Environmental Assessment MSP-EA-03-06

Minneapolis-St. Paul Joint Air Reserve Station 2014 Development Plan

04 September 2003

934th Airlift Wing U.S. Air Force Reserve Minneapolis-St. Paul Joint Air Reserve Station Minneapolis, MN 55450-2100

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EXECUTIVE SUMMARY

This environmental assessment analyzes the 2014 Development Plan for the Minneapolis-St. Paul Joint Air Reserve Station (MSPJARS). The 2014 Plan is a proposed long range facility development plan that would occur over a ten year period, consisting of demolition of existing buildings, and construction of new buildings. The proposed actions covered under the 2014 Plan are not eligible for any of the Air Force's Categorical Exclusions presented in 32 CFR 989, Appendix B. Therefore, an environmental assessment is required.

1. DESCRIPTION OF PROPOSED ACTIONS

1.1. Purpose of the Proposed Actions

Implementation of the 2014 Plan would reconfigure and modernize key components of the 934th Airlift Wing's facilities within the "Area N" complex at MSPJARS, through demolition of seven (7) existing outdated, inadequate and/or substandard buildings, and construction of seven (7) new buildings, as shown below:

Prop	osed Building Demolition		Proposed Building Construction	
740	Main Gate	129 Ft. ²	Welcome Center/Main Gate	3,045 Ft. ²
750	Security Forces	2,200 Ft. ²	Aeromedical Evacuation Squadron	13,070 Ft. ²
801	Supply	25,896 Ft. ²	Security Forces Squadron	19,030 Ft. ²
802	Fire Station	6,624 Ft. ²	Aerial Port Facility	24,700 Ft. ²
803	Mobility Storage	12,468 Ft. ²	Aircraft Hangar	35,000 Ft. ²
821	Flight Ops/Maintenance Hangar	73,665 Ft. ²	Aircraft Hangar	35,000 Ft. ²
865	Chapel/DIS/SFS/CF	24,324 Ft. ²	Fire Station	8,070 Ft. ²

1.2. Need for the Proposed Action

Implementation of the 2014 Plan would provide the 934th Airlift Wing with facilities necessary to comply with security and force protection requirements, adequately house training and support functions, and ensure aircraft maintenance and operations mission requirements are met. Five of the facilities proposed for demolition are World War II-era buildings which are not suitable to meet current and projected mission and training requirements. Manning of several squadrons has increased significantly over the past five to ten years, resulting in facilities that are inadequately sized. In addition, security requirements have become more rigorous since the terrorist events of 2001. A reconfiguration and relocation of the main gate would provide enhanced ability to effectively and efficiently control base access during all levels of Force Protection condition. Relocation of the Aerial Port facility is necessary to improve operational efficiency through direct access to aircraft parking areas. Replacement of existing hangar and maintenance facilities is necessary to accommodate the new, larger models of C-130 aircraft that are slated for assignment to the base in 2014.

1.3. Location of the Proposed Action

The 2014 Plan would predominantly occur within the Area N complex at MSPJARS, with one exception. The proposed new Welcome Center/Main Gate would be constructed on Naval Air Reserve Center property to the west of Area N. A Real Property Permit would be established between the U.S. Navy and the U.S. Air Force to allow the construction of the Welcome Center/Main Gate facility. Maps provided in Appendix A depict the general location of the MSPJARS, as well as the Final Demolition Plan and Final Master Plan for the 2014 Plan.

2. ALTERNATIVE SELECTION

The proposed action addressed by this environmental assessment is for the Air Force to implement the 2014 Plan through completion of the series of facility demolitions and constructions previously identified. The standards for selecting alternatives to be analyzed were that an alternative must differ from the proposed action in a manner that would allow it to be readily distinguishable from the proposed action, and it must not require more extensive construction and/or demolition than what is contained within the proposed action, because such an alternative would necessarily cause greater environmental impact than the proposed action. Using these criteria, construction of the proposed new facilities at different locations on the existing Air Force property was eliminated from consideration because it would not be distinguishable from the proposed action. Likewise, relocation of the Wing and construction of the necessary facilities at property in another location not currently owned by the Air Force was also eliminated from analysis because the alternative would necessarily involve construction of a much larger number of facilities and an extensive amount of infrastructure. Additionally, it is not reasonable to attempt analysis of a hypothetical base relocation without actually having some identified relocation sites to consider. It is also not reasonable to analyze a myriad number of variations on the proposed action that would arise from eliminating one ore more of the proposed demolition/construction projects and replacing them with renovation of existing facilities. Therefore, the only alternative included in this analysis is the "no action" alternative, which, by regulation, is required to be analyzed.

3. AFFECTED ENVIRONMENT

3.1. Land Use

Area N is a fully developed, 88.46 acre tract of land, supporting industrial, administrative, and warehouse facilities, and aircraft parking space. Land use of non-Air Force property surrounding Area N consists of the Minneapolis-St. Paul International Airport's runways and terminal immediately to the south; Air National Guard and Army Reserve facilities to the east; a Naval Reserve facility to the west; and state highway 62 and residential neighborhoods to the north.

3.2. Geology, Physiography, and Soils

MSPJARS is situated in a regional geologic structural depression known as the Twin Cities Basin. This regional depression is believed to have served as a depositional basin during the Precambrian, Cambrian, and Ordovician Ages. Pleistocene glacial drift and alluvium overlie the Ordovician bedrock formations in the vicinity of the airport and Air Force property. Soil borings have identified four separate bedrock formations beneath the international airport and the Air Reserve Station. These include Decorah Shale, Platteville Limestone, Glenwood Shale, and St. Peter Sandstone. The features of the bedrock are not considered to be a constraint to development. Within the developed portions of the MSPJARS, the topography is generally flat, sloping gently eastward toward the intersection of the Mississippi and Minnesota Rivers, with the exception of manmade terraces that have resulted from past development in the airport complex. Naturally occurring soils in the vicinity include Dakota, Hubbard, and Estherville series. Soils of this type are loamy and well-drained. The urban development on this area of Hennepin County caused the Natural Resource Conservation Service (NRCS) to consider this area altered to the point that no natural map unit can be described on this site. As a result, the most common soil type consists of "Urban Land-Industrial, Sandy," which is considered to have no limitations for development. The NRCS considers the area to be cut and fill.

