

# INTRODUCTION

A master plan provides an evaluation of an airport's aviation demand and an overview of the systematic development that will best meet those demands. The master plan establishes development objectives and provides for a 20-year planning period that details the rationale for various study elements, including airfield configuration, facility development, on-airport land use recommendations, and support facilities. It also serves as a strategic tool for establishing airport improvement priorities and justifying the need for federal and state funding assistance.

Corpus Christi International Airport (CCIA [locally identified] or CRP [officially designated by the International Air Transport Association]) serves the City of Corpus Christi and the greater Coastal Bend region as a commercial service and general aviation airport. It was opened in 1960, is owned by the City of Corpus Christi, and is operated daily by a professional aviation staff employed by the city. It is further supported by an advisory board. The Airport Board advises the City Council concerning matters relating to the aviation interests of the City of Corpus Christi and the operation of the Corpus Christi International Airport facilities for the promotion of those interests. It is comprised of ten (10) members appointed by the City Council and members serve three-year, staggered terms. The Airport Board also includes the chief executive officers of Visit Corpus Christi and the Corpus Christi Regional Economic Development Corporation as non-voting, ex-officio members.

The airport is operated via the Mission Statement:

*"To serve our community by supporting economic growth as we connect business and leisure travelers to the world."*

Following its mission statement, the governance of CCIA is strategically guided to achieve by the following Vision Statement:

*"To be the first choice in airports for the Greater Corpus Christi Area and Coastal Bend Region."*

The airport is part of a larger state and nationwide system of airports that comprise the National Airspace System, connecting people and goods to larger economic markets. The city and airport staff recognize the value the airport brings to the community and greater Coastal Bend region, and this update to the master plan is evidence of this. With a sound and realistic development plan in place, CCIA can maintain and grow in its role as an important link to the regional, state, and national air transportation systems.

## ABOUT THE STUDY

### WHAT IS A MASTER PLAN?

The Federal Aviation Administration (FAA) recommends that airports update their master plans every seven to 10 years, or as necessary, to address local changes at the airport. The last master plan for CCIA was completed in 2006. The preparation of this master plan is necessary as a timely reassessment of the development direction of CCIA to meet the needs of the Coastal Bend region population, economy, and an ever-changing air transportation industry. The airport sponsor (City of Corpus Christi) received an Airport Improvement Program (AIP) grant from the FAA to update the airport master plan.

The City of Corpus Christi is responsible for funding capital improvements at the airport, as well as obtaining AIP and FAA development grants. In addition, airport officials oversee facility enhancements and infrastructure development conducted by private entities at the airport. **The airport master plan is intended to provide a true vision for how CCIA is developed, guidance for future development, and justification for projects** for which the airport may receive funding through an updated capital improvement plan (CIP) to demonstrate the future investment required by CCIA, as well as the FAA.

An airport master plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements. This is done to ensure that airport officials can coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is a recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed, on-airport land use concept that outlines specific uses for all areas of airport property, including strategies for revenue enhancement.

The preparation of this master plan is evidence that those responsible of the advancement of CCIA recognize the importance of the airport and the associated challenges inherent in providing for its unique operation and improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits to the local community. With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, national, and global air transportation system. Moreover, the plan will aid in supporting decisions for directing limited and valuable resources for future airport development.

**Figure iA** summarizes what a master plan is and what it is not.

### An Airport Master Plan is:

- ✓ A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand.
- ✓ Required by the FAA to be conducted every 7-10 years to ensure plans are up-to-date and reflect current conditions and FAA regulations. The last Master Plan was completed in 2006.
- ✓ Funded by the FAA through the Airport Improvement Program (AIP) or through TxDOT's Aeronautics group. This study is being 91.06% funded by AIP, with the remainder funded equally between TxDOT and the City of Corpus Christi.
- ✓ A local document that will ultimately be presented for approval from City of Corpus Christi. The FAA approves only two elements of the Master Plan, the Aviation Demand Forecasts and the Airport Layout Plan (ALP) drawing set.
- ✓ An opportunity for airport stakeholders and the general public to engage with airport staff on issues related to the airport and its current and future operations, and environmental and socioeconomic impacts. Three (3) public information workshops will be conducted throughout the Master Plan process to facilitate this public outreach effort.

