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## Flyers celebrate conquests

By Michael Cooper-White for the Gettysburg Times

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Perlan Project chief pilot Jim Payne, left, engaged in lively conversation with Mid-Atlantic Soaring Association (M-ASA) member pilot Paul Medina of Frederick, Md., Saturday evening. Medina, who learned to fly gliders at M-ASA's airport near Fairfield, hopes to attend the Air Force Academy and pursue a career in aviation.

A group of pilots who regularly fly from Fairfield's Mid-Atlantic Soaring Association's (M-ASA) airport were treated to several hours of conversation on Saturday with an aviator M-ASA President Mike Higgins introduced as "the world's greatest wave pilot."

When high winds blow across mountain ridge lines, they often create waves that some compare to dumping a bucket of water in a bathtub. In parts of the western United States and especially in Argentina, the winds slosh over the mountains and send waves soaring high up into the stratosphere.

Last fall, Nevadan Jim Payne and his cohorts in the Perlan Project set world records in their speciallydesigned sailplane that caught mountain waves in the Patagonia region of Argentina. Topping out at over 76,000 feet on Sept. 2, 2018, the Perlan pilots laid claim to achieving "the world's highest piloted subsonic sustained flight," all in an aircraft with no engine.

During a lunchtime seminar for member pilots at M-ASA's club house, Payne said the high-powered airplane, which tows the Perlan glider aloft, can reach altitudes far above most others.

For the record-breaking flight, Payne and his copilot were above 45,000 feet when they pulled the release lever and detached from their tow. From there on up, it was all Mother Nature.

In an hour-long presentation at M-ASA's annual banquet Saturday evening, Payne said "people often ask what it's like" flying at such high altitudes.

While turbulence may be encountered at lower altitudes on the way up, which Payne said can feel "like flying inside a washing machine," once in the wave it's smooth sailing. But given outside air temperatures that can fall below -100 degrees Fahrenheit, the pilots wear battery-powered vests and boots to keep warm inside the pressurized cockpit.

Perlan has wings designed for maximum performance at around 60,000 feet. Engineers did extensive testing to minimize the development of "flutter" or extreme vibrations that can develop as the aircraft's "true airspeed" in the thin air at high altitudes will range from 300-400 miles per hour.

A "drogue chute" on the tail of the aircraft can be deployed should it get into an unexpected steep dive, with the chute helping the pilot regain level flight.

To combine strength with light weight, the one-of-a-kind Perlan 2 is an all-carbon aircraft. Major project sponsor, the international jet aircraft producer Airbus, forbids Payne and his colleagues to reveal the super-glider's price tag.

While Payne and many pilots who enjoy high altitude wave flying do much of their soaring over the Sierra Nevada mountains in the western U.S., the most favorable conditions for the super-high flights exist in the southernmost parts of Argentina. High winds generated by polar vortexes blow across the Andean mountain ranges and create optimal conditions.

But transporting the Perlan to and flying in Patagonian territory is not without some unique challenges, according to Payne. Due to difficult economic conditions in Argentina, aircraft parts and supporting facilities are unavailable, so the Perlan crews include a wide range of equipment in the large shipping crate that transports the plane by ship and truck.

The pilots and their support team are diligent in cultivating friendly relations with their Argentine hosts. They display the South American nation's flag on the crew jackets along with that of the U.S. They visit local schools in the Patagonian region and seek to inspire young people there to consider aviation careers. "The Patagonians have been really good to us," he said.

Payne has a special passion for spreading the word about the joy of flying and opportunities open to young people. He spoke of attending a one-room schoolhouse during his boyhood in Michigan, where no one was available to encourage his interest in aviation.

Since the airport at El Calafate where they conduct operations is not bound by international agreements that specify English as the language of air traffic control, the Perlan pilots have learned rudimentary Spanish. And they are especially attentive to compliance with clearances and controller commands.

"One of our goals is to never interfere with an airliner," Payne said.

Beyond simply setting records, Perlan's adventurers are committed to advancing scientific knowledge related to the ozone layer, high altitude particles and human factors. They also are eager to carry along experiments developed by children. On one recent flight they reported a marshmallow with a string wrapped around it indeed bulges out as the aircraft climbs to extreme altitudes.

To be sure, there are some risks inherent in such adventurous aviation, said Payne.

"But we plan, we test, we verify and then we fly," he said. Through careful engineering and disciplined training, Payne said, "it's actually a pretty safe situation."

Asked about his and Perlan's future plans, Payne said the crew will be back in Argentina this fall, hoping to attain their ultimate goal of reaching 90,000 feet. The former Air Force officer and test pilot also already has his sights set on future flying achievements. For Payne, the sky's the limit.

For more information about Perlan, and to follow its next record-setting attempts, see the project's website at <u>www.perlanproject.org</u>.

## **M-ASA Members Honor Their Own**



In addition to hearing Payne's spellbinding accounts of high-flying gliders, members and friends of M-ASA honored several of their own at Saturday night's banquet at the Ceresville Mansion north of Frederick, Md. Pilots reaching milestones in their glider flying, solo flights and pilot licenses, were recognized.

Two local long-time flyers received special commendations for their many contributions to M-ASA over decades of service.

Gettysburg area resident John Machamer received the Campbell award conferred to a member who "over an extended period of time has voluntarily contributed extraordinary time, knowledge, and skills" to the club. An American Airlines captain, Machamer flies Boeing jets overseas when he's not serving as M-ASA's chief tow pilot.

Robert Jackson of Fairfield was named "honorary member" by M-ASA, which is a kind of lifetime achievement award that has only been granted to six other individuals over the course of the flying club's 70-year history. Jackson, who serves as a Liberty Township supervisor, recently announced he will cease flying M-ASA planes, but will still contribute to the organization in a variety of ways.