

**Assessing the Importance of the Range Regional Airport on Hibbing and the Iron  
Range Region**



**Prepared for:**

**Range Regional Airport**

11038 Highway 37, Hibbing MN 55746; Phone: 218-262-3451

**Prepared by:**

Dakota Rice, Student, School of Business and Economics  
University of Wisconsin-Superior  
Email: [DakotaSalavat@gmail.com](mailto:DakotaSalavat@gmail.com)

Sakib Mahmud, PhD, Associate Professor, School of Business & Economics  
University of Wisconsin-Superior  
Email: [smahmud@uwsuper.edu](mailto:smahmud@uwsuper.edu)

THIS PAPER IS COMPLETED AS A REQUIREMENT FOR THE SUMMER UNDERGRADUATE  
RESEARCH FELLOWSHIPS (SURF) PROGRAM, UNIVERSITY OF WISCONSIN-SUPERIOR

## 1. Executive Summary

Range Regional Airport (RRA) is one of the important regional airports in the state of Minnesota. RRA primarily serves the city of Hibbing/Chisholm along with the cities of Minnesota's Iron Range Region. Currently, RRA provides two commercial flights per day to Minneapolis Saint Paul (MSP) International Airport through *Delta Airlines* and a direct flight to Laughlin, Nevada, every 4-6 weeks, through *Sun Country Airlines*. The Chisholm-Hibbing Airport Authority (CHAA) owns and operates RRA. Under general aviation services, RRA operates the Fixed Base Operation (FBO) of the Hibbing Fueling Facility, maintains a seaplane base, and rents its aircraft hangar. As of 2017, there are nine (9) employers (tenants) at the airport supporting around 200 jobs. Most notable among them are DMR Electronics, Midwest Aircraft Refinishing, Life Link III, DNR and others. In addition, RRA makes individuals, families, businesses, and communities experience the higher quality of life that the City of Hibbing and the Mesabi Iron Range has to offer.

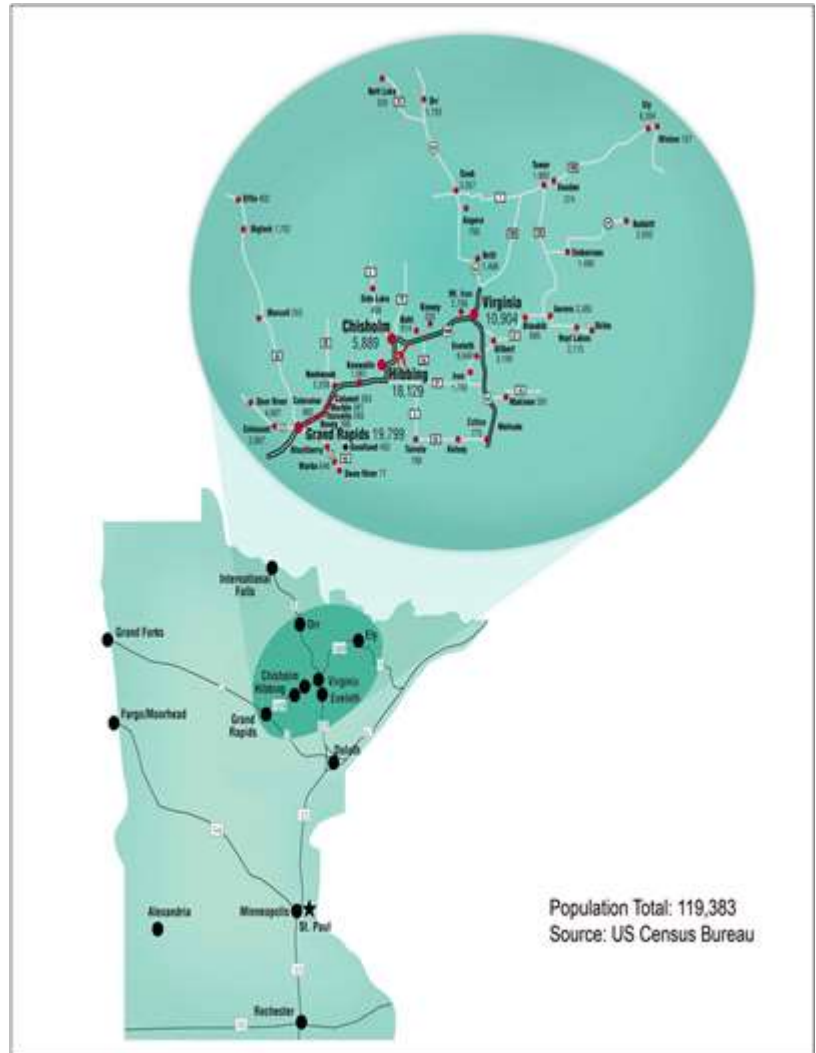
A 2017 study reveals that the combined economic impact of small community air service in USA is conservatively estimated at US\$ 121 billion and supporting over 1.1 million jobs in year 2015 (InterVISTAS, 2017). The study covered roughly 350 small communities around USA that currently receive air service (InterVISTAS, 2017). In another most recent report by the US Department of Transportation (USDOT), small-hub airports in USA only make up 12% of all passenger traffic but providing essential air service to 88% of the communities nationwide (DOT, 2017). Range Regional has worked to keep jobs local and has expanded to fulfill the growing needs of the Hibbing economy. For its 2014-2016 renovation project, RRA invested US\$ 18 million into capital improvements to expand its main terminal to accommodate more customers. The renovation projects involved resources collected from Minnesota's Iron Range region. For example, taconite (iron) slabs and timbers from the Iron Range are used for the main terminal design and renovation. According to latest figures, the improvements have contributed to 4-6% annual increase in passengers at the RRA.

Like other regional airports, RRA is also facing many barriers, most notably the pilot shortages as a result of increased training hour requirements, and budget cuts to programs, such as the Essential Air Service (EAS) which provides federal subsidy dollars to the airline to cover its operating costs. Despite the barriers the study concluded that Range Regional Airport serves as a major asset to the Iron Range community and its contributions towards regional economy.

## 1.1 The Minnesota Iron Range

The Range Regional Airport primarily serves the cities of Hibbing/Chisholm in Saint Louis County Minnesota. The City of Hibbing was founded in 1883 by Frank Hibbing who found the iron rich land known as the Mesabi Range. In 1893, the town of Hibbing was planted and over the years the town grew to a current population of 16,093 by 2016 (Census, 2016). Hibbing has been known over the years as, “The town that moved the Grand Canyon of the north (Hibbing, MN | Home, 2017).” The successful mining industry started the city of Hibbing and the industry still remains the primary support of the Hibbing economy. However, the city has much more to offer besides its reliance on mining industry. For example, in 1914, Carl Wickman and Andrew Anderson started a small bus line that would go on to become *Greyhound Lines*, the largest

**Figure 1: Highlight of the Mesabi Range**



Source: Range Regional Archives

bus line in the world. “Hibbing is our birth place, it’s like Plymouth Rock,” former CEO Frederick Dunikoski said during the 70<sup>th</sup> anniversary (1984) of the company (Walsh, 1984). There are also many well-known people that grew up in Hibbing, most notably among them is Bob Dylan. Others include Kevin McHale, Vincent Bugliosi and Roger Maris.

## 1.2 Range Regional Airport

The Range Regional Airport (RRA) is a public airport located southeast of the central business district of Hibbing in Saint Louis County and is one of the five (5) Essential Air Service (EAS) airports in the state of Minnesota.<sup>1</sup> Unlike the two largest commercial services and primary airports, i.e. Minnesota-St. Paul (MSP) International Airport and the Duluth International Airport, RRA is a non-hub airport that accounts for less than 0.5% of total US passenger boardings (enplanements) each year, but accommodate more than 10,000 passenger enplanements each year.<sup>2</sup> RRA is home to commercial, private and public service aircraft. As of 2017, there are nine (9) employers at the airport supporting around 200 jobs. (Germolus, 2017)

Over the years, Range Regional has been at the center of the Hibbing's growth facilitating local businesses, and providing

safe, easy transportation to MSP International Airport. Currently, RRA provides this through two commercial flights per day to MSP and a direct flight to Laughlin, NV every 4-6 weeks.