### An Airport Master Plan is not:

- ✗ A guarantee that the airport will proceed with any planned projects. Master Plans are guides that help airport staff plan for future airport development; however, the need/demand for certain projects may not ever materialize.
- ✗ A guarantee that the City of Corpus Christi, TxDOT, or the FAA will fund any planned projects. Project funding is considered on a project-by-project basis requiring appropriate need and demand. Certain projects may require the completion of a benefit-cost analysis.
- ✗ Environmental clearance for any planned projects. The Master Plan includes an environmental overview that identifies potential environmental sensitivities per the National Environmental Policy Act of 1969 (NEPA); however, most planned projects will require a separate NEPA study (Environmental Impact Statement/Environmental Assessment/Categorical Exclusion) prior to construction.

Figure iA: Master Plan Definition

## WHO IS PREPARING THE MASTER PLAN?

Through a qualifications-based selection process, the City of Corpus Christi has contracted with Coffman Associates, Inc., to prepare the master plan. Coffman Associates is an airport planning and consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team, with support from a team of subconsultants.

Garver Engineers will assist with a variety of tasks, including inventory, general engineering consulting, electrical evaluation, estimations of probable project costs, and will attend coordination meetings. A feasibility study and associated forecast of air cargo will be completed by HubPoint Strategic Advisors. Applied Pavement Technologies will conduct a pavement management plan, including looking at existing pavement conditions and recommendations of future maintenance. The airport terminal building will be analyzed for future improvement opportunities by specialized architectural firm Alliance. DKMG Consulting will provide financial analysis. Martinez Geospatial will provide airport mapping and aerial surveying services. Parkhill will offer consulting services related to property development opportunities, including non-aviation development options. KCS Public Relations will be handling public outreach.

The airport master plan will be prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13B, *Airport Design* and AC 150/5070-6B, *Airport Master Plans* (as amended). The plan will be closely coordinated with CCIA, the City of Corpus Christi, the FAA, and other local and regional agencies, as appropriate, while accounting for other relevant planning studies.

## STUDY GOALS AND OBJECTIVES

The primary goal of this master plan is to develop and maintain a financially feasible, long-term development program that will satisfy aviation demand of the region; be compatible with community development, other transportation modes, and the environment; and enhance employment and revenue for the regional area. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility. **Figure iB** summarizes the objectives of this master plan.

MASTER PLAN OBJECTIVES	
<ul style="list-style-type: none"> <li>• <b>DEVELOP</b> strategic planning goals and objectives to be followed as guide posts during the master planning process.</li> <li>• <b>RESEARCH</b> factors likely to affect air transportation demand segments in the greater Coastal Bend region over the next 20 years</li> <li>• <b>DETERMINE</b> the airport's current and future critical design aircraft</li> <li>• <b>ANALYZE</b> the airport's existing airfield system to determine if any deficiencies exist and correct areas of non-standard geometry</li> <li>• <b>EVALUATE</b> highest and best uses of airport property for aeronautical development, including hangar expansion and maintenance facilities</li> </ul>	<ul style="list-style-type: none"> <li>• <b>EVALUATE</b> the potential for expanding commercial air service operations including passenger and cargo opportunities and options for facility growth to house them appropriately</li> <li>• <b>CONSIDER</b> options for non-aeronautical development that could produce additional revenue streams for the airport</li> <li>• <b>DEVELOP</b> a phased, demand-based 20-year capital improvement plan</li> <li>• <b>PRODUCE</b> an updated airport layout plan drawing set, detailing future airside and landside development</li> <li>• <b>REVIEW</b> future use and zoning of airport property, instrument approach areas, and nearby developments to ensure flight safety and land use compatibility is maintained</li> </ul>

*Figure iB: Objectives of a Master Plan*

## BASELINE ASSUMPTIONS

A long-range planning study requires several baseline assumptions that will be used throughout this analysis. The baseline assumptions for this study are as follows:

- CCIA will continue to accommodate commercial air carriers and general aviation tenants, as well as operations by air taxi and military operators.
- The aviation industry will develop through the planning period as projected by the FAA. Specific changes in national aviation industries are described in Chapter Two: Aviation Demand Forecasts.
- The socioeconomic characteristics of the region will generally change as forecast (Chapter Two).
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.



