



2016 ANNUAL REPORT

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LEARN TO FLY AT
AvSPORT
OF LOCK HAVEN

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Revised 1 January 2017



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1. AvSport Overview

TOUCH THE SKY
 AT AVSPORT OF LOCK HAVEN, YOUR SPORT FLYING HEADQUARTERS ON THE PIPER MEMORIAL AIRPORT



AVSPORT OF LOCK HAVEN IS A FULL SERVICE FAR PART 61 FLIGHT SCHOOL, REGISTERED WITH THE TSA AS AN APPROVED ALIEN FLIGHT STUDENT PROGRAM PARTICIPANT.



AS AN FAA SAFETY TEAM APPROVED TRAINING PROVIDER, AVSPORT OF LOCK HAVEN OFFERS COURSES, SEMINARS, AND WEBINARS PROVIDING WINGS AND AWT AWARD CREDIT.



DON'T FLY OUR REDBIRD JAY FLIGHT SIMULATOR. ENJOY UNLIMITED USE WITH OUR AFFORDABLE ANNUAL AND LIFE SIMULATOR CLUB MEMBERSHIPS.



AVSPORT IS PROUD TO BE ONE OF THE FIRST FLIGHT SCHOOLS IN THE COUNTRY TO OFFER COMMERCIAL DRONE OPERATOR TRAINING.

CALL (570) 748-3725, OR VISIT US ON THE NORTH SIDE OF THE AIRPORT



GENUINE U.S. GOVERNMENT LICENSED LIGHT SPORT MECHANIC ON DUTY

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2. Vision and Mission Statements

Our Vision:

AvSport envisions a General Aviation renaissance, facilitated by quality training of Sport Pilots and the availability of modern Light Sport Aircraft.

Our Mission:

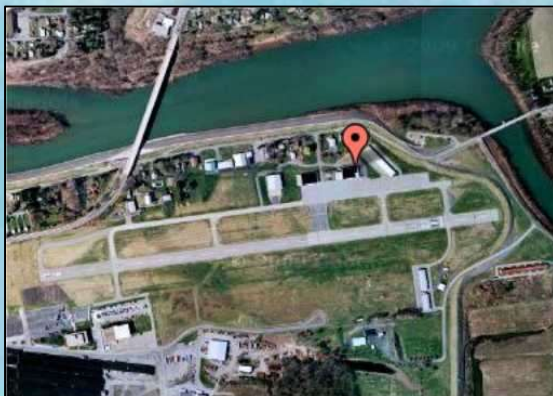
AvSport enhances aviation safety and enjoyment, by offering:

-  a rigorous, though flexible, flight training curriculum
-  experienced, professional Certified Flight Instructors
-  well maintained advanced Light Sport Aircraft
-  modern and accessible instructional materials
-  individualized instruction
-  an affordable aviation experience

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3. Facilities

The General Aviation Terminal, located in Hangar One at the Piper Memorial Airport (KLHV) in scenic Central PA, houses our flight school office, restrooms, conference room, weather briefing room, flight simulator, and pilot's lounge. Ideally suited to Sport Pilot training, Lock Haven is a non-towered general aviation airport with a 3800 by 75 foot paved runway, and a parallel 2200 by 100 foot turf strip. The paved runway is equipped with pilot controlled lighting for night operations, as well as runway end identifier lights and a two-light visual approach slope indicator at each end. Aircraft storage and maintenance activities are housed in T-hangar North 7, directly across the parking lot from the Pilot's Lounge. A camping trailer on the field is available for the use of students from outside the local area wishing to stay overnight. A nearby B&B also offers visitors pleasant accommodations with a flight school discount.



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4. Aircraft

Available for both flight instruction and rental by qualified pilots, AvSport of Lock Haven provides modern, well equipped Light Sport aircraft, manufactured to exacting ASTM International standards. Our current primary trainer is an Evektor SportStar Max (our second of this make and model) purchased in July 2015. Manufactured in the Czech Republic, it is licensed by the Federal Aviation Administration as a Special Light Sport Aircraft (S-LSA), and equipped with the latest “dual glass cockpit” redundant electronic flight and engine instruments. Its advanced avionics package and fully coupled autopilot make this aircraft suitable not just for Sport Pilot training, but for our more advanced students, including Private and Instrument Pilot candidates. During 2016, AvSport further increased safety by upgrading our primary GPS to year 2020 requirements. We also improved reliability by performing a full propeller gearbox overhaul. These, along with meticulous preventive maintenance and inspections, can be expected to provide optimum engine operation through the factory-authorized maximum of 2000 flight hours.



