



# “READY ROOM” NEWSLETTER

October, 2015

*Our Mission is to increase the public’s awareness of aviation through the flight of historical aircraft, while supporting our local children’s*

## Wings over North Georgia

By Mark McAllister

The 2015 Wings Over North Georgia at Richard B. Russell airport left many with dampened spirits. The rain was a big problem as the airshow was cancelled for Saturday.

Die-hards came out anyway and enjoyed the static displays, but became disillusioned when the cancellation was announced. Most understood the danger of thunder storms, but were angry that the show was advertised as "Rain or Shine."

Sunday the weather was somewhat more cooperative with intermittent showers and WONG ultimately put on a great show!



### Open Hanger Gala tickets on Sale, NOW!

Your ticket purchase is also a **tax deductible donation** if you get them before the end of the year.

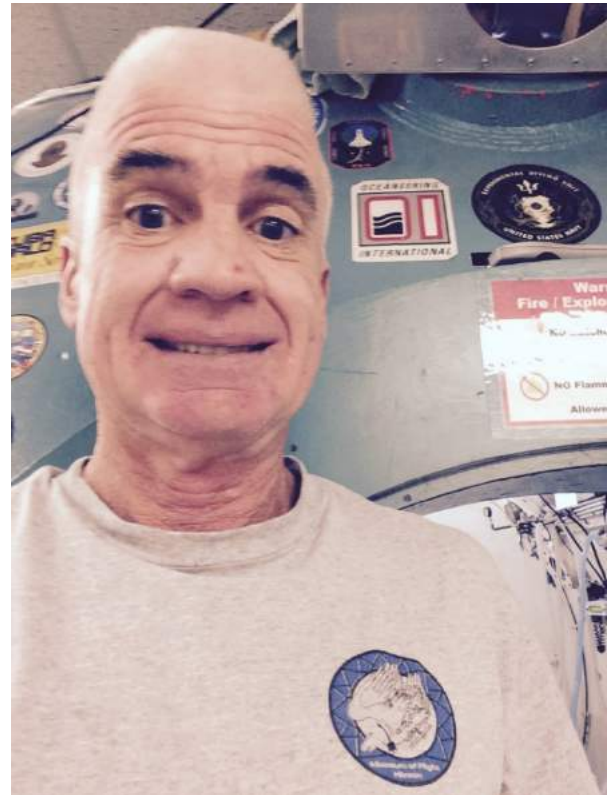
Museum members have first dibs on Gala tickets until January 1<sup>st</sup>, so be sure to order your tickets today. See the flyer in this newsletter for more details.



# NASA Study 3

By Peyton DeHart

Leaving the International Space Station in order to do some work on the exterior promises an astronaut a spectacular view of the Earth. It also involves a lengthy protocol of breathing pure Oxygen and performing many hours of exercises in order to remove Nitrogen from the bloodstream. The Space Station is internally pressurized to one atmosphere, but the best the flexible space suit can manage is one third of an atmosphere. A human going from a high pressure environment, to low, risks embolizing from Nitrogen gas forming bubbles in the bloodstream; that, when they travel through the body, wreak the same havoc as blood clots. This risk is to be avoided, if possible, if one's mailing address is 249 miles above the surface of our planet.



No astronauts have embolized during a spacewalk because NASA has an excellent grasp of the physics of gas pressure and an abundance of caution in having the individuals work undesired gases out of the bloodstream before exiting the door. Problem is, the "work" required is hours long, tedious and becomes the sole focus of effort for the duration; meaning, the person is not able to work on other science when working on his or her own bloodstream chemistry.

How to shorten that?

Pre-breathing 100% Oxygen is pretty well set. Working the muscles and joints so as to better evolve the Nitrogen is the variable that can change. Motions that quicken Nitrogen off-gassing point the path of reducing the length of time it takes to prepare for an exterior sojourn.

What motions?

Well, NASA has to figure that out.

