

# T Transportation Committee

Business Item

Item:2008-282

Meeting date: October 13, 2008

Council meeting: October 22, 2008

|                                  |                                                                                                                                                                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date:</b>                     | October 8, 2008                                                                                                                                                                                                                                                                        |
| <b>Subject:</b>                  | Crystal Airport 2025 Long-term Comprehensive Plan Review                                                                                                                                                                                                                               |
| <b>District(s), Member(s):</b>   | Districts 1 – Scherer ,2 - Pistilli, 6 – Leppik, 7 - Meeks                                                                                                                                                                                                                             |
| <b>Policy/Legal Reference:</b>   | MS 473.145, 473.165, 473.621 Sd. 6&7                                                                                                                                                                                                                                                   |
| <b>Staff Prepared/Presented:</b> | Arlene McCarthy, Director MTS (651-602-1754)<br>Amy Vennewitz, Dep. Director Fin. Planning (651-602-1058)<br>Connie Kozlak, Mgr. Transportation Planning (651-602-1720)<br>Chauncey Case, Sr. Planner - MTS/Aviation (651-602-1724)<br>Jim Larsen, Senior Planner - LPA (651-602-1159) |
| <b>Division/Department:</b>      | Metropolitan Transportation Services                                                                                                                                                                                                                                                   |

## Proposed Action

That the Metropolitan Council:

- Determine that the Metropolitan Airport Commission's (MAC) Crystal Airport 2025 Long-term Comprehensive Plan (LTCP) is consistent with the Metropolitan Council's development guide.
- Recommend MAC establish a joint airport zoning board with Hennepin County and affected communities of New Hope, Crystal, Brooklyn Park, Brooklyn Center, and Robbinsdale in preparing an airport zoning ordinance as defined under state requirements and reflecting the airport's system role.
- Recommend amendment of the LTCP and review by the Council when parcels on airport property are developed for non-aviation uses.

**Background** Under MS 473.611 and MS 473.165 the Council reviews the individual LTCP's for each airport owned and operated by the Metropolitan Airports Commission (MAC). LTCP's are periodically updated, and must be consistent with the Council's metropolitan development guide. LTCP's are used as basic input to the Council's update of the regional aviation system plan.

**Rationale** The 2008 Update of the LTCP replaces the 1997 LTCP and moves the planning horizon to 2025. The MAC has adopted a preferred development alternative for the Crystal Airport that retains its system role as a *Minor* general aviation facility which is consistent with the TPP.

**Funding** This action has no funding implications for the Council.

**Known Support / Opposition** The LTCP development process included public involvement. Airport users support the preferred concept. The surrounding cities support the preferred concept but would eventually like the airport to be closed. The MAC responded to concerns raised by affected communities and general public prior to adopting the 2025 LTCP.

## CRYSTAL AIRPORT 2025 LTCP REVIEW

**Authority:** MS 473.611 indicates that any LTCP adopted by the Commission shall be consistent with the development guide of the Council; also, MS 473.165 states that if a plan or any part thereof is inconsistent with the guide the Council may direct the operation of the plan or such part thereof be indefinitely suspended.

**Background:** The Crystal Airport is located in the city limits of Crystal, Brooklyn Park and Brooklyn Center in northeastern Hennepin County, Figure 1-3. The airport opened originally as a private facility. The MAC acquired the airport in 1948. The airport is 436 acres in size, has three paved runways and one turf runway, 263 based aircraft, and had 53,583 operations conducted in 2007. It is classified as a *Minor* airport serving general aviation in the central and northwest metro area. A LTCP was prepared in 1994 but was not adopted by the MAC nor formally reviewed by the Council.

**Public Involvement:** Development of the Crystal Airport 2025 LTCP included two meetings with the adjacent community representatives, coordination with Hennepin County, two meetings with airport users, and one public informational meeting for residents living around the airport. A full draft LTCP, defining the preferred alternative, was made available for a 30-day public comment period. Responses were prepared and reviewed by the MAC prior to their adoption of the LTCP.

**Crystal Airport 2025 LTCP Proposal:** The LTCP update is a 20-year planning document, extending from 2005 to 2025. The LTCP serves as the basis for identifying needed projects, maintaining funding eligibility to meet state and federal financial and plan consistency requirements, and to ensure that projects are responsive to system needs and conditions. Several development alternatives were evaluated as part of the update process:

- No Build Alternative (keep all four existing runways)
- Maintain two parallel runways and close the two cross-wind runways
- Maintain just one primary runway
- Maintain one primary runway and one cross-wind runway (Preferred Alternative)
- Maintain two parallel runways and only one cross-wind runway
- Extend the primary runway 14L – 32R by 990 feet using declared distances
- Maintain one runway and reduce its length to 2,500 feet, and
- Airport closure

The preferred development plan is depicted in Figure ES-1.

