

## Appendix B - Aircraft Noise Screening by Airport Land Use Type

Aircraft noise and overflight concerns have been raised extensively throughout the Strategic Business Plan stakeholder involvement process. Prioritizing aeronautical development that minimizes the addition of community noise impacts is an important consideration as demand for airport facilities grows. Finding balance between airport activity growth and local community land uses is a major public policy challenge for many urban airports. The 2010 Land Use Plan for RMMA identifies the Airport Influence Area (AIA) and designates critical zones to help the Airport and surrounding communities plan compatible land uses. This Land Use Plan is described in Sections 4. As noted in the online survey results presented in Appendix A, airport noise and overflight disruption are significant concerns to many of the people who participated in the survey. RMMA staff, airport users, and pilots are working collectively to implement the Airport's Fly Quiet Program and continued focus on these efforts will be important as airport activity grows and facilities are built to accommodate that activity.

Evaluating the noise profile of a proposed operation and its associated aircraft is one aspect of assessing the relative impacts of a development proposal over existing and future planned activity levels. Noise impacts are a function of aircraft type, number of operations, duration of each event, time of day and overflight community sensitivity. Aircraft operations are made up of arriving aircraft, departing aircraft and those in the local traffic pattern. When assessing development proposals, relative measures of potential noise impact can be assessed similar to the general approach shown in **Table B1**.

There are common operational characteristics of aircraft used for various purposes. Most of these uses already take place at RMMA and all are forecast to grow with demand in the future.

1. Commercial passenger flights, charter flights and air taxi flights provide passengers with point-to-point transportation. Typically, desired schedules of these passengers and the transportation convenience of air travel from a general aviation airport like RMMA tend to group these flights in the mornings and evenings. Flight paths are almost exclusively directly in and directly out of the airport environment using the primary east/west runway (Runway 12L-30R). Historically, RMMA has had very few of these types of operations, but these activities are likely to increase in the future. Typical scheduled passenger service operates on aircraft like the Embraer E135 & E145, Airbus A320 and Boeing 737. Flights on these aircraft can efficiently carry a wide range of passengers with total seats from 30 up to 180.
2. General aviation flights account for most flights that occur daily at RMMA. These flights can be broken down into three basic categories that include leisure flying, flight schools, and corporate aviation. Leisure flying is associated aircraft tie-downs, private hangars and FBOs. General aviation leisure flights include point-to-point travel but also include traffic pattern activity as pilots continue proficiency and currency training. Aircraft types are mostly small, single-engine aircraft with some small twin-engine aircraft.

Flight schools are associated with their own hangar/tie-down areas and FBOs. These flights include extensive amounts of traffic pattern activity as well as local practice area flying within 10 to 15 minutes flying time of an airport. Aircraft types are mostly small, single-engine aircraft with some small twin-engine aircraft.

Corporate aviation is associated with individual hangars, larger corporate hangars and FBOs. Corporate operations typically use light, jet aircraft like the Gulfstream G280 and Cessna Citation Jet and operate seven days per week, daytime and nighttime, based on customer needs. High-performance, light, single-engine aircraft, small and mid-size turbo-prop twin-engine aircraft are also used, although less frequently for corporate operations. Flight paths are directly in and directly out of the airport environment using the primary east/west runway (Runway 12L-30R). The demand for general aviation services and facilities at RMMA is strong and growing for all three types of general aviation uses.

3. Maintenance, repair, and overhaul (MRO) provides services to aircraft owners in keeping their aircraft airworthy and up to date. Some MRO facilities specialize in major refurbishment and overhaul of aircraft to meet user needs and to extend the life and value of the aircraft. This type of business typically operates Monday through Friday, 8AM to 5PM, but can also be on demand depending on customer needs.
4. Aircraft and aviation manufacturing provides a wide range of specialized design, development, fabrication, assembly, and completion of aircraft components, systems and completed aircraft. The Ball Aerospace and Pilatus facilities at RMMA are two companies already making use of the local workforce talents in aviation manufacturing. Operations can take place in one large building or a complex of buildings and usually occur Monday through Friday, 8AM to 5PM
5. Fixed base operators (FBO) service aircraft and accommodate pilots making use of an airport. FBOs sell fuel, provide aircraft storage, provide maintenance and repair, and provide facilities for pilots. They serve both itinerant flights and local based aircraft. These types of businesses typically operate 24-hours per day, seven days a week, depending on customer needs.

Table B1: RMMA Aircraft Noise Comparison by Airport Land Use Matrix

RMMA Aircraft Noise Comparison by Airport Land Use								
Type of Use	Relative Operations per Day	Relative Noise per Operation	Noise Index	Average Operations per day <sup>2</sup>	Typical Acres per Use	Operations per Acre	Relative Noise per Acre	Relative Community Noise Impacts
Commercial Passenger Service <sup>1</sup>	Low	Medium	Low to Medium	16	25	0.64	Low	Morning/evening louder single events
General Aviation - <b>Leisure</b>	Low	Medium	Low to Medium	120	13	9.23	Medium	Regular hourly overflight events; more weekends
General Aviation - <b>Flight School</b>	High	Medium	Medium to High	196	5	39.20	High	Regular hourly overflight events; all day
General Aviation - <b>Corporate</b>	Low	Low	Low	40	7	5.71	Medium	Occasional louder single events
Maintenance Repair Overhaul (MRO)	Low	Low	Low	12	12	1.00	Low	Rare louder single events
Aircraft Manufacturing	Very Low	Low	Very Low	8	8	1.00	Low	Rare louder single events
Fixed Base Operation (FBO)	Medium	Medium	Medium	140	15	9.33	Medium	Mixed louder single events; regular overflight

<sup>1</sup>Commercial Passenger Service includes Air Carrier and Air Taxi operations

<sup>2</sup>Average annual day operations based on 2019 actual; average-day, peak-month operations 30 percent higher than average day  
 Note - This figure presents an example of how actual development proposals could be assessed based on relative noise factors.