**Figure 2: Passenger Boarding Bridge**



Source: [www.rangeregionalairport.com/our-history](http://www.rangeregionalairport.com/our-history)

## 1.3 Economic Impacts of Regional Airports with Airline Service

One of the biggest ways an airport such as Range Regional affects the local community is through its economic contribution. As the present economy is increasingly dependent on air travel, Range Regional Airport (RRA) provides a sufficient platform upon which Hibbing can grow properly and meet the needs of the community. It allows for quick transportation, increases business investments, tourism and access

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<sup>1</sup> The other five airports under the US government funded Essential Air Service (EAS) program in the State of Minnesota are: (1) Bemidji Regional Airport; (2) Brainerd Lakes Regional Airport; (3) Falls International Airport; (4) St. Cloud Regional Airport; and, (5) Thief River Falls Regional Airport. All these EAS airports have passenger boardings (enplanements) between 2,500 and 24,000 per year.

<sup>2</sup> The US Federal Aviation Administration (FAA) defines four categories of airports operating within USA. They are: (1) commercial services – primary airports; (2) commercial service- non-primary airports; (3) reliever airports; and, (4) general aviation airports. Among the commercial services under primary airports, each primary airport is sub-classified by FAA into four “hub” types. The four “hubs” are: (a) large-hubs that account for at least 1% of total US passenger enplanements; (b) medium-hubs that account for between 0.25% and 1% of total US passenger enplanements; (c) small-hub airports that account for between 0.05% and 0.25% of total US passenger enplanements; and, lastly, (d) non-hubs that account for less than 0.5% of total US passenger enplanements per year, but more than 10,000 annual enplanements (NPIAS, 2017).

to the global air transportation network. One of the best ways to measure the effects a business has on its local economy is to find how frequently, the businesses' financial inputs, such as wages, revenue, investments changes possession to influence the local and regional economies. In economics, this phenomenon is referred to as the *multiplier effect*. Using information from a 2017 study by the InterVISTAS, a company of the Royal Haskoning DHV, on the economic impacts of small community airports in USA, we find that the Range Regional Airport's contribution to the local economy in year 2015 to be approximately US\$ 15.24 million. To reach our conclusion, we applied percentage of enplanement at the Range Regional Airport and the population data of City of Hibbing compared to other five regional airports.

#### **1.4 Social Impact of Regional Airports with Airline Service**

Besides contributing towards the local and regional economies, airports like the Range Regional Airport (RRA) also contribute towards improving the regions quality of life in a number of ways that are not captured by standard economic indicators and the regional economic reports. For example, RRA provides social benefits to the City of Hibbing and the surrounding communities by: (1) contributing to sustainable development; (2) supporting remote communities; and widening consumer choice. By taking advantage of recreational and leisure travel demand in the area, RRA is contributing to the local economy through nature-based tourism. It helps connect the local community to rest of the world by accommodating hour long daily commercial flights to the Minneapolis-Saint Paul (MSP) International Airport that are operated by Delta Airlines and the monthly charter flights to Laughlin, Nevada, operated by the Sun Country Airlines (RRA, 2017). With better management, the additional finance from nature-based tourism can aid in the protection of local nature and cultural the heritage of the Minnesota's Iron Range region. In addition, RRA, like other similar sized airports, can assist local governments to establish relationships with other communities providing a means for the delivery of income-generating operations, such as the promotion of local goods and crafts, as well as essential supplies, such as medical, educational, and technological services, etc. Without the presence of RRA, the City of Hibbing and other communities of Minnesota's Iron Range region would be devoid of these income-generating, essential, and even, some non-essential services at low-cost to their residents. Moreover, RRA can facilitate closer international integration by increasing understanding of different cultures and nationalities through promotion of travel and tourism. In today's geo-political and economic climate, such services through the local airport, which contributes to consumer welfare and social benefits, cannot be denied.

## **1.5 Environmental Impacts of Regional Airports with Airline Service**

To ensure sustainable and healthy communities, keeping a safer and cleaner environment is essential. As community grows, the need for quick efficient modes of transportation, such as air transportation, is crucial to the economy. However, the long-term priority of maintaining clean air to ensure better public health cannot be diminished. The Federal Aviation Administration (FAA) NextGen's Environment and Energy program lays out regulations and policies that all airports should follow when running their daily operations (FAA NextGen, 2017). For sustained aviation growth, NextGen program focuses on limiting future environmental impacts of aviation to levels that protect public health and welfare from aviation-related noise, carbon dioxide emissions that negatively impacts air quality, and aviation discharges that are harmful to water quality (FAA NextGen, 2017). In addition, the program emphasizes on energy efficiency and developing alternatives to jet fuels for commercial aviation (FAA NextGen, 2017). Considering these laid out rules and policies, a more accurate and comprehensive socio-economic benefit analysis of airports cannot be performed without taking into account the costs and benefits of environmental compliance.

Among the major aviation-related environmental impacts, fuel emissions and noise pollution are most common in all regional and national airports. Fuel emissions happen when planes or onsite vehicles burn fuel. When fuel is burned, many gases and airborne chemicals are produced as a byproduct of the combustion. Many of these byproducts can cause harm to our health and contribute to global warming. It was found that air travel makes up 13% of CO<sub>2</sub> transportation emissions and 2% of all human related CO<sub>2</sub> emissions (Whitelegg, 2000). On the other hand, noise pollution measures the disruption that airport noise causes to local residence. However, the Range Regional Airport (RRA) is not found to have a significant impact on noise pollution due to the airport's location of 6.8 miles away from the central business district of Hibbing. Therefore, fuel emissions will be the main environmental impacts but could also be considered negligible due to the low (2) number of daily flights. In addition, the positive impacts of the onsite Department of Natural Resources (DNR) operated tanker base should be taken into consideration when evaluating RRA's environmental impacts. Other notable environmental impacts, including habitat destruction and induced environmental impacts, are not covered in this study due to their marginal impacts on the region.

To better understand RRA's contributions to the region, literature review along with face-to-face interviews and a short business questionnaire survey were conducted. For the face-to-face interviews, four

local entities were involved. They are: (1) The Department of Iron Range Resource and Rehabilitation Board (IRRRB); (2) the Fairview Health Services; (3) The Hibbing Chamber of Commerce; and (4) the Chisholm-Hibbing Airport Authority (CHAA). The short business questionnaire survey was distributed among the business entities operating within the premises and land owned by RRA. Due to low response rate to the business questionnaire survey, more emphasis is put into qualitative assessment based on face-to-face interviews to best present the findings. The study found that overall assessment of RRA's relationship with the Iron Range is positive and all participants found RRA's role to be very supportive. Overall, RRA is considered to be an asset for community given its contributions through medical support services, technical support services, job creation, tourism development, the establishment of connections among communities, and representation of the natural attractions and cultural heritage of the Mesabi Iron Range. This not only facilitates future economic expansion but also showcases a higher quality of life in the region.

## **2. Introduction: Purpose of the Study**

The Range Regional Airport (RRA) is a public use airport located southeast of the central business district of Hibbing in Saint Louis County, Minnesota. It is home to public, private and DNR firefighting aircraft. According to recent data, there are about nine (9) employers on the airport supporting around 200 jobs with 42 aircraft serving local and regional communities (FAA, 2017). To assess the importance of RRA's contributions towards shaping the local economic, cultural, and the environmental features, this study takes a more holistic approach by not only identifying RRA's contributions to the community in these three areas but also looking into RRA's own benefits and barriers while operating as a regional airport that covers Minnesota's Iron Range region and its adjacent areas. The overarching goal of the study is to find out how the airport directly and indirectly supports the community in terms of promotion of nature-based tourism and recreational activities, job creation, local business upkeep, interconnection of communities, supply chain management, and logistics operations of industries that operate within-and-out of the state of Minnesota at manageable cost, and other important role to support a sustainable society. It will also assess the environmental issues associated with running a regional airport.

