





AIRPORT MASTER PLAN

for

**LAS CRUCES INTERNATIONAL AIRPORT
Las Cruces, New Mexico**

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CHAPTER ONE: INTRODUCTION

1-1 INTRODUCTION

An Airport Master Plan is a comprehensive study of an airport that describes short-, medium-, and long-term development plans to meet future aviation demand. The elements of the master planning process will vary in the level of detail and complexity depending upon the size, function, and problems of the individual airport. The LRU MP guides and reinforces the continued modernization and expansion of the Airport and presents a framework to cost-effectively satisfy aviation demand while considering the potential environmental and socioeconomic impacts.

The Federal Aviation Administration (FAA) does not approve Master Plans, rather they accept them. However, the FAA does approve aviation forecasts and airport layout plans once they find them acceptable. The LRU MP will deliver an updated aviation forecast and an Airport Layout Plan. The Aviation forecast was submitted to the FAA approval prior to the development of Chapter Four, *Facility Needs*. The Airport Layout Plan was reviewed by the FAA as part of the master planning process and uploaded into the FAA Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) system. Once conditionally approved, projects identified will be eligible for FAA funding and may be constructed after proper environmental review.

1-2 PURPOSE AND NEED

The purpose and need statements set the stage for the identification and evaluation of reasonable project alternatives and ultimately the selection of preferred alternatives. It, in addition to the vision and goals of this Plan, are essential to the process of identifying future investments at LRU.

PURPOSE

The purpose of the Las Cruces International Airport Master Plan (LRU MP) is to recognize the significant accomplishments and changes that have taken place since the 2014 Airport Action Plan and develop a Master Plan that provides a clear path for making investments that further the Vision of LRU. To accomplish this, a detailed study will be completed that identifies, evaluates, and documents specific areas in need of improvement at the airport. Areas identified through the update process will then be addressed through proposed development plans.

NEED

Las Cruces International Airport (LRU) is uniquely located among and is home to some private and government sponsored aviation and aerospace activities. The Airport is also located between restricted airspace and along a major interstate, I-10, that stretches from the east coast to the west coast of the US. It is critical that investments be made to the infrastructure, facilities, and runways at LRU to achieve the City's goals of providing commercial air service out of LRU; attracting commercial aviation and aerospace businesses; supporting existing tenants; being the airport of choice for NMSU, locals, visitors, the Spaceport, and others; and providing additional economic development to the City of Las Cruces.



1-3 CHANGES SINCE THE 2014 AIRPORT ACTION PLAN

The implementation plan of the 2014 Airport Action Plan outlined projects to be accomplished and provided guidance on how to implement the preferred development recommendations from the Plan. Each project was sequenced to balance demand, schedule, other projects, environmental/agency approval, funding, and financial constraints. The project plan is designed to allow for flexibility as changes may occur over time to react to changing conditions so that the airport can re-prioritize projects based on actual demand. The implementation plan was divided into three phases with projects to be completed between 2017 and 2036. Out of the 26 projects identified, 10 have been completed and an additional 8 are moving forward at present. This Plan will evaluate the remaining projects and determine their status based on the direction provided.

AIR SERVICE

Air carrier service at LRU dates to 1948 when the first service was provided by Pioneer Airlines with flights to Amarillo and El Paso. However, the availability and extent of scheduled air carrier and commuter service has been sporadic for many years, and currently LRU does not have scheduled air service. Las Cruces City Council has expressed the desire to reestablish air service stating that by 2022 “the airport terminal will be renovated to accommodate 20,000 enplanements per year”. To achieve this goal, the airport began a concerted and strategic approach to reestablishing commercial passenger air service.

