The Status of Real Time Networks in New Mexico

By:
Robert L. Green, PLS
Geodetic Consultant
Vectors, Incorporated
Albuquerque, NM

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What is a RTN (Real Time Network)

◆ **GPS Infrastructure—The receivers, PCs, software, and communications links that are permanently or semi-permanently stationed to provide continuous data logging, monitoring and data broadcast**

◆ **System Infrastructure—GPS Infrastructure plus: communications links, rover receiver, rover UI and office software that handles the data**

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Types of Networks

- **Single Base Solution – Most start this way!**
- **A Network of Single Bases-GPSNet**
  - Used by the NMDOT
  - DOT Streams Data to NGS CORS

Virtual Reference Station (VRS) The Ultimate Solution

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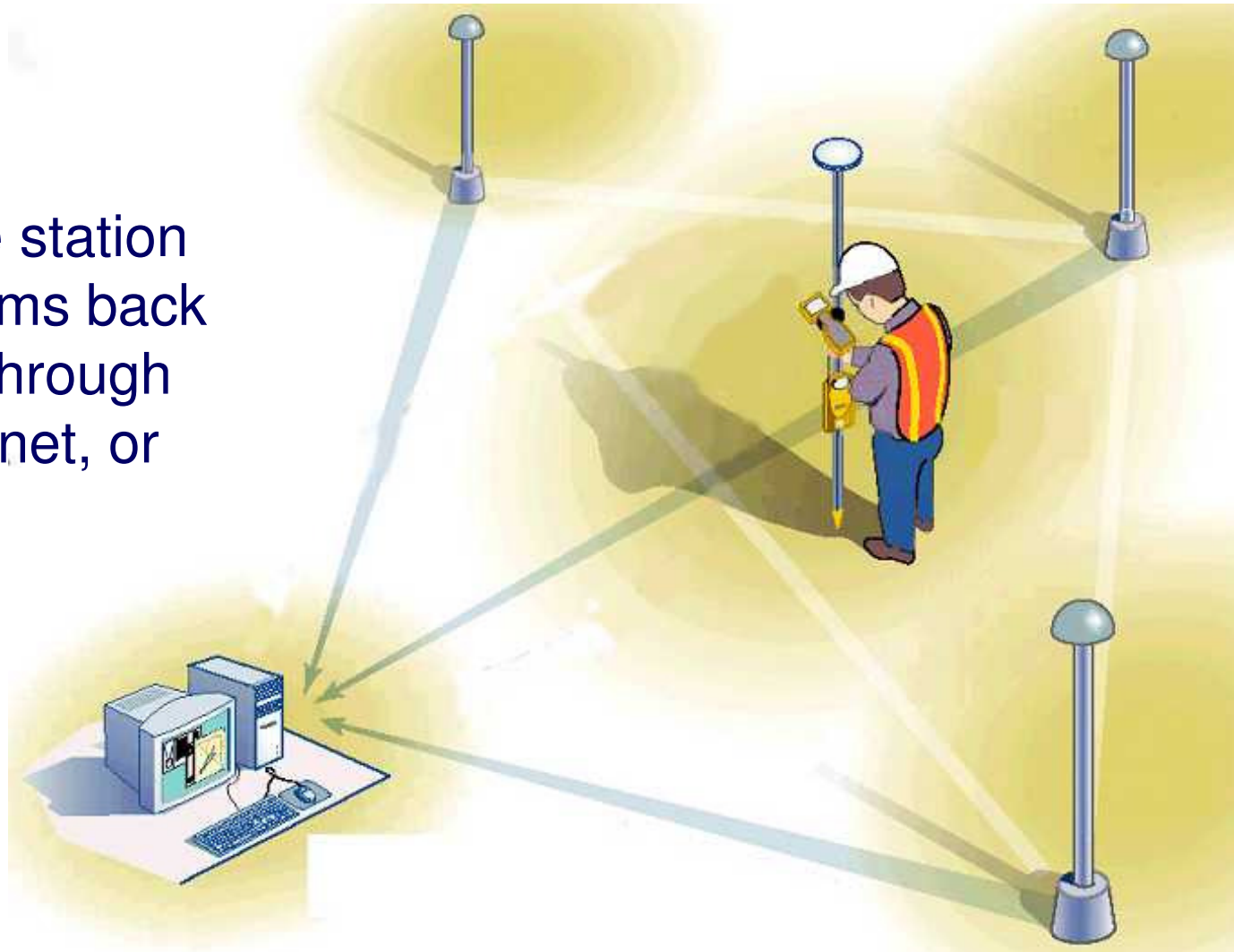
What is VRS?

