

MAGIC FUND SCREENING COMMITTEE

March 31, 2017

CITY COUNCIL CHAMBERS - SECOND FLOOR - CITY HALL

515 2nd AVE. SW

7:30 AM

A G E N D A

1. Approval of Minutes – May 27, 2016
2. MADC – SkySkopes \$375,100, Forgivable Loan
3. Financial Report
4. Other Business
5. Adjourn

1. APPROVAL OF MINUTES

Minutes from the May 27, 2016 meeting are enclosed for you review and/or correction and approval.

2. Minot Area Development Corporation MADC – SkySkopes \$375,100, Forgivable Loan

(Information from MADC memo) The Minot Area Development Corporation (MADC) respectfully requests the amount of \$375,100 for capital investment to establish a Bakken unmanned aircraft systems (UAS) office headquartered in Minot. The project will produce at a minimum of 15 new primary sector jobs and be the first UAS business under MADC's new MAGIC Sky Initiative. SkySkopes President & CEO, Matthew Dunlevy has already made some commitments to the Minot community. He has agreed to be on the advisory committee of the Minot Public Schools aviation technology program, will provide the first thermal energy audit for higher education in ND on the Minot State University (MSU) campus at no charge, agreed to speak to MSU students at the Severson Entrepreneurship Academy and College of Business and is currently working with Minot's Fire Department to provide assistance for emergency response needs in Minot and Western North Dakota.

The State of North Dakota has invested more than \$37 million into development, marketing and attracting a UAS ecosystem. MADC partnered with the ND State Department of Commerce and met SkySkopes at the largest UAS conference in the United States in May of 2016. MADC identified the strategic advantages Minot has to offer and pursued SkySkopes to look at Minot for their next office of operation. MADC has provided SkySkopes with one on one meetings with decision makers of local utility, energy and agricultural businesses that could benefit from the cost savings and safety advantages of SkySkopes broad spectrum of applications.

Minot is not only strategically advantageous for SkySkopes as MADC looks into the future of the UAS Industry. We have identified other companies within the UAS industry food chain to include manufacturing aircraft and the analysis of the data captured by companies like SkySkopes. Minot is positioned with unique logistics including two Class 1 railroads and 3 US Highways. Minot also has a talent pool of students that are seeking degrees in Computer Science at Minot State University and could fill the void of analyzing the data for end users. MADC is currently producing an agenda for site visits to include these other applications.

The complete memo and application is attached which has further information on the requested terms, benchmarks, and reporting requirements.

3. Financial Report (Attached)

5. Adjourn

ROLL CALL

Members Present: Bachmeier, Hertz, Johnson, Mattson, and Zimmerman

Members Absent: Gates and Drady

Others Present: City Manager – Lee Staab, Finance Director -Cindy Hemphill, Public Information Officer – Derek Hackett, Executive Secretary- Tami Strokland

1. APPROVAL OF MINUTES

Bachmeier moved the minutes of the January 22, 2016 meeting be approved as submitted. Motion seconded by Johnson and carried unanimously.

2. Rural Marketing Match Applications - \$46,698

The MAGIC Fund Committee reviewed 15 applications submitted for Rural Marketing Match from surrounding communities.

Mattson moved the following rural community requests for MAGIC Fund Rural Marketing Match funding be approved and the following be forwarded to City Council for their consideration.

Berthold	\$3,000
Bottineau	1,700
Crosby	3,000
Flaxton	2,500
Garrison	4,000
Harvey	3,500
Hazen	3,500
Kenmare	4,000
Maddock	2,000
Parshall	4,000
Rugby Chamber of Commerce	1,166
Rugby JDA	1,166
Rugby Pioneer Village	1,166
Sherwood	2,500
Tioga	3,500
Turtle Lake	2,000
<u>Velva</u>	<u>4,000</u>

Total: \$46,698

The City Council approve the applications from rural communities for the Rural Marketing Match Program.

The above motion was seconded by Hertz and passed by the following roll call vote: ayes: Bachmeier, Hertz, Johnson, Mattson, and Zimmerman.

3. FINANCIAL REPORT

Cindy Hemphill, Finance Director, informed the committee the balance sheet shows \$350,000 committed to Midwest Milling but they have written a letter they are not proceeding at the Ag Park. Hemphill reported sales tax continue to trend down. As of April 2016 they are \$1M lower than they were in the prior year which is 21% lower.

4. OTHER BUSINESS

5. ADJOURNMENT

There being no further business, Johnson moved to adjourn the MAGIC Fund Steering Committee meeting.

Respectfully submitted,
Brent Mattson
Chairman





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Website: www.minotusa.com

MEMO

TO: MAGIC Fund Committee and City Council
FROM: Stephanie Hoffart, President/CEO
DATE: March 10, 2017
SUBJECT: SkySkopes Application

1. Request:

The Minot Area Development Corporation (MADC) respectfully requests the amount of \$375,100 for capital investment to establish a Bakken unmanned aircraft systems (UAS) office headquartered in Minot. The project will produce at a minimum of 15 new primary sector jobs and be the first UAS business under MADC's new MAGIC Sky Initiative. SkySkopes President & CEO, Matthew Dunlevy has already made some commitments to the Minot community. He has agreed to be on the advisory committee of the Minot Public Schools aviation technology program, will provide the first thermal energy audit for higher education in ND on the Minot State University (MSU) campus at no charge, agreed to speak to MSU students at the Severson Entrepreneurship Academy and College of Business and is currently working with Minot's Fire Department to provide assistance for emergency response needs in Minot and Western North Dakota.

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Minot is not only strategically advantageous for SkySkopes as MADC looks into the future of the UAS Industry. We have identified other companies within the UAS industry food chain to include manufacturing aircraft and the analysis of the data captured by companies like SkySkopes. Minot is positioned with unique logistics including two Class 1 railroads and 3 US Highways. Minot also has a talent pool of students that are seeking degrees in Computer Science at Minot State University and could fill the void of analyzing the data for end users. MADC is currently producing an agenda for site visits to include these other applications.

2. Requested Terms:

➤ \$375,100 Forgivable Loan:

1. SkySkopes is required to provide proof to MADC and the City of Minot of raising \$500,000 in equity prior to receiving any disbursement of MAGIC Funds.

2. SkySkopes will enter into a binding security agreement with MADC for all of the assets purchased with MAGIC Funds to be reverted back to MADC in the event of a sale, buyout, transfer or bankruptcy of SkySkopes. This agreement will commence after SkySkopes raises its equity in #1 above and will be in effect for 3 years after the SkySkopes Minot office is established.
3. Failure to meet benchmarks established within the MAGIC Fund application will require SkySkopes to reimburse the MAGIC Fund as follows:
 - a. \$125,033 of the loan will be forgiven once benchmarks have been fulfilled after year 1 of SkySkopes operation in Minot.
 - b. \$125,033 of the loan will be forgiven once benchmarks have been fulfilled after year 2 of SkySkopes operation in Minot.
 - c. \$125,033 of the loan will be forgiven once benchmarks have been fulfilled after year 3 of SkySkopes operation in Minot.

➤ **Benchmarks:**

1. Employment (must be fulltime employees, internships are encouraged but are not qualifying criteria as fulltime employees in this contractual agreement):
 - a. SkySkopes must employee and provide proof of at least 3 fulltime employees in year 1 of operations in the Minot Office.
 - b. SkySkopes must employee and provide proof of at least 7 fulltime positions in year 2 of operations in the Minot Office.
 - c. SkySkopes must employee and provide proof of at least 15 fulltime positions in year 3 of operations in the Minot Office.
2. Equipment:
 - a. SkySkopes is required to provide MADC invoices for each piece of equipment that will be purchased with MAGIC Fund monies.
 - b. MADC will review the invoices to verify that it qualifies per the MAGIC Fund application and will submit the invoices to the city for disbursement directly to the vendor.
 - c. MADC will not submit any invoices to the MAGIC Fund until SkySkopes has provided proof of their equity round of funding totaling \$500,000.
3. SkySkopes Contribution:
 - a. SkySkopes will provide proof to MADC and the City of Minot of their contribution of assets and operating capital for the Minot office of at least \$300,000 after year 1 of operations.
 - b. SkySkopes will provide proof to MADC and the City of Minot of their contribution of assets and operating capital for the Minot office of an additional \$300,000 after year 2 of operations.

- c. SkySkopes will provide proof to MADC and the City of Minot of their contribution of assets and operating capital for the Minot office of an additional \$500,000 after year 3 of operations.

➤ **Reporting Requirements:**

1. SkySkopes will provide a written report to MADC at the end of each fiscal year to include financials compared to pro forma budgeted for the first 3 years of operation, new business accomplishments, savings provided to their clients and an updated business plan.

3. Authority:

On February 9, 2017, the MADC Board of Directors unanimously voted to authorize its President/CEO to proceed with this request seeking MAGIC Funds for SkySkopes, the first primary sector UAS business, to establish an office in Minot, ND.

Funding should be considered because it supports the mission of MADC and the purpose for which the MAGIC Fund was established:

- to create jobs
- expand the local tax base
- increase capital investment
- and expand the primary sector financial base of the area

4. Recommendation:

Support MADC's request from the MAGIC Fund Steering Committee and the Minot City Council in the amount of \$375,100 to SkySkopes, to be the anchor and first UAS business in Minot that MADC has recruited to kick-off the MAGIC Sky Initiative. Enclosed with this application is MADC's white paper on the MAGIC Sky Initiative.



Minot's Return on Investment



Minot's Return on Investment

It's evident this MAGIC Fund request will deliver invaluable benefits for the whole city of Minot!

