National Capital Region
Transportation Planning Board

MEMORANDUM

TO: Aviation Technical Subcommittee

FROM: Nicole McCall, Manager, Planning Research and Assistance

SUBJECT: Washington-Baltimore Regional Airport Ground Access Travel Time Study (GATTS) Status

DATE: September 21, 2022

INTRODUCTION

TPB staff is preparing to update the Washington-Baltimore Regional Airport Ground Access Travel Time Study (GATTS) in late 2022 and 2023. This memo was developed for the Aviation Technical Subcommittee to share the proposed approach for this project. TPB Staff will present this memo during the September meeting and encourage members of the Subcommittee to share comments or questions. Following the meeting, staff requests input be submitted by Subcommittee members within four weeks (or by COB October 22, 2022).

BACKGROUND

The CASP program provides a process and systematic framework to support the planning, development and operation of airport and airport-serving facilities in the Washington-Baltimore region. The CASP program conducted four studies between 1988 and 2011 on highway travel times from selected activity centers to the region's three commercial airports: Baltimore/Washington International Thurgood Marshall Airport (BWI), Ronald Reagan Washington National Airport (DCA), and Washington Dulles International Airport (IAD). These studies employed a probe vehicle to measure speeds and congestion along a subset of routes. In 2017, vehicle probe data obtained from the Center for Advanced Transportation Technology Laboratory at the University of Maryland (CATT Lab) was used as the input to analyze travel routes.

PROPOSED OUTLINE

This report will be similar to the [2015 Ground Access Travel Time Study](#) which was completed in January 2017. TPB staff proposes the following outline for the report:

Executive Summary
Introduction
Organization of the Report
Methodology
        Highway Network
        Transit
        Additions to the Transportation Network
Demographic Changes / Influence of Pandemic
Findings

Travel Time Index and Planning Time Index
Observations from Spring 2020 (Pandemic - peak of stay-at-home orders)
Observations from Spring 2022
Congestion
    To BWI on Weekdays
    To DCA on Weekdays
    To IAD on Weekdays
    TO BWI on Weekends (afternoons)
    To DCA on Weekends (afternoons)
    To IAD on Weekends (afternoons)
Airport Access via Transit

PROPOSED METHODOLOGY

TPB staff proposes:

- Conducting virtual travel time run routes using vehicle probe data from the CATT Lab. These routes are shown in Attachment 1.

- Analyzing data from three time periods:
    o Spring 2019   Base period
    o Spring 2020   Pandemic (peak of stay-at-home orders)
    o Spring 2023   Latest conditions (after opening of Silver Line Phase 2)

- Summarizing data by day of week:
    o Weekday (Tuesday, Wednesday, and Thursday),
    o Weekend (Friday, Saturday, Sunday, and Monday)

- For each day of week, aggregating data into one of six time periods:
    o 12 Midnight to 5 A.M.
    o 5 A.M. to 6 A.M.
    o 6 A.M. to 9 A.M.
    o 9 A.M. to 3 P.M.
    o 3 P.M. to 7 P.M.
    o 7 P.M. to 11:59 P.M.

ATTACHMENT 1. PROPOSED DATA COLLECTION ROUTES FOR GROUND ACCESS TRAVEL TIME STUDY

Table 1: Data Collection Routes for Ground Access Travel Time Studies (BWI)

