



2018 ANNUAL REPORT

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LEARN TO FLY AT
AvSPORT
OF LOCK HAVEN

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Revised 1 January 2019

AvSPORT

OF LOCK HAVEN



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1. AvSport Overview

TOUCH THE SKY

AT AVSPORT LLC, THE FULL SERVICE FLIGHT SCHOOL ON THE PIPER MEMORIAL AIRPORT



ALTHOUGH WE'RE SMALL, WE DO IT ALL!

- DISCOVERY FLIGHTS
- INTRODUCTORY LESSONS
- FLIGHT INSTRUCTION
- GROUND INSTRUCTION
- FLIGHT REVIEWS
- SAFETY SEMINARS
- COMMERCIAL DRONE TRAINING
- DESIGNATED PILOT EXAMINER
- LSA MAINTENANCE
- CONDITION INSPECTIONS
- PREBUY EXAMINATIONS
- ROTAX ENGINE MAINTENANCE
- FAA WINGS AWARD TRAINING
- MONTHLY HANGAR FLYING

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IF YOU CAN DRIVE, YOU CAN FLY!



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353 PROCTOR STREET
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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, Commercial, and Instrument Pilot candidates. During 2018, AvSport further increased safety by obtaining a lifetime subscription to VFR and IFR navigation charts for the Dynon Primary Flight Display and MultiFunction Display installed in our primary trainer. We expect our rigorous preventive maintenance and inspection program 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 then - 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."

To date, AvSport has graduated a dozen commercial drone pilots, who have used their Unmanned Aircraft Systems for accident investigation, commercial photography, real estate appraisal, law enforcement, research and development, and site surveys in support of broadband wireless telecommunications.

Anthony Foxx, former 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. Our quarterly Remote Pilot courses are now scheduled through the end of the 2019 calendar year.





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6. Curriculum

Developed by a retired college professor with 45 years 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, more than 80% of AvSport's students accomplishing their first solo flight have gone on to become licensed pilots, more than half of our graduates are now aircraft owners, and 25% 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," first solo 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 2018, three AvSport students accomplished their first solo flights, one glider pilot added power-plane privileges, and one graduate completed his Sport Pilot practical test. Our instructors conducted several Introductory Lessons. We gave two licensed pilots their 24-month flight reviews, and helped one to prepare for his instructor checkride. 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, Spain, France, 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. This year, four of our students or graduates acquired and flew their own aircraft.

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 Milestones

In 2018, AvSport Chief Flight Instructor Prof. H. Paul Shuch completed his training in Oklahoma City to become an FAA Designated Pilot Examiner. He is now qualified to perform Sport Pilot checkrides nationwide, as well as taking over various FAA administrative tasks in support of the Harrisburg Flight Standards District Office.



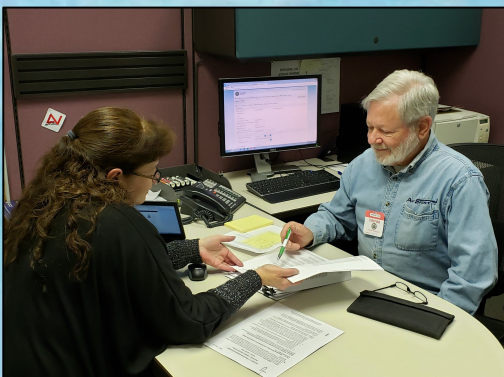
Prospective Pilot Examiners gathered in Oklahoma City early in 2018 for a week of DPE training.



In role-playing as part of DPE training, Prof. Shuch gives a classmate a mock oral exam.



At the Harrisburg Flight Standards District Office, FSDO manager Bill Banks presents Prof. Shuch with his DPE Certificate of Authority.



Also at the Harrisburg FSDO, Prof. Shuch receives one-on-one training on the FAA's new Designee Management System.

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9. 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.