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5. Drone Pilot Training



Commercial operation of Unmanned Aircraft Systems (commonly called Drones) has emerged just recently as a major growth segment of the aviation industry. In late June of 2016, the Federal Aviation Administration published rules for licensing of commercial drone pilots, a process which began on 29 August. AvSport immediately began developing curriculum, and the week the new rules went into effect, became the first flight school in the nation to train and graduate Remote Pilots with a Small Unmanned Aircraft System rating.

According to FAA Administrator Michael Huerta, the new FAA rating is expected to generate more than \$82 Billion in economic activity, and generate over 100,000 new jobs, over the next ten years. "Whereas the early 20th Century ushered in the Air Age," notes Prof. H. Paul Shuch, the flight school's founder and Chief Flight Instructor, "and the mid 20th Century represented the start of the Space Age, one could call the early 21st Century the beginning of the Drone Age. The unmanned aerial systems industry is currently in its infancy, with commercial interests just beginning to discover the wealth of applications which can be fulfilled with these small, inexpensive, and very capable remotely piloted vehicles."

Anthony Foxx, U.S. Secretary of Transportation, said "we are part of a new era in aviation, and the potential for unmanned aircraft will make it safer and easier to do certain jobs, gather information, and deploy disaster relief." The FAA states "the rule's provisions are designed to minimize risks to other aircraft and people and property on the ground." AvSport is proud to offer potential commercial drone operators an opportunity to get involved on the ground floor of what promises to be aviation's next Great Frontier.





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6. Curriculum

Developed by a retired college professor with four decades of experience in higher education, AvSport's rigorous though flexible flight training curriculum allows students to obtain the new Sport Pilot license in half the time, and at half the cost, of the traditional Private Pilot rating, without compromising skills or safety. Students can choose between an accelerated five-week training program, and a less intensive program of conveniently scheduled lessons. We are an FAR Part 61 flight school and TSA-approved Alien Flight Student Program provider, nominated by our students for the AOPA Flight Training Excellence Award. Flight training and individualized ground instruction are integrated, and are supplemented by reading assignments, practice tests, and online PowerPoint lessons to allow each student to progress at his or her own pace.

To date, 90% of AvSport's students accomplishing their first solo flight have gone on to become licensed pilots, 50% of our graduates are now aircraft owners, and 20% of our licensed Sport Pilot have continued their studies, earning their Private Pilot ratings.

AvSport's ten standard training packages now include:

- ✦ "Taste of Freedom," a half-hour Discovery Flight
- ✦ "Gateway to the Sky" Introductory Lesson (one hour each of flight and ground training)
- ✦ "Simulator Club," unlimited use of our Redbird Jay flight simulator for a flat annual fee
- ✦ "Flight FUNdamentals," a four-lesson, minimal-commitment sport flying experience
- ✦ "Five Weeks, Rain or Shine," zero hours to solo flight in an intensive pre-solo module
- ✦ "Five More Weeks of Heaven," solo flight to license in an intensive post-solo module
- ✦ "Airspace Ace." Earn all 3 Sport Pilot controlled airspace endorsements in just 4 days
- ✦ "Pilot Downsizer," a 4-day Light Sport Aircraft transition for licensed Private Pilots
- ✦ "The Next Step Up," a 5-week Private Pilot add-on module for licensed Sport Pilots
- ✦ "Remote Pilot In Command," a 3-day Commercial Drone Operator certification course

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7. Students

During 2016, two AvSport students accomplished their first solo flights, and one completed Sport Pilot training. Our instructors conducted 2 demonstration flights, 7 Discovery Flights, and 14 Introductory Lessons. We helped two Private Pilots transition to Light Sport Aircraft, and gave 5 licensed pilots their 24-month flight reviews. Our students, who range in age from 16 to 80, have come to Lock Haven for training from as far away as New York, Connecticut, New Jersey, Ohio, Maryland, Massachusetts, Georgia, California, Florida, Canada, Saudi Arabia, India, Denmark, and Sweden. They represent a wide range of professional and educational backgrounds.

As students graduate from our Sport Pilot training program, many have chosen to become renter pilots, who continue to enjoy the recreational use of our aircraft. Others have continued on to earn higher ratings, and exercise additional pilot privileges, and several have bought their own airplanes, or joined flying partnerships.

