



## **2021 ANNUAL REPORT**

### **Contents**

<b><u>Section</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
1	The Year at a Glance	2
2	Vision and Mission Statements	3
3	Facilities	4
4	Aircraft	5
5	Remote Pilot Training	6
6	Curriculum	7
7	Students	8
8	Events	9
9	Maintenance	10
10	Financials	11
11	Congratulations to our 2021 Graduates!	17
12	Resources	19
13	Four Quadrant Briefing Charts	20

**LEARN TO FLY AT**



353 Proctor St., Hangar One      fly@AvSport.org  
Piper Memorial Airport      http://AvSport.org  
Lock Haven PA      ofc/fax (570) 748-3725  
17745 USA      cellphone (570) 419-1229

Revised 1 January 2022



## ***2021 ANNUAL REPORT***

### **1. The Year at a Glance**

2021 has been the most challenging year ever for AvSport. If the global pandemic had significant impacts upon our operation in 2020, the year just past could only be labeled as catastrophic. State health and public safety mandates required us to operate at just 25% capacity, impacting both our bottom line and the progress of our flight students. Nevertheless, we managed to provide quality flight training, albeit at the highest financial loss we have ever sustained. Thus, we are being forced to significantly increase all of our fees for 2022.

The flight instruction environment is an especially intimate one. Small trainer aircraft mandate close quarters between student and instructor, hampering all attempts at social distancing. We have found no effective means for remote learning of manipulative skills, thus requiring us to implement rigorous pandemic precautions. Both students and instructors still find it necessary to mask within the aircraft, and to space themselves out in the classroom, requiring us to abandon group training in favor of individualized ground instruction. We had to train our students not only in neuro-muscular and cognitive skills, but also in the disinfecting of aircraft, simulators, tools, and supplies between lessons. We have reduced student throughput, but will never compromise safety.

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



## ***2021 ANNUAL REPORT***

### **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

## 2021 ANNUAL REPORT

### 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.



## 2021 ANNUAL REPORT

### 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.



## **2021 ANNUAL REPORT**

### **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 sixteen 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 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 2022 calendar year.





## **2021 ANNUAL REPORT**

### **6. Curriculum**

Developed by a retired college professor with nearly 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.

#### **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
- ✦ "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 3 days
- ✦ "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

## 2021 ANNUAL REPORT

### 7. Students

Despite operating at reduced capacity, during 2021 another AvSport student accomplished his first solo flight, two earned Sport Pilot certificates, and three completed Commercial Drone Pilot training. Our flight instructors conducted four Discovery Flights, six Introductory Lessons, gave two licensed pilots their 24-month flight review, and provided recurrency training for one Private Pilot. 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. This year, yet another of our students acquired and flew his 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. Unfortunately, for the second year in a row, the COVID-19 pandemic has forced us to curtail these in-person gatherings. However, though run as a viable business entity, AvSport still strives to foster an old-time flying club atmosphere.



## 2021 ANNUAL REPORT

### 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. Although the COVID-19 pandemic forced cancellation of our 2020 event, we were pleased to resume it in 2021.

Fostering a sense of community, pre-pandemic, our students, graduates, renter pilots, instructors, and friends gathered in the pilot's lounge, Hangar One at the Piper Memorial Airport, on the first Saturday morning of each month for free coffee, donuts, and hangar flying. We hope to be able to resume this activity in 2022.



## 2021 ANNUAL REPORT

### 9. Maintenance

In 2021, AvSport acquired a second T-hangar at Piper Memorial Airport, conveniently located directly across the parking lot from the Pilot's Lounge and our flight school office in Hangar One. This year we performed 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 January 2021, our Director of Maintenance was scheduled for Rotax engine refresher training, which was unfortunately cancelled due to the present pandemic. However, he continues to study online, and remains rated by the FAA to inspect and repair Light Sport Airplanes, Gyroplanes, Powered Parachutes, Gliders, and Weight Shift Control Aircraft.





## ***2021 ANNUAL REPORT***

### **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 all small businesses, AvSport's operations were severely impacted by the COVID-19 pandemic. Thus, our 2021 revenues decreased significantly over previous years.