### Existing Aviation Activity and Future Demand

Forecasts were completed for both aircraft operations and based aircraft. A baseline forecast (using 2005 as the base year) assumed reasonable growth in the economy, fuel costs, fractional ownership, new very light jets (VLJs) just coming on the market, and general aviation taxes and fees. In addition to the baseline forecast, high and low range forecasts were prepared. In the high forecasts, it was assumed that the economy thrives, VLJs are very successful and fractional ownership increases; the opposite assumptions were used for the low forecasts.

Aircraft operations for 2005 are estimated at 72,205. Baseline aircraft activity by 2025 is projected to be 115,730 annual operations, and 138,380 for the high forecast. The maximum number of operations the airport can handle, the annual service volume, is 355,000 operations. Therefore, from an airside standpoint, the airport is currently at 20 % capacity. Even under the high scenario, the forecasted number of operations in 2025 does not trigger the need for additional runways. The historical high for operations at Crystal Airport occurred in the mid-1960's with approximately 265,000 annual operations.

#### Existing Conditions and Future Airside Facility Needs

The existing primary runway 14L-32R at Crystal Airport is 3,263 feet which is shorter than most of the primary runways at the other system reliever airports. The existing runway length accommodates about 75% of the category BII aircraft types currently using the airport. The forecasts assume some VLJ operations will occur on the existing primary runway length. The same is assumed for jet aircraft operations.

#### Existing Conditions and Future Landside Facility Needs

The existing hangar space at the airport is 68 percent full. There are sufficient vacant spaces in the existing hangars to meet forecast demand. Aircraft based at Crystal airport currently number 263; the historical high number of based aircraft was in 1987 with 345 aircraft. The total capacity within existing hangars is estimated at 382 spaces. Any new or additional hangar space would be provided by private funding.

#### **Conformity with Aviation System Plan:**

The MAC used the Council's regional socio-economic data to prepare the aviation forecasts for the preferred development alternative. Under the preferred alternative the annual runway capacity drops to 230,000 operations, but based upon the aviation demand forecasts there is no need for additional runways at the airport. Closure of existing runways requires Legislative and FAA approval; it may also affect whether the FAA air traffic control tower remains. The closure scenario does not meet the needs of the existing system users. Cost for the preferred alternative is less than the costs involved in a closure scenario. The existing on-site weather monitoring/reporting system will enhance airport user safety. The preferred alternative would retain the non-precision runway approach capability and improve airport utilization. Crystal will retain its *Minor* airport system role as a reliever serving general aviation in the central and northwest portions of the region. The preferred development alternative maintains the airport, and is in conformance with the regional aviation system plan.

#### **Compatibility of Airport/Community Plans**

##### Environmental Considerations

1. Aircraft Noise - a 2005 noise contour was prepared for Crystal Airport, as well as a 2025 noise contour for the preferred alternative. Much of the future noise area is on the airport property or within areas that need to be controlled by the airport for safety reasons. The Council's land use compatibility guidelines for aircraft noise apply to community areas within the noise contours. The communities and the MAC should continue to coordinate their planning efforts concerning future land use changes and noise effects.
2. Sanitary Sewer and Water – adequate sewer and water services are available to the airport; changes due to implementation of non-aviation development should be included in any amendment to the LTCP.

3. Wetlands - there are wetlands in existence at the Crystal Airport and the reductions in runway impervious surfaces is potentially offset by increases in runoff from potential new on-airport development. Any of the concepts implemented at the airport will be studied closely to prevent wetland impacts. If wetlands are unavoidable, designs will be adjusted as much as possible to minimize impacts.

#### Land Use Considerations

1. Ground Access – the capacities of the roadways adjacent to the airport are adequate to handle projected traffic needs of the airport. There are no impacts concerning the Hennepin County 81 improvement project.
2. Parks – the preferred development alternative does not affect any regional parks or open space.
3. Airport Safety Zoning – there are several areas off-airport where runway safety zoning and airspace protection need to occur. The MAC, working with the affected communities should reconvene the joint zoning board and update the airport zoning ordinance. Application of the state airport safety zoning requirements should reflect the system role of the airport.
4. Non-Aviation Development – potential development of airport parcels for non-aviation use were identified during the LTCP process; these areas are outlined in green on fig ES-1. If this program is implemented, the LTCP should be amended and reviewed by the Council.

#### **Consistency with Council Policy:**

Operations are expected to grow at the Crystal Airport and aircraft types operating at the airport will not change due to two runways being closed. It was recommended that the primary runway be reconstructed in the short term to maintain its usability and to prevent the potential for debris damage to aircraft.

