

Validating Short-Term Daily Traffic Counts

A Quality Control Approach

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Traffic Survey Unit

North Carolina Department of Transportation

Structure

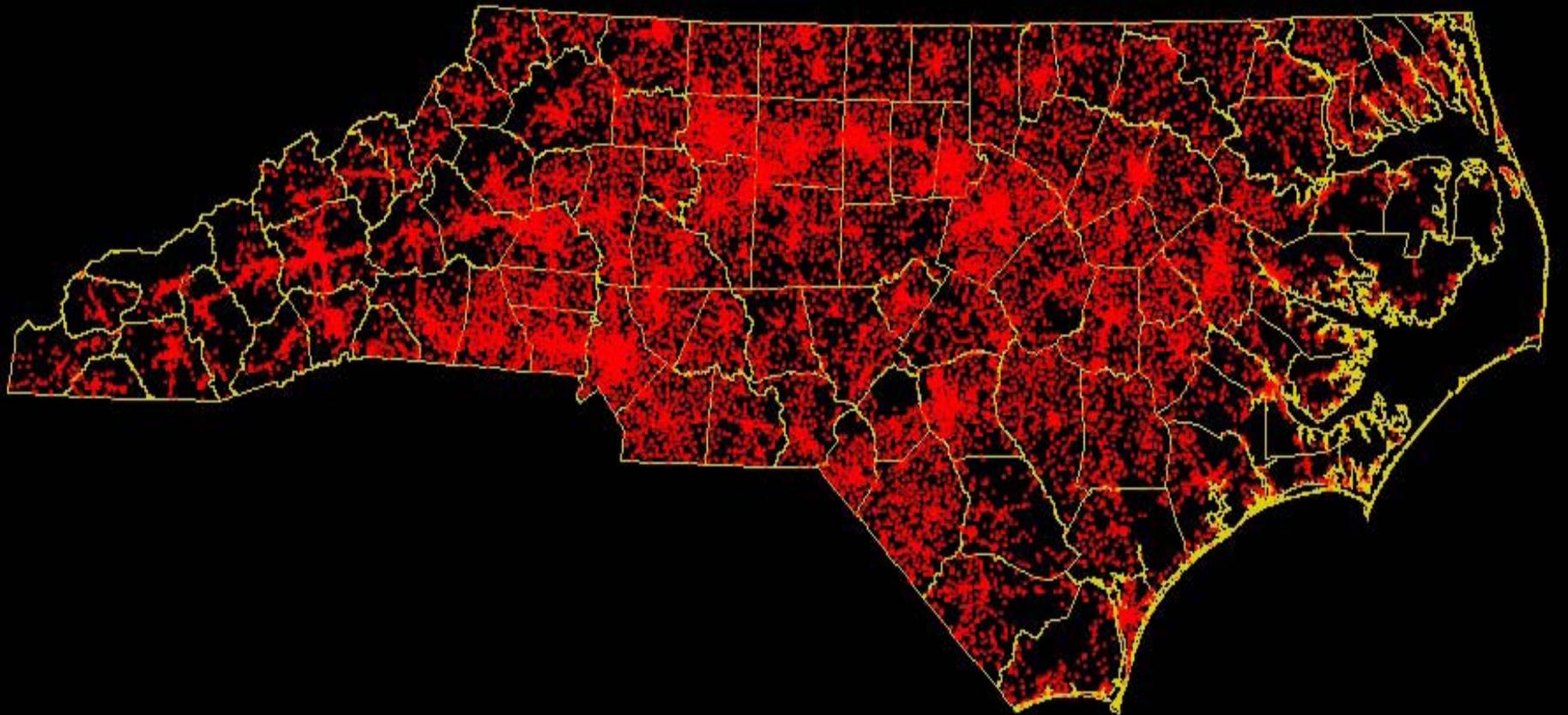
- NCDOT
- Traffic Survey Unit

NCDOT

- 100 Counties
- 40 Districts
- 14 Divisions
- Centralized Office

Traffic Survey Unit (TSU)

