

Applications for the Environment: Real-Time Information Synthesis (AERIS) Program

Fall/Winter Webinar Series

March 13, 2013

Eco-Approach and Departure Concept

Velocity Planning Algorithm

Target velocity is set to get through the green phase of the next signal
(time-distance calculation)

Initial velocity may be above or below target velocity

VehicleT Setup at Riverside



On-board DSRC



U.S. Department of Transportation

Riverside Testing

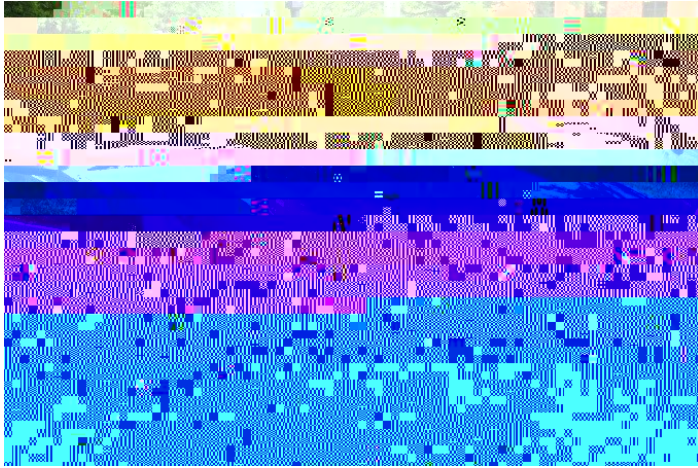


Signal Phase and Timing System Setup at TFHRC

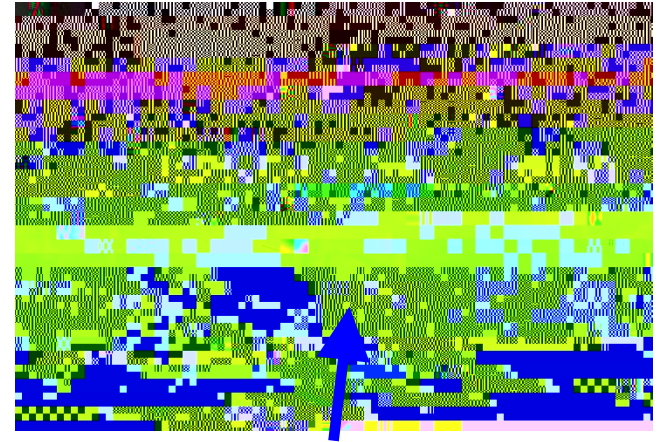
t
controller



Vehicle Setup at TFHRC



Test vehicle
(Jeep Grand Cherokee)



Example Scenario (cruising)



Typical Velocity Trajectories

Model-Based Estimation

Velocity trajectories
from testing





Field Study Recommendations

SPaT enhancements:

Broadcast of next-next-phase information

Modeling Setup

Modeling Results: multiple intersections

Uncoordinated Signal Control:

Signal timing is set to be uncoordinated between intersections