3.3. Water Resources

Surface drainage from Area N is conveyed by storm sewers either northeasterly into the City of Minneapolis storm sewer system, ultimately discharging into the Mississippi River, or southeasterly into the Metropolitan Airports Commission's storm sewer, ultimately discharging into the Minnesota River. No sites are found in Area N that meet the definition of "wetlands" as promulgated by Executive Order 11990, *Protection of*

Wetlands; nor do any sites in Area N meet the U.S. Army Corps of Engineers criteria to be considered wetlands. In addition, no portions of Area N are defined as flood plains in accordance with Executive Order 11988, Flood Plain Management. The uppermost artesian aquifer is found between 70 and 80 feet below the surface, imbedded in a layer of Platteville limestone that ranges between 50 and 80 feet in thickness. A layer of impermeable Decorah Shale caps the limestone in some undeveloped areas. Most of the shale, however, was removed during grading and construction of the installation. The aquifer drains to the Minnesota River. No wells are known to use this aquifer. A layer of impermeable Glenwood Shale about five feet thick is located beneath the Platteville Limestone and caps the St. Peter aquifer. The probability that surface water which percolates through the topsoil and limestone will permeate through two separate layers of limestone and shale into the St. Peter aquifer is extremely small; therefore, contaminants are generally not believed to be carried to this aquifer. The St. Peter aquifer provides high quality water and is used by some privately owned wells located west and south of the international airport. The widely used Prairie du Chien-Jordan aquifer is located 500 feet below the surface, beneath four layers of bedrock. This aquifer provides high quality water to several municipalities and private users in the metropolitan area. There are no water supply wells or aquifer recharge points on the installation, except surface water that infiltrates into the uppermost artesian aquifer. Due to the depth of the aquifers and their protective shale barriers, future development on the installation is not considered to be constrained by hydrologic characteristics.

3.4. Vegetation

The vegetation found in Area N consists of landscaped turf-grass areas, native prairie-grass restoration plantings, and landscaped ornamental shrubs and bushes, deciduous and coniferous trees in perimeter and street-side areas, and isolated deciduous trees allowed to remain in place as development of facilities occurred over the past fifty years. Tree species native to the area include types characteristic of upland forests. There are no known threatened or endangered plant species found in Area N.

3.5. Wildlife

Area N is a developed industrial park-like complex. In 1992, the U.S. Fish and Wildlife Service (USFWS) assessed the potential for wildlife management activities in Area N. USFWS classified Area N as a "Category II" site, which is unsuitable for conserving and managing fish and wildlife. The limited habitat remaining is considered to be suitable only for songbirds and small non-game animals. The Minnesota Department of Natural Resources maintains a "Heritage Database" of known occurrences of federally and state listed threatened or endangered species (plants and animals), as well as other special natural features such as high quality plant communities, colonial waterfowl nesting sites, etc. No state-listed or federally-listed threatened or endangered species, or other special natural features, are known to occur in Area N, or on any other Air Force-owned property at MSPJARS.

3.6. Historic and Cultural Resources

A cultural resources survey was conducted at MSPJARS in 1995. No archeological resources were discovered during the survey. In addition, none of the facilities in Area N are eligible for nomination to the National Register of Historic Places. The survey was submitted to the State Historical Preservation Officer (Minnesota Historical Society) for review. The Minnesota Historical Society subsequently provided a letter documenting concurrence with the survey results.

3.7. Air Quality

MSPJARS is located in Hennepin County, which is part of the Minneapolis-St. Paul Intrastate Air Quality Control Region (AQCR) in Minnesota. The attainment status designations listed in Code of Federal Regulations, Title 40, Chapter I, Subchapter C, Part 81, Section 81.324 for the Hennepin County portion of this AQCR are:

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The AQCR previously was classified as non-attainment for both SO_2 and CO; therefore the applicable status for these pollutants is "maintenance."

4. ENVIRONMENTAL IMPACT ASSESSMENT

4.1. Environmental Impact Categories

The proposed action and the "no action" alternative were both analyzed for potential individual and cumulative environmental impacts in each of the following categories:

- Noise Impacts
- Air Quality Impacts
- Water Quality Impacts
- Natural Resource Impacts
- Cultural Resource Impacts
- Safety/Occupational Health Impacts
- Waste Management Impacts
- Socioeconomic Impacts
- Environmental Justice Impacts

4.2. Cumulative Impact Assessment Framework

"Cumulative impact" is defined in 40 CFR 1508.7 as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 CFR parts 1500 through 1508 contain no explicit guidance on how to establish an appropriate geographic area of consideration or an appropriate chronological timeframe of consideration. There is also no such explicit guidance provided in the Air Force's implementing regulations promulgated at 32 CFR Part 989.

In order to perform cumulative impact analysis with some degree of reasonableness, the criteria used to select which past, present and reasonably foreseeable future actions should be included in the analysis was:

- New facility construction projects or facility demolition projects
- Located within Area N or on property immediately adjacent to Area N
- Occurring within the past five years, or within the coming next five years (i.e., during the period from 1998 to 2008).
- Air Force projects are considered to be "reasonably foreseeable" if a funding request has been developed."
- Any other operational actions that have occurred, or which are known to be planned during the 1998 to 2008 period, and which potentially involve the generation of nuisance levels of noise.