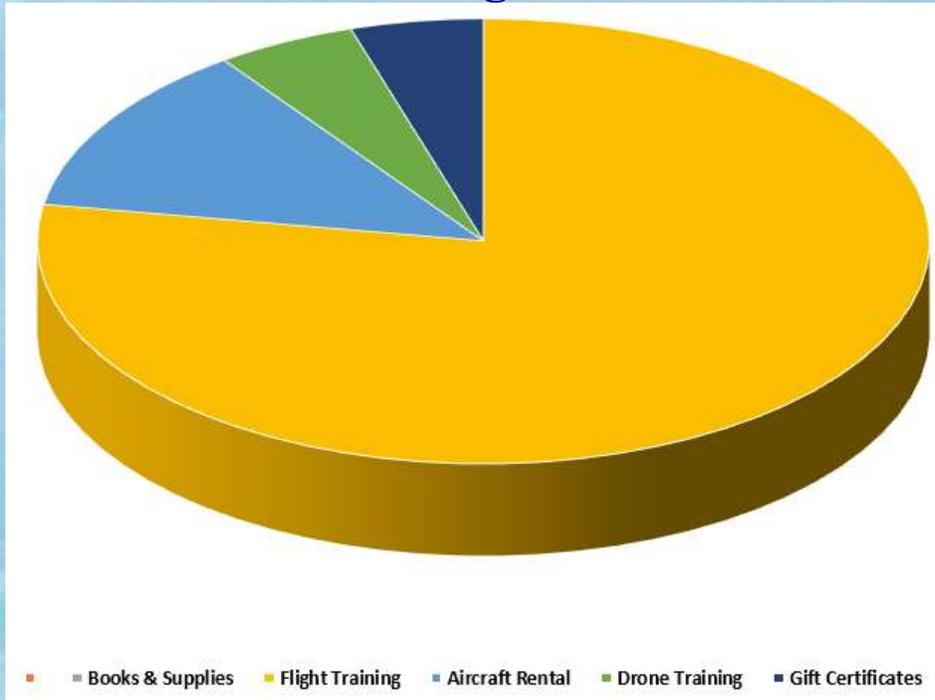
Unfortunately, we saw our fixed and variable operating expenses increase alarmingly in 2021, due to increasing fuel costs, the impact of pandemic precautions, and a State-mandated reduction in capacity which eliminated many of our economies of scale. Although in 2021 AvSport experienced our greatest operating loss ever, we can boast having earned a profit in ten out of our twelve 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 resulting in reduced economies of scale, accompanied by supply chain issues impacting availability of parts and supplies, have forced AvSport once again reluctantly to increase its course tuition, pay-as-you-go instructor fees, and aircraft rental rates for the coming year.

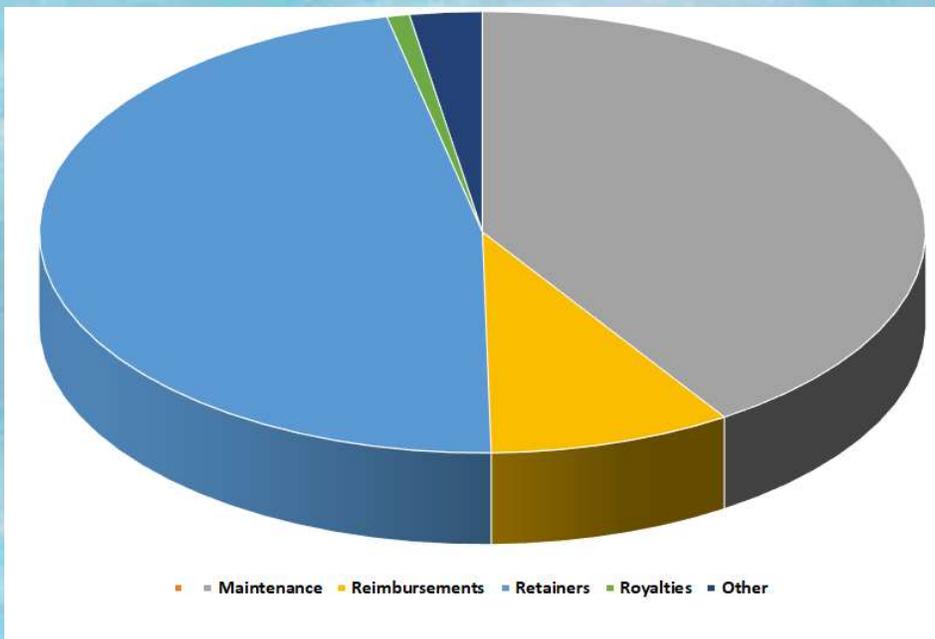
The Pie charts on the following pages provide a breakdown of our Training Revenues, Service Revenues, Fixed Expenses, and Variable Expenses for calendar year 2021.

