EXECUTIVE SUMMARY - *updated FEBRUARY 2019*

USDOT Tier-1 University Transportation Center

CM² Cooperative Mobility for Competitive Megaregions

Assessment of Post-disaster Re-Entry in Megaregions: A Pilot Study (#CM2-8)

Dr. Brian Wolshon,
Louisiana State University

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Project Information Form:
http://sites.utexas.edu/cm2/files/2018/03/Year-2-Brian-Wolshon-Project-1-Assessment-of.pdf

POST-DISASTER RE-ENTRY in MEGAREGIONS ASSESSMENT

Post-disaster reentry plans are essential to ensure the safety of returning evacuees and the effectiveness of recovery/restoration processes (Wolshon, 2009, Texas Division of Emergency Management, 2013). After an evacuation, potential hazardous conditions may pose a risk to evacuees returning to their homes, businesses, or properties. For example, downed electrical lines, gas line leaks, collapsed bridges, flooded roads, landslides, washed-out roads, etc. may create hazardous environments for returning evacuees (Wolshon, 2009). These conditions may also challenge the recovery/restoration processes as additional personnel, special machinery, etc. may be required.

Post-disaster reentry, in some cases, may be challenged with a large number of evacuees that may be returning from distant communities across multiple regions or states (Lin et al., 2013). As such, the transportation system could be significantly congested due to high demands in transportation network that may not be fully functional. Although post-disaster reentry could be more challenging and complex than evacuations (Lin et al., 2013), it was evidenced in the literature that re-entry research is limited and there is, in most cases, a lack of formal planning (Wolshon, 2009).

This project seeks to assess various post-disaster reentry scenarios that could be used to support transportation agencies as they assist emergency management and law enforcement agencies in post-disaster re-entry efforts. The scenarios to be assessed in this project could include various re-entry procedures, demand/response rates, network accessibility conditions, road blockages, etc. which could be used to support traffic management plans for reentry. This research will employ traffic simulation modeling techniques to assess various conditions associated with post-disaster re-entries in megaregions.

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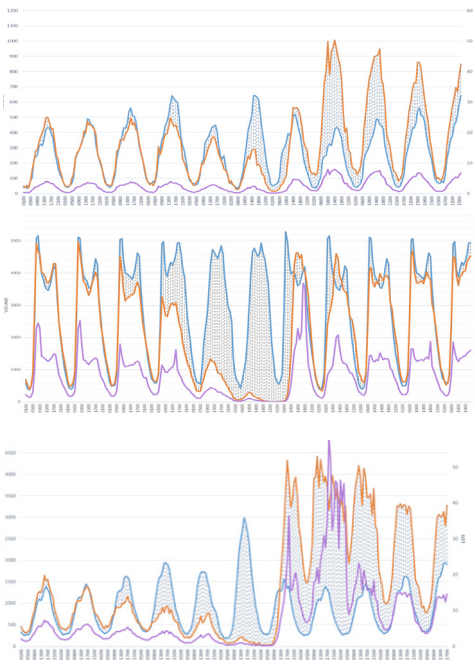

Sample of Re-Entry Data from Hurracane Irma to derive re-entry curves

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