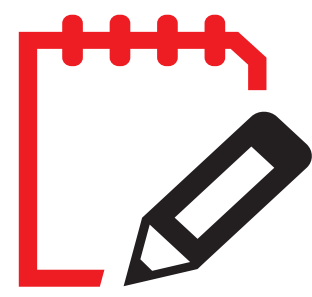
TOTAL CAPITAL INVESTMENT IN MINOT



\$2,307,856

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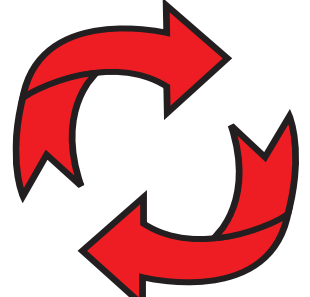
MAGIC FUND REQUEST



\$375,100

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RETURN ON INVESTMENT



6.15

YEAR 1		YEAR 2		YEAR 3	
Full Time Employees (FTE)	3	Full Time Employees (FTE)	7	Full Time Employees (FTE)	15
Avg. Annual Salary	\$55,660.8	Avg. Annual Salary	\$48,276.8	Avg. Annual Salary	\$46,862.4
Total:	\$166,982.4	Total:	\$337,937.6	Total:	\$702,936
Assets & Operating Capital in Minot:	\$300,000	Assets & Operating Capital in Minot:	\$300,000	Assets & Operating Capital in Minot:	\$500,000
Total Capital Investment Yr 1:		Total Capital Investment Yr 2:		Total Capital Investment Yr 3:	
\$466,982		\$637,938		\$1,202,936	
					



MAGIC Fund Application



MAGIC FUND APPLICATION

I. MAGIC FUND CONTACT OFFICE OF RESPONSIBILITY: Minot Area Development Corporation, Stephanie Hoffart, President/CEO, 1020 20th Ave SW, Minot ND 58701 701-825-1075

II. PREVIOUS MAGIC FUND PROPOSALS/APPLICATIONS: N/A

III. THE FIRM:

- A. Name of Company: SkySkopes Inc.
- B. Corporate Address: 4200 James Ray Drive, Office 185, Grand Forks ND 58203
- C. Project Address: 2015 6th St SE, Minot ND 58701
- D. Telephone: 701-738-4825 or cell 651-494-2221
- E. Form of Business Ownership: DE Corporation
1. If a Corporation, Indicate Federal Tax ID #: 81-5434732
- F. Project Principal(s)/Contact(s):

Name	Address	% Ownership
<u>Matthew Dunlevy</u>	<u>2134 42nd Ave S., Grand Forks ND 58201</u>	<u>66.7%</u>
<u>Sharper Shape Group Inc.</u>	<u>4200 James Ray Drive, Grand Forks ND 58202</u>	<u>33.3%</u>
<u>Dan Daffinrud</u>	<u>3499 13th Ave N. Apt 204, Grand Forks ND 58203</u>	

- G. Product or Service: unmanned aircraft systems operator/trainer primarily for energy sector
- H. Phase of Project: x start-up expansion retention

I. Current Company Status:

1. Current Number of Employees (Grand Forks Office)
- a. Full Time: 11 Average Hourly Wage: \$22.42
- b. Part Time: 11 Average Hourly Wage: \$7.50

J. Primary Bank Account(s)

1. Name: First State Bank
2. Address: 2500 32nd Ave S., Grand Forks ND 58203
3. Telephone: 701-746-7766
4. Contact Person: John Wolfgram

K. Company Attorney

1. Name: Keith Sernick
2. Address: 100 Quentin Roosevelt Boulevard, Suite 100 Garden City, NY 15530
3. Telephone: 516-746-1500

IV. PROJECT FUNDS SOURCE/USE STATEMENT

Source	Amount/Form	Use
<u>MAGIC Fund</u>	<u>\$375,100</u>	<u>Equipment</u>
<u>SkySkopes – Year 1</u>	<u>\$364,000</u>	<u>Equipment/Operating Expense</u>
<u>North Dakota Development Fund</u>	<u>\$75,000</u>	<u>Working Capital</u>
<u>BND Venture Capital Program</u>	<u>\$75,000</u>	<u>Working Capital</u>
<u>Angel Fund Investors</u>	<u>\$350,000</u>	<u>Equipment</u>
TOTAL	<u>\$1,239,100</u>	

MAGIC Fund Request Breakdown

<u>Robot Aviation RX50 with payload</u>	<u>\$89,700</u>	<u>Aircraft</u> 24%
<u>Mini Ranger – Phoenix LIDAR</u>	<u>\$188,300</u>	<u>Sensor</u> 50%
<u>Niatros Gas Imager – IR Camera</u>	<u>\$75,000</u>	<u>Sensor</u> 20%
<u>M600 Package - UAV</u>	<u>\$7,800</u>	<u>Aircraft</u> 2%
<u>FLIR XTR + Mount</u>	<u>\$14,300</u>	<u>Sensor</u> 4%
TOTAL	<u>\$375,100</u>	

V. CURRENT AND PROJECTED EMPLOYMENT

Employment Projections

	<u>April 2017</u> (date)	<u>2018</u> (year)	<u>2019</u> (year)
Professional	<u>1</u>	<u>1</u>	<u>1</u>
Managerial			
Skilled	<u>2</u>	<u>6</u>	<u>14</u>
Semi-Skilled			
Unskilled			
Total	<u>3</u>	<u>7</u>	<u>15</u>
Average Hourly Wage Each Year	<u>\$26.76</u>	<u>\$23.21</u>	<u>\$22.53</u>

(Average wage decline from 2017-2019 is caused by the first year Lead Technical Developer will be hired in Year 1 and will manage the Minot office. This position will be the highest paid position in the Minot office.)

VI. ALL APPLICANTS

- A. A completed MAGIC Fund Application form.
- A. Enclose information concerning any pending or threatening litigation or administrative proceeding or any outstanding administration orders, judgments, or injunctions to include company officials or any of the principals involved in bankruptcy (for the past five years)

VII. NEW BUSINESS VENTURES

- A. List three professional and three personal references.
 - 1. (professional) David Dvorak, CEO, Field of View 701-610-3482
 - 2. (professional) Mark Nisbet, ND Principal Manager, Xcel Energy 701-371-5255
 - 3. (professional) Dean Reese, CEO, ND Development Fund 701-328-5334
 - 4. (personal) Denny Ebert, Dean Emeritus, UND College of Business 701-777-2929
 - 5. (personal) Bruce Gjovig, CEO, UND Center for Innovation 701-777-3132
 - 6. (personal) Albert Reiger, UND History Professor 701-777-2701
- B. A business plan that include no less than three years pro-forma financial statements (balance sheet, income statement and cashflow statement).
- C. Signed personal financial statements for all principals who hold more than 20% interest in the venture.

VIII. EXISTING BUSINESSES (Expansion/Retention/Relocation)

- A. Enclose financial statements for the past three fiscal years, including: balance sheets, income statements. If unaudited, the statements must be signed and dated by an authorized financial officer of the business.
- B. Enclose most recent interim financial statements (balance sheet and income statements).
- C. Enclose Federal Tax returns filed by the business principals for the previous three years, if the applicant is a sole proprietorship, partnership, or corporation that does not have its financial statements audited or reviewed.
- D. Enclose a business plan, which shall include no less than three years of pro-forma financial statements (balance sheet, income statement, and cashflow statement).
- E. Attach a typewritten narrative describing the company, the project, markets served, jobs being retained/created, benefits offered, community/regional impact, competition, and any other information that may help describe the project and funding request.

The data which you supply to this department will be used to assess your firm's qualifications for MAGIC Fund assistance. Any information the company deems confidential/proprietary should be defined when presenting the application. All information submitted that can be protected by the North Dakota open records laws will be omitted from the public record as determined appropriate.

By signing below you represent that you are duly authorized to verify the foregoing application, that you have read it, and that you are familiar with the statements contained therein, which you verify are true.

SIGNATURE AND TITLE


Matthew Dunlevy, President/CEO

DATE: 03/06/17



SkySkopes Business Plan
Minot Office





4200 James Ray Drive
Grand Forks, ND 58202
(701) 738-4825
www.skyskopes.com

DATE: Friday, March 10, 2017
TO: MAGIC Fund Steering Committee and Minot City Council
FROM: Matt Dunlevy, President and CEO, SkySkopes
SUBJECT: SkySkopes - Minot Expansion

Request

SkySkopes respectfully requests the amount of \$375,100 for capital investments to establish a Bakken unmanned aircraft systems (UAS) headquarters in Minot. SkySkopes identified Minot as a top tier expansion opportunity for the company, and plans to have personnel and operational capacity by Q2, 2017. Below is a breakdown of the use of funds:

Magic Fund Application - Use of Funds		
Robot Aviation RX50 w/payload	89,700.00	24%
Mini Ranger - Phoenix LiDAR	188,300.00	50%
Niatros Gas Imager - IR Camera	75,000.00	20%
M600 Package - UAV	\$ 7,800.00	2%
FLIR XTR + Mount - Sensor	\$ 14,300.00	4%
Total Funding	\$ 375,100.00	100%

Background and Project Overview

The unmanned aircraft systems industry is an emerging industry within the United States, with North Dakota being one of the leaders in research and economic development regarding the technology. North Dakota has invested more than \$37 million into developing, marketing, and attracting a UAS ecosystem that rivals any other UAS ecosystem nationwide. There are several reasons why North Dakotans should be excited about the UAS industry:

1. Many prevalent industries throughout the state benefit from the use of UAS. In agriculture, UAS can be used by the farmer to get a quick aerial view of crop health in fields. Agronomists can use multispectral data, which takes imagery in multiple spectrums to generate vegetation health maps in order to classify and prepare individualized prescriptions. One useful tool that has attention alongside UAS is LiDAR, a device that projects lasers onto the surrounding environment to create a 3-D map. Oil and gas related industries can use the LiDAR data collected from UAS to prepare high-resolution surface modeling to augment or even replace ground surveys. Photogrammetry combines high definition images to produce accurate 3-D models, which can be used for mining and construction industries to calculate stockpiles on hand. However, the most exciting aspect is new applications for deployment of UAS technologies which are being innovated right now.



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2. The UAS industry provides an opportunity to create high-paying technology jobs in the state. This also allows an opportunity for the North Dakota University System (NDUS) to design and develop programs to retain the youth of North Dakota.

3. The use of unmanned aircraft is safer for many inspection applications compared to traditional methods. For example, UAS can take the place of aircraft flying low over transmission lines or an inspector entering hazardous confined spaces.

SkySkopes will bring UAS expertise to Minot's key industries: energy and agriculture. Working with Sharper Shape, the global market leader in automated asset inspections, SkySkopes can bring 30 percent cost savings to annual transmission line inspections. With a proven success record, SkySkopes has previously performed wind turbine inspections for Montana-Dakota Utilities, which eliminated the need to manually inspect the turbine blades. In fall of 2016, SkySkopes also worked with Xcel Energy and UND to study the use of UAS in rapid storm damage assessment. In addition, SkySkopes has also performed inspections of solar panels, surveying and mapping applications, and agriculture use cases (including flying for the NDSU Research Extension Center). We believe that the addition of a Minot office will expand our capabilities into new industries; and enhance the efficiency, reduce costs, and save time for existing Minot businesses.

Energy efficiency audits of government and commercial buildings is one example of an energy use case. Energy audit reports provide current energy usage data and a plan to reduce energy consumption. Extensive time and cost are the key challenges of completing energy audits, which are necessary to perform comprehensive assessments of buildings. SkySkopes is developing a transformational approach for performing cheaper, faster, and more detailed energy assessments for single buildings, neighborhoods, and cities. Through the use of energy efficiency experts in Syracuse, NY, SkySkopes is developing proprietary algorithms that analyze the building envelope for heat infiltration/exfiltration and structural condition, the building systems for energy use, and renewable energy capacity. SkySkopes has secured a partnership with NexusND and Minot State University (MSU) to begin collecting sample data from the university system. MSU will be the first university in the university system, where computer science interns will work with researchers in Syracuse, NY, to add machine learning capabilities to further improve the effectiveness and efficiency of the audits.

