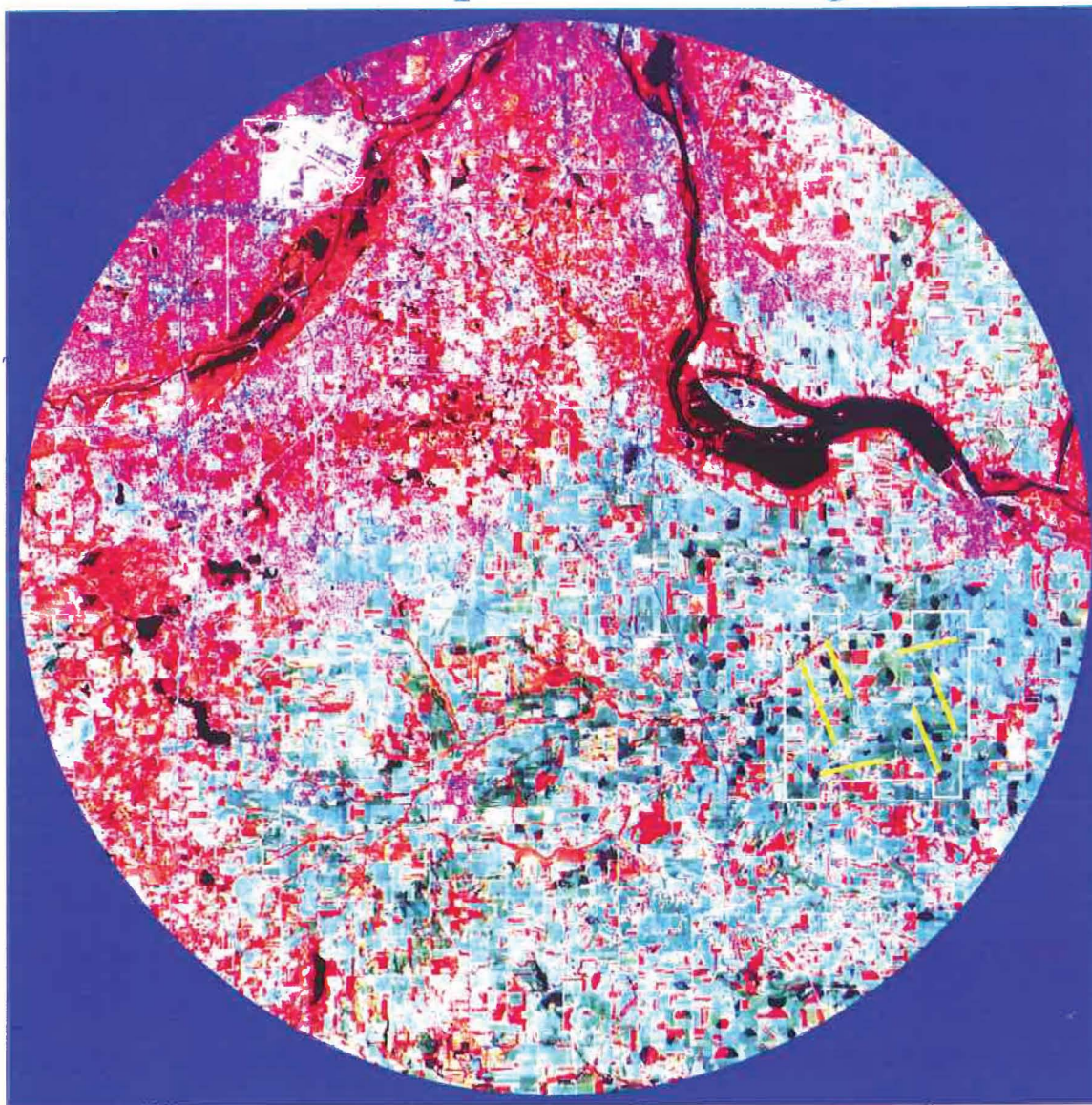




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Dual Track Airport Planning Process



Report to the Legislature

SUMMARY

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**Metropolitan
Airports
Commission**



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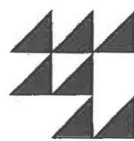
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*Report to the Legislature
Summary*

March 1996



*Metropolitan
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SUMMARY

Legislative Mandate

In 1989, the Minnesota Legislature adopted the Metropolitan Airport Planning Act. This legislation required the Metropolitan Airports Commission (MAC) and the Metropolitan Council (MC) to complete a comprehensive and coordinated program to plan for major airport development in the Twin Cities.

The planning activities were designed to compare the option of future expansion of Minneapolis-St. Paul International Airport with the option of building a new airport. The Metropolitan Airports Commission and the Metropolitan Council are required to report to the Legislature on recommendations for a long-range strategy for development of major airport facilities in the metropolitan area no later than July 1, 1996.

The legislation requires the MAC to adopt for Minneapolis-St. Paul International Airport a Long Term Comprehensive Plan that satisfies the air transportation needs for a 20-year period (to 2010). The legislation also requires the MAC to adopt a concept plan for an additional 10-year period (to 2020). There is a further requirement that the plans be updated at least every five years, and amended as necessary to include "...changes in trends and conditions, facilities requirements, and development plans and schedules." Specific responsibilities are assigned to the MAC and the Metropolitan Council in completion of the requirements in the legislation.

Throughout the Dual Track Airport Planning Process, there has been a major emphasis on public and agency involvement before, during and after the completion of key study components. Figure 1 shows the major elements of the Dual Track Process.

Goals

Identification of a set of goals for future commercial air transportation facilities in the Twin Cities area was an important step in the Dual Track Planning Process. The goals not only provided direction for plan development, but were a yardstick against which the alternative strategies were measured.

Goal No. 1

Develop the Airport's physical facilities to meet future aviation needs (passengers/community/users), to provide enhanced levels of air service and to further the economic development of the State of Minnesota.

Goal No. 2

Minimize costs to users of the airport.

Goal No. 3

Develop the airport in a manner which is flexible and adaptable to changing conditions.

Goal No. 4

Provide an airport that is safe and reliable.

Goal No. 5

Develop an airport that is consistent with state, regional, and local plans and economic development policies.

Goal No. 6

Develop the airport and the airport vicinity to minimize and reduce adverse aircraft noise and other environmental effects.

Aviation Activity Forecasts

As required in the legislation, forecasts of future airport activity were developed for a 30-year period (to 2020). These forecasts serve as the basis for facility sizing. The components of the forecast that most influence facilities are annual passengers and annual aircraft operations.