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To BWI from:		
Aberdeen (via MD-22, I-95 (via Fort McHenry Tunnel) and I-195)	X	X
Annapolis (via US-50 and I-97, MD-176 and MD-162)	X	X
Baltimore City (Downtown) (West Fayette Street and North Charles Street) (via MLK Boulevard, South Russell Street, MD-295 and I-195)	X	X
Baltimore City (Broening Highway/Seagirt Marine Terminal) (via I-695 (Baltimore Beltway via F.S. Key Bridge), I-97, MD-176 and MD-162)	X	X
Bel Air (via MD-24, I-95 (via Fort McHenry Tunnel) and I-195)	X	X
D.C. - 14th Street and Independence Avenue, S.W. (via Independence Avenue, I-695 [D.C.] (Southeast Freeway), DC-295, MD-201, Baltimore-Washington Parkway, MD-295 and I-195)	X	X
D.C. - 14th Street and Independence Avenue, S.W. (via Independence Avenue, Pennsylvania Avenue, S.E., DC- 295, MD-201, Baltimore-Washington Parkway, MD- 295 and I-195)	X	X
D.C. - 14th Street and K Street, N.W. (via K Street, N.W., US-50 (New York Avenue, N.W. and N.E.), Baltimore-Washington Parkway, MD-295 and I-195)	X	X
D.C. - 14th Street and K Street, N.W. (via K Street, N.W., US-50 (New York Avenue, N.W. and N.E.), Baltimore-Washington Parkway, I-95/I-495 (Capital Beltway), I-95 and I-195)	X	X
D.C. - 14th Street and K Street, N.W. (via K Street, N.W., US-50 (New York Avenue, N.W. and N.E.), U.S. 50 (John Hanson Highway), I-97, MD-176, and MD-162)	X	X
DCA (via George Washington Memorial Parkway, I-395 Southwest Freeway), I-695 [D.C.] (Southeast Freeway), DC-295, MD-201, Baltimore-Washington Parkway, MD- 295, I-195	X	X
College Park (via US-1, I-95 and I-195)	X	X
Columbia (via MD-100, I-95 and I-195)	X	X
Easton (via US-50 (via Chesapeake Bay Bridge), I-97, MD-176 and MD-162)	X	X
Frederick (via I-70, US-29, MD-100, I-95 and I-195)	X	X
Gaithersburg (via I-270, I-270 Spur, I-495 (Capital Beltway), I-95 and I-195)	X	X
Gaithersburg (via I-270, I-370, MD-200 (ICC), I-95 and I-195)	X	X
Gettysburg, Pennsylvania (via US-30, US-15, MD-140, I-795, I-95 and I-195)	X	X
Gettysburg, Pennsylvania (via US-30, US-15, I-70, US-29, MD-100, I-95 and I-195)	X	X
Greenbelt (via Baltimore-Washington Parkway, MD-295 and I-195)	X	X

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To BWI from:		
Hagerstown (via U.S. 40 (Dual Highway), I-70, US-29, MD-100, I-95)	X	X
IAD (via Dulles Airport Access Road, I-495 (Capital Beltway via American Legion Bridge), I-95, I-195)	X	X
IAD (via Dulles Airport Access Road, I-495 (Capital Beltway via American Legion Bridge), I-270, I-370, MD-200, I-95, I-195)	X	X
Largo (via I-95/I-495 (Capital Beltway), Baltimore-Washington Parkway, MD-295 and I-195)	X	X
Lexington Park (via MD-4, US-301, MD-3, I-97, MD-176, MD-162)	X	X
National Harbor (via I-95/I-495 (Capital Beltway), Baltimore-Washington Parkway, MD-295 and I-195)	X	X
Rockville (via I-270, I-370, MD-200 (ICC), I-95, I-195)	X	X
Rockville (via I-270, I-495 (Capital Beltway), I-95, and I-195)	X	X
Rockville (via I-270, I-495 (Capital Beltway), I-95, MD-32, Baltimore-Washington Parkway, and MD 295)	X	X
Rockville (via MD-28, MD-650, MD-108, MD-32, Baltimore-Washington Pkwy, and MD-295)	X	X
Springfield (via VA-613, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), Baltimore-Washington Parkway, MD 295 and I-195)	X	X
Towson (via I-695 (Baltimore Beltway) and MD 295)	X	X
Tysons Corner (via I-495 (Capital Beltway via American Legion Bridge), I-95 and I-195)	X	X
Waldorf (via US 301, MD-3, I-97, MD-176 and MD-162)	X	X
Westminster (MD-27, MD-140, I-795, I-695 (Baltimore Beltway), I-95, I-195)	X	X
White Marsh (via Honeygo Blvd., MD-43, I-95 (via Fort McHenry Tunnel) and MD 295)	X	X
York, Pennsylvania (via U.S. 30, I-83, I-695 (Baltimore Beltway), I-95, I-195)	X	X

Table 2: Data Collection Routes for Ground Access Travel Time Studies (DCA)