SkySkopes will bring its world-class UAS training academy to the City of Minot to help guarantee the safety and scalability of the new UAS operations. They will also help expose UAS to a new generation of potential pilots by working with Minot Public Schools with grades 8-12 introductory UAS courses. SkySkopes President/CEO, Matt Dunlevy, accepted a position on the Minot High School's Aviation Advisory Committee and will continue to work with them along with the North Dakota Center for Distance Education (NDCDE) to foster UAS in the education of Minot's students. SkySkopes has approached Pietsch Aviation to partner in the education of young aviators and look to strengthen



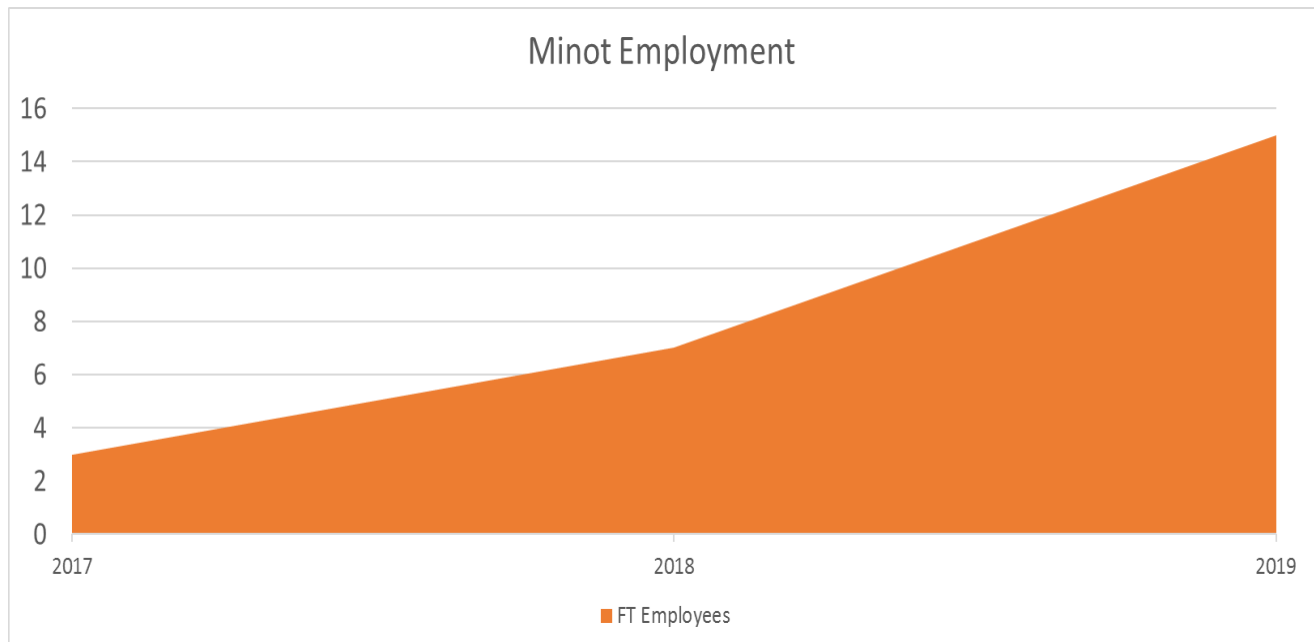
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SkySkopes' relationship with the Minot aviation community. UAS in secondary education is one way SkySkopes will ensure the UAS industry has a strong future in Minot.

SkySkopes is very successful with the development of intern talent and will bring a proven internship program to MAGIC Sky. In partnership with MSU, SkySkopes will bring university talent for business development and computer science to find new local UAS business opportunities and to refine energy efficiency algorithms. The computer science interns would also learn how to analyze, store, and deliver UAS data while considering cybersecurity and coding scripts for aircraft. These interns will find themselves in a uniquely rewarding real-world UAS experience while also earning university credit towards their degrees. SkySkopes will enhance Minot's local pool of talent by retaining interns into full-time positions after graduation.

SkySkopes will bring basic, advanced, and tailored UAS training courses to help raise the profile of MAGIC Sky and help aid and prevent the shortage of qualified UAS pilots in the Minot area. SkySkopes' UAS flight training program will ensure UAS missions conducted in Minot and the Bakken are safe, effective, and ethical.

To achieve these goals, SkySkopes will be looking to employ 3 initial employees and several interns. By 2019, we expect 15 full-time employees within Minot. This is dependent on commodity prices and other factors.



Use of Funds Breakdown

SkySkopes would use the funds to develop a premier UAS operation within Minot. This location will lead all oil and gas UAS activity while working in tandem with the corporate office. Minot's office will have an operational radius beginning in Devils Lake, ND, and ending near Miles City, MT. This radius allows SkySkopes to deliver commercial grade UAS capabilities to the entire Bakken region. Below is a breakdown of how the funds will be used to achieve this goal:

SkyRobot RX50 w/EOIR sensor from Robot Aviation - \$89,700

The Robot Aviation RX50 has an endurance of 1 hour with a 2.5kg payload. This drastically increases SkySkopes' capabilities for pipeline inspections, railroad inspections, agriculture, and mapping/surveying. The plan is to develop visual line-of-sight (VLOS) projects in these industries for 2017, while developing operating procedures for a beyond-visual-line-of-sight application with the FAA to extend our operational radius to 20km. This aircraft will help strengthen the partnership between Robot Aviation, SkySkopes, and Minot. SkySkopes would nationally market the use of the RX50 in the Bakken, and which would leverage the Minot's MAGIC Sky initiative. The request for this aircraft has increased to the above amount to include an electro-optical and Infrared gimbal, included by Robot Aviation, as part of the request. With pilot projects already in place for oil and gas, and a MOU with the Minot Fire Department, this seems like a natural addition to the aircraft. This can also be used for utility line inspections for Esmart.

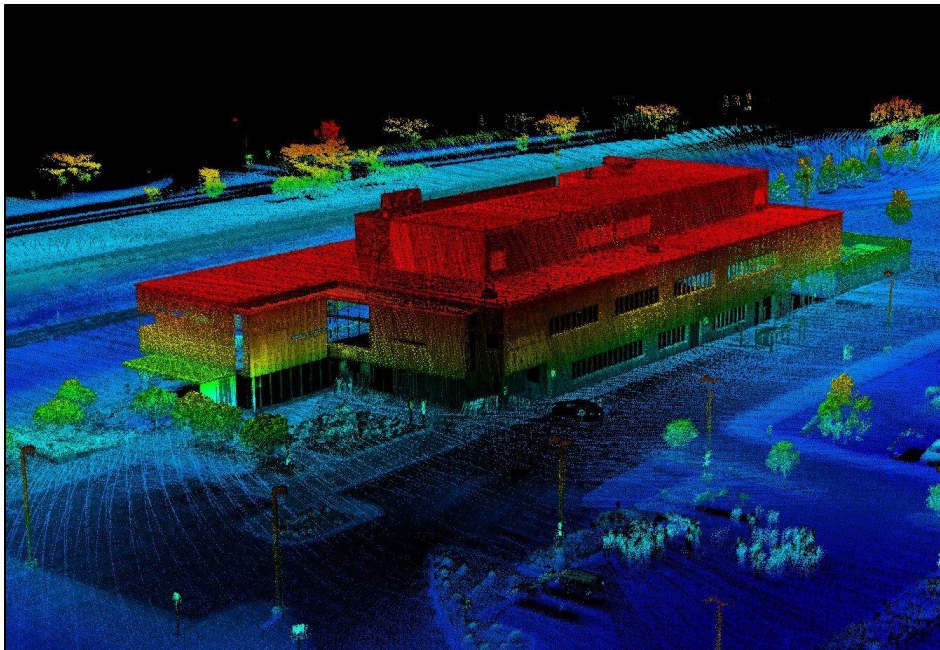




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MiniRanger LiDAR System from Phoenix LiDAR Systems - \$188,300

The miniRanger is a weight-optimized version of our full-sized, high-density Ranger mapping system. This extremely compact system is the first of its kind to enable operating flight altitudes up to 100m AGL and delivers high-density data with up to five echoes, making it an ideal option for demanding UAS/UAVs applications. The miniRanger is a new model LiDAR system that has been released since our first application submission. A LiDAR system is a must for complex aerial surveying, and the additional price includes everything needed for our pilots in the Minot office to begin serving our clients including training, software, a laptop, and more.





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Niatros optical gas imager (OGI) - \$75,000

The Niatros OGI camera core is manufactured and sold by IRcameras, a Santa Barbara, CA based subsidiary of Heico. The Niatros is used to detect certain hydrocarbon gas absorption bands that are ideally suited for UAS activities. SkySkopes could use this sensor to help regional companies inspect pipe racks, above and below ground gas pipelines, fuel gas lines, valves, flanges, connections, seals, vent stacks, compressors, storage tanks, LNG terminals, flare stack monitoring of burned and unspent gas, generators, tank farms, drilling and production wells, booster/pump stations, first responders in emergency situations, engines, and railroad tank cars. This technology will allow SkySkopes to help oil and gas clients reduce their inspection cost for regulatory requirements and safely identify volatile organic compound (VOC) leaks.



DJI M600 Package –\$7,800

This aircraft is designed for professional aerial photography and industrial applications. It is the recommended aircraft for the miniRanger LiDAR system in this application. SkySkopes currently has two of these aircrafts, and an additional aircraft in Minot is necessary. This price point includes batteries, controllers, and other necessary items to get the aircraft operational. This would be our primary heavy lift aircraft for the LiDAR system, until above 55lbs. aircraft are allowed.

FLIR XTR Advanced Radiometry Thermal Imaging Camera - \$14,300

This thermal sensor provides twice the temperature measurement accuracy of the standard Zenmuse XT along with the new analysis and recording functions. This camera is necessary for performing building thermography readings. As part of the ResearchND project, we will fly all 11 campuses in the state using 4 DJI Inspire Pros and 4 Zenmuse XTR cameras.



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www.skyskopes.com

This funding request is part of a \$875,700 fundraising round for North Dakota Operations, with 60% being used towards the city of Minot. The fundraising round will be separated by a \$500,000 round from angel investors. The overall raise will be used to help SkySkopes achieve strategic milestones within different industries, while expanding SkySkopes' operational radius to cover the entire state. Currently, \$175,000 of the equity round has been raised. SkySkopes is reaching out to accredited investors from across the region to close by mid-Q2, 2017.

Over the course of the last few months, SkySkopes has secured projects in the Minot area in preparation for Minot's operations. SkySkopes is partnering with a Williston firm to help service their oil and gas clients. This includes having one pilot project which will occur over the next few weeks. This project will focus on flying several critical assets for a large oil company in the Bakken. In addition, SkySkopes has been in contact with another oil company that is a potential investor. A pilot project with them will focus on pipeline inspections using UAS technology. We have also conducted several interviews with potential employees, and have several candidates lined up. Over the next few weeks, SkySkopes will be reaching out to additional companies to begin projects for Q2, 2017.

