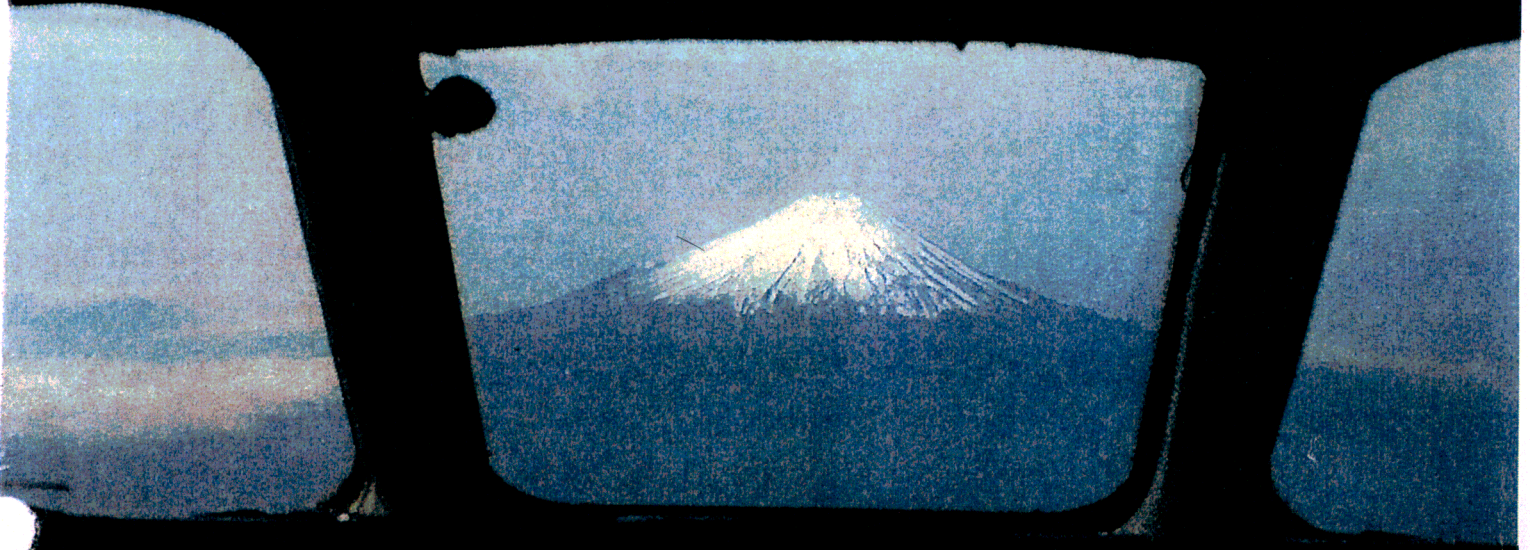


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The Pacific Rim
Wayports: On the Way
Bird Strikes

On the Way to New Airport Capacity?

By Adele C. Schwartz

Wayport: a catchy new word that could spur action to create urgently needed airport capacity.

As defined by James E. Sheppard, manager of the Federal Aviation Administration district office in Orlando, Florida, and the inventor and formerly chief booster of the term, a wayport is one of a group of brand-new airports that would be "positioned in unused airspace and in rural unpopulated areas to serve a large regional or multistate area."

Four to six wayports would be built from a single design on 15,000-acre sites. Each wayport would have a pair of 10,000-foot parallel runways, a 7,000-foot crosswind runway, and a relatively simple terminal, and would cost about \$1 billion. More runways and terminal units could be added as needed.

The wayports would incorporate the latest and best nav aids and safety equipment and systems. Because wayports would serve almost no local traffic, they wouldn't need complex road systems, huge parking areas, or big ticket and bag claim lobbies.

ALPA, along with other organizations and individuals, likes the idea of wayports. Capt. Henry A. Duffy, ALPA's president, told the Aero Club of Washington that ALPA "is an enthusiastic supporter of the concept of wayports."

