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To 9-AGL-600-OMPEIS/AGL/FAA@FAA

cc kbrubaker@elpc.org, high-speed-rail@lists.elpc.org, rick.harnish@midwesthsr.org

bcc

Subject Bullet train concept alternative for FAA

Mr MacMullen and Mr Cooper,

Please see attchments concerning an alternative transport mode to airport expansions that would utilize Chicago/Gary Airport.
Thanks, Mike

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Bullet Train, Bullet Points.doc GL HSR letter.doc GREAT LAKES HSR Cities.JPG HSR chicago to philadelphia.doc

TRIP TIME FROM CHICAGO TO MAJOR EAST COAST CITIES BY AIR.doc TRANSPORTATION TO CHICAGO AIRPORTS.doc

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"Bullet Train" "bullet points" in favor of the technology

-Use of **cleaner** more **manageable** and **efficient, potentially renewable** electric power

-Reduces demand for **foreign oil**, uses domestic energy sources

-**Safest mode** of transportation, evidenced by French and Japanese HSR systems/models

-**Reduces road congestions** compared to the airline transport mode auto dependency

-Encourages use of city rail transit systems in **"reverse commutes"**

-Most logistically logical/efficient mode of inter-city travel for **NE quarter of US**

-**Steel** wheel/rail operation equals less road/rail infrastructure breakdown/maintenance

-Use of underutilized existing **ROW/rail infrastructure**

-Similar **travel times** to airplanes for NE quarter of US

-Helps to bring **Amtrak** to be profitable, interconnected, and useful to other routes

-Stops need to build even more **airport capacity** in several cities along bullet train route

-Most passenger pleasant and **city/transit friendly** mode of transportation

-CBD bullet train destinations and virtually no congestion, or pollution creation

-City rail lines/branches/ROW etc. are **grade separated** well already for bullet train use

-There is **abundant air and road** infrastructures in the US, now rail needs to **progress**

- Electrified rail systems have similar fixed costs to other modes regarding vehicles and infrastructure but **variable costs** are much less-fuel, service, maintenance etc...

***The private sector has shown a lot of interest in operating a bullet train system in the USA in a public/private partnership.**

****Federal matching funds for infrastructure projects count the worth of existing infrastructure/ ROW(which bullet trains use) toward a local community's contribution to a proposed project as the local funding match.**

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THE 1st TRUE HIGH SPEED RAIL SYSTEM/"BULLET TRAIN" FOR THE USA

Please distribute this concept with attachments to your HSR contacts and transportation legislators, I'm trying to receive feedback and economic and political support, thanks(to: mikelehman@lycos.com). Advanced countries are implementing "true" High Speed Rail/HSR systems and the US is earnestly trying to also; of the many concepts proposed, the Great Lakes HSR/GLHSR system should be the **one built**. Many millions of people would be able to use the system and even more benefit from it's numerous advantages.

I've received positive reviews relative to this concept from academics, consultants, the rail industry and others. This is **not** the Midwest HSR initiative, rather, another transportation choice/mode, a separate dedicated "true" HSR / "bullet train" system. The Great Lakes to North East US regions=25% of all US inter-city travel by road and air.

The benefits of the outstanding safety records(no deaths on similar decades old Shinkansen or TGV HSR systems), non-reliance on oil(electric powered), less pollution(air and noise), and less road congestion the GLHSR system offers outweigh the initial startup costs and land expropriations necessary for this new HSR system.

Commercial jets expel thousands of gallons of petroleum exhaust into the atmosphere and create dreadful amounts of noise(HSR uses domestic coal and other alternative electric power and is much quieter). Ohare airport generates thousands of additional traffic congesting and polluting vehicles daily-not a concern with the Great Lakes/GLHSR central business district/CBD or current Northeast HSR corridor/NEC CBD destinations.

Astoundingly!, estimates of life expectancy of people that live within several miles of a major airport is reduced by 6 or more years due to toxic airplane emissions. In Illinois, it's also reported that the air pollution created by Ohare airport alone is greater than all electric power plants in the state combined! HSR is a good alternative to more airplanes.

The GLHSR system would displace over 2 billion gallons of fuel a year(500,000 flights), relying on alternative energies. In addition, a new airport consumes double the land that the entire GLHSR system concept would, 15,000 vs. 7,000 acres. Lastly, discount airlines with multiple airplane/airport transfers per route have longer travel times in the Northeast quarter of the US than most GL/NEC HSR route travel times.