Appendix Items:

1. Use of Funds breakdown
2. Pro Forma Minot
3. SkySkopes' Minot Contribution
4. Business Plan – Condensed



4200 James Ray Drive
Grand Forks, ND 58202
(701) 738-4825
www.skyskopes.com

1. Use of Funds:

Use of Funds - North Dakota

Project Size:	\$ 875,700.00
Grant/Debt	\$ 375,700.00
Equity	\$ 500,000.00
Machinery and Equipment	\$ 500,000.00
Down payment on Vehicle (2)	30,000.00
3DR Solo (2)	800.00
Desktop Computers (6)	4,500.00
3D Printer	3,000.00
Lenovo P50 Laptop (3)	6,900.00
RX50 - Aircraft	89,700.00
Alpha 32 - Phoenix LiDAR	188,300.00
Niatros Gas Imager - IR Camera	75,000.00
M600 Package	7,800.00
FLIR XTR + Mount	14,300.00
Other	\$ 79,700.00
Operating Capital	\$ 375,700.00
NDDF Working Capital	\$ 104,800.00
General	\$ 270,900.00

These are funds received for North Dakota Expansion. The categories highlighted in yellow are partially or entirely being dedicated to the Minot office. Partial categories include:

- 1 vehicle will be in Minot
 - Included in other capex
- 2 Desktop computers
- 1 Lenova P50 Laptop



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2. Pro Forma - Minot:

SkySkopes, Inc. - Minot, ND

Pro Forma Projections (2017-2019)

	2017 Totals	2018 Totals	2019 Totals
Revenue			
Oil and Gas Inspections (Hours)	26,250.00	210,000.00	735,000.00
Electric Utility Inspections (Miles)	65,625.00	437,500.00	984,375.00
Wind Turbines (Towers)			
Surveying/Mapping (Hours)			
Academy: Flight Training (Sessions)			
R&D/Special Projects (Days)	11,250.00	45,000.00	67,500.00
Operations - Other (Hour)	75,000.00	300,000.00	600,000.00
Oil and Gas Software (Annual Lease)	-	75,000.00	450,000.00
Total Revenue	253,687.50	1,285,375.00	3,276,093.75
Operating Expenses			
Rent	21,600.00	28,800.00	40,800.00
Payroll Expense	201,902.91	846,170.54	2,029,772.75
Supplies (office & oper.)	5,500.00	3,000.00	4,000.00
Marketing & Advertising	9,000.00	18,000.00	6,000.00
Outsourced Services	750.00	2,000.00	12,000.00
Insurance	6,000.00	9,000.00	12,000.00
Small Tools & Equipment	3,600.00	4,200.00	4,800.00
Software & Data	1,875.00	18,000.00	26,400.00
Travel	18,000.00	36,000.00	60,000.00
Continuing Education/Training	900.00	1,200.00	1,200.00
Other Operating Expense	16,500.00	30,000.00	45,000.00
Total Operating Expense	285,627.91	996,370.54	2,241,972.75
EBITDA	(31,940.41)	289,004.46	1,034,121.00
Depreciation	187,500.00	500,000.00	1,000,000.00
EBIT	(219,440.41)	(210,995.54)	34,121.00
Interest	13,125.00	35,000.00	70,000.00
EBT	(232,565.41)	(245,995.54)	(35,879.00)
Corporate Taxes		83,638.48	12,198.86
Net Income	(232,565.41)	(162,357.06)	(23,680.14)



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3. SkySkopes' Minot Contribution – 2017

SkySkopes Contribution	2017
Inspire I Pro w/X5 (2)	9,000.00
Batteries	1,000.00
Two Desktop computers	3,000.00
Lenovo P50	3,100.00
Payloads	12,500.00
Other Capex	124,450.00
Operating Capital	191,152.91
Contribution Total	<u>344,202.91</u>



Market Data

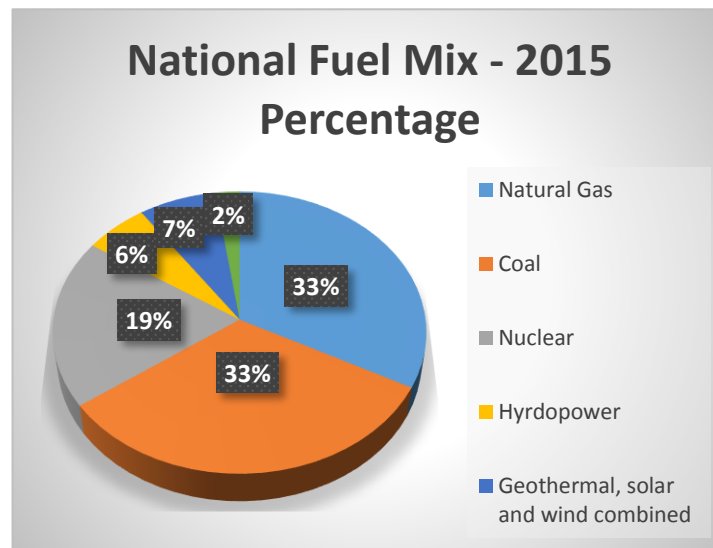


Target Markets

<u>Industry</u>	<u>Total US Market</u>	<u>Total Market Value</u>
Pipelines (Miles)	2,500,000	1,200,000,000
High Voltage Transmission Lines (Miles)	283,000	11,320,000
Distribution Lines (Miles)	2,200,000	88,000,000
Energy Audits - Commercial Buildings (Number - Sq. Ft)	5,600,000 - 87B	13,050,000,000
Oil & Gas (Wells)	1,700,000	170,000,000
Electric Substations	70,000	52,500,000
Wind Turbines	48,000	36,000,000
Mines	13,604	27,208,000
Railroads (Miles)	140,000	5,600,000
Estimated Target Market Size		14,640,628,000
		401,535,400.00

National Fuel Mix - 2015

<u>Type</u>	<u>Percentage</u>
Natural Gas	32.7%
Coal	32.4%
Nuclear	19.3%
Hyrdopower	6.0%
Geothermal, solar and wind combined	7.3%
Other Miscellaneous	2.3%





Minot Financial Projections



Employee Names/Types	2017	2018	2019	3 Year Total
CTO	56,250.00	82,500.00	90,000.00	228,750.00
Business Development	34,666.67	57,200.00	62,400.00	154,266.67
FT Pilot	26,666.67	44,000.00	48,000.00	118,666.67
Intern	9,200.00	178,250.00	13,800.00	201,250.00
Intern	9,200.00	15,065.00	13,800.00	38,065.00
Intern	9,200.00	15,065.00	13,800.00	38,065.00
Intern	9,200.00	15,065.00	13,800.00	38,065.00
FT Pilot	-	40,000.00	44,000.00	84,000.00
Data Specialist	-	55,000.00	60,500.00	115,500.00
Administrative Assistant	-	36,000.00	39,600.00	75,600.00
FT Pilot	-	40,000.00	44,000.00	84,000.00
Intern	-	13,800.00	13,800.00	27,600.00
Intern	-	13,800.00	13,800.00	27,600.00
Intern	-	13,800.00	13,800.00	27,600.00
FT Pilot	-	-	40,000.00	40,000.00
FT Pilot	-	-	40,000.00	40,000.00
FT Pilot	-	-	40,000.00	40,000.00
FT Pilot	-	-	40,000.00	40,000.00
FT Pilot	-	-	40,000.00	40,000.00
Data Specialist	-	-	55,000.00	55,000.00
Data Specialist	-	-	55,000.00	55,000.00
Data Specialist	-	-	55,000.00	55,000.00
Intern	-	-	13,800.00	13,800.00
Intern	-	-	13,800.00	13,800.00
Intern	-	-	13,800.00	13,800.00
Total Payroll	154,383.33	619,545.00	891,500.00	1,665,428.33

Capital Expenditures

Year 1	124,450.00
Year 2	200,000.00
Year 3	500,000.00
Total	<u>824,450.00</u>

SkySkopes Contribution	2017	2018	2019
DJI Matrice 600	5,000.00		
Inspire I Pro w/X5 (2)	9,000.00		
Batteries	1,000.00		
Two Desktop computers	3,000.00		
Lenovo P50	3,100.00		
Payloads	12,500.00		
Other Capex	124,450.00	200,000.00	500,000.00
Operating Capital	205,952.91	996,370.54	2,241,972.75
Contribution Total	<u>364,002.91</u>	<u>1,196,370.54</u>	<u>2,741,972.75</u>



SkySkopes Presentation



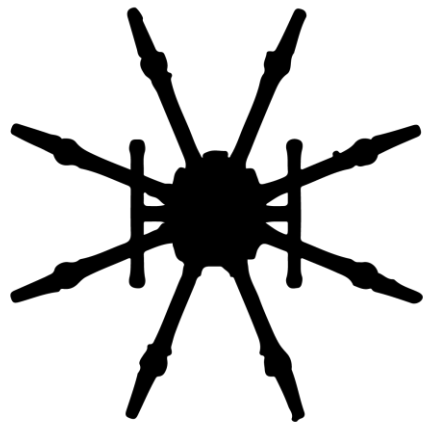
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SkySkopes

Minot Opportunity – Magic Fund Application

Safe | Effective | Ethical

Our Story



Sky
Skopes

Founded in Grand Forks in 2014, SkySkopes has become a national leader in providing unmanned aircraft systems (UAS) flight operation services.

Our expansion to Minot will create new jobs, expand the local tax base, increase capital investment, and will provide great opportunities for Minot, including Minot being the headquarters for UAS operations in the Bakken.

Additional Services

In late 2016, SkySkopes staff founded the SkySkopes Academy. The academy offers online and in-person training opportunities to a variety of students with the goal of making the national airspace a safer place.



SkySkopes Leadership Team



Matt Dunlevy
President & CEO



Ryan Ach
COO



Dan Daffinrud
CFO



Mike Johnson
Director of Flight
Operations



Brandi Jewett
Director of
Marketing &
Media Relations

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Magic Fund Request

SkySkopes respectfully requests the amount of \$375,100 for capital expenditures needed to establish a Bakken unmanned aircraft systems (UAS) headquarters in Minot.

Use of Funds

This equipment would provide SkySkopes with the most advanced UAS offering for Bakken clients.