These facilities would allow the airlines to enjoy the cost efficiencies offered by a hub-and-spoke operation while enabling them to bypass crowded airports and airspace. . . . They would require relatively inexpensive real estate" in open areas where surrounding land could be controlled to preclude obstructions and noise-sensitive uses. A system of at least three wayports could "provide a tremen-

dous amount of capacity by 1995," Duffy said last January.

John O'Brien, director of ALPA's Engineering and Air Safety Department, points out that—unlike those of other aviation organizations—ALPA's members have no vested interests in protecting the traffic base of existing airports. He adds, "Our support of the wayport concept was stimulated by our neutral position. All we see is an overall need for more capacity on the ground," to match the additional airside capacity that is being created by improved air traffic control systems and procedures.

Ground capacity

Looking for sources of this ground capacity, O'Brien says, ALPA recognizes that operational procedures can be modified, more civilian flights can be made at joint-use military fields, closed military bases can be converted to commercial fields, schedules can be increased at underutilized airports, and new airports can be built.

But, O'Brien notes, proposals for new airports invariably run into cost and environmental problems, and airlines don't want to create additional capacity for other carriers in markets where they are dominant. Building wayports in areas that do not generate significant local traffic might be a way around these various objections.

Using the same layout and flight procedures for all wayports would cut costs and improve safety, Sheppard has said.

Locating wayports in open areas would reduce airspace conflicts, and airfield design would incorporate optimum

runway and taxiway widths, turn radii, and shoulder construction.

Other safety features Sheppard has said should be provided on all wayports include 100:1 approach surfaces for runways, 3,000- to 5,000-foot extended runway safety areas, Category IIIC nav aids and runway/taxiway lighting and marking, control of development surrounding nav aids, computer control of ground movements, special facilities for handling hazardous materials, optimum location of emergency response equipment, and enhanced security and alarms.

State-of-the-art systems could be installed for ground guidance; for monitoring pavement surface conditions; for controlling ice, snow, and fog; for detecting windshear; for transmitting weather information; and for crash/fire/rescue protection.

While many call Sheppard's proposal simplistic, it has caught the attention of the U.S. aviation community and has stimulated serious discussion in many forums. Variations on the wayport have been suggested.

Remote transfer airports

The Transportation Research Board, in a September 1988 report, recommends a detailed study of the proposals as well as of other means of enhancing airport capacity. TRB also defines what it calls remote transfer airports.

One type of remote transfer airport would serve one or more metropolitan areas but be located beyond their suburbs and use short-haul flights or high-speed ground transportation to bring passengers to and from the airport. The other type would be sited away from major population centers and would serve as a transfer point for transcontinental and intercontinental travelers.

TRB's report included a conceptual diagram showing 16 remote transfer airports ringing the U.S. coasts and punctuating its center, linked by high-speed ground transportation lines.

Superhubs

Another concept is the superhub. The Airport Operators Council International describes it as a mega-wayport, with terminals scaled to handle 20,000 passengers and 30,000 pieces of luggage in peak hours. Superhubs would be located



BOB MOESER

Wayports “would allow the airlines to enjoy the cost efficiencies offered by a hub-and-spoke operation while enabling them to bypass crowded airports and airspace.”

—Capt. Henry A. Duffy, ALPA President

in rural areas and would have mass transportation access systems for originating and departing passengers.

TRB—a unit of the National Research Council—urged that careful attention be paid to these concepts for new airports, as well as to methods of increasing capacity at existing facilities and developing high-speed intercity ground transportation. “The next step,” the TRB report said, should be a detailed analysis of all these measures “to determine their feasibility, identify priorities, and provide a framework that will help guide development of the airport network through the middle of the 21st century.”

Proposed loan fund

Some don’t want to wait for these studies. Rep. J. Roy Rowland (D-Ga.) has introduced in the House of Representatives a bill that would establish a federal

revolving loan fund, using money in the Airport and Airways Trust Fund, to build four to six wayports on sites recommended by a special commission. The House Aviation Subcommittee is to hold hearings on it this fall.