### **3. Research Design**

The research design for the study includes comprehensive literature review, face-to-face interviews of experts representing prominent establishments that are supporting the community, and a short business questionnaire survey of business entities that are operating within the premises and land owned by the Range Regional Airport (RRA). The literature review makes use of six peer-reviewed academic research papers on small and large-scale airports. The research on the Range Regional Airport is divided into three sections: (1) the airport's economic impact on the local region; (2) its social contributions; and (3), its environmental impacts affecting the community and the Minnesota's Iron Range. Considering small size of the RRA, the literature review focused on research pertaining to similar sized airports. Well-documented research on small-and-medium sized airports are also considered and used to address some of the research areas.

Besides performing literature review, primary data is collected using a short survey questionnaire of businesses operating within the RRA property and face-to-face interviews of expertise who are familiar with RRA and the region. Secondary data is collected from various sources, most notably from the RRA archives. For the survey, the questionnaires are distributed electronically to businesses that are tenants of RRA. Out of the nine tenants that received the survey questionnaire, only four responded, which is giving a response rate of 44.44%. The questionnaire covers information on number of employees, operating costs and revenues of the businesses. Given the small sample size, which is less than 30, a comprehensive statistical analysis could not be performed. Instead a descriptive statistical analysis is performed to present the findings. The survey questionnaire is approved by the Institutional Review Board (IRB) of the University of Wisconsin-Superior to ensure protection of the privacy and other rights of the human subjects who participated in the questionnaire survey.

Requests for face-to-face interviews were sent out to selected individuals, who were considered to be good representatives of the community and have considerable knowledge about the Range Regional Airport. The interviews were conducted between the month of July and August of 2017. Interview participants included representatives from the Hibbing Chamber of Commerce, Fairview Range Hospital, CHAA and the Department of Iron Range Resources and Rehabilitation Board (IRRRB). The interviews revealed information for a better understanding of the community's history relating to its association with the RRA and how RRA shaped the development of businesses and life of the residents of the City of Hibbing and



other surrounding communities in Minnesota's Iron Range region. As part of the interview process, information on the state of the Iron Range community is also collected. A qualitative approach is undertaken to evaluate and analyze the interview results. The list of questions used for the interview process and a copy of the business survey questionnaire can be found at the appendix section of the report. The study focused on the following research questions to achieve its main objective.

- 1) How the presence of the Range Regional Airport influences the City of Hibbing and its surrounding community in terms of overall economic growth and development?
- 2) What economic, environmental, and social barriers does the airport face and how will they affect the future of the City of Hibbing?
- 3) Are the investments associated with various capital improvement projects of the Range Regional Airport worthwhile?

#### **4. Importance of the Regional Airport**

A sustainable economy goes hand in hand with sustainable aviation industry. Having a regional airport can economically contribute to the local communities in many different ways. Besides influencing local tourism, recreation, hospitality, and housing industries through job creation and wealth, it can improve efficiency of the local supply chain and encourage investments both in and out of counties and regions. By establishing easier and cheaper trade with distant markets and marketing of goods and services, a regional airport can play a key role in promotion of local goods and crafts. Such linkages can spur innovation and economic growth while exploiting the economies of scale of local businesses. A well-manages small hub airport can work with local businesses to service and meet their clients through effective communication. It can increase local businesses production efficiency by allowing them to provide fast and reliable delivery of high-value products and increasing their range of product markets. In addition, a local airport can improve the businesses' ability in handling of returns and complaints from their clients as well as facilitating the development of e-commerce in the local region. Research also reveals that a good air transport link can encourage businesses to invest in areas that they find to have potential for growth and development. Besides all the economic spin-offs that arise from the presence of a local regional airport, the local, state, and the national treasuries benefit from the airport being a

significant tax payer. In fact, the airport industry is the only transport mode that pays both user charges and taxes.

Besides RRA's direct effects through employment and income generation through its employees, RRA indirectly supports the logistical needs of many markets and businesses in the Iron Range, including local mining, medical, tourism, recreation, hospitality, education, and many more. A study conducted in 2015 by the InterVISTAS, a company of the Royal HaskoningDHV, performed economic impacts of the small community airports in USA (InterVISTAS, 2017).<sup>3</sup> The study separately performed economic contributions of all the regional airports that received funding through the Essential Air Service (EAS) program. According to the findings, the EAS airports in the central region of the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota contributed US\$514.2 million in year 2015 (InterVISTAS, 2017).<sup>4</sup> Given that there are thirty-two (32) EAS eligible airport communities, as identified by the US Department of Transportation (DOT), approximate valuation of RRA's total economic output turned out to be US\$15.24 million in year 2015. This economic output valuation of RRA is estimated based on percentage of RRA's total enplanement (passengers) in year 2015 compared to total enplanement in all the EAS airports in the central region.

Since the modern economy continues to become increasingly interconnected, the need for a fast, reliable, and economic transportation of persons, goods & services is increasingly vital. Businesses of different shapes and sizes are always on the lookout for places that have potential to grow with an efficient air transportation hub to link with people and places. The approximation of the economic impacts of the RRA on the local economy clearly vindicates its ability to support the local economy. With appropriate local and state level support, RRA has the potential to contribute more to the region that can meet not only sustainable economic development goals of the region but also meets its own sustainable growth targets to better serve the local community and beyond in the future.

Besides economic contributions, a well-run regional airport can play a significant role in shaping quality of life of local residents in numerous ways that are not reflected in the economic indicators and the annual

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<sup>3</sup> Royal HaskoningDHV is an international, non-listed engineering consultancy firm with headquarters in Amersfoort, Netherlands. It has offices in 30 countries, employing 6,000 professionals worldwide. It is active in aviation, buildings, energy, industry, infrastructure, maritime, mining, rural and urban development and water.

<sup>4</sup> InterVISTAS (2017) study defined central zones of USA comprising seven states – Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Following the list of eligible EAS communities, there are thirty-two (32) regional airports that fall under these seven states.

reports. Most notably, the social benefits of having an airport presence are captured through its contributions toward sustainable development by supporting tourism and recreational industries, establishing connections between rural and urban communities and by widening consumer and business choices by allowing access to remote areas (ATAG, 2005). Furthermore, encouraging nature-based tourism (ecotourism) with air transportation support of the local airport can help protect natural and cultural heritage of the community. Given the characteristics of Minnesota's Iron Range region, the Range Regional Airport (RRA) can also play such role by establishing connections between the City of Hibbing and the outside world. Closer national and international integration for improved mobility of capital and labor associated with trades of different goods and services can only be possible with strong public and private support and partnerships between the community and the RRA.

Regarding the environmental impacts, fuel emissions and noise pollution are considered to have significant negative effects on health and well-being of residence that live closer to air traffic (FAA NextGen, 2017). Among major emissions from jet fuels, Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Ozone, Particulate matter (PM), Volatile Organic Compounds (VOC) and Sulphur Dioxide (SO<sub>2</sub>) are contributing towards air pollution and greenhouse gas emissions (Whitelegg, 2000). These harmful emissions contribute to negative health effects in terms of decrease in lung functions, asthma, headaches, drowsiness, nausea and various other medical problems. To reduce the impact of fuel emissions, the aviation industry of USA and the other countries around the world are continuously working to develop more efficient planes that use less fuel per passenger. This not only lowers fuel costs for the airlines but also raises profits for the industry. Since mid-1970s, better efficiency gains in fuel consumption and greater competition has allowed the airline industry to lower airfares by around 40% when adjusted for inflation (ATAG, 2005). Today's aircraft are 70% more fuel-efficient than they were in the 70's, leaving 50% less carbon dioxide (CO<sub>2</sub>) emissions and 90% less hydrocarbon smoke (ATAG, 2005). Current research programs, such as the US Federal Aviation Administration NextGen Environment and Energy Program, are planning to reduce fuel consumption by an additional 50% and drop Nitrogen Oxide (NO) emissions 80% by 2020 (ATAG, 2005). It is clear that the aviation industry is working hard to find the cheapest and most environmentally friendly way to transport customers. Like other regional airports, RAA is also looking forward to be part of this encouraging development that can sustain aviation and airport growth within and outside regional, state, and national boundaries.