## MASTER PLAN ELEMENTS AND PROCESS

The airport master plan includes eight elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Figure iC** provides a graphical depiction of the process involved with this study.

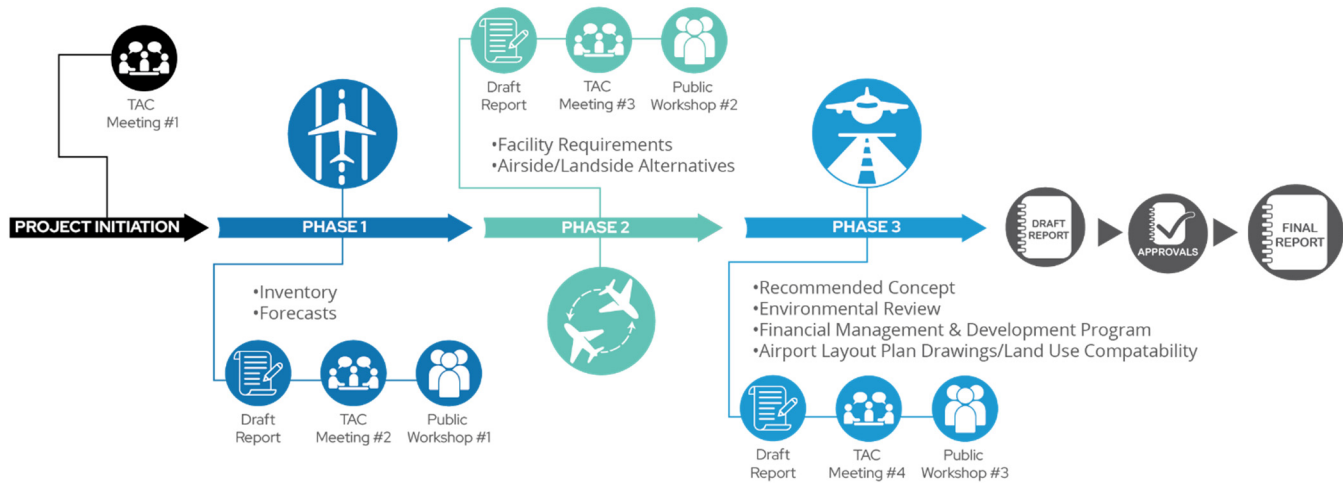


Figure iC: Master Plan Study Process

**Element 1 – Initiation** includes the development of the scope of services, schedule, and study website. Study materials will be assembled in a workbook format. General background information will be established that includes outlining the goals and objectives to be accomplished during the master plan.

**Element 2 – Inventory** is focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing facilities and operations. Local economic and demographic data is collected to define the local growth trends, and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies that may have relevance to the master plan are also collected.

**Element 3 – Aviation Demand Forecasts** examine the potential aviation demand at CCIA. The analysis utilizes local socioeconomic information, as well as national air transportation trends, to quantify the levels of aviation activity that can be reasonably expected to occur over a 20-year period. An existing and ultimate critical design aircraft, based upon AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, is also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demand at the airport through the planning period.

**Element 4 – Facility Requirements** determine the available capacities of various facilities at the airport, whether they conform to FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or projected 20-year demand.

**Element 5 – Airport Development Alternatives** considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development.

**Element 6 – Airport Plans/Land Use Compatibility** involves coordination with airport staff and the planning advisory committee, and will result in the selection of a recommended development concept. Airport layout plans will be developed to depict the recommended development concept. The drawings will meet the FAA’s Standard Operating Procedure (SOP), *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)*, effective October 1, 2013. The updated ALP set will be included as an appendix to this master plan. The airport’s noise exposure and land use compatibility will also be evaluated. An environmental overview will identify any potential environmental concerns that must be addressed prior to the implementation of the recommended development plan.

