



2022 ANNUAL REPORT

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AvSPORT
OF LOCK HAVEN

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1. The Year at a Glance

2022 has been a year of economic recovery for AvSport. The global pandemic had significant impacts upon our operation starting in 2020, and in 2021 we sustained our greatest financial losses ever. For 2022, relaxations in state health and public safety mandates allowed us to operate at 50% capacity (twice that of the previous year). This had a positive impact on both our bottom line, and the progress of our flight students. For the year just ended, we managed not only to provide quality flight training, but also to regain profitability.

Thanks to all this, our staff and students continue to be upbeat and optimistic. As we begin a new year, we look forward to increased capacity, a further lessening of restrictions, and improved supply chain throughput, in anticipation of even better times ahead.





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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:

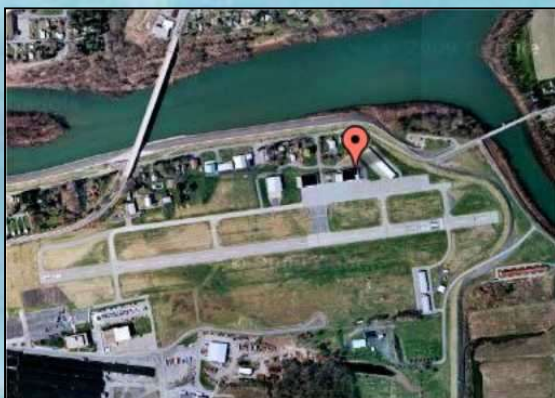
AvSport enhances aviation safety and enjoyment, by offering:

-  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. Our aircraft storage and maintenance activities are housed in two separate T-hangars, 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. Several local hotels also offer pleasant accommodations with flight school discounts.



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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, our SportStar is categorized by the Federal Aviation Administration as both a Special Light Sport Aircraft (S-LSA) and a Technically Advanced Aircraft (TAA), and is equipped with the latest “dual glass cockpit” redundant electronic flight and engine instruments. Its advanced avionics package and fully coupled autopilot make this TAA suitable not just for Sport Pilot training, but for our more advanced students, including Private, Commercial, and Instrument Pilot candidates.

We also added this exotic new aircraft to our flight line in 2021. Our rare Bristell TDO Carbon Edition is perhaps the sleekest and most comfortable Light Sport Aircraft in the fleet. Unfortunately, since insurance costs preclude offering primary instruction in a tailwheel aircraft, the TDO is being used primarily as a demonstrator aircraft, as well as for providing personal and business transportation to AvSport staff.



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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 former 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. "The early 20th Century ushered in the Air Age," notes AvSport Chief Flight Instructor Prof. H. Paul Shuch, the nation's third licensed commercial drone pilot. "The mid 20th Century represented the start of the Space Age, and the early 21st Century marks 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 21 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.

"Drones are the fastest growing segment of transportation in our nation and it is vitally important that they are safely integrated into the national airspace," said former Transportation Secretary Elaine L. Chao. "As a pilot, my eye is always on safety first," said former FAA Administrator Steve Dickson. "Safety is a joint responsibility between government, pilots, the drone community, the general public and many others who make our nation so creative and innovative."

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. Three quarterly Remote Pilot courses are now scheduled through the end of the 2023 calendar year.





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6. Curriculum

Developed by a retired college professor with 50 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 six-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, assigned videos, 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 a quarter of our licensed Sport Pilots have continued their studies, earning their Private Pilot ratings and above.