- Can be used for both Survey and Mapping

- Links a network of reference stations

- Provides quality control of incoming data

- Logs files for postprocessing

- Network modeling of systematic errors

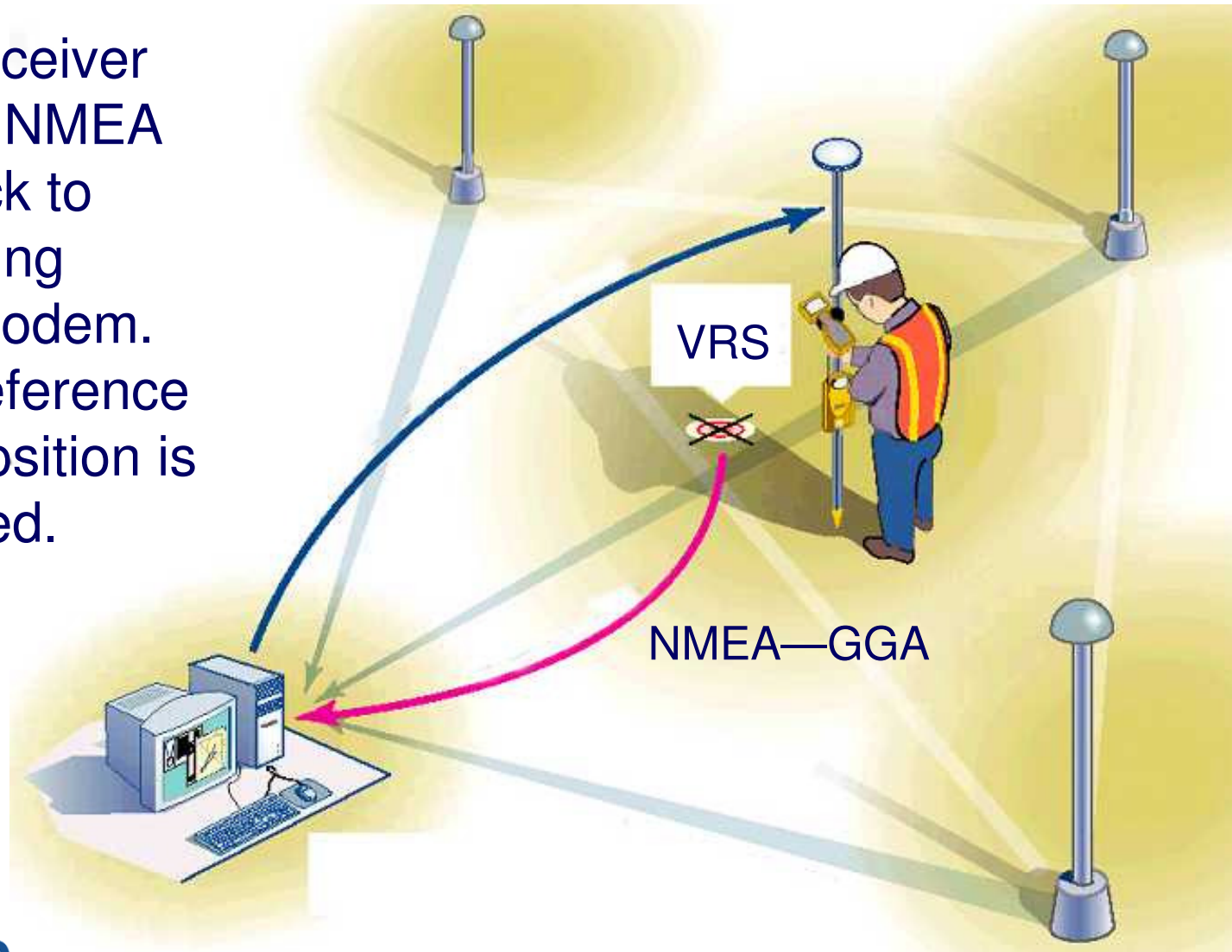- Real time broadcast of true network RTK solution