AvSport promotes a sense of community among our students, instructors, prospects, and graduates, by sponsoring Safety Seminars, graduation parties, and (sadly) memorial gatherings, as well as hosting movie nights complete with popcorn and aviation films, and monthly Hangar Flying sessions featuring coffee, donuts, education, singing, conversation, and fellowship. Though run as a viable business entity, AvSport strives to foster an old-time flying club atmosphere.





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8. Staff

Early in 2016 AvSport conducted its annual TSA-mandated Security Awareness Training course for eight area flight instructors. AvSport remains a TSA-approved Alien Flight Student Provider, subject to periodic audits conducted by both the Department of Homeland Security and the Pennsylvania Department of Transportation's division of aeronautics. In his capacity as the volunteer FAA Safety Team Lead Representative for Lock Haven, in 2016 our Chief Flight Instructor offered eleven free safety seminars in Lock Haven PA, Cherry Hill NJ, Baltimore MD, and Sebring FL, and six nationwide presentations through his EAA Webinar series. Overall, our small staff boasts over 100 years of combined aviation experience.



At Sport Aviation Expo in Sebring FL every January, Prof. Shuch presents four separate FAA Safety Team Wings Seminars to pilots, instructors, and mechanics.

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9. Accomplishments



In January 2016, AvSport chief flight instructor H. Paul Shuch added a Seaplane pilot rating to his credentials, in hopes of bringing seaplane flight training back to the Susquehanna River. Shuch received seaplane instruction at Jack Brown's Seaplane Base in (where else?) Winter Haven FL, flying (what else?) a Piper J-3 Cub on floats.

"Anyone who's flown out of our own Piper Memorial Airport is likely familiar with the ubiquitous yellow Cub," notes Prof. Shuch. "The seaplane version flies just like a standard Cub, although the drag of the floats makes it cruise noticeably slower. It is on the water, however, that the Cub becomes a completely different fish -- er, bird." Adding a seaplane rating to an existing pilot's license typically requires two to three days of intensive training, although one day of rainy weather increased Shuch's training time to four days. "Like many local snow birds, I spend much of every January in Florida," says Shuch. "This year, I decided to pay a visit to the talented folks at Brown's, and proceeded to check off a bucket list item. The non-trivial experience made me appreciate the efforts and accomplishments of my own flight students, and I would recommend it to any pilot in search of new challenges."

In late June, 2016, the Federal Aviation Administration published its new rules for licensing of commercial drone pilots. That process went live on 29 August. At zero dark eighteen (6:18 AM CDT) that morning, AvSport chief flight instructor H. Paul Shuch became the first person in the country to receive an FAA Remote Pilot certificate with a Small Unmanned Aircraft System rating. "By successfully navigating the FAA's complex Remote Pilot certification process," notes Shuch, "I am better prepared to help my students do the same."



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10. Events



The premiere aviation event at Piper Memorial Airport is the annual Sentimental Journey to Cub Haven fly-in. Each summer, AvSport participates by providing Discovery Flights, safety seminars, and aircraft for static display. Here, our first SportStar trainer attracts the attention of some of our Amish neighbors.

In cooperation with airport management and the Sentimental Journey team, AvSport continues as a regular participant in the Experimental Aircraft Association's annual International Learn to Fly Day. During the 2016 event, we provided several Discovery Flights, and coordinated a fly-in/LSA display, complete with refreshments and informal discussions.

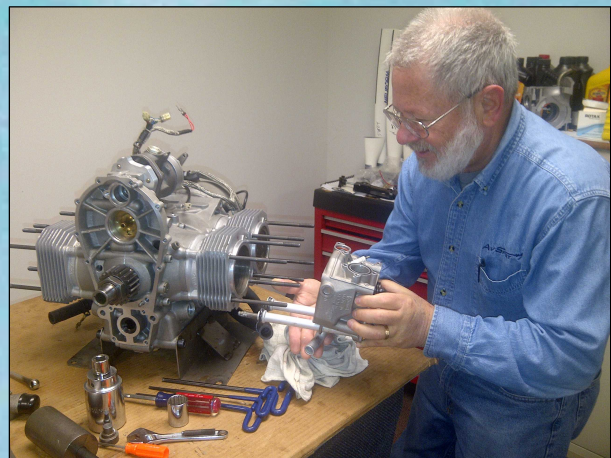


AvSport students, instructors, graduates, and friends gather in the pilot's lounge once each month for coffee, doughnuts, and hangar flying.

