

# FAA Will Test Wayport Concept As Remedy to Airport Congestion

JAMES OTT/WASHINGTON



Wayport is conceived as a remote airport to be served by large transports and tilt-rotor and commuter aircraft. It would permit the transfer of passengers, cargo packages and mail.

A new kind of airport is emerging that might ease the congestion in the nation's airports and airways.

Proponents refer to it as a superhub, a wayport or simply a remote transfer airport. Whatever the name, such a facility would be built and operated in a remote area, away from population centers and the myriad problems of today's metropolitan airports. These include lack of physical capacity, poor ground access and noise and environmental constraints.

Advocates are promoting not one but a series of new airports positioned around the U. S. Wanted are vast tracks of land for facilities to meet the basic airside needs of airport operations—terminals, runways and navigation aids. Huge blocks of uncongested airspace are a necessity.

The primary purpose of this new kind of airport is centralization of the airlines' hub-and-spoke flight operations. In concept, it is a switching point, not a place where one begins a trip or ends one.

A new, high-capacity, high-technology switching point would offload some of the hubbing flights from busy airports and airspaces that have reached their capacity limits. The Transportation Research Board of the National Research Council gave impetus to the idea in a 1988 report, called "Future Development of the U. S. Airport Network."

James Sheppard, manager of the Federal Aviation Administration's Airports District Office in Orlando, Fla., has been the wayport's chief advocate. He has won

some significant support from government officials and private interests and has the backing of FAA Administrator Allan McArtor.

"The wayport is one of several solutions that ought to be deliberated," McArtor said. "It's not the sole solution. The question is whether it's a practical solution at this time."

McArtor said he plans to test the concept using funds from the agency's \$25-million annual budget for research,

*In concept, a wayport is a switching point, not a place where one begins a trip or ends one*

engineering and development. The impact of the switching concept on the U. S. flow of air traffic will be examined, using the agency's recently acquired computer capability to analyze air traffic flow.

The use of a switching point may sound familiar. Federal Express has used the concept of a single collection and distribution point since the 1970s. The Memphis-based courier was the first to exploit the idea of a centralized hub for packages. Airplanes and trucks collect packages from points all over the U. S. and carry them to Memphis, where they are distrib-

uted for their final destinations. The concept has worked well.

Passenger airlines pursue the same idea with the hub-and-spoke system.

Flights from a number of cities arrive at a hub airport like spokes on a wheel, even though the hub, for most passengers, is not a final destination. The hub to them is only a transfer point.

The hub-and-spoke system offers passengers a multiplicity of destinations—many more than if there were no hubs. The cost of such a system is minimal, compared with one that would allow only nonstop flights between all the same cities involved in a hub operation. With hubs, aircraft tend to be more full, resulting in better economics for airlines. Hub operations offer many more frequencies to many more towns, a more efficient system.

Hubbing operations have become the basis for cost efficiencies that enable airlines to offer many destinations at comparatively low fares.

The banks of flights arriving and departing within short periods of time at hub airports have had great impact on the air transportation system. Some airports, such as New York's LaGuardia, are jammed all day long. Others—such as Greater Cincinnati Airport—are busy during the periods when the hub-and-spoke operations are at their peak.

The growth of commuter alliances with major airlines also has increased flight activity in recent years, contributing to the clogging of airports and airways and the increase of delays.

In his wayport presentations around the country, Sheppard is calling for a new approach to building airports. The nation definitely needs new airports, he said, and many existing airports and airspaces have reached their capacity levels. Restrictions on operations are in effect, are tightening and will continue to tighten unless there is capacity relief, he said.

But the outlook for new capacity in the existing system is bleak because of restrictions imposed by noise and environmental problems, the lack of physical space and other reasons.

Sheppard refers to the wayport as a "true system expediter." He likens the wayport system to interstate highways, "allowing bypass of existing congested airspace and airports, as interstates bypass congested cities."

Wayport is Sheppard's own name for the remote transfer airport. He objects to the term "superhub" because any large

*Advocates say wayports would allow travelers to bypass congested airports, 'as interstate highways bypass congested cities'*

airport can become a superhub by growing larger. Wayport suggests to him the particular function of transferring passengers, cargo, packages and mail. Wayports could be served from populated areas directly by high-speed rail, tilt-rotor aircraft and commuter aircraft.

