Meeting Summary

Airport Master Plan
Gordon Municipal Airport (GRN)

Date: 1/21/2026
Time: 10:00 AM
Subject: Airport Master Plan Facility Requirements & Airside Alternatives
Facilitator: KLJ Engineering

Attendees: Kent Penney (KLJ) Brooke Barber (KLJ) Kevin Ensor (KLJ) Scott Fleming (Gordon City Manager) Glen Spaugh (Retired City Manager) Mark Krueger (Airport Board Chair) Mike Winter (Airport Board Member) Amanda Kehn (Gordon Memorial Health) Clark Thorsen (Farming & Ranch/ Local Pilot) Sadie Robb (FAA Planner)

Agenda Topics

A project meeting for the Airport Master Plan (AMP) of the Gordon Municipal Airport (GRN) was held on January 21st 2026 with members of the Planning Advisory Committee (PAC). The purpose of the meeting was to present an overview of the information collected during the airport inventory, review the aircraft operations and projected forecast, define the critical design aircraft, identify the facility needs discovered during the data collection and make a determination for the future airside layout.

Project Overview and Progress to Date
An overview of the project workflow associated with a standard Airport Master Plan was presented and progress to date was discussed. The following components have been completed:

- Ch. 1 Airport Overview
  - Environmental Inventory
  - Historical Aircraft Operations and Based Aircraft
  - Forecast of Future Airport Activity
  - Approval of Critical Design Aircraft (Received by FAA on Dec. 19, 2025)

- Ch. 2 Runways and Taxiways
  - Inventory of Runway/Taxiway system, lighting, conditions and safety areas
  - Evaluate Runway Approach and Part 77 Surfaces
  - Runway Length Analysis

- Aeronautical Survey is complete

- Property Research for Exhibit A is in process

Aircraft Operations and Design Aircraft

Aircraft operations refer to the total number of takeoffs and landings which take place at an airport. An airports operations are used to measure activity levels, which help determine future airport infrastructure and sizing needs. The key element to examine existing and forecast activity at the airport is to look at all operations which can be verified. Verified operations are those which can be confirmed using reliable, documented data sources, rather than estimates or assumptions. At GRN, verified operations consist of those measured through the FAA Traffic Flow Management System (TFMS) which tracks all operations conducted with instrument flight plans. This data does not capture operations conducted under visual flight rules, which are unable to be tracked unless measured by on site cameras or by records kept by operators including flight training, aerial applicators, maintenance facilities, etc.

The FAA has recently updated the guidance related to forecasting airport activity, and while a forecast is no longer required at an airport of GRN's size, KLJ performs a basic forecast based on local socioeconomic data and industry trends to estimate and appropriately plan for future needs. This could include hangar and apron space, runway and taxiway needs, land use and design standard upgrades based on the category of aircraft anticipated to use the airport in the future.

For Gordon Municipal Airport, the airport operations data resulted in the following:

- The baseline verified ops result in 1,402 operations, expected to grow at a compound annual growth rate of 1.13 percent to 1,778 by the end of the twenty-year planning period.

- Critical design aircraft of the A/B- II category was submitted to the FAA and approved on December 19th, 2025.

Wind and Weather Analysis

An evaluation of meteorological conditions at the airport was completed as part the airfield inventory. The intent of this analysis is to determine whether the existing and planned runway system provides adequate coverage for aircraft operations, given local wind and weather patterns. Information from the AWOS on site at GRN was used to determine the prevailing wind conditions. It was noted that while generally, ten years of historic data is preferred, the on-site AWOS at Gordon became operational in April 2017. As such, the analysis was completed with less than the recommended number of observations, however it is recommended to proceed with the on-site weather observations rather than utilize data from a neighboring station, due to differences in terrain and less accurate weather reporting.

For GRN, under all weather conditions, the existing wind coverage of the primary runway alone does not provide the recommended 95 percent wind coverage. When combined with the crosswind runway, coverage improves at all crosswind components including 10.5 kts, 13 kts and 16 kts. In order to maximize availability and usage of the runway system at GRN, several scenarios were ran showing improved instrument approach minimums to Runway 4/22 and a new instrument approach to Runway 11/29. Under the improved scenarios, an additional 3 days of usability would result from lowered approaches to Runway 4/22 and only 0.4 days per year would result from an additional approach to Runway 11/29. As such, lower minimums to Runway 4/22 will be recommended.

Runway Length Analysis

A Runway Length Analysis evaluates the amount of runway which is necessary to safely accommodate the takeoff and landing needs of the existing and forecasted aircraft fleet. Runway length is driven by several factors, including the elevation of the airport, temperature during hottest time of the year when performance capabilities of an aircraft are at their limit, and the runway gradient. Additionally, each specific aircraft has varying needs based on their performance capabilities and maximum takeoff weight restrictions.