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11. Maintenance

In 2016, AvSport continued to upgrade its modern, fully equipped maintenance shop in T-hangar North 7 at Piper Memorial Airport, conveniently located directly across the parking lot from the Pilot's Lounge and our office in Hangar One. We perform condition inspections, preventive maintenance, major and minor repairs, and alterations to our own fleet, as well as customers' Special and Experimental Light Sport Aircraft. We remain the Rotax Engines designated Independent Repair Centre for Western PA. During the year, our Director of Maintenance took additional online training, and is rated by the FAA to perform maintenance and inspections on Light Sport Airplanes, Powered Parachutes, Gliders, and Weight Shift Control Aircraft. He is a factory authorized independent Rotax engine technician at the Heavy Maintenance level.



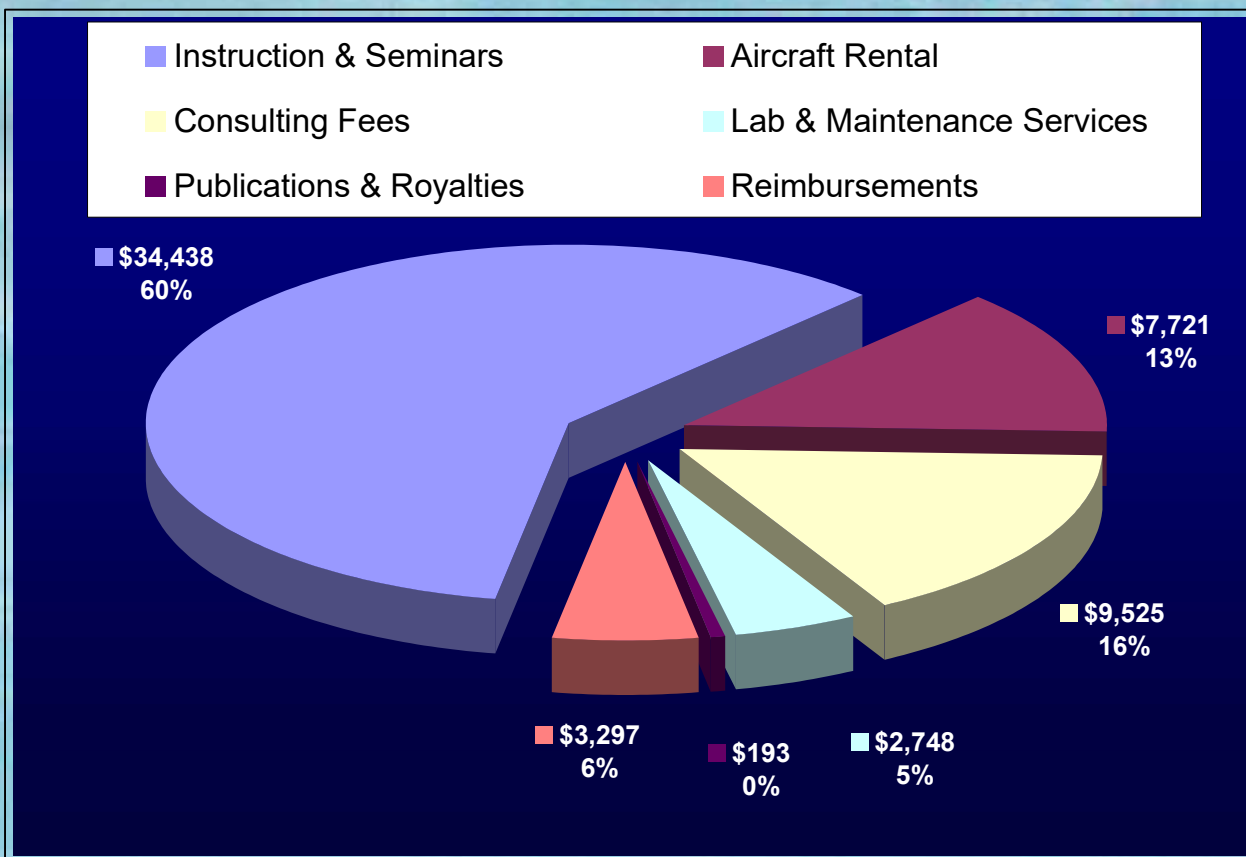