AvSport's dozen standard training packages now include:

- ✈ "Taste of Freedom," a half-hour Discovery Flight
- ✈ "Gateway to the Sky" Introductory Lesson (1 hour of flight and 2 of 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
- ✈ "Six Weeks, Rain or Shine," zero hours to first solo flight, in an intensive pre-solo module
- ✈ "Six More Weeks of Heaven," first solo flight to license, in an intensive post-solo module
- ✈ "Airspace Ace." Earn all 3 Sport Pilot controlled airspace endorsements in just 4 days
- ✈ "Out After Dark," a 2-day introduction to night flying
- ✈ "Head in the Clouds," a 2-day introduction to instrument flying
- ✈ "Pilot Downsizer," a 3-day Light Sport Aircraft transition for licensed Private Pilots
- ✈ "The Next Step Up," a 6-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

Despite operating at reduced capacity, during 2022 another AvSport student accomplished his first solo flight, two earned Sport Pilot certificates, and one completed Commercial Drone Pilot training. Our flight instructors conducted several Discovery Flights and Introductory Lessons, gave one licensed pilot his 24-month flight review, and provided recurrency ground instruction for one Private Pilot. In his capacity as an FAA Designated Pilot Examiner, our founder and Chief Flight Instructor conducted five Practical Tests, resulting in him licensing five new Sport Pilots. 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, Michigan, Georgia, California, Florida, Canada, England, 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, some have chosen to become renter pilots, who continue to enjoy the recreational use of our aircraft (while allowing active students first scheduling priority). Others have continued on to earn higher ratings, and exercise additional pilot privileges. 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. Following two years of COVID-19 restrictions, in 2022 we resumed these in-person gatherings. AvSport continues to foster an old-time flying club atmosphere (much to the chagrin of our accountant!).



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8. 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. Our Chief Flight Instructor has also offered free safety seminars at Sentimental Journey “every year since before I can remember.”

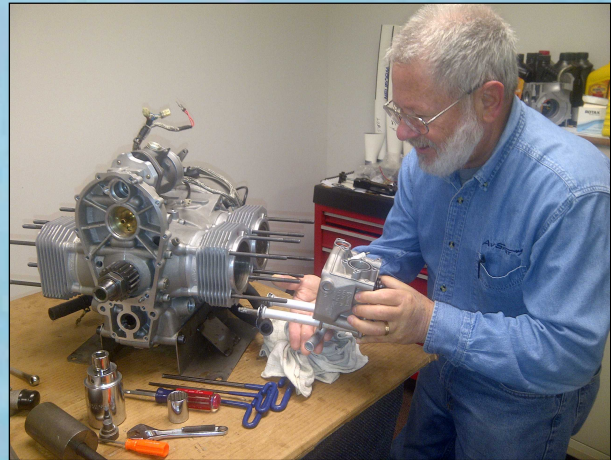
Fostering a sense of community, our students, graduates, renter pilots, instructors, and friends gather once again in the pilot's lounge or hangars at the Piper Memorial Airport, on the first Saturday morning of each month for free coffee, donuts, and hangar flying. We were pleased to resume this activity in 2022, following two years of pandemic restrictions.



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9. Maintenance

AvSport's two leased T-hangars at Piper Memorial Airport are conveniently located directly across the parking lot from the Pilot's Lounge and our flight school office in Hangar One. There, in addition to storing our trainer and demo aircraft, 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. In 2022, our Director of Maintenance was presented the FAA's Charles Taylor Master Mechanic Award, honoring over fifty years of contributions to aviation safety. He remains rated by the FAA to inspect and repair Light Sport Airplanes, Gyroplanes, Powered Parachutes, Gliders, and Weight Shift Control Aircraft.





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10. Financials

Sport flying being primarily a recreational activity, AvSport's financial position is both highly seasonal, and quite variable, depending as it does upon the local community's aggregate discretionary income. This past year, like many small businesses, AvSport's operations have begun to return to nearly pre-pandemic levels, with our 2022 revenues increasing somewhat compared to the previous two years.

Thanks to improving economies of scale, we saw our fixed and variable operating expenses actually decrease in 2022, despite rising fuel costs, and a significant jump in aircraft insurance premiums. Although in 2021 AvSport experienced our greatest operating loss ever, we returned to operating in the black in 2022. AvSport can boast having earned a profit in eleven out of our thirteen years of operation. The charts below detail our operating revenues and expenses for the year just ended, exclusive of amortization of capital investment.