MAGIC Fund Request

RX50 unmanned aircraft	\$76,700
MiniRanger LiDAR	\$188,300
Niatros gas imager, infrared camera	\$75,000
M600 Package	\$7,800
Flir XTR+ mount	\$14,300
Total Funding Request	\$375,100

Equipment Requested

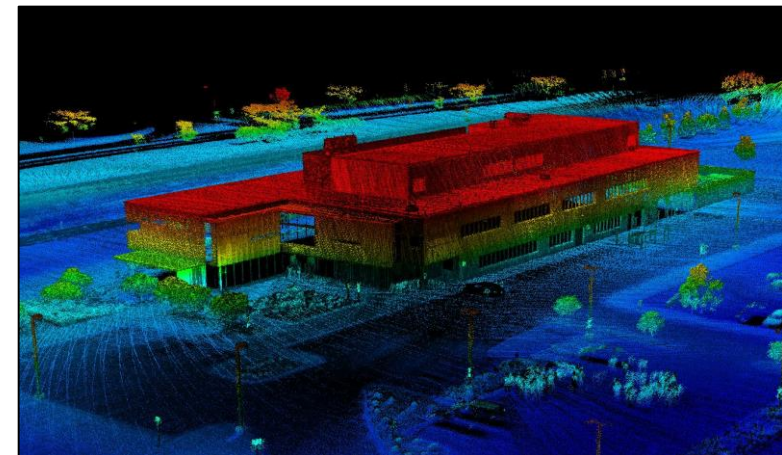
Robot Aviation RX50 drone

- The Robot Aviation RX50 has an endurance of 1 hour and would be used for pipeline inspections, railroad inspections, mapping and surveying.



MiniRanger— LiDAR system

- This laser mapping system allows high accuracy collection of data that can be used to create 3D models of buildings and environments.



Equipment Requested

Niatros optical gas imager

- The Niatros is used to detect certain hydrocarbon gas absorption bands that is ideally suited for UAS activities such as pipeline inspections.



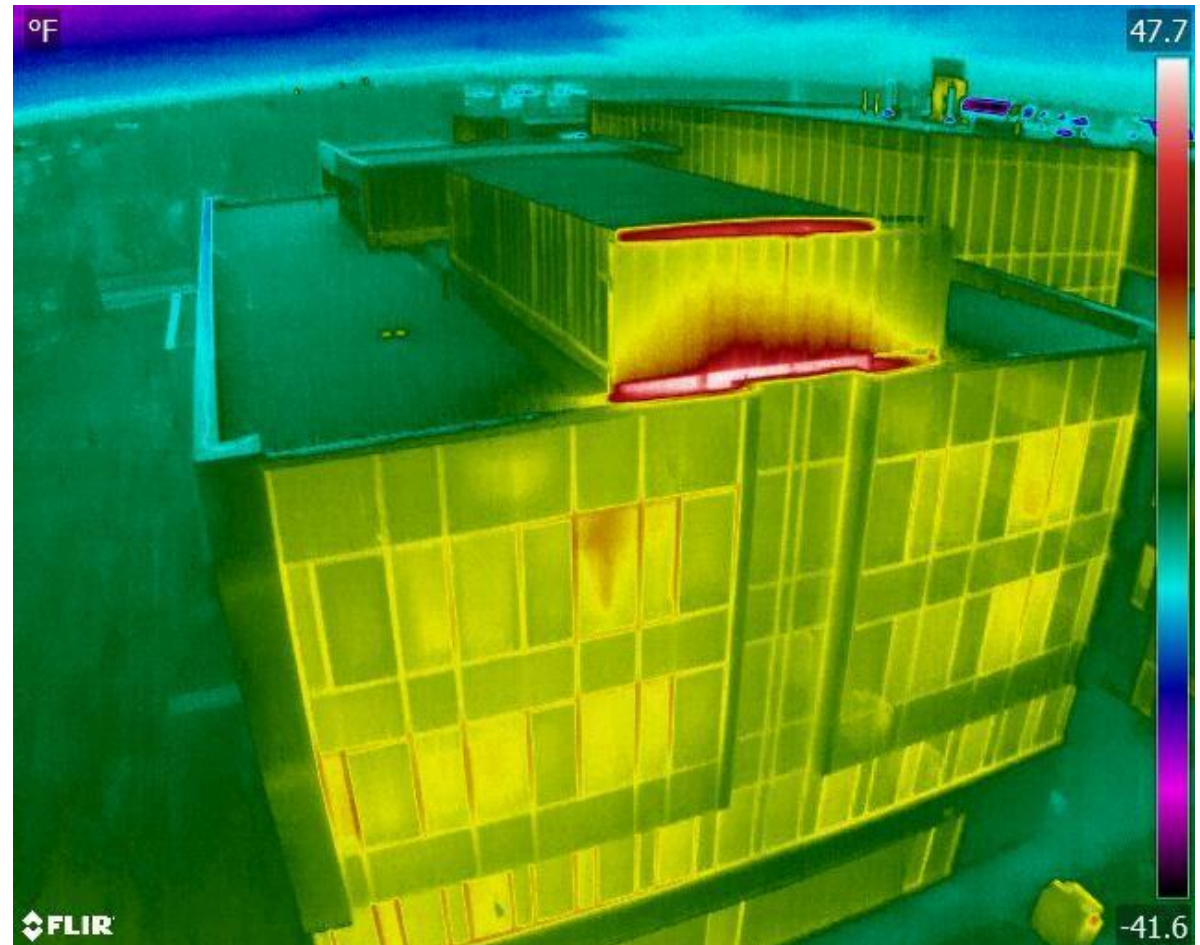
DJI M600 Package

- This aircraft is designed for professional aerial photography and industrial applications. It is the recommended aircraft for the miniRanger LiDAR system in this application. This price point includes batteries, controllers and other necessary items to get the aircraft operational.

Equipment Requested

Flir XTR Thermal Camera

This thermal sensor provides twice the temperature measurement accuracy of the standard Zenmuse XT along with the new analysis and recording functions. As part of the ResearchND project, we will fly all 11 campuses in the state using 4 DJI Inspire Pros and 4 Zenmuse XTR cameras.



SkySkopes Contribution

- SkySkopes will create new jobs
 - 15 High-paying full-time jobs in the first 3 years
 - Develop a skilled workforce and sustainable pool of local talent to serve the UAS industry
 - Numerous internship opportunities for MPS students and MSU students
- SkySkopes will increase capital investment and expand the local tax base
 - 3 Year Benchmark: Capital investment will be \$2,307,856
- SkySkopes will create and develop new opportunities
 - With expanding technology and strategic partners, SkySkopes will provide new opportunities for energy customers (customers who are Minot businesses and industry leaders across the state)
 - Minot will be established as the Bakken UAS Headquarters

SkySkopes Contribution

- SkySkopes will reduce business costs, increase efficiency, and save time for Minot area businesses
- SkySkopes has allocated \$124,450 of additional capital expenditures in Minot including ground command vehicle and additional aircraft/sensors in 2017. This will come from angel investors and revenue from ND.
- Approximately 20% of current equipment in Grand Forks:
 - 2 Inspire 1's with X5 sensors
 - Additional equipment including batteries, Ipads, transmitters, tools, and other accessories.

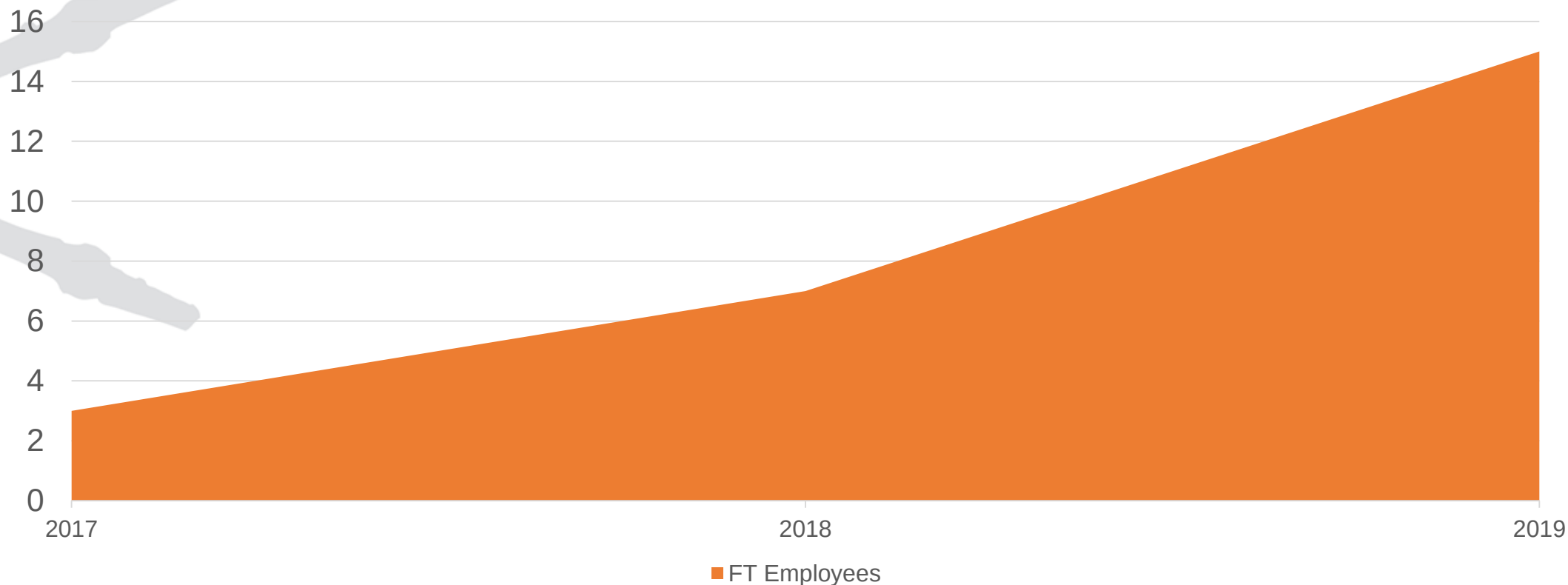
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Creating a Skilled Workforce

- High-paying jobs would be created by our office and would have a beneficial economic impact on the city.
- Internship opportunities would be available for Minot State University students in not only piloting UAS but business and computer science fields as well.
- Retaining interns into full-time positions after graduation is one method SkySkopes will leverage to ensure the City of Minot has a sustainable pool of local talent.