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12. Financials

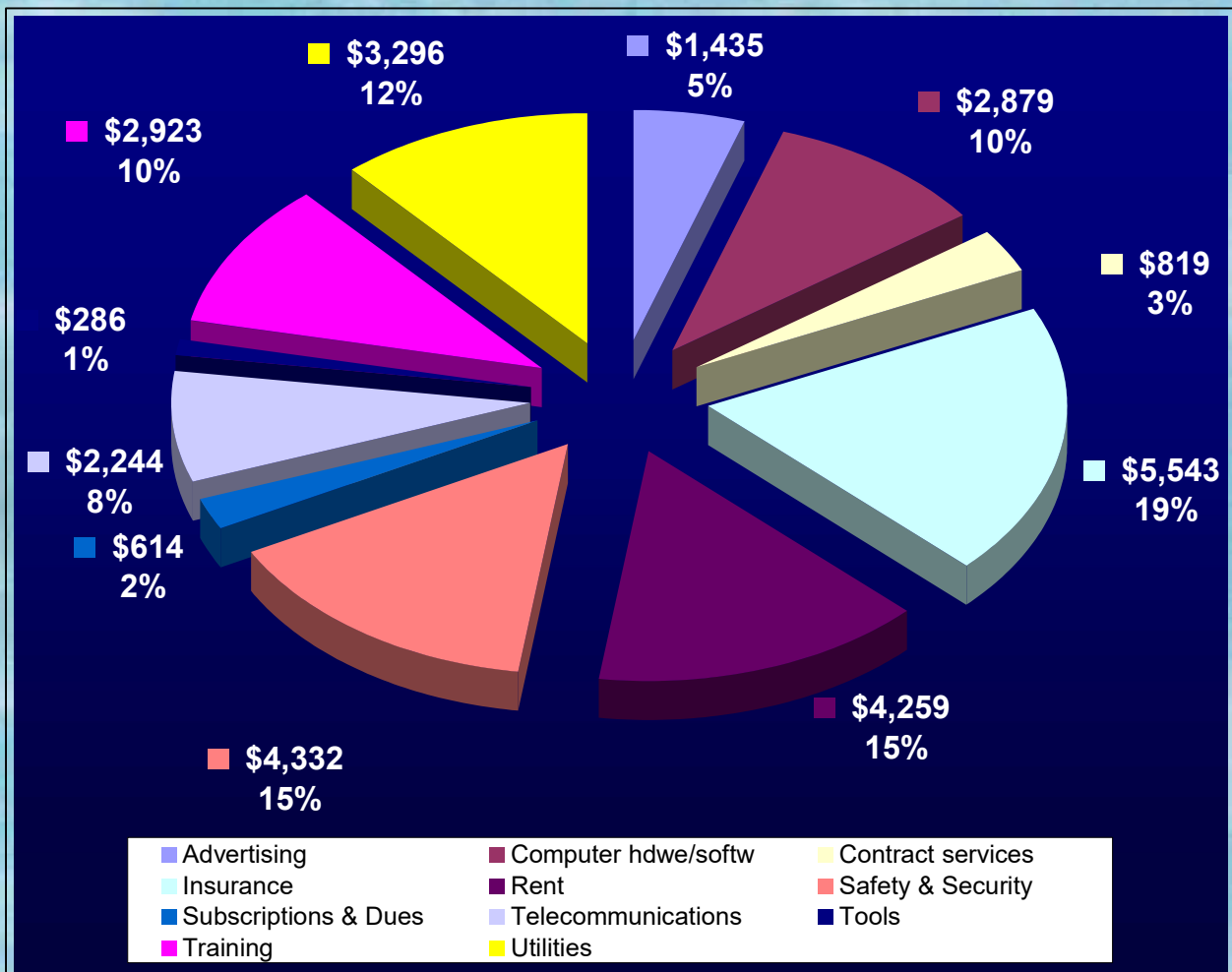
Sport flying being a recreational activity, AvSport’s financial position is both highly seasonal, and dependent upon the local community’s aggregate discretionary income. Due to excellent weather and increased flight hours, our 2016 revenues increased slightly, as compared to the previous year. However, our operating expenses also increased, due to varying energy costs, leaseback of our first trainer aircraft, and ongoing aircraft maintenance. AvSport continues to generate a modest positive return on investment, with our 2016 earnings running slightly ahead of the previous year. We have succeeded in generating profits in six out of our seven years of operation. The charts below detail our operating revenues and expenses for the year just ended, exclusive of amortization of capital investment.