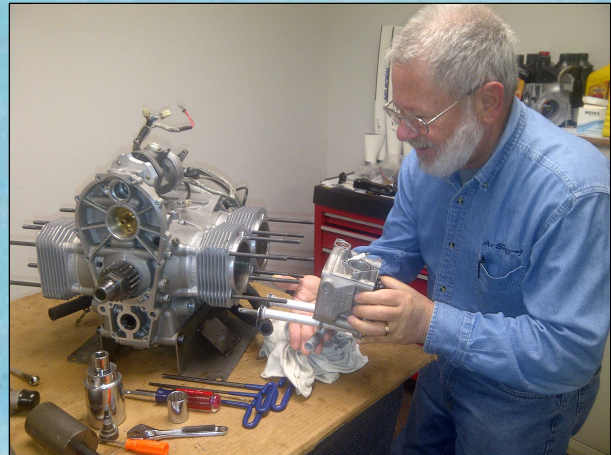
Fostering a sense of community on the Piper Memorial Airport, AvSport students, graduates, renter pilots, instructors, and friends gather in the pilot's lounge, Hangar One at the Piper Memoria Airport, on the first Saturday morning of each month for free coffee, dounts, and hangar flying.



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10. Maintenance

In 2018, AvSport continued to upgrade its modern, fully equipped maintenance shop in T-hangar 7 North at Piper Memorial Airport, conveniently located directly across the parking lot from the Pilot's Lounge and our flight school office in Hangar One. We perform condition inspections, preventive maintenance, prebuy examinations, major and minor repairs, and alterations to our own fleet, as well as customers' Special and Experimental Light Sport Aircraft. We are the sole Rotax Engines designated Independent Repair Centre for Western PA. Each two years, our Director of Maintenance renews his Rotax service, maintenance, and heavy maintenance certificates, remaining rated by the FAA to perform inspections on Light Sport Airplanes, Powered Parachutes, Gliders, and Weight Shift Control Aircraft.





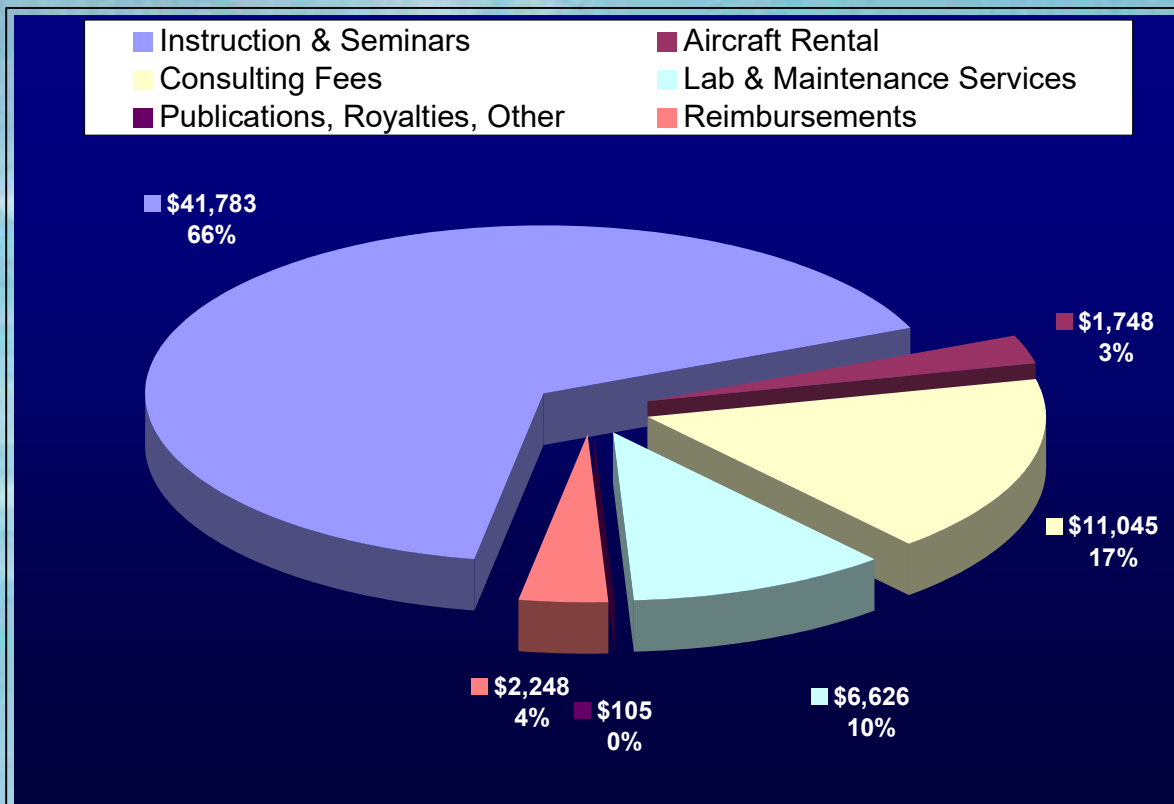
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11. Financials

