









Classic Cars and Planes P3



Avemco Exec Named Chair of WAI P5

THE HEAT IS ON

By Michael Adams, Senior Vice President, Avemco Insurance Company

Summers' heat is now upon us. One of the perks of being a pilot is that when temperatures climb, so can you, right up to altitude where it's nice and cool. But to get there, you first need to get safely off the ground.

As you know, wings generate lift by interacting with air, and engines develop power by combining fuel with air. Then propellers turn power into thrust by reacting with the air. Anything that reduces the density of air will reduce the airplane's performance. And the hotter the air, the less dense it becomes.

That's why it's even more important to make a takeoff distance calculation before taking off on a hot day. You need to know you have enough runway to get off the ground.

Runway temperatures can be as much as 40°F hotter than what the AWOS or ATIS says on a sunny summer day. Plan for that and adjust your takeoff distance calculations appropriately. You might want to get the temperature from your airplane's Outside Air Temperature gauge in addition to the AWOS or ATIS to use on your takeoff performance chart.

"It's not the heat, it's the humidity." How many times have you heard that old summer cliché? But does humidity do anything to airplane performance? According to the FAA's Pilot's Handbook of Aeronautical Knowledge¹:

The small amount of water vapor suspended in the atmosphere may be almost negligible under certain conditions, but in other conditions humidity may become an important factor in the performance of an aircraft. Water vapor is lighter than air; consequently, moist air is lighter than dry air. Therefore, as the water content of the air increases, the air becomes less dense, increasing density altitude and decreasing performance. It is lightest or least dense when, in a given set of conditions, it contains the maximum amount of water vapor... As temperature increases, the air can hold greater amounts of water vapor. When comparing two separate air masses, the first warm and moist (both qualities tending to lighten the air) and the second cold and dry (both qualities making it heavier), the first necessarily must be less dense than the secondPressure, temperature and humidity have a great influence on airplane performance, because of their effect upon density.

This tells us that high humidity has a negative effect on aircraft performance. Yet I'm not aware of any Pilots Operating Handbook or other source that provides Performance Chart adjustments for high humidity. If the humidity is high — say, above 50 or 60% — it may be wise to add additional length to the runway requirements over what the takeoff performance chart says to account for moist air. You might also want to plan for a decreased rate of climb, especially if you have to clear an obstacle.

To make sure you reach that cool air on hot summer days please spend a few minutes in the books accounting for takeoff performance loss when the heat is on!

¹ The Pilot's Handbook of Aeronautical Knowledge 2016. Published by the FAA and currently located at https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/.

Mike Adams, Senior Vice President of Underwriting, is an instrument-rated pilot, and a former President of the Oregon Pilots Association. Mike holds a property/casualty insurance license in all 50 states. His more than 30 years of combined experience with general aviation and the aviation insurance industry helps pilots to understand why many of Avemco's coverages and underwriting decisions are designed to help keep them safe.

STEPHANIE BROWN, **AVEMCO SENIOR AVIATION UNDERWRITER** AND THE BREEZY.





Avemco's fearless Senior Aviation Underwriter, Stephanie Yurchak Brown, loves to recount her most memorable airplane flight. Stephanie is what could be described as an aviation groupie. Although she is not a pilot, she never misses the opportunity to go for a ride. She has jumped at the chance to fly in a 1920 Fleet open cockpit biplane and has had her share of rides in the usual assortment of Cessnas, Pipers and even an aerobatic Decathlon. But before joining Avemco in 1992, Stephanie was the Chapter Administrator for EAA in Oshkosh. That job put her in a position to hop a once-in-a-lifetime ride with Carl Unger, one of the designers and original builders of the Breezy.

The Breezy is little more than a park bench with wings, so it requires a certain level of courage and trust to leave the ground in one. For Stephanie it was a spectacular experience. Was she scared? "Not really" she says. "I was excited to be riding in such an unusual aircraft." Of course, I was younger back then" Would she repeat the experience? "In a heartbeat." Now that's the kind of spunk we look for in our underwriters.