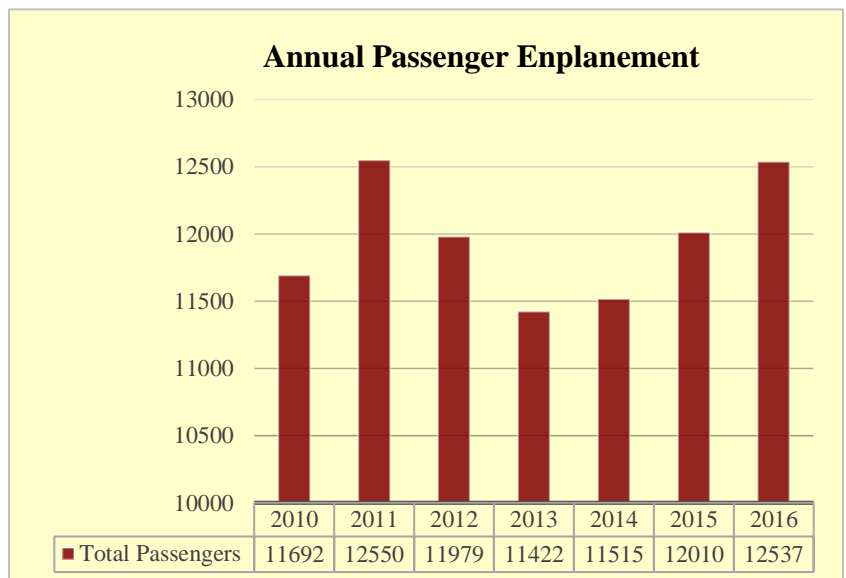
Although a good number of studies makes a clear case on the negative environmental and health effects inflicted by the aviation industry, they neglect the local airport’s role in ensuring medical services to hospital and medical providers. RRA, like any other airport, provides efficient logistical, technological, educational, and supply chain management support hospitals and other disaster management and mitigation industries such as the Department of Natural Resources (DNR) to help save lives and properties. Moreover, studies reveal that presence of a local airport can influence tourists and local residents’ sentiments and behavior towards nature conservation efforts (ATAG, 2005; De Vos et al. 2016; Hannink and White, 1999; Hearne and Salinas, 2002; Hunt et al. 2015; Neuvonne et al. 2010). Tax revenues collected tourist related activity such as transportation, food and beverages, hospitality ecotourism and other industries, could be used for the preservation efforts of local natural attractions. RRA can also play a similar role in connivance with the local Chambers and Commerce entities, members of the business communities and the local residents to develop a plan to achieve environmental sustainability while promoting sustainable economic growth and development in the Mesabi Iron Range Region.

## 5. Economic Benefits of RRA

### 5.1 RRA’s Economic Impacts

Finding Range Regional Airport’s economic impact on the local economy is crucial to understanding if the various capital improvement projects, tax dollars, and subsidy programs, such as the Essential Air Service (EAS) program, are worth the investment. Based on interview data and the RRA data archives, in 2016 Range Regional Airport had an average operating budget of US\$2,087,748 and receives \$582,141 in tax levies. The EAS covered US\$2.8 million of the carrier annual expenses.

**Figure 3: RRA Annual Passenger Enplanement, 2010-2016**



Between 2013 and 2016, RRA experienced an average of 4-6% increase in its annual passenger

enplanement. To accommodate the additional passengers, RRA has built a larger terminal. RRA’s Terminal *Expansion Project* is part of US\$36 Million that the Chisolm-Hibbing Airport Authority (CHAA) – the current owner and operator of RRA – has so far received as part of its Capital Improvement project for RRA. **Figure 3** reveals RRA’s annual passenger enplanement between year 2010 and 2016.

On the economic output contributions, a 2017 economic impact analysis study of around 350 communities in USA with air service support was conducted by InterVISTAS, a company of the Royal HaskoningDHV, which is an international, non-listed engineering consultancy firm with offices in 30 countries (InterVISTAS, 2017). Using FAA 2015 data, the study covered economic impacts of thirty-two (32) EAS supported airports in the central region of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota states. Based on the findings, in year 2015, EAS airports in the central region contributed to the US economy with 5300 jobs, annual earnings of US \$149.5 million, and economic output of US \$514.2 million (InterVISTAS, 2017). **Table 1** summarizes the findings.

**Table 1:** 2015 Economic Output of EAS Airports in US Central Zone (InterVISTAS Study)

Economic Variable	Output
Jobs	5300
Earnings	US \$ 149.5 Million
Economic Output	US \$ 514.2 Million

To estimate Range Regional Airport’s (RRA) economic output contributions, a percentage estimation based on RRA’s passenger enplanements compared to other EAS airports in the central region states was performed. Using 2015 Passenger enplanements data, RRA made up 2.96% of the total enplanements among the thirty-two (32) EAS airports that are located in seven (7) central region states in USA. Applying this figure, RRA’s economic output turned out to be US \$15.24 million in year 2015 out of total US \$514.2 million economic output generated by all EAS airports combined in the central region in the same year. **Table 2** below shows the breakdown of enplanements and economic output of all thirty-two (32) EAS airports in US central region covering seven (7) states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

**Table 2:** Enplanements and Economic Output of the EAS Airports in US Central Zone

<i>Sl. No.</i>	<i>Name of the EAS Supported Airport in Minnesota</i>	<b>2015 Enplanements</b>	<b>2015 Enplanements (%)</b>	<b>Economic Output (\$ Million)</b>
<b>1</b>	Hibbing	12,394	2.96	15.24
<b>2</b>	Bemidji	24,765	5.92	30.44
<b>3</b>	Brainerd Lakes	18,200	4.35	22.37
<b>4</b>	Fall Intrenational	14,706	3.52	18.08
<b>5</b>	Thief River Falls	1029	0.25	1.26
<i>Name of the EAS Supported Airport in Iowa</i>				
<b>6</b>	Burlington	9,000	2.15	11.06
<b>7</b>	Fort Dodge	5,228	1.25	6.43
<b>8</b>	Mason City	6,752	1.61	8.30
<b>9</b>	Sioux City	26,104	6.24	32.09
<b>10</b>	Waterloo	26950	6.44	33.13
<i>Name of the EAS Supported Airport in Kansas</i>				
<b>11</b>	Dodge City	2,396	0.57	2.95
<b>12</b>	Garden City	27,152	6.49	33.38
<b>13</b>	Hays	8,470	2.02	10.41
<b>14</b>	Liberal/Guymon, OK	5,456	1.30	6.71
<b>15</b>	Salina	10079	2.41	12.39
<i>Name of the EAS Supported Airport in Missouri</i>				
<b>16</b>	Cape Girardeau/ Sikeston	6,213	1.49	7.64
<b>17</b>	Fort Leonard Wood	8,065	1.93	9.91
<b>18</b>	Joplin	28,306	6.77	34.80
<b>19</b>	Kirksville	5,167	1.24	6.35
<i>Name of the EAS Supported Airport in Nebraska</i>				
<b>20</b>	Alliance	1,474	0.35	1.81
<b>21</b>	Chadron	1,715	0.41	2.11
<b>22</b>	Grand Island	64,602	15.44	79.41
<b>23</b>	Kearney	4,543	1.09	5.58
<b>24</b>	McCook	333	0.08	0.41
<b>25</b>	North Platte	4,628	1.11	5.69
<b>26</b>	Scottsbluff	5,144	1.23	6.32
<i>Name of the EAS Supported Airport in Nebraska</i>				
<b>27</b>	Devils Lake	6,180	1.48	7.60
<b>28</b>	Dickinson	41,925	10.02	51.54
<b>29</b>	Jamestown	6,086	1.45	7.48