- Function
 - Special Studies
 - Providers of Information
 - Collect Traffic Count Data
- Structure of Unit
- Count Programs
 - Short Term Daily Counts
 - Majority of staff and time to collect



Designing the Process

- Available resources
 - Coordination and cooperation of different disciplines
 - On-going Technical Support (Oracle and GIS)
 - Updates of Attribute Data and Model
- Methods
 - Characteristics of Data
 - Complexity of methods
- Levels of support
- Psychological consideration of change on staff
- Goals to be achieved in designing a new process

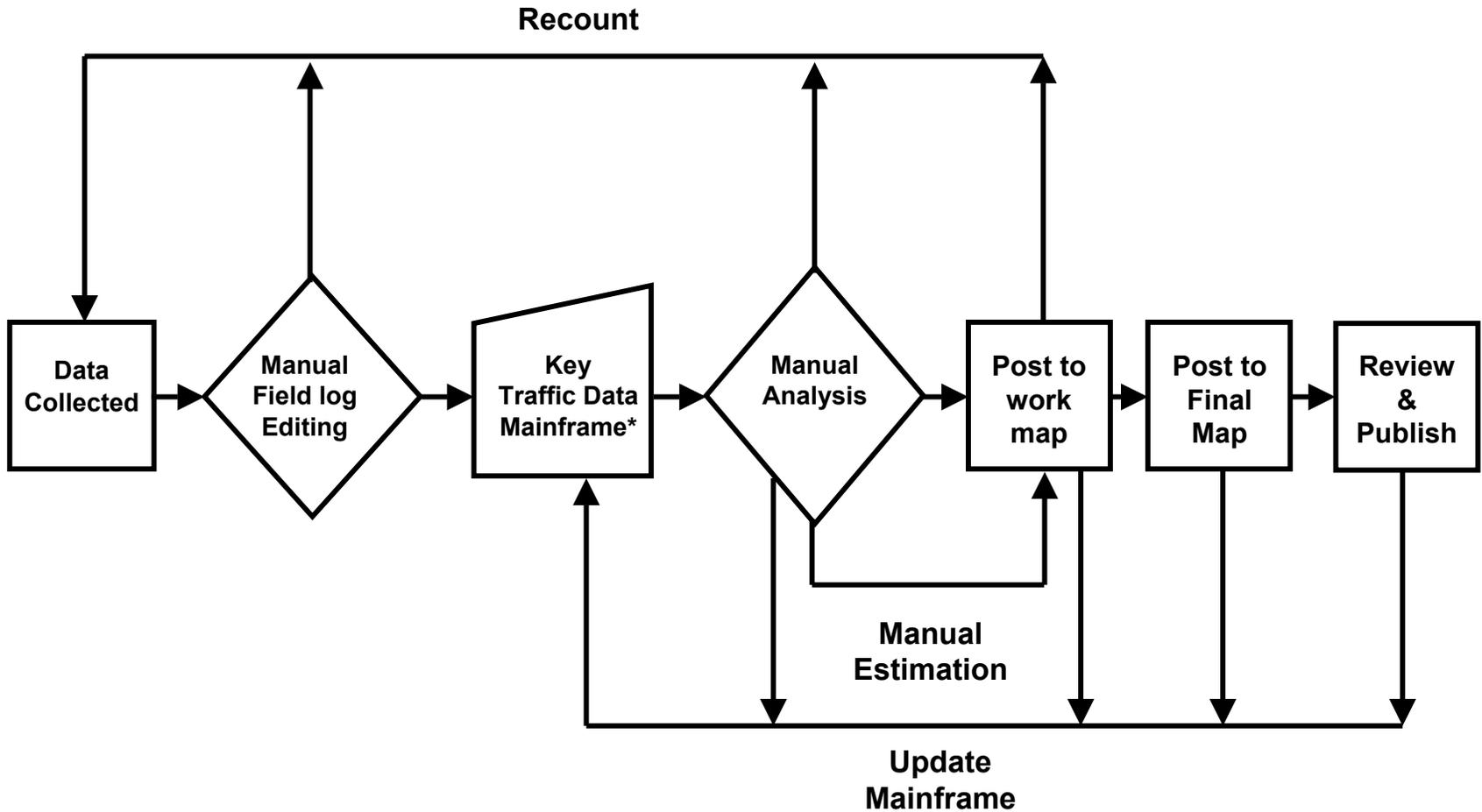
Primary Goals

- Automated way to validate traffic count data
- Improve analysis using statistical methods and GIS
- Eliminate estimation of counts
- Reduce number of recounts
- Eliminate or reduce known sources of variability
- Increase window of opportunity to investigate
- Decrease turn-around time from data collection to posting
- Automate posting
- Relational Databases

