF  
Threshold: CE90: 1.217  
Scaling Used: 1:150

## Tiled-Image Area



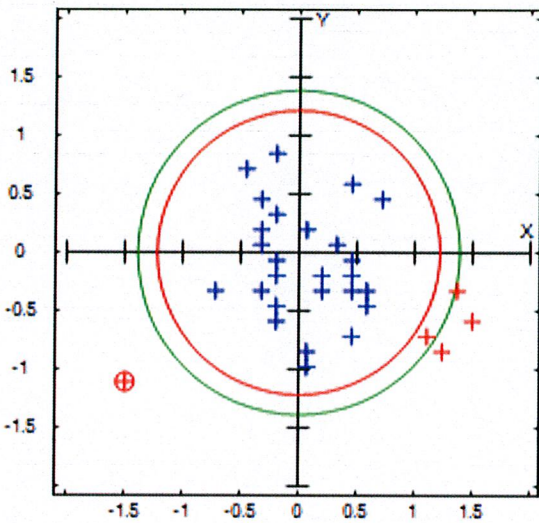


### Vector Offset



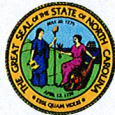
Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-1.497
Min $\Delta Y$ :	-1.107
Max $\Delta X$ :	1.497
Max $\Delta Y$ :	0.846
Mean $\Delta X$ :	0.166
Mean $\Delta Y$ :	-0.195
RmseX:	0.645
RmseY:	0.529
RmseH:	0.835
NSSDA:	1.444
No. Obs.:	31
CE 90:	1.217
CE 95:	1.388



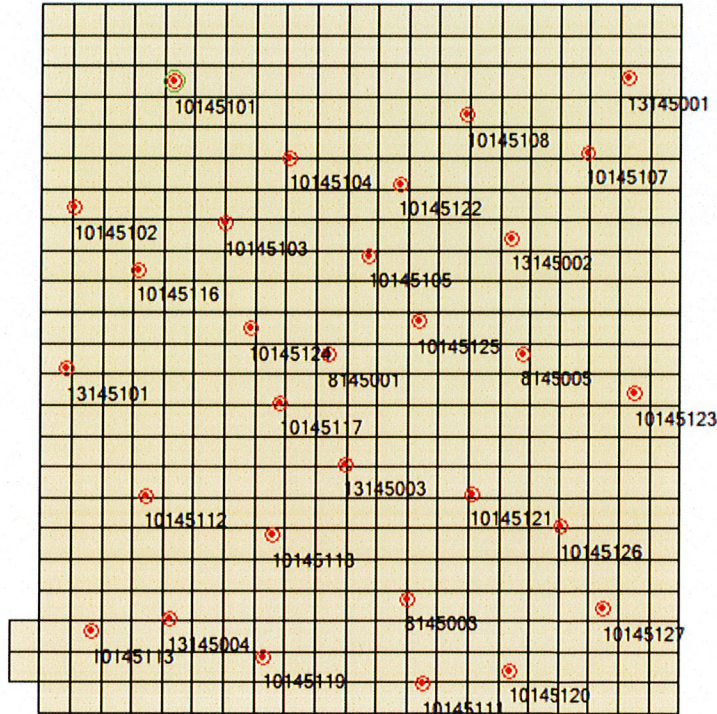
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/3/2014 Finish: 1/3/2014

## Metadata Information

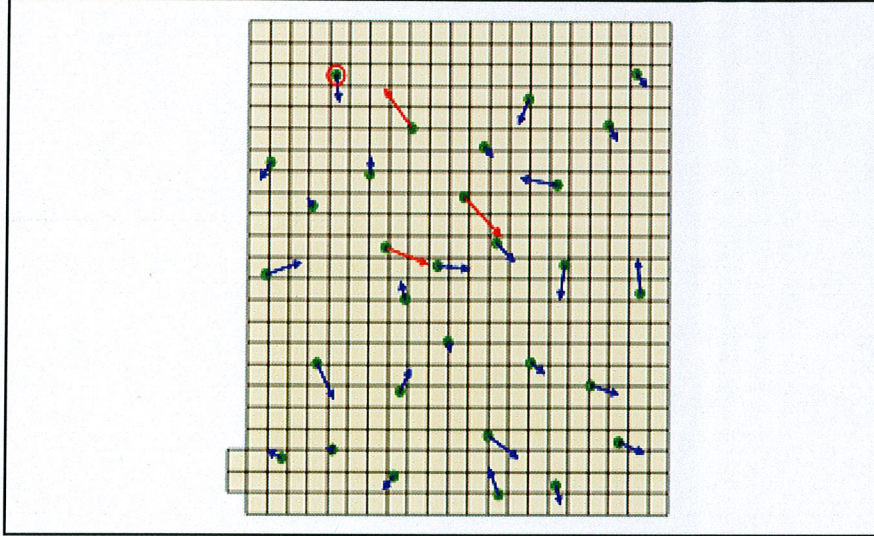
Index File Name: person\_index.shp  
# of Polygons: 970  
# of Matching Images: 970  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Person2013\Imagery\TIFF  
Threshold: CE90: 0.979  
Scaling Used: 1:150