Creating a Skilled Workforce

Minot Employment



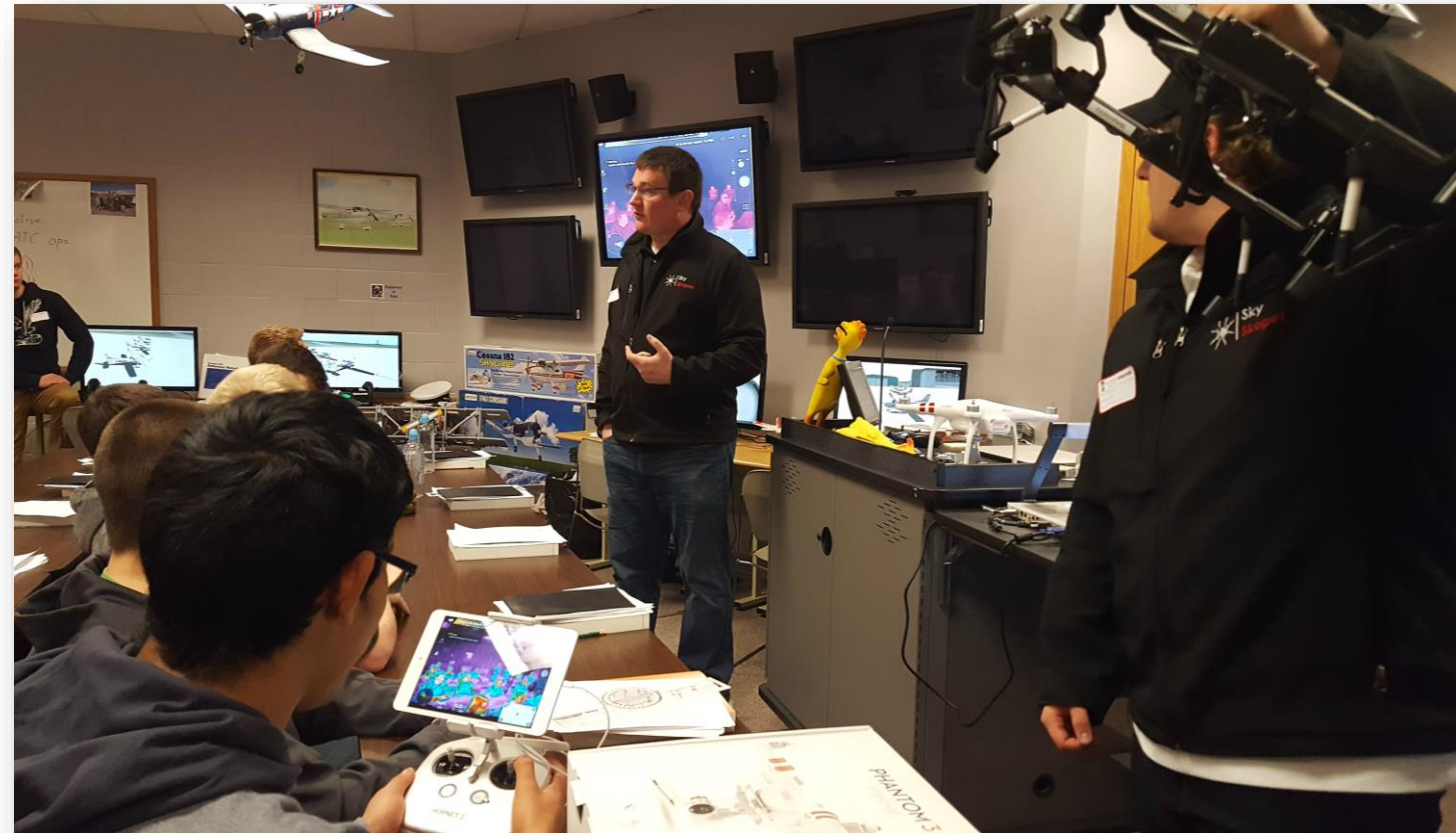
New Jobs and Opportunities



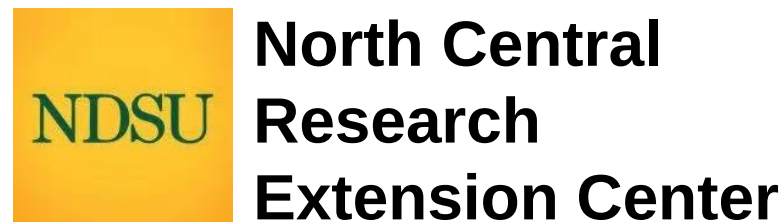
With expanding opportunities for unmanned aircraft technology, we predict UAS will be key to developing services for energy customers.

Training for the Future

As part of our Minot expansion, we will bring SkySkopes Academy services to provide educational opportunities for a variety of students, including 8-12th graders enrolled in Minot Public Schools.



Local Partners



SkySkopes Minot Advisory Board

-Kevin McGlaughlin, UAS Specialist, Hess Oil

-Jay Fisher, Former Executive Director, Minot-Based NDSU Research Extension Center

-John MacMartin, President, Minot Area Chamber of Commerce



**North Central
Research
Extension Center**



UAS Partners



SkySkopes serves as Sharper Shape's preferred flight services provider. Sharper Shape focuses on automated inspection of utility infrastructure.



Robot Aviation, a drone manufacturer, sees the Bakken as a key area of development for the company.

Future Developments for Minot

- CNATC – Autonomous Corridor
- Harris Corp. BVLOS Network:
 - ND Grant will expand drone research and testing
 - Develops integrated network infrastructure for BVLOS drone operations
 - ND will be first state with network, enhancing opportunities for UAS in the state



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Conclusion

- We believe the growing demand for UAS services provides an opportunity for economic development in Minot.
- Additionally, our company wants to aid in bolstering the industry's presence in the city.
- By investing MAGIC Fund dollars into our company, Minot would be taking a step toward becoming a premier city for UAS businesses such as SkySkopes.

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Questions?



**Thank
you!**



***MAGIC Sky Initiative
White Paper***



MAGIC Sky Initiative White Paper

Introduction

The Unmanned Aerial Systems (UAS) industry is an emerging industry that has experienced exciting growth and demand over the last few years, which has led North Dakota to be known as the drone state. With a rural setting and wide open skies, Minot is a prime location for UAS operations. Between military and commercial uses, the opportunities are unlimited for UAS businesses in the Minot area.

In late December 2016, the Minot Area Development Corporation (MADC) announced the MAGIC Sky initiative, representing the tremendous potential for the UAS industry in Minot. This initiative combines strategic partners across the state to promote Minot as a top-destination for UAS companies. MAGIC Sky also represents MADC's efforts and commitment to help foster and support the maturing of the UAS industry.

Advantages of MAGIC Sky

Proximity to the Bakken: Minot is located within Ward County, one of the sixteen oil and gas producing counties in North Dakota. Being located directly in the Bakken enables Minot to have access to key players in the Bakken, some of these include: Hess Corporation, Enbridge, Aggreko, Creedence Energy Services, NewKota Services and Rentals, and many more. More than 30,000 miles of pipeline exist in the state of North Dakota, which by law must be inspected every 2 weeks. North Dakota is the 20th largest oil producer in the world and the 2nd largest producer in the nation. 55% of North Dakota's oil is transported via pipe, 29% rail, 8% refined, and 8% by truck. Minot is strategically positioned to serve as the go-to city for Bakken inspections.

Open Skies: Minot's uncongested and diverse airspace, makes Minot's open skies a desirable location for UAS operations. Uncongested airspace is best for UAS, as most UAS operate outside controlled or restricted airspace, which minimizes interference from other airspace users. Low populated regions help reduce risk for UAS operations as well, in the event of system failures. Minot's diverse weather climate makes UAS more economical and safer compared to human or manned helicopters. Minot's open skies are the perfect test bed for Beyond Visual Line of Site operations (BVLOS). SkySkopes, a leading drone service provider, received approval from the FAA to operate UAS at the Minot International Airport; this is one example of the advantage of Minot's open skies as this most likely wouldn't be allowed in a larger city.

Top Industries: Agriculture and distribution are the key markets for UAS operations, these industries also happen to be Minot's targeted industries due to numerous advantages Minot has to offer.

- **Agriculture:** Agriculture is the #1 industry in North Dakota, with Minot serving as the hub of production. North Dakota ranks #1 and #2 in 15 different ag commodities: Barley, Beans (all), Beans (pinto), Canola, Flaxseed, Honey, Peas, Wheat (all), Wheat (Durum), Wheat (Spring), Beans (black), Beans (navy), Lentils, Principal Crops Harvested, Sunflower (oil), Sunflower (all), Sunflower (non-oil). North Dakota exports Ag products to over 83 countries across the globe, which solidifies the crucial role of Minot's distribution and logistical services have globally. Minot area farms are unsurpassed in the amount of on-farm storage for diverse crops they raise, a distinct advantage for end-use processors. Minot area farms also use high-tech farm machinery and field application techniques to ensure quality commodities. Studies show that rising populations and shifts in diets will lead to a 138% economic growth in Ag imports for developing countries, which means the demand for Ag product exports will increase for North Dakota (USDA).
- **Energy:** North Dakota energy projects have the capacity to produce 325 million gallons of ethanol, 85 million gallons of biodiesel, and 2,500 megawatts of wind power. As the second largest oil producing state in the nation, North Dakota's two refineries have a total refining capacity of 88,000 barrels per day. With over 30,000 miles of pipeline in our state (excluding the 1,172 mile stretch of the Dakota Access Pipeline), many servicing companies and high-profile professionals have made Minot their home due to Minot's close proximity to the Bakken. In addition to oil and gas, North Dakota's wind energy potential ranked in the top 10 states for greatest wind capacity (North Dakota Dept. of Commerce). Minot is home to ideal UAS end-users like Xcel Energy, MDU, Central Power, and Verendrye. Coal is also an exciting industry for UAS in North Dakota. There are currently 5 active lignite mines in North Dakota, with a coal production of 27.7 million tons. The lignite industry generates approximately \$3 billion in gross business volume within the state, a great industry for UAS to tap into.

Minot's Education System: Between Minot Public Schools (MPS) and Minot State University (MSU), Minot's education system serves as a great advantage for the UAS industry.

MPS currently offers an Aviation Technology Program that prepares students for their Private Pilot License (PPL). There are two different courses offered within the Aviation Technology Program, once the program is completed students are ready for flight training and the FAA private pilot's verbal exam. MPS targets and prepares children at a young age to enter the aviation workforce. MSU also serves as a valuable resource for the UAS industry, providing a talented pool of graduates each year.

MSU is known for its outstanding academic quality and strong educational standards, a distinct advantage for the Minot region and Minot workforce. As the UAS industry enters the Minot area, there are excellent educational and workforce opportunities for cyber security and data analysis. Security, anti-virus, protection, algorithms, and data storage are all aspects that will need to be addressed with UAS in the Minot area; which in turn leads to a great opportunity for MSU.

“Minot State University looks forward to being an active partner with Minot’s MAGIC Sky initiative, and working closely with companies such as SkySkopes to provide new opportunities for our students and graduates. New and emerging industries such as unmanned aerial systems are exactly the kinds of areas where North Dakota needs to be focused, ensuring we have a diversified economy prepared to lead the nation and the world in the decades ahead,” said Dr. Steven Shirley, President of Minot State University.

Distribution/Logistics: Minot’s distribution advantages make Minot a standout location for the energy and agriculture industries. Minot is strategically located at the intersection of two Class 1 railroads (BNSF & CP). Only seven Class 1 railroads exist in the U.S., therefore Minot’s unique location at the intersection of two is a distinct advantage. With access to 2 Class 1 railroads, Minot provides coast to coast accessibility. BNSF travels to Seattle, Minot, Chicago, and Los Angeles whereas CP travels from Vancouver to Chicago. Minot also provides access to 3 U.S. Highways (HWY 83, HWY 2, HWY 52) and is located at the top of the Central North America Trade Corridor.