Sport flying being a recreational activity, AvSport’s financial position is both highly seasonal, and dependent upon the local community’s aggregate discretionary income. Despite marginal weather leading to fewer flight hours, our 2018 revenues increased significantly over previous years, boosted by the addition of Designated Pilot Examiner services to our offerings. However, our operating expenses also increased slightly despite decreased flight hours, due primarily to increasing fuel costs. Nevertheless, AvSport continues to see a steadily increasing return on investment, making 2018 our most profitable year to date. We have succeeded in generating a positive return on investment in eight out of our nine years of operation. The charts below detail our operating revenues and expenses for the year just ended, exclusive of amortization of capital investment.

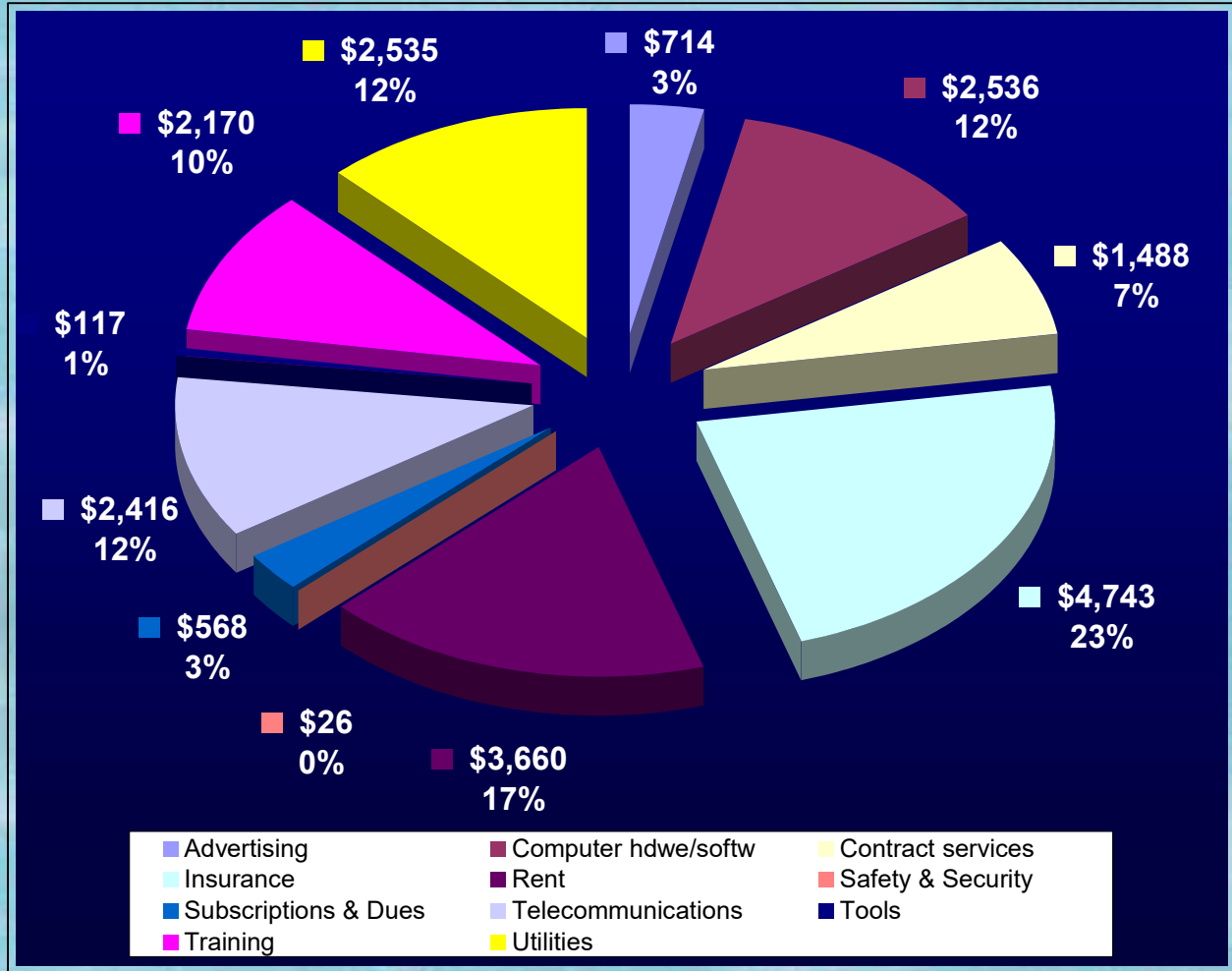
On a personal note, when the owner of this business divides total profits by the number of hours he worked in 2018, he finds he earned an encouraging \$7.51 an hour – for the first time ever, exceeding the current US minimum wage!