The known facility construction or demolition projects that occurred or which are reasonably foreseeable during the 1998 to 2008 timeframe are identified in the following table. No other actions potentially involving the generation of nuisance levels of noise were identified.

PAST-PRESENT-REASONABLY FORESEEABLE ACTIONS FOR CUMULTIVE IMPACT ANALYSIS						
Construction Projects	Location	Year	Proponent			
Combat Arms Training Simulator, Building 862	Area N	1998	Air Force			
Military Clothing Sales Store, Building 756	Area N	1998	Air Force			
Cold Storage, Building 723	Area N	1999	Air Force			
Fitness Center, Building 777	Area N	1999	Air Force			
Cold Storage, Building 724	Area N	2000	Air Force			
Naval Air Reserve Center-Minneapolis Facility	Navy - Area C	2001	Navy			
Centralized Recycling Facility, Building 733	Area N	2003	Air Force			
Consolidated Lodging Facility, Building 707	Area N	Ongoin	g Air Force			
Minneapolis-St. Paul International Airport	Airport	Ongoin	g Metropolitan Airports Commission			
Expansion						
Extend Aircraft Ramp	Area N	Ongoin	g Air Force			
MWR Cold Storage Building	Area N	2004*	Air Force			
Addition to Communications Center, Building 761 Area N 2004* A		Air Force				
Addition to AGE Shop, Bldg. 820	Area N	2005*	Air Force			
* indicates the year listed is the earliest that the project could be anticipated to occur; actual completion is dependent on funding and may be much later.						
Demolition Projects	Location	Year	Proponent			
Former Airmen's Lodging Facility	Area N	2002	Air Force			

4.3 Impacts of the Proposed Action

Former Officer's Lodging Facility

The probable individual and cumulative impacts that can be anticipated from implementation of the proposed action are discussed in the following subsections. Impacts of the "no action" alternative are addressed separately in Section 4.4.

Area N

2004 Air Force

4.3.1. Noise Impacts

Individual Impacts: The demolition and construction that would occur as part of the 2014 Plan would generate short-term increases in noise from heavy equipment used during the facility demolitions and the excavation/site preparation phases of construction activity. These increases would be periodic, staged at various times over a ten year period. The amount of heavy equipment operating at any given time would likely be two to three vehicles. Therefore, the level of noise generated during these activities would not have a significant impact.

Cumulative Impacts: In regard to past projects, each of the past demolition and construction projects is complete. Constructed facilities are in use for their intended purpose. The function of the facilities and the types of activities performed in and around them do not, on their own, generate any noise impacts that could be considered significant. Therefore, past demolition or construction-related noise and current operational noise would not produce cumulative noise impacts in conjunction with noise generated under the 2014 Plan.

In regard to current projects, negligible noise impacts were identified for the Consolidated Lodging Facility construction and the aircraft ramp extension. The evaluation of the Minneapolis-St. Paul International Airport Expansion identified "unavoidable adverse" noise impacts to the surrounding communities resulting from the airport expansion. However, the noise was primarily attributed to aircraft operations. No discussion of construction-related noise was included. An extensive noise mitigation program was described, which has been undertaken by the Metropolitan Airports Commission (MAC). The mitigation program relies heavily on

systematic noise insulation of residential housing units within established noise contours. The implementation of this program has reduced much of the potential for construction-related noise to significantly impact nearby residential areas. Therefore, no significant cumulative noise impacts will result from the proposed action when considered in conjunction with these other present actions.

In regard to future construction or demolition projects, the generation of negligible short-term noise increases is anticipated. Due to the ongoing implementation of the previously described MAC noise mitigation program, the planned future projects will not have a significant cumulative noise impact even when considered in conjunction with the proposed action.

4.3.2. Air Quality Impacts

Individual Impacts: The demolition and construction that would occur as part of the 2014 Plan would generate periodic short-term increases in fugitive air emissions from heavy equipment used during the facility demolitions and the excavation/site preparation phases of construction activity. Excavation and movement of soil or debris could create minor levels of dust during work periods. Additionally, emissions from heavy equipment (such as excavator, forklift), and contractor employee personal vehicles would contribute to short-term increases in mobile source air emissions of criteria pollutants in the immediate area. Following the completion of the projects in the 2014 Plan, long-term mobile source emission of criteria pollutants would not be expected to differ from current emissions. Long-term stationary source emission of criteria pollutants would not differ substantially from current emissions. The net change in area for facilities which receive steam heat from the base central boiler plant would be a 16,000 square foot reduction. Two of the new facilities, totaling a net increase of 9,000 square feet, would be heated independently by smaller individual boilers or furnaces.

MSPJARS is within an air quality control region that is currently designated as "maintenance" for both CO and SO₂. A conformity applicability analysis was performed to compare projected emissions from the proposed project to the specified conformity determination thresholds found in 40 CFR 93.153(b)(2). The conformity applicability analysis is provided in Appendix B. Assumptions used for the analysis calculations were purposely made extremely liberal, i.e. they estimate emissions far in excess of what would probably occur in reality. As shown in the applicability analysis, the projected maximum annual emissions of both CO and SO₂ are well below the thresholds of 100 tons per year for each of the two pollutants. Annual emissions during the period in which demolition/construction would occur under the 2014 plan are estimated at a maximum of 18.4 tons of CO and 0.8 tons of SO₂. Emissions in the follow-on (operational) years would not vary from the present emissions. Therefore, a conformity determination is not required.