Unfortunately, scaled back operations due to some remaining pandemic restrictions, accompanied by supply chain issues impacting availability of parts and supplies, forced AvSport reluctantly to increase its course tuition, pay-as-you-go instructor fees, and aircraft rental rates, not once but twice during the past year.

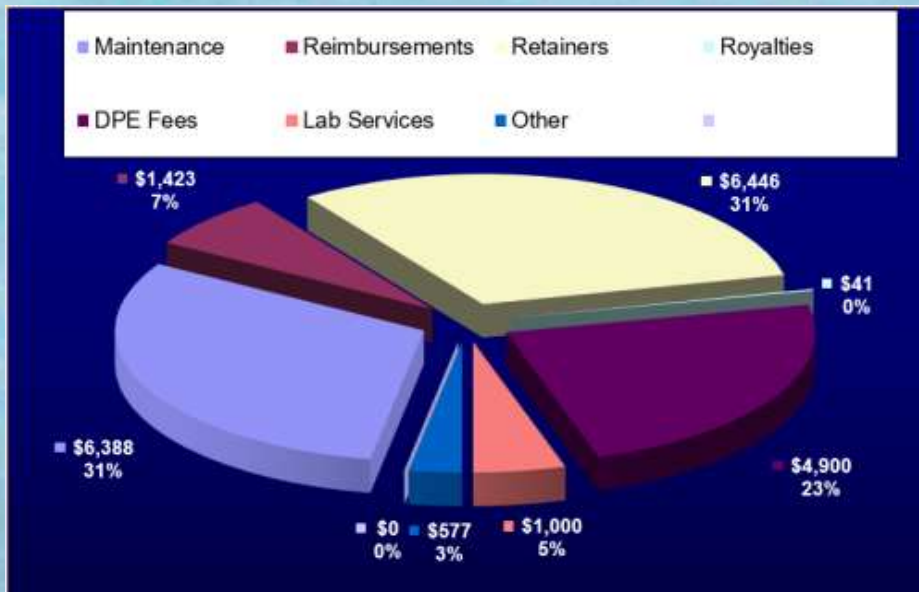
The Pie charts and Bar Graphs on the following pages provide a breakdown of our Training Revenues, Service Revenues, Fixed Expenses, and Variable Expenses for calendar year 2022.