2016 Revenues



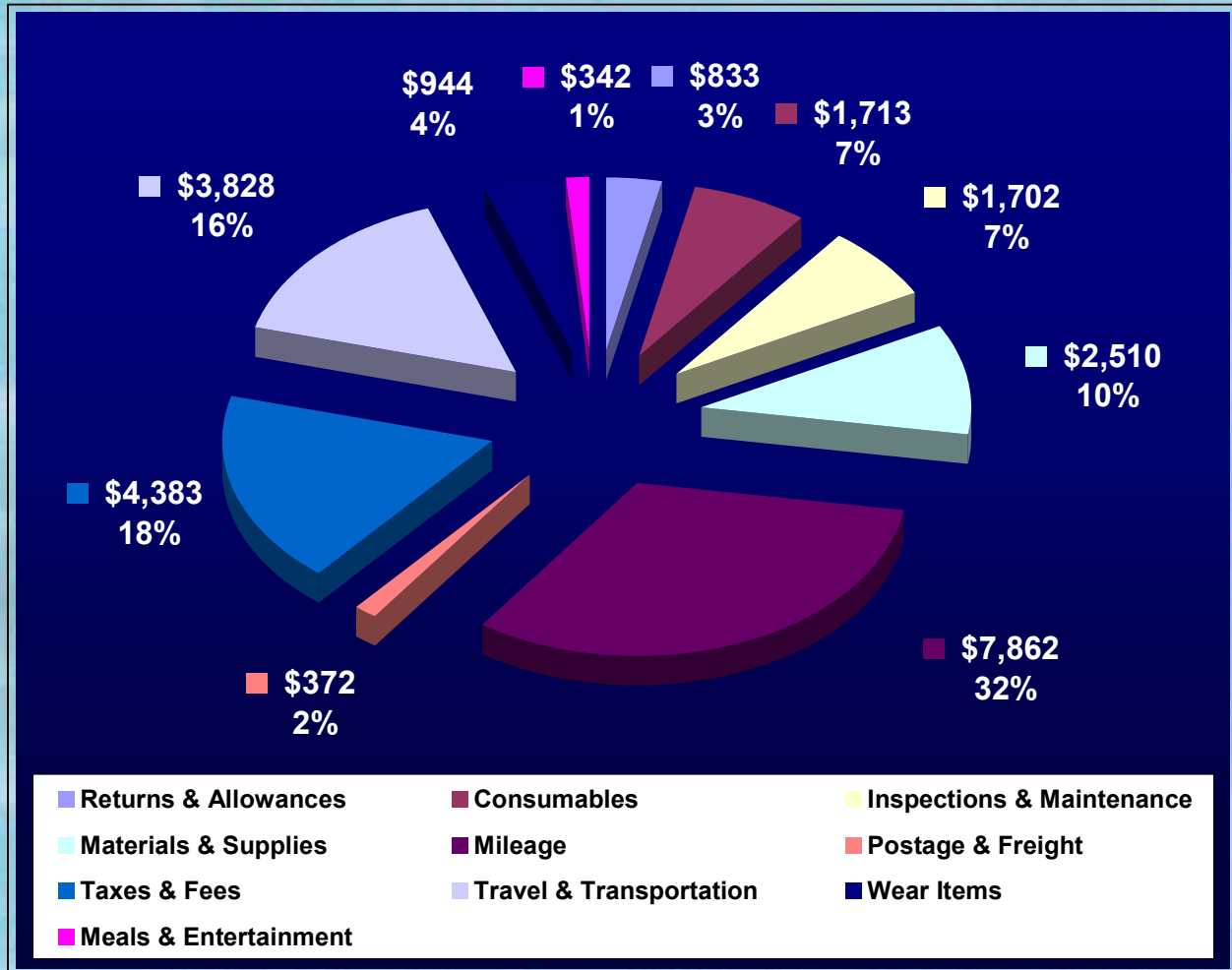
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2016 Fixed Expenses



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2016 Variable Expenses





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Return on Investment (exclusive of capital acquisitions and amortization)

<u>Year</u>	<u>Revenues</u>			<u>Expenses</u>			<u>Profit(Loss)</u>
	<u>Training</u>	<u>Services</u>	<u>Total</u>	<u>Fixed</u>	<u>Variable</u>	<u>Total</u>	
2010	45,871	17,843	63,714	27,379	30,087	57,466	6,248
2011	21,562	15,252	36,815	18,738	23,897	42,635	(5,820)
2012	29,687	22,863	52,551	20,835	29,985	50,820	1,730
2013	20,821	20,218	41,040	17,774	21,835	39,610	1,430
2014	26,646	27,759	54,405	15,871	25,768	41,639	12,766
2015	30,157	19,825	49,982	22,617	22,681	45,298	4,684
2016	34,438	23,483	57,921	28,630	24,489	53,119	4,802

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13. Congratulations!



