

## FACTS ABOUT THE PROPOSED MSP AIRPORT HIGHWAY SIGNAGE AND WAYFINDING PROJECT

It is clear from some of the correspondence the Metropolitan Airports Commission has received that there are a number of misconceptions about both the project and the reasons it is being proposed. Many of the concerns residents have expressed stem from both a lack of accurate information and a misunderstanding about the purpose of the proposal.

**Myth:** *Minnesota taxpayer dollars would be used to finance the Minneapolis-St. Paul International Airport's proposed highway signage and wayfinding project.*

**Fact:** The proposed signage and wayfinding project would be funded from *airport-generated revenues, not state or federal tax dollars*. Nor would any additional fees be added to travelers' tickets. By law, the dollars that would be spent on the project can only be spent on airport operations or improvements. They cannot be used for other purposes.

The Metropolitan Airports Commission (MAC) receives *no* state funding for airport operations.

**Myth:** *The names Humphrey and Lindbergh refer to two separate airports in the Twin Cities.*

**Fact:** The Minneapolis-St. Paul International Airport is *one* airport (MSP) that has *two* terminal buildings (Humphrey and Lindbergh). There is only one airfield at MSP, which is utilized by all airlines, regardless of the terminal building they call home.

This is a common misconception and is exacerbated by the fact that the current highway signs refer to the terminals with names rather than numbers or letters, which are standard for terminal identifiers nationally. The fact that each terminal is located off an entirely separate roadway system further adds to the misconception that the two terminals are separate airports.

Travelers know they are flying from MSP and the name of the airline on which they bought tickets. Signs reading only "Lindbergh" and "Humphrey" don't tell them they are at MSP or which terminal their airline uses. Instead, it raises confusing questions: "I'm flying from MSP. Is MSP the Lindbergh Airport or the Humphrey Airport?"

Adding the airline names to highway signs leading up to the airport's exits will take the guesswork out of getting to the right terminal for a flight by giving drivers the information they need in time to choose the correct exit.

**Myth:** *There is no reason for the MAC to implement this project. The number of people that get lost is not worth the estimated cost of the project.*

**Fact:** MSP is the only major airport in the United States to have two terminals located on entirely separate roadway systems. At other airports, people driving to the airport simply need to know how to get to the airport entrance and which airline they are flying. Once on the airport roadway, they simply follow the signs until they see their airline. This is not the case at MSP. If a traveler takes the wrong exit at MSP they cannot simply continue down the airport roadway to the correct terminal. They must return to the highway system, losing valuable time and, in many cases, missing their flights.

At least 25,000 MSP Airport travelers arrive at the wrong terminal every year. This number is a conservative estimate, given the fact that not everyone who makes this mistake tells someone at the airport or complains about it. It is, however, one of the most frequent complaints the airport receives.

The Metropolitan Airports Commission's vision statement is to "provide our customers with the best airport experience in North America." The MAC cannot possibly live up to this vision if so many travelers and airport visitors are finding themselves at the wrong MSP Airport terminal every year due, in part, to inadequate highway signs. Minnesota can do better as it welcomes and bids farewell to its visitors.

One final item to remember is that these signs will last for many years with minimal maintenance. The proposal ensures that as airlines come and go, or move from one terminal to the other, the individual signs can be easily changed out. MSP Airport's customers would reap the benefits of this project for years to come and hopefully will want to return again for business or pleasure.

**Myth:** *The MAC is changing the names of the terminals to Terminal 1 and Terminal 2.*

**Fact:** The proposal calls for adding numeric designations to the existing terminal names, so they become Terminal 1-Lindbergh and Terminal 2-Humphrey. The proposal is *not* to eliminate the Lindbergh and Humphrey names from the terminal titles, only from highway signs and other wayfinding aids for which numeric designators work best. This proposal is not a "re-branding" effort. It is a customer service effort, meant to assist airport visitors and travelers to make the correct exit decision at the time that the decision needs to be made.

The "Terminal 1" and "Terminal 2" designation is also the only terminology that the Minnesota Department of Transportation has endorsed. (See below for more information about MnDot's perspective.)