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2022 Training Revenues

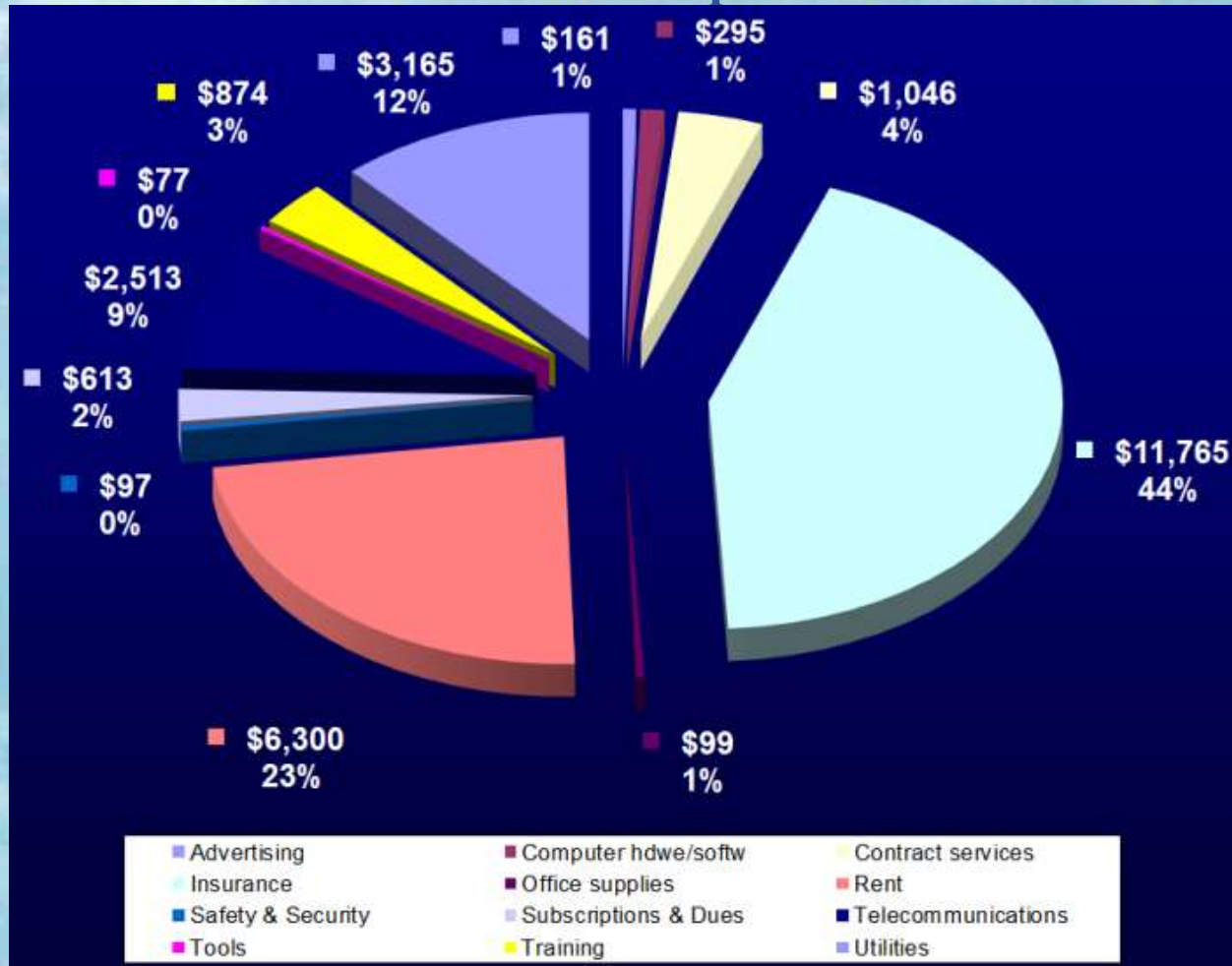


