SUMMARY OF CONCLUSIONS

EVALUATION OF CONSEQUENCES OF DEFERRED TERMINAL INVESTMENT AT RDU

Objective: Describe anticipated consequences of deferring investment in and improvement of terminal facilities based on a qualitative review of master plan assumptions and analyses.

Step 1 in this process encompassed a review of current activity data and operational information and comparison of this information to comparable data compiled at the time of the master plan study (Vision 2040). The following information was compiled:

OPERATIONAL/ACTIVITY

- Activity comparison to master plan forecast (baseline and high): In 2019, there were 7.1 million enplaned passengers at the Airport. The baseline master plan forecast projected 5.4 million enplaned passengers by 2019, while the high scenario forecast projected 6.1 million enplaned passengers by 2019.
- First 5 years of Vision 2040 forecast revenue growth to be captured through a combination of higher passenger volumes and moderate fare growth. However, over this period, (2015-2019); revenue growth has been captured through higher than forecast passenger volumes, amid declining fares.
- Daily turns/gate (one turn is defined as an aircraft arrival and subsequent departure): Increased gate utilization intensity; daily turns/gate at Terminal 2 are anticipated to grow from 5.4 to 6.5 over next five years, which is approaching a practical industry threshold of gate utilization of approximately 7 to 8 daily turns/gate.
- Some relief at Terminal 2 to be realized with relocation of some airlines to renovated gates at Terminal 1 in Spring 2020.
- Activity peaking characteristics: peak periods experience higher activity for a more sustained period.
- Airline service: Service initiated by 2 new airlines (Spirit and Allegiant).
- Near term activity changes (identified by RDU): Multiple airlines (both legacy/mainline and ultra low-cost carriers) have indicated their intentions to continue to grow seat capacity at RDU through both new flights and increased aircraft size.
- Average aircraft size (seats per departure) has increased from 104 to 120 between 2015 and 2019.
- Peak period international arrivals exceeded design capacity of the Federal Inspection Services (FIS) facility at primary inspection and international baggage claim on 16 days in July and August 2019.

FACILITY CHANGES

Significant physical modifications to the terminal include modifications to Terminal 1 to accommodate additional aircraft operations and passenger activity and modifications to Terminal 2 to increase the passenger processing capacity (security screening and international arrivals).

- Terminal 1
    - Activation of four gates, with renovated holdrooms and expanded passenger circulation area
    - New baggage make-up room
    - New TSA checked baggage inspection screening area
    - New check-in counters and airline administrative (ticket office) space
- Terminal 2
    - Added new Global Entry kiosks, automated passport control kiosks, and mobile passport control (mobile app) passenger queue to supplement primary inspection (immigration)
    - Planned FIS primary inspection and international baggage claim area (three new baggage claim devices) expansion (requires closure of gate on Concourse C)
    - Expansion of Terminal 2 security screening checkpoint to 12 lanes (2 additional lanes). A further expansion to 14 lanes is under construction.
    - Increasing common use gate environment to provide flexibility for new entrants and growth of existing carrier operations

Step 2 entailed an exploration of the consequences of the identified operational and facility changes. The following assumptions were made in support of the assessment:

- All existing facilities (e.g., security screening checkpoints, ticket counters, international arrivals, etc.) are fully staffed and operated in an efficient manner.
- Planning is based on demand of the average day of the peak month (not peak day).
- Irregular operations are not considered.
- An airline will not be required to operate out of more than one terminal (staff, equipment, and facilities will not be divided between Terminals 1 and 2).

EVALUATION CONCLUSIONS

The following conclusions were reached:

- Passenger arrival time at RDU ahead of scheduled departure will increase in response to uncertainties in the time required to complete processing; overall building occupancy increases with the potential for overlapping holdroom occupancy.
- An additional checkpoint lane is required in Terminal 1 within 5 years (based on 20-minute maximum wait time for standard lanes and 5-minute maximum wait time for TSA PreCheck lanes).

- At least two checkpoint lanes will be required over the next 5 years to meet designated wait time goals at Terminal 2.
- Expansion of FIS primary inspection capacity is needed to efficiently process arriving international passengers; stacked arriving international flights may require holding of passengers on aircraft until FIS can accommodate demand.
- Expansion of international baggage claim capacity is required in the near term to provide baggage holding capacity to accommodate delays in passenger primary processing.
- Fleet evolution (increased aircraft size) has the potential to overload terminal holdroom capacity, leading to congestion, diminished level of service, and overflow into corridor (impacting concourse circulation); evolution of industry holdroom standards, reflecting changes in airline processes, highlight congestion conditions, particularly at concourse ends.
- Additional aircraft gates are required in the near-term as gate utilization is reaching practical limits; without additional gates off-gate aircraft hardstanding may be required, the ability to rebound from irregular operations (e.g., significant weather delays) will be constrained, and the recruitment of new air service may be impacted.
- Congestion, longer passenger processing wait times, and constrained availability of gates over time will impact the level of service experienced by passengers, airlines, and tenants.