...to Rajendra Dave, who completed his first solo flight in October, and is now well on his way to completing his Sport Pilot license.



Double congratulations to David Mauck, who flew his first solo flight in August, and by November had completed all required training for his Sport Pilot certificate.



AvSport is especially proud of PA State Trooper Steven Schmit and commercial photographer Eric Stashak (flying drones, left and right respectively), our first two commercial drone course graduates to earn their FAA Remote Pilot certificates.

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In Memoriam

AvSport is saddened to report the death on 10 June 2016 of pilot, engineer, Master Mechanic, teacher, and inspiring mentor Col. Mary S. Feik, from complications of cancer. Born in Cleveland, Mary lived in Annapolis, MD, for a total of 52 years. After overhauling her first automobile engine for her father when she was 13, she turned to aircraft engines and military aircraft at the age of 18, and taught aircraft maintenance to crew chiefs and mechanics for the US Army Air Corps in 1942. During WWII, Feik became an expert on many military aircraft and is credited with becoming the first woman engineer in research and development in the Air Technical Service Command's Engineering Division at Wright Field in Dayton, OH.



Mary flew more than 6,000 hours as pilot in fighter, attack, bomber, cargo, and training aircraft. She qualified as a B-29 Flight Engineer and was an engineering analyst in test aircraft for flight and maintenance requirements. On February 24, 1996, she was the first woman to be presented The Charles Taylor Master Mechanic Award by the FAA. She was a Life Member of the Civil Air Patrol, a recipient of the CAP Distinguished Service Medal, a CAP Colonel, and had the third achievement in the cadet program named for her. In April 2016, her local Civil Air Patrol Squadron, MD028 Annapolis Composite Squadron, was rechartered as the Col. Mary S. Feik Composite Squadron. She was named a Maryland Aviation Pioneer in 1998, and was inducted into the Maryland Women's Hall of Fame in 2015. The National Aeronautics Association awarded the Katherine and Marjorie Stinson Award for Achievement to her in 2003, the Frank G. Brewer Trophy in 2006, and the Katharine Wright Award in 2013. Her portrait was added to the First Flight Shrine at the Wright Brothers National Memorial in 2014, when she was inducted into the First Flight Society.



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15. Resources

For additional information about AvSport of Lock Haven, its aircraft, instructors, training materials, curriculum, and the new Sport Pilot license, please see the following pages of the AvSport web site:

✈ Main Page	http://AvSport.org
✈ Main Menu	http://AvSport.org/menu.htm
✈ General Information	http://AvSport.org/about
✈ Press Kit	http://AvSport.org/press
✈ Photo Gallery	http://AvSport.org/photos
✈ Video Gallery	http://AvSport.org/press/video.htm
✈ Flight Instruction	http://AvSport.org/cfi
✈ Light Sport Aircraft	http://AvSport.org/acft
✈ Simulator Club	http://AvSport.org/simulator
✈ Maintenance Services	http://AvSport.org/maint
✈ Remote Pilot Instruction	http://drone-training.org
✈ Upcoming Events	http://AvSport.org/events
✈ Contact Information	http://AvSport.org/contact
✈ Search Engine	http://AvSport.org/search

or, stop by Hangar One at the Piper Memorial Airport, and pay us a visit.

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16. Four Quadrant Briefing Charts:



URL: <http://www.AvSport.org>

Sport Pilot Flight Training Curriculum Development

Chief Flight Instructor: Professor H. Paul Shuch, CFII



The Problem:

The completion rate of persons pursuing flight training in the US is below 20%, an all-time low. This is generally attributed to the increasing complexity of airspace, the introduction of advanced aircraft and avionics systems, and the high cost of aircraft ownership, rental, and operation. However, despite significant advances in both aeronautical technology and educational methodology, pilot training curricula have remained virtually unchanged since prior to the Second World War.

The Proposal:

The introduction by ASTM of the Light Sport Aircraft certification category, along with the establishment by FAA of the Sport Pilot License, presents an opportunity for a significant modernization of the flight training curriculum.