Total annual passengers are expected to increase from 21.4 million in 1992 to 33.4 million in 2020.

Aircraft operations will increase at a slower rate, as aircraft size and passengers per departure increase through 2020. Total annual aircraft operations are forecast to increase from 418,000 in 1992 to 520,000 in 2020.

A series of alternate forecasts were prepared to account for such contingencies as unusually high or low rates of economic growth, changes in airfares and changes in airline operational policy. These scenarios were designed to evaluate the sensitivity of the baseline forecast to changes in assumptions, and to evaluate the ability of the alternatives to respond to changes in demand levels. The high end of the forecast range is 48 million annual passengers and 640,000 annual operations in 2020. Figures 2 and 3

show the baseline forecast for annual passengers and aircraft operations, and the range in annual activity established by the alternative scenarios.

Airport Alternatives

Both the MSP and New Airport alternatives are designed to provide the following facilities:

- a minimum of 3 independent runways with crosswind runway capability.
- 2.8 million square feet of terminal building (domestic, international, charter, regional).
- 83 air carrier gates and 34 regional aircraft parking positions.
- 31,500 public and employee parking spaces.
- 156 acres of cargo area.
- 266 acres of maintenance area.

Expansion of MSP

The first of the two primary alternatives in the Dual Track Planning Process is the continued development of Minneapolis-St. Paul International Airport to meet 2020 demands. Concept 6 was selected by the MAC in February 1995, as the preferred alternative and used as the basis for the 2010 long term comprehensive plan and 2020 conceptual plan (Figures 4 and 5).

Development of the MSP 2010 Comprehensive Plan

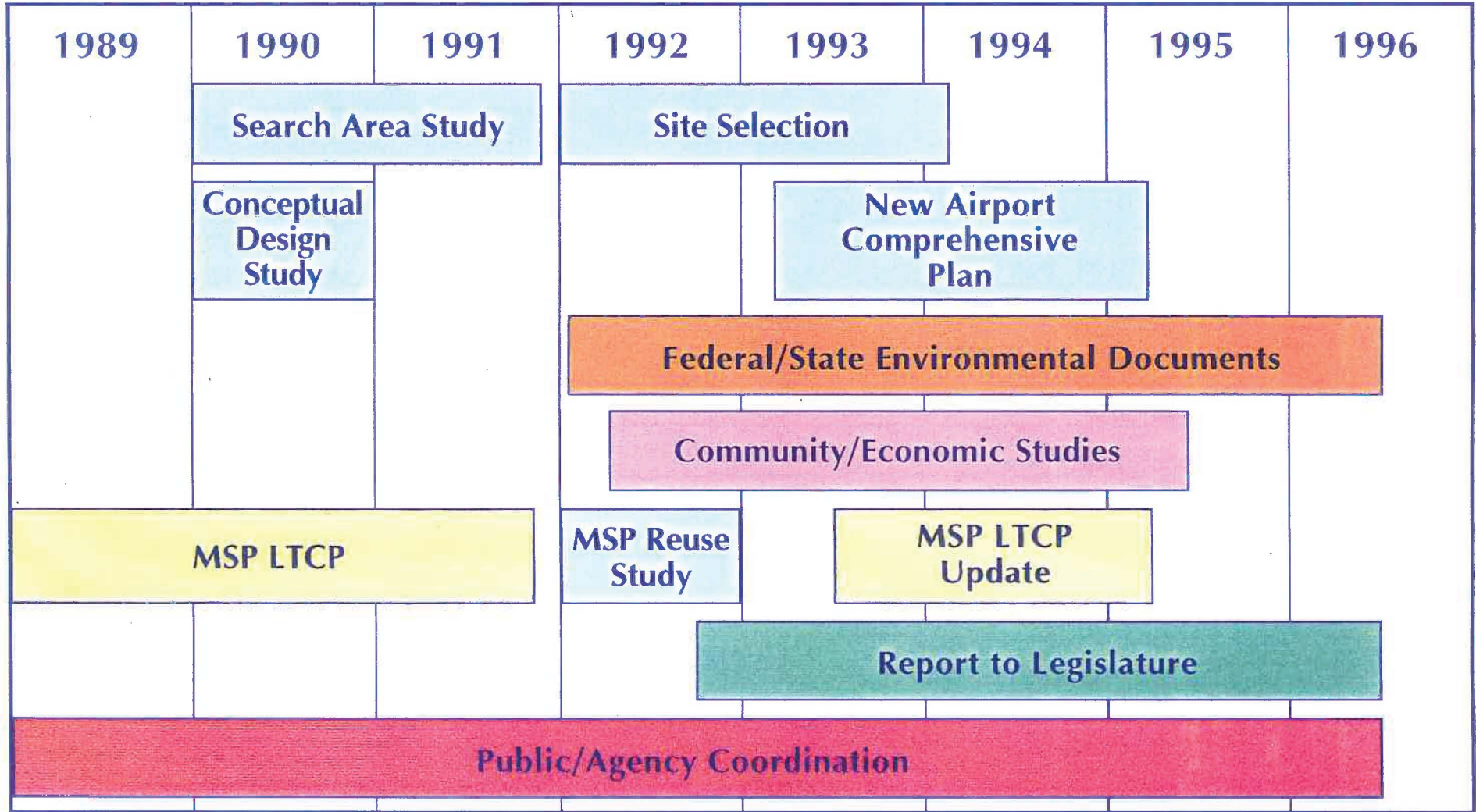
The principal features of the 2010 Comprehensive Plan are:

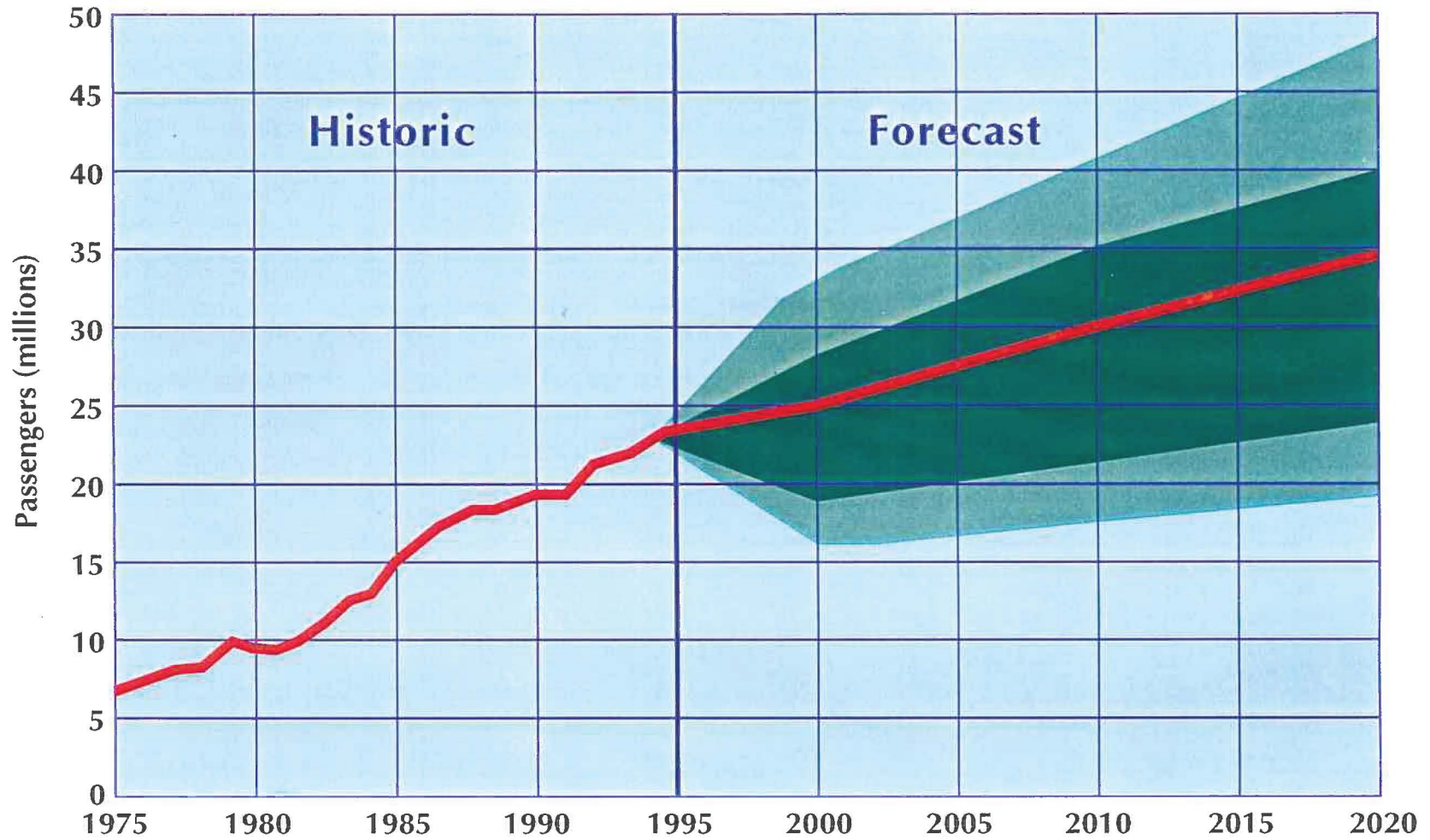
- a new 8,000 foot north-south runway on the west side of the airport.
- addition of 14 gates to the Lindbergh and HHH Terminals.
- additional air cargo facilities, and the capability for additional maintenance facilities, on the south and west sides of the airport.
- construction of remote parking facility located on the present site of the rental car service/storage lots.

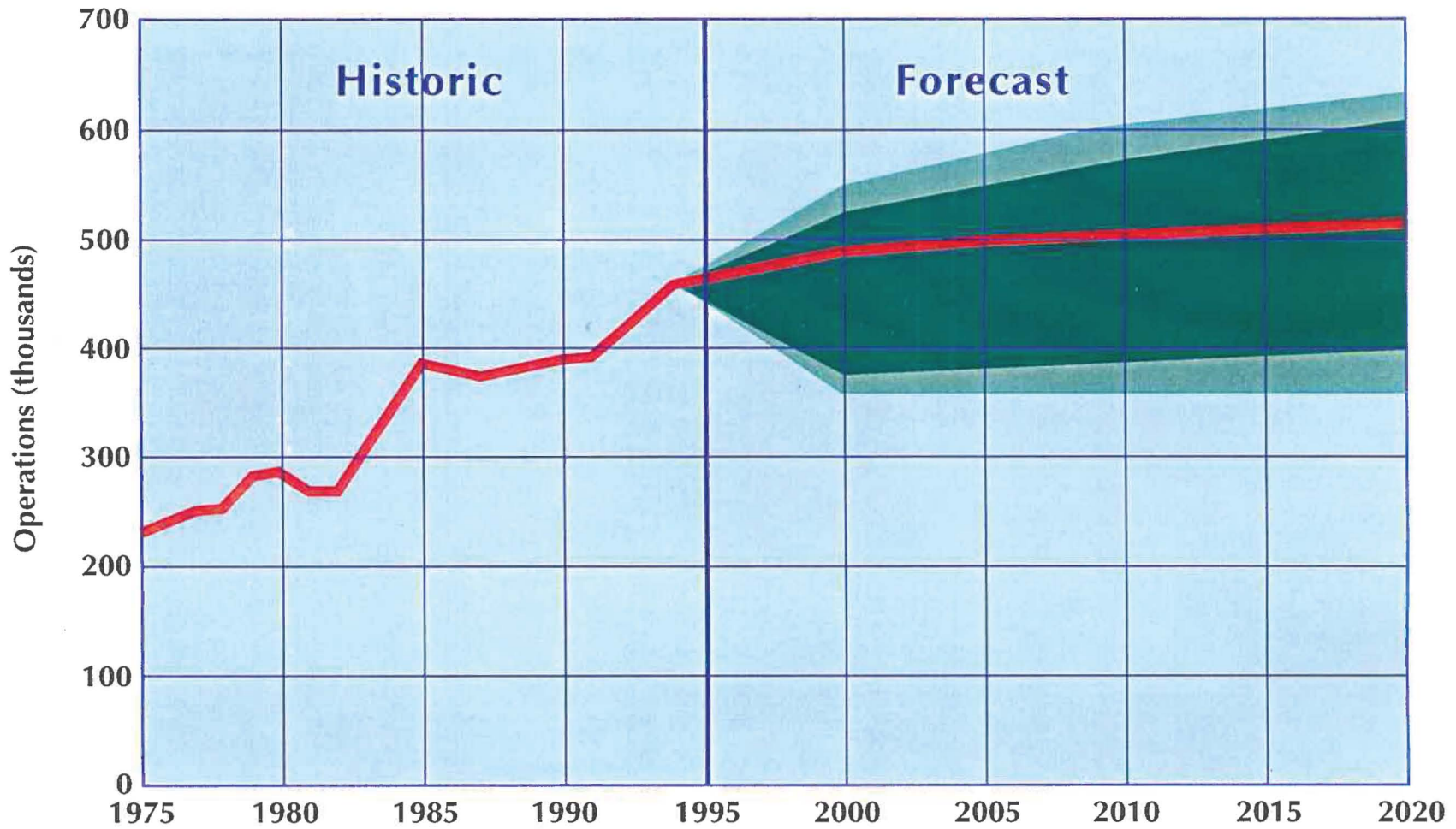
Development of the MSP 2020 Conceptual Plan

The principal characteristics of the 2020 Conceptual Plan , in addition to those included in the 2010 plan, are:

- replacement passenger terminal on the west side of the airport.
- realigned concourses in the existing terminal area.



