

Chapter 1 Study Design and Objective

1.1 Introduction

The Connecticut Statewide Airport System Plan (CSASP) documents existing conditions at Connecticut airports and identifies what is necessary to meet current and future air transportation needs in order to establish a viable, balanced and integrated system of airports. This plan is reviewed and updated periodically by the Connecticut Department of Transportation. This CSASP is an update of the plan completed in 1986. The process includes identifying goals, collecting inventory data and formulating forecasts. This information is evaluated to develop recommendations for better use and improvements to the system to meet the needs of all users and to formulate a strategic plan. The CSASP establishes a suggested role, generalized developmental requirements, and timing of development for the individual airports within the state. This provides the framework for detailed airport master planning. It is important for the CSASP to look to the future, as funding and approval processes can be quite lengthy. The CSASP has been reviewed by the FAA, ConnDOT, individual airport managers and the general public.

1.2 Purpose and Need

As part of an overall transportation network, airports play a critical role. They provide access to regional, national and international markets for travelers and cargo. In addition to providing access to these markets, airports attract industry and generate jobs and revenue, resulting in positive economic impacts to surrounding communities.

The purpose of this update to the CSASP is to review state aviation policy and practices, to provide ongoing, adequate operation and maintenance of Connecticut's airports and to recommend modifications to the airport system to meet existing and projected aviation needs. This will ensure that Connecticut's airports continue to serve the state's residents and businesses in the most efficient and cost effective manner possible. The CSASP is prepared reflecting established policy, the existing system of airports, forecasted requirements, social, environmental and financial constraints, as well as public comment.

The previous CSASP was published in 1986. Significant changes have occurred in Connecticut's aviation system and funding policies since that time. Although recommendations of that system plan have been implemented, a number of new challenges have surfaced which need to be addressed.

1.3 Summary of Changes Since the Last Plan

State owned and municipal airports that provide air carrier service have generally experienced a decline in activity since the last system plan was published, with the exception of Bradley International Airport (BDL). BDL has seen substantial gains in air carrier operations.

General aviation has undergone great changes since the last CSASP was published and these changes have effected local airports. While several Connecticut airports have experienced growth, especially in serving the corporate sector, others have closed or appear to be in danger of closing.

Although airports that are not open for use by the general public, known as restricted landing areas (RLAs), are not eligible for public funding, they are subject to state policies and regulations and share airspace and transportation function with the public facilities. Heliports are the largest element of this group. Because there are so many heliports in the State, this plan does not include them. It is however recognized that they are important contributors to air transportation, primarily for corporate, medical and military flight training purposes. A review of the heliports in the State would have to be considered for a separate study.

1.4 Goals of this CSASP

The goals that have been set for the 2005 CSASP are:

- ➔ *Provide a safe and efficient air transportation system for Connecticut.*
- ➔ *Provide and maintain a statewide aviation system which addresses the needs of all aviation users.*
- ➔ *Improve and refine existing policies to determine which aviation initiatives should receive support for funding and implementation.*
- ➔ *Continue efforts to develop Bradley International Airport as a world class facility.*
- ➔ *Continue efforts to support all public use airports in the State.*

1.5 Airport System Planning

Airport system planning at the state level lies between the Federal Aviation Administration's (FAA) national planning as documented in the National Plan for Integrated Airport Systems (NPIAS) and individual airport master planning. The CSASP feeds information up to the NPIAS and down to the individual airports. The NPIAS is submitted to Congress in accordance with Section 47103 of Title 49 of United States Code. The NPIAS identifies 3,344¹ existing airports that are considered by the FAA to be significant to air transportation in the United States and its possessions. The NPIAS divides airports into categories that reflect their sizes and roles. The categories identified are Commercial Service, Reliever, and General Aviation Airports. The amount of federal funding an airport receives is governed by its category. Federal funds used to implement some of the recommended improvements are from the Airport Improvement Program (AIP) which is funded from airport user fees. For an airport to be eligible for AIP funds

¹ "National Plan of Integrated Airport Systems" (2005 - 2009)

it must be included in the NPIAS and be publicly owned or designated as a reliever airport. Connecticut has 15 airports included in the NPIAS. Eleven of these are eligible for federal funding, 10 are publicly owned and 1 is designated as a reliever. One airport closed in 2004 and the remaining 3 are privately owned open to the public, general aviation airports not eligible for federal funding.