Such a new class of airport could be built to provide for high-speed civil transports, projected for operation after the turn of the century.

**LOCAL AID NEEDED**

Sheppard foresees the development of state and regional authorities for the purpose of creating wayports, gaining financing and working with the federal government. Since a wayport's function is limited to transferring and switching, the price tag would be comparatively low—\$1 billion.

Placement of wayports in the U. S. in unused airspace would greatly benefit the traffic flow in the FAA's en-route system, which is dominated by traffic between large airports.

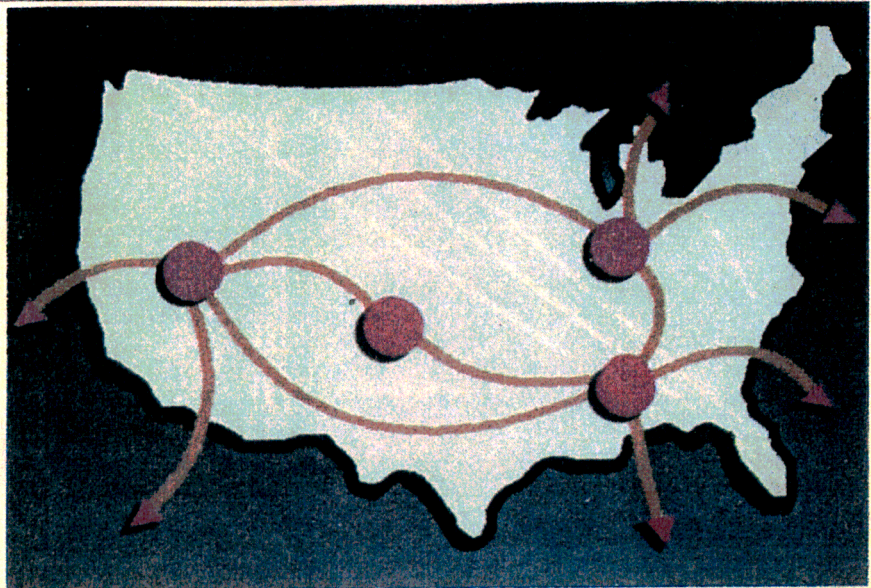
"One problem is that airlines have not embraced this as a practical solution," McArtor said. "They have infrastructures at their major hubs," he said.

The airlines, which have invested millions in hubs, are skeptical of the idea. "There are major economic, operational and marketing questions," James Murphy, vice president, airport operations with the Air Transport Assn., said.

Murphy said the development of a wayport in a remote location, designed for transfers, raises difficult financial questions. Large airports today derive revenues primarily from parking and rental cars, neither of which would be needed by a wayport.

Nevertheless, Murphy favors launching an economic study to determine whether the wayport concept is feasible. Talking airlines into serving a wayport may be another challenge, he said.

"It has been a back-of-the-envelope design for a long time," he said. "Usually it starts coming apart when you put it in a place that is so isolated, there is much land and no noise problem. But where are you going to get a population sufficient to operate the airport?" Sheppard acknowledges the practical problems of developing such a remote facility. But he claims the need for new capacity will cause authorities and interests to take action and overcome them. His wayport concept can be modified to meet practical necessities, he said.



Potential wayport sites are portrayed on a U. S. map used in FAA presentations. The sites have vast tracks of land for facilities to meet the basic airside needs of airport operations.

