

New Jersey Geospatial Forum CORS Task Force

Final Report & Presentation

**Submitted to the Executive Committee
January 16, 2009**

Summary:

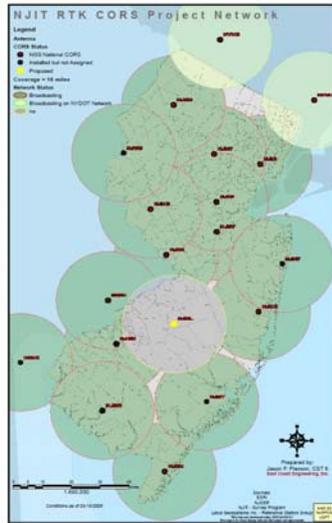
GIS, Mapping and Surveying professionals have a real need for the timely, cost effective and accurate collection of georeferenced data. Many states have developed Real Time GPS Networks (RTN) in order to meet these needs. The methods of developing these RTNs vary by who funds, manages and maintains the networks.

The purpose of the NJ Geospatial Forum Continuously Operating Reference Station (CORS) Task Force was to determine the status of RTN development in New Jersey from a funding, management and maintenance perspective.

New Jersey's RTN was developed through a public/private partnership between the New Jersey Institute of Technology (NJIT), Leica Geosystems, private firms and public entities. The original CORS station was established at NJIT and still resides there. The network software resides at this location and is maintained by Leica and members of the NJIT survey program. Other CORS stations have been installed throughout the state at private and public facilities and are monitored by the network software creating a RTN.

Attached is the presentation given to the NJ Geospatial Forum including a map showing the extents of the network and contacts for additional information.

The "Original" NJ Reference Station Network (a partnership between NJIT and Leica Geosystems Inc.)



Guidelines for New and Existing Continuously
Operating Reference Stations (CORS)
National Geodetic Survey
National Ocean Survey, NOAA
Silver Spring, MD 20910
February 2006

CORS Guidelines 1 of 33

- when it has to be right

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Who will benefit from this Network?

The public through the hands
of many professionals.



- Land Surveyors
- GIS Professionals
- Contractors
- Highway Departments
- Municipalities
- Forensic Teams

Professional Land Surveyors:

Whose responsibility is to follow in the footsteps of those who came before them...



Should provide data which is tied to the National Spatial Reference System for the benefit of future generations.

- when it has to be right

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GIS Professionals:

Who manage a multitude of data and ensure its quality through the rigorous use of Metadata...



Should insist that all incoming data be tied to the National Spatial Reference Network.

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Construction:

Who build those projects with public and private funds...



Have the responsibility to utilize the same reference system to build the project that was used to design it.

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Highway Department Inspections and As-Built Surveys:

Provide the verification of Design Specifications.



Should be tied to a common Spatial Reference Network for ease of comparison and incorporation into a community GIS.

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- when it has to be right

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Municipalities:

Who manage local assets and are responsible for improvements, changes, certifications and permits.



A Utility in the hands of a public entity can remain available for generations to come.

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- when it has to be right

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Forensics:

For those who must quickly respond and investigate accidents and other emergencies.



Can be tied to a
**NATIONAL
REFERENCE
STATION
NETWORK** for
incorporation
into local GIS
systems.

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Long Term Viability

A Network Utility in the hands of a public entity can remain available for generations to come.



•Lifespan of the Data

VS.

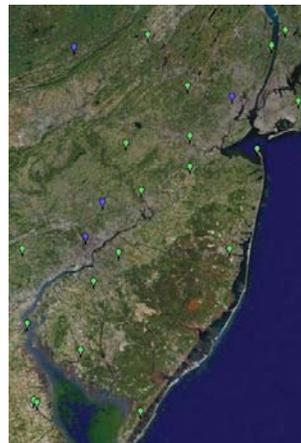
•Lifespan of the Technology

9

- when it has to be right

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The Foundation of a Reference Network began here in NJ over 10 years ago...



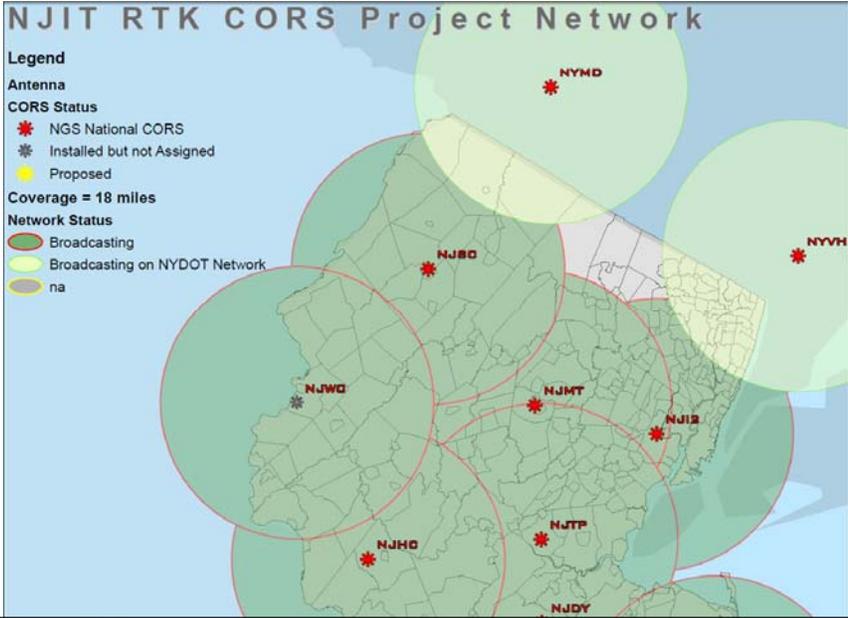
with CORS Stations

10

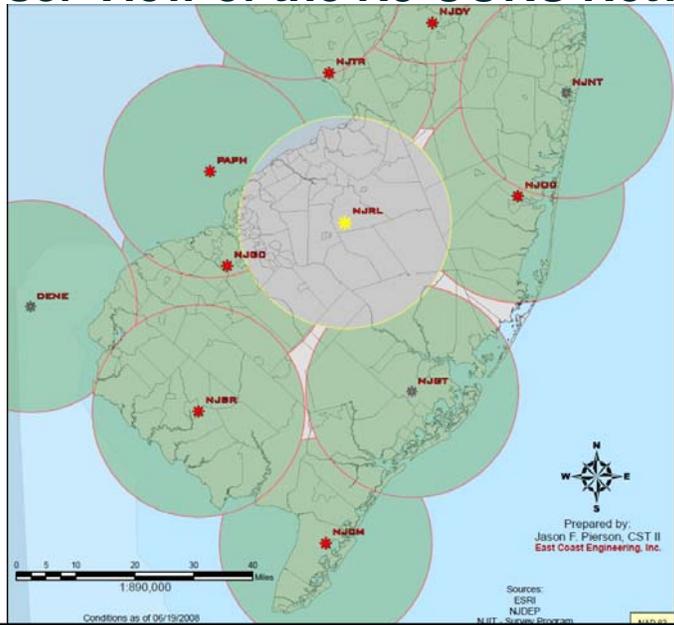
- when it has to be right

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Closer View of the NJ CORS Network



Closer View of the NJ CORS Network



What should we look for in a Reference Network?



- Universal Correction Message
- Tied to the National Spatial Reference System
- Long Term Viability
- Public Involvement
- Strong Partnerships

- when it has to be right

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How can you get involved?

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