The Great Lakes HSR corridor would connect **45 major US city pairs** and hence, many intercity passengers while other proposed HSR systems/concepts connect only about a **dozen** or so major city pairs. In the Northeast and Great Lakes corridors there are about 1-2 billion individual intercity trips annually, consequently, the 40 million trips a year estimated for the GLHSR system seems very attainable. There is existing infrastructure throughout Pennsylvania to facilitate HSR travel amid the mountains there-the major concern in adaptation of this HSR concept. The time is now to build **true** HSR.

Regards,
Mike Lehman
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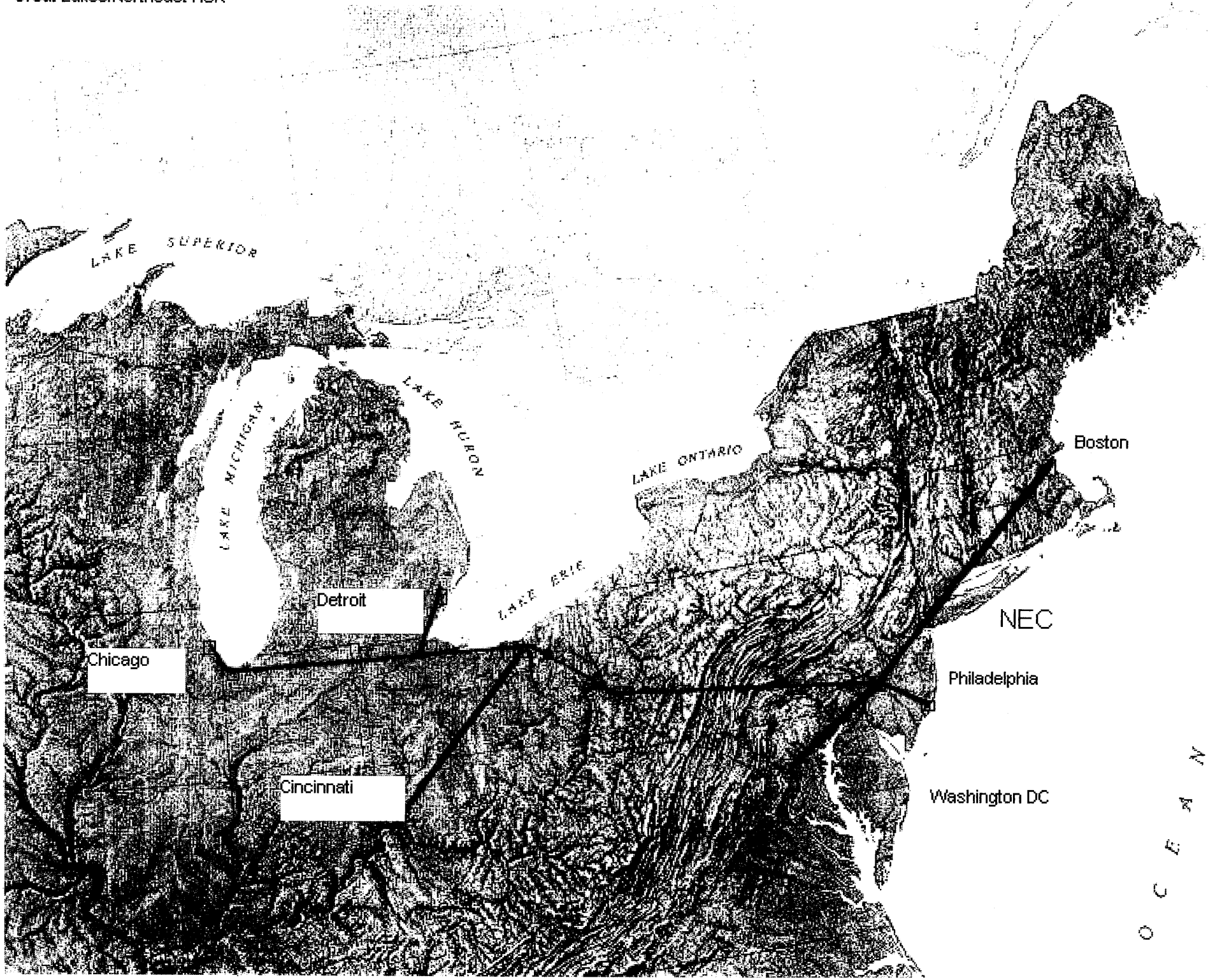
Great Lakes/Northeast HSR