<i>Name of the EAS Supported Airport in South Dakota</i>				
<b>30</b>	Aberdeen	27,595	6.60	33.92
<b>31</b>	Pierre	6,664	1.59	8.19
<b>32</b>	Watertown	982	0.23	1.21
	<b>Total Enplanement EAS Airports</b>	<b>418,303</b>	<b>100</b>	<b>514.20</b>

## 5.2 RRA’s Supportive Role in Business Expansion in Hibbing and the Iron Range

Range Regional Airport (RRA) attracted both outside businesses, such as Detroit Diesel Manufacturing DMR, which is a subsidiary of Daimler Company that makes electronic components for cars, trucks, public transit projects, and encouraged local businesses, such as the Midwest Aircraft Refinishing Inc., which specializes in composite and aluminum aircraft customization painting and repair, to open their facilities at RRA’s 100-plus acres of land available with lease or purchase options. Without such land lease or land purchase program initiated by RRA, many of these businesses and the jobs that come along with them would have never been materialized in the first place. The DMR project and the Midwest Aircraft expansion are two examples of the supportive role that RRA plays in shaping the local economy in Hibbing and the Iron Range region.

**Figure 4: Construction completed in 2007 Phase I**



*Source: Range Regional Archives*

### 5.2.1 Case Study on Business Expansion: DMR 60,000sf Electronics Facility

DMR Electronics is an electronics remanufacturing company that was founded in the Iron Range to support the mining industry (Kraker, 2013). It started by initially employing 50 individuals operating in several non-joining facilities in

the business district of Hibbing. However, DMR was struggling with inefficiencies and as a result, faced economic hardships when looking to expand the facilities. Between 2006 and 2012, the Iron Range Resources and Rehabilitation Board (IRRRB) loaned US \$ 2.5 million to the Airport Authority to build a

30,000 sf speculative shell building to aid in attracting business to Hibbing (RRA Archives, 2017).<sup>5</sup> Identifying the opportunity, DMR decided to relocate its facilities at the airport. It moved into the completed facility in September 2014. By moving its previous operations in one energy efficient building, DMR is able to increase its production efficiency and performance, and building capacities to undertake additional orders.

To help with DMR's expansion, a separate project financing loan of US\$ 9.16 million is provided by the IRRRB to the Range Regional Airport in 2014 (RRA, 2017). According to RRA administration, this is the total amount given to the RRA by the IRRRB to include the first \$2.5M (30,000 sq.



**Figure 5: DMR Indoor Facility**

*Source: Range Regional Archives*

ft.) and the remaining money for the build-out to total 60,000 sq. ft. where DMR did not move to the airport facility until the build-out of 60,000 total sq. ft. was completed (RRA, 2017). As part of the contract, DMR is expected to repay the loan for its business expansion over the course of 20 years. Through this business expansion of DMR at the RRA facility, RRA will recognize the benefit of a long-term ground lease and additional property tax collected from the DMR. Overall, the Airport will potentially gain approximately US\$50,000 in annual revenue from this contract (RRA, 2017).

By allowing the expanded facility for DMR on RRA's land, the primary benefit is the retention of 110 full-time jobs and 20-30 part-time jobs in Hibbing that might have been sent out of Minnesota to another destination through a planned consolidation effort by the parent company (RRA, 2017). DMR is also benefited by relocating to an improved work space that increased performance and efficiency with room for future expansion that may contribute an additional 50+ jobs in the next two (2) years. For RRA, the DMR's expanded facility has allowed it to have ground based rent of five (5) acres which raised its property tax benefits in a previously unused non-aeronautical area of the airport (RRA, 2017).

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<sup>5</sup> The Iron Range Resources and Rehabilitation Board (IRRRB) is a state of Minnesota development agency to promote and invest in business, community and workforce development for the betterment of northeastern Minnesota.



## 5.2.2 Case Study on Business Expansion: Midwest Aircraft Refinishing

Midwest Aircraft Refinishing Inc. (MAR) is a six-year-old company that specializes in repairing and refinishing aircraft with composite skin. MAR claims to have the highest expertise in the composite refinishing and repair industry. Over the years, MAR has experienced rapid growth and was in need of expanding their current RRA lease space from 16,000 square feet to bring in ten new employees over the next two years.

**Figure 6** MAR indoor hanger space



*Source: Range Regional Archives*

The Chisholm Hibbing Airport Authority and its engineering firm are working in a project with MAR to create a new, enlarged facility at Range Regional Airport. Site improvements are being completed now with the building being installed in the summer of 2018. The total cost of the Aircraft Paint Facility Expansion Project was estimated at \$4.2 million (RRA, 2017). Funding sources included the Iron Range Resource and Rehabilitation Board (IRRRB), MN Department of Employment and Economic Development (DEED), MN/DOT Office of Aeronautics and the Chisholm-Hibbing Airport Authority. The project funding took place over the 2017-2018 year (RRA, 2017).

**Figure 7:** MAR paint process



*Source: Range Regional Archives*

With the new expansion, MAR projects to double production over the next three years. A new building with the proper ceiling and door height will allow MAR to break into further markets and work on bigger planes. They have estimated that the expansion will add an additional ten employees over two years. These jobs will be full time living wage jobs that include dental and health care, and a 401(k) plan (RRA, 2017).

### **5.3 RRA's Partnership with IRRRB to Promote Future Business Opportunities**

Considering the strong partnership between RRA and the Department of Iron Range Resources and Rehabilitation Board (IRRRB), a face-to-face interview was conducted to have a better overview of how the partnerships help promoting and attracting businesses in Hibbing and the Mesabi Iron Range region. Following the interview excerpts, the IRRRB works with the Chisholm Hibbing Airport Authority to recruit companies to the area that are looking for air transit with linkages to Iron Range and Northeastern Minnesota, which includes Twin Ports of Duluth and Superior. It is found that a good number of companies prefers to locate within a mile-long radius from the airport. According to the IRRRB representative, "preference to locate close to airport puts us on the map for prospective businesses. Range Regional Airport's recent technological and other improvements means that RRA is more capable than many other small airports to meet the demand." In continuation of the interview process, the IRRRB representative underlined Northeast Minnesota's capacity to provide higher quality of life compared to other regions in the United States. The interviewee also emphasized that she is not surprised to see why many entrepreneurs want to start their businesses and perhaps, settle down in places offering a higher quality of life, and the RRA's location at the City of Hibbing provides a perfect fit to fulfill such desires. Overall, the IRRRB representative felt that the Range Regional Airport is a very valuable asset, and it plays a significant role as a facilitator of high quality living for individuals, families, businesses, and communities by bringing them close to nature while enjoying their fruits of labor.

### **5.4 RRA's Partnership with the Hibbing Chamber of Commerce of being a Driver of Economic Growth**

Following the interview excerpts of the representative of the Hibbing Chamber of Commerce, it has been identified that RRA plays a key role in contributing towards the economic growth of Hibbing. When inquired about whether Range Regional's recent expansions were in response to growth in population and the economy or, as part of preparation to promote economic growth of the business district, representative of the Hibbing Chamber of Commerce stated, "...we see the Range Regional Airport as an economic driver and its expansions since 2008 did not result from strong economic times of Hibbing and Minnesota's Iron Range region. Rather, the redevelopments and expansion of RRA led to stronger economic outcomes since."