A runway length analysis was performed using the FAA's current methodology found in FAA AC 150/5325-4B. At GRN the current overall design aircraft is small aircraft less than 12,500 pounds. Based on the operations data , a typical design aircraft fleet includes the Pilatus PC-12 operated by Gordon Memorial Health, as well as the Cessna 172 Skyhawk and a variety of ag spray aircraft, to include the Thrush 710P and the Air Tractor 502. The length of the primary Runway 4/22 is currently 5,196 feet and under the existing critical design aircraft fleet mix, this length is sufficient. The length of Runway 11/29 was also analyzed. At the existing length of 2,283 feet, the runway is shorter than what is recommended for the Cessna 172 under wet and dry conditions, with the greatest length being necessary measuring at 2,737 feet. However, this is only necessary when operating under the maximum performance conditions, when temperatures are warmest and aircraft takeoff weight is at capacity.

Discussion was had regarding whether an extension would be necessary, but it was noted that in these circumstances, operators combat the restrictions by adjusting the weight of their load, often times by taking on less fuel, or delaying their operation to a time when the temperature drops. Temperature has a direct impact on aircraft performance, as it affects air density. As air becomes less dense, i.e. rising temperatures, the engine produces less thrust, wings generate less lift and acceleration is slower. Overall, the runway length analysis was not significant enough to warrant extensions to either runway.

Overview of Part 77 and Approach/Departure Surfaces

In order for members of the PAC to better understand and interpret the airport exhibits presented in later portions of the report, an overview of the surfaces which encompass the runway and surrounding airspace, was discussed. This includes the 14 Code of Federal Regulations (CFR) Part 77 as well as the Runway Approach and Departure Surfaces. Essentially, these refer to a system of imaginary surfaces that extend outward and upwards from runways and spread into the surrounding airspace, at various slopes. These surfaces are intended to protect the airspace needed for the safe operation of aircraft in takeoff, landing and low flight. More detailed information regarding these surfaces can be found in **Appendix B: General Aviation Airports 101**, which can be accessed via the project website.

Crosswind Runway Alignment

It is understood that the existing crosswind runway 11/29 provides the recommended 95 percent wind coverage but is in need of a full-depth reconstruction. In an effort to enhance the usability of the runway system in crosswind conditions, it was explored whether a new alignment of the crosswind runway at the time of the reconstruction would provide enhanced coverage. A crosswind range was determined, which outlined the various headings which would still meet the recommended coverage, while avoiding impacts from surrounding residences.

Presentation of Airfield Alternatives

During the aeronautical survey, several obstructions to the Part 77 and Runway Approach surfaces of Runway 11/29 were identified. These obstructions are depicted by the figure in the presentation titled, "Existing Obstacles". In order to mitigate these obstructions, two scenarios were presented.

Option 1: Shorten Runway 11/29 to reduce the extent to which the Part 77 surfaces interfere with the identified obstacles. Runway 11 threshold would be reduced by 50 feet, while Runway 29 end would be reduced by 20 feet, for a resulting runway length of 2,212 feet.

Option 2: Realign Runway 11/29 to Runway 18/36 to avoid the identified obstacles. While this option does mitigate some of the known obstructions which are present in the runways current alignment, the new alignment proves to present a new set of penetrations.

Ultimately, the PAC elected to proceed with Option 1 as the preferred alternative.

Other Discussion Items

Throughout the meeting, questions were addressed and other topics discussed. The following briefly summarizes those items:

- Additional airside development items were discussed, including the existing Runway 22 turnaround , which is in poor condition. This will be addressed in the final airfield alternatives with the conversion of this area to a bypass taxiway turnaround. Ultimate development on the ALP would include a full-length parallel taxiway with 300' centerline separation.
- Discussion was had regarding additional scenarios to mitigate the Part 77 and Approach Surface obstructions to Runway 11/29. FAA comment indicates that displaced thresholds would likely not be allowable. Although a displaced threshold would allow the airport to retain the existing length to Runway 11/29, while altering the starting point of the critical surfaces and thereby mitigating the negative impacts; given that the runway is in need of a full reconstruction, rather than a rehabilitation, removable of the pavement all together would be preferred. This is in part due to the construction costs of the additional pavement as well as the necessary upkeep and maintenance that would be required.
- FAA reiterated that while the crosswind runway is in need of a reconstruction, federal funding is limited. Priority funding is granted to primary runways, leaving limited availability for crosswind runway projects. Consideration should be given to the conversion of the crosswind runway to a turf surface or adjusting the planning timeline for a full reconstruction in order to save funds over the course of several years. KLJ engineer Kevin Ensor commented that a potential solution, involving a reorganization of available funds and project priorities, is being explored as the airport develops their annual Capital Improvement Plan (CIP).
- A question was posed regarding the proposed instrument approach minimums to Runway 4/22, and why minimums could not be lowered below one mile. Lower than one mile requires the addition of a full-length parallel taxiway and also expands the dimensions of the runway approach surface, which would increase the number of obstacles that require serious mitigation.

Next Steps

The consultant team will complete the airside alternatives analysis utilizing the preferred alternative selected by the PAC and draft a preliminary exhibit to incorporate into Chapter 2-Runway and Taxiway System. Following this, landside development needs will be address, including terminal, apron and equipment needs, in Chapter 3-Terminal and Support Areas.