That means a study... that builds on previous decades of studies... and that's where Duke University comes into the picture. Through a coming together of expert scientists and almost-unique equipment, also over a decades-long process, Durham, North Carolina has become one of the handful-throughout-the-world focal points for deep-diving research. The pressure vessels that survive crushing forces, needed to simulate deep water dives, are just as suited to being evacuated of atmosphere in order to simulate high altitude environments.

As a data point, one third of an atmosphere found inside a space suit is essentially the same air pressure as is found at 30,000 feet above the Earth; the common flying altitude of commercial airliners.

*NASA Study 3 continued...*

To simulate the transition from Space Station to space suit, one need but to walk into a pressure vessel on the ground floor of Duke University Hospital, close the thick metal door and suck most of the air out of it until the environment found at 30,000' results.

That's where I was for four and a half hours, staring at a task prompter that winked a light at me every five seconds to indicate a switch from repetitions of five sit-ups to five torque wrench pulls and pushes with right arm. The next light wink mandated a switch to torque wrench pulls and pushes with the left arm. Light... arm curls against tension from a rubber tube. Light... a two-arm pull against a spring scale resulting in sixty pounds of pressure. The task prompter was relentless. Repetition after repetition after repetition. A rest period came every fifteen minutes as a Doppler microphone was pressed against my ribcage. The better to hear gas bubbles popping in the bloodstream; if there were any. That pickup would then be replaced by an Ultrasound transducer; so the operator could SEE if bubbles were forming in my heart. That checkup took all of three minutes and then it was back to the physical exertion repetitions for another fifteen minutes.

The ten-hour-long study began with a walking in place exercise (much like the military "Mark Time, March"), pre-breathing pure oxygen, almost-maximum-effort on a stationary bike for ten minutes and then the pressure chamber for four plus hours. The allure of the whole NASA tie-in thing was wearing thin around the second hour of sit-ups and arm curls... and we weren't halfway done yet. Still, the data only comes from a completed study, and if my participation provided another point on a graph that would help to reduce the amount of time an astronaut would have to do the same stuff, then I'm happy to have spent a day in that pursuit.

So what is the tie-in with Hixson Flight Museum, you ask? Having been told to show up in workout gear, I wore a t-shirt with logos from an organization that has a goal to increase "awareness of aviation." Figured it would feel at home in an altitude chamber.

Assuming that the goal of the study was for me NOT to embolize, then the goal was met.

Many small steps for a man...

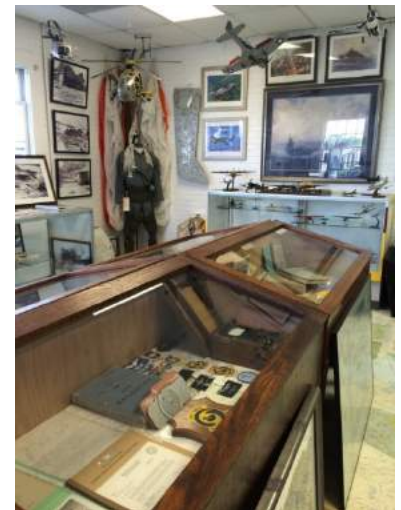
## Special Museum Visitors!



*Susan Reed from California*



*Buck and Patty Simmons from North Carolina*



Susan Reed visited the Museum of Flight for the first time ever although she has been a donor and support of the museum for a while. Upon the passing of her husband, John "Magellan" Reed, she donated numerous articles to the Museum of Flight which are now on display. A wonderful article was featured in our August issue and if you haven't already, I encourage you to read it. She also was a generous contributor to the BTD-1 GoFundMe campaign. Thank you, Susan, for your support!



# Changes at the Museum Hangar

Mannequins, donated to the museum, have found their way into a number of diorama displays around the museum aircraft. Thank you to Shelly Ambler and Justin Goss for helping bring a little bit of character to the exhibits.



Shelly Ambler, Stephen Hudson and William Bannister hung up more items in the halls and on the walls while Don Trammell prepared the yellow stands for new exhibit storyboards.