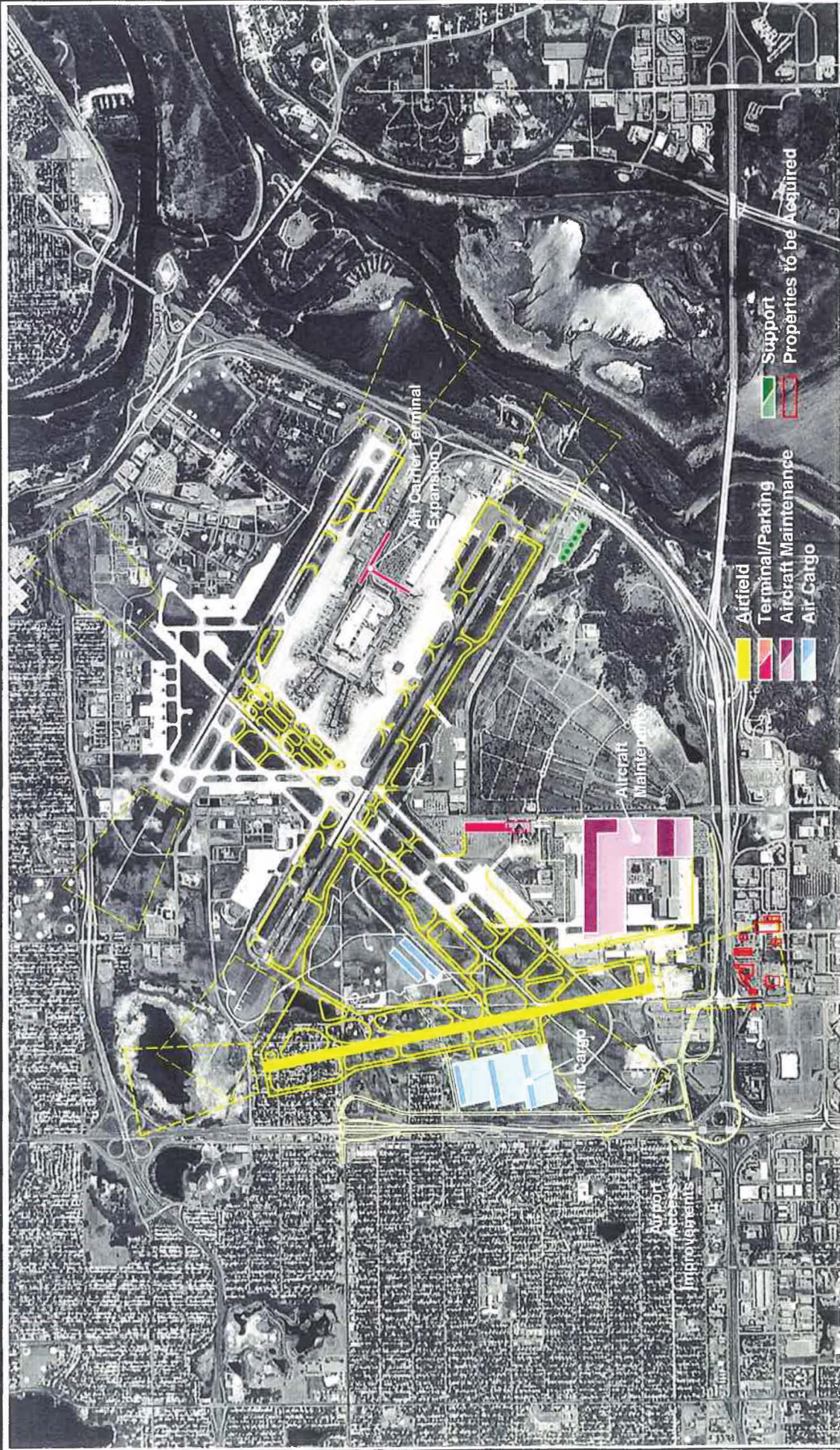


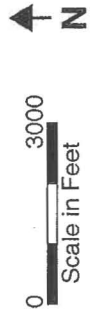
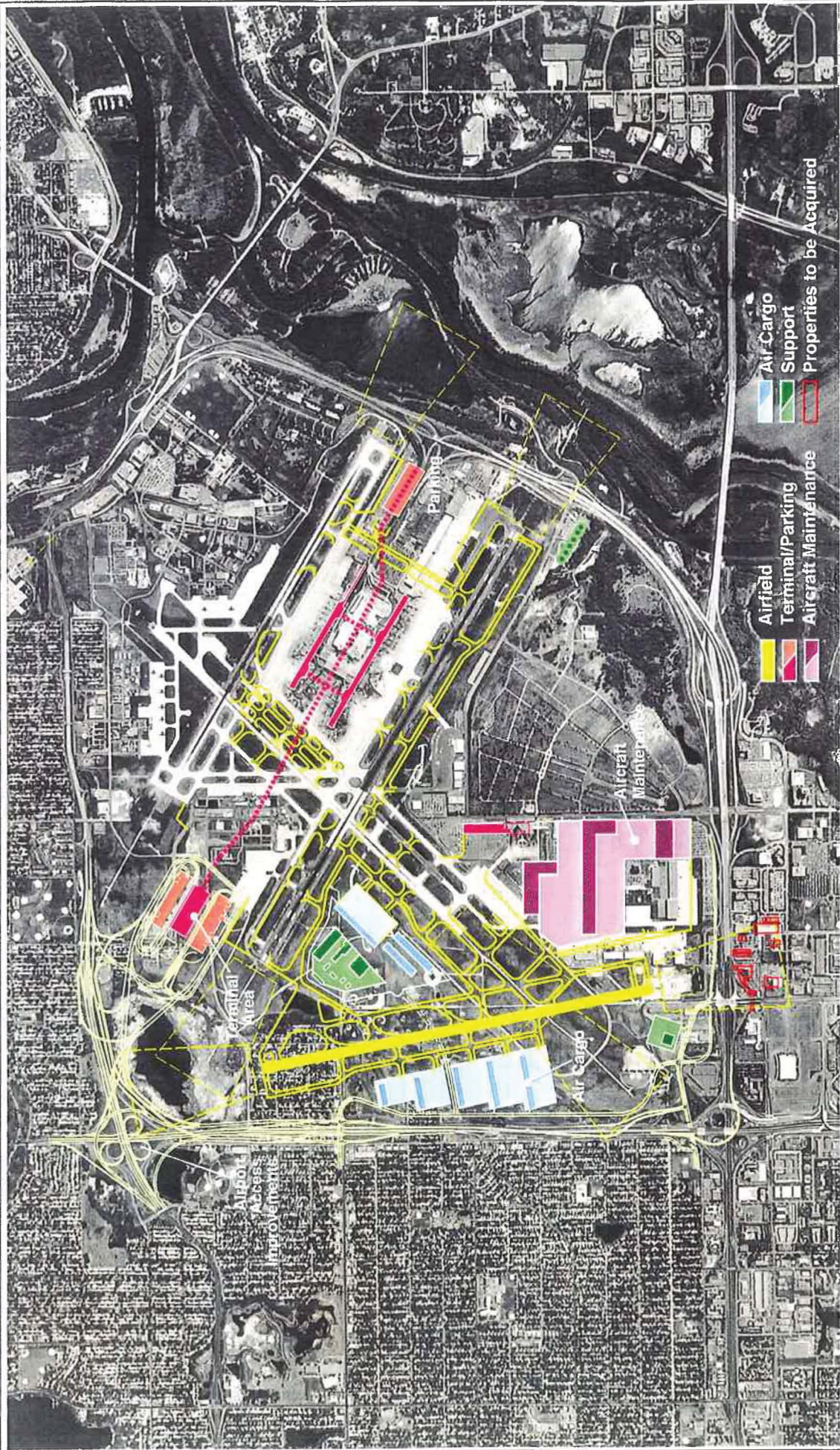


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Figure 3
Range of Forecast Aircraft Operations Scenarios





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Figure 5

MSP 2020 Conceptual Plan

- additional air cargo and maintenance facilities on the south and west sides of the airport.

In early 1996, NWA proposed an alternative development concept for MSP. Many of the plan items were similar to the concept adopted by MAC, however NWA proposed a different terminal concept and deleted a number of support facilities. After extensive discussion and review of the alternatives, the following conclusions were reached: 1) needs for 2010 can be accommodated by phased development of the Lindbergh