### **5.5. Analysis of the Business Questionnaire Survey among RRA's Tenants**

Between June and July of 2017, a business survey questionnaire was given out to nine (9) tenants who have either rental or lease agreement with the Range Regional Airport (RRA). The tenants at the Range Regional Airport (RRA) are made up of successful businesses that provide high paying jobs which often include health care benefits and dental care (RRA, 2017). These businesses (tenants) are continuing to work with the Range Regional Airport (RRA) to ensure sustainable growth and employment in Hibbing and the surrounding communities. The response rate turned out to be 44% from the survey. Based on the responses, the average full-time workers among the tenants is 6; whereas, the average part-time workers is 3.8. When asked about business expansion, 50% of the respondents confirmed about their plan to expand their businesses in next several years. One of the respondents stated that their expansion would create ten additional full-time jobs at RRA alone. In response to question related to revenue generation, the respondents' average yearly revenue ranged between US\$1 million and US\$50 million. **Table 4** under Appendix 3 summarizes the results.

## **6. Economic Challenges of RRA**

Range Regional Airport (RRA) is facing significant challenges to sustain its growth and economic contributions towards the local economy. Similar to the majority of small hub airports, the major challenges are identified as: (1) price uncertainties with jet fuel costs; (2) pilot shortages; (3) demand for bigger jets; (4) potential loss of governmental support such as the Essential Air Service (EAS) program, and (5) overall loss of connections due to decreased flow of passengers. Out of all these challenges, RRA identified pilot shortages and the possibility of losing the EAS program to be the biggest challenges to sustain its operation in Hibbing and rest of Minnesota's Iron Range region.

### **6.1 Challenges to find Adequate Number of Professional Pilots**

As a train is useless without a driver and hospitals are useless without doctors, an airport cannot survive without pilots to fly the planes. A recent revision of the previously 250-hour rule for pilot training has been changed in the *2013 First officer Qualification (FOQ) Rule*, upping the minimum requirement to 1,500 hours of fly time (DOT, 2017). This hurts the aviation industry nationwide as the time to complete the required training for pilots has increased and discourages aspiring aviators to pursue the increasingly long journey of becoming an Air Transportation Pilot. This can be seen in a study done by the University

of North Dakota and the University of Nebraska Omaha that found 20% of pilots upon the new 1500-hour rule “thinking twice about an airline career,” and 8% of pilots-to-be deciding to invest in other career options (DOT, 2017). The University of N. Dakota additionally found that over the next ten (10) years primary airlines will be in need of nearly 50,000 pilots as the number of pilots (20-50 years of age) has decreased 19.7% since 2009. It was concluded that the shortage by 2026 will be approximately 14,000 pilots (DOT, 2017). As the aviation field widens and becomes a greater part of daily life, fewer pilots are able to fly passengers and cargo. Range Regional Airport faces this problem head-on. As the ever growing shortage of labor is pushing labor demand up, many regional pilots will be promoted or moved to larger national and international pilot positions. This will leave Range Regional with the task of finding pilots that fulfill the 1500-hour rule. RRA risks becoming a step ladder for pilots looking to get the work experience needed for promotions. Executive Director Shaun Germolus said, “Range Regional and other airports are working on appealing to our representatives to lower the requirement.”

## **6.2 Challenges of Losing out on the Essential Air Service (EAS) Program**

In 1978 the Government deregulated airlines from federal control. As a result of this decision, the Essential Air Service (EAS) was created to ensure smaller airport communities continued to receive airline service and connection to the national aviation network (DOT, 2017). The EAS program found that reliable air service is a, “key economic driver for communities of all sizes.” They concluded that small communities are more vulnerable to the loss of scheduled flights due to market forces and the need for carriers, such as SkyWest airlines, to prioritize profitable regions that often leaves small communities behind.

Essential Air Service provides up to US\$200 subsidy per person to airline carriers that run scheduled flights to a small airport. Currently, Range Regional Airport (RRA) receives \$125 per passenger based on its average passengers of 23,000 per year.<sup>6</sup> This is typically done by two (2) round trips per day with 50 seat aircrafts via SkyWest Airlines, which flies as Delta Connection on behalf of Delta Airlines. RRA is one of the 175 airports that takes part in this subsidy program (Federal Aviation Administration, 2017). The EAS subsidizes the airline US\$2.8 million per year. As a result, the EAS program plays a vital role

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<sup>6</sup> RRA actually enplane half of 23,000 but the DOT allows RRA to count the returning or deplaning passengers as well to make the 23,000.

in sustaining airline operations and the future success of the RRA retaining airline service for the traveling public (Range Regional Airport, 2017).

Based on current U.S. Administration's 2017 budget proposal, the EAS program is facing the risk of being cut from the Department of Transportation's (DOT) annual budget. While interviewing the Executive Director of the Range Regional Airport on this pertinent issue, it is identified that the EAS funding does not originate from the general funds. Rather, the finances to support the EAS program are generated from federal taxes on airline tickets, fuel, aviation, and other user fees that are under the jurisdiction of the Federal Airport and Airways Trust Fund (AATF), which is also known as the Aviation Trust Fund (Range Regional 2017). This means the taxes that support the (EAS) and makes up the (AATF) are primarily generated by the aviation industry alone. Therefore, the elimination of the (EAS) would only hurt the small communities that rely on the funding to stay connected to the aeronautics network.

When asked what Range Regional Airport (RRA) would do if the EAS was defunded, Mr. Shaun Germolus, the Executive Director of RRA said, "The first thing we would do is to have a conversation with the carrier. If they vacate we would have to find alternative ways to fill the gap with financial support from the IRRRB and other funding options. On a positive note, Delta Airlines has its call center located in Chisholm, which is 8.4 miles from Hibbing. Many of its 450 employees in Chisholm travel non-revenue (non-rev) flights for training from RRA at Hibbing. Therefore, Delta has an incentive to keep flights from the RRA. But, this is not guaranteed." In relation to the call center argument, Delta is committed to operate for a long term in Chisholm as the IRRRB gave Delta a US \$5.9 million "forgivable" loan to renovate and expand Delta's customer-call center in Chisholm (Anthony, 2013). However, defunding of the EAS program will be a huge setback for RRA. It would definitely reverse much of the momentum that RRA gained in last few years, especially after completion of its terminal expansion project. Over time, the incentive that Delta has through the call center non-revenue flight provided through RRA might run short and the decision to relocate near a bigger airport would become more beneficial than keeping carrier flights out of Hibbing.

## **7. Cultural and Social Benefits of RRA**

Air transportation improves interconnectivities among communities, especially the ones that are located in rural and remote areas. Hence, facilitating closer national and international integration that allows businesses to expand their goods and services to reach wider consumer base. This allow the entire

communities to improve their living standards due to wider choices at affordable prices. Given Range Regional Airport's (RRA) geographic proximity to nature and lakes of the Northeast Minnesota covering Iron Range, Boundary Waters and the North Shore, Twin Ports of Duluth and Superior, and the Lake Superior, RRA can take advantage of attracting more individuals, families, and businesses to visit the area by promoting nature-based tourism, which is also known as eco-tourism. Using its strong partnerships with IRRRB, the Hibbing Chambers & Commerce, and other partners and community leaders, RRA can play a significant role of development of the tourism, recreation, and hospitality industry of the region. Additional tax revenues and income from such projects could be used to conserve and protect natural and cultural heritage of the area. With appropriate planning, RRA can promote quality of life for consumers and businesses alike. Thus, communities of Hibbing, the Iron Range, and rest of Northeast Minnesota will depend on RRA for sustainable economic growth and development; whereas, RRA will depend on the community support to sustain its operations in the future given its challenges especially the possibility of losing out on government supported Essential Air Service (EAS) Program.

In today's era of trade and globalization, it is imperative that RRA and the communities that it supports are not left out compared to rest of the world to bring in more businesses that are both economically and environmentally sustainable in the area. Improving the local economy through more sustainable businesses and in-migration while sustaining the quality of life should be the overarching goal of RRA and its community partners. In all the face-to-face interviews, a common theme emerged where all the respondents stated the comparative advantage of Hibbing and the rest of Northeast Minnesota of offering higher quality of life. Regional airports like the RRA is assuring that such quality of life experience is accessible to people from all walks of life by bringing them in this area through its air transportation services.