Justification of a dedicated TGV High Speed Rail line between Chicago and Philadelphia Great Lakes(GLHSR) on to DC/NYC

This is a concept for an exciting, strategic and practical HSR "bullet train"/TGV type project. The TGV is the HSR design-system in France that uses both "dedicated", and also existing(in major cities) infrastructures and track/ROW. The economic, security, and transportation/health reasons for this **new dedicated** HSR line is partly national in scope but would be mostly for servicing the states of Illinois through to New Jersey(population total of 60 million); connecting the cities of Chicago, Gary, Cleveland, Pittsburgh, Harrisburg, and Philadelphia, however other states and cities would benefit and link/connect to it also. Detroit and Cincinnati(Ohio) are also individual HSR/TGV line origon-destination points(total US HSR city populations are over 90 million).

The Great Lakes(GLHSR) mode could carry in excess of 40 million passengers a year, drawing travelers from air and bus but mostly automobile modes in addition to acquiring induced new travelers. Over the expected hundred year or more life of the GLHSR line the large initial capital investments would prove to be very productive. In contrast, present value costs and subsidies of the above mentioned cities' air transport, interstates and highways were far more expensive than what this new HSR route's cost would be.

40 million GLHSR passengers a year is equivalent to about 1/3 of commercial aviation enplanements in the Great Lakes/Northeast corridor cities of the over 600 million a year domestic enplanements in the US. In Japan(pop. 120 million) HSR usage is over 130 million trips/year; in France(pop. 55 million) HSR usage is over 20 million trips/year.

Extra states and cities would benefit by their link to **Acela/Northeast corridor**/(NEC) service or by other modes to the city stations mentioned above, including ones connected radially to Chicago by conventional trains. The overall population reach serviced by both the GL and NEC HSR systems combined is well over 120 million people in 18 states- **3 times the TGV population sum!** Philadelphia would be the logistic hub where Great Lakes HSR corridor trains would meet the Northeast HSR corridor and either terminate there or continue on, alternating either northbound to NYC/Boston or southbound to Baltimore/Washington DC, or, even perhaps east to Atlantic City/the Atlantic Ocean.

This proposal will apt to be very unpopular with air and road transportation related industries/lobbies (9 of the 10 largest companies worldwide either produce autos or petroleum products); nevertheless, it shouldn't be since **additional railroad capacity** alleviates some of their modes' problems also. Hopefully progress and rationale will prevail and this **new** transportation mode can develop and thrive despite other interests.

ECONOMIC REASONS FOR HSR (also, alternative jet fuels aren't available, TGV/HSR is all electric using domestic coal and other domestic energy sources)

1. The new GLHSR system linking to the Northeast corridor/NEC interconnects more than 20 culture rich cities; 7 of the 10 largest and most important in the US. The new line would travel from Great Lakes cities through the Alleghany Mountains on to Philadelphia, New York City, Washington DC and the rest of the Northeast HSR(NEC/Acela) cities.

2. There would be new job creation generated by construction and then for continual operation and maintenance of the GLHSR route(also, new jobs in CBDs). Rider ship levels should reach and exceed the levels of the French TGV ultimately. The French TGV has over 20 million trips a year with revenues amounting to over $2 billion a year.

3. With possible revenues of $4 billion or more a year, the large investment in this line's infrastructure and trainsets would be paid for realistically within several years time, similar to the French TGV experience with their revenue streams financing and funding.

4. This new HSR route would augment and strengthen AMTRAK abilities and potential elsewhere on complementary routes and that of the Northeast corridor/Acela. Acela/NEC HSR utilization continues to grow and is AMTRAK'S most profitable and busiest route.

5. HSR travel mode would enhance cities' CBDs and integrated rail developments there. Proposed connected cities; Chicago, Cleveland, Pittsburg, and Philadelphia have and are expanding upon their own internal transit rail systems-cities not entirely reliant on autos!