SkySkopes: SkySkopes, a leading drone service provider, announced its expansion to Minot in Dec. 2016 and was deemed the first achievement of the MAGIC Sky initiative. SkySkopes was ranked among the top 3 UAS companies in the nation to operate in the oil and gas industry for (DronesX). With a team of highly qualified pilots, SkySkopes conducts aerial inspections, energy audits, mapping and other tasks using cutting-edge drone and sensor technology to provide valuable data to customers. SkySkopes has accepted a partnership with MADC to help MAGIC Sky reach its full potential. As a nation-wide industry leader, SkySkopes’s is dedicated to helping MADC make Minot the center location for UAS access to the Bakken.

Collaborators: The MAGIC Sky initiative is facilitated by the Minot Area Development Corporation (MADC), who is highly involved in the Minot community and has earned topnotch partnerships throughout the state. MADC’s strategic partners will help leverage the opportunities for UAS companies. Among MADC’s Board of Directors are ideal end-users for the UAS industry, including MDU, Enbridge, NewKota Services & Rentals, Ackerman-Estvold engineering, Xcel Energy, Verendrye Electric, SRT Communications, and more. Having connections with top executives and decision makers for potential clients is a huge advantage for UAS companies looking to expand to the Minot area. MADC also has strong partnerships with Minot State University and Minot Public Schools, both of which will serve as great workforce opportunities for the UAS industry. Other potential opportunities for this particular industry, includes servicing the Minot Air Force Base and collaborating with the North Dakota Petroleum Council; which MADC can facilitate these introductions. MADC’s membership represents the many end-users who would benefit from UAS. Between customers, workforce, and future opportunities; it’s evident that Minot’s locations and MADC’s connections serve as a great benefit for UAS companies looking to take advantage of Minot’s MAGIC Sky.

Legislative Representatives: North Dakota’s legislative representatives are extremely responsive to the people of ND and are known for their high involvement with business commerce within the state.

It's very common for ND legislative representatives to have a presence during exciting milestones in Minot, but they also leverage their positions to fight for particular projects in the MAGIC City. Matt Dunlevy, President/CEO of SkySkopes, says "North Dakota legislators have been extremely involved within the UAS industry. The pioneering by our legislators has been provided a tremendous opportunity for North Dakota to take a leadership position in the UAS industry over the last decade. Their leadership brought beyond-visual-line-of-sight permissions to our UAS test site, and they facilitate the possibilities of new UAS companies coming to the state. Only in North Dakota would one find such open minded and accessible legislators."

Proximity to Minot Air Force Base: The Minot Air Force Base (MAFB) is located just 15 miles north of Minot with a population of approximately 12,000. The MAFB is the only base housing two components of the nuclear triad for the U.S. Air Force. In 2016, the base had an economic impact of \$591 million in Minot. Approximately 1,400+ retired military personnel make up Minot's workforce and about 500 highly-skilled servicemen and women transition out of the military each year to join the civilian workforce. Minot's proximity to MAFB serves a valuable benefit for the UAS industry because of the potential workforce and end-user opportunities. Retired military make superior UAS pilot's or other workforce professions in the UAS industry due to their military training, background, and special skillsets. The military is a market full opportunities for UAS businesses, ranging from security screening on a local level or infield applications. Minot's close proximity to the MAFB is a strategic advantage for UAS businesses looking to tap into the military market or secure a qualified workforce.

Opportunities and Demand

Bakken Applications: There are four key applications for the Bakken; pipeline inspection, oil storage tanks/boilers, site surveys/pre-construction, and volumetrics.

- **Pipeline Inspection:** UAVs can be used for above and below ground pipelines, fuel gas lines, valves, flanges, connections, seals, etc. Typical pipeline inspections are performed visually from an airplane and by foot. Inspections via UAS have more benefits to offer companies. The real value comes from data that UAS sensors capture, then transform into actionable data. For example, different IR (infrared thermal imaging) camera systems can be integrated on UAS to detect a variety of concerns for a pipeline company. With over 30,000 miles of pipeline in ND and the requirement of biweekly inspections; cost savings and efficiency for pipeline inspection is in high demand (this even excludes the 1,172 mile stretch of the Dakota Access Pipeline).
- **Oil Storage Tanks/Boilers:** Inspecting oil storage tanks and boilers are time consuming and expensive. UAS can be used both internally and externally to inspect storage tanks and boilers, which in turn provide applicable data and increase safety. The inspection time and cost can be significantly reduced by using UAS.
- **Site Surveys/Pre-construction:** UAS provide highly accurate Digital Elevation Models, and contour maps for new work sites and expanding work sites. UAS allow for a faster and more accurate collection of land elevation data. The data has a turnaround time of one or two days, which is much more efficient than current methods.

- **Volumetrics:** Many companies use volumetrics to calculate the mass volume of various variables, for example: mining services, landfill volume, stockpile management, reservoir volume, site topography, density calculation, environmental assessments, etc. Stockpile management and reservoir volumes are two common volumetric uses for the Bakken.

Military Applications: UAS can be utilized for surveillance, disaster response, or search and rescue (SAR) needs.

- **Surveillance:** Whether a situation requires long-term monitoring or rapid deployment to gather time-sensitive information, unmanned aircraft has proven to be most cost-effective and accurate way to collect data. For example, an unmanned aircraft can use a high resolution camera or thermal imaging sensors that is customized to a particular mission's requirements.
- **Disaster Response:** Unmanned aircraft equipped with high resolution cameras or thermal imagers provide a bird's eye view of disaster areas, which can also assist relief crews in determining the most efficient use of their resources. During a disaster, every second counts when it comes to saving lives. Utilizing UAS provides real-time monitoring, reliable, and up-to-date data to help first responders make more informed decisions.
- **Search and Rescue (SAR):** UAS are highly effective for search and rescue operations due to range, flight time, sensor capabilities, and cost. UAVs are relatively inexpensive compared to manned aircraft, making them more affordable and applicable for SAR operations. UAS offer a bird's eye view and can be achieved virtually anywhere within a matter of minutes.

Agriculture Applications: As agriculture remains ND's top industry, the applications and demand for UAS are extremely high. Normalized Difference Vegetation Index (NDVI), hyperspectral, and drainage are key agricultural applications.

- **NDVI:** Collecting data of crop health is extremely valuable for farmers. Drones offer a more efficient way of collecting data due to the high resolution imagery. The data is collected by using a multispectral sensor. Multispectral sensors provide a better insight to the health of crops, compared to a regular Electro Optical (EO) camera. With the multispectral data, UAS inspection creates NDVI, which provides an image that can visually show crop health. For example, green meaning healthy, yellow meaning so-so, and red meaning no vegetation at all.
- **Hyperspectral:** Hyperspectral sensors are similar to multispectral sensors, however hyperspectral looks at thousands of different bands of light versus only a few. This allows for greater spectral detail, meaning you can also determine the species of plant and cause of plant distress, in addition to plant health. Hyperspectral provides important information regarding hydrology, environmental monitoring, and invasive weed mapping. Collecting data for crop insurance is one great example of using hyperspectral sensors.

- **Drainage:** UAS can collect drainage mapping and elevation data with high resolution and precise elevation maps. Farmers can avoid standing water, soil erosion from runoff, nutrient loss, saving farmers time and money.

Infrastructure Applications: UAS are used for the inspection of powerlines, wind turbines, bridges, railways, highways, and more. Thermal inspections and 3D models are also common infrastructure applications. There are many advantages in using UAS for these type of inspections, as most inspections are best performed visually from a low flying aircraft. The ability to fly, for example powerlines, using UAS lowers the cost and provides customers with higher resolution imagery. The data collected can be processed by software that assists with precise vegetation management, engineering inspections, asset management, and maintenance inspections. Using UAS for infrastructure applications also increases efficiency and worker safety. For example, using UAS to inspect wind turbines can be done at a much faster pace. Time savings can be achieved by inspecting multiple turbines daily with the use of UAS, instead of one or two daily by workers. Being able to detect cracks, erosion, and other damaged areas on the blade via UAS is much safer compared to manned inspections. Thermal inspections with UAS show energy efficiency of buildings or structure. This data is used to identify leaks, structural damage, faulty insulation, and other infiltration/exfiltration of heat around structures. UAS are also used to capture imagery to create accurate 3D Models of structures and building. This is done by taking many images from different angles and heights, using software with photogrammetry to create 3D points of the entire area. This type of data is very accurate and can be used for a wide variety of applications. There is a wide-range of uses for UAS infrastructure applications, all of which provide a more safe, cost efficient, and accurate way to collect data. Minot's strategic location offers great opportunities and demand for the inspection of wind turbines, transmission lines, railways, highways, and more.

Cost Savings, Efficiency, and Safety Improvements for Existing Business in ND: With fluctuations in the oil and gas industry, agriculture industry, and state/local funding... businesses in North Dakota are looking for ways to save money and increase efficiency. Timing is everything, especially for a newer industry to enter a new market. There is no better time than the present for the UAS industry to enter the Minot market.

Business Synergy: Minot has a lot to offer the UAS industry. There is a realistic potential for Minot to serve as a UAV/UAS hub, featuring all parties within the value chain, including end-users, manufacturers, operators, and data analyzers.

Aviation Education: The existing aviation programs offered at Minot Public Schools is a great introduction for young adults to enter the UAS industry. Minot Public Schools has been in conversations with SkySkopes to collaborate together to grow the aviation training in the Minot area with hopes to increase the workforce.

Cyberspace Education: As a new industry enters the Minot area, so does new workforce opportunities. Minot State University (MSU) will grow and develop a cyberspace program to accommodate the new workforce trends and opportunities.

Cyberspace will have an immense impact on the UAV/UAS industry, leaving a special niche for MSU to provide a talented workforce of highly trained young professionals. Dr. Steven Shirley, President of Minot State University stated, “MSU is excited to welcome such cutting-edge drone technology to the Minot area. The UAS industry fits directly into a new initiative, called “NexusND,” underway by the North Dakota University System. Led by Chancellor Mark Hagerott, the goal of this initiative is to develop research, education, workforce training, and economic development highly attuned to North Dakota’s economy in three sustainable and high-growth sectors: cybersecurity, high performance computing, and unmanned aerial systems. MSU is thrilled to take part in NexusND and to support the growth and development of UAS in Minot and in central & western North Dakota.”

New Business: In addition to the agriculture and energy industries, there are many other opportunities for UAS to be used in North Dakota. Whether its cinematography or thermal imaging for commercial uses, there are existing use applications for UAS that are beyond the current target market of MAGIC Sky. Without a doubt, there are also application opportunities that have yet to be discovered as well.