Cumulative Impacts: In regard to past actions, fugitive and mobile source emissions that occurred during past construction or demolition projects have ceased. All such emissions were temporary, and determined to be negligible in past analyses. Therefore, those past emissions will have no cumulative impact with similar emissions from the proposed action. In regard to emissions from the activities that occur in the facilities constructed previously and associated mobile source emissions, these have not resulted in the need to reestablish facility air emission permits, nor have they impacted the attainment status of the air quality control region. The calculations used for the conformity applicability analysis indicate that the proposed project will not affect the attainment status of the air quality control region. Therefore, there are no significant cumulative air quality impacts from the proposed action when combined with the past actions.

In regard to current projects, analysis of the consolidated lodging facility construction anticipated short-term negligible air quality impacts. Analysis of the international airport expansion determined that neither the construction phase nor the post-construction operation of the expanded facility would result in air emissions over the 100 tons per year amounts established as the "de minimis" thresholds for carbon monoxide and sulfur dioxide. Analysis of the aircraft ramp extension identified negligible short-term increases in fugitive and mobile source air emissions during construction activity. Therefore, no significant cumulative air quality impacts will result from the proposed action when considered in conjunction with these other present actions.

In regard to future projects, the four identified projects will each cause negligible short-term increases in fugitive air emissions as well as short-term increases in mobile source emissions (from contractor vehicle activity). Based on the results derived from the assumptions in the conformity applicability determinations for the current proposed project and the future projects, the combined air emissions will also fall below the "de minimis" thresholds. Construction of a new stationary emissions source that would require additional permitting under existing state or federal regulations is not part of the future project. Therefore, there are no foreseeable significant cumulative impacts of the future projects when considered in conjunction with the current proposed action.

4.3.3. Water Quality Impacts

Individual Impacts: The facility changes proposed under the 2014 Plan would not result in significant changes in the volume or quality of storm water runoff from the site. With the exception of the proposed fire station, each of the components of the development plan would occur on sites that have an existing building or other paved, impervious surface. Overall, the 2014 Plan would result in a total facility area reduction of approximately 7,300 square feet. Approximately 30% of this amount would be converted into turfed area. The existing storm sewer system for run off from Area N is capable of handling the storm water flows from the proposed projects. Periodic sampling of storm water effluent from Area N has not resulted in any permit violations over the past two years. No pollutant increase in the storm water runoff would be expected in the long term, because the nature of the industrial activities occurring in Area N would not change. In the short-term, the potential exists for increased suspended solids loading of the storm water during construction activities. However, this potential will be minimized to a negligible level through the Air Force Reserve's use of Best Management Practices (BMPs) documented in its Storm Water Pollution Prevention Plan, which is a required compliance element under NPDES permit MN 0052141. The BMPs that specifically address total suspended solids are the presence of VortechsTM System Stormwater Management Units at three primary outfall locations; and the use of standard contract specifications for erosion and sediment control requirements in all construction projects. The erosion and sediment control requirements for construction projects include silt fence installation and maintenance; catch basin/inlet protection; construction site rock entrances; and frequent clean up of sediment tracked onto paved surfaces. Through the use of these BMPs, which are established as mandatory compliance requirements, the Air Force Reserve is taking all measures necessary to prevent increases in total suspended solids into MAC or Minneapolis storm sewer systems. In regard to groundwater, the City of Minneapolis water system supplies Area N. No groundwater wells would be used as a water source. Modern operational standards used by the Air Force make it unlikely that groundwater contamination will occur from Air Force activities. Therefore, no groundwater impacts from the 2014 Plan are identified.

Cumulative Impacts: Construction-related impacts from the past construction projects were temporary increases in suspended solids loading to storm water runoff while soil was disturbed on site. The majority of the facilities were constructed on sites that included some turfed areas. Long-term impacts resulting from the presence of these facilities consists of increases in the volume of storm water runoff, due to additional presence of impervious surfaces in those cases. Such flow increases have not caused any problems with adequate drainage of runoff from Area N, nor required expansion of drainage system capacity, indicating that the increases to flow volumes have been minor. Results of storm water sampling conducted on a quarterly basis have shown improvement of water quality over the past five year period. Therefore, there are no cumulative water quality impacts from the proposed action when combined with the past actions.

Due to the non-industrial nature of the operation that would occur at the consolidated lodging facility, the EA for that facility anticipated no pollutant increase in the storm water runoff in the long term. Short-term increases in total suspended solids loading of the storm water runoff were anticipated to occur during construction and demolition activities. The environmental impact statement for the airport expansion included an extensive analysis of impacts to surface water quality from various airport related activities. The document concluded that the airport expansion would not adversely impact surface water quality when compared to not expanding. Impacts from the airport expansion construction were documented as potential from solvent or fuel spills on site and potential for soil erosion. Mitigation measures to be used by MAC on MAC projects were specified as

special handling and care of all potentially dirty water or hazardous materials, construction of special sedimentation ponds, designated maintenance areas for construction equipment, and use of various erosion control techniques. The assessment for the aircraft ramp extension anticipated an increase in the volume of storm water runoff from the aircraft ramp area, but no changes to storm water quality. No groundwater impacts were identified. In consideration of the Air Force Reserve's use of and reliance on its own BMPs to address potential impacts from its own projects, and the mitigation measures used by MAC solely for MAC's own ongoing major projects, the cumulative impacts of the proposed action in conjunction with other ongoing projects are not considered to be significant. Since none of the major ongoing projects anticipated significant impacts to water quality as their result, there is no potential for a cumulative significant impact to be caused by taking the proposed action being addressed in this environmental assessment.

The assessments for the additions to the AGE and communications buildings did not identify any significant impacts to water quality. Assuming that future construction projects continue to have erosion and sedimentation control measures incorporated into their design and work specifications, no significant cumulative impacts to water quality will occur.