## 2021 ANNUAL REPORT

### 2021 Training Revenues

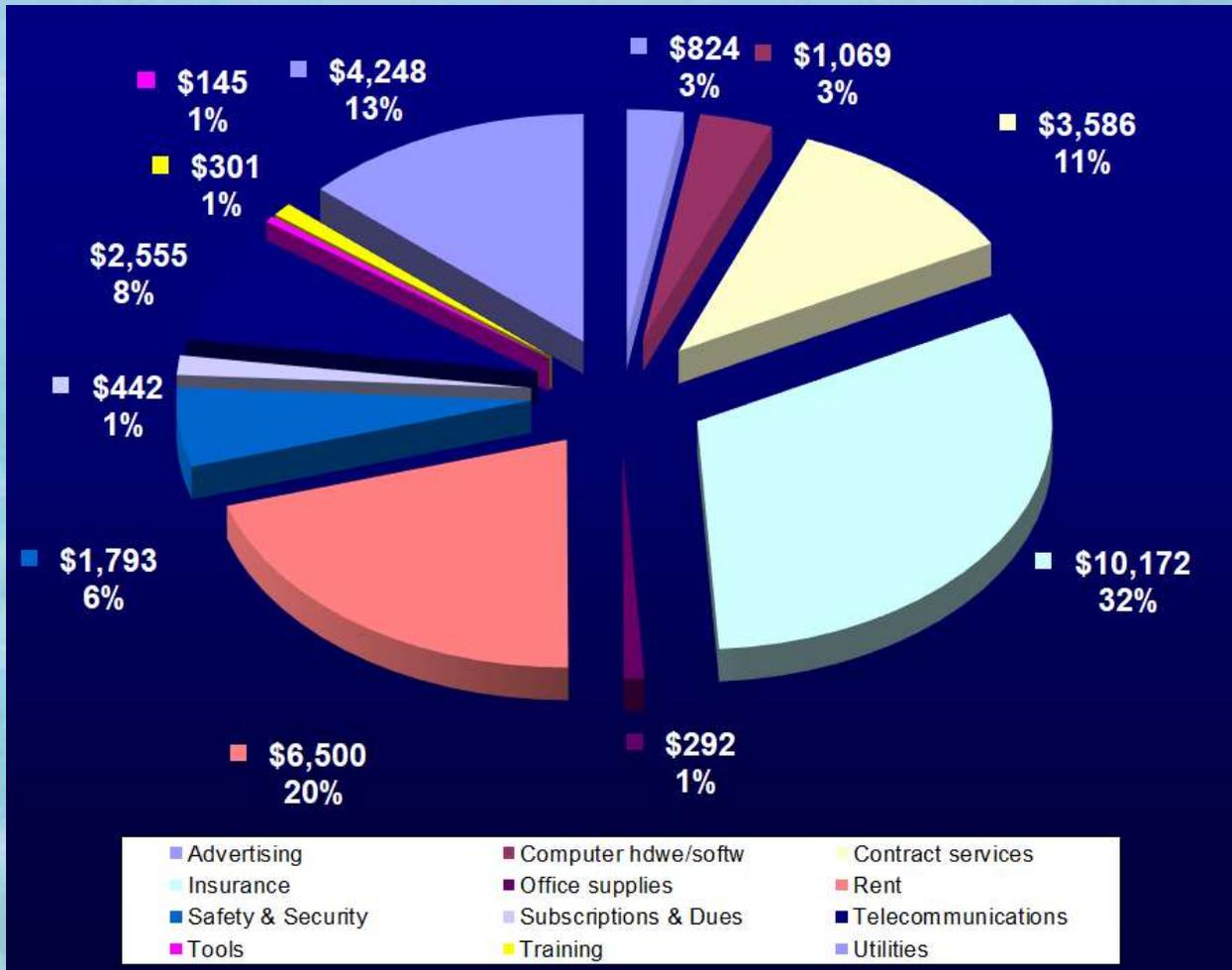


### 2021 Service Revenues



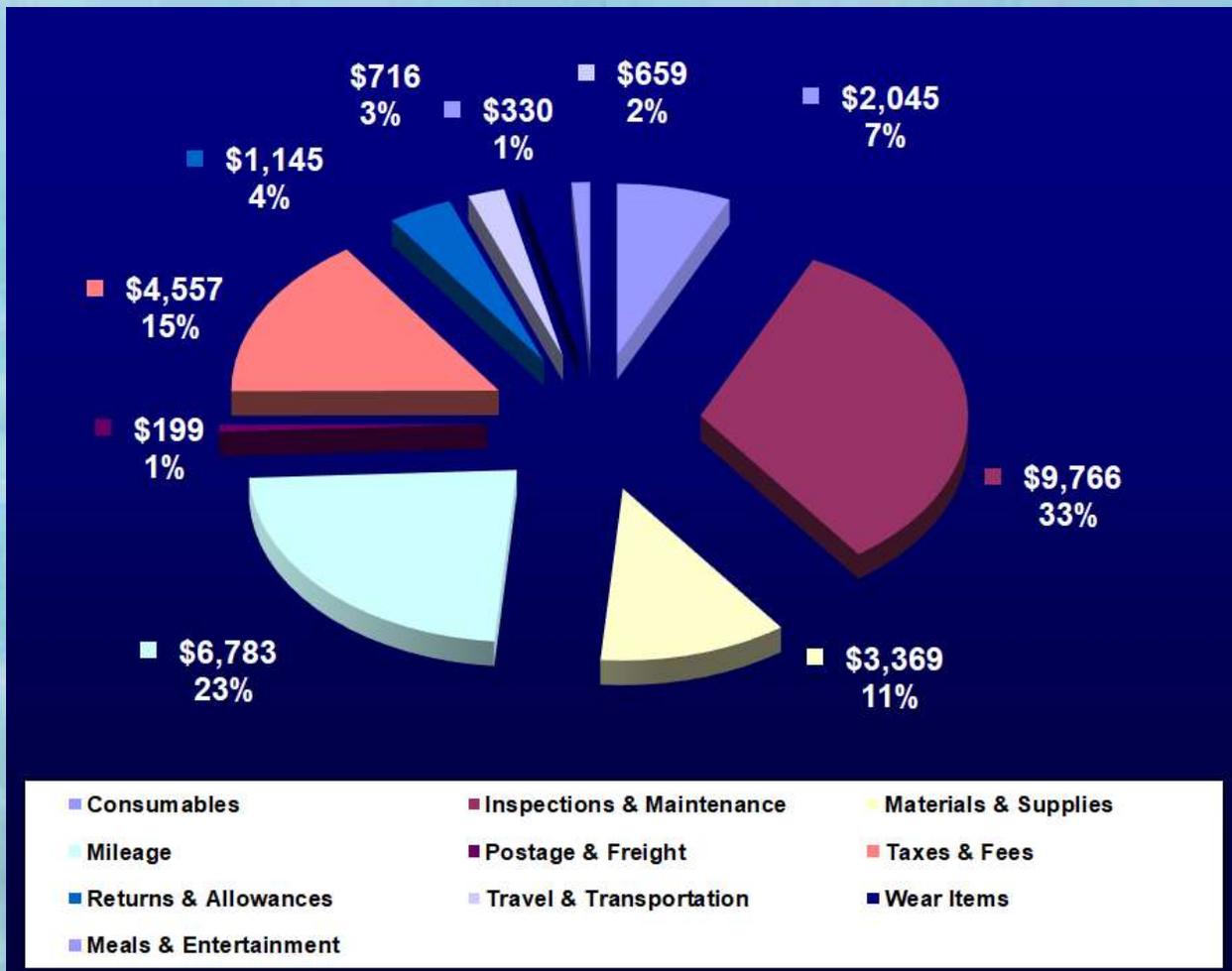
## 2021 ANNUAL REPORT

### 2021 Fixed Expenses



## 2021 ANNUAL REPORT

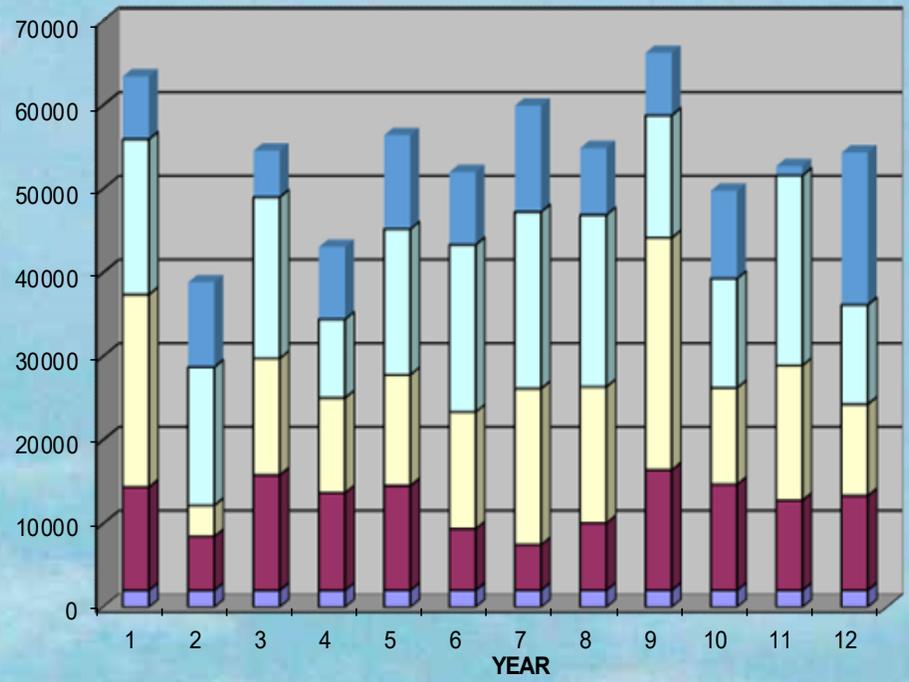
