Report: U.S. aviation needs overhaul

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WASHINGTON (AP) -- Major improvements to aircraft are needed for the U.S. air transportation system to get where it needs to go in the next 35 years, according to a report by the National Research Council.

The whole system, in fact, needs an overhaul if it is to meet a doubling of demand for air transportation, said the report, released Tuesday.

Cleaner, quieter aircraft are keys to increasing the system's capacity, the report said. Otherwise, it said, public objections to the noise and pollution caused by airplanes will limit airport growth.

The council recommended investments in improved aircraft design and new propulsion technologies, such as hydrogen fuel and advanced fuel cells.

"Business as usual, in the form of continued, evolutionary improvements to existing technologies, aircraft, air traffic control systems and operational concepts, is unlikely to meet the needs for air transportation that will emerge over the next 25 to 50 years," said the report, which was sponsored by the National Aeronautics and Space Administration and the Federal Aviation Administration.

Steve van Beek, spokesman for Airports Council International, said the airport advocacy group agreed with the report's conclusions.

"We have fought a long and sometimes lonely battle for higher standards to promote quieter aircraft," said van Beek.

Other kinds of aircraft that could contribute to a more efficient air transportation system include supersonic business jets; giant flying wings for carrying cargo; and aircraft that can take off and land vertically without runways, the report said.

Consumer satisfaction
The report said the United States ignores an important goal for civil aeronautics that Europe recognizes: satisfaction of consumer needs.

"This could be a major oversight, given the large role that consumer demand for low cost and convenience (e.g., frequent departures) plays in business decisions made by industry," the report said.

Another flaw in the U.S. vision for aviation is that it doesn't aim to continue its dominance of the aeronautics industry, while Europe is intent on overtaking the United States, the report said.

The report, written by representatives of industry, academia and the government, notes that a group named by the European Commission set forth a vision for European aviation in the year 2020. Among its goals was primacy of the European

aeronautics industry, a supersonic aircraft that would carry 1,200 passengers and an air traffic system that would set the world standard for efficiency.

"They have a strategy, and we don't," said John Hansman, director of the International Center for Air Transportation at the Massachusetts Institute of Technology, who reviewed the research council's report.

The report noted that satisfying security requirements will become more difficult in the future. The authors didn't delve into the problem, though, because they felt other people are taking a hard look at aviation security, said Alan Angleman, the council's study director.

The report said problems with the air traffic system should be dealt with by manufacturers, airlines, pilots, passengers and government agencies, working together.

The government recently acknowledged the need for a unified approach to aviation policy by establishing a joint office led by Transportation Secretary Norman Mineta and involving the FAA, NASA and the departments of Commerce, Defense and Homeland Security.

"The council raises valid questions and the Transportation Department and FAA are applying the same foresight to answer the question of what a future aerospace system might be," said FAA spokesman Greg Martin.

The Research Council is part of the National Academies, which advise the government on science, technology and health policy.