4.3.4. Natural Resource Impacts

Individual Impacts: Area N has no wetlands, floodplains, rivers, streams or other bodies of water. Area N has no forested areas. As discussed in Section 3.5., the property is classified as a "Category II" site, which is unsuitable for conserving and managing fish and wildlife. There are no known or suspected occurrences within Area N of any state-listed or federally-listed endangered or threatened species, or other special natural features. Therefore, there are no anticipated natural resource impacts that would result from the proposed action.

Cumulative Impacts: Due to the lack of natural resources for Area N, as described in Section 3.5., and the lack of potential natural resource impacts resulting from the proposed action, there is no potential for cumulative impacts to result from the proposed action in conjunction with any of the past, present or reasonably foreseeable future projects.

4.3.5. Cultural Resource Impacts

Individual Impacts: As previously described in section 3.6., Area N has no known or suspected cultural resources, archeological resources, or National Register-eligible properties or structures. Therefore, there are no anticipated cultural resource impacts that would result from the proposed action.

Cumulative Impacts: Due to the lack of cultural resources for Area N, as described in Section 3.6., and the lack of potential cultural resource impacts resulting from the proposed action, there is no potential for cumulative impacts to result from the proposed action in conjunction with any of the past, present or reasonably foreseeable future projects.

4.3.6. Safety/Occupational Health Impacts

Individual Impacts: The proposed action would not result in any change to the mission, functions or types of activities that will be performed in Area N. No changes in work practices would be necessary to achieve an adequate level of health and safety. Therefore, no potential safety or occupational health impacts were identified as resulting from the proposed action.

Cumulative Impacts: No significant changes to the mission, functions or activities conducted on MSPJARS have occurred as a result of the facility construction projects completed within the past five years. Additionally, no changes in work practices were required to achieve an adequate level of health and safety. As described above, no potential safety or occupational health impacts are expected to result from the proposed action. Therefore, no cumulative safety or occupational health impacts resource impacts will occur.

4.3.7. Waste Management Impacts

Individual Impacts: The proposed action would result in increases in the volume of construction and demolition (C&D) debris generated from Area N. Data published by the U.S. Environmental Protection Agency suggests that the average rates of waste debris generated from non-residential building construction and demolition are 3.89 pounds per ft.² and 155 pounds per ft.², respectively. Using these figures, an estimate of the quantity of debris that might be generated from the various demolition projects throughout the 2014 Plan is 11,261 tons. The construction projects would add another 268 tons of debris. Although no recent data could be found documenting C&D debris generation rates within the Twin Cities area or within Minnesota, the Minnesota Office of Environmental Assistance estimated municipal solid waste generation in Minnesota at 5.75 million tons during the year 2001. Assuming a constant rate of generation, and conservatively assuming that C&D waste is only 10% of the amount of municipal solid waste, the average annual C&D waste. This does not represent a significant impact. In regard to long-term waste generation, the overall industrial and office waste volumes would be expected to remain generally consistent with current waste generation rates. Therefore, no long-term impacts to waste management are anticipated.

Cumulative Impacts: The facility construction and demolition projects completed over the past five years each caused temporary increases in the volume of C&D debris generated from MSPJARS. Only two of the facilities house activities or operations not previously performed on base (the fitness center and the Military Clothing Sales Store). Neither of these two facilities contributes significant amounts to the ongoing, long-term solid waste volumes generated at MSPJARS. Most of the waste stream from the Military Clothing Sales Store consists of cardboard, which is recycled. The inevitable generation of C&D debris from the current proposed action, when considered in conjunction with past volumes, does not constitute a significant impact to the state or regional waste disposal capacity because of its temporary duration. The long-term impact to waste generation from the recently constructed facilities, facilities under construction, and proposed facilities is negligible.

4.3.8. Socioeconomic Impacts

Individual Impacts: Short-term socioeconomic impacts resulting from the proposed action are opportunities for construction-related private sector employment during the facility construction and demolition projects. Estimated construction-related employment by private contractors would not be anticipated to exceed 40 individuals at any given time over a short-term period ranging from four months to two years. No long-term socioeconomic impacts from the proposal are anticipated.

Cumulative Impacts: The short-term socioeconomic impacts that resulted from the facility construction projects over the past five years, and which are expected to result from the ongoing or reasonably foreseeable future projects, are similar to the short-term impacts anticipated to occur from the proposed action. The cumulative socio-economic impact, while positive, remains insignificant in the context of the seven-county Twin Cities metropolitan area.

4.3.9. Environmental Justice Impacts

Individual Impacts: No people will be displaced from their residences by this proposed action. The "impact footprint" of the proposed action would be confined to Area N, without any change in land use. Area N is located within Census Tract 121.02, Block Group 2, Hennepin County, Minnesota. The 2000 census data for the block group shows a population that is 69% white. The 2000 Census data showed that 2.6% of the households within the tract had a household income below the poverty level during 1999. Therefore, there would be no disproportionate effect from the proposed action on either minority populations or low-income populations.

Cumulative Impacts: The past projects have not disproportionately affected minority populations or lowincome populations. Since there are no identified environmental justice impacts anticipated from the 2014 Plan, there is no potential for the proposed action to cause any cumulative effect to these populations, when considered in conjunction with the past, present or reasonably foreseeable future actions.

4.4. Impacts of the "No Action" Alternative

The Air Force Reserve complex within MSPJARS is currently used for the same function that it would be used for after completion of the 2014 Plan. Currently, no significant environmental impacts are occurring as a result of the ongoing activities conducted by the Air Force Reserve. The "No Action" alternative, in which no facility demolition or construction would occur, could not result in a significant change in existing environmental conditions. Air emissions would remain consistent with current emissions. Surface water runoff volume and quality would remain constant. There would be no potential for impacts of any kind to natural or cultural resources. Safety/occupational health conditions, waste generation and management, socioeconomic conditions, and conditions related to "environmental justice" would all remain essentially identical to their current conditions. Therefore, no environmental impacts, either individual or cumulative, are identified as potentially resulting if the "No Action" alternative is taken.

