1. In October 2011 this room was standing-room only and there were a lot of noise complaints. It's pleasing to see that there's been some satisfaction to these complaints over the last couple of years. Quieter engines and the divergent headings off of Runway 30R over South Minneapolis are certainly helping.

Comment noted. MAC staff holds each Public Input Meeting after business hours and outside secured areas of the airport in an effort to make it convenient for the public to attend. However, attendance is variable.

2. One of the things I've asked for over the years has been to study altitude a little bit more. As John said, on warmer days in the summer planes are lower and there have been a bunch of studies that were done over the years about that. I would like that you continue to do studies by plane type – I've requested quite a while ago that we have a study done by plane type – because the Noise oversight Committee tends to have statistics that average values. When you have a lightweight plane like the regional jets, they're flying way up there – you could send them over my house all day long and I'm not going to complain. But it's the heavier, lower altitude jets which -I'm not sure what study has been done lately in the change of aircraft type, but I think one of the reasons why you've got fewer flights but more passengers it they're flying bigger, louder airplanes and those are the ones that my neighborhood tends to have trouble with. When there are there or four of those in a row, in a two-minute space of time, that's when the noise complaint line lights up. Three years ago, in January 2012, there was a very extensive altitude study that was done, I'd like to see that study repeated. I'd like to see some comparisons to the charts in the 2012 study to see how things are improving, if indeed the sound issues are being more spread out and there are fewer peaks.

Comment noted. In January 2012, Scott Shelerud, MSP Support Specialist of the Federal Aviation Administration (FAA) provided a presentation to the MSP Noise Oversight Committee (NOC) for the specific purpose of addressing increased noise concerns from the Ericsson, Keewaydin and Standish neighborhoods in Minneapolis. In short, the FAA found that, in addition to increased safety considerations after a near-miss in 2010, the removal of SAAB 340 turbo prop aircraft from the fleet mix at MSP has had a profound impact on the traffic flow and flight track usage at the airport. This was found to be a significant factor in the present operational pattern over the concerned neighborhoods. As a result of their findings, the NOC recommended that northbound departures from Runways 30L and 30R at MSP be given vectored headings of 320°, 340° and 360° by the FAA in order to obtain greater dispersal of departing flights over nearby Minneapolis residential areas located to the north of the airport.

On April 2, 2012, the MAC Planning, Development and Environment Committee supported the NOC's recommendation and on April 16, 2012 the MAC Full Commission voted in favor of advancing it to the FAA. MAC Chair Dan Boivin then sent a letter to the FAA Assistant Air Traffic Manager requesting the FAA "take necessary actions to implement the above operational measures at MSP" and the FAA agreed to implement the measures by August 1, 2012.

At the July 17, 2013 NOC meeting, Minneapolis Representative John Quincy requested that MAC staff conduct an analysis on the density, altitude and dispersion of northbound departures from Runways 30L and 30R. MAC Noise Program Office staff conducted an analysis and provided a report at the September 18, 2013 NOC meeting. The report is available in the September 2013 agenda packet at: <u>http://www.macnoise.com/our-neighbors/noc-meetings</u>. In summary, the analysis confirmed the use of the 320°, 340° and 360° headings dispersion off of Runway 30R.

Additionally, the MAC Noise Program Office is currently working to enhance the online FlightTracker application to provide users the ability to create user-defined gates to assess altitude and density trends. This feature would provide the public with the tools necessary to investigate aircraft altitude trends in specific areas and filter by aircraft type.

3. I'm surprised there aren't more people from south Minneapolis here. If, indeed, Runway 12L is being used more, I'm curious to know how the complaints are coming from that area of Minneapolis.

Runway use and complaint information is provided in monthly Technical Advisor's reports available at: <u>http://www.macnoise.com/tools-reports/monthly-operations-reports</u>.

4. Regarding Runway 30L and complaints in Richfield, you just said there have been no procedural changes, nor do you think that individual communities had any influence on those noise issues – which is it? A temporary noise monitor was placed in Richfield about a year and a half ago and that points out something that I complained about three or four years ago – these noise monitors are not accurate and you keep telling us that they are. We asked for noise monitors to be placed in our neighborhood and we got denied about a year and a half or two years ago. I think that you need to pay some more attention to putting noise monitors where people are complaining. It is changing, it moves around – from what I know from the activities of the Quiet the Skies organization that Edina probably did influence and had routes subtly changed. It doesn't take much change to move a plane off the Crosstown and create a lot of noise in other neighborhoods. I think you need to pay some attention to that and study those issues with the noise monitoring system.

Comment noted. The FAA Air Traffic Control Tower (ATC) returned to a more rigorous adherence to existing runway assignment procedures, due to a near-miss incident at MSP in 2010. Specifically, departing aircraft are being directed to the runway that aligns closest with destination and associated departure headings to minimize the need to cross operations in the air. The FAA has stated that there were no changes in air traffic procedures.

Individual community complaints do not change where aircraft operate. The FAA has sole authority for determining where aircraft will fly and how the airport will operate. These decisions are made solely upon standard air traffic control procedures and noise complaints are not considered when making these decisions.

The MAC's system of 39 Remote Monitoring Towers (RMT) is one of the most extensive permanent aircraft noise monitoring systems in the world. This system monitors noise events continuously in communities surrounding MSP. Each RMT was located precisely to record aircraft arrival and departure operations to and from each runway at MSP.