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To DCA From:		
Annapolis (via MD-70, US-50, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway) and George Washington Memorial Parkway)	X	X
Baltimore City (Downtown) (West Fayette Street and North Charles Street) (via MLK Boulevard, South Russell Street, MD-295, Baltimore-Washington Parkway, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway), George Washington Memorial Parkway)	X	X
BWI (via I-195, MD-295, Baltimore-Washington Parkway, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway) and George Washington Memorial Parkway)	X	X
College Park (via Paint Branch Parkway, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway), George Washington Memorial Parkway)	X	X
D.C. - 14th Street and K Street, N.W. (via K St N.W., 14th St N.W./S.W., I-395 and the George Washington Memorial Parkway)	X	X
Fort Meade (via I-195, MD-295, Baltimore-Washington Parkway, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway) and George Washington Memorial Parkway)	X	X
Fort Belvoir (via U.S. 1, VA-235, George Washington Memorial Parkway, VA-400 (Washington Street), George Washington Memorial Parkway)	X	X
Fredericksburg (via VA-3, I-95 (conventional lanes), I-395, George Washington Memorial Parkway)	X	X
Fredericksburg (via VA-3, I-95 (conventional lanes), I-95 (managed lanes), I-395 (managed lanes), US-1, VA-233)	X	X
Frederick (via I-270, I-270 Spur, I-495 (Capital Beltway), and George Washington Memorial Parkway)	X	X
Gaithersburg (via I-270, I-270 Spur, I-495 (Capital Beltway), and George Washington Memorial Parkway)	X	X
George Mason University (Fairfax Campus) (via VA-620, I-495 (Capital Beltway), I-395, George Washington Memorial Parkway)	X	X
Greenbelt (via Baltimore-Washington Parkway, U.S. 50 (New York Avenue, N.E./N.W.), I-395 and George Washington Memorial Parkway)	X	X
Greenbelt (via Baltimore-Washington Parkway, MD-201, DC-295, I-695 [D.C.] (Southeast Freeway), I-395 (Southwest Freeway), George Washington Memorial Parkway)	X	X
IAD (via Dulles Access Road, Dulles Connector Road, I-66, VA-110, VA-233)	X	X
IAD (via Dulles Access Road, I-495 (Capital Beltway), and George Washington Memorial Parkway)	X	X

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To DCA From:		
Largo (via I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), VA-400 (Washington Street) and George Washington Memorial Parkway)	X	X
Lexington Park (via MD-235, MD-5, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), VA-400 (Washington Street) and George Washington Memorial Parkway)	X	X
Manassas (via VA 28, I-66, I-495 (Capital Beltway), US-50, George Washington Memorial Parkway)	X	X
Manassas (via VA 28, I-66, VA-110 and VA-233)	X	X
National Harbor (via I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), VA-400 (Washington Street), George Washington Memorial Parkway)	X	X
Rockville (via I-270, I-270 Spur, I-495 (Capital Beltway via American Legion Bridge), and George Washington Memorial Parkway)	X	X
Springfield (via VA-613, I-495, I-395 (conventional), I-395 (managed), US-1, VA-233)	X	X
Springfield (via VA-613, I-495 (Capital Beltway), I-395 (conventional), George Washington Memorial Parkway)	X	X
Suitland Federal Center (via Suitland Parkway, South Capitol Street, I-395 (Southwest Freeway), George Washington Memorial Parkway)	X	X
Tysons Corner (via VA 7, VA 123, VA-267 (Dulles Toll Road), Dulles Connector Road, I-66, VA-110, VA-233)	X	X
Tysons Corner (via VA-7, VA-123, I-495 and George Washington Memorial Parkway)	X	X
Waldorf (via MD-228, MD-210, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), VA-400 (Washington Street), George Washington Memorial Parkway)	X	X
Waldorf (via US-301, MD-5, I-95/I-495 (Capital Beltway via Wilson Bridge), VA-400 (Washington Street), George Washington Memorial Parkway)	X	X
Warrenton (via US-29, I-66, VA-110, US-1, VA-233)	X	X
Warrenton (via US-29, I-66, I-495 (Capital Beltway), US-50, George Washington Memorial Parkway)	X	X
Woodbridge (via US-1, I-95 (conventional), I-395 (conventional), George Washington Memorial Parkway)	X	X
Woodbridge (via US-1, I-95 (managed), I-395 (managed), US-1, VA-233)	X	X

Table 3: Data Collection Routes for Ground Access Travel Time Studies (IAD)