## Tiled-Image Area





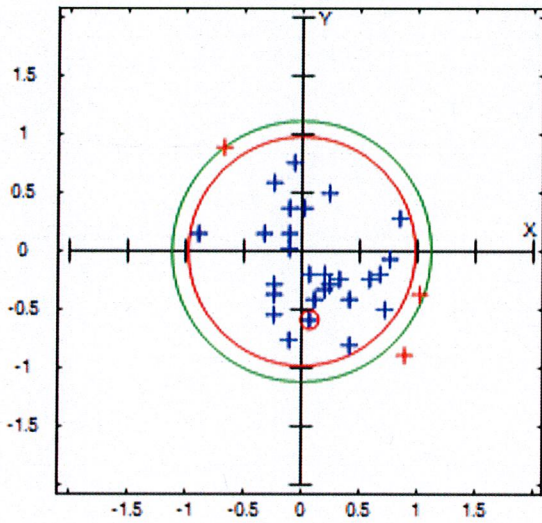
Vector Offset



Scaling Factor: 10000

Circular Error

Error Statistics



Min $\Delta X$ :	-0.89
Min $\Delta Y$ :	-0.89
Max $\Delta X$ :	1.02
Max $\Delta Y$ :	0.89
Mean $\Delta X$ :	0.148
Mean $\Delta Y$ :	-0.114
RmseX:	0.473
RmseY:	0.462
RmseH:	0.661
NSSDA:	1.144
No. Obs.:	30
CE 90:	0.979
CE 95:	1.117



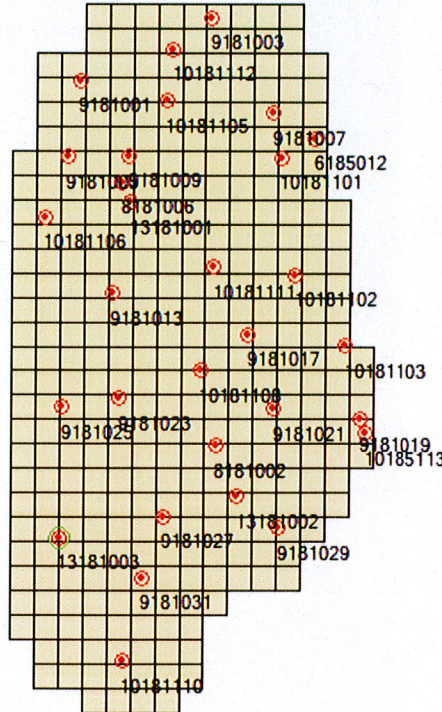
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 1/6/2014 Finish: 1/6/2014

## Metadata Information

Index File Name: vance\_index\_sid.shp  
# of Polygons: 351  
# of Matching Images: 351  
Polygon ID: location  
Units: Feet  
Image Folder Path: G:\Vance\_2013\Imagery\SID  
Threshold: CE90: 1.352  
Scaling Used: 1:150

