



# Experimental Aircraft Association Chapter 27 News



Next meeting Sunday, February 19, 10 a.m., Meriden-Markham Airport, Meriden, CT

February 2012

## It Truly Is a Small World

In the mid-1980s current EAA Chapter 27 vice-president Mark Scott snapped a photograph of this airplane. Mark has a hobby of painting pictures of aircraft. The design interested him and he decided, because it was an aerobatic plane, to paint it in inverted flight. Mark seems to recall seeing this plane in Maryland but isn't certain.

Well, it is Jim Simmons's original Steen Skybolt (N619JS). Jim had flown into College Park Maryland for a few nights visit. Neither man knew the other and Mark and Jim weren't to meet for many years to come.

Mark recently rediscovered the painting and presented it to Jim. I guess it's a small world after all.



***This month Bob Upson will be talking about a three week trip he took in his RV-6 in 2009.***

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## Hydroplaning Facts

Using Google I searched for “NASA hydroplaning” without the quotes and discovered a NASA technical Note about hydroplaning<sup>1</sup>. The results plot miles per hour and knots respectively versus hydroplaning speed.

On page 15 the document states that data exists showing a complete loss of traction not associated with hydroplaning on wet smooth surfaces such as a smooth concrete runway. The speed associated with this condition can be as little as 38% of the speed indicated by the simplified equations plotted below. Slush on the runway can reduce the hydroplaning speed to 25% of that shown in the figures. A water depth of .05 inches reduces traction by about 50%.

The charts are in two sections for ease of reading. Figure 1 covers most experimental aircraft with a range of 10 to 50 PSI inflation pressure and landing speeds of 72 MPH or less. Figure 2 covers inflation pressures of 40 to 100 PSI and landing speeds up to 105 MPH. These are minimum inflation pressures to insure against hydroplaning and loss of traction. The formulas of reference 1 are:

$V_p = 10.35P^{0.5}$  for MPH and  $9P^{0.5}$  for Knots, where  $V_p$  is the velocity for hydroplaning and  $P$  is the tire inflation pressure in PSI. The data plotted in figure 25 of the tech note (not shown here) shows that most aircraft tires are inflated to 150% of the



minimum hydroplaning pressure based on takeoff or landing speed.

Inflation to 150% of the minimum required for takeoff or landing means the traction is about 50% of the at-rest figure.

Since reduced traction occurs well before hydroplaning operation in strong crosswinds on wet runways should be curtailed. Figure 3 approximates the loss of traction

and contains many charts and graphs that are informative. It contains an excellent readable discussion of the factors involved in hydroplaning and loss of traction.

References:

- (1) NASA technical note TN D-2056 *Phenomena of Pneumatic Tire Hydroplaning*, November 1963, Walter B. Horne, Robert C. Dreher

—Charlie Enz

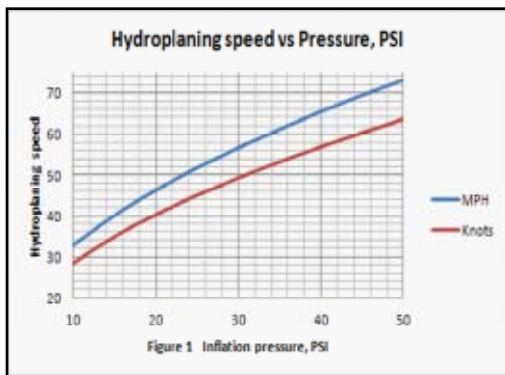


Figure 1 Inflation pressure, PSI

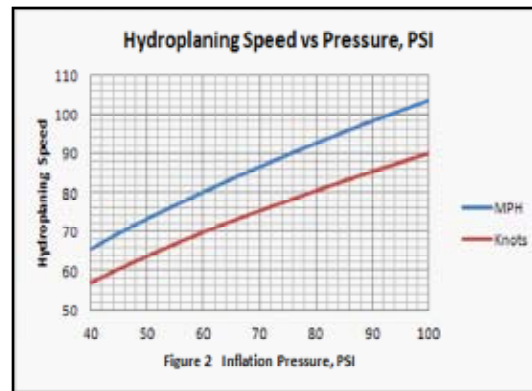


Figure 2 Inflation Pressure, PSI

is recommended. Under-inflating tires causes greater wear and creates a safety risk.

The same Google search also turned up a NASA video that shows an airplane landing and skidding sideways due to hydroplaning.

The tech note is short on eye glazing math

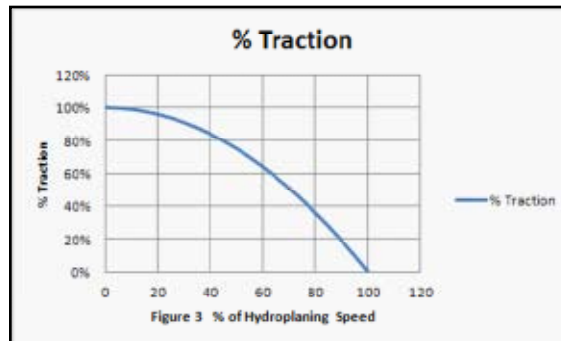


Figure 3 % of Hydroplaning Speed

## Letter From The President

**W**hat a contrast a year makes! Last year at this time we were mired in snow with one winter storm after another hitting us. And this year, we have thus far experienced the opposite with little or no snow cover along with generally mild temperatures. I just hope that the winter doesn't leave us like the proverbial lion in its closing weeks.

