

# Case study on the u.s. federal aviation administration's airport planning ; capac...

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## Case Study on the U.

S. Federal Aviation Administration's Airport Planning ; Capacity Department and its importance in the Aviation Industry Module: Operations and Quality Management (MGT 6383) Year: 2012 Executive Summary The Airport Planning and Capacity is a department of the U. S. Federal Aviation Administration (FAA) which is the National Aviation Authority of the United States. The FAA has the authority to monitor and regulate all aspects of civil aviation in the United States.

The Airport Planning and Capacity office plays a major role in the FAA due to the increasing number of airplane users in the United States.

The National Airspace system of the United States has become increasingly congested over time, thus, imposing additional costs of delay on passengers and the region. The various continuous problems being generated in the national airspace system of the U. S. is not only a difficult challenge for the Airport Planning and Capacity department, but also one that would require an advanced level of critical thinking from an operational perspective, for the days that lie ahead for the National Airspace system.

## Contents

Airport Planning and Capacity is an important body of the FAA. Airport Planning ensures the long-term maintenance of the individual facilities and the entire system as a whole.

Airport planning can include a wide variety of studies that included - airport facility planning, air capacity and system planning, environmental studies <https://assignbuster.com/case-study-on-the-us-federal-aviation-administrations-airport-planning-capacity-department-and-its-importance-in-the-aviation-industry/>

and more. (WSDOT, 2011) According to the Washington State Department of Transportation Aviation Division (WSDOT Aviation) it is generally recognized that there are three primary levels at which airport planning can be performed or segmented into: Strategic-Level - The strategic level examines the long-term structures and determines the effectiveness of the various structures in terms of its ability to identify goals and objectives.

Tactical-Level - This level deals with the short-term and medium-term courses of actions that fit into the overall strategic plans and goals Project-Level - The project-level identifies a defined aspect of a tactical plan and also determine the optimum manner required to execute that aspect into a project form.

Airport planning can be an extremely complex process. This is because an airport covers a wide range of activities that often have different and sometimes, conflicting requirements. Also, there are multiple industries, federal and international regulations and best management practices that are commonly employed to tackle such issues.

Federal Aviation Administration (FAA) The Federal Aviation Administration (FAA) was founded in August 23, 1958 by the Federal Aviation Act of 1958. It is an agency of the United States Department of Transportation. The FAA is given the authority to monitor and regulate all aspects of civil aviation in the United States.

Some of the major roles of the FAA are: ? ? ? ? The regulation of United States commercial space transportation The regulation of the air navigation facility's geometry and flight inspection standards Development of civil <https://assignbuster.com/case-study-on-the-us-federal-aviation-administrations-airport-planning-capacity-department-and-its-importance-in-the-aviation-industry/>

aeronautics including new aviation technology Issuing, suspending or revoking pilot certificates 1 ? ? ? Monitoring civil aviation for the promotion of safety, especially through local offices cal Flight Standards District Offices Developing and Operating a system of air traffic control and navigation for both civil and military aircraft Conducting research and development for the National Airspace System and civil aeronautics Developing and carrying out programs to control aircraft noise and other environmental effects involved in civil aviation (FAA, 2008)

According to FAA's website, their mission and vision states that it is FAA's continuing mission to provide the safest, most efficient aerospace system in the world and that they strive to reach the next level of safety, efficiency, environmental responsibility and global leadership. The FAA is also accountable to the American public and their stakeholders as stated in their website. The FAA is made up of various departments which include the Airport Planning and Capacity department.

Some of departments in the FAA are - The Aircraft Certification Offices (ACO), Airports Regional Offices, Flight Standards District Offices (FSDO), Manufacturing and Inspection District Offices (MIDO), Aircraft Evaluation Groups (AEG), International Field Offices and Units (IFO) (IFU), Certificate Management Offices (CMO) and more. 2 The Importance of the Airport Planning and Capacity Department According to the FAA, the national airspace system will become increasingly congested over time, imposing costs of delay on passengers and regions.