The CSASP evaluates air transportation facilities and services that are available to the public to determine the safest, most efficient, cost effective manner of operation. The airport development included in a state plan should not be limited to those items of development eligible for Federal financial aid. State system plans typically have longer planning horizons than the NPIAS. Even if a project is recommended in a state airport system plan it must also be included in an airport master plan and be shown on an FAA approved Airport Layout Plan before it can be eligible for Federal funding. It may also be necessary to complete an environmental review process in accordance with the National Environmental Policy Act, depending on the proposed improvement. State system plans establish a suggested role, generalized developmental requirements, and timing of development for the individual airports within the state. This provides the framework for detailed airport master planning. Most airports have their own Airport Master Plan designed to identify the specific issues relevant to that airport. It also provides planning guidelines for future development of the airport over a twenty year period.

Due to the nature of aviation travel, political boundaries have little effect on pilots and aircraft. State plans should consider areas beyond their boundaries when required to determine demand projections and facility impacts. This CSASP considers influential airports in the surrounding states of New York, Massachusetts and Rhode Island.

1.6 The Connecticut System

1.6.1 Historical Overview

Connecticut was the first state to recognize aviation as a legitimate transportation mode and lay the regulatory groundwork for what would become the federal code of regulations governing air travel. Beginning in 1911, with the enactment of a statute entitled "An Act Concerning the Registration, Numbering and Use of Airships, and the Licensing of Operators Thereof", Connecticut established itself as the leader in civilian aviation in this country and the world. Other firsts include the first licensed airport and the first municipal airport. The origin of Pratt and Whitney, the premier engine manufacturing company in the world for most of the twentieth century, began in a small shop behind Capitol Avenue in Hartford. Following the lead of the federal governments establishment of the United States Department of Transportation in 1966, Connecticut combined several modal departments into the Connecticut Department of Transportation (ConnDOT) in 1970 to develop a unified transportation system to effectively manage the State's transportation resources. Within the ConnDOT, state airports are managed by the

Bureau of Aviation and Ports with long-term aviation planning services provided by the Bureau of Policy and Planning.

The first system plan, "Master Plan for Connecticut Airports" was completed in 1962. The plan evaluated the need for a regional airport in South Central Connecticut and analyzed the general aviation needs in Connecticut. It proposed the development of five new general aviation airports. Of these, only the Waterbury-Oxford Airport was actually constructed.

A second statewide aviation plan, "Airport Facilities Plan for the State of Connecticut", was completed in 1969. It indicated that Visual Flight Rule (VFR) airports complimented the facilities and services of other nearby airports. The study also anticipated that airlines would operate larger aircraft with higher load factors (percentage of seats filled with paying passengers) and that vertical/short takeoff and landing (VSTOL) aircraft would become increasingly popular. For largely economic reasons, VSTOL ports never materialized as the public system originally envisioned, but private heliports became more numerous than all other landing areas combined. Another important recommendation in the 1969 plan was a major new airport for southeastern Connecticut. Located between the New York and Boston airports, it would provide a full range of domestic and international passenger service and also serve as an intermodal cargo facility. The proposed airport would include a planned industrial park and extensive buffer zones. Although the buffer zones were to be managed open space, opponents of the proposal criticized the scope of the project and, in spite of some legislative support, the project was never carried forward. At about the same time, Bradley Field, as it was then named, was pursuing a program of adjacent land acquisition in preparation for significant expansion. This program was ultimately abandoned when opponents of expansion succeeded in making changes to the state statutes requiring legislative approval for any land acquisition for airports. The State made an effort to expand the aviation system in 1975 with an attempt to acquire Mountain Meadow (then known as Johnnycake) Airport in Burlington and Harwinton. Opponents of the acquisition told local residents that the state planned to operate large jets there and thus succeeded in galvanizing strong opposition to the plan. The last quarter of the twentieth century saw most sponsors of small commercial service and general aviation airports in Connecticut and other populated areas of the country attempting to sustain what facilities they had rather than expand.

The third Connecticut State Airport System Plan was completed in 1986. Recommendations in that plan included, the expeditious reconstruction of I-91 between Hartford and Springfield, elimination of property taxes on aircraft, increase and improve commercial service at Groton-New London, Tweed and Sikorski airports and establish a unit to educate people concerning operations, zoning, and noise at airports. It was also important to update the optimistic forecasts from the previous plan done in 1969. The energy shortage of the 1970's, the recession in the 1980's and the deregulation of the airline industry significantly effected those forecasts.