### **7.1 RRA Helps Promoting Diversity and Inclusiveness**

Based on the interview excerpts the representative of the IRRRB stated, "...the state of Minnesota has been prioritizing diversity and very enlightened corporations are pushing to be more inclusive. If the demand for intercultural connections is on the rise for companies, having quick access to the world through air travel will become even more important."

The representative of IRRRB also highlighted that, "It is easier to attract employees to an area that offer higher quality of life. But to move in that direction, lot of things should be prioritized. Among them are

ensuring accessible recreational facilities, low housing opportunities, and affordable taxes for businesses and residents. I would also definitely say ensuring affordable and accessible transportation should be a on that list.” Taking into account the comments, RRA can definitely play a big part in promoting diversity and inclusiveness by assisting businesses to employ and bring people from different areas. This would allow better understanding of different races, cultures, and nationalities that is very important for sustainable and more productive communities.

## 7.2 RRA Helps Promoting Recreational Tourism

RRA, as the main air transportation link between Hibbing and the Minneapolis, provides connection to various seasonal cabins and recreational activities for people travelling from other places. To quote from the interview of the IRRRB Representative, “I often see people with fishing poles on the planes. Hibbing boast much more than fishing though, people can be found exploring the local hiking trails, historic mining sights, and the famous singer songwriter Bob Dylan’s house.”

By promoting tourism, RRA is helping the city and the state to collect tax dollars from air travel, recreational, food and beverages, hotel and lodging services.

Considering the nature based attractions (ecotourism) that city of Hibbing and Minnesota’s Iron Range region offer through lakes, hiking trails, historic mining sights, wildlife viewing and fishing areas, increasing access to such attractions with help of RRA can increase tax revenues for the city and the state. The additional funding can be used for conservation and protection of the natural attractions and the cultural heritage that goes along with them.

## 7.3 RRA Helps Saving Lives and Meeting Medical Needs

The Range Regional Airport (RRA) contributes significantly to the quality of medical care through the transportation of personnel, such as doctors (medical specialist), and medical equipment. RRA also decreases emergency response time by supporting an air ambulance base, which is operated by Life Link

**Figure 8: Significant People from the City of Hibbing and the Mesabi Iron Range**



*Source: Rice, D., July 2017, at the Range Regional Airport*

III. Such contributions provide small communities in the Mesabi Range the necessary response time to cope against any uncalled for events especially when dealing with life-and-death situations.

### 7.3.1 Fairview Mesabi Clinic

Regarding the importance of RRA’s role in providing logistical needs for health and medical services, the respondent of the Fairview Mesabi Clinic in the interview stated, “We use charter flights and having Life Link III (emergency air service) allows us to transport doctors, patients, and medical equipment and, medical supplies. We really appreciate Life link III, which provides us and other hospitals with air ambulance services. This is critical for our advance patient care.” In addition, the respondent mentioned, “Every Tuesday, medical specialist(s) fly from Anoka, MN, to work at Fairview Mesabi Clinic and, then fly back by 5 PM the same day providing service to people who otherwise would have to travel down the cities to see a specialist.” The comments clearly vindicate the importance of having RRA to provide access to medical specialists and medical services to patients in need. Hence, RRA is playing a significant role to greatly improve the medical care in the Mesabi Range.

### 7.3.2 Life Link III

Life Link III is operating from its facility at the Range Regional Airport (RRA) since 2008. The business provides emergency medical transportation services to the communities of the Iron Range. In the past, Life Link III operated their office out of a mobile home and parked their Bell 405 helicopter in the Airport’s transient aircraft hangar. However, the existing mobile home office had to be vacated in spring of

**Figure 9: Life Link III helicopter base**



*Source: Range Regional Archives*

2011 due to developments of mold inside its mobile home and the hangar area. Life Link III, then, contacted RRA with an interest in leasing space with the possibility of expansion. A solution to renovate the 1940’s era Arrowhead Hangar was made. The hangar has plenty of capacity for office space, training rooms, sleeping dorms, and aircraft maintenance, as well as potential for expansion and additional aircraft. The Range Regional Airport was able to raise the funds for the \$1.2 million hangar improvement project



through numerous funding agencies, such as the DEED, IRRRB, MN Dot Office of Aeronautics, and the Chisholm-Hibbing Airport Authority (CHAA) program.<sup>7</sup> Various Renovation projects were done to improve the functionality and lifespan of the Arrowhead Hangar. The results of this project included a number of economic and social benefits. The project increased safety by reducing the air-care emergency response times in northern Minnesota. Life Link III, the tenant, now has adequate new facilities that provide room for expansion; whereas RRA, the local airport, benefits of having a long term stable tenants.

## 8. Environmental Impacts of RRA

Since the Range Regional Airport accommodates only two scheduled flights per day, the environmental impacts in terms of jet fuel emissions and noise pollution are not that significant. The benefits the airport provides through wildfire suppression (The Department of Natural Resources (DNR) Hibbing Tanker Base and the medical emergency support through Life Link III contributes significantly to environmental conservation and human health of the Minnesota's Iron Range region. As a result, Range Regional Airport is an asset to Hibbing and not a significant liability to the environment or human health.

In addition, the Range Regional Airport (RRA) supports the SkyWest Airlines initiative of moving from the CRJ-200 to the CRJ-700 and CRJ-900 regional jets to improve energy

**Figure 10: Canadair CRJ-700 Delta**



*Source: Range Regional Archives*

**Figure 11: CRJ-200 Delta**



*Source: Range Regional Archives*

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<sup>7</sup> The CHAA program is established by the National Association of Healthcare Access Management (NAHAM) of USA to promote the highest standards of patient access services through the credentialing of those working at the front lines of patient access.

efficiency through reduction of fuel emissions. The CRJ-200 is a 50 passenger jet that is being replaced by the 76 passenger 700 and 90 passenger 900 series. These new planes were described by Range Regional to be, “A longer version of the 200, with the same engines.” This means that the CRJ-700 and 900 will have more seats with the same emission output as the CRJ-200. This will improve the per-passenger environmental footprint. RRA is willing to cooperate with the aviation industry to make further inroads of limiting future environmental impacts of aviation to levels that protect public health and welfare.

## 9. Range Regional’s Capital Improvements Project

Each year, airlines operating through the regional airports in USA contribute to 44% of scheduled passenger departures (Regional Air Service Alliance & InterVISTAS, 2017). For the Range Regional Airport (RRA), this growth translated to a 4-6% annual increase of its passengers (RRA, 2017). Because of this increasing flow of passengers, the previous terminal RRA became insufficient to facilitate the influx in passengers (RRA, 2017).

In 2012, the Range Regional Airport addressed the problem by implementing its *Terminal Expansion Project*. In this project, a larger terminal was built to handle increasing flow of passengers, passenger cargo, accompanying baggage, and other equipment. Furthermore, the project fulfilled the need for an updated security system at the airport. Since 2008, CHAA obtained US \$36M for RRA’s capital improvement projects (RRA, 2017). The improvements include the Terminal Expansion Project but also airfield improvements

