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Resources, Community, and
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September 14, 1992

The Honorable William Lehman
Chairman
Subcommittee on Transportation
Committee On Appropriations
House of Representatives

The Honorable Lawrence Coughlin
Ranking Minority Member
Subcommittee on Transportation
Committee on Appropriations
House of Representatives

The Honorable Bob Carr
House of Representatives

The Honorable Frank R. Wolf
House of Representatives

The purpose of this letter is to provide the Subcommittee with the results of our review of the progress of the new Denver airport. Last year, in response to requests from Representatives Bob Carr and Frank Wolf, we examined a number of issues regarding the new Denver International Airport, including weather, soil conditions, capacity impacts, and financial viability. Our report entitled New Denver Airport: Safety, Construction, Capacity, and Financing Considerations (GAO/RCED-91-240, Sept. 17, 1991) concluded that (1) weather conditions at the site do not increase aircraft safety hazards; (2) soil conditions at the new airport site are common throughout the Denver region, and airport officials are using appropriate design and construction methods; (3) the new airport should significantly reduce flight delays at Denver, but the effect on systemwide delays was unclear; and (4) although uncertainties existed, the city's financial assumptions for the new airport were reasonable and the probability was low that the airport would be unable to generate sufficient revenues to meet operating expenses and service its debt.

Our report cautioned that while the project was close to being on schedule and was under budget, construction was in

GAO/RCED-92-285R New Denver Airport Followup

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the early stages, and problems could surface as construction progressed. The possibility of default on construction bonds would become more likely if several adverse conditions, such as cost overruns, schedule slippages, loss of a hubbing carrier, and traffic shortfalls, occurred. Because of the uncertainties about the financial viability of the new airport when our report was issued and because of allegations after our report was issued that construction was falling behind schedule and that some cargo traffic might go elsewhere, we initiated a follow up review and examined more recent information on the construction schedule and cost status of the new Denver airport.

In summary, we found that as of July 31, 1992, construction of the new Denver International Airport was slightly ahead of schedule and, as of August 2, 1992, continued to be under budget. In September 1991, when we first reported on the new airport, construction was slightly behind schedule but was under budget. In early 1992, the four largest all-cargo airlines announced their intention to operate out of Front Range Airport, a small general aviation airport only a few miles from the new Denver airport. Two of the four all-cargo airlines have since changed their plans and have signed leases with the new Denver airport. Our analysis indicates that if all four cargo airlines had elected to shift their operations to Front Range, the new Denver airport would not have been affected appreciably in the limited context of its ability to meet operating expenses and debt service obligations. However, this shift would involve slightly higher landing fees for other airport users.

Our review focused on the progress of the new Denver airport and, as far as Front Range airport is concerned, we only examined whether revenue losses from cargo traffic shifts would affect the solvency of the new Denver airport. Therefore, we did not review the Federal Aviation Administration's (FAA) rationale for developing an alternative air cargo airport only a few miles from the new Denver airport. Nevertheless, there are impacts above and beyond whether lost cargo traffic would imperil the financial viability of the new Denver airport. The new airport will have the capacity to handle traffic growth for many years, and air cargo is projected to grow more rapidly than passenger travel. Air cargo growth would generate additional revenues that could help make the new Denver airport more profitable and would relieve other users of the cost burden of the facility. These longer-term

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considerations have not yet been addressed. How much Denver's revenues and user fees could be affected over the longer term if some cargo carriers go to Front Range is unknown.

AIRPORT CONSTRUCTION SCHEDULE

According to the airport's most recent progress report (July 1992) to the Denver City Council the overall construction program was about 41 percent complete, which is right on schedule for the planned opening in October 1993. This is an improvement over the status that we reported in September 1991, when, as of July 1991, construction was 19 percent complete, while the schedule called for construction to be 23 percent complete.

On July 20, 1992, we toured the new airport site and observed the construction of the terminal, parking garages, concourses, runways, and other airport facilities, including the baggage and train tunnels. The primary infrastructure of the terminal building appeared to have been completed, and contractors had begun erecting sections of its fabric roof. Major portions of the parking structures located on the west and east sides of the terminal building had also been built. Of the three concourses, concourse C was almost 90 percent finished and closest to completion, according to a Denver International Airport project official.