Growing public resistance to the expansion of the transportation infrastructure is considered by many as having a negative impact on the economic viability of the northeastern United States, including Connecticut. When the New England Governors met in December of 2000, the focus was the increasing failure of the transportation network to support a growing economy. The Governors resolved to re-establish the New England Regional Transportation Coordinating Council to oversee, guide, and implement regional policy initiatives. This Council would be supported by dedicated federal funding. The governors further agreed that the New England transportation agencies, along with the Federal Aviation Administration, would evaluate ways to increase domestic and international air service at the regional airports and increase non-scheduled charter service and air cargo activity at the regional airports. This is being done in the New England Regional Aviation System Plan (NERASP) which is expected to be completed in 2006.

In 2001 Boston's Logan Airport ranked 10th among the most significantly delayed airports in the country with 17.7% of scheduled flights canceled, diverted or arriving at least 15 minutes after the scheduled arrival time.² This can have ramifications on BDL, the second busiest air carrier airport in New England. If Logan were to get more congested or have longer flight delays some people might decide to use BDL. Benefits to travelers could include lower ticket prices, fewer delays, less vehicular traffic congestion with easier access, and more affordable parking. These conditions and other possibilities are considered by airport planners when evaluating what may be necessary in planning for the future of Connecticut's airports.

To discuss transportation concerns impacting the State of Connecticut, the Governor, Speaker of the House of Representatives and President Pro Tempore of the State convened a Transportation Summit in September 2000. The summit resulted in the establishment of a fifteen member Interim Transportation Strategy Board. This Board reviewed the issues discussed at the Summit and other appropriate material. They submitted a report to the Governor and Legislative Leadership on January 31, 2001 on how to develop and implement a Transportation Strategy for the State of Connecticut.

In response to that report, Public Act 01-5 of the June 2001 Special Session, An Act Implementing the Recommendations of the Transportation Strategy Board was passed by the Connecticut General Assembly and signed into law by the governor. This act created a permanent fifteen member Connecticut Transportation Strategy Board (TSB). This Board is charged with looking at all modes of transportation, including air. They submitted an initial transportation strategy and preliminary cost projections on January 15, 2002. On January 6, 2003, the TSB submitted its Action Plan to the governor and the legislative body. The TSB is required to update/revise its strategy recommendations every two years hereafter. In accordance with state statute, in July 2004, the TSB submitted a report entitled "TSB Status Report: July 2004" to the Governor and the legislative leadership that outlined TSB activities undertaken during the 2003-2004 fiscal year.

² "Pocket Guide to Transportation 2005" – USDOT Bureau of Transportation Statistics

To assist in the development of this plan Transportation Investment Areas (TIAs) were formed within the five major transportation corridors in Connecticut. Each TIA provided the TSB with information on the transportation challenges and opportunities in their region. Each of the five TIAs submitted first an Initial Corridor Plan then a Full TIA Corridor Plan.

Five specific Working Groups were also established to research and analyze its topic and make recommendations to the TSB who in turn makes recommendations to the Connecticut General Assembly. The Working Group topics were Movement of People, Movement of Goods, Funding and Finance, Evaluations, Land Use and Economic Development. Each Working Group was given a set of specific questions and asked that the answers be incorporated in their Groups final report.

The TSB made recommendations to help strengthen and expand the State's transportation system over the next 20 years. Some of the recommendations that pertain to Bradley include, strengthen it as the State's major commercial airport for both passenger and cargo, provide funds for comprehensive marketing, and evaluate mass transit services to Bradley from major cities. Some of their other aviation related recommendations include, continued support to all of Connecticut's state owned airports, evaluation of this CSASP, address clear zone issues, and establish landbanking to mitigate the environmental impact of airport development. Their recommendations concerning Tweed-New Haven airport include supporting its ability to serve the needs of business travelers in Southern Connecticut, supporting State ownership and management of Tweed, and supporting the implementation of safety improvements described in Tweed's Master Plan. They have also included estimated costs for implementation of their recommendations³. The entire plan entitled Transportation: A Strategic Investment, can be found on the TSB website.

1.6.2 Overview of this Connecticut Statewide Airport System Plan

The Connecticut airport system is comprised of 153 landing areas that are licensed by the State and/or FAA according to their role or function. The landing areas open to the public are licensed as Commercial and those not open to the public are licensed as Restricted Landing Areas (RLAs) operating under the conditions specified in the licensing approval. Of the 10 publicly owned airports, 6 are owned by the state and 4 by municipalities. There are 13 privately owned, open to the public airports, one includes a seaplane base. Any Connecticut airport open to the public will accommodate helicopters. There are an additional 32 airports, 6 seaplane bases and 92 heliports that are for private use only. The CSASP concentrates mainly on the airports that are open to the public. All of these facilities provide a vital but varied contribution to the transportation system in Connecticut and an economic benefit for the communities they serve.