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VRS Data Flow

Reference station
data streams back
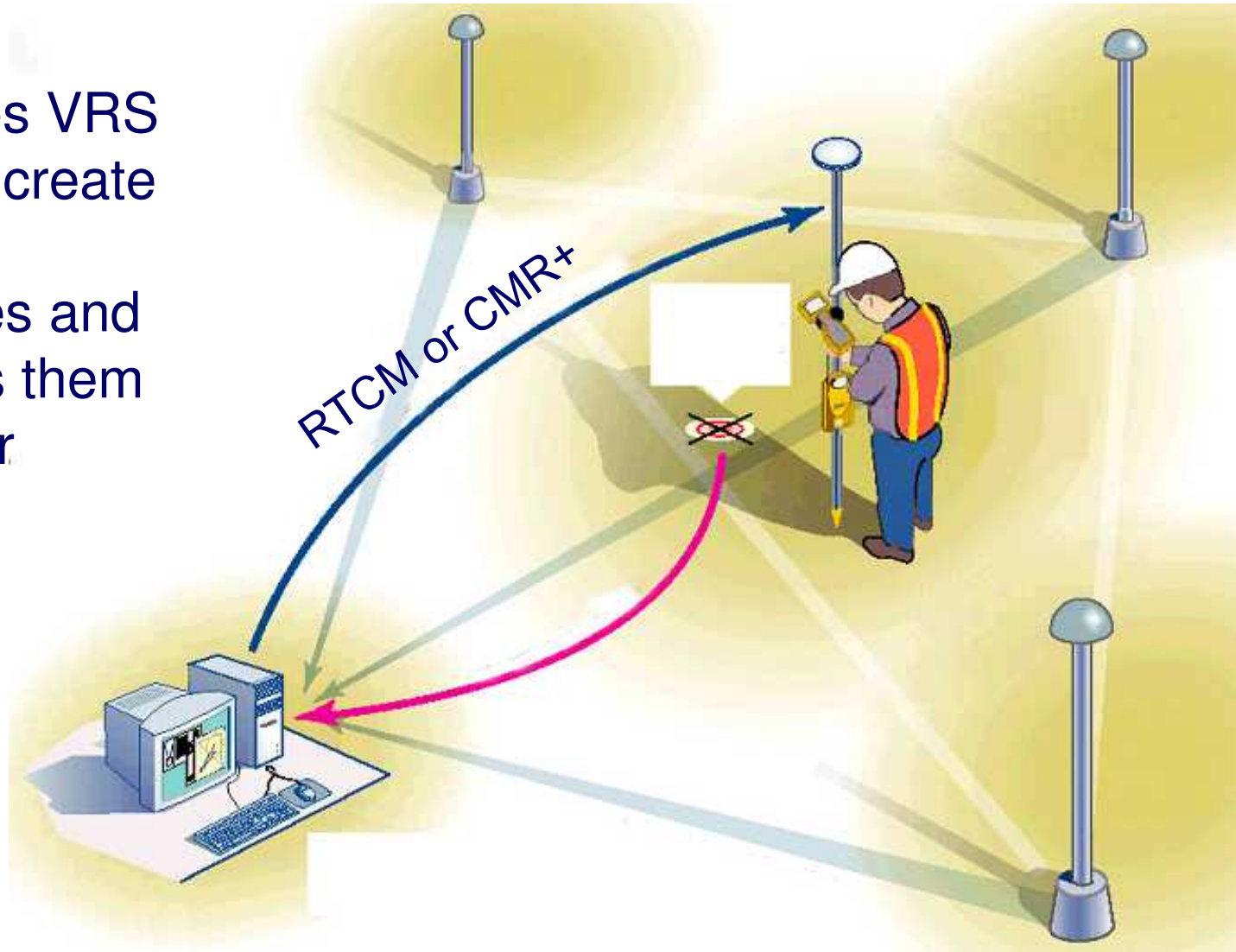to server through
LAN, Internet, or
radio links