### 2021 Variable Expenses



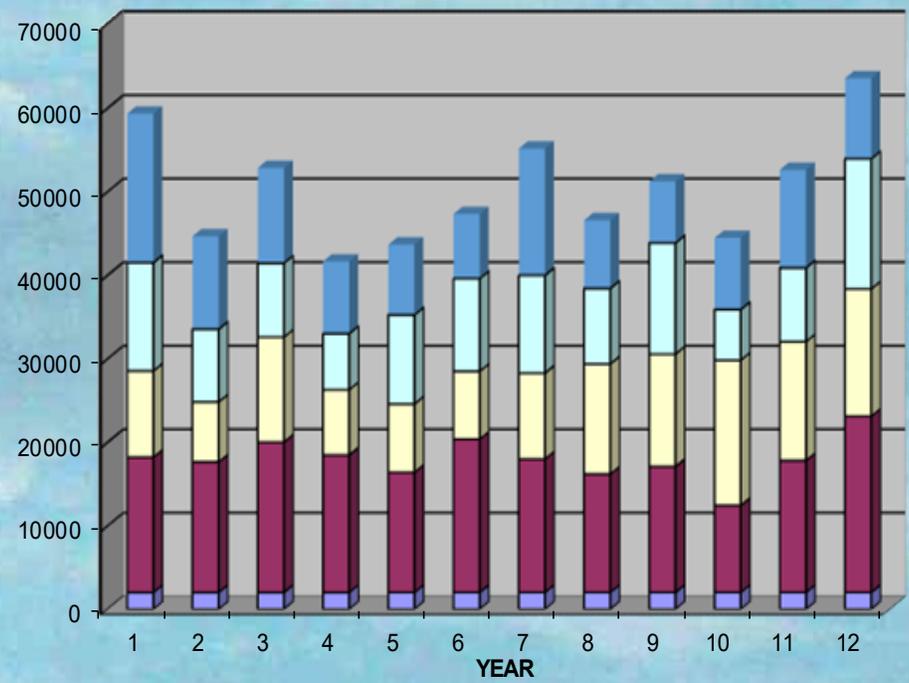
## 2021 ANNUAL REPORT

### Cumulative Revenue and Expense History

REVENUES BY QUARTER



EXPENSES BY QUARTER





## **2021 ANNUAL REPORT**

### **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)

## 2021 ANNUAL REPORT

### 11. Congratulations to our 2021 Graduates!



Primary flight student Mike (above) accomplished his first solo flight in 2021. Here you can see him participating in the Trimming of the Shirttails, a ritual dating back to the Golden Age of Aviation, when new pilots often had to patch holes in their fabric-covered aircraft with pieces of their own garments.