This CSASP is divided into 8 Chapters. Chapter 1 is the Study Design and Objective. It contains the introduction, purpose and need, summary of changes since the last plan,

³ "Transportation: A Strategic Investment" – Action Plan of the TSB

goals, an overview of airport system planning, the history of Connecticut's system plans, security and economic issues and a brief description of each chapter of the plan.

Chapter 2, Inventory of System Airports, provides an account of the States aviation resources. For each state, municipal and privately owned open to the public airport there is a brief description of the existing facilities and services, location, access and ownership of the airport, zoning and existing land use, and the potential constraints that have been identified. Also included for each airport is the Airport Reference Code (ARC), Runway Safety Areas, Class of Airspace, and Service Area. Recent master plans prepared for each facility have been used to the maximum extent possible in updating the system inventory. Also described is the Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS) service level and the role for airports included in that plan. There is also a brief discussion of the public use airports that have closed since the previous system plan and the Restricted Landing Area Airports (RLAs). Realizing that political boundaries don't effect pilots and aircraft, the state plan also looks at influential airports from surrounding states, such as Westchester County Airport, NY and T.F. Green Airport, RI.

Chapter 3, Statewide Forecasts, provides an estimate of future conditions that are an essential component of any significant planning exercise. This is done by examining historic data, and national and regional trends to determine what the future demands are expected to be. The forecaster must be aware of the relevance and accuracy of past data, and the possibility of significant unforeseen factors, such as the act of terrorism on September 11, 2001, that may necessitate adjustments to make forecasts valid.

The Capacity/Demand Analysis section, Chapter 4, reviews the ability of each airport to accommodate the number of projected aircraft operations, enplanements and based aircraft during the planning period. This chapter makes use of the operational forecasts represented in Chapter 3 of this CSASP. When planning the state aviation system for the next twenty years it is important to determine the demand and capacity associated with this system. This demand and capacity relationship identifies a service level for the airports in the system, and the service level needed to be acceptable by both the system users and operators.

Chapter 5, Funding, describes the funding available to keep our airports operating safely and to make necessary improvements. FAA provides funding through the Airport Improvement Program (AIP). This chapter describes what projects are eligible and how the money is divided. Also discussed is the current federal funding reauthorization bill and state sources of funding.

Chapter 6, The State of the Airport System in Connecticut, will look at how the system would handle the projected increases in aviation use. As well as look at certain scenarios to determine how the system would function with possible changes, such as the closing of a small airport. Where would the based aircraft and aircraft operations go and what effect would this have on other airports.

Chapter 7 makes recommendations to meet current and future needs, based on capital improvement projects, as well as those projects necessary to meet FAA design standards.

Connecticut airports serve a wide range of activities for many different purposes including those for private pilots, public safety, corporate flights, cargo operations, and travelers for both business and pleasure. Most people benefit from these services, therefore, the development and growth of these airports should be supported.

1.6.3 Economic and Security Issues

The terrorist attacks of September 11, 2001 and the subsequent economic downturn have affected the aviation industry in many ways. In 2004 the airline industry as a whole is expected to lose money.⁴ These difficult times have caused some airlines to declare bankruptcy, others to reorganize and cut back on flights and services while trying to remain in business. To address this the federal government has given the airlines access to billions of dollars in short-term financial assistance. Even with this assistance airlines continue to make changes and adjust to the shifting conditions. It is not anticipated that airlines will realize a return to profitability until 2006 at the earliest.⁵ The low cost/no frills air carriers, such as Southwest, seem to be having success during these difficult economic times.⁶

Because forecasts are prepared for this CSASP, the effects of September 11, 2001 are critical when determining projected aviation demand. A forecast provides an estimate of anticipated future conditions. It assumes that something can be known about the future by understanding the past. But a tragedy of the magnitude experienced on September 11th was never anticipated. No one can be certain how long it will take to recover to previous passenger enplanement levels but the number of passengers taking to the sky is rising.

Changes in security have had a dramatic effect on the airline industry as well. As a result of the terrorist attacks of September 11, 2001 security has been increased to its most stringent ever. This is a necessary but costly change. Federal monies provided to implement security mandates do not cover the full cost of implementation. To compound this issue security screening measures have created delays at airports. These delays cost airlines money and inconvenience travelers. When the traveling public is inconvenienced they often look for other modes of transportation or decide not to travel. As the public and the screeners become more accustomed to the new security procedures delays have decreased and travelers are returning to flying. This issue has taxed the airlines heavily.

⁴ Issue Brief for Congress – Transportation Issues in the 108th Congress, updated February 24, 2003

⁵ "2005 Economic Report, New Thinking For a New Century" - Air Transport Association

⁶ Ibid