Metro SafeTrack Predicted Impact on Regional Traffic Conditions: Safety Surge 2

Volume 2 | Issue 1 | June 17, 2016

1. Introduction

The National Transportation Center (NTC@Maryland) at the University of Maryland (UMD) – College Park (http://ntc.umd.edu) is working to predict and track transportation system performance and regional traffic conditions before, during, and after each of the 15 SafeTrack safety surges. For each SafeTrack event, NTC@Maryland will publish a Volume consisting of several Issues that summarize research findings before, during, and after the surge project. While universities, agencies, and companies may be mentioned in this report series, the UMD research team, led by Dr. Lei Zhang (lei@umd.edu; 301-405-2881), Herbert Rabin Distinguished Professor of Civil Engineering and NTC@Maryland Director, is solely responsible for the accuracy of these reports. The views in this report series do no necessarily represent the official views of the University of Maryland or that of any other organizations mentioned herein.

NTC@Maryland also conducts travel surveys (mail, web, and smartphone-based) and transportation system modeling analysis to observe and predict how individual travelers adjust their travel decisions in response to specific Metro SafeTrack maintenance events that temporarily shut down or reduce the level of Metrorail service from June 2016 through March 2017. NTC@Maryland's second behavioral survey is currently in progress, and the results are scheduled for release in advance of the third safety surge project.

2. Focus of this Volume and Issue

SafeTrack Surge Project 2: June 18~July 3, line segment shutdown between Eastern Market and Minnesota Ave/Benning Road stations with Metrorail Orange, Blue and Silver Lines affected.

3. Predicted Regional Traffic and Transit Impact

NTC@Maryland has previously developed an integrated travel behavior and traffic simulator that covers the entire Washington, D.C. metropolitan area. This modeling system is used to predict the regional traffic impact of individual SafeTrack projects. The predictions are for typical **weekday** traffic demand and conditions in the affected area(s). Based on model runs completed on June 16, 2016,

NTC@Maryland predicts that, due to this SafeTrack project, the overall travel delay in the affected area will increase by 2.1%, the average travel speed will decrease by 3.2%. Travel time on MD-295 and US-50 will increase by less than 1.0%, while I-495 travel time will increase by 3.3%. Drivers on I-495 near the affected Metrorail stations may notice slightly worse traffic conditions. No major increase in local traffic queuing on arterial streets is observed from simulation results. Most drivers (or previous Metrorail riders who plan to drive, carpool, or take buses during the surge project period) should not worry about new gridlocks during this second SafeTrack surge project. The impact of this SafeTrack project is slightly more significant than that from the first SafeTrack surge project, but should not cause major traffic concerns in our region. I-495 drivers in that area may want to depart five minutes earlier on Monday, 6/20, for the same arrival times. NTC@Maryland will work with the Center for Advanced Transportation Technology (CATT) at UMD to track the actual traffic impact on and after 6/20, and report our findings in the next Issue.

Metrorail riders, however, should expect longer delays and significantly more crowding on trains and bridging buses. Since many surveyed Metrorail riders (21%) are planning to depart earlier during the SafeTrack project period, longer delays and Metro station/bridging bus crowdedness will likely take place even before the start time of the usual peak period. Those who want to beat the crowds and avoid major Metrorail delays should plan on either departing very early (e.g. an hour before the rush hour starts) or after the peak period.

6. Highlights of the Next Issue

NTC@Maryland plans to publish the next Issue around Thursday, June 23. This Issue will update travel behavior survey findings based on surveys fielded before the start of the second surge project, and reveal the observed regional traffic impact of this surge project.