KANSAS
DEPARTMENT OF TRANSPORTATION

State-Supported Amtrak Service

T-LINK Taskforce White Paper
October 15, 2008

Overview

There is increasing national and regional interest in passenger rail as well as grassroots support for expanded passenger service in Kansas and Oklahoma. More than two dozen cities, counties, and organizations have expressed support for expanded service. Supporters point to the success of the Heartland Flyer service between Oklahoma City and Fort Worth.

To learn more about the potential implications of state-supported passenger rail service in Kansas, the Kansas Department of Transportation (KDOT), in cooperation with the Oklahoma and Texas departments of transportation (ODOT and TxDOT), has asked Amtrak to study the feasibility of expanded passenger rail service between Kansas City, Oklahoma City, and Fort Worth.

The study is needed to provide current information on which to base decisions about expanding Amtrak service in Kansas and Oklahoma. The study won't make recommendations about the service. The results will help officials determine if expansion should be considered.

The Amtrak Expansion Feasibility Study will explore issues such as:

1. Connection logistics in Kansas City, Oklahoma City, Fort Worth, and other locations
2. Potential ridership based on where and when the train might stop
3. Projected annual operating costs
4. Potential state support needed
5. Track improvements and associated costs
6. Highway/rail crossings
7. Feasible train schedules
8. Train set configuration
9. Route capacity (the service would share tracks owned by Burlington Northern Santa Fe Railway)

Background

Amtrak operates three major types of service:

1. A network of 13 overnight cross-country trains (including the Southwest Chief through Kansas)
2. Intercity trains such as the Acela in the northeast part of the nation
3. State-supported corridor trains serving 14 states. Amtrak expects to add another state partner in the near future and add more frequent service for a current partner.

Amtrak has been less affected by the economic downturn than other sectors because travelers have increased their demand for passenger rail. Ridership on all Amtrak trains has been increasing nationwide, due in part to rising gasoline prices. In the fiscal year ending September 30, 2008, Amtrak carried over 28 million riders, a sixth straight year of record ridership, and earned more than $1.7 billion in ticket revenue.

Increases are most dramatic on state-sponsored intercity systems. Ridership has grown 43% since 2001 on California's three upgraded intercity rail lines (while population increased by 11% and highway travel increased by 8%). North Carolina saw an average increase of more than 20% over the last year, with line increases as high as 41%. In Illinois, doubling passenger rail investment created a 40% increase in ridership.

Startup Funding

Start-up costs include:

- Acquiring rolling stock such as locomotives and cars. The cost of rolling stock depends on the number of train sets needed to serve the schedule and expected number of passengers.
- Improving infrastructure such as tracks, ballast, ties, crossings, signals, and sidings. The cost of infrastructure improvements depends on the pre-existing infrastructure conditions and on the train's desired operating speed.

1. **States generally have used general revenue funds to pay for start-up costs.**
   a. To date, there hasn't been any federal assistance for startup costs, except for Oklahoma which received a federal earmark and Maine which used federal CMAQ funds. CMAQ funds can no longer be used for this purpose.
   b. California has invested heavily in its passenger rail systems since they are limited in how much highway expansion is possible. California owns its equipment and light maintenance facilities. The state has invested heavily in improving the infrastructure of the host railroads (Union Pacific and Burlington Northern Santa Fe), but the state does not own the tracks.

2. **Once funding is appropriated for new routes, it can take as little as two construction seasons to start the service, depending on infrastructure improvement needs.**
   a. Infrastructure improvements could include track, ties, ballast, rail beds, sidings, crossings and signals. As an example, it could take one season for preliminary engineering (designing the improvements) and one season for building the improvements. Concurrently, negotiations could take place with the host railroad (BNSF in Kansas).
   b. For new services on existing routes, it can take as little as 4 to 5 months to start a new service. Staff training time is required for each new service, accounting for much of the time.