A Texas businessman wants to build a wayport 60 miles north of Dallas, and a Swiss company has proposed forming an international consortium to build wayports in the United States and Europe.

The Reason Foundation says wayports “provide an ideal opportunity to test the idea of airports as for-profit enterprises” able to “generate operating revenues from market-based landing fees and from passenger facility charges.” The foundation working paper acknowledges that these “fees might have to be somewhat larger than those of competing hubs, to offset the lack of some concessionaire revenues. On the

other hand, a wayport would have much lower land-acquisition costs and might be able to develop significantly greater concession revenues for on-premises shopping complexes.”

Consortium backing

Kevin King, vice-president of The King Interests, a Houston company that develops cargo and other airport facilities, says he would “absolutely” be interested in building and operating wayports, but the estimated \$1 billion cost would probably be too much of an investment for any single company. He says he would be interested in discussing a consortium with Lockheed Air Terminal, Inc., or other private firms with experience in the business.

A number of small communities are eager to become wayport sites. Midland, Texas, wants to expand its airport into a transfer hub, saying it could accommodate an eight-runway, 300-gate complex. Authorities in Mississippi, Alabama, Kentucky, and Florida are looking into building wayports in their states.

FAA does not have an official position on wayports “because we have not yet been able to collect enough expertise and analyses to develop a position on

whether wayports will indeed make a contribution to the capacity of the national airport system," states Quentin S. Taylor, the agency's deputy associate administrator for airports. "We have put together a panel of rather deep and broad thinkers" to study wayports, remote transfer airports, and superhubs, Taylor says. In the meantime, FAA officials have ordered Sheppard to stop talking up his wayports idea in public.

Wayport funding

Asked whether the wayports concept makes sense to him, Taylor replies, "At the moment, no." He doubts that airlines would back airports with no base of local traffic. Noting that passengers who stay in the airport don't park or rent cars, Taylor says this major source of airport funding would not exist at transfer airports.