The preferred alternative recognizes the need to keep the airport viable, but within the area's ability to support the investments over time. The alternative preserves the safety and usability of the facility within its assigned system role. Environmental and land use considerations have been recognized and process for implementation addressed. The proposal appears to be consistent with metro systems in general and consistent specifically with aviation policies.

#### **Development Costs and Implementation of Preferred Alternative**

| Recommendation                                                 | Estimated Year for Completion | Estimated Cost |             |
|----------------------------------------------------------------|-------------------------------|----------------|-------------|
| Reconstruction of Runway 14L-32R                               | 2008                          | FAA funded     | \$1,800,000 |
| Reconstruction of the Runway 14R-32L pavement into a taxiway   | 2010                          | FAA funded     | \$1,000,000 |
| Removal of runway signs for the turf crosswind runway closure* | 2010                          | Local          | negligible  |

Source: MAC Approved 2008 Capital Improvement Program

\* Project currently not included in the MAC CIP.

# Airport Layout

Figure  
1-3

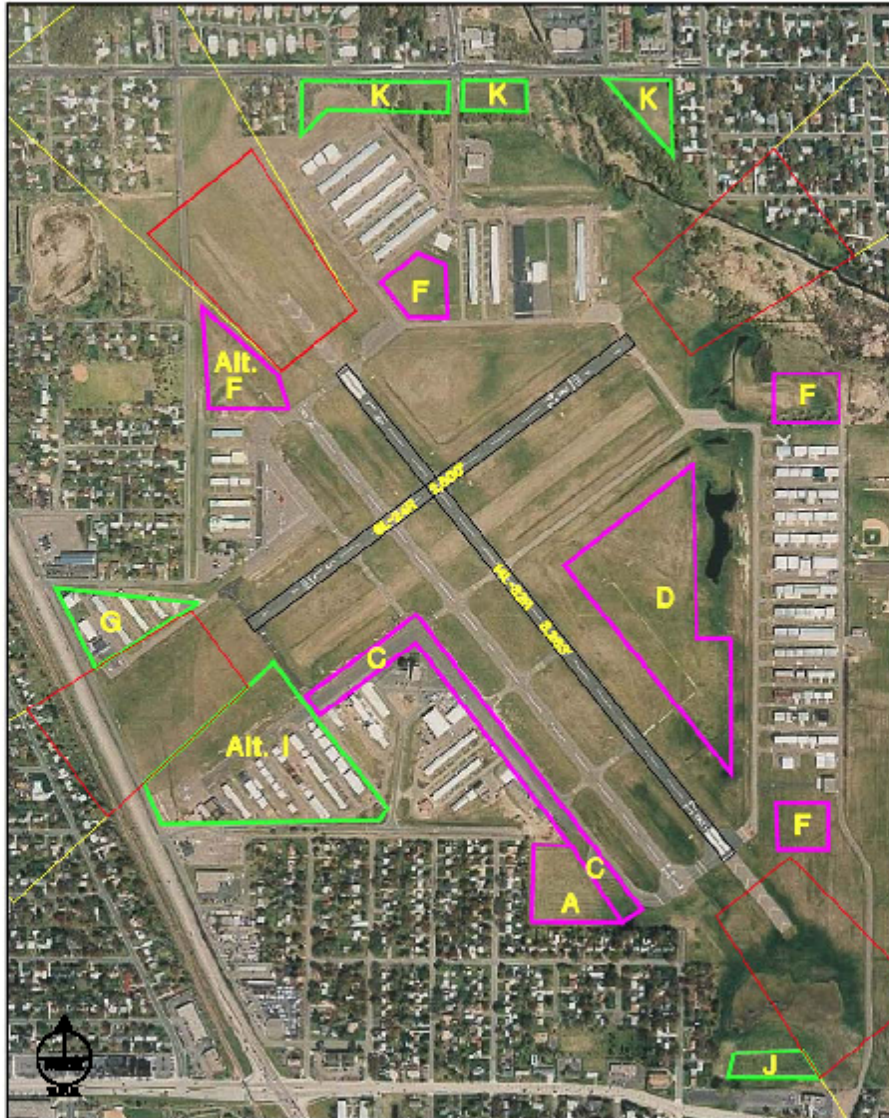


Crystal Airport (MIC)

0 0.5 1 Mile

## Preferred Alternative

**Figure  
ES-1**



**Crystal Airport (MIC)**

**Maintain One Primary and One Crosswind Runway**

Area (A), (C), (D), (F) and Alt. F. are defined as future hangar areas.

Area (G), (J), (K), and Alt. I. are defined as potential non-aeronautical use parcels