3. **There is a potential shortage of passenger rail cars.**
   a. Currently, Amtrak owns more than 1500 passenger cars and 400 locomotives. The average age of its coach fleet is 24 years and the average age of the locomotive fleet is over fifteen years. According to Amtrak, 26 percent of its passenger rail cars are not in good repair. Amtrak hasn't been able to purchase new cars and is rehabilitating old equipment.
   b. The mothballed Amtrak fleet is generally 50-60 years old. 40-50 cars may be candidates for rehabilitation. Amtrak plans to rehabilitate 5-10 per year.
   c. The cost to rehabilitate a car ranges from $800,000 to $1.2 million. The rehabilitation work includes new wheel trucks, interiors, and restroom facilities.
   d. The Heartland Flyer currently uses two passenger cars, one Café Car and one locomotive.

4. **There are sources of new or leased passenger rail cars.**
   a. Since Amtrak hasn't been able to afford new equipment, there hasn't been much interest domestically to produce it for Amtrak.
   b. There are manufacturers in Europe to serve the foreign market. Bombardier and Talgo are two examples.
   c. Colorado Railcar Manufacturing, Ft. Lupton, Colorado, produces passenger rail cars for the commuter and scenic rail industries.
   d. Some states have or are considering buying cars for use by Amtrak.
   e. Equipment undergoes major overhauls every three years in Amtrak facilities. California built its facilities for light maintenance occurring about every 90 days.
   f. The Kansas study will look at where maintenance would occur and whether a new facility would be needed.

Operating Cost Funding (see Table 1, Page 5, for a state-by-state summary)

5. **States pay direct operating costs that exceed annual ticket revenues.**
   a. Fourteen states contract with Amtrak for the operation of trains that supplement the national Amtrak network by extending the reach of passenger rail services or provide additional frequencies on Amtrak routes. State and regional agencies pay most of the cost of these services, reimbursing Amtrak for direct expenses.
   b. The payments are negotiated annually (by state fiscal year) based on the actual revenues from the previous year.
   c. Amtrak's FY 08 income from state support is projected to be $167 million
   d. Amtrak's FY 08 ticket revenue from state operations is expected to be $200 million

   Continued operation of these routes is subject to annual contracts and state Legislative appropriations, along with Amtrak financial participation. In addition to operating funds, many of these states also provide funds for infrastructure or other capital improvements to Amtrak routes in their states.

6. **Each state is unique. The payments of other states cannot be used to estimate what Kansas would pay for its operating support.**
   a. According to Amtrak and a report by the Texas Transportation Institute, operational funding needs are generally independent of the length of the service route. Amtrak determines the cost for intercity passenger rail service based upon ridership, fare box recovery, and food sales on the route.
   b. Ridership and ticket revenues vary by state and depend on the schedule and other factors.
   c. The Amtrak Expansion Feasibility Study will estimate the ridership, revenue, and needed operating support based on possible routings and schedules.
   d. The Amtrak study will estimate ridership using sophisticated models run by AE Comm, a company which models ridership for Amtrak nationwide.

7. **Generally, states use one or a combination of state general revenue funds or state fuels taxes to fund their operating support.**
   a. Oregon uses general revenue funds and a portion of a fee from customized license plates
   b. Washington uses vehicle registration fees.
   c. Michigan uses general revenue funds
   d. Illinois uses general revenue funds
   e. Maine currently uses a combination of general revenue funds and federal Congestion Mitigation/Air Quality (CMAQ) funds under a one-time exemption. The exemption will expire in 2009 and will not be available thereafter. Other states have attempted to use federal CMAQ funds without success.

8. **Three state-supported services cross state lines and each pair of states negotiates their respective shares differently.**
   a. Wisconsin and Illinois split the payment 75/25 based on an estimate of ridership origin. Wisconsin generates more riders than Illinois.
   b. Washington and Oregon calculate their split based on train miles in each state.
   c. Oklahoma and Texas split the cost 50/50. Oklahoma originally paid for the entire service until the Oklahoma legislature capped the state's support payments. The OK DOT then approached the TX DOT for help to operate the service and the Texas Transportation Commission agreed to pay 50 percent. No formula is used.