**Myth:** *The MAC came up with this proposal without considering all of its options.*

**Fact:** The MAC has taken a number of steps to help people identify the correct terminal for their flight including:

- Encouraging airlines, with limited success, to include the full terminal names on tickets and boarding passes. Typically airlines allow for only 1 or 2 characters for the terminal designation on boarding passes and tickets. The MAC does not have the authority or ability to change this, but by adding the numbers 1 and 2 to our terminal names, most airlines will now be able to indicate on a ticket which terminal the flight departs.
- Installing roadway signage at the Lindbergh Terminal indicating which airlines fly from that terminal and which fly from the Humphrey Terminal. However, by the time drivers see this signage, they have already made their choice, left the highway and entered the Lindbergh Terminal roadway
- Increasing emphasis on terminal information on the MSP airport Web site and in publications
- As new airlines have entered the market or moved to the Humphrey Terminal, the MAC has advertised which airlines now fly from the Humphrey Terminal on billboards near the highways leading to the airport's exits
- The MAC has attempted repeatedly for well over a decade to win approval from state and federal highway departments to list which airlines serve which terminal on highway signage. Until now, those requests were denied.

**Myth:** *The Metropolitan Airports Commission could easily persuade state and federal officials to leave the names of the terminals on the highway signs rather than identifying them as "Terminal "1 and "Terminal 2."*

**Fact:** The Minnesota Department of Transportation (MnDot) endorsed the current proposal after months of working through a number of critical issues with both the MAC and the University of Minnesota's Center for Transportation Studies. The proposed plan is a package deal. In order to have airline names listed on federal highway signs, the signs must be simple enough to allow drivers to quickly scan for their airline name and make their exit decision. Ensuring drivers understand that MSP has two terminals and listing the airlines for each are crucial pieces of information needed to ensure travelers make the appropriate exit decision.

MnDot has indicated that any changes to the plan as proposed would put the entire project in jeopardy.

The following letter offers specific information as to the reasons MnDot has endorsed using the terminology of Terminal 1 and Terminal 2 on overhead signs.



Minnesota Department of Transportation

Office of Traffic, Safety and Operations  
Regional Transportation Management Center  
1500 West County Road B2, Mail Stop 725  
Roseville, MN 55113

June 29, 2009

Dennis Probst, Deputy Executive Director  
Metropolitan Airports Commission  
Planning and Environment  
6040 28<sup>th</sup> Avenue South  
Minneapolis, MN 55450

RE: Airport Wayfinding Signs on Freeways

Dear Denny:

I understand that the Finance, Development and Environment Committee is meeting on July 8, 2009. They will be making a decision on whether or not to move forward with the airport wayfinding signing plan that has been developed cooperatively between Mn/DOT and MAC.

The purpose of this letter is to provide MAC with Mn/DOT's perspective of this issue and to provide some information regarding the engineering of highway guide signs.

In 2000, the wayfinding signs for the airport were modified to indicate Lindbergh and Humphrey. Prior to this change, Lindbergh had always been referred to as "Main" and Humphrey had been either "HHH" or "Int'l". Since the 2000 change, public complaints received by Mn/DOT indicate that many motorists are having difficulty locating the correct terminal for their flight. They either think that (1) Lindbergh and Humphrey are two separate airports and they do not know which of the two is Minneapolis-St. Paul International Airport (MSP), or (2) they do not know which of the terminals is the "main" terminal.

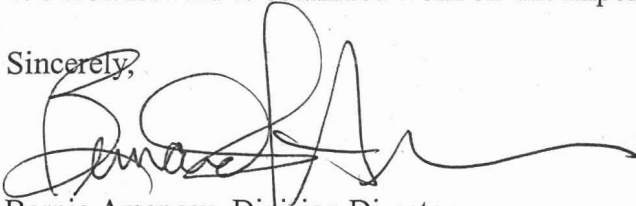
Changing the designation of the terminals to "1 and 2" solves the problem of motorists misunderstanding that the two terminals are part of one airport. Adding airline names to the signs solves the problem of motorists not knowing which terminal is the correct one for their flight. Attached you will find a document that explains the engineering behind this design.