5. RECOMMENDATION

Analysis of the proposed action indicates that the potential individual environmental impacts that would result from its implementation will not significantly impact the environment. Additionally, in considering the proposed action in conjunction with other relevant past, present, or reasonably foreseeable future actions, no potential cumulative impacts were identified that would significantly impact the environment. The term "significantly" is used here in the same sense in which it is defined in 40 CFR 1508.27. The impacts identified for this proposed action are not "significant" in either their context or their intensity. Implementation of the proposed action would not cause a potential for significant degradation to the environment, nor would it cause a potential for significant threat or hazard to public health and safety. Implementation of the proposed action would also not result in substantial environmental controversy concerning the significance or nature of the identified environmental impacts. Therefore, preparation of an Environmental Impact Statement is not necessary prior to a decision on the proposed action. Documentation of a "Finding of No Significant Impact" (FONSI) is recommended. A suitable FONSI is provided as Appendix D of this document.

6. REFERENCES

Characterization of Building-Related Construction and Demolition Debris in the United States, U.S. Environmental Protection Agency, June 1998

Cultural Resources Survey Report, Minneapolis-St. Paul International Airport Air Reserve Station, Science and Engineering Associates, Inc., September 1995

Environmental Assessment MSP-EA-96001, Construct and Operate Military Clothing Sales Store, 934th Airlift Wing, 13 November 1995.

Environmental Assessment MSP-EA-97003, Construct Cold Storage Buildings, 934th Airlift Wing, 7 February 1997

Environmental Assessment MSP-EA-97013, Construct Combat Arms Training Simulation Facility, 934th Airlift Wing, 11 December 1997

Environmental Assessment MSP-EA-98003, Proposed Construction of Consolidated Lodging Facility, 934th Airlift Wing, 27 July 1998

Final Environmental Assessment MSP-EA-02-08, Proposed Addition/Alteration to Communications Building 761, 934th Airlift Wing, 03 September 2002

Final Environmental Assessment MSP-EA-02-13, Extend Aircraft Ramp, 934th Airlift Wing, 02 December 2002

Final Environmental Assessment MSP-EA-03-01, Proposed Addition to Aerospace Ground Equipment Shop, 934th Airlift Wing, 21 February 2003

Final Environmental Impact Statement, Dual Track Airport Planning Process – Twin Cities Metropolitan Area, Federal Aviation Administration and Metropolitan Airports Commission, May 1998

Finding of No Significant Impact for Proposed Runway 4-22 Extension, Minneapolis-St. Paul International Airport, Federal Aviation Administration, 14 April 2000

Natural Communities and Rare Species of Carver, Hennepin, and Scott Counties, Minnesota (Map), Minnesota Department of Natural Resources, 1998

Report on 2001 SCORE Programs: A Summary of Waste Management in Minnesota, Minnesota Office of Environmental Assistance, December 2002

7. PUBLIC NOTIFICATION AND EXTERNAL AGENCY CONSULTATION

32 CFR 989.24 states that an environmental assessment requires public notification, and that for "actions of local concern," public notification may be limited to the state Single Point of Contact, local government representatives, and local news media. The proposed Air Force action analyzed in this document is considered by the 934th Airlift Wing to be an "action of local concern." Therefore, public notification was made to the state Single Point of Contact and relevant state and local government agencies listed below, via submittal of a copy of the draft environmental assessment on 21 July 2003. The proposed action does not have a mandatory public review period. Therefore, only "notification" of the local media was required. This notification was accomplished through a press release, dated 24 July 2003, provided to local news media by the 934th Airlift Wing's Public Affairs Office. A notice of availability was also published in the Minnesota Environmental Quality Board's *EQB Monitor* on 04 August 2003.

Environmental Quality Board 300 Centennial Office Building 658 Cedar Street St. Paul, MN 55155

Minnesota Department of Natural Resources Environmental Review Unit 500 Lafayette Road St. Paul, MN 55155-4010

Minnesota Pollution Control Agency Regional Environmental Management Division Operations and Environmental Review Section 520 Lafayette Road, St. Paul, MN 55155-4194

Minnesota Historical Society State Historic Preservation Office 345 Kellogg Boulevard West St. Paul, MN 55102-1906

Metropolitan Council Attn: Chauncey Case 230 E. Fifth Street St. Paul, MN 55101 Metropolitan Airports Commission Lindbergh Terminal, Room 325 Minneapolis-St. Paul International Airport St. Paul, MN

City of Minneapolis Planning Department 350 South 5th Street Minneapolis, MN 55415

Hennepin County Planning Department, Suite A-2308 300 South 6th Street Minneapolis, MN 55487

Lower Minnesota River Watershed District 200 4th Avenue West Shakopee, MN 55379

32 CFR 989.14 requires the Air Force to involve other federal agencies, state, tribal, and local governments, and the public, in the preparation of environmental assessments, and states that the extent of involvement usually coincides with the magnitude and complexity of the proposed action and its potential environmental effect on the area. Through the public notification efforts described above, members of the public and the listed agencies were invited to participate in the preparation of this environmental assessment through review of the draft and submittal of comments. Comments were accepted until 03 September 2003. One comment letter was received, from the Metropolitan Airports Commission, addressing water quality impacts. The letter and a response are provided in Appendix C.