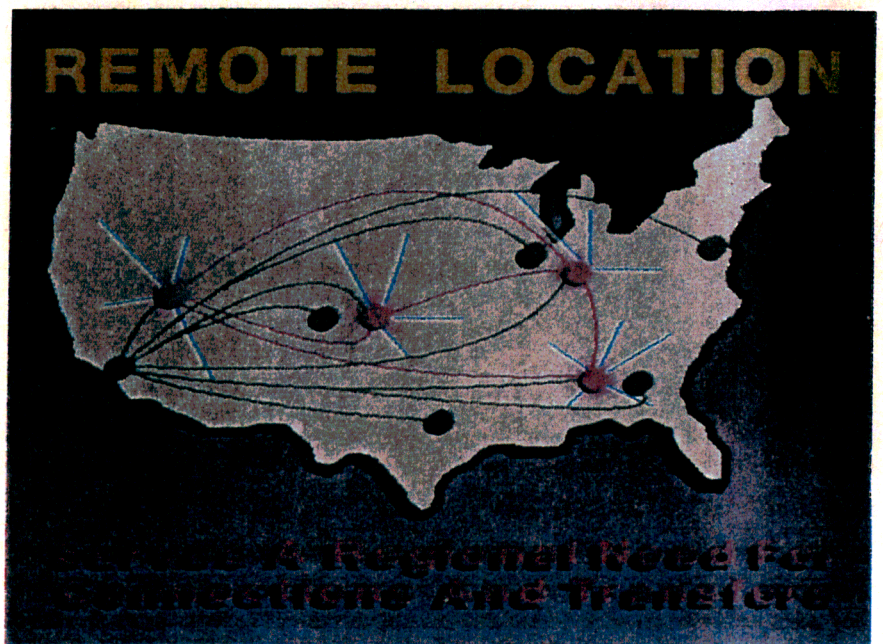
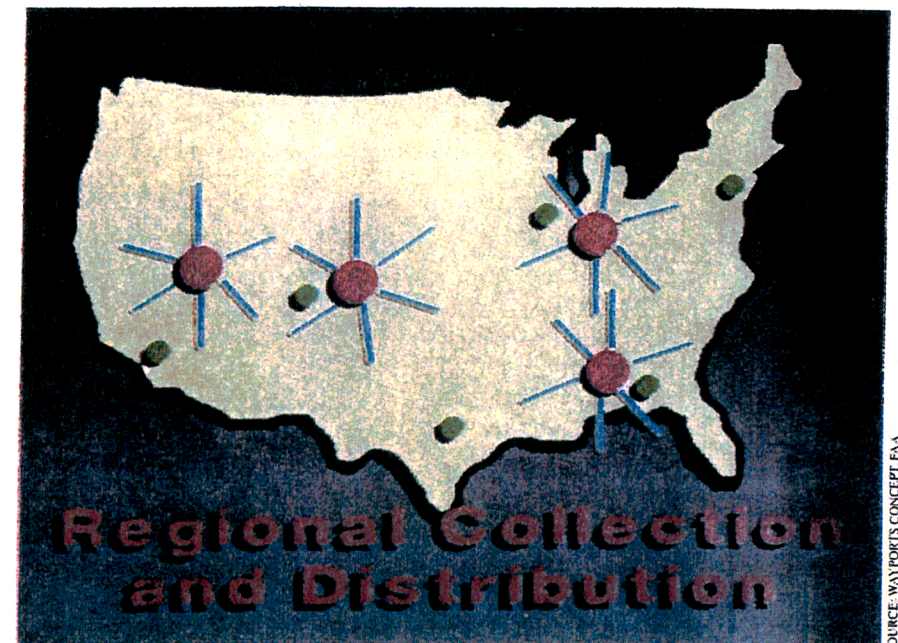
And, Taylor adds, "if a transfer airport works efficiently, the passengers won't have time to shop for T-shirts and teddy bears," so revenue from terminal concessions would also be minimal. Without these traditional sources of income, airports would have to charge higher landing and space rental fees, which airlines would not want to pay.

Taylor does not think private funding for wayports would be realistic because they "may or may not be self-sustaining." Therefore, he says, "I don't have the slightest idea" where the billions necessary to build these wayports would come from.

Taylor believes that Congress will not take money out of the Aviation Trust Fund surplus for them. He believes "it would be a shame" if the limited funding in the present Airport Improvement Program (AIP) was diverted from essential projects at existing airports to these new developments.

If the House and Senate decide to back wayport construction, Taylor says, "I hope Congress finds it in the national interest to provide new money" rather than "drain the AIP program and starve the rest of the country."

Taylor also has questions about how new wayports in rural areas would be developed and operated. Sheppard, Rowland, and others have suggested creating new regional authorities, but the FAA veteran wonders whether they would have the degree of sophistication needed



Top: Wayports would get aviation out of high-density metropolitan areas. Site locations and numbers shown are for illustrative purposes. **Below:** Green dots are existing airports, while green lines show a West Coast to East Coast pattern. Red lines show possible mass transit links between wayports, and blue lines show regional distribution.

to handle these huge, complex projects.

Communities with successful transfer airports, like Chicago, could be expected to try to block establishing competing wayports in their states, Taylor added.

Airlines, which don't want to publicly oppose as attractive an idea as wayports,

have ignored the concept or have said it should be studied. The Air Transport Association is also in favor of more analysis. AOCI is actually moving forward with a detailed study of all aspects of the proposals.

FAA's airports section, Taylor says,

This is why FAA opposes wayports. Fear

SOURCE: WAYPORTS CONCEPT, FAA

wants to coordinate all these study efforts with its own study, through its Office of Programs and Plans. It will seek the views of responsible organizations to "make sure we have as much input as we can get." The FAA study panel—which introduces Sheppard—will also "look at the role of the new Denver airport, a proposed third Chicago airport, and additions to existing airports," Taylor says. He is "delighted," he adds, that the wayport concept has "captured people's imagination and focused attention" on the need to find more airport capacity.