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To IAD From:		
Baltimore City (Downtown) (West Fayette Street and North Charles Street) (via MLK Boulevard, South Russell Street, MD-295, I-95, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X
Bethesda (via MD-188, MD-190, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X
BWI (via I-195, I-95, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X
BWI (via I-195, I-95, MD-200 (ICC), I-370, I-270, I-270 Spur, I-495 (Capital Beltway via American Legion Bridge) and Dulles Airport Access Road)	X	X
D.C. - 14th Street and K Street, N.W. (via K St N.W., 14th St N.W., Constitution Avenue, N.W., I-66, Dulles Connector, Dulles Airport Access Road)	X	X
D.C. - 14th Street and K Street, N.W. (via K St N.W., 14th St N.W., Constitution Avenue, N.W., I-66, George Washington Memorial Parkway, I-495 (Capital Beltway), Dulles Airport Access Road)	X	X
DCA (via VA-233, VA-110, I-66, Dulles Connector Road, Dulles Airport Access Road)	X	X
DCA (via George Washington Memorial Parkway, I-495 (Capital Beltway), Dulles Airport Access Road)	X	X
Fort Belvoir (VA-286, Dulles Airport Access Road)	X	X
Fort Meade (MD-32, I-95, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X
Frederick (via I-270, I-270 Spur, I-495 (Capital Beltway via American Legion Bridge), and Dulles Airport Access Road)	X	X
Frederick (via US-15 and VA-267 (Dulles Greenway)	X	X
Fredericksburg (via VA-3, I-95 (conventional), I-495 (conventional), Dulles Airport Access Road)	X	X
Friendship Heights (via Western Avenue, MD-190, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X
Front Royal (via US-340/US-522, I-66, VA-28, Dulles Airport Access Road)	X	X
Gaithersburg (via I-270, I-270 Spur, I-495 (Capital Beltway via American Legion Bridge) and Dulles Airport Access Road)	X	X

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To IAD From:		
George Mason University (Fairfax Campus) (via VA-286 and Dulles Airport Access Road)	X	X
Gettysburg, Pennsylvania (via US-30, US-15, VA-267 (Dulles Greenway))	X	X
Greenbelt (via I-95/I-495 and I-495 (Capital Beltway via American Legion Bridge), and Dulles Airport Access Road)	X	X
Hagerstown (via US-40 (Dual Highway), I-70, US-15, VA-267 (Dulles Greenway))	X	X
Largo (via I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (conventional) and Dulles Airport Access Road)	X	X
Leesburg (via US-15/VA-7, VA-267 (Dulles Greenway))	X	X
Lexington Park (via MD-235, MD-5, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (conventional), Dulles Airport Access Road)	X	X
Manassas (via VA-28 and Dulles Airport Access Rd)	X	X
Manassas Airport (via VA-28, VA-234 (Prince William Parkway), I-66, VA-28, Dulles Airport Access Road)	X	X
Manassas Airport (via VA-28, Godwin Drive, VA-234 Business, I-66, VA-28, Dulles Airport Access Road)	X	X
National Harbor (via I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (conventional) and Dulles Airport Access Road)	X	X
National Harbor (via I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (express) and Dulles Airport Access Road)	X	X
Rockville (via I-270, I-270 Spur, I-495 (Capital Beltway via American Legion Bridge) and Dulles Airport Access Road)	X	X
Springfield (via VA-613, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (conventional), Dulles Airport Access Road)	X	X
Springfield (via VA-613, I-95/I-495 (Capital Beltway), I-495 (express), Dulles Airport Access Road)	X	X
Suitland Federal Center (via Suitland Parkway, South Capitol Street, I-395 (Southwest Freeway), VA-110, I-66, Dulles Connector Road, Dulles Airport Access Road)	X	X
Towson (via I-695 (Baltimore Beltway), I-95, I-495 (Capital Beltway via American Legion Bridge), Dulles Airport Access Road)	X	X

Activity Center Origin (Highway Travel Route)	2014/2015	2011/2012
To IAD From:		
Tysons Corner (via VA 123, VA 7, and Dulles Airport Access Road)	X	X
Waldorf (via MD-228, MD-210, I-95/I-495 (Capital Beltway via Woodrow Wilson Bridge), I-495 (conventional), Dulles Airport Access Road)	X	X
Waldorf (via US-301, MD-5, I-95/I-495 (Capital Beltway via Wilson Bridge), I-495 (conventional), Dulles Airport Access Road)	X	X
Warrenton (via US-29, I-66, VA-28 and Dulles Airport Access Road)	X	X
Winchester (via VA-7, VA-267 (Dulles Greenway))	X	X
Woodbridge (via US-1, VA-123, I-95 (conventional), I-495 conventional) and Dulles Airport Access Road)	X	X
Woodbridge (via US-1, VA-123, I-95 (express), I-495 (express) and Dulles Airport Access Road)	X	X