APPENDIX A

LOCATION MAPS

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Minneapolis-St. Paul Joint Air Reserve Station General Location



1

EMail arch#kodet.com •WebSite www.kodet.com Telephone 612.377.2737 •Facsimile 612.377.1311



EXISTING BUILDINGS

T

PROPOSED BUILDINGS

IS Groveland Terrace • Minneapolis, MN 55403-1154 EMail arch@kodet.com • WebSite www.kodet.com Telephone 612.377.2737 • Facsimile 612.377.1311

0

150 300

600

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Appendix BConformity Applicability Analysis2014 Development Plan

Yearly assumptions over the life of the development plan (all mobile source emissions; follow-on emissions would not vary from present emissions):

- 1. No more than two (2) of the facility construction/demolition projects would occur in any given year of the development plan.
- 2. Total construction of each facility takes one year (52 weeks), with work done 5 days per week.
- 3. Projects at any time employ 40 construction personnel per day.
- 4. Each worker commutes an average of 30 miles each way.
- 5. All workers drive Light-Duty Gasoline-fueled Truck POVs to/from the work site.
- 6. Four pieces of construction equipment are used on the projects, every work day.
- 7. Each piece of construction equipment uses 50 gallons of fuel per day.
- 8. Two other heavy-duty diesel trucks are used on the projects every day.
- 9. The heavy-duty diesel trucks travel 100 miles/day.
- 10. Five deliveries of materials/supplies are made to the site each day.
- 11. Each delivery is made by a heavy-duty diesel truck, which has a round trip of 100 miles.

POV comm	ute emissio	ns			
Number of	Miles/day	Emission	Grams to	Total	Total
workers	commuted	factor	pounds	Days	Pounds
	per worker	CO gr/mile	conversion	in project	Emissions
40	60	18.49	0.0022	260	25,383
No emission factor for SO ²					

Construction equipment emissions					
	Gallons of	Emission	Emission	Total	Total
Pieces of	fuel/day	factor CO	factor SO ²	days	Pounds
equipment	per equip.	lb/gal.	lb/gal.	in project	Emissions
4	50	0.133		260	6,916
4	50		0.0312	260	1,622

Heavy-duty diesel truck emissions						
	Miles/day	Emission	Grams to	Total	Total	
Number of	traveled	factor	pounds	Days	Pounds	
trucks	per truck	CO gr/mile	conversion	in project	Emissions	
2	100	11.22	0.0022	260	1,284	
No emission factor for SO ²						

Delivery tru	uck emissio	ns (HDDV)		•		
Number of	Miles/day	Emission	Grams to	Total	Total	
delivery	traveled	factor	pounds	Days	Pounds	
trucks	per truck	CO gr/mile	conversion	in project	Emissions	
5	100	11.22	0.0022	260	3,209	
	No emission factor for SO ²					

Total estimated Annual CO emissions (lb):	36,792
Total estimated Annual CO emissions (tons):	18.4
Total estimated Annual SO ² emissions (lb):	1,622
Total estimated Annual SO ² emissions (tons):	0.8

Note: Emission factors for various vehicle types were provided by Ecology & Environment Inc., under contract to HQ AFRC/CEV.

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APPENDIX C

COMMENTS ON DRAFT EA AND RESPONSES

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METROPOLITAN AIRPORTS COMMISSION



Minneapolis-Saint Paul International Airport 6040 - 28th Avenue South • Minneapolis, MN 55450-2799 Phone (612) 726-8100

September 3, 2003

Mr. Douglas Yocum 934 MSG/CEV 760 Military Highway Minneapolis, MN 55450-2100

Re: 2014 Development Plan Environmental Assessment Minneapolis – St, Paul Joint Air Reserve Station

Dear Mr. Yocum:

The Metropolitan Airports Commission (MAC) is sending this comment letter on the proposed 2014 Development Plan for the Minneapolis – St. Paul Joint Air Reserve Station. Specifically, our comments address the discussion on Water Quality Impacts, section 4.3.3.

The document outlines mitigation measures that the MAC has used and continues to use as part of our 2010 airport expansion. The following text is taken from the Air Force EA: *"Mitigation measures to be used were specified as special handling and care of all potentially dirty water or hazardous materials, construction of special sedimentation ponds, designated maintenance areas for construction equipment, and use of various erosion control techniques. The assessment for the aircraft ramp extension anticipated an increase in the volume of storm water runoff from the aircraft ramp area, but no changes to storm water quality. No groundwater impacts were identified. In consideration of the use of mitigation measures for the ongoing major projects, and the minimal individual impacts anticipated from the proposed action, the cumulative impacts are not considered to be significant." The draft Finding of No Significant Impact further states in the Summary of Environmental Impacts: <i>"Potential short-term increases in suspended solids in storm water runoff."*

While it is true that MAC has taken the measures listed above, there is no indication that the Air Force will do the same. The EA should state that the Air Force will handle all of their potentially dirty water or hazardous materials, designate maintenance areas for their construction equipment, and utilize various erosion control methods. MAC will not be responsible for any of this.

In addition, the special sediment ponds MAC constructed for the airport expansion do not take water from Air Force property. Therefore, it cannot be assumed that increases in suspended solids are acceptable or mitigated by MAC's ponds. A portion of Air Force property drains to MAC's north outfall and ultimately to Snelling Lake, however, increases in suspended solids will result in additional maintenance and the potential to exceed limits outlined in MAC permits. It is expected that the Air Force will take all measures necessary to protect storm water inlets and catch basins to prevent any increases in suspended solids.

Mr. Douglas Yocum September 3, 2003 Page 2

Finally, the EA should state that the Air Force will analyze their own projects for potential environmental impacts from increased impervious surface and potential impacts to the groundwater. It cannot be assumed that MAC's analysis and best management practices suffice for the Air Force projects.