2022 Service Revenues



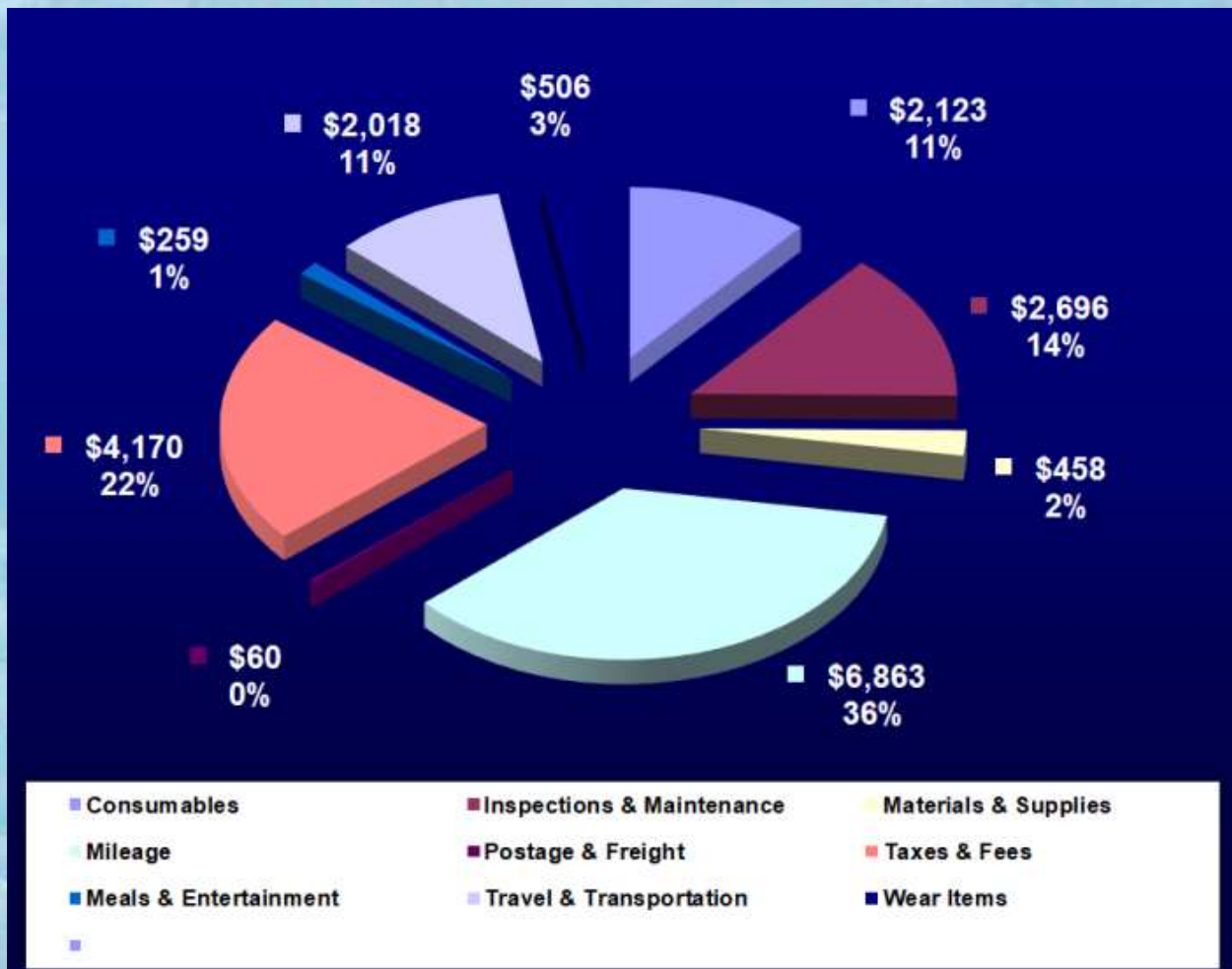
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2022 Fixed Expenses