Secondary Goals

- Track counts collected
- Provide measures of performance
- Produce smarter maps for analysis
- Provide customers with smarter maps on CD and Web

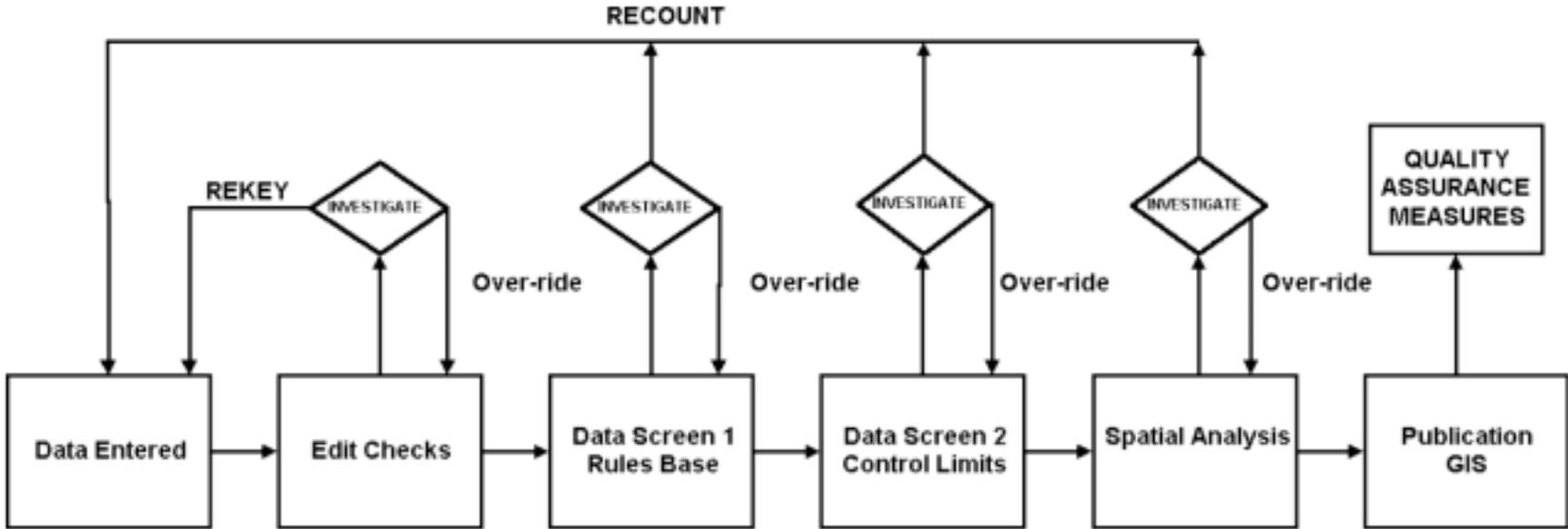
Existing Process

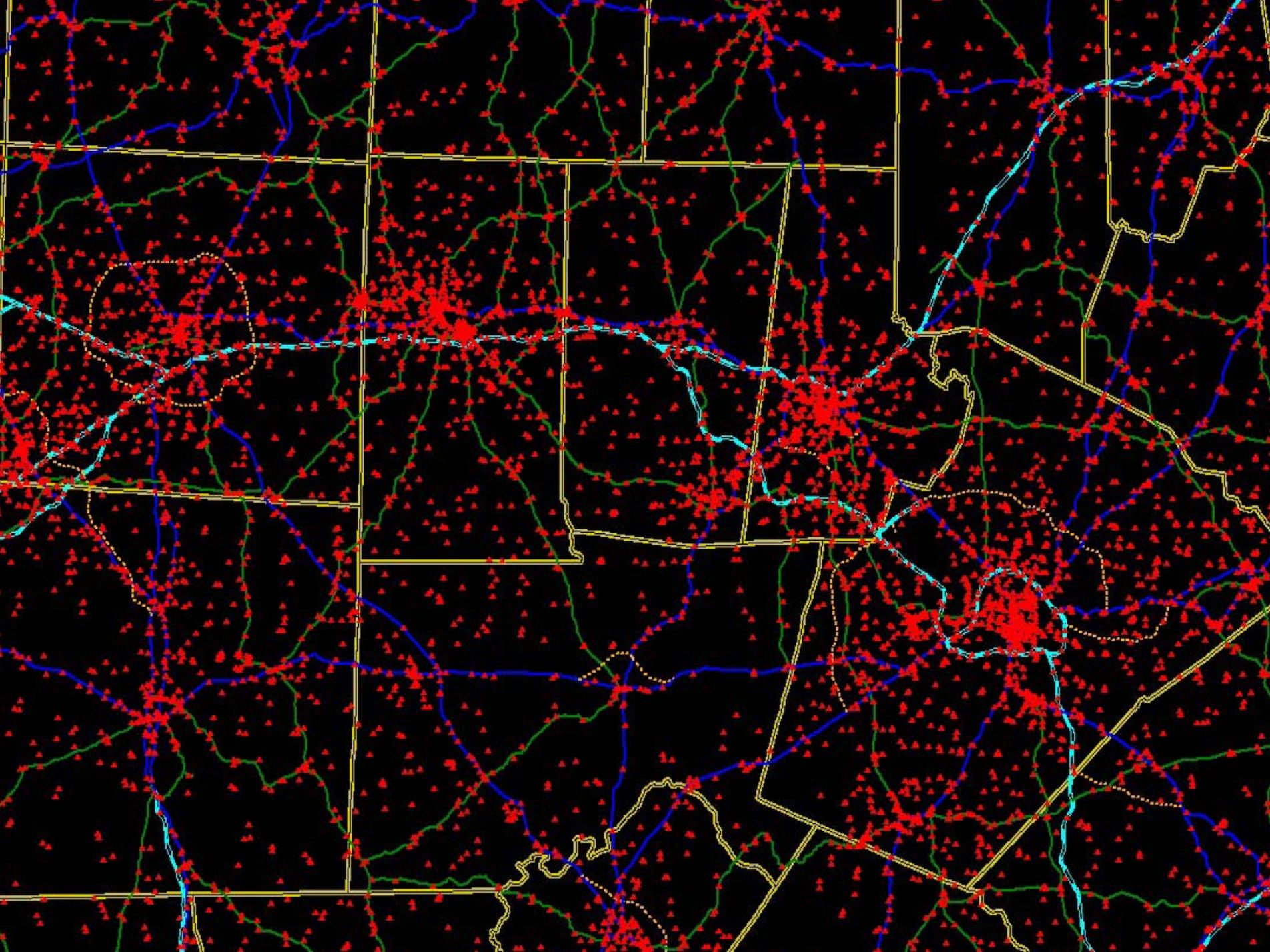


***15%| Percent Change on Count Data**

Counts Factored at this time

Coverage Count Process





Progress

- 35,029 stations and related data have been “cleaned up”
- Geodatabases have been created for ArcView applications
- The LRS data has been incorporated into our Daily Count dataset
- Unmatched issues resolved with all attributes
- Minor changes in analysis have been implemented
- Codes for exceptions reports have been developed
- Field log sheet revised
- Seasonal portion of research project has begun
- Daily Count dataset modeled using as the crow flies distances with existing model and standard transformation techniques

Anticipated Results and Significance

- Investigation of counts based on levels of uncertainty
- Over-control of process through excessive adjustments no longer a concern
- Process is faster
- Recounts occur in a more timely manner
- Interpretability and presentation of unusual counts