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Many airports in the United States are or will become significantly congested in the coming years and the Regional Airport Planning has the potential to identify solutions for this issue. (GAO, 2009) Fig 1. 1 FAA Office of Airport Planning and Programming (Elliot Black, 2010) Such issues of congestion of the airspace system in the United States can lead to many problems in the transportation field of the nation. Capacity Needs In 2003, the FAA created a team to begin the Future Airport Capacity Task (FACT).

The team was led by the FAA's Airports organization (ARP) and consisted of representatives from the Air Traffic Organization (ATO) and the MITRE Corporation's Center for Advanced Aviation System Development (CAASD).

FACT is an assessment of the future capacity of the Nation's airports 3 and metropolitan areas. Its goal is to determine which airports and metropolitan areas have the greatest need for additional capacity. By embarking on this initiative, the FAA wanted to assure that the long-term capacity of the U. S. aviation system matched forecasts of demand.

(The MITRE Corporation, 2007) The National Plan of Integrated Airport Systems (NPIAS) It is an inventory of the United States Aviation Infrastructure Assets. It is developed and maintained by the FAA. The NPIAS identifies all the airports in the U. S. that are considered to be the significant components of the national aviation infrastructure network.

It also regulates the quality of the current state of development, technology, and maintenance at each of these airports.

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The NPIAS estimates the necessary funding required, bringing each of the airports up to a current standard of design, technology, and capacity. Also, the airports in the NPIAS are eligible for Federal grants from the Airport Improvement Program. (FAA, 2008) The NPIAS consists of all the commercial service airports, all the reliever airports, and the selected general aviation airports. Airport Improvement Program (AIP) The Airport Improvement Program (AIP) is a United States federal grant program. The AIP provides funds to airports to help improve safety and efficiency.

The various improvement projects are related to runways, taxiways, ramps, lighting, signage, weather stations, NAVAIDs, land acquisition, and some areas of planning. The funds are raised through taxes on airplane tickets sold to the public and a tax on the aviation fuel. (Frank Thomas, 2009) Factors Affecting the FAA's AIP Funding Decisions The FAA's AIP program to raise funds for the improvement of the national airports is faced with many challenges, especially during the raising of funds for its program. Some of the factors affecting the AIP funding decisions are as follows: ? ? The availability of funds Specific type of AIP funding requested State of readiness 4 ? ? ? ? ? ? Priority of the proposed project compared to the other projects within the same timeframe Location of proposed project Type of project (e. g.

new, expansion, standards, etc. ) Timing of proposed project Type of proposed facility (e. g. runway, taxiway, apron, drainage, etc. ) Size of the Airport (i. e.

types and volume of aviation activity). (Elliot Black, 2010) Fig 1. 2 Airport Improvement Program (AIP). (Elliot Black, 2010) Challenges Faced by Airports in Planning

The FAA's Airport Planning and Capacity department is faced with challenges in airport planning that's needs to be tackled strategically and frequently in order to maintain the standards of the Airports in the United States. Some of the challenges faced are as follows - ? ? ? ? ? ? Fluctuation of demand Accommodating peak demands Lengthy processes to plan, design, finance and construct High cost of construction Preservation of flexibility for changing user needs Need to align planning, environmental and financial issues.

(Elliot Black, 2010) 5 Conclusion

The FAA overall is faced with multiple challenges in the fast-growing air travel industry. Due to cheaper air travel and high population growth, the number of problems faced in the airports is increasing ten-folds every year, with congestion being on top of the list. In my opinion, the Airport Planning and Capacity department would need far more assistance and increased government funding in order to capacitate the issues faced by the airports in the United States. In 2010, the Airport Planning and Capacity department introduced the Sustainable Master Plan Pilot Program.

The intention of this program is to make sustainability a core objective in airport planning. This pilot program involves the funding of long-range planning documents at airports throughout the United States.

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These documents, called Sustainable Master Plans and Sustainable Management Plans, includes initiatives for reducing environmental impacts, achieving economic benefits, and increasing integration with local communities. Such initiatives brought by the department are ways that would help in the better development of the FAA's plans and goals in achieving a safe, secured and advanced air-travel in the United States.

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