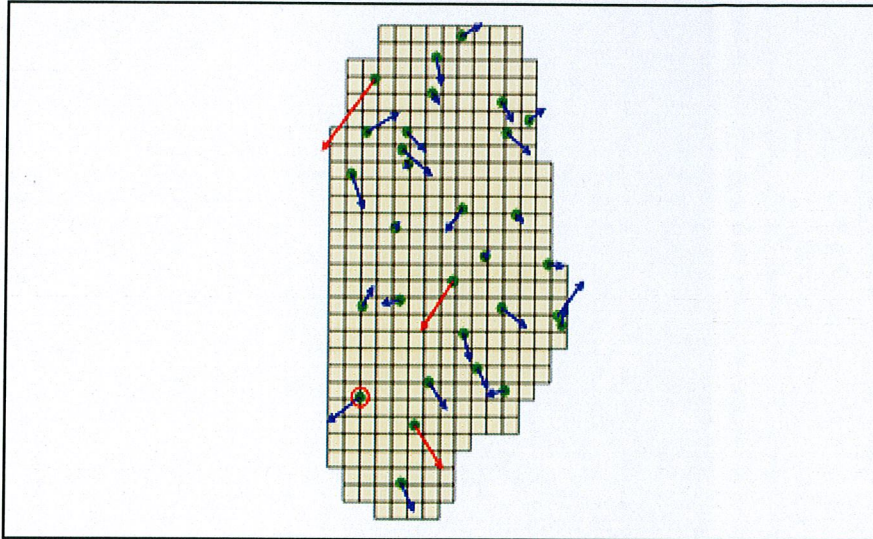
## Tiled-Image Area





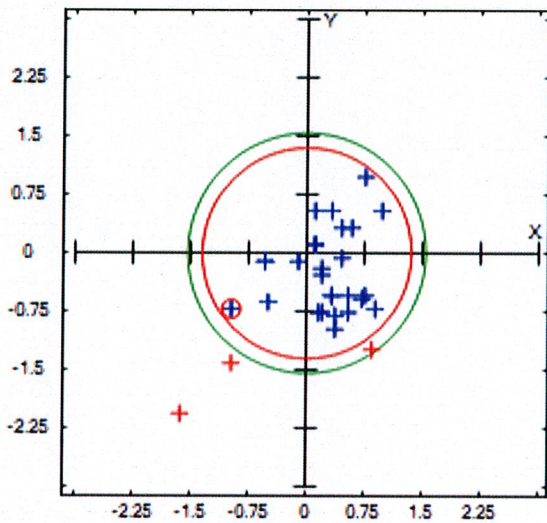


Vector Offset



Scaling Factor: 10000

Circular Error



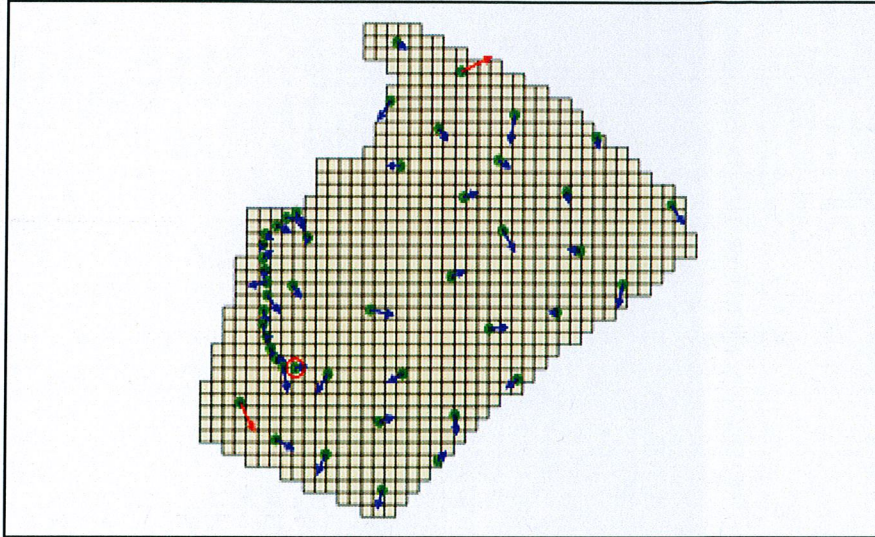
Error Statistics

Min $\Delta X$ :	-1.628
Min $\Delta Y$ :	-2.062
Max $\Delta X$ :	0.977
Max $\Delta Y$ :	0.977
Mean $\Delta X$ :	0.168
Mean $\Delta Y$ :	-0.366
RmseX:	0.623
RmseY:	0.736
RmseH:	0.965
NSSDA:	1.67
No. Obs.:	30
CE 90:	1.352
CE 95:	1.542