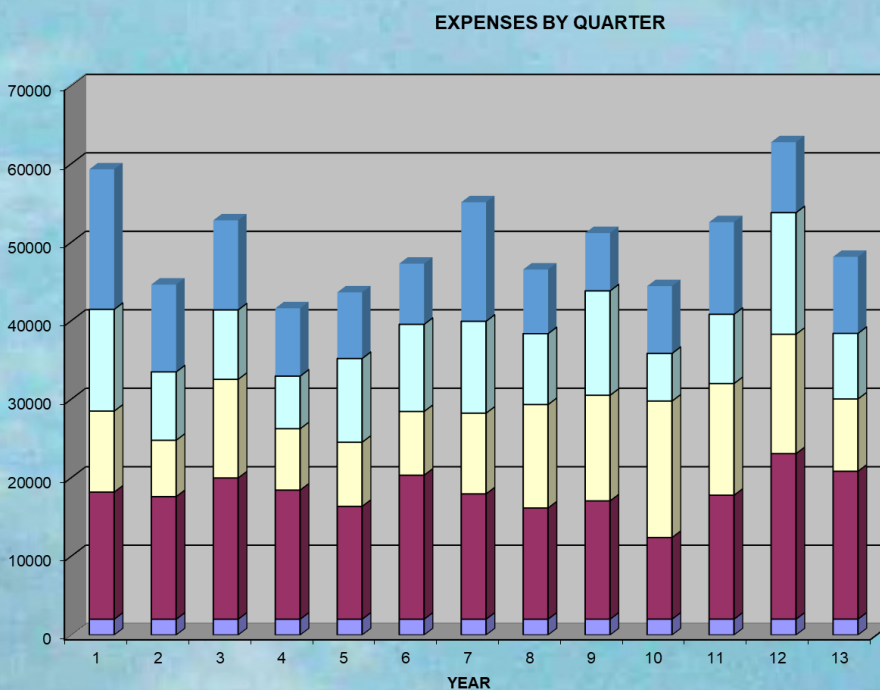
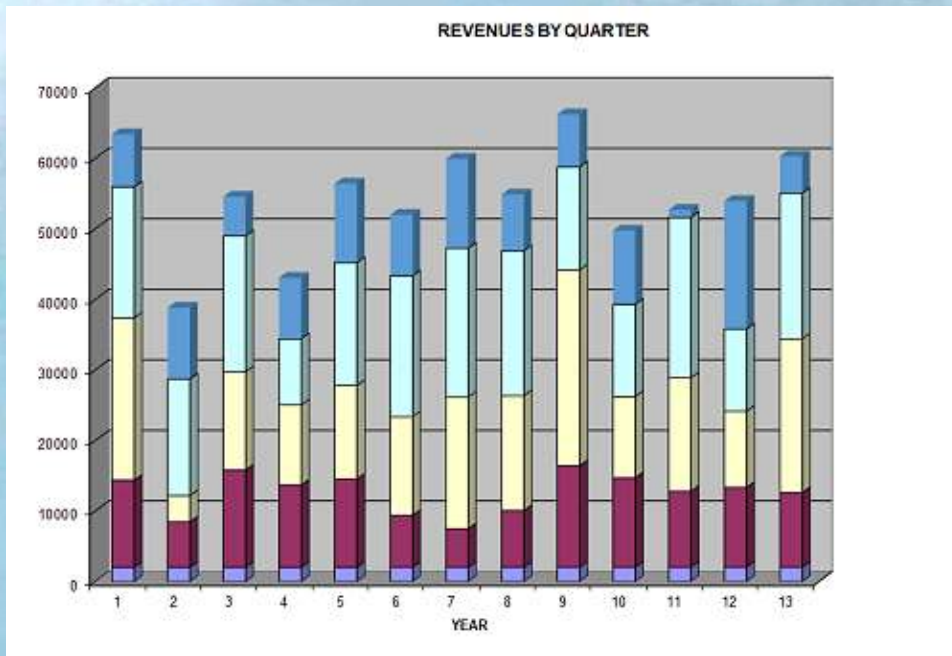
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2022 Variable Expenses



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Cumulative Revenue and Expense History





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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
2019	20,990	26,754	47,743	24,420	18,013	42,433	5,310
2020	41,828	14,849	56,677	25,908	25,617	51,525	5,152
2021	39,373	12,926	52,299	31,929	29,569	61,494	(9,198)
2022	37,475	20,775	58,250	27,005	19,154	46,158	12,092

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11. Congratulations to our 2022 Graduates!



Clockwise from upper left – newly minted Sport Pilots Zhimin, Mike, Nick, Chris, and Jon, AvSport’s Class of 2022



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12. 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
 Webinar Videos	http://AvSport.org/webinars
 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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13. 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 (Technology Readiness Level 3)
- January 2010 (Technology Readiness Level 3)
- Present business plan to Lock Haven City Council, lease facilities (Technology Readiness Level 4)
- February 2010 (Technology Readiness Level 4)
- Introduce "Three Weeks, Rain or Shine" Pre-Solo intensive course (Technology Readiness Level 5)
- April 2010 (Technology Readiness Level 5)
- Solo first primary student (Technology Readiness Level 6)
- May 2010 (Technology Readiness Level 6)
- Introduce "Three More Weeks of Heaven" Post-Solo intensive course (Technology Readiness Level 7)
- June 2010 (Technology Readiness Level 7)
- Graduate first licensed Sport Pilot (Technology Readiness Level 8)
- November 2010 (Technology Readiness Level 8)
- Complete FAA mechanics training; establish maintenance shop (Technology Readiness Level 9)
- March 2011 (Technology Readiness Level 9)
- Introduce "Pilot Downsize" LSA transition course curriculum (Technology Readiness Level 9)

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

Rev. 1 January 2017

TRL = 9

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