2018 Revenues



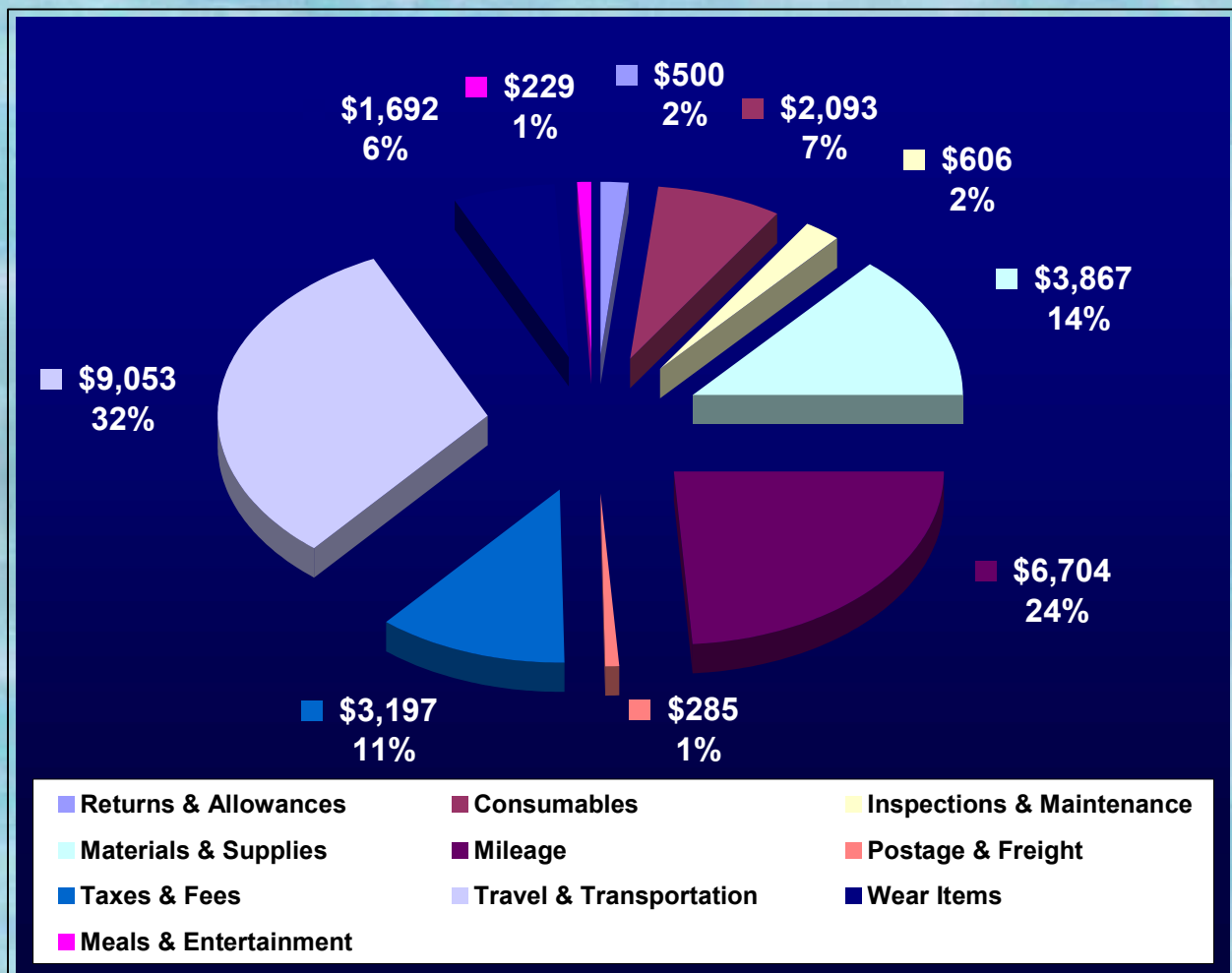
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2018 Fixed Expenses