Terminal Complex, incrementally adding facilities as they are required, 2) the 2010 development plan could satisfy demand beyond 2010 depending on the rate in growth of aviation activity, 3) the MAC and NWA have agreed to use the adopted MAC plan (Concept 6) as the basis for planning and environmental review, and 4) continued discussions between MAC and NWA will review development needs on an ongoing basis.

Construction of a New Airport

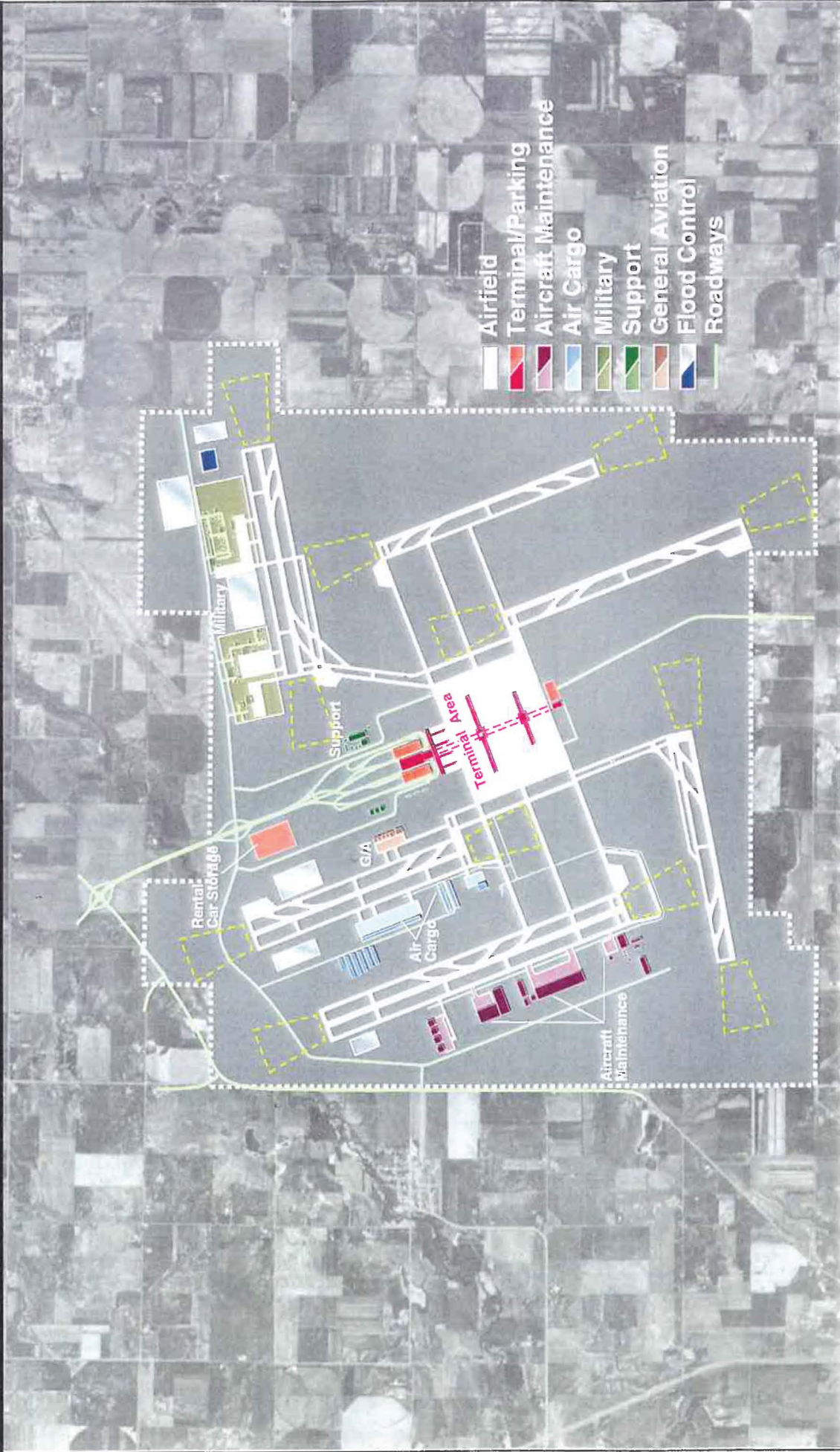
The second primary alternative in the Dual Track Planning Process is the construction of a new airport. During a detailed series of studies, the best search area, the best site within the search area, and the best plan for the selected site were identified. Key features of the 2010 and 2020 Plan (Figures 6 and 7) for the new airport include:

- six-runway airfield including four parallel runways and two crosswind runways.
- main terminal building connected to two midfield concourses by an underground peoplemover.
- maintenance, cargo, and other support facilities

Other Alternatives

A number of other alternatives were evaluated during the course of the Dual Track Process. These alternatives included the following: 1) High-Speed Intercity Rail, 2) Remote Runways, and 3) Supplemental Airports. None of these alternatives meet the aviation facility needs of the Twin Cities Area. Detailed information regarding the evaluation of each alternative is presented in a series of individual reports and is summarized in the Report to the Legislature.

Based on the requirements and time horizon (2020) specified in the Metropolitan Airport Planning Act, site preservation is not necessary. Site Preservation is not an independent alternative, but must be linked with some action regarding MSP development, as well as a trigger regarding action to use the site for future development. The MAC and Metropolitan Council retain the flexibility to re-evaluate

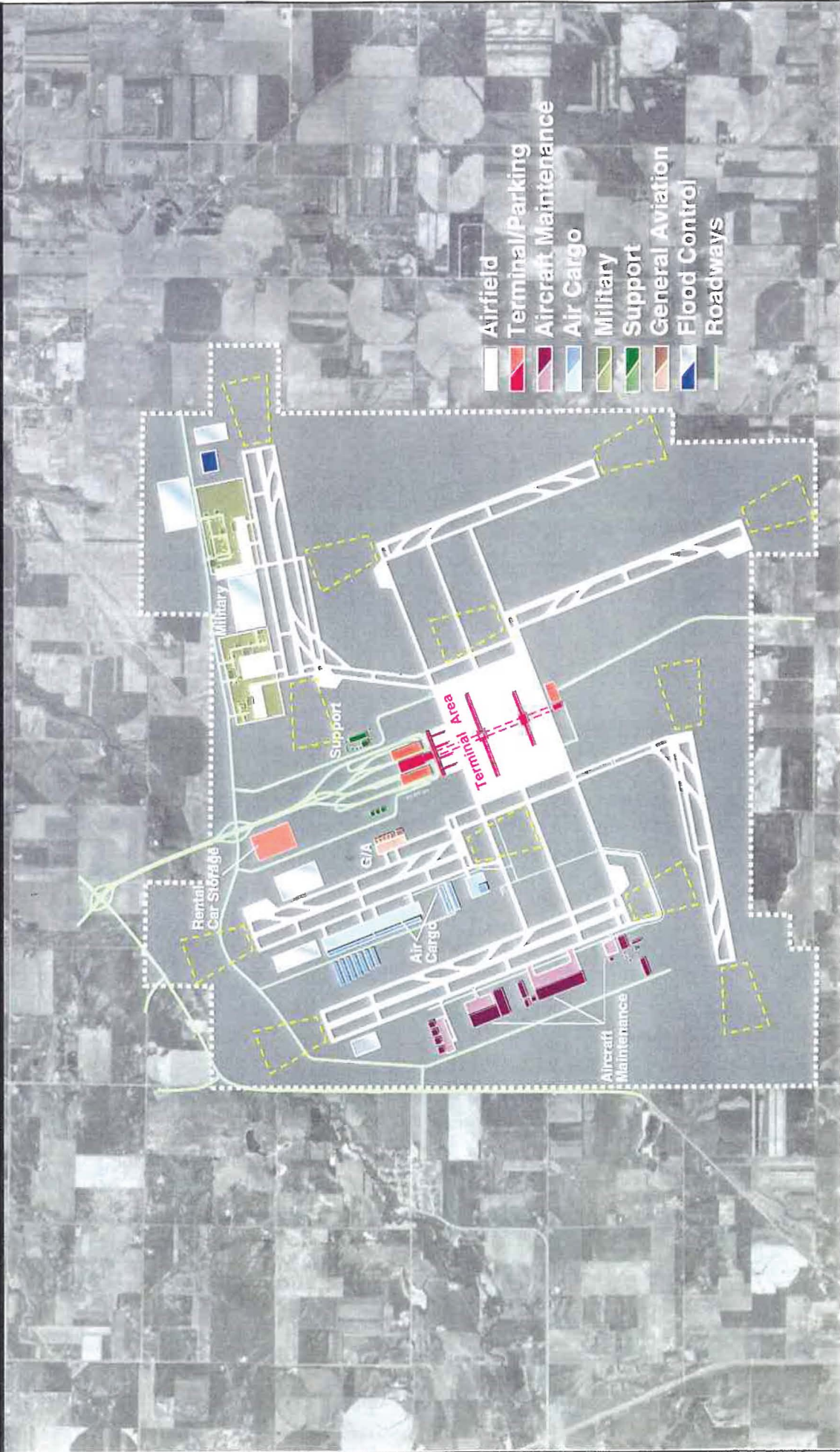


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Figure 6

New Airport 2010 Conceptual Comprehensive Plan



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Figure 7

New Airport 2020 Conceptual Plan

the feasibility of site preservation in the future should changing conditions indicate that such action would be prudent.

Evaluation of Alternatives

The measure of how well the two primary alternatives can meet the long-term air transportation needs of the region was assessed by examination of factors in six categories:

- A. Airport Operations,
- B. Ground Access,
- C. Environmental Issues,
- D. Economic and Community Development,
- E. Financial Issues,
- F. Flexibility/Sensitivity Issues.

This evaluation served as the basis for development of Findings and Conclusions, which focused on the key differences between the two alternatives.

Findings and Conclusions

- 1. The requirements of the Metropolitan Airport Planning Act have been met by the Metropolitan Airports Commission and Metropolitan Council.**

The Dual Track Airport Planning Process was initiated by the Minnesota Legislature in 1989.