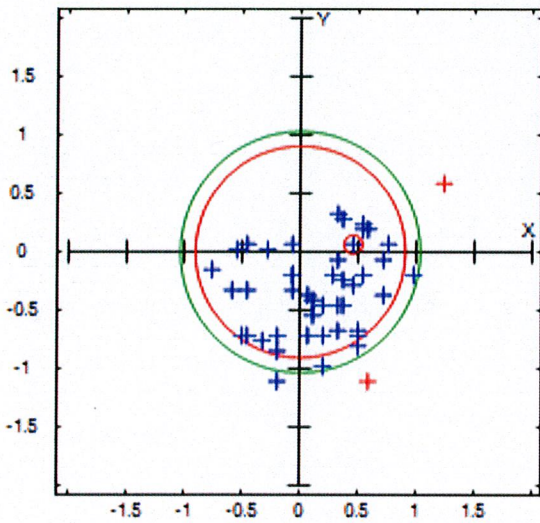


### Vector Offset



Scaling Factor: 10000

### Circular Error



### Error Statistics

Min $\Delta X$ :	-0.76
Min $\Delta Y$ :	-1.107
Max $\Delta X$ :	1.237
Max $\Delta Y$ :	0.586
Mean $\Delta X$ :	0.175
Mean $\Delta Y$ :	-0.325
RmseX:	0.473
RmseY:	0.512
RmseH:	0.697
NSSDA:	1.206
No. Obs.:	46
CE 90:	0.906
CE 95:	1.033



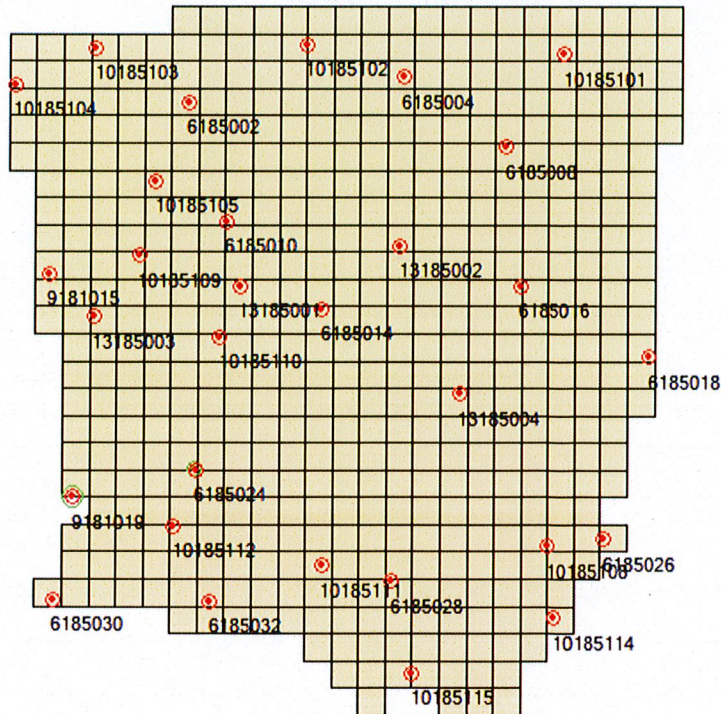
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 4/25/2014 Finish: 4/25/2014

## Metadata Information

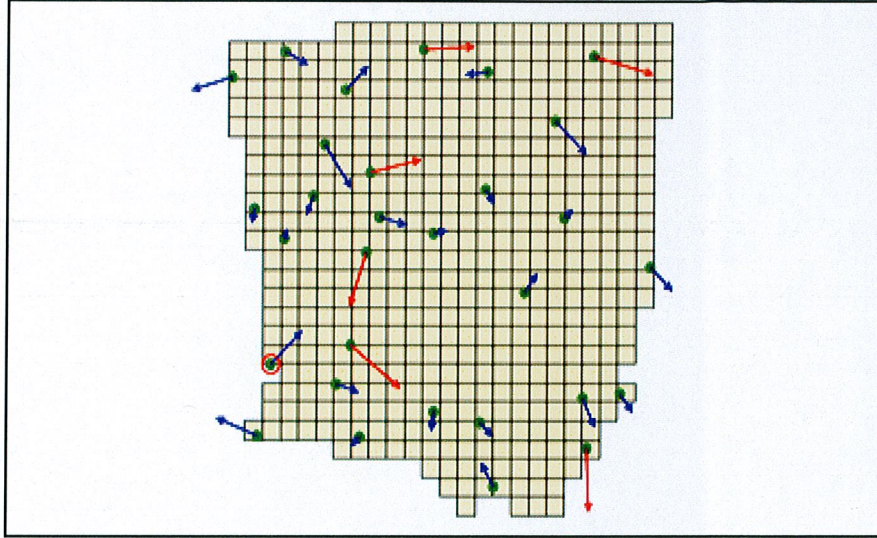
Index File Name: warren\_index.shp  
# of Polygons: 525  
# of Matching Images: 525  
Polygon ID: location  
Units: Feet  
Image Folder Path: K:\Warren2013\Imagery\TIFF  
Threshold: CE90: 1.352  
Scaling Used: 1:150