AIRPORT CONSTRUCTION COSTS AND BUDGET

As of August 1992, it is estimated that the total cost of the new Denver airport will be \$4 billion. In our earlier report, we reported that the new airport would cost nearly \$4 billion: at least \$3.1 billion plus the estimated \$680 million to expand the airport to accommodate United Airlines, which had just agreed to transfer its hub operation from Stapleton International Airport to the new airport. The current \$4 billion estimate includes \$2.7 billion in design, construction, and miscellaneous costs (including the cost of access roads) and about \$1.3 billion for land acquisition, planning and administration, and financing.

Through August 2, 1992, 77 construction contracts, valued at about \$1.7 billion, had been awarded, and 11 of these, valued at about \$138 million, had been completed. In September 1991, we reported that 27 construction contracts, valued at \$732 million, had been awarded, and 5 of these,

valued at \$58 million, had been completed. As of August 2, 1992, as reflected by change orders, costs on the 27 contracts cited in our September 1991 report have increased by about \$33 million or about 5 percent. Even with this increase, these 27 contracts are under the amount budgeted for this work by about \$89 million. Since our previous report, an additional 50 contracts, valued at about \$909 million, have been awarded. Change orders to these contracts reflect an increase of about \$14 million as of August 2, 1992. Again, however, even with the increase, the 50 contracts are under the amount budgeted for this work by about \$148 million.

FUNDING SOURCES

The bulk of the funds needed for the new Denver airport (about \$3.4 billion, or 83 percent of the total) will be generated by revenue bonds (bonds repaid solely from project revenues). These bonds are not backed by local, state, or federal government funds or by the new airport's assets. The remaining funds for airport construction come from federal grants, surplus Stapleton International Airport revenues and interest income, and passenger facility charges¹ levied at Stapleton. These remaining funds are due in advance of the new airport's opening in October 1993, but some of these revenues--including \$156 million in Federal Airport Improvement Program grants, part of the passenger facility charge revenues, and the \$100 million anticipated from the sale of Stapleton airport--will not be received until after the new airport opens. These funds will be used to retire bonds issued prior to the new airport's opening.

Federal grants for construction of the new airport are about \$436 million. FAA originally projected that federal grants for the new airport would be \$501 million, but in April 1992, FAA approved the imposition of a \$3 passenger facility charge to begin July 1, 1992. Anticipated revenues from passenger facility charges and current traffic projections reduce the amount of federal funds needed for the project by approximately \$65 million.

¹These are charges levied on passengers who board flights at an airport. The charges may be as high as \$3 per passenger flight segment and are authorized by the Aviation Safety and Capacity Expansion Act of 1990.

TWO ALL-CARGO CARRIERS MAY
LOCATE AT FRONT RANGE AIRPORT

FAA is considering a \$35 million investment in Front Range to expand it to accommodate air cargo traffic. In early 1992, the four largest of the 16 all-cargo carriers currently serving Stapleton International Airport announced that they might operate out of Front Range Airport. Officials from these four cargo airlines told us that the planned northern cargo site was too far from Interstate 70 and other access roads to Denver and surrounding business districts. Officials from three of the four carriers also told us that landing fees and rental charges would be too high at the new Denver airport. An official at United Parcel Service, one of the four carriers involved, said that the proposed northern location of the cargo facilities contains no developed access roads (only dirt roads), and he doubts that Denver will have completed the roads by the time the new airport is scheduled to open. Furthermore, he said that landing and land rental fees would be higher at the new Denver airport than at Front Range Airport.