COMMERCIAL AEROSPACE

With 13 licensed Spaceports, 21 launch licenses in the US, and the growing commercial aerospace industry there exists unique opportunities for LRU to be an airport of multiple uses including the aerospace industry and its supporting businesses. LRU is in a prime location nestled between Spaceport America to the north (which houses Virgin Galactic, Up Aerospace, Exos Aerospace and others), Blue Origins to the southeast and the Midland Spaceport to the east. In addition to the private commercial aerospace industry, White Sands Missile Range, NASA, Holloman Air Force Base, and Fort Bliss are all located within approximately 60 miles of LRU. Their restricted airspace drives most of the air traffic in the southern part of the region over or near LRU attracting businesses and experts to the area.

COMMERCIAL AEROSPACE DEVELOPMENT

The primary objective of commercial aerospace development at LRU is to increase Las Cruces’ attractiveness as a home base for commercial aerospace companies. The metric of success is how many companies in the commercial aerospace industry relocate to, start up in, or are retained in the Las Cruces area and generate jobs, business activity, and tax revenue. Based on others’ experience, the ability of aerospace developers and operators to locate research and development activities on or near a flight line; conduct gradual and iterative test operations on site or in proximity; and have access to passenger air service are major factors in location decisions. This Master Plan will examine what measures might be taken to enable these capabilities and what the triggers are to activate the sequential elements (termed Phases in this document) of the Concept of Operations (ConOps) as discussed in the next section.



SPACEPORT AMERICA

The development of Spaceport America, an FAA-licensed spaceport located 45 miles north of Las Cruces, has made LRU a key element in considering how future international (and perhaps intergalactic) travelers will access future low earth orbit flights from the spaceport. When traffic to this futuristic facility reaches expectations, there will be a significant number of travelers and spaceport staff flying into the region prior to boarding spacecraft at the Spaceport. This anticipated future makes planning for the future of LRU facilities and the resumption of air service at this airport particularly important.



LAS CRUCES INNOVATION AND INDUSTRIAL PARK (LCIIP)

The Las Cruces Innovation and Industrial Park (LCIIP) is located adjacent to the airport to the south. Originally established in 1982, the Park comprises 1,820 acres with 1,418 acres undeveloped. Approximately 900 city-owned acres are available for sale or lease as of this writing. Zoned predominantly for manufacturing, warehousing, distribution, aerospace, aviation and defense, there are 19 businesses currently operating within the Park.

On July 19, 2021, the Las Cruces City Council unanimously adopted an updated master plan for the marketing and development of the City's Innovation and Industrial Park (LCIIP). Based on the strengths, opportunities, weaknesses, and constraints discovered as part of the LCIIP master planning process, a developed Strategic Goal is to integrate the LCIIP with the Airport. To do so, a high priority industry would be targeted for future development and that includes Aviation, Aerospace, and Defense (primarily Unmanned Aerial Systems (UAS)).

NEW MEXICO STATE UNIVERSITY

New Mexico State University (NMSU) is a public land-grant research university with its main campus in Las Cruces. Many of the 5,000 staff members travel on behalf of the University. Through its wide range of programs, including a highly respected Aerospace Engineering program, there are over 20,000 students enrolled with a high percentage of out of state students. NMSU brings significant potential for economic development. The ability to offer air service and have runways adequate to allow for larger aircraft, will encourage further use of the airport, allow for PSL and other businesses to grow, and allow for team athletics to fly into and out of LRU as noted below.



PHYSICAL SCIENCE LAB

Physical Science Lab (PSL) was the first of only 7 recognized Unmanned Aerial Test Site (UAS) Locations in the US designated by the FAA. PSL has a 15,000 square foot hangar at LRU and often tests their UAVs at the airport. Founded in 1946, PSL is a unique national resource that supports the development and application of new and existing technologies. This multi-disciplined organization provides expertise in sub-orbital platforms, information modeling for predictive decision making, specialized intelligence community support, advanced NASA scientific exploration and experimentation, homeland security sensing and detection technologies, and advanced weapons and countermeasures development and testing designed to strengthen our national security. PSL will provide additional economic development by attracting companies to work with the community.