## Tiled-Image Area





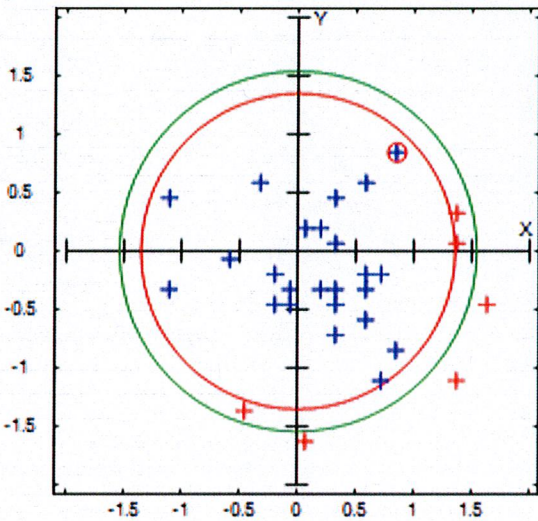
Vector Offset



Scaling Factor: 10000

Circular Error

Error Statistics



Min $\Delta X$ :	-1.107
Min $\Delta Y$ :	-1.628
Max $\Delta X$ :	1.628
Max $\Delta Y$ :	0.846
Mean $\Delta X$ :	0.308
Mean $\Delta Y$ :	-0.256
RmseX:	0.728
RmseY:	0.633
RmseH:	0.965
NSSDA:	1.67
No. Obs.:	30
CE 90:	1.352
CE 95:	1.542



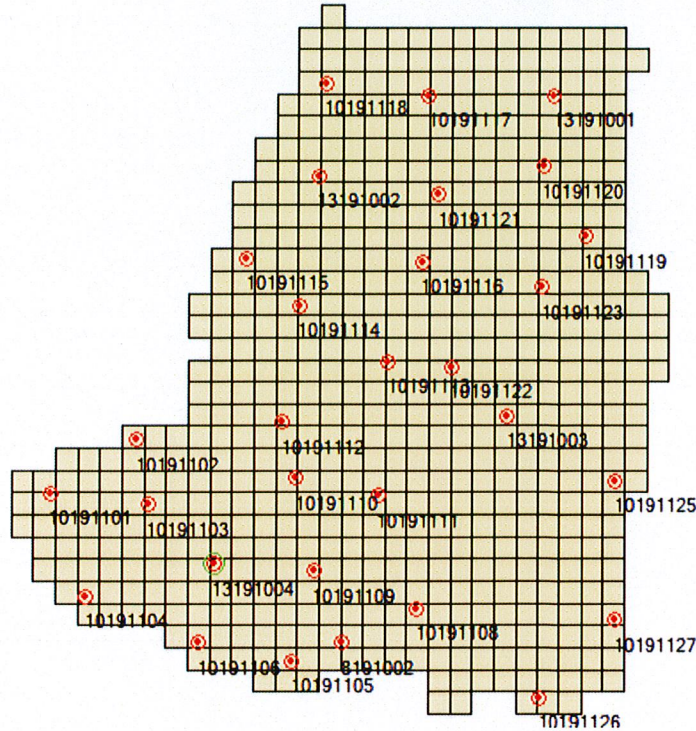
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Photo QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 11/18/2013 Finish: 11/18/2013

## Metadata Information

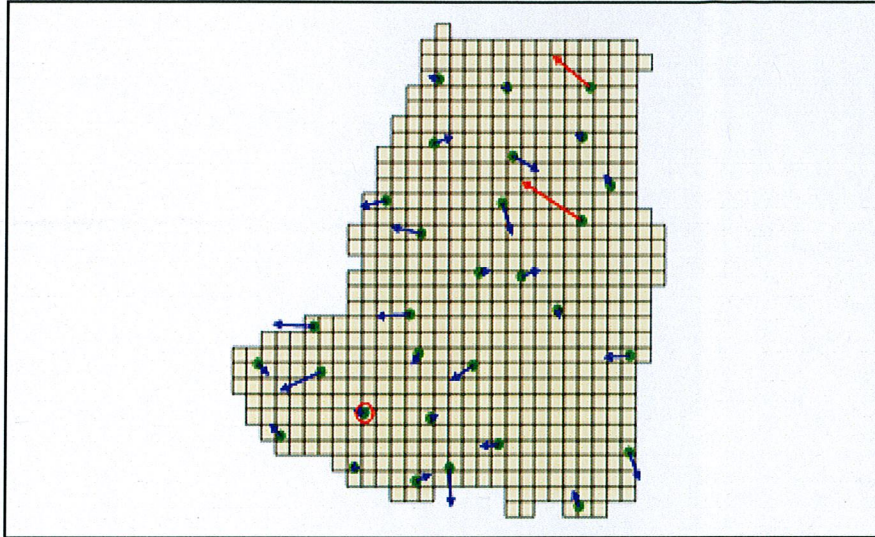
Index File Name: wayne\_index.shp  
# of Polygons: 634  
# of Matching Images: 634  
Polygon ID: location  
Units: Feet  
Image Folder Path: J:\WAYNE2013\Imagery\TIFF  
Threshold: NSSDA: 1.536  
Scaling Used: 1:150