In July 2014, a validation study was conducted to assess the accuracy of the RMTs and flight tracking system. The study found noise events are 92.1% accurate and flight track operations are 97.1% accurate when compared to field observations.

5. I agree it's noticeable for us in our neighborhood that a lot more quieter planes are flying over our area. But our neighborhood in Richfield is very seriously impacted by takeoffs. About a year and a half ago, two years ago, we made a concerted effort in our neighborhood – the Richfield Lake neighborhood, which is right at the Crosstown Commons – regarding the noise and the altitude of the planes that fly directly over our houses. At that time, we were in the position of being exactly equidistant from the two permanent noise monitors and we had wonderful help from our commissioner, Lisa Peilen, and City Council Member Fitzhenry, in getting a sound monitor in our neighborhood that determined, indeed, the permanent noise monitors were not picking up accurate noise for our neighborhood and, indeed, the noise of the planes going directly over our homes exceeded the acceptable decibel level. And yet we're consistently denied any mitigation. I'd like reconsideration of mitigation for our area.

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Aircraft noise events recorded at the RMTs do not determine mitigation eligibility for the Residential Noise Mitigation Program at MSP. The Federal Aviation Administration (FAA) outlines that the Integrated Noise Model (INM) be used to assess noise impacts around the vicinity of our nation's airports and to develop the boundaries of sound insulation programs.

The INM uses numerous variables as inputs in the development of noise contours. Actual aircraft flight paths, number of operations, aircraft types, atmospheric conditions, terrain, aircraft performance and other variables are used. The INM adds a 10-decibel nighttime noise penalty to aircraft operations expected to occur between the hours of 10 p.m. and 7 a.m. to take into consideration the relatively low nighttime ambient noise levels and the fact that most people are sleeping during this time. These variables are then used to map an average annualized day of noise impacts considering all arrivals and departures to and from the airport.

The FAA's INM methodology is universally recognized and applied at all U.S. airports, and is what the MAC uses to determine mitigation eligibility for the Residential Noise Mitigation Program.

6. With the help of our mayor, we tried to deal with Edina, which blocked the navigation from going directly over the Crosstown, as it had in the past - the homes along the Crosstown have been mitigated – and then going north or south over Edina. Edina used its considerable influence to route those planes over Richfield, complaining it was too noisy for them. I have a request – now with the quieter planes, the City of Edina would not be so negatively impacted if those planes were routed over the Crosstown once again and turn over Edina because that noise was measured a good two years ago, and things have changed. It certainly would make a difference for those of us living in our neighborhood.

The City of Edina has not created any changes in aircraft procedures at MSP. In 2012, the Federal Aviation Administration (FAA) proposed Area Navigation (RNAV) arrival and departure procedures off all runways at MSP for MAC consideration. The proposed RNAV arrival procedures were overlays of existing procedures; there were no significant changes from current arrival operations. Additionally, the RNAV arrivals would incorporate Optimized Profile Descents (OPD), which enable aircraft to descend from cruising altitude to the runway in a smooth, continuous arc instead of the traditional staircase descent. This saves time for passengers, while reducing fuel and carbon dioxide emissions. For these reasons, the MAC Full Commission supported RNAV arrival procedures to all runways at MSP. The FAA is planning to implement RNAV arrivals in March 2015.

The RNAV departure procedures developed by the FAA were concerning to many residents around the airport. Currently, the FAA Air Traffic Control Tower gives departure operations headings to depart the airport and fly safely on route to their destination. Variations in headings and the point at which departing aircraft make their turns exist due to factors such as aircraft destination, departure runway, wind, weather, aircraft performance, pilot technique and safety considerations. This causes departure operations to be fanned over a large area. RNAV departure operations would condense these fanned operations to a limited number of specific departure paths over the ground. Those under a departure path would experience an increase in aircraft overflights. This was a major concern expressed by residents and city officials when the MAC was considering the FAA's proposed RNAV departure procedures.

In November 2012, the MAC voted to support partial implementation of RNAV departures at MSP. Following this action, the FAA completed a Safety Management Study and determined that partial implementation is not possible without jeopardizing safety. For this reason, no further action is being taken at this time toward implementation of RNAV departure procedures. The departure procedures that are being used currently are the same as they were prior to the RNAV departure proposal by the FAA.

7. Lately there have been some 2:00am flights going over our homes that wake us up. I think that's really unacceptable. We were there long before those planes were.

Comment noted. According to the Airport Noise and Capacity Act (ANCA) of 1990, no airport may impose any access restriction, such as a mandatory curfew, that unduly burdens interstate commerce. All seven MAC-owned airports are public use facilities available 24 hours per day. Because all seven MAC-owned airports are public-use facilities that use federal aviation dollars for improvements and development, federal policy supersedes local authority with respect to access and use of the airports. A curfew would create a burden on interstate commerce which is illegal by FAA regulations. Since ANCA was implemented, the federal government has not granted approval to any airport to implement an access restriction.

The MAC has, however, implemented voluntary restrictions at MSP and its six reliever airports with recommended procedures for operations that occur during the nighttime hours (10:30 pm to 6:00 am). Letters were sent to all air carrier operators at MSP on December 18, 2007, requesting that they "put forth [their] best efforts to avoid scheduling operations between the nighttime hours of 10:30 p.m. and 6:00 a.m. and avoid the use of louder, modified Stage 3 aircraft for flights that are scheduled to occur during the nighttime hours."