SECURITY REASONS (HSR trains could evacuate an entire large city in 1-2 days)

1. The airline transportation mode is more favored for future terrorist attacks(hijackings, bombings, sabotage, poisonings etc.) Assaults are not as likely nor as catastrophic with the HSR transportation mode, insurance companies and the public would welcome this.

2. In the advent of an airspace shutdown again or bad weather the HSR corridors would serve as another travel alternative to air/road travel in the northeast US and Great Lakes.

3. New HSR mode of transport wouldn't call for the necessary extreme expense and problems of security systems and additional equipment like the airline mode requires.

MOBILITY/HEALTH REASONS (HSR<10% the energy use of like air travel)

1. Every year in the US, tragically, about 50,000 people die and many thousands more are permanently disabled from roadway related accidents(less driving=less deaths); in France and Japan, HSR hasn't had a fatality in over 60 years total. Hundreds of more people are killed and severely injured yearly in aircraft crashes also. Scores of people and millions of dollars would be saved using alternative HSR in lieu of personal vehicles and airplanes.

2. Most HSR right of way could be built adjacent to existing highways and rail lines for environmental considerations and land use purposes(aircraft and road vehicles create much more **noise** and **air** pollutions); HSR land expropriations will likely be inevitable.

3. Over **1/3** of all Americans don't like to fly, therefore leaving long, congesting, costly and hazardous auto/bus modes or intricate AMTRAK schedules as their only alternatives.

4. Airport traffic creates more pollutions/congestions around large population centers. There are potentially a total of 8 congestion adding auto trips to and from airports to pickup and drop-off a flyer at both destinations. Combination rail to walking travel modes are always superior and healthier to alternative airplane to automobile modes.

5. The new dedicated TGV HSR line would travel the 750 mile Chicago to Philadelphia length in 4-5 hours at the 186+ mph speeds capable (which approaches short jet plane trip speeds), with only 3 stops in between (Cleveland, Pittsburg, and Harrisburg). Continuing on to DC, NYC or Atlantic City would add another 1-2 hours to the total overall length departing the Chicago/Gary station eastbound. Airport **alternative analyses** are needed.

6. This new mode of travel would be especially relaxing and enjoyable. The ability to personally move about, enjoy views (especially in Pennsylvania), work, talk, eat and rest in a hassle-free, safe vehicle like a bullet train is unsurpassed. Indeed, elderly and ADA citizens would probably prefer this option to auto, bus and airplane travel too.

BENEFITS TO INDIVIDUAL STATES (GLHSR reduces airports' congestions also)
(connected cities CBDs will add significant tourist, business, and personal trip activity)
Illinois
The western end point of the GLHSR corridor linking downtown Chicago by HSR to over **100 million** people and **13** states. Chicago and Gary are positioned to reach another **30 million** connecting travelers by all modes from adjoining states to the GLHSR system. GLHSR helps solve the problem of airport expansions and eases roadway congestions too!
Indiana
Gary, IN; the US geographic/transportation pinch point that filters most traffic east and west. Gary/Chicago airport/region development and increased usage of the South Shore Railroad infrastructure. The suburban Gary/Chicago HSR station would have multi-modal connections; airlines, commuter and HSR rail and major interstate highways.
Ohio/Michigan (GLHSR trains, **dual purpose** as transit trains in **Cincinnati** and **Detroit**)
The midpoint of the GLHSR corridor between Chicago and Philadelphia with additional connections originating from Detroit and also Columbus and Cincinnati into Cleveland.
Pennsylvania
Economic development of Pittsburgh and Philadelphia CBDs and the connection to the Pennsylvania capitol of Harrisburg which is also positioned in the state's mountain resort areas along with many other tourist attractions. The advantages of **two** US HSR systems.
*Transportation is the leading cause of accidental/preventable deaths in the US.
**GLHSR system would be a prudent, comfortable and safe railway of essential mobility that half the US could access, utilize and appreciate-a vital investment. The US should embrace developing and engineering this efficient, alternative transportation technology.