Brad and Jennifer (below) both completed their practical exams with FAA Designated Pilot Examiner H. Paul Shuch, earning their Sport Pilot ratings.



## **2021 ANNUAL REPORT**

All properly masked in the classroom (except for Bill Piper Sr., hanging on the wall in the background) and captured in this drone's-eye view, employees of the Clinton County Department of Environmental Resources completed the three-day Remote Pilot in Command course at AvSport, the first flight school in the US to offer commercial drone training and licensing under Federal Aviation Regulations Part 107. Their instructor, Prof. H. Paul Shuch (second from left), was the nation's third FAA licensed commercial drone pilot, receiving his certification at zero dark thirty on the morning the new rules took effect.





## **2021 ANNUAL REPORT**

### **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	<a href="http://AvSport.org">http://AvSport.org</a>
 Main Menu	<a href="http://AvSport.org/menu.htm">http://AvSport.org/menu.htm</a>
 General Information	<a href="http://AvSport.org/about">http://AvSport.org/about</a>
 Press Kit	<a href="http://AvSport.org/press">http://AvSport.org/press</a>
 Photo Gallery	<a href="http://AvSport.org/photos">http://AvSport.org/photos</a>
 Video Gallery	<a href="http://AvSport.org/press/video.htm">http://AvSport.org/press/video.htm</a>
 Flight Instruction	<a href="http://AvSport.org/cfi">http://AvSport.org/cfi</a>
 Webinar Videos	<a href="http://AvSport.org/webinars">http://AvSport.org/webinars</a>
 Light Sport Aircraft	<a href="http://AvSport.org/acft">http://AvSport.org/acft</a>
 Simulator Club	<a href="http://AvSport.org/simulator">http://AvSport.org/simulator</a>
 Maintenance Services	<a href="http://AvSport.org/maint">http://AvSport.org/maint</a>
 Remote Pilot Instruction	<a href="http://drone-training.org">http://drone-training.org</a>
 Pilot Examiner Services	<a href="http://SportPilotExaminer.US">http://SportPilotExaminer.US</a>
 Upcoming Events	<a href="http://AvSport.org/events">http://AvSport.org/events</a>
 Contact Information	<a href="http://AvSport.org/contact">http://AvSport.org/contact</a>
 Search Engine	<a href="http://AvSport.org/search">http://AvSport.org/search</a>

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



## 2021 ANNUAL REPORT

### 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 • Purchase of Evezor SportStar Light Sport Aircraft trainer (Technology Readiness Level 3)
- January 2010 • Present business plan to Lock Haven City Council; lease facilities (Technology Readiness Level 3)
- February 2010 • Introduce "Three Weeks, Rain or Shine" Pre-Solo intensive course (Technology Readiness Level 4)
- April 2010 • Solo first primary student (Technology Readiness Level 5)
- May 2010 • Introduce "Three More Weeks of Heaven" Post-Solo intensive course (Technology Readiness Level 6)
- June 2010 • Graduate first licensed Sport Pilot (Technology Readiness Level 7)
- November 2010 • Complete FAA mechanics training; establish maintenance shop (Technology Readiness Level 8)
- March 2011 • 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 • AvSport creates Drone-Training.org website; begins curriculum development (Technology Readiness Level 3)
- June 2016 • FAA publishes FAR Part 107 rules for commercial drone operation; licensing (Technology Readiness Level 4)
- June 2016 • AvSport purchases its first quad-copter trainer; publishes curriculum (Technology Readiness Level 5)
- July 2016 • AvSport chief flight instructor completes online FAA Team drone course (Technology Readiness Level 6)
- August 2016 • FAA implements FAR Part 107 rules for commercial drone operation (Technology Readiness Level 7)
- AvSport chief flight instructor becomes first Remote Pilot licensed in US (Technology Readiness Level 8)
- September 2016 • AvSport conducts its first Remote Pilot course (Technology Readiness Level 9)
- September 2016 • FAA issues Remote Pilot certificates to first AvSport graduates

Rev. 1 January 2017

TRL = 9

---

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