The Dual Track Airport Planning Process was designed as a comprehensive approach to determining the future aviation facility needs of the Twin Cities Metropolitan Area and the State of Minnesota.

The agencies responsible for implementation of the Dual Track Airport Planning Process have evaluated the two alternatives outlined in statute (expansion of Minneapolis-St. Paul International Airport and development of a new airport), and have appropriately evaluated other alternatives raised during the planning process including remote runways, supplemental airports, high-speed rail, and site preservation.

The Metropolitan Council has completed the following major steps as required in the Dual Track Statute:

- Selected a Search Area for a Potential New Major Airport
- Completed a Re-Use Study for Minneapolis-St. Paul International Airport

The Metropolitan Airports Commission has completed the following major steps as required in the Dual Track Statute:

- Completed a Conceptual Design Study for a Potential New Major Airport

- Completed a Long Term Comprehensive Plan for Minneapolis-St. Paul International Airport
- Selected a site for a potential new major airport in the search area selected by the Metropolitan Council
- Completed an Update of the Long Term Comprehensive Plan for Minneapolis-St. Paul International Airport.
- Completed a Long Term Comprehensive Plan for a Potential New Major Airport

An Alternative Environmental Review Process was approved by the Minnesota Environmental Quality Board for the Dual Track Airport Planning Process.

The Metropolitan Airports Commission and Metropolitan Council have complied with the steps outlined in the Alternative Environmental Review Process.

An extensive agency involvement program was developed, including the formation of Technical Review Committees and review of documentation on all aspects of the study.

A comprehensive public involvement process was used by the agencies including the formation of Task Forces, public information meetings, public hearings, reports, newsletters, brochures, and direct mailings.

Information and study results have been made available to legislators through meetings as requested with the State Advisory Council on Metropolitan Airport Planning, reports, newsletters, and meetings with members and staff.

- 2. The forecast of aviation activity provides a baseline forecast for 2020 (33 million passengers and 520,000 operations) and a number of alternative scenarios that identify the impact of changes in the major forecasting assumptions.**

The Metropolitan Airports Commission and Metropolitan Council have developed an updated set of aviation activity forecasts utilizing the best information available.

Representatives of the aviation industry, including Northwest Airlines, participated in a series of expert panels designed to provide early opportunities for input from all affected parties.

The forecasting process is complex and fluid, and takes into account a wide range of aviation and socio-economic assumptions, including ongoing changes in the aviation industry.

The baseline forecasts project growth to annual levels of 33.4 million passengers and 520,000 aircraft operations by 2020.

A series of alternative forecast scenarios have been developed to evaluate the impact of changes in critical input factors to forecast development. These changes represent a range of assumptions regarding the airline industry and socio-economic characteristics.

The alternative scenarios provide annual ranges in 2020 of passengers from 18 million to 48 million, and operations from 365,000 to 640,000.

3. All reasonable airport development alternatives have been identified and evaluated as part of the airport planning process. The two alternatives selected for detailed evaluation are the Concept 6 expansion alternative for MSP (adopted by MAC in February, 1995) and the new airport layout (adopted by MAC in April, 1995).

The Metropolitan Airports Commission, in November 1991, and February 1995 selected Concept 6 as the preferred development option for Minneapolis-St. Paul International Airport.

In early 1996, NWA proposed an alternative MSP development concept. Subsequent discussions between MAC and NWA evaluated differences between the two options and lead to agreement that incremental expansion of the Lindbergh Terminal can accommodate needs through 2010 and possibly longer depending on growth in activity, and that the Concept 6 2020 development plan would be used for purposes of planning and environmental review.

The Metropolitan Council, in December 1991 selected the Dakota Search Area as the location for a potential new air carrier airport.

The Metropolitan Airports Commission, in January 1994, selected Site 3 in the Dakota Search Area, as the site for a new airport. In April 1995, the Metropolitan Airports Commission selected the Comprehensive Plan for a new airport.

Other alternatives have been evaluated as required during the planning process. These include high-speed rail, remote runways, and use of supplemental airports.

- High-Speed Rail - a proposed high-speed rail line to Chicago would not divert enough activity to alleviate the need for a new runway or terminal facilities

- Remote Runway - would become a new airport with a remote terminal; more costly; operational problems
- Supplemental Airport - cannot separate sufficient activity to alleviate the need for additional runway and terminal capacity at MSP

None of the other alternatives meets the future aviation needs of the community, therefore the evaluation has focused on expansion of MSP and the New Airport alternative.

4. Based on the 2020 horizon specified in the Metropolitan Airport Planning Act, preservation of a site in Dakota County for a potential new airport is not necessary.

Minneapolis-St. Paul International Airport, with the proposed expansion, has adequate capacity to accommodate forecast demand through the planning period as specified in the Metropolitan Airport Planning Act (2020).

The issue of site preservation can be re-evaluated by the MAC and Metropolitan Council should conditions change in the future.

5. The airfield and terminal proposals for either the new airport or expansion of MSP can accommodate the high end of the aviation activity forecast range.

Both expansion of MSP and the new airport will adequately meet 2020 demand levels, including the high forecast of 48 million passengers and 640,000 operations.

An expanded MSP, with activity levels at the high end of the forecast range and current technology, would experience average delays above present levels, and could experience considerable levels of delay for short periods when poor weather conditions occur.

Both alternatives provide sufficient runway length for long-haul flights.

The configuration of the new airport minimizes the need for aircraft to taxi across runways.

The facilities that would be developed at the new airport site could readily accommodate passenger and operations levels significantly higher than the forecast range.

Protection of approaches to existing and proposed runways is essential to maintaining airport capacity and community compatibility.

6. Average travel times for residents of the Twin Cities region to the new airport are approximately 20 minutes longer than to MSP.

The average travel time to the new airport is about 20 minutes longer than to MSP.

Sixty-seven percent of the population of the Twin Cities region and surrounding counties is within 30 minutes peak hour travel time of MSP; fourteen percent of the regional population is within 30 minutes peak hour travel time of the new airport.

Costs of improvements to the regional highway system are \$73 million for MSP and \$386 for the new airport. These costs are not included in the Metropolitan Council's Transportation Policy Plan nor in current MnDOT plans.

Additional state funding would be required to provide highway access to a new airport, and to provide access to a new terminal at MSP.

7. The environmental evaluation did not identify any critical finding that would preclude either continued development of MSP or development of a new airport.

The number of people exposed to noise levels of DNL 65 or greater at MSP would decrease from 22,090 in 1994 to 7,620 in 2005, primarily due to conversion to an all Stage 3 airline fleet; in 2005, the new airport would expose 175 people to noise levels of DNL 65 or greater.