With the debut of spring around the corner, many of us who have curtailed flying activity, due to airplanes in winter hibernation or less daylight or less than favorable weather conditions, have become a bit rusty regarding flying skills. It is prudent to recognize the effects of a layoff, not only in a stick-and-rudder sense but also from the situational awareness point of view. It is currency that maintains the physical and mental edges in a sharply

honed condition. So as we approach the new flying season, consider taking steps that will help the process along such as on-line Air Safety Foundation courses or local FAA Safety Seminars. It is also a good time to fit in a Wings flight or two with your favorite CFI.

Of all the issues confronting General Aviation, especially those of us who are involved with flying on a purely recreational basis, I think there is no issue more contentious and threatening to our flying future than user fees. We have recently been informed that the Obama administration persists in wanting to apply a fee to use FAA air traffic control services in controlled airspace which would necessarily include taking off and landing at a towered airport. Although this fee may not immediately apply to the light, reciprocating engine aircraft we fly,

it is nonetheless worrisome as it sets a non-friendly precedent for future expansion to our corner of the GA spectrum. Please be on guard about this issue for yet again we will have to circle the wagons and fight to defeat it. The EAA, AOPA, NBAA, et al are already raising the banners in unison to voice opposition; but I'm sure it will take our collective efforts as individual pilots to sway lawmakers to not enact legislation in favor of user fees. Letters and e-mails to your government representatives expressing opposition are in order and I would ask all to begin that process or to be ready to do so in short order.

Just a reminder. If you haven't paid your 2012 dues, please do so. See you at the next meeting.

Stay safe,

—Bob

## Meeting Minutes

January 15, 2012

The meeting was called to order at 10AM by Chapter President Bob Spaulding. Officers present were Bob Spaulding, Mark Scott, Bill Jagoda, and Charlie Enz.

**Treasurers Report:** Bill Jagoda reported the current checking balance is \$1766.77. Delinquent dues for 2011 and 2012 are being accepted.

**Membership:** Please complete the membership survey. It is important feedback to the Chapter for our future growth.

**Commissioners Report—Dave Pepe:** A self serve gas pump is to be installed at the airport. The gas for Young Eagles flights may be available at cost but this is not final yet.

**Technical Counselors Report:** Mike Zemsta report on an RV7A, Mark Scott

demonstrated and discussed a head mounted LED array for seeing in those dark holes common to homebuilders.

**Website, Newsletter and HQ Director—Rick Beebe:** EAA has reorganized the headquarters staff. Pictures of your project and articles for the newsletter are solicited.

**Young Eagles—Fran Uliano, Rick Merrill:** 102 Young Eagles were flown this year, 1954 total have been flown by Chapter members since the inception of the program.

**Bulletin Board and Web—Lauren DuBois:** Lauren announced that the Chapter web site is now linked to youtube.

**Airport Improvement Projects:** Painting the meeting room was suggested.

### 2012 Events:

- International learn to fly day May 19.
- Spring Young Eagles rally June 9.
- Fall Young Eagles rally 2nd week in October.
- Annual picnic and open house second weekend in September.
- Holiday dinner December 8, 4:30 to 9:30 PM at Villa Capri.

Also in the works are EAA Eagles flights with an announcement by the EAA to come later this year, Boy and Girl Scout merit badge training, Meriden "Beat the Street" Career Explorers, "Make a Wish" and/or "Starlight Children's Foundations", and a fly out possibly in conjunction with another Chapter. Member's suggestions for a facility tour are solicited.

—Charlie Enz

*I don't fly my airplane as often as I would like, but I don't share it either.  
Sort of like a spouse.*

*Limited in his nature, infinite in his desires,  
Man is a fallen god who remembers heaven.  
—Alphonse de Lamertine in 1819.*

## Meet Alex Bamford



Alex Bamford is the young man that our Chapter elected to sponsor to go to EAA's Air Academy in 2012. Unfortunately after we made that decision we found out that the sessions for his age group are completely full with a 20 person waiting list! We will be sponsoring him in 2013, the last year he's eligible to go. In the mean time we're soliciting pilots who would be willing to give Alex a ride in their plane. Rick Beebe has already stepped up and offered to fly him after the meeting on Sunday. Alex will be at the meeting so please step forward and introduce yourself.

*The deadline for submission of materials for the next newsletter is March 8, 2012.*

### 2012 EAA CHAPTER 27 MEMBERSHIP FORM

Please fill in the following information and mail with your dues to:  
EAA Chapter 27, c/o Bill Jagoda, 43 Derby Road, Rockfall, CT 06481  
(Dues are \$20.00 per year, due in January, make checks payable to: *EAA Chapter 27*)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Street: \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email address: \_\_\_\_\_ Receive Newsletter via: Email  Paper

EAA Membership No: \_\_\_\_\_ Expiration date: \_\_\_\_\_ Pilot rating held: \_\_\_\_\_

Do you own an aircraft?: \_\_\_\_\_ Make & Model: \_\_\_\_\_ Registration No: \_\_\_\_\_

Are you building an aircraft?: \_\_\_\_\_ Make & Model: \_\_\_\_\_ % completed? \_\_\_\_\_



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