Taylor and ALPA's O'Brien agree that plenty of additional capacity already exists in the United States. Runways that are available on military bases slated for closing could be taken over by civilian authorities. O'Brien points out.

Many airports—including those in Columbia, South Carolina; Columbus, Ohio; Tulsa; Omaha; and Birmingham, Alabama—have unused capacity and are eager for more airline traffic. Others, like those in Louisville, Albuquerque, and Nashville, have new facilities with plenty of room for additional flights.

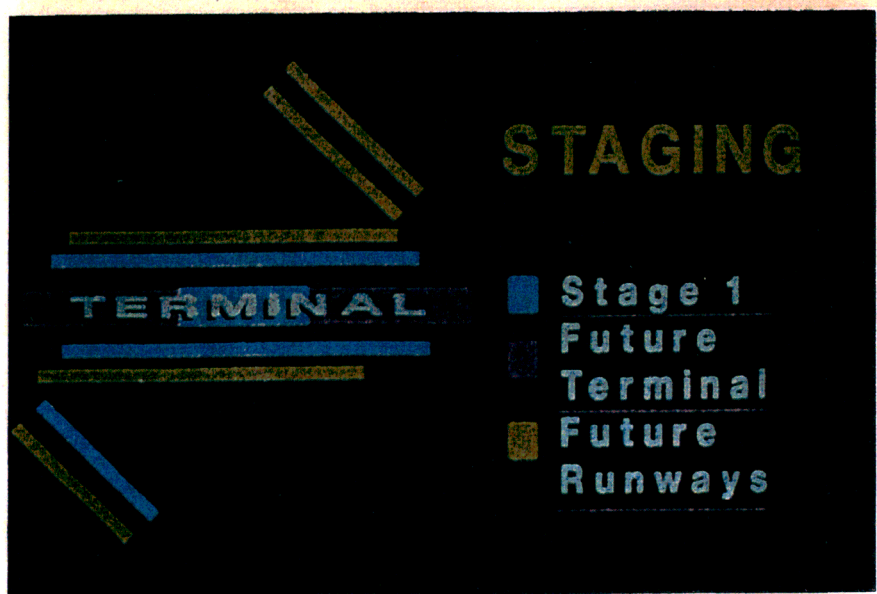
Nashville as model

Nashville, for instance, has a two-year-old, 25-gate terminal, which can easily be doubled in size. The airport is completing a third parallel air carrier runway. Now American Airlines' fourth-largest hub, Nashville International could support hub operations of other airlines as well, its director believes. It is located in relatively uncongested airspace and in a benign climate, Director William G. Moore, Jr., points out. "This airport has never been closed for ice and snow, and we don't ever intend that it's going to happen," he says firmly.

Asked whether Nashville could fill the wayport role, Moore replies, "Why not? Give me a billion dollars at this airport, and we will solve our noise problems and put in as many runways as we need."

Airports like Nashville could indeed become the wayports of the next decade, Taylor believes. "I think Congress may, after study, decide not to support new wayports but to use existing facilities. Many airports in this country have a lot of capacity. Why not use it?"

"Ultimately," the FAA official thinks,



Top: Wayports would be to the airport system what interstates are to the highway system. City congestion caused by heavy vehicular traffic was relieved by the building of bypass highways, resulting in the interstate highway system. **Below:** Wayport configuration would develop in stages as demand increases. Overall wayport size could be 23 to 25 square miles.

"the United States will have a mix of solutions to the capacity problem, including additions to present airports, new ones like those planned for Denver and Austin, and perhaps a wayport or two or three or four, if the airlines will support them." He adds that additional capacity will be created by advances in technology such as traffic alert and collision avoidance systems, advanced automation, microwave landing systems, larger

and quieter aircraft, tilt-rotor planes, control of wake vortices, better cockpit displays, lowered separation, and "perhaps new, more efficient airport designs.

"No single solution called wayports or any other thing is going to solve our problem," says Taylor. ✈

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