**Element 7 – Financial Management and Development Program** analyzes the costs that may be associated with the development plan, with in-depth financial analysis to estimate capital funds required from federal and state grant-in-aid programs. A 20-year capital improvement program and development schedule that prioritizes projects will be established.

**Element 8 – Final Reports and Approvals** will include production of the draft final report and ALP drawings in print and digital form. These materials will be presented to the City of Corpus Christi and the FAA for review and approval. Once approved, a final report will be prepared and made available in print and digital formats.

## COORDINATION AND OUTREACH

This study is of interest to many within the local community and region, including local citizens, local businesses, community organizations, city officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, CCIA is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a technical advisory committee (TAC) has been established to act in an advisory role. TAC members will meet four times at designated points during the study to review draft materials and provide comments to help ensure that a realistic, viable plan is developed.

Draft working papers and exhibits will also be prepared at various milestones in the planning process. The working paper process allows for timely input and review during each step within the master plan to ensure that all issues are fully addressed as the recommended program develops.

A series of three open-house public information workshops will be held as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan. Notices of meeting times and locations will be advertised through various local media outlets and on social media. All draft working papers, reports, meeting notices, and materials will also be made available to the public on a study-specific website: (<https://cciapathto2050.airportstudy.net/>).

## SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that are/could positively and negatively impact that action, object, or element in a given environment. A SWOT analysis was conducted at the first TAC meeting, the findings of which are presented on **Exhibit iA**.

<div>S</div> <div>STRENGTHS</div>	<ul style="list-style-type: none"> <li>• CCIA has two runways and is very capable of serving a wide range of aircraft, including large jets and military aircraft</li> <li>• Enplanements have been increasing</li> <li>• Good ground transportation network with uncongested highways</li> <li>• Airport is easy to use/navigate; very accessible for travelers</li> <li>• Texas is growing, which can lead to growth in Corpus Christi and at CCIA</li> <li>• Airport has room for expansion of facilities</li> <li>• Airport leadership is engaged and proactive</li> <li>• CRP has national airline service</li> <li>• Corpus Christi area has high-paying jobs and good employment opportunities</li> <li>• Coordinated zoning process; CCIA is always a consideration during city planning processes</li> <li>• Positive industry growth in area</li> <li>• Airport traffic control tower (ATCT)</li> <li>• CCIA does not have a noise issue</li> </ul>
<div>W</div> <div>WEAKNESSES</div>	<ul style="list-style-type: none"> <li>• Electric infrastructure is aging; lack of loop system</li> <li>• Local transit system is lacking at CCIA with no bus service</li> <li>• CCIA is a destination airport (not a feeder airport) so experiences fewer enplanements</li> <li>• Lack of variety in destinations</li> <li>• Regional competition from SAT results in leakage</li> <li>• Bureaucracy</li> <li>• Cost per enplanement is high</li> <li>• Community misconceptions about critical infrastructure and necessity of airport; lack of education about airport and its value</li> </ul>
<div>O</div> <div>OPPORTUNITIES</div>	<ul style="list-style-type: none"> <li>• Advanced air mobility (AAM) and unmanned aircraft system (UAS) development; space available at CCIA for growth in these areas</li> <li>• Intermodal; increased cargo operations</li> <li>• Hydrogen technology; hydrogen line located on-airport</li> <li>• CCIA serves as a support facility during natural disasters</li> </ul>
<div>T</div> <div>THREATS</div>	<ul style="list-style-type: none"> <li>• Carbon-neutral by 2050; challenges to achieving this</li> <li>• Pilot shortage</li> <li>• Terrorist threats</li> <li>• Natural disasters</li> <li>• AAM/UAS and questions regarding airspace and security</li> <li>• Lack of or reduced air service</li> <li>• Lack of deicing facilities results in limitations during winter weather conditions</li> </ul>