**Figure 11: RRA’s Entrance Lounge**



**Figure 12: RRA’s Baggage Claim Area**

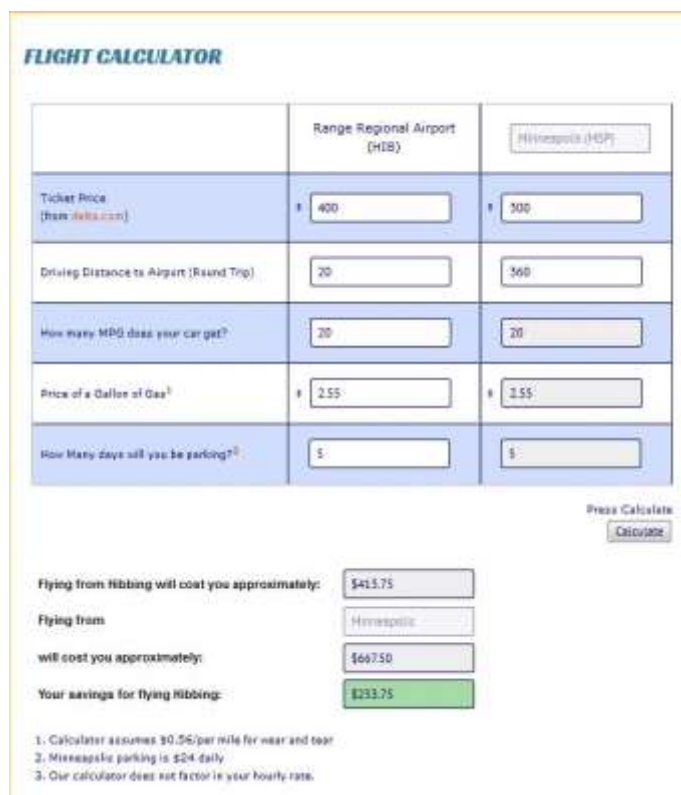


*Source: Rice, D., July 2017, at the Range Regional Airport*

and buildings at RRA’s facility. Out of US \$36M, local matching grants is US \$831,797 (RRA, 2017). When designing the new terminal, Range Regional wanted to keep things as local as possible. When asked why, Shaun Germolus, the Executive Director of RRA, stated, “I feel it is important that when you go to a community for the first time that this is the front door of our community. When visitors come here and jump off the airplane what is the first thing they see, what is it we’re about, what is our history, what makes us who we are. At RRA we wanted to go with something that felt very local and that highlighted the community. We have the taconite ore and the iron beams showing the process of the iron. The pictures of all the significant celebrities that have come from the Hibbing.” The project works to both fulfill the logistical needs the airport has and also helps promote the Iron Range. The airport highlights what Hibbing/Chisholm is all about and shows all there is to offer beyond its mining industry.

In support of the *air service marketing efforts*, RRA improved customer services on its website. To assist prospective customers, RRA introduced a flight calculator on its website that offers a side-by-side comparison between the cost of driving and paying for parking at the Minneapolis-St. Paul Airport (MSP), and the cost of flying with free parking at the Range Regional Airport (RRA). As of 2017, the price of keeping a car at MSP is \$24/day. Including the price for gas to drive to MSP airport, flying from RRA is more economically beneficial for a customer. In **Figure 13**, an example of a trip to Denver, Colorado reveals that the ticket price of flying from RRA to the Denver International Airport (DEN) with a connecting flight from MSP would cost

**Figure 13: RRA’s Flight Calculator (Online)**



approximately US\$400 (See the top box of the 1<sup>st</sup> Column of the Flight Calculator under Figure 13). Considering the driving distance from downtown Hibbing to RRA being 20 miles and the free parking option at RRA, total costs of a 5-day trip to Denver, Colorado, and then, back to downtown Hibbing is approximately US\$413.75. On the other hand, if an individual decides to drive from Hibbing to MSP and then, take the flight from MSP to DEN for a 5-day trip to Denver, Colorado, total cost would be

approximately US\$667.50. Hence, total savings from flying from Hibbing to Denver via Minneapolis-St. Paul would be US\$253.75 for an individual. This reveals that although people might be paying US\$100 less on ticket price if they decide to fly from MSP to DEN, they would end up saving more than US\$250 if they, rather, decide to fly from Hibbing given their savings on gas mileage and free parking at RRA. Range Regional Airport (RRA) developed this estimator to help customers better assess if they should fly or drive when planning their travels.

## **Conclusion**

Range Regional Airport (RRA) contributes significantly to the economy and well-being of the Iron Range. Using information from a 2017 study conducted by the InterVISTAS, a company of Royal HaskoningDHV, on the economic impacts of small community airports in USA, it is estimated that RRA contributed US\$15.24 million in year 2015 to the local economy. With its daily commercial flights to Minneapolis Saint-Paul (MSP) Airport and the charter flights to Laughlin Nevada, RRA facilitate interconnectivities among communities while contributing towards the economy through promotion of nature-based tourism, wider consumer choices, and business expansions. In addition, RRA makes individuals, families, businesses, and communities experience the higher quality of life that the City of Hibbing and the Northeast Minnesota have to offer with their lakes, hiking trails, historical mining sites, wildlife viewing and fishing areas, and other most notable historical markers such as famous songwriter and Nobel Prize laureate Bob Dylan's birth home.

Besides connecting people to experience Iron Range, Northeast Minnesota, and beyond, the Range Regional Airport (RRA) continuously works with the Iron Range Resource and Rehabilitation Board (IRRRB) and the Hibbing Chamber of Commerce to promote and support local businesses in the area. RRA also lease or rent out its 100-acre land facility to house businesses such as Midwest Airlines Refinishing, DMR Electronics (which is part of Detroit Diesel Remanufacturing LLC—Detroit Reman), and TNT Airworks (aircraft repair and maintenance company). Moreover, RRA contributes to the betterment of healthcare and environmental protection through other tenants, such as Minnesota Department of Natural Resources (MN-DNR) tanker base, and Life Link III. All these developments vindicate the importance of RRA's contributions towards supporting economically and environmentally sustainable and viable communities around Minnesota's Iron Range region and rest of Northeast Minnesota.

## **Acknowledgements**

We gratefully acknowledge the financial support from the Summer Undergraduate Research Fellowship (SURF) program from University of Wisconsin-Superior to conduct the study. We wish to thank Mr. Shaun Germolus, Executive Director of the Range Regional Airport, to provide all kinds of support and useful suggestions at different stages of this work. We wish to express our gratitude to all the face-to-face interview respondents representing the Iron Range Resources and Rehabilitation Board (IRRRB), City Hibbing Chamber of Commerce, Fairview Mesabi Medical Clinic, and the CHAA. The usual disclaimers apply.

## **Appendix 1**

### **Face-to-Face Interview Questions**

1. What is your Position?
2. How has the airport been a part of the City of Hibbing?
3. What is your experience with Range Regional Airport over the years?
4. Were Range Regional's recent expansion projects in response to growth or in preparation for growth?
5. What environmental factors does the city of Hibbing face?
6. What Social factors does the city of Hibbing face?
7. What Economical factors does the city of Hibbing face?
8. Does the City see the airport as an asset or a liability?
9. Has the Iron Range Region faced social barriers, is the social climate changing, if so how has the community adapted?
10. How influential is the Tourism sector in the Iron Range?
11. Does your establishment have plans for future expansion?
12. If any, are there specific business operations that are dependent on access to air travel?

## **Appendix 2**

## Short Survey Questionnaire for Business Tenants at RRA

- 1) What is your affiliation to the Range Regional Airport?
- 2) Are you a tenant of the Range Regional Airport based on usage of the airport's land and/or property?
- 3) What kind of Business Operations do you have?
- 4) How many full-time employees you have for your business?
- 5) Do you have part-time employees? If yes, then, how many are working part-time with your business operations?
- 6) On average, what is your annual operating budget (in dollars) to run your business in last 2-3 years?
- 7) On average, what is your annual revenue (in dollars) in last 2-3 years?
- 8) Are you planning to expand your business? If yes, then, how many jobs would this business expansion generate?

### Appendix 3

**Table 4: Results Summary of the Short Survey Questionnaire of the Businesses Tenants at RRA**

Tenants of Range Regional Airport						
Survey Data (July, 2017)						
Yes/No	Number	Number	Number	Number	Yes/No	Number
Are you a tenant of RRA?	How many Full-time Employees onsite?	How many Part-time employees On-site?	Annual Operating Budget (USD)?	Annual Revenue (USD)?	Are you planning to Expand?	How many jobs would your expansion create?
Yes	1	17	NA	NA	No	NA
Yes	17	0	10-50 Million	10-50 Million	Yes	No
Yes	3	0	NA	NA	No	NA
Yes	9	2	600-700K	1 Million	Yes	10

<i>Average</i>	6	3.8	
<i>Maximum</i>	17	17	<i>Note:</i> Specific listings of the tenants were kept anonymous for confidentiality.
<i>Minimum</i>	1	2	

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