If you have any questions, please contact me at 612,725,8371.

Sincerely, Oct Mr

Bridget M. Riëf, P.E. Airside Project Manager

cc: Toni Howell, MAC Gary Warren, MAC Hal Summit, Llesch Terry Schwalbe, LMRWD

DEPARTMENT OF THE AIR FORCE



AIR FORCE RESERVE COMMAND

04 September 2003

MEMORANDUM FOR METROPOLITAN AIRPORTS COMMISSION Attn: Ms. Bridget Rief, Airside Project Manager 6040 28th Avenue South Minneapolis, MN 55450-2799

FROM: 934 MSG/CE 760 Military Highway Minneapolis-St. Paul Joint Air Reserve Station, MN 55450-2100

- SUBJECT: Response to Your Comments on Draft Environmental Assessment for Minneapolis-St. Paul Joint Air Reserve Station 2014 Development Plan
- 1. We appreciate your review of the draft environmental assessment (EA) for our 2014 Development Plan. Your comment letter has been incorporated into Appendix C of the final EA. In addition, changes were made to the EA to address your specific comments regarding section 4.3.3., Water Quality Impacts. The following are our responses to those comments:
 - a. As you noted, the EA outlines mitigation measures that Metropolitan Airports Commission (MAC) uses as part of its 2010 airport expansion. The discussion of MAC's mitigation of water quality impacts which MAC identified as potentially resulting from its project(s) was necessary in order for the Air Force to analyze the potential for <u>cumulative</u> impacts (i.e., *the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions; cf. 40 CFR 1508.7). The description of MAC's stated mitigation efforts on its own projects was included to demonstrate that there our proposed action will not result in significant <u>cumulative</u> impacts because 1) there are no anticipated significant <u>individual</u> impacts from the action, and 2) MAC is mitigating the impacts that it anticipates from its own projects. It was not the Air Force Reserve's intention to imply that we rely on any efforts by MAC as a method of controlling water quality impacts that are caused by our own actions.*
 - b. The portion of Section 4.3.3. which addresses Individual Impacts of our proposed action has been amended to incorporate a description of the best management practices used by the Air Force Reserve; an indication that the best management practices are compliance requirements on the basis of being documented in our mandatory Storm Water Pollution Prevention Plan; and a statement reflecting that their use constitutes our taking the necessary measures to prevent increases in total suspended solids within MAC's storm sewer system.
 - c. The portion of Section 4.3.3. which addresses Cumulative Impacts has been amended to incorporate text reflecting that MAC's mitigation measures are solely directed toward its own projects, and that the Air Force Reserve uses and relies solely on our own best management practices to address potential impacts of our own projects.
 - d. The Summary of Environmental Impacts in the Finding of No Significant Impact has been modified to indicate that the potential short-term increases in suspended solids in storm water runoff will be minimized through the use of best management practices that address sediment and erosion control.

- e. Your recommendation for a statement within the EA, specifying that the Air Force will analyze our own projects for potential environmental impacts, has not been incorporated into the EA apart from this letter. The EA itself is an analysis of potential environmental impacts, which demonstrates that the Air Force Reserve does not assume or rely on any documentation produced by MAC for its projects to suffice as an analysis for our own projects. However, in order to fully comply with the federal environmental impact analysis requirements, we will continue to examine the potential for cumulative impacts that could result from any incremental impacts of our own actions in conjunction with other past, present, and reasonably foreseeable future actions regardless of what agency, including MAC, undertakes such other actions.
- 2. Per your request, future draft EA documents provided to MAC will be addressed directly to your attention. Thank you for your comments.

FOR THE COMMANDER

DAVID A. SWANBURG Base Civil Engineer

Attachments:

Environmental Assessment MSP-EA-03-06, Minneapolis-St. Paul Joint Air Reserve Station 2014 Development Plan **Appendix D**

Finding of No Significant Impact Environmental Assessment MSP-EA-03-06

Minneapolis-St. Paul Joint Air Reserve Station 2014 Development Plan

Description of Proposed Action and Alternative

The proposed action is implementation of a proposed long range facility development plan that would occur over a ten year period, consisting of demolition of seven (7) existing buildings, and construction of seven (7) new buildings. The "no action" alternative was also analyzed.

Summary of Environmental Impacts

Environmental Assessment MSP-EA-03-06, which is hereby incorporated by reference, documents anticipated environmental impacts that would result from implementation of this proposed action. The potential individual impacts are summarized as follows:

- Insignificant short-term increase in construction-related noise.
- Insignificant short-term increase in fugitive and mobile source air emissions during construction and • demolition activity. All such emissions are less than the applicable thresholds specified in 40 CFR 93.153(b)(2); therefore, a conformity determination is not required.
- Potential short-term increases in suspended solids in storm water runoff, minimized through the use of Best • Management Practices that address sediment and erosion control.
- Short-term increase in generation of construction and demolition debris. .
- Creation of short-term construction-related employment opportunities for local private sector laborers.

Analysis of the potential for significant cumulative impacts with other past, present, and reasonably foreseeable future federal, non-federal and private actions identified no such significant cumulative impacts. The "no action" alternative would have no environmental impacts.

Conclusions

Analysis of the proposed action indicates that the potential individual and cumulative environmental impacts that would result from its implementation are negligible. Implementation of the proposed action would not cause a potential for significant degradation to the environment, nor would it cause a potential for significant threat or hazard to public health and safety. Implementation of the proposed action would also not result in substantial environmental controversy concerning the significance or nature of the identified environmental impacts. No mitigation actions would be necessary for the proposed action. Preparation of an Environmental Impact Statement is not necessary prior to a decision on the proposed action.

Approval Signature: COOK, Colonel, USAFR

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