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VRS Data Flow

Roving receiver
sends an NMEA
string back to
server using
cellular modem.
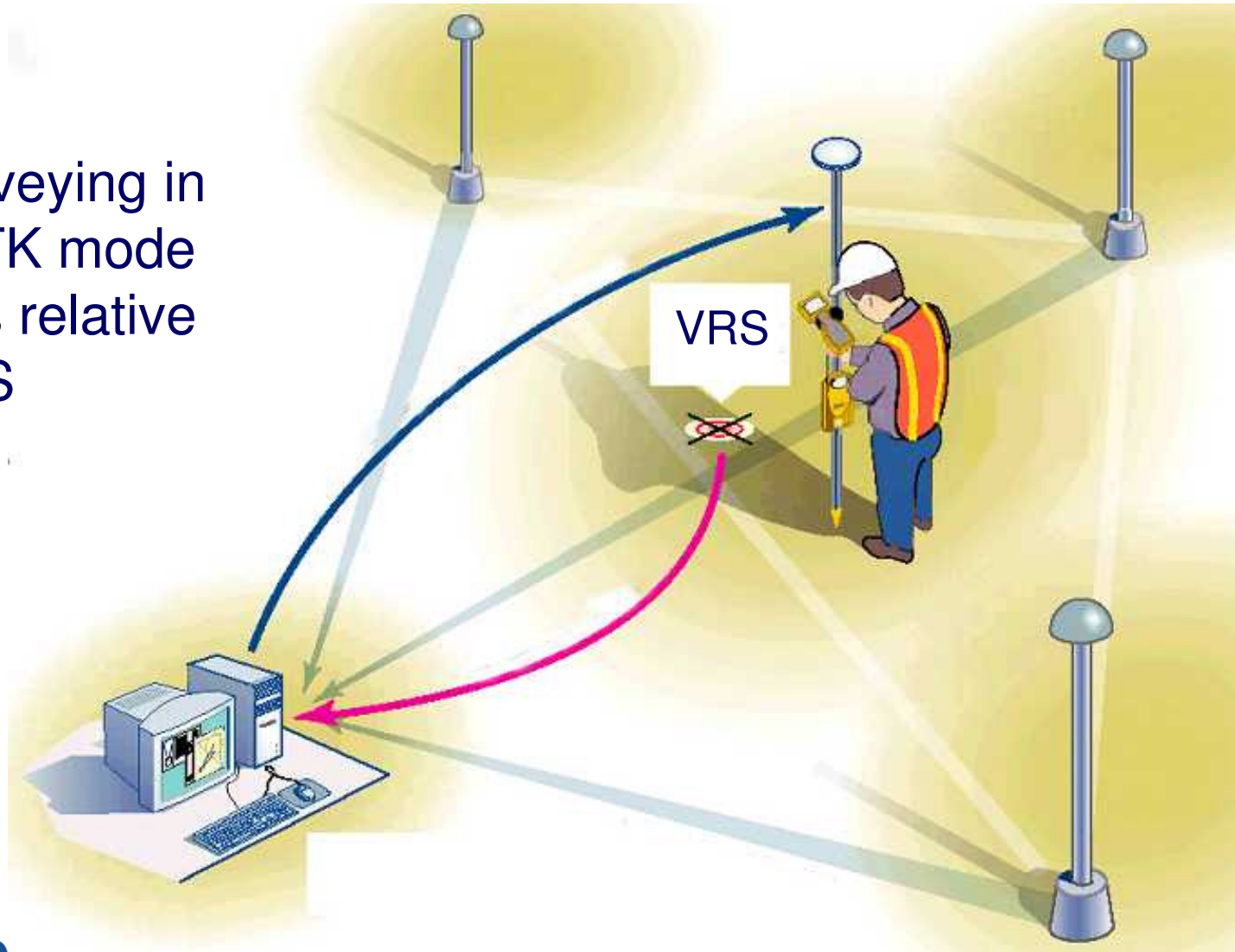Virtual Reference
Station position is
established.