TRIP TIME FROM CHICAGO TO MAJOR EAST COAST CITIES BY AIR or potential HSR, "bullet trains"
New York, Philadelphia, Baltimore, Washington

Fixed times: Round trip

Flight time, 4 hours
Walk time, from parking, through terminal, 2 hours
Check-in time, 2 hours
Security check time, 2 hours
Baggage claim time, 2 hours

Variable times: Round trip

Flight connection time, 2-4 hours
Delay time, 1-2 hours
Car rental processing time, 2 hours
Commute/Transit/Congestion time, 2-4 hours

Total roundtrip times in transport:

Low estimate: 10 hours
High estimate: 24 hours

TGV/GLHSR to NECHSR Travel Times from Chicago(bullet trains): Round trip

Total roundtrip times in transport: Assumes 5 hour trip to Philadelphia/NYC CBDs from Chicago and use of 30 minute rail transit travel to CBD's HSR/bullet train terminals, not street vehicles transit. Intermediate cities; Detroit, Cleveland and Pittsburgh, would have only about 3 hour travel times to the extreme cities both eastbound and westbound.

Low estimate: 10 hours
High estimate: 18-20 hours to other NEC cities

Changes for overall commercial airplane travel times/service since 9/11:

-Fuel price increases, financial problems for air carriers, bankrupt airlines, restructuring airlines/routes, poorer level of service
-Longer waits, more security issues, more hassles, access problems, difficult parking, auto congestion/waiting/parking
-Terrorism fears, real or imagined

Observations:

Airplane flights are relatively short but the commuting and management of the pre and post flight matters/preparations are becoming longer time-wise and are expensive(no matter what the discount airlines advertise-there are several hidden costs) . "Reverse commutes" could be employed by CTA/Metra rail to the Chicago CBD for connections to the GLHSR system to make inter-city travel connections quicker and easier.

With 5 minute headways and 500 passenger "bullet trains", the GLHSR system could carry over 60 million passengers a year in all directions combined(1000 passenger trains-the size of three 747s could carry double the amount). The GLHSR system would be a bona fide "land cruiser" or, depending upon how you look at it; the fastest, longest year-round roller coaster in the country-and a journey through great American history!

To prove just how important the GLHSR corridor really is, the longest continuous interstate toll roads in the US are along the exact same corridor. US transportation and Amtrak need and deserve a second Acela-type system-the GLHSR "bullet train".

Over 200,000,000 vehicles arrive and leave Chicago from Interstates 90, 94, 294 and Rt. 41 a year of over 1 billion trips a year total in the Chicago area(all Interstates). The origination and direction of that travel is from northern Indiana and points east.

The total traffic from personal vehicles, buses, trains and airplanes from points east arriving to/leaving Chicago is about 300,000,000/year, of that amount, probably 40 million or more could use the GRHSR bullet train as a transport choice. Rail transport infrastructure as a substitute for increasingly more personal vehicle traffic is a suitable and wise investment of the public's money.

Unfortunately it's said that one shared ROW HSR train traveling on existing freight railroad track/ROW, consumes 5 times the spacing/blockage of a standard freight train. This fact alone could be the main stumbling point of going forward with this type of HSR plan and consequently the problem of moving forward with the Midwest HSR Initiative.

Conclusion:

The whole Great Lakes region would improve as an area in livability, access and businesses establishment and Chicago and other cities; Detroit, Pittsburgh, Cleveland etc. would add to the ranks of "world class" cities with HSR connections. The Amish love trains and much of the ROW necessary for this concept covers Amish area, so they would need access and would welcome the system.

Gary/Chicago Airport-"bullet train" station has easy connections to 4 different modes of passenger and freight transport; 2 Interstate highways, the South Shore commuter railway, Amtrak and freight railways, Lake Michigan water transport and the airport itself.

TRANSPORTATION/TRANSIT TO AND FROM CHICAGO AIRPORTS

Ohare: 33 million enplanements a year, 50% connecting-no transit
(17 million Chicago arrivals and 17 million Chicago departures a year)

Midway: 9 million enplanements a year, 25% connecting-no transit
(7 million Chicago arrivals and 7 million Chicago departures a year)

-www.bts.gov

Potential and Estimated Airport Transport/Transit by All Modes

POTENTIAL PERSONAL VEHICLE TRANSIT/PARKING
-2 transit trips per flight, 13.5/Midway, 33/Ohare million potential air passenger trips.