## New Additions to the Museum of Flight Gift Shop

Some new items are now available in the gift shop and just in time for the holidays! These coffee cups and water bottles will make great Christmas gifts!



## Keep in Touch on Social Media



## New Donation Option

We can now accept your stock donations. Contact Christine Lewis for more information. Do it now before the New Year to take advantage of the tax deduction.

## Holiday Gift Memberships



Looking for the perfect gift this year? Consider a premium annual membership for the aviation buff this Christmas.

### Annual Membership Levels

Student (16-22): \$10 (minors must have parent's permission and all students must have school ID)

Individual: \$20

\*Family: \$30

Lifetime: \$450

\*Lifetime Family: \$550

Presidential Circle Membership: \$40 renewal

### **NEW Premium Annual Membership: \$500**

INCLUDES: One year unlimited access to the museum during museum hours, an aircraft training session in the back seat of a warbird during a pilot training mission, t-shirt, museum logo patch, advanced notice of special events, and an annual subscription of 'The Ready Room'.

*\*Family memberships grant access to families of 4 or less. For each additional family member, add \$5*



# 1946 Taylorcraft Makes its Way to Rome



The 1946 Taylorcraft is part of the museum display and has made its way to the Rome Hangar.

Larry Jarrett got the ferry permit and flew the Taylorcraft from Hixson to Rome. Art Matthews checked it over in preparation for the flight.

Thank you for your hard work in preparing and flying this aircraft down and making it available for display.

## 2015/16 SCHEDULE OF EVENTS

<u>DATE</u>	<u>EVENT</u>	<u>LOCATION</u>	<u>OWNER</u>
December 1-6	C-45 Maintenance	Rome Hangar	Peter O'Hare
December 6-9	ICAS Convention	Las Vegas Nevada	Peter O'Hare
Jan 5 – March 5	Aircraft Conditional & Annual Inspections	Rome Hangar	William Bannister
March 26	Grand Opening w/Huey & Cobra rides	Rome Hangar	
April 9	Open Hangar Gala	CHA Wilson Air	Pete O'Hare
April 14-17	Thunder in the Valley Air Show	Columbus, GA	Pete O'Hare
May 28	Good Neighbor Days	PDK, Atlanta, GA	Pete O'Hare
June 11 & 12	Military Appreciation Days	Urbana, OH	Christine Lewis
June 18, 19	Vectren Air Show	Dayton, OH	Christine Lewis
September 17	LaFayette Fly In	Lafayette GA	Pete O'Hare
October 17-18	Boshears Skyfest & Fly-in	Augusta, GA	Pete O'Hare
October 29-30	Wings Over North Georgia	Rome, GA	Pete O'Hare
November 5	Mess Night	TBD	Pete O'Hare
November 17	Toys for Tots	TBD	Christine Lewis



# LIFETIME MEMBERS

Jeanne and Tony Bass

Shawn Barber

Voron Baughon

Jim Beaver

Ernie Betancourt

Dr. Gary Caldwell

Phil Cataldo

Dr. Donald Chamberlain

Nan Coddington

Ronnie Cox

Dr. James Creel

Erich DeHart

Logan DeHart

Peyton Dehart

Scott Ducker

Phil Gilliland

International Aviation Services

Larry Jarrett

Chris Keefe

David Lawson

Christine Lewis

Frank Kalinowski

Art Matthews

Spencer Morgan

Scott Murray

Pete and Susan O'Hare

Scott Pilkington, Sr.

John Sullivan

Stratton Tingle

Wayne Vick

Brent Wade

David Wells

Jody Whitmire

Ed Woods

Jorge Verdias

Judy Wilson

Doug Woodruff

## What would you add?

Do you have a photo, article, cartoon, poem or quote you would like to share in the newsletter? We would love to share it. Drop it in the an email and send to [communications@hixsonflightmuseum.org](mailto:communications@hixsonflightmuseum.org)

**Watch for the November issue to be sent out soon.**