## Tiled-Image Area



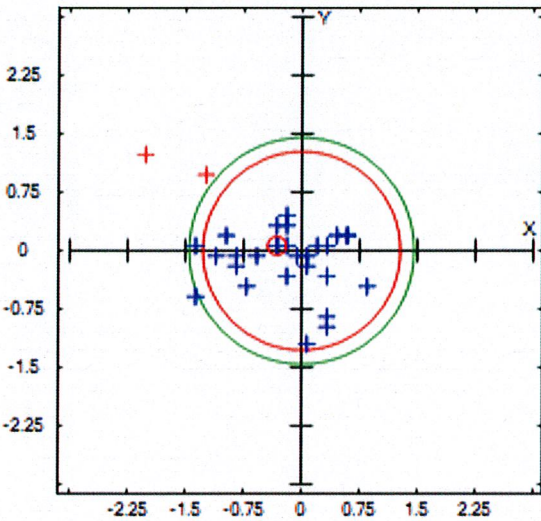


Vector Offset



Scaling Factor: 10000

Circular Error



Error Statistics

Min $\Delta X$ :	-2.018
Min $\Delta Y$ :	-1.194
Max $\Delta X$ :	0.846
Max $\Delta Y$ :	1.237
Mean $\Delta X$ :	-0.291
Mean $\Delta Y$ :	-0.046
RmseX:	0.739
RmseY:	0.491
RmseH:	0.887
NSSDA:	1.536
No. Obs.:	30
CE 90:	1.275
CE 95:	1.454



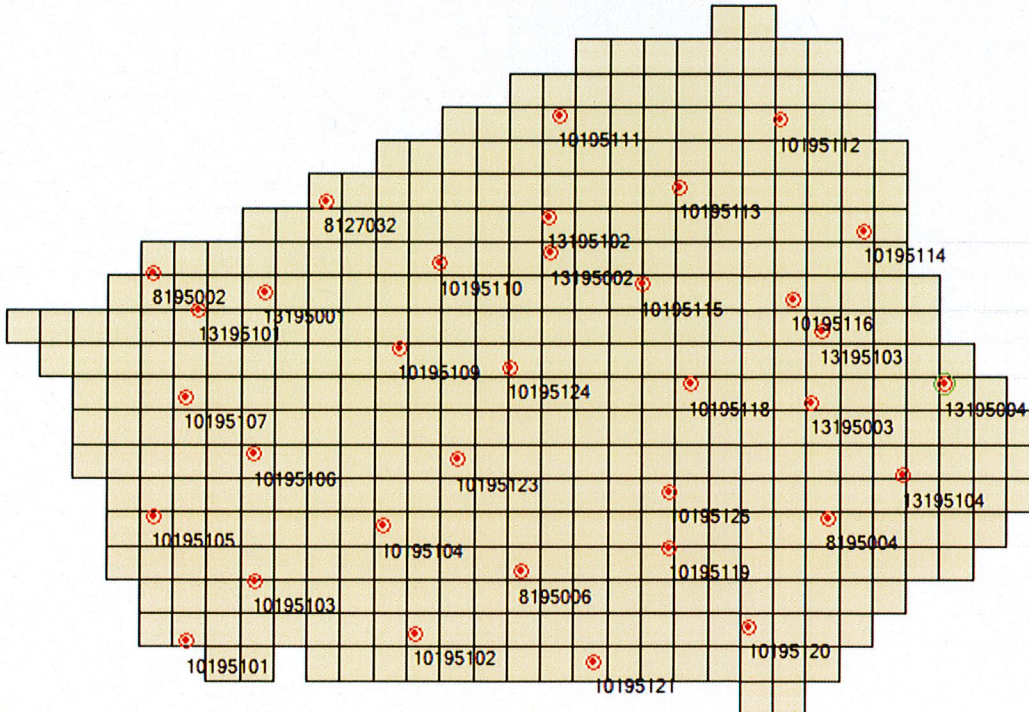
## Project Information

Prepared By: Steve Kaufman  
Project Name: 2013 Imagery QC  
Sensor Info: na  
Sensor Resolution: 0.5  
Vendor Name: na  
Date of Aquisition: Start: 4/25/2014 Finish: 4/25/2014