A comprehensive noise mitigation program, not necessarily limited to the current Federal standard (DNL 65), for areas adjacent to MSP must be developed and submitted to the Legislature within 180 days after a recommendation regarding future airport development is submitted to the Legislature.

The new airport would displace 1,132 residents; the MSP alternative would displace 227 residents.

The MSP alternative would produce 3,100 tons less of vehicular CO (carbon monoxide) emissions than the new airport; the new airport would produce lower on-airport emissions.

The MSP alternative would result in the loss of 360 acres of wildlife habitat; the new airport would result in the loss of 6,835 acres of wildlife habitat.

The new airport would result in the loss of up to 17,000 acres of farmland.

8. The overall impacts on the regional and state economies are not significantly different for either expansion of MSP or development of a new airport.

Both expansion of MSP and development of a new airport would result in an increase in direct airport jobs from 14,900 to 16,600.

Correspondence from Northwest Airlines has indicated that due to the cost of providing replacement facilities at a new airport and capacity at other locations, it may choose to relocate some or all of 11,000 non-airport related jobs elsewhere. In addition, NWA has indicated a 15% activity reduction at a new airport, with an accompanying further reduction in employment. Additional information has been received by MAC and the Metropolitan Council from organizations and individuals with responsibilities for economic development, and considered in the decision making process.

Indirect employment attributable to each alternative is approximately 19,600 jobs.

Average annual jobs associated with construction of a new airport would be approximately 5 times higher than for expansion of MSP.

Visitor expenditures would be the same for either alternative.

If a new airport is constructed, MSP could be redeveloped with 1.5 million square feet of office space, 3.3 million square feet of industrial space, 800,000 square feet of retail space, and 1,800 residential units by 2020.

- 9. The cost for a new airport, considering construction (including inflation) and financing costs, is \$2.2 billion greater than for expansion of MSP.**

The projected cost (in 1995 dollars) for the MSP development plan is \$2.8 billion; the projected cost for the new airport plan is \$4.5 billion.

Capital expenditures to implement the MSP plan occur incrementally such that 33% are incurred by 2005; implementation of the new airport requires 80% of the cost to be incurred by 2005.

Escalated costs (not including financing costs) to design and build the new airport plan are \$1.1 billion more than the cost to design and build the MSP plan.

MAC must rely more heavily on borrowed funds, and less on internally generated funds and PFC revenues, to finance a new airport. Projected financing cost for the new airport is \$1.1 billion more than for the MSP plan.

When escalated design, construction and financing costs are considered, the new airport is approximately \$2.2 billion more than expansion of MSP.

Airline charges per enplaned passenger would increase to \$8 for the MSP plan and \$11 for the new airport plan (in 1995 dollars).

Northwest Airlines would incur an increase in annual costs of approximately \$70 million to replace existing maintenance facilities at a new airport. MAC could not afford to offset these costs as an inducement to Northwest to relocate maintenance facilities to the new airport.

10. MSP expansion provides more flexibility and less financial risk than development of a new airport.

The ability to develop the MSP alternative on an incremental basis allows it to better adjust to changing market conditions.

The high forecast (640,000 annual operations) can be accommodated at MSP with the one new runway (north-south) included in Concept 6. A third parallel runway is not included in Concept 6.

The New Airport alternative requires most of the construction to occur in one phase. Any reduction in air traffic below forecast levels after construction would result in excessive facilities and create a significant financial burden.

The new airport has significant capacity to meet higher than forecast demands.

The environmental, ground access, community and economic development impacts associated with the high forecast would not significantly affect the ability of either alternative to accommodate the higher activity levels.

Recommendations

The Metropolitan Airports Commission and Metropolitan Council have determined that the aviation needs of the Twin Cities Metropolitan Area and the State of Minnesota can be met by continued development of Minneapolis-St. Paul International Airport through the year 2020.

Specifics of the recommendation of each agency are as follows:

Metropolitan Airports Commission:

1. Adopt the attached Findings and Conclusions related to the Dual Track Airport Planning Process.
2. Recommend to the Governor and the Minnesota Legislature that the aviation needs of the Twin Cities Metropolitan Area and the State of Minnesota can be met by continued development of Minneapolis-St. Paul International Airport through the year 2020.
3. Confirm approval of the recommended 20-year (2010) development plan for Minneapolis-St. Paul International Airport.
4. Confirm approval of the recommended 30-year (2020) conceptual plan for Minneapolis-St. Paul International Airport, to be used for planning and environmental review purposes.
5. Direct staff to complete an update of the plans in 5 years.
6. Authorize staff to take actions to protect approaches to existing and proposed runways, specifically to initiate the process for acquisition of property in the south approach to the north-south runway, including a selection process for legal counsel.

7. Authorize staff, with the involvement of affected communities, to develop a comprehensive mitigation plan and program for areas affected by airport operations within 180 days after a recommendation regarding future airport development is submitted to the Legislature.
8. Direct staff to amend the Capital Improvement Program to incorporate appropriate projects identified in the 2010 long term comprehensive plan.
9. Direct staff to include the Commission action in the Report to the Legislature, and to forward the document to the Governor and the Legislature.

Metropolitan Council:

1. That the Metropolitan Council adopt the Findings and Conclusions contained in the Report to the Legislature on the Dual Track Airport Planning Process;
2. That the Metropolitan Council determine that the aviation needs of the Twin Cities Metropolitan Area and of the State of Minnesota can be met by the continued development of the Minneapolis-St. Paul International Airport through the year 2020;
3. That the Metropolitan Council confirm approval of the MSP International Airport Long Term Comprehensive Plan, called development Concept 6, including:
 - a. a 2010 comprehensive plan for development of the MSP International Airport; and
 - b. a 2020 conceptual plan to be used for planning and environmental review purposes;
4. That the Metropolitan Council work with the Metropolitan Airports Commission and with affected communities to develop a comprehensive noise mitigation plan and program and other potential community protection measures for areas affected by aircraft operations within 180 days after a recommendation regarding future airport development is submitted to the Legislature;
5. That the Metropolitan Council immediately notify affected communities of its adoption of Concept 6 as its year 2020 system plan for the development of the Minneapolis-St. Paul International Airport and provide guidance to communities that must revise their comprehensive plans and zoning ordinances to be consistent with regional plans for aviation facilities; and

6. That the Metropolitan Council endorse the Governor's request that the 1996 Legislature act on these recommendations.