Table 1. Service, Finance and Operating Characteristics of State-Supported Amtrak Trains

STATE	NUMBER OF DAILY TRAINS	TRAIN ROUTE(S)	FY08 OPERATING SUPPORT/ CONTRACT AMOUNT	REVENUE SOURCE(S)	RIDERSHIP FY07	TICKET REVENUE FY07
California	68	1)Oakland-Fresno-Bakersfield 2)Sacramento-Oakland-San Jose 3)Santa Barbara-LA-San Diego	$76,600,000	Portion of gasoline tax	4,962,042	$89,391,956
Illinois	28*	1)Chicago-Carbondale 2)Chicago-St. Louis, MO 3)Chicago-Milwaukee* 4)Chicago-Quincy	27,999,978	General revenue	1,402,096*	*27,770,668
Maine	10	Portland-Boston, MA	**7,209,623	1)CMAQ 2) General revenue	361,634	4,800,036
Michigan	4	1)Grand Rapids-Chicago, IL 2)Port Huron-Chicago, IL	6,124,306	General revenue	232,461	6,223,632
Missouri	4	Kansas City-St. Louis	7,400,000	General revenue	116,517	2,508,912
New York	2	New York City-Montreal	4,260,562	General revenue	101,097	5,065,860
North Carolina	4	1)Charlotte-New York City 2)Charlotte-Raleigh	***4,938,736	Lease fees derived from freight railroad operating on state-owned track	306,763	14,343,745
Oklahoma	2*	Oklahoma City-Fort Worth TX*	2,298,500	General revenue	*68,246	*1,260,579
Oregon	4	Portland-Eugene	4,200,000	1)Portion of fee charged for customized license plates 2)General revenue	*674,153	*18,165,351
Pennsylvania	26	Philadelphia-Harrisburg	7,240,917	General revenue	988,454	20,582,838
Texas	2*	Fort Worth-Oklahoma City, OK*	1,998,500	General revenue	*68,246	*1,260,579
Vermont	4	1)St. Albans-Burlington-NYC 2)Rutland-NYC	3,940,033	General revenue	107,241	5,548,083
Washington	10	Vancouver, BC-Seattle-Portland, OR	11,200,000	Vehicle registration fees	*674,153	*18,165,351
Wisconsin	14*	Milwaukee-Chicago*	7,094,214	General revenue	*595,336	*10,230,272

* Route cost shared with adjacent state. Revenues reflect total derived from ticket sales on route(s); ridership represents total for route; figures duplicated in shared state's row.

** Base cost not including fuel, less ticket revenue

*** Estimate that may vary based upon factors that may include fuel costs

Source: Amtrak Government Affairs
September 2008

NOTE: Each state is unique. The payments of other states cannot be used to reliably estimate what Kansas would pay for its operating support.

Contract Administration

9. When routes cross state lines, oversight is spelled out in the individual state contracts.
   a. Amtrak provides a variety of daily and monthly reports to each state.
   b. Amtrak also hosts twice-yearly group meetings of its state partners to address updates, questions, and concerns.

10. For multi-state routes, the DOTs entered into the necessary interstate agreements.
   a. The legislatures didn't get involved, but this doesn't mean they couldn't.

11. When states support multiple services, there is one contract payment and the contract itemizes the support cost for each service.

Federal Funding

12. The prospects for federal funding are improving and depend on the expenditure.
   a. Up to mid-2008, there have not been any federal funds to assist states with operating support, start up costs, or infrastructure improvements.
   b. On October 1, 2008, the U.S. Senate passed the $13 billion Federal Railroad Safety Improvement Act. It reauthorizes Amtrak and authorizes significant federal funding for intercity passenger rail service and corridor development. Among other things, the bill creates a new State Capital Grant program for intercity passenger rail projects. The bill provides $1.9 billion over five years for grants to states to pay for the capital costs of facilities and equipment necessary to provide new or improved passenger rail. The federal share of the grants is up to 80 percent. The grants would be awarded on a competitive basis for projects based on economic performance, expected ridership, and other factors. The House approved the legislation on September 24, 2008. The bill must be signed by the President and Congress must pass annual appropriations bills to provide the funding levels authorized in the bill.
   c. On September 30, 2008 the Federal Railroad Administration announced it had awarded 15 grants distributing $30 million in 50/50 matching grant funds made available in 2008 legislation. Pending appropriations bills, if passed, could provide up to $100 million in grants for Fiscal Year 2009.
   d. On July 29, 2008 U.S. Senator Dick Durbin (D-IL) introduced the *Train CARS Act* intended, among other things, to promote the replacement and rehabilitation of Amtrak's fleet of passenger cars and revive the train car industry in the U.S. Durbin's legislation includes the following actions:

      i. Create a new matching grant program for Amtrak and states to rehabilitate existing equipment and purchase new, American-made equipment. It also authorizes Amtrak to issue up to $2.8 billion in qualified bonds over four years to finance train car projects.
      ii. Allow states to receive a dollar for dollar match on any equipment fee they impose for the purchase of new domestically produced train cars.
      iii. Create a trust fund to give Amtrak and the states a source of capital funding to replace the nation's train cars. The legislation would transfer one-quarter cent of the per-gallon motor fuels tax into the new Rolling Stock Trust Fund for three years generating approximately $400 million/year.

13. States wanting to apply for federal matching funds will need to have an intercity passenger rail plan.
   a. States may be able to use federal funds to help craft a plan.
   b. The Amtrak Expansion Feasibility Study could form the basis for a plan for Kansas.

Host Railroad

14. Expanded passenger rail would use tracks owned by Burlington Northern Santa Fe Railway (BNSF). BNSF will evaluate the track capacity as part of the Amtrak expansion study.

a. Passenger trains have scheduling priority over freight trains. This is not always feasible due to inadequate infrastructure or maintenance issues, as evidenced by Missouri's experience.
b. Infrastructure improvements made for passenger rail often benefit freight rail, helping reduce highway congestion. An intermodal freight train can carry the same load as several hundred trucks.
c. Freight rail is often cited as more fuel efficient and less polluting than over-the-road freight transportation.

The Heartland Flyer

15. The Heartland Flyer is one of Amtrak's most successful state-supported services.

a. The service was started in 1999 and is managed and funded by the Oklahoma and Texas departments of transportation.
b. It makes one round trip daily along a 206-mile route between Fort Worth and Oklahoma City, stopping at five cities along the way.
c. The current capacity of the Heartland Flyer is 180 passengers.
d. In FY 2007, the *Heartland Flyer* carried 68,246 passengers and generated ticket revenues of $1,260,579. In FY 2006, 64,078 riders created revenues of $1,174,234. FY 2008 figures are projected to be higher than FY 2007.

Depot Costs

16. With state-sponsored services, host communities are responsible for the costs of planning, upgrading and maintaining their depots. The Amtrak study will not evaluate station facilities.

a. A city's use in the study is not a commitment by the city or the states for the city to host a station.
b. If the states support expanded service, they may need to restudy the selection of host cities.
c. Selected cities – if they agree to do so – would need to:

   i. Study and identify needed station improvements and develop cost estimates
   ii. Determine, based on their study results, if they want to host a station

d. After their local station study, cities still wanting to host a station would need to:

   i. Fund and develop improvement plans
   ii. Fund construction of the improvements
   iii. Develop a plan for station staffing and costs
   iv. Budget and fund annual station maintenance and operating costs

17. Funding assistance for station studies and improvements is uncertain at this time.

a. The Transportation Enhancement (TE) Program, a federally-funded program administered by the states may be able to offer matching grants. Competition for TE grants is fierce with no guarantee the program will be funded in the future.

Kansas Rail Feasibility Study of March 2000 (see Table 2)

The Kansas Rail Feasibility Study was published in March 2000. It was commissioned by the Kansas Department of Transportation and conducted by Transportation Economics and Management Systems in association with Parsons Brinkerhoff. It focused on four areas:

1. Market share a passenger rail service could capture
2. Capital costs of implementing a service
3. Revenue and operating costs
4. Economic benefits

The study examined several scenarios, including services running at 79 mph and at 110 mph (high-speed rail). **The following summary uses the Kansas City to Oklahoma City service running at 79 mph when feasible.** This correlates with one of the scenarios in the Amtrak Expansion Feasibility Study.