Officials from these four carriers told us that they would consider locating at the Denver International Airport if they were offered an acceptable site in a southern location. On August 26, 1992, Denver's mayor announced that cargo operations would be relocated from the planned northern site to a new southern site and that two of the carriers--Airborne Express and Federal Express--had signed leases with the new Denver International Airport. The two remaining carriers, United Parcel Service and Emery Worldwide, have yet to sign leases with either Front Range Airport or Denver International Airport. Notwithstanding these recent developments, we found that even if all four carriers chose to operate out of Front Range Airport, there would not have been an appreciable impact on the ability of the new Denver airport to meet its projected operating expenses or service its debt.

If these four cargo carriers located their operations at Front Range, the new Denver airport would lose landing fee revenues, but there would be offsetting savings from not constructing three buildings to accommodate the operations of the four cargo carriers. In 1995, for example, lost landing fees would amount to about \$2 million, while the savings from reduced debt service costs would be \$1.7 million. Increasing landing fees for other users by \$0.01 from \$2.35 to \$2.36 per 1000 pounds of landed weight would

generate \$257,000 and close the gap.² Additionally, if cargo carriers move to Front Range Airport, the Front Range Airport Authority and Adams County have agreed to pay the city of Denver up to \$500,000 a year from 1993 through 2000 in state aviation fuel tax revenues collected at Front Range to compensate the new Denver airport for lost revenues.

While the short-term impact of a shift of major cargo operations to Front Range might not appreciably affect the new Denver airport to meet operating expenses and debt service, the longer-term impacts could be more consequential. The new Denver International Airport was designed to expand to become the nation's largest facility. Cargo operations are expected to be a major source of new traffic because growth in air cargo is expected to outpace growth in passenger traffic. Thus, future cargo traffic losses could keep the new Denver International Airport from developing its full potential and keep the costs to the other tenants higher than they would have been had some cargo operations not shifted to Front Range. The new Denver airport is projected to have the highest costs per passenger, and hence the highest fees, of any airport in the nation.

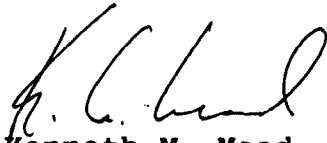
Although a move by the four all-cargo carriers to Front Range Airport would not have affected the new airport's ability to meet expenses, the move would have required additional federal outlays to expand Front Range Airport. These outlays would be in addition to the more than \$400 million FAA has committed to the new Denver airport. According to an FAA official, the planned expansion of Front Range Airport to accommodate cargo traffic will require about \$35 million in federal funds. Additionally, the planned expansion of the Front Range Airport has generated considerable controversy over potential environmental impacts. Currently, three lawsuits have been filed (United Airlines and Commerce City, the Sierra Club, and the Environmental Defense Fund) to protest FAA's finding on the basis of a preliminary assessment that the expansion will have "no significant impact on the environment."

²With two cargo airlines planning to operate at the new Denver airport, some facilities will have to be built and some landing fees will be collected. We did not assess all possible scenarios as the impact is small even in the case where all 4 cargo carriers move to Front Range airport.

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Furthermore, Denver International Airport officials believe that the planned expansion at Front Range will result in flight delays at their airport. FAA has advised Denver International Airport officials that it does not plan to routinely give priority to air traffic operating at their airport over Front Range Airport but will provide service on a first-come, first-served basis. According to Denver's Director of Aviation, FAA had earlier indicated that Front Range Airport would incur any arrival and departure delays that might arise because of air traffic management conflicts between the new Denver and Front Range airports. In responding to the Front Range expansion proposal, which included a forecast of 218,500 annual operations by 2020, the FAA Northwest Mountain Region anticipated no "significant" delays because much of Front Range's traffic will likely occur at night, which is when most cargo flights occur. Projections for future cargo traffic at the new Denver airport indicate that most operations will occur between the hours of 6:00 PM and 8:00 AM. FAA did not define what it meant by "significant", and as indicated earlier, we did not independently verify the basis for FAA's conclusion that no significant delays would occur.

We conducted this review between May and September 1992 in accordance with generally accepted government auditing standards. We discussed our findings with FAA officials, but we did not obtain written agency comments on this correspondence. If you have any questions, please contact me at (202) 275-1000.



Kenneth M. Mead
Director, Transportation Issues

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