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2018 Variable Expenses

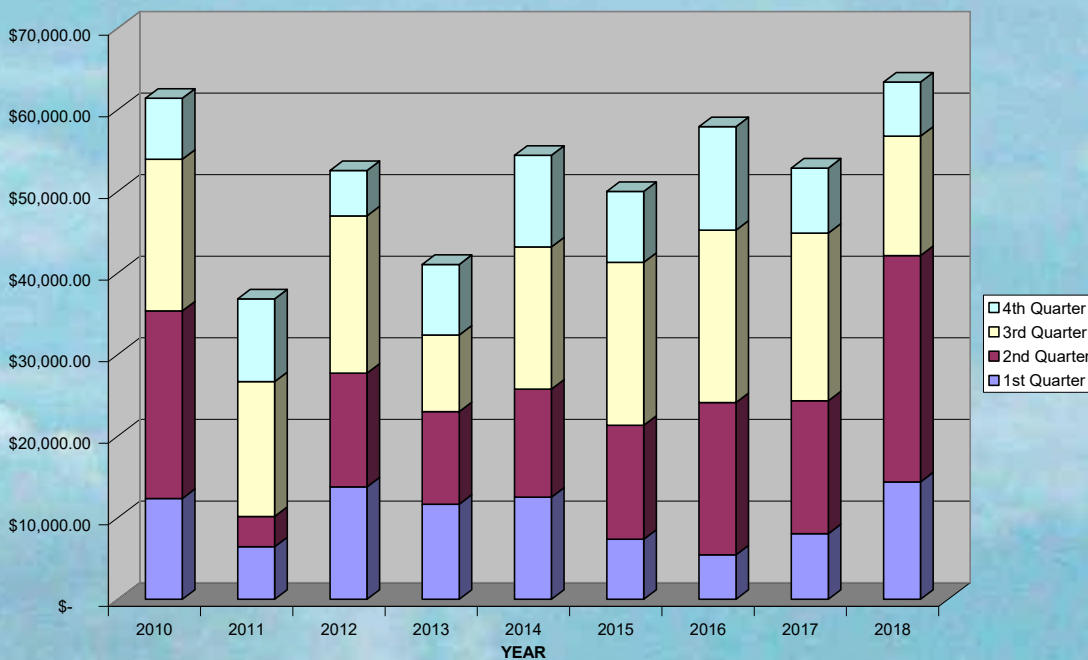




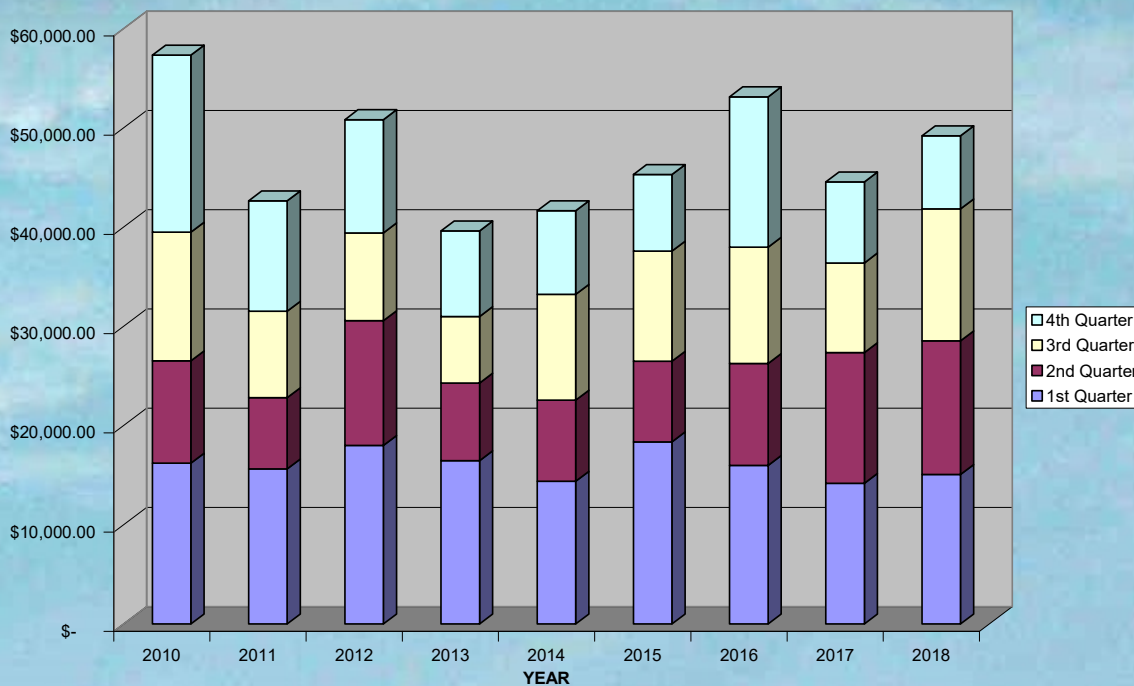
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Cumulative Revenue and Expense History

REVENUES



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
2017	25,819	27,034	52,852	20,461	24,089	44,550	8,302
2018	42,458	21,771	64,230	20,973	28,226	49,198	15,032

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12. Congratulations!



Designated Pilot Examiner H. Paul Shuch congratulates pilot David Brubacker, who completed his Sport Pilot practical test in June, in his own FlightStar II SC.



We are pleased to report that in July, Tom Derrick became a Sport Pilot, completing his checkride with Prof. Shuch in his lovely Aeronca Champ.

In August, Sport Pilot Mark Smart showed off his temporary airman certificate and logbook endorsement, after passing his checkride with Designated Pilot Examiner H. Paul Shuch, in AvSport's Evektor SportStar primary trainer. Mark is now Pilot in Command in his own experimental Zenith CH-601.



AvSport congratulates Gerard Martorell from Spain, on successful completion of his first solo flight, in March on the Piper Memorial Airport. Here his flight instructor, Prof. H. Paul Shuch, conducts the ritual trimming of the shirt tails, in celebration of Gerard's demonstration of flying skills.

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After completing his first solo flight in AvSport's Evektor SportStar, George Snedeker is now completing his training in his own Zenith CH-601 experimental airplane.

Glider pilot Frank Banas has added a power plane rating after completing a proficiency check with AvSport adjunct flight instructor Joe Dougherty.



Chong Jue, who has been flying AvSport's Evektor SportStar, will be continuing his training in 2019 in his own Sky Arrow 600 LSA, recently delivered to Lock Haven.

Following Bill Harkleroad's successful first solo flight, his wife Galene performs the traditional trimming of the shirt-tail. Bill has subsequently acquired his own KitFox taildragger, in which to complete his Sport Pilot rating.



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13. In Memoriam

David Stover

January 28, 1928 - March 18, 2018

Remembered by H. Paul Shuch

AvSport is saddened to report the death of Dave Stover, at the age of 90. Dave, an Air Force veteran (seen here flying a J-3 Cub on AvSport's Redbird simulator), was founder of Keystone Instruments on the Piper Memorial Airport, a repair station to whom we have long turned for professional, prompt, and affordable service. He worked there for a total of 61 years. The company is now run by his children Ken, Scott, and Pam, to whom we extend our deepest sympathies.





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14. 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
 Pilot Examiner Services	http://SportPilotExaminer.US
 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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15. 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