VRS

NMEA—GGA

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VRS Data Flow

Server uses VRS position to create corrected observables and broadcasts them to the rover
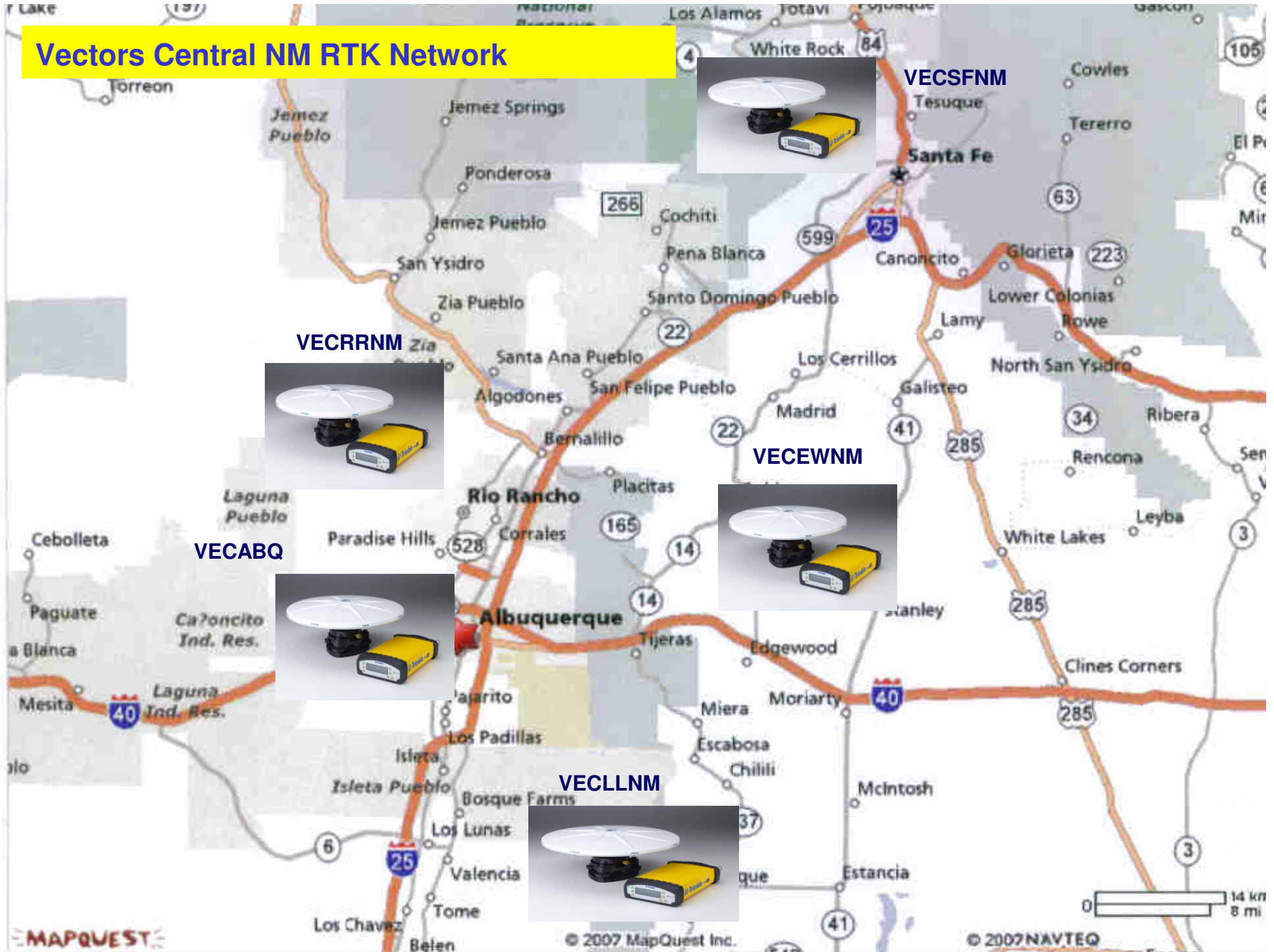
RTCM or CMR+

VRS Data Flow

Rover surveying in normal RTK mode but data is relative to the VRS

VRS

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Current Status Statewide

Vectors Central NM RTK Network

n interactive tutorial.