Data Collection & Storage: Minot is an established location for data collection and storage, offering strategic advantages with our capacity, climate, and workforce. Minot is proud to be the home of SRT Communications (SRT), the largest telecommunications cooperative in the state of North Dakota. SRT provides over 50,000 active services to their customers, and has the capacity to serve the Minot Air Force Base. Data analysis is imperative for UAS operations and as these industries expand to Minot, so does the opportunity for data collection and storage.

Conclusion

With a business friendly climate, state incentives, reduced state regulations, and many other statewide benefits, there are many reasons North Dakota has become a top state for drone activity. Minot offers unique advantages for the UAS industry with close proximity to the Bakken, open skies, targeted industries, strong educational systems, strategic distribution/logistics, SkySkopes, strong legislative representatives, and connections to ideal clients and top executives. All of these components make Minot’s MAGIC Sky a strong and strategic initiative to attract UAS businesses to the Minot area. With Minot’s key industries aligning with the target market of UAS, there is great demand for UAS operations. Minot is not only the perfect location for end-user applications, but also offers many opportunities for the industry as well as local incentives. MADC is committed to leveraging the MAGIC Sky initiative to promote Minot’s advantages and develop the opportunity available for the UAS industry.

Sales Tax - First Penny	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
January	581,599.76	726,338.35	608,828.69	526,925.63	595,210.34	1,181,551.20	1,463,686.65	931,889.07	1,193,808.86	1,359,006.96
February	523,971.21	461,875.14	609,948.18	637,828.08	627,991.20	622,724.61	1,018,553.27	597,675.88	822,210.65	975,452.72
March	447,809.87	438,158.34	413,447.38	557,197.40	723,647.25	631,494.15	850,036.80	600,759.41	934,150.18	1,147,677.78
April	316,540.72	408,348.91	575,319.24	566,998.43	622,766.40	588,573.91	1,131,974.10	1,274,721.18	980,196.27	1,069,448.67
May	640,993.15	566,918.24	483,348.94	473,134.20	516,386.45	1,012,148.81	1,142,152.03	1,035,574.38	895,212.45	913,979.51
June	405,391.70	626,439.38	643,833.48	702,361.87	908,450.62	813,060.43	918,590.45	835,583.74	1,167,233.49	1,106,154.58
July	489,138.76	473,836.18	658,467.74	715,753.72	630,486.64	663,384.33	1,458,503.55	1,344,944.52	1,270,110.94	1,294,047.43
August	571,426.33	534,511.04	602,001.01	618,754.32	849,238.82	1,007,864.41	1,213,774.54	948,069.27	949,306.39	1,075,763.61
September	441,520.09	478,093.92	777,236.91	561,469.46	801,409.33	1,121,923.06	1,018,140.50	1,304,604.09	1,454,132.42	978,419.08
October	670,568.11	701,088.24	646,025.36	632,449.28	684,618.62	1,066,744.79	705,218.46	1,130,550.53	1,421,280.73	1,019,840.82
November	418,276.97	556,763.69	453,851.18	748,690.42	976,067.70	1,040,950.28	1,166,345.68	1,072,934.79	1,151,167.62	1,153,327.13
December	453,059.46	649,012.94	814,862.14	681,394.55	663,922.03	1,055,673.05	1,265,700.55	1,347,724.29	1,384,131.02	924,657.44
	5,960,296.13	6,621,384.37	7,287,170.25	7,422,957.36	8,600,195.40	10,806,093.03	13,352,676.58	12,425,031.15	13,622,941.02	13,017,775.73
Year to Date	5,960,296.13	6,621,384.37	7,287,170.25	7,422,957.36	8,600,195.40	10,806,093.03	13,352,676.58	12,425,031.15	13,622,941.02	13,017,775.73
Over/(Under) YTD	8.158%	11.092%	10.055%	1.863%	15.859%	25.649%	23.566%	-6.947%	9.641%	-4.442%
% Year	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
Yearly % Comparison	8.158%	11.092%	10.055%	1.863%	15.859%	25.649%	23.566%	-6.947%	9.641%	-4.442%
Budget	5,000,000.00	5,621,000.00	6,049,700.00	6,720,706.00	7,360,042.00	7,497,187.00	9,390,150.00	11,184,335.00	10,806,093.00	11,500,000.00
YTD Est Collections	5,000,000.00	5,621,000.00	6,049,700.00	6,720,706.00	7,360,042.00	7,497,187.00	9,390,150.00	11,184,335.00	10,806,093.00	11,500,000.00
Over/(Under) Budget	19.21%	17.80%	20.46%	10.45%	16.85%	44.14%	42.20%	11.09%	26.07%	13.20%

Sales Tax - First Penny	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
January	1,073,447.18	1,092,148.21								
February	982,501.96	711,861.09								
March	708,597.79									
April	790,569.80									
May	960,563.47									
June	845,164.38									
July	743,207.04									
August	1,112,766.06									
September	924,022.07									
October	921,549.07									
November	891,184.03									
December	733,998.53									
	10,687,571.38	1,804,009.30								
Year to Date	2,055,949.14	1,804,009.30								
Over/(Under) YTD	-84.207%	-12.25%								
% Year	19.237%	100.000%								
Yearly % Comparison	-17.900%	-12.254%								
Budget	12,608,727.00	9,112,443.00								
YTD Est Collections	12,608,727.00	1,518,740.50								
Over/(Under) Budget	-83.69%	18.78%								

Sales Tax - Second Penny

	2011	2012	2013	2014	2015	2016	2017
January	-	1,463,686.64	931,889.07	1,193,808.86	1,359,006.96	1,073,447.18	1,092,148.22
February	-	1,018,553.27	597,675.88	822,210.65	975,452.71	982,501.96	711,861.09
March	-	850,036.79	600,759.40	934,150.18	1,147,677.78	708,597.78	
April	-	1,131,974.10	1,274,721.18	980,196.27	1,069,448.67	790,569.81	
May	-	1,142,152.02	1,035,574.38	895,212.44	913,979.51	960,563.47	
June	-	918,590.45	835,583.75	1,167,233.49	1,106,154.58	845,164.38	
July	-	1,458,503.54	1,344,944.52	1,270,110.93	1,294,047.43	743,207.04	
August	-	1,213,774.53	948,069.27	949,306.39	1,075,763.60	1,112,766.07	
September	-	1,018,140.49	1,304,604.09	1,454,132.42	978,419.09	924,022.07	
October	1,066,744.79	705,218.45	1,130,550.54	1,421,280.73	1,019,840.82	921,549.07	
November	1,040,950.28	1,166,345.67	1,072,934.80	1,151,167.62	1,153,327.13	891,184.03	
December	1,055,673.05	1,265,700.54	1,347,724.29	1,384,131.02	924,657.44	733,998.53	
	3,163,368.12	13,352,676.49	12,425,031.17	13,622,941.00	13,017,775.72	10,687,571.39	1,804,009.31
Year to Date	3,163,368.12	2,482,239.91	1,529,564.95	2,016,019.51	2,334,459.67	2,055,949.14	1,804,009.31
Over/(Under) YTD	100.00%	322.10%	-38.38%	31.80%	15.80%	-11.93%	-12.25%
% Year	100.000%	18.590%	12.310%	14.799%	17.933%	19.237%	100.000%
Yearly % Comparison	0.000%	322.103%	-6.947%	9.641%	-4.442%	-17.900%	-83.120%
Budget	-	9,390,150.00	11,184,335.00	10,806,093.00	11,500,000.00	12,608,727.00	9,112,443.00
YTD Est Collections	-	9,390,150.00	11,184,335.00	10,806,093.00	11,500,000.00	12,608,727.00	1,518,740.50
Over/(Under) Budget	100.00%	-73.57%	-86.32%	-81.34%	-79.70%	-83.69%	18.78%

City of Minot, North Dakota
Economic Development Growth Fund
Balance Sheet
February 28, 2017
With Comparative Totals for February 29, 2016
(Unaudited)

	February 28, 2017	February 29, 2016
ASSETS		
Current Assets		
Cash and Investments	\$ 7,339,461	\$ 5,383,135
Restricted Cash and Investments		
MADC - Minot Ag Complex/Port Expansion - Site Work (Approved 07/07/14)	<u>\$ 1,305</u>	
Total Restricted Cash and Investments	1,305	674,535
Current Loans Receivable		
Cypress Development	750,000	2,125,000
Kalix	100,800	-
Allowance for Loans Receivable @ 20%	<u>(370,160)</u>	<u>(425,000)</u>
Total Current Assets	7,821,406	7,757,670
Noncurrent Assets		
Loans Receivable		
Cypress Development	<u>1,000,000</u>	<u>-</u>
Total Noncurrent Assets	<u>1,000,000</u>	<u>-</u>
Total Assets	<u><u>\$ 8,821,406</u></u>	<u><u>\$ 7,757,670</u></u>
FUND BALANCE		
Restricted	<u>\$ 8,821,406</u>	<u>\$ 7,757,670</u>
Total Fund Balance	<u>8,821,406</u>	<u>7,757,670</u>
Total Liabilities and Fund Balance	<u><u>\$ 8,821,406</u></u>	<u><u>\$ 7,757,670</u></u>

City of Minot, North Dakota
Schedule of Revenues, Expenditures and Changes in Fund Balance, Budget to Actual
Special Revenue Fund
February 28, 2017
With Comparative Totals for February 29, 2016
(Unaudited)

	Sales Tax Economic Development			
	Original & Final Budgeted Amounts	February 28, 2017 Actual Amounts	Variance with Final Budget	February 29, 2016 Actual Amounts
REVENUES				
Sales tax collections	\$ 227,811	\$ 163,822	\$ 63,989	\$ 161,017
Interest income	2,514	-	2,514	-
Miscellaneous	-	-	-	10,000
Total revenues	230,325	163,822	66,503	171,017
EXPENDITURES				
Current				
Economic Development	130,325	-	130,325	380,173
Marketing - MADC	60,833	60,833	-	60,833
Marketing - Area Cities/Souris Basin	12,500	-	12,500	-
MAFB Retention	15,000	4,000	11,000	4,000
General Administration	1,667	-	1,667	-
Audit Compliance Contract	1,667	-	1,667	1,400
Total expenditures	221,992	64,833	157,158	446,406
Excess (deficiency) of revenues over (under) expenditures	8,333	98,989	(90,655)	(275,389)
OTHER FINANCING SOURCES (USES)				
Transfers out	(8,333)	(8,333)	-	(8,333)
Total other financing sources (uses)	(8,333)	(8,333)	-	(8,333)
Net change in fund balance	\$ -	90,656	\$ (90,655)	(283,722)
Fund balance, January 1		8,730,751		8,041,392
Fund balance, February 28		<u>\$ 8,821,406</u>		<u>\$ 7,757,670</u>