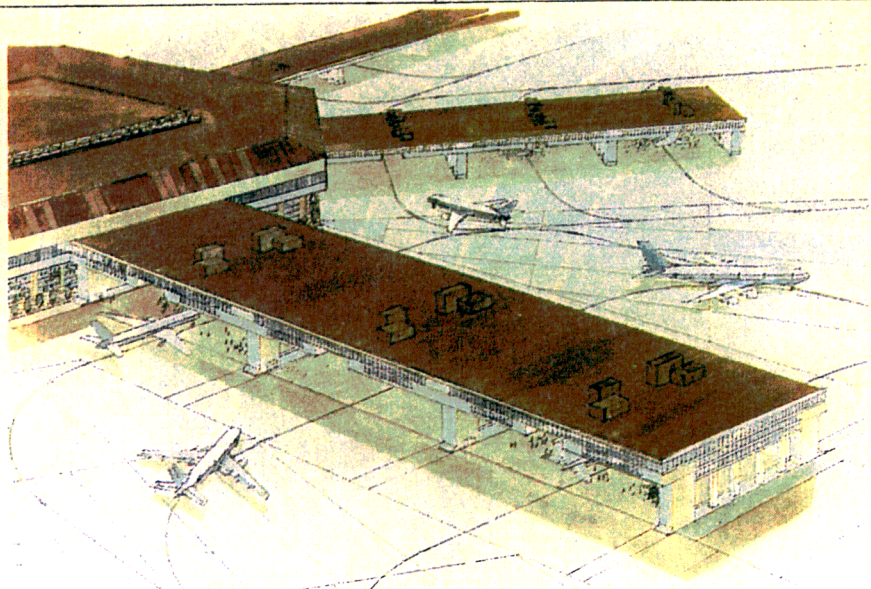
His idea has won support from several aviation organizations. The Air Line Pilots Assn. asked that the concept be explored as a potential solution in its presentations last year to the Republican Party platform committee.

John L. Baker, president of the Aircraft Owners & Pilots Assn., endorsed Sheppard's wayport as "worthy of serious exploration" in correspondence with McArtor. He said wayports built in remote areas using uncongested airspace are

a better solution to the congestion crisis than the plan recommended this year by the Transportation Research Board.

Baker said construction of 16 transfer airports near metropolitan areas, as proposed by the Transportation Research Board, still would pose airspace congestion problems in those areas.

Patrick N. Dempsey, general manager of the Network Analysis and Requirements Div. in the U. S. Postal Service's Office of Transportation, observed:



Future airports would provide for rapid aircraft turnaround by means of a drive-through concept. Planners predict a 20-min. gate occupancy, with a down-loading of passengers and cargo.

"We're like many passengers today. We have problems going through so many hubs. The Postal Service moves 5 million lb. of mail on average each day, and when hubs are congested, we're subject to the same kinds of problems and delays. We are subject to commercial carriers, but we see some possibilities if the carriers are involved."

#### **GROUND WORK**

Clifton A. Moore, general manager of the Los Angeles Airports Dept., said Sheppard's wayport is workable, though it may have some flaws. "It's got to have ground infrastructure to make it work," he said.

The infrastructure serving some existing airports has reached its capacity limit, Moore said. In Los Angeles, he said, "we have to have a way to get people to airports that doesn't involve automobiles." He foresees a high-speed rail line, accessible to automobiles, running north-south and connecting all Los Angeles airports.

Moore said that Los Angeles plans to go ahead with the proposed airport at Palmdale, north of the city, and probably with another new airport to the south. Each of these could serve as a wayport, he said.

The wayport concept has been reviewed by the Alabama Community and Economic Affairs Dept. as part of an overall study of Alabama's future airport needs. In Texas, Joe Burriss of Weston Development Corp. is trying to finance a wayport on a 30,000-acre tract in Montague County. He said he had signatures from three landowners, covering more than half the acreage. Weston is seeking a Texas and Oklahoma regional authority as part of its plan.

Laurence Bauman, senior airport planner with Carter & Burgess, Fort Worth, said the wayport concept needs a redefinition of terms in airport design to be understood. The term "originating traffic," for example, should no longer be considered as passengers coming from a particular metropolitan area served by a large international airport. Rather, it should include traffic arriving at a wayport by any means, including high-speed rail, commuter aircraft or tilt-rotor aircraft, he said.

An unofficial adviser to Burriss on its development plan, Bauman said the government should consider modifying the complex rules for site selection for airports to smooth the way for new superhub or wayport development.

Sheppard views the wayport as the only alternative that offers "massive future capacity."

"When the interstate road system was proposed, no one knew where every road alignment and every interchange was going to be located. We didn't even know the ultimate cost. We are still implementing the interstates after 30 years. Wayports should be addressed in a similar way." □