NSS Network

e · Updated Mar 16, 2010

N Long: 106 - 40 - 04 W I
tailed Info

N Long: 106 - 33 - 40 W I
tailed Info
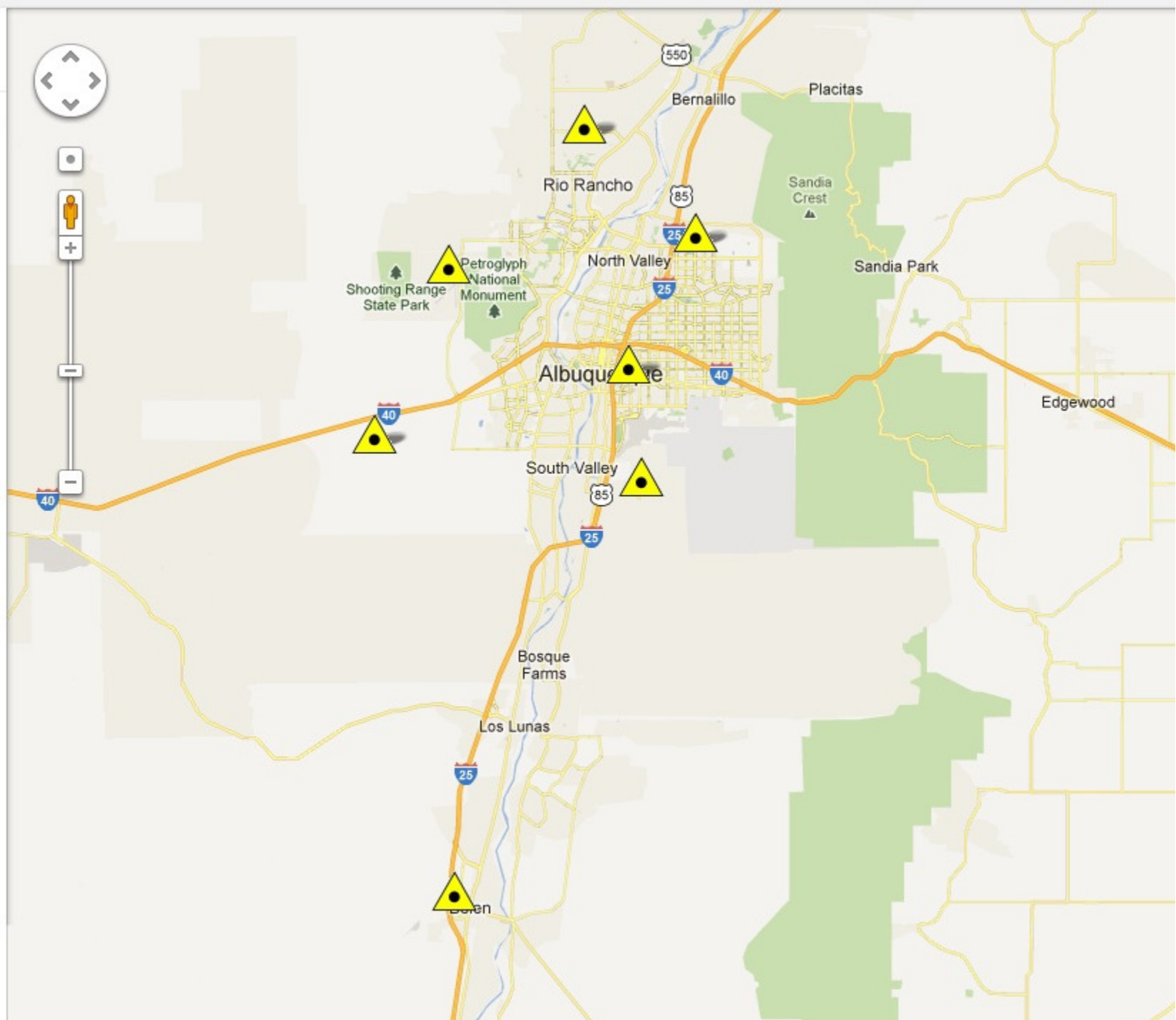
N Long: 106 - 52 - 09 W I
tailed Info

N Long: 106 - 37 - 29 W I
tailed Info

N Long: 106 - 02 - 35 W I
tailed Info

N Long: 106 - 47 - 32 W I
tailed Info

N Long: 106 - 47 - 53 W I
tailed Info

N Long: 106 - 36 - 47 W I
tailed Info

550
Bernalillo
Placitas
Rio Rancho
Sandia Crest
85
25
North Valley
Sandia Park
Shooting Range State Park
Petroglyph National Monument
25
Albuquerque
40
Edgewood
40
South Valley
85
25
Bosque Farms
Los Lunas
25
Belen

Questions?