ATHLETICS

According to NMSU, it is not uncommon for NMSU teams to drive and park at the airport, board ground transportation such as a bus to El Paso for an away game, and then return to Las Cruces via a chartered aircraft. This is due to the current runway lengths at LRU. Longer runways will enable NMSU to operate fully loaded charter aircraft without limitations. NMSU also stated that ultimately, scheduled commercial air service would be preferred allowing for competing players and the fan base to travel to and from Las Cruces without limitations.



1-4 REGIONAL PUBLIC PARTICIPATION / ENGAGEMENT

Public input is highly encouraged during the Master Plan process and has its greatest impact during the early stages of the planning process. The LRU MP included a robust public involvement program which was given serious consideration during the program development. To be as transparent and effective as possible, public involvement included numerous parties such as aircraft owners, hangar tenants, staff of the airport and businesses on airport property, public officials, governmental agencies, and the public.



Public involvement program was facilitated by DuBois & King in close consultation with the LRU Airport Advisory Board. The program included multiple strategies, such as forming the LRU MP Coordination Committee (CC) of key stakeholders, local citizens, and decision makers. The CC provided insight and input into issues that arose throughout the process, as well as provided general information.

Other public involvement elements that were utilized included public meetings and workshops, a project website, and various written materials. These elements were used to inform the public about the status of the airport and the planning process and gather ideas about the future of the airport. To date, local, county and state government, state and federal lawmakers, airport and civilian businesses, educational institutions, and the Federal Aviation Administration (FAA) have met with the Airport and discussed the prospects of the Master Plan Update.



1-5 LRU MASTER PLAN ELEMENTS

The required contents of this Master Plan are set out in FAA Advisory Circular 150/5070-6B, *Airport Master Plans*. Effective airport plans are based on the analysis of significant quantities of data and narrative that explains key study results. The LRU Master Plan is organized as follows:

Chapter One – Introduction: Overview, purpose, and need for the Master Plan.

Chapter Two – Inventory of Existing Facilities: Provides an inventory of facilities and conditions that currently exist at LRU. These baseline conditions allow evaluation of existing facility performance against anticipated future needs.

Chapter Three - Aviation Forecasts: Analyzes current and future airport activity at LRU. Forecasting provides an airport with a realistic estimate of future changes; fluctuations in activity anticipated over the forecast period; and the basis to determine existing and planned future facility needs.

Chapter Four – Facility Requirements: Identifies airside and landside facility requirements anticipated through the planning horizon based on industry standards and FAA guidelines. The capacity of existing facilities is assessed against aviation demand projections developed under Chapter Three. Supplemental analysis will include current and future Aerospace facilities.

Chapter Five – Alternatives: Process of developing alternative layouts for airside and landside facilities to meet growth projections and address Master Plan goals. The layouts are assessed for expected aeronautical utility, fiscal feasibility, and operational performance. A preferred alternative will be chosen during the development of this Chapter.

Chapter Six – Airport Layout Plan (ALP): Presents a selected alternative in a graphic format, essential to receiving FAA approval in accordance with the Fort Worth Region ALP checklist directives and uploaded into the OE/AAA system.

The ALP set contains the following sheets:

1. **Cover Sheet** - Listing of sheets that comprise the ALP set, location and vicinity maps, and City of Las Cruces, FAA and NMDOT project numbers.
2. **Existing Airport Layout** - A drawing depicting the current airport layout.
3. **Ultimate Airport Layout Plan** - Depicts the recommended development identified in Chapter Five and all pertinent data blocks.
4. **Terminal Area Plan** - Indicates existing conditions that support the current airport uses.
5. **Airport Airspace Plan** - Plan for all FAA Part 77 imaginary surfaces, including approach slopes and any height or slope protection established by local zoning ordinance.
6. **Inner Portion of the Approach Surface Drawing** - An inner approach surface and runway protection zone control including a plan and profile of the ultimate runway protection zones and inner approach surface areas showing the controlling obstructions therein, top elevations, and proposed disposition.

Chapter Seven – Financial/Implementation Plan: Capital and implementation plan that identifies potential funding sources and outlines the timing and cost of implementation.