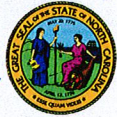
## Metadata Information

Index File Name: wilson\_index\_2.shp  
# of Polygons: 424  
# of Matching Images: 424  
Polygon ID: location  
Units: Feet  
Image Folder Path: K:\WILSON2013\Imagery\TIFF  
Threshold: CE90: 1.131  
Scaling Used: 1:150

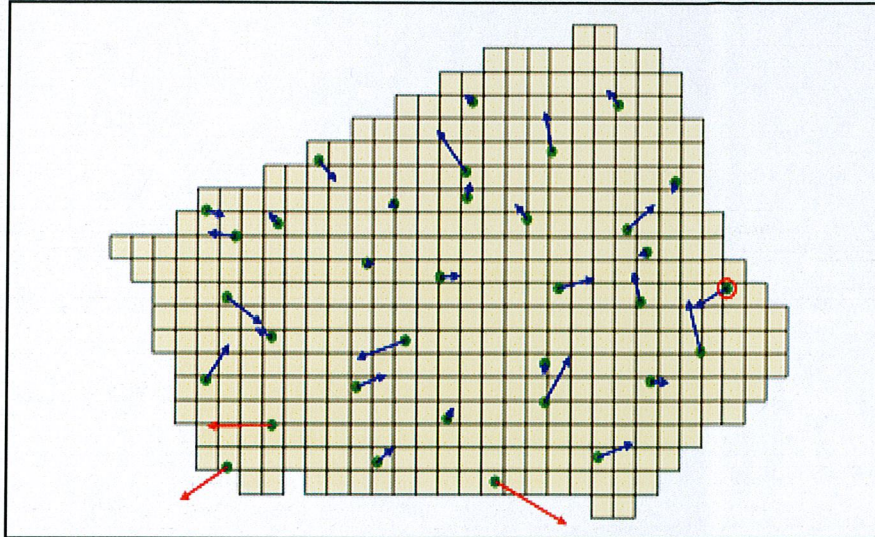
## Tiled-Image Area





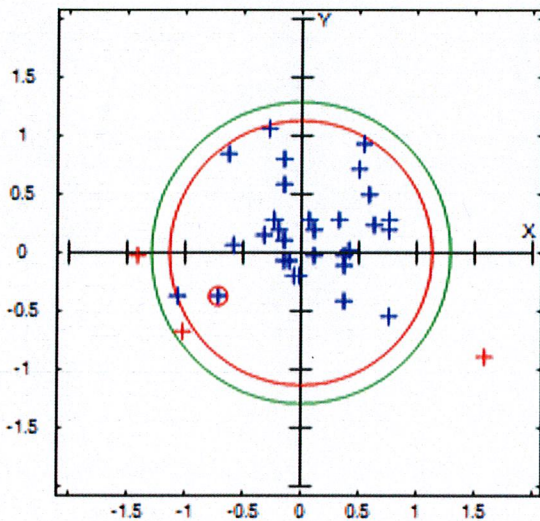


Vector Offset



Scaling Factor: 10000

Circular Error



Error Statistics

Min $\Delta X$ :	-1.411
Min $\Delta Y$ :	-0.89
Max $\Delta X$ :	1.584
Max $\Delta Y$ :	1.063
Mean $\Delta X$ :	0.022
Mean $\Delta Y$ :	0.12
RmseX:	0.596
RmseY:	0.459
RmseH:	0.752
NSSDA:	1.302
No. Obs.:	34
CE 90:	1.131
CE 95:	1.29