Vision Statement:

AvSport envisions a General Aviation renaissance, facilitated by quality training of Sport Pilots and the availability of modern Light Sport Aircraft.

Mission Statement:

AvSport enhances aviation safety and enjoyment, by offering:

- a rigorous flight training curriculum
- experienced, professional Certified Flight Instructors
- well maintained advanced Light Sport Aircraft
- modern and accessible instructional materials
- individualized instruction
- an affordable aviation experience

Schedule Milestone and Accomplishments:

- September 2009 (Technology Readiness Level 1)
- Establish AvSport as an FAR Part 61 Flight School; activate website (Technology Readiness Level 2)
- December 2009 (Technology Readiness Level 2)
- Purchase of Evektor SportStar Light Sport Aircraft trainer
- January 2010 (Technology Readiness Level 3)
- Present business plan to Lock Haven City Council; lease facilities
- February 2010 (Technology Readiness Level 4)
- Introduce "Three Weeks, Rain or Shine" Pre-Solo intensive course
- April 2010 (Technology Readiness Level 5)
- Solo first primary student
- May 2010 (Technology Readiness Level 6)
- Introduce "Three More Weeks of Heaven" Post-Solo intensive course
- June 2010 (Technology Readiness Level 7)
- Graduate first licensed Sport Pilot
- November 2010 (Technology Readiness Level 8)
- Complete FAA mechanics training; establish maintenance shop
- March 2011 (Technology Readiness Level 9)
- Introduce "Pilot Downsize" LSA transition course curriculum

Rev. 16 November 2011

TRL = 9

Keywords: Flight Instruction, General Aviation, Flight School, Sport Pilot, Light Sport Aircraft, LSA, ASTM, FAA



URL: <http://www.Drone-Training.org>

Remote Pilot Training Curriculum Development

Chief Flight Instructor: Professor H. Paul Shuch, CFII

The Opportunity:

Commercial unmanned aircraft systems (commonly known as drones) represent the next major growth area for General Aviation. Whereas the early 20th Century ushered in the Air Age, and the mid 20th Century represented the start of the Space Age, one could call the early 21st Century the beginning of the Drone Age. The unmanned aircraft system industry is currently in its infancy, with commercial interests just beginning to discover the wealth of applications which can be fulfilled with these small, inexpensive, and very capable remotely piloted vehicles.

The Proposal:

Building on its success as an FAA Part 61 Flight School, AvSport seeks to develop a comprehensive drone training program, whereby our students can be among the first in the nation to earn an FAA Remote Pilot certificate with a small UAS rating.



Vision Statement:

AvSport envisions a renaissance in commercial Unmanned Aircraft System (drone) operation, supporting a variety of industries, facilitated by quality training of Remote Pilots that emphasizes airmanship, awareness, and crew resource management.

Mission Statement:

AvSport enhances commercial drone safety, by offering:

- a rigorous ground and flight training curriculum
- experienced, professional Certified Flight Instructors
- well maintained advanced Unmanned Aircraft Systems
- modern, computerized instructional materials
- small classes emphasizing hands-on instruction
- an affordable and accessible Remote Pilot training program

Schedule Milestone and Accomplishments:

- December 2015 (Technology Readiness Level 1)
- FAA first requires registration of small Unmanned Aircraft Systems
- January 2016 (Technology Readiness Level 2)
- AvSport creates Drone-Training.org website; begins curriculum development
- June 2016 (Technology Readiness Level 3)
- FAA publishes FAR Part 107 rules for commercial drone operation; licensing
- June 2016 (Technology Readiness Level 4)
- AvSport purchases its first quad-copter trainer; publishes curriculum
- July 2016 (Technology Readiness Level 5)
- AvSport chief flight instructor completes online FAA5Team drone course
- August 2016 (Technology Readiness Level 6)
- FAA implements FAR Part 107 rules for commercial drone operation
- August 2016 (Technology Readiness Level 7)
- AvSport chief flight instructor becomes first Remote Pilot licensed in US
- September 2016 (Technology Readiness Level 8)
- AvSport conducts its first Remote Pilot course
- September 2016 (Technology Readiness Level 9)
- FAA issues Remote Pilot certificates to first AvSport graduates

TRL = 9

Rev. 1 January 2017

Keywords: Remote Pilot, Unmanned Aircraft Systems, Remotely Piloted Vehicles, Flight Training, Drone Safety