18 MILLION air passenger/**12 MILLION** vehicle ESTIMATED TRIPS A YEAR
-4 million/Ohare and 2 million/Midway parked cars a year(1.5 per car)
-Standard Parking Inc., 2005
(11% of transit traffic)

POTENTIAL PERSONAL VEHICLE TRANSIT/PASSENGER(pick-up/drop-off)
-4 transit trips per flight, 27/Midway, 66/Ohare million potential air passenger trips.

13 MILLION air passenger/**52 MILLION** vehicle ESTIMATED TRIPS A YEAR
(45% of transit traffic)

POTENTIAL TAXI/LIMO TRANSIT
-1 transit trip per flight, 6.75/Midway, 16.5/Ohare million potential air passenger trips.

5 MILLION air passenger/**3.5 MILLION** vehicle ESTIMATED TRIPS A YEAR
-10,000 a cars a day/2 direction=5 million taxi/limo trips a year-both airports(1.5 per car).
-Ground Transportation Dept., Ohare Airport, 2005
(3% of transit traffic)

POTENTIAL RENTAL CAR TRANSIT
-2 transit trips per flight, 13.5/Midway, 33/Ohare million potential air passenger trips.

8 MILLION air passenger/**5 MILLION** vehicle ESTIMATED TRIPS A YEAR
-50,000 cars a week, 2.5 million cars/4 million air passengers a year(1.5 per car)
-Avis Corporation, 2005
(4% of transit traffic)

CTA RAIL TRANSIT/Entrances to Airports at CTA rail stations
-No road transit trips per flight, 10% of CTA riders are air passengers
Blue Line/Ohare-3 million passengers/entrants a year to CTA rail station
Orange Line/Midway-2.5 million passengers/entrants a year to CTA rail station

1 MILLION ESTIMATED TRIPS/BY AIRLINE PASSENGERS, 2 AIRPORTS
-CTA 2004 Rail Ridership
(1% of transit traffic)

REGIONAL BUS-METRA SERVICE TRANSIT
- Less than 1 transit trip per flight, totals much less than 1 trip per flight

1 MILLION ESTIMATED TRIPS/BY AIRLINE PASSENGERS, 2 AIRPORTS
-Ground Transportation Dept., Ohare Airport, 2005

HOTEL/LOCAL BUS TRANSIT
-2 transit trips per flight, totals less than 2 trips per flight

2 MILLION ESTIMATED TRIPS/BY AIRLINE PASSENGERS, 2 AIRPORTS
-Chicago Hotel and Convention Bureau, 2005
(2% of transit traffic)

TOTAL AIRPORT ROAD TRANSIT TRIPS ANNUALLY/BOTH AIRPORTS

Personal/other vehicles: 71/75 million
Airplane passengers: 48 million arriving and leaving
Airport employees/services vehicles: 40 million arriving and leaving
(Airports employee traffic equals 100,000/daily-both airports/both directions-equals
-33% of transit traffic, 2% arrive and leave by CTA orange and blue lines)
100% Total %

GRAND TOTAL VEHICLE TRIPS ANNUALLY/BOTH AIRPORTS
115 million arriving and leaving airports

Daily Interstate Highway Traffic to Chicago Airports/Both directions combined

Ohare

I-90
From NW 134,300 vehicles
From SE 171,100 vehicles

I-294
From South 159,400
From North 106,900

Midway

I-55
From SW 121,400
From NE 166,800
-www.gis.dot.il.gov
Annual Average Daily Traffic, IDOT

Observations

The total vehicle trips to and from both airports by airline passengers from all modes of transport besides CTA rail and all buses is about 75 million vehicles per year or about 200,000 per day(assumes 1.5 passenger per vehicle). Transit with personal vehicle, taxi, limo, and rental car may have more than one airplane passenger per trip to/from airports.

There are about 50,000 employees at Ohare and 15,000 at Midway. 50 million annual and 100,000 daily total vehicle trips for airport employees and other services trips are estimates to be added to both the airports' road transit totals. CTA rail; blue and orange lines, equal 11 million transit trips a year to and from the airports, mostly non-airplane passenger transit customers but probably airport employees(90%).

Ohare and Midway airports would be responsible for more than ¼ of all highway traffic on I-90, I-294 and I-55; 250,000(est.) of 850,000 daily vehicle trips in close proximity to the airports(91,000,000 of 310,000,000 yearly).