Station Name	PID	Ellipsoid Height (usft)	NAVD88 Orthometric Height (usft)	NAD83(2011) Latitude DMS	Longitude DMS	NAD83(2011) SPC North (usft)	SPC East (usft)	SPC Combined Factor
ASHEBORO 2 CORS ARP	DL6900	690.23		35 37 49.38501 N	079 45 53.75304 W	685234.65 sft	1772699.20 sft	0.99986134
CARTHAGE CORS ARP	DG5938	490.83	593.83	35 20 30.04880 N	079 23 05.08515 W	579503.24 sft	1885263.94 sft	0.99985034
CLINTON CORS ARP	DK4041	78.32	191.90	34 59 25.65387 N	078 21 31.47816 W	452077.16 sft	2192055.48 sft	0.99987918
DURHAM COOP CORS ARP	DG9328	385.39		35 59 46.12942 N	078 53 58.03641 W	817510.85 sft	2029742.71 sft	0.99993843
ELIZABETH TOWN CORS ARP	DI1680	-31.25	83.53	34 39 13.60147 N	078 31 11.73447 W	329277.16 sft	2144374.55 sft	0.99992817
FAYETTEVILLE 2006 CORS ARP	DH9594	55.49	165.52	35 02 02.48998 N	078 52 14.73160 W	467337.08 sft	2038687.22 sft	0.99987712
FORT FISHER CORS ARP	DM3521	-95.69	27.30	33 57 38.26113 N	077 56 18.76581 W	78383.36 sft	2321907.87 sft	1.00012861
GOLDSBORO CORS ARP	DK5550	46.21	160.43	35 25 16.86892 N	078 03 30.57562 W	609608.16 sft	2280490.64 sft	0.99987475
GREENVILLE NC CORS ARP	DL7337	16.10		35 36 18.30987 N	077 21 55.47952 W	679150.97 sft	2485855.67 sft	0.99989078
JORDAN LAKE CORS ARP	DL3891	150.96	254.03	35 46 52.49646 N	079 02 03.92766 W	739273.05 sft	1989789.68 sft	0.99990797
KENANSVILLE CORS ARP	DI1071	51.08	168.50	34 56 30.49763 N	077 58 49.94532 W	435318.55 sft	2305505.62 sft	0.99988847
KINSTON CORS ARP	DM3989	-10.24	107.58	35 19 18.56728 N	077 36 49.27040 W	574941.64 sft	2413504.72 sft	0.99987383
LILLINGTON 2004 CORS ARP	DG5759	84.34	192.68	35 25 12.54674 N	078 48 40.33946 W	607894.54 sft	2056246.72 sft	0.99987285
LUMBERTON CORS ARP	DI1682	51.95	162.60	34 37 36.33605 N	079 04 39.69481 W	319104.47 sft	1976627.28 sft	0.99992917
NASHVILLE CORS ARP	DK7576	113.20	226.25	35 58 09.06797 N	078 01 11.34161 W	809113.19 sft	2290043.69 sft	0.99994545
NEW BERN NCGS CORS ARP	DN8739	-52.79	69.13	35 06 45.99769 N	077 06 14.29783 W	501387.45 sft	2566977.61 sft	0.99987805
RALEIGH DOT CORS ARP	DG4687	169.91	279.00	35 45 49.50795 N	078 34 44.39448 W	733167.41 sft	2124896.39 sft	0.99990429
ROXBORO CORS ARP	DM3527	638.61	740.32	36 23 28.05620 N	078 59 54.41890 W	961289.43 sft	2000456.36 sft	1.00003983
SANFORD CORS ARP	AM7024	313.17	417.13	35 28 24.67784 N	079 09 28.98436 W	627302.98 sft	1952943.44 sft	0.99986507
SMITHFIELD CORS ARP	DK6525	80.28		35 33 49.60980 N	078 20 10.80495 W	660776.48 sft	2197371.94 sft	0.99988353
TARBORO CORS ARP	DK7578	-1.66	114.27	35 52 56.96198 N	077 34 21.39610 W	779162.70 sft	2422821.78 sft	0.99993315
TROY CORS ARP	DK4045	472.63	572.80	35 22 01.84517 N	079 52 12.77094 W	589698.42 sft	1740575.22 sft	0.999852
WARRENTON CORS ARP	DM3529	250.07	359.35	36 23 41.68571 N	078 10 13.74958 W	963688.00 sft	2244165.66 sft	1.00005974
WHITEVILLE CORS ARP	DJ8943	-7.62	106.17	34 16 49.59006 N	078 42 59.33169 W	193180.61 sft	2085652.09 sft	1.00001543
WILLIAMSTON 2 CORS ARP	DN8741	-71.81	46.52	35 49 49.75739 N	077 02 06.20973 W	762958.46 sft	2582412.18 sft	0.99992694
WILSON CORS ARP	DK7563	36.70	151.02	35 42 26.29637 N	077 55 57.08393 W	714060.13 sft	2316898.67 sft	0.99990235