Table 2. Kansas Rail Feasibility Study Summary

KANSAS RAIL FEASIBILITY STUDY OF MARCH 2000 Kansas City to Oklahoma City, 79 mph scenario		
	Estimated Costs in 2000 Dollars (millions of dollars)	**Notes**
Infrastructure	38	It is not clear if this includes work in Oklahoma. Since March 2000, improvements have been made on some of the track in Kansas.
Rolling Stock (four round trips daily)	30	The study assumed a train set capable of 110 mph travel. This level of sophistication is not necessary for a 79 mph service. Four round trips daily would require more than one train set.
Total Capital Cost	68	
Annual Operating Costs	17.79	For a service terminating at each anchor city. The study included costs not normally included in state-supported services.
Ridership Forecast	130,000 (2000), 165,000 (2020)	The study assumed stops in Lawrence, Topeka, and Wichita. The Amtrak Expansion Feasibility Study will assume additional stops, which will affect ridership.
Annual Revenues	8.45 (2000) 10.73 (2020)	Calculated using an average fare of $65.00.
Annual Subsidy Required	Not estimated in the study	The study did not evaluate a state-supported Amtrak service scenario. Under Amtrak, not all costs are passed on to the state and other revenue sources may be factored in.

Information Contacts:

Chris Herrick, Director of Planning and Development	785-296-2252	chrish@ksdot.org
Joel Skelley, State Multimodal Planner	785-296-4209	joelsk@ksdot.org
John Maddox, Rail/Freight Manager	785-296-3228	johnm@ksdot.org
Ron Kaufman, Bureau Chief of Public Involvement	785-296-3769	rkaufman@ksdot.org

