

Essay on air traffic control - nextgen

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NEXTGEN is the appellation of a newly introduced National Airspace System that is due to be implemented in the United States between the years of 2012 to the year 2025. The Federal Aviation Administration is responsible for the implementation and administering of this service.

The main reason for the introduction of NextGen is that it would aid the decongestion of the American Airspace via use of improved GPS technology satellites to aid in the shortening of travel routes. It is responsible for the replacement of the National Airspace system due to the transformation in the name, that is to say, The Next Generation Air Transport System (NextGen).

The NextGen project is the United States Federal Aviation Administration's initiative. The major airports where the installation and the implementation of this project have taken place include the famous New York's JFK airport, the Dallas/Fort Worth International Airport (DFW). The Boston airport implementation of the management system has also been cost effective. Other installations due are to be made on airports in Miami, San Francisco, Denver and Los Angeles, where there will be a demonstration phase for installation and implementation of the equipment. The collaboration entails a number of corporations, joint government and industry groups. These include Radio Technical Commission for Aeronautics (RTCA), Aircraft Owners and Pilots Association, The Boeing Company, Air Line Pilots Association, Air Transport Association of America, Department of Defense and other airline international Corporations.

The system has already been built and a beta test demonstration of the software management system has been done on the various ground areas as

mentioned above. The system was installed on a pre-existing system and the outcome has so far saved on costs. The Automatic dependent Surveillance-broadcast, the System Wide information Management System, the Network enabled Weather, and the Data communications system are currently running in the various major airline airports in the US. The implementation of well integrated artificialintelligence due to mutual interdependence with other systems is due to be done by the year 2025 on worldwidemajor airports.

The first element introduced by the corporation is the Automatic dependent Surveillance-broadcast which uses GPS satellite to assist pilots and air traffic controllers with information that safeguard aircrafts. The time frame for completion of the project started in 2012 and well due to be completed in the year 2025. Other elements provided by the system would include the NextGen Network enabled weather which would reduce most flight groundings due to bad weather.

The project is well on track for implementation with installation and implementation on various airline systems around the US already done, except for minor unpredictable financial hitches. The delays in the acquisition of funding and finance pose a major threat to the already on-going implantation process, which has already made some progress. There is a potential budget reduction expectation on the project would slow down its long term implementation phase, but the overall economic impact is that the project would aid in saving costs and reduce environmental pollution.

The safety of the airplanes has been increases and assured due to better weather condition management, better communication, navigation via rough

terrain and better air traffic control. The project implementation has so far proven fruitful with well reduction in carbon emissions, exemplified by a demonstration done in Boston that saw the great reduction in the CO₂ emissions by 50 tons and thus also saving over 5000 gallons of fuel. An earlier GAO report on conservational effects at airfields showed that the variations in airplane aeronautical pathways that will convoy NextGen struggles would disturb some populations that were beforehand unpretentious or slightly affected by airplane noise and expose them to increased and amplified noise intensities. These levels could trigger the need for environmental reviews, as well as raise community concerns. The US government via the congress Accountability Office and the Ministry of Transportation are responsible for funding the entire plan. The scope of the funding is estimated at approximately 63 billion US dollars for the entire project. This budget is subjected to a political approval budget process since the long term implementation and yearly funding will go a long way and via political channels for approval. The yearly is approximated at 6 billion dollars projecting 64 billion for the whole implementation.

NextGen is a part of the ICAO, i. e., International Civil Aviation Organization. There were wrangles and issues between NextGen and the international body, the International Civil Aviation Organization (ICAO), regarding carbon emissions during the year 2010, but the issues were resolved.

The policies underlying the use of the NextGen system is that it will be implemented in the world wide airport systems and area to ease integration between the different geographical location and the international system. An instance is its current introduction into the European scenario which is taking

effect positively. The only hindrance for an international grid implementation is that they face challenges regarding cultural and organizational issues with foreign carriers. So far Europe is the first foreign carrier under effecting the NextGen system on their air traffic modernization scheme.

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