Mn/DOT is hopeful that this plan will move forward as designed. Mn/DOT can not guarantee that we would be able to accommodate all airline names on the signs if the current design were to be modified. We have been working to gain Federal Highway Administration approval of the design. Modifications would likely delay the process, as we would need to spend time identifying potential unintended consequences of a change.

Please feel free to share this information with Commission members. Representatives from Mn/DOT will be attending the July 8, 2009 meeting as well as the July 20, 2009 Commission meeting.

We look forward to continued work on this important issue for the traveling public.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bernie Arseneau', with a long horizontal flourish extending to the right.

Bernie Arseneau, Division Director  
Policy, Safety, and Strategic Initiatives Division

## Wayfinding signs for MSP

*Why can't we keep Lindbergh and Humphrey on the signs?*

Answer: Information on a sign must be limited to that which is critical for decision-making.

To solve the wayfinding problems for MSP, we must focus on the driver's wayfinding needs.

Motorists destined for the airport typically (1) know they are going to the airport, (2) know the general location of the airport and (3) know the name of their airline.

If there were only one exit for MSP, the information on the highway signs that would meet the motorist "needs" would be the airport name and the exit number. However, MSP has two terminals and two exits, therefore additional information is needed:

Info bit # 1: Since drivers know they are going to the airport and its general location, we can get by with the airport symbol on the most complex signs. This symbol contributes to the "scanning" task. Some of the less complex signs will have the legend "MSP Airport".

Info bit # 2: The exit number must be provided.

Info bit # 3 – 8: Since the terminals are at different exits, drivers need to know which airline is where, so six airline names are included on the signs.

Info bit # 9: For drivers that are (1) unaware that there are multiple terminals or (2) are going to the airport for reasons other than air travel (such as a MAC meeting); terminal information is needed. Terminal 1 and 2 meets this need.

NOTE: Retaining the Lindbergh-Humphrey designation does not solve the current wayfinding problems. Many motorists either think that (1) Lindbergh and Humphrey are two separate airports and they do not know which of the two is Minneapolis-St. Paul International Airport (MSP) or (2) they do not know which of the terminals is the "main" terminal. Adding airline names helps with (2), but not (1). In order to resolve issue (1), "MSP Airport" would need to be added to ALL signs that have Lindbergh-Humphrey. This complicates the signs and adds to the "reading" task by increasing the number of associations required of the driver.

Nine bits of critical information, is more than twice the standard four. However, it is Mn/DOT's view that the simplicity of the proposed sign design, along with the fact that the signs are in series will reduce the number of associations that a driver would be required to make.

## Guide Sign Engineering

The engineering standards for signs were developed based on driver eye movement studies, cone of vision, legibility studies, comprehension studies and years of practical experience nationwide. Motorists must be able to (1) see the sign, (2) understand the sign message, (3), make a decision based on the message and (4) execute the required driving maneuver.

Some other factors that engineers must consider when designing highway signs:

- As speeds increase, the driver's cone of vision decreases. In a stopped position, the cone of vision is approximately 180 degrees. At freeway speeds, the cone of vision is about 30 degrees.
- At highway speeds, it takes 4 seconds to change lanes and reduce speeds in order to exit.
- Drivers need at least 8 seconds of legibility distance. At 70 mph (100 feet per second), they need 800 feet. Therefore, on freeways the minimum spacing between guide signs is 800 feet apart.

Signs are engineered so that they are easily recognizable and the messages on them are readily understood. Drivers do not concentrate on a sign until they obtain the required information – they must share their attention between the sign, objects on the road, other vehicles, and performing other driving tasks.

Information on a sign must be limited to that which is critical for decision-making.

Sign content is typically limited to four critical elements. This is so that drivers can “scan” the sign rather than “read” the sign.

Drivers will spend 2.2 seconds scanning a sign with four critical elements. As information increases, so too does the difficulty of the scanning task. This forces the driver to re-read the information on the sign from the beginning.