Kansas Department of Transportation, 700 SW Harrison, Topeka, KS 66603

Amtrak Fiscal Year 2008, Oct. 1, 2007 through Sept. 30, 2008

State Supported

Northeast Corridor Spine	Ridership FY08	Ridership FY07	Ridership % change vs. FY07	Ticket Revenue FY08	Ticket Revenue FY07	Ticket Revenue % change v FY07
Acela Express	3,398,759	3,191,321	+6.5	$467,782,708	$403,571,410	+15.9
Northeast Regional	7,489,426	6,836,646	+9.5	$481,606,621	$424,721,134	+13.4
Special Trains	9,667	7,045	+37.2	$1,249,590	$1,011,903	+23.5
Subtotal	**10,897,852**	**10,035,012**	**+8.6**	**$950,638,920**	**$829,304,447**	**+14.6**
State Supported and Other Short Distance Corridors						
Ethan Allen	46,881	43,942	+6.7	$2,407,851	$2,190,959	+9.9
Vermonter	72,655	63,299	+14.8	$3,942,778	$3,357,124	+17.4
Albany-Niagara Falls-Toronto	354,492	288,365	+22.9	$21,759,315	$16,854,750	+29.1
Downeaster	474,492	361,634	+31.2	$6,560,768	$4,800,036	+36.7
Shuttles (New Haven-Springfield)	349,928	320,852	+9.1	$10,063,889	$8,840,099	+13.8
Keystone Corridor	1,183,821	988,454	+19.8	$24,747,102	$20,582,838	+20.2
Empire Service (NYP-ALB)	994,293	957,583	+3.8	$41,114,816	$38,592,354	+6.5
Chicago-St. Louis (*Lincoln Service*)	476,427	408,807	+16.5	$11,288,034	$8,822,785	+27.9
Hiawatha Service	749,659	595,336	+25.9	$13,138,765	$10,230,272	+28.4
Wolverine Service	472,393	449,107	+5.2	$16,243,510	$14,934,656	+8.8
Chicago-Carbondale (*Illini/Saluki*)	271,082	228,695	+18.5	$7,732,413	$6,187,835	+25.0
Chicago-Quincy (*IL Zephyr/Carl Sandburg*)	202,814	169,258	+19.8	$4,979,726	$3,937,263	+26.5
Heartland Flyer	80,892	68,246	+18.5	$1,682,088	$1,260,579	+33.4
Pacific Surfliner	2,898,859	2,707,188	+7.1	$51,010,624	$46,788,081	+9.0
Amtrak Cascades Service	760,323	674,153	+12.8	$20,999,003	$18,165,351	+15.6
Capitol Corridor Service	1,693,580	1,450,069	+16.8	$22,306,774	$18,059,715	+23.5
San Joaquins Service	949,611	804,785	+18.0	$29,847,468	$24,544,160	+21.6
Adirondack	112,047	101,097	+10.8	$5,581,639	$5,065,860	+10.2
Blue Water	136,538	127,642	+7.0	$4,158,742	$3,557,216	+16.9
Washington-Newport News	459,236	401,510	+14.4	$26,276,227	$20,914,840	+25.6
Hoosier State	31,774	26,347	+20.6	$681,685	$529,270	+28.8
Kansas City-St. Louis	151,690	116,517	+30.2	$3,311,182	$2,508,912	+32.0
Pennsylvanian	200,999	180,140	+11.6	$7,914,009	$6,620,783	+19.5
Pere Marquette	111,716	104,819	+6.6	$2,975,391	$2,666,416	+11.6
Carolinian	295,427	256,212	+15.3	$16,026,148	$13,512,362	+18.6
Piedmont	65,941	50,551	+30.4	$1,079,184	$831,383	+29.8
Buses	-	-	-	$5,796,194	$4,878,943	+18.8
Special Trains	50,626	48,644	+4.1	$5,201,520	$4,622,911	+12.5
Subtotal	**13,648,196**	**11,993,252**	**+13.8**	**$368,826,847**	**$313,857,753**	**+17.5**
Long Distance						
Silver Star	367,139	329,132	+11.5	$27,699,306	$25,715,553	+7.7
Cardinal	109,195	96,896	+12.7	$6,490,845	$5,453,083	+19.0
Silver Meteor	319,773	291,735	+9.6	$30,568,604	$27,379,452	+11.6
Empire Builder	554,266	504,977	+9.8	$59,461,168	$53,177,760	+11.8
Capitol Limited	216,350	193,748	+11.7	$17,431,949	$14,877,428	+17.2
California Zephyr	352,563	329,840	+6.9	$39,001,032	$35,719,619	+9.2
Southwest Chief	331,143	316,668	+4.6	$41,079,865	$37,935,113	+8.3
City of New Orleans	197,394	180,473	+9.4	$14,875,928	$13,311,213	+11.8
Texas Eagle	251,518	218,321	+15.2	$19,514,531	$16,424,146	+18.8
Sunset Limited	71,719	63,336	+13.2	$8,052,515	$6,955,881	+15.8
Coast Starlight	353,657	343,542	+2.9	$28,117,404	$29,171,278	-3.6
Lake Shore Limited	345,632	312,643	+10.6	$24,238,394	$21,421,657	+13.1
Palmetto	173,949	156,998	+10.8	$12,901,668	$11,280,047	+14.4
Crescent	291,222	263,136	+10.7	$27,095,838	$24,262,171	+11.7
Auto Train	234,839	217,822	+7.8	$58,154,402	$52,883,481	+10.0
Subtotal	**4,170,359**	**3,819,267**	**+9.2**	**$414,683,450**	**$375,967,883**	**+10.3**
Amtrak Total	**28,716,407**	**25,847,531**	**+11.1**	**$1,734,149,216**	**$1,519,130,083**	**+14.2**

Source: Amtrak

NOTE: Ridership to some locations south and west of Chicago is on state-supported and national system Amtrak trains, as reported above. Combined ridership of all Amtrak trains on these corridors is as follows for FY08: Chicago-St. Louis, 543,642; Chicago-Carbondale, 304,435; Chicago-Quincy, 231,701.