ANNOUNCEMENT: **AVEMCO** PARTNERS WITH HAGERTY CLASSIC **CAR INSURANCE**

AVEMCO HAS RECENTLY FORMED A RELATIONSHIP WITH HAGERTY, WHICH IS HEADQUARTERED IN TRAVERSE CITY, MICHIGAN. HAGERTY IS THE LARGEST SPECIALTY INSURER OF COLLECTIBLE CARS, BOATS, MOTORCYCLES AND OTHER VEHICLES.

"The affinity we both felt for each other was natural and immediate," said Marci Veronie, Avemco Insurance Company Vice President of Sales. "Hagerty is as passionate about collectible vehicles and the enthusiasts who own them as Avemco is about pilots and their airplanes. The care that classic car and aircraft owners exhibit and the protection they feel their assets deserve is identical."

"The relationship between people who love classic cars and those who love airplanes is undeniable. If you look in the hangars at any airport, you will see classic Corvettes and Mustangs sitting alongside their owners' Bonanzas and Cessnas," said McKeel Hagerty, CEO of Hagerty. "Many of the aircraft Avemco insures are of similar vintage to the cars we insure and inspire a similar passion."

Hagerty has been insuring collectible vehicles since 1984 and today protects more than 1.5M collector and enthusiast vehicles, including motorcycles and boats.

For further information call Avemco at (800) 353 9109. M-F 9:00 am to 6:00 pm Eastern or contact Hagerty at (877) 922 9697.

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AVENCO EXEC NAMED CHAIR OF WOMEN IN AVIATION INTERNATIONAL

Avemco Insurance Company Vice President of Sales and Marketing, Marci Veronie was elected in March 2018 as the new board chair of the world's foremost organization promoting the involvement and advancement of women in the fields of aviation and aerospace: Women in Aviation International (WAI). Veronie has served on the WAI Board of Directors since 2015 and was elected Vice Chair in 2017.

Veronie, a graduate of the Bradford School of Business in Pittsburgh, PA, is a 31-year veteran of the aviation insurance industry, spending her entire career promoting general aviation. Her first responsibility at Avemco® was facilitating the EAA Chapter Insurance Program. As an underwriter, she then moved to the ultralight department, followed by marine, turbine, and commercial. From

the beginning, she has been a tireless advocate of women, as they have increasingly secured an ever-growing role in aviation and aerospace. She frequently volunteers her time for local and regional WAI activities.

Today, she manages a staff of aviation insurance underwriters, marketing professionals and support personnel in Avemco's home office in Frederick, MD. Additionally, she represents Avemco at numerous airshows throughout the U.S., where she helps to promote the company's emphasis on flying safely.



Readback is your chance to tell us what you think about everything we have to say and do - including our PIREPs, articles, emails and previous issues of the On Approach newsletter. Content has been or may be edited for length and style before publication.

RESPONSES TO MAX TRESCOTT'S "HOT PROPS AND MAGNETOS"

Great article...I have over 2600 hours and this was one of the most informative articles that I have seen. Most of the stuff I read is a rehash of other articles with subtle changes. This one had real meat!

--Gene Warne

This is an excellent article! The best *complete* explanation of magnetos, their function, how they work and how to minimize the potential for a hot start. The note on turning the prop backward is also very useful, although I was left wondering what turning the prop backward more than one revolution does. Thanks for this tidbit of knowledge.

--Barry Santana

Thanks for the most interesting article on mag checks and hot props. Keep up the good work. --Allen Lewis

Excellent discussion, especially the suggestion to make the first mag check a two click turn of the kev. Thanks

--Linwood Stockwell

I really enjoyed your article on hot props and mags checks. Thanks for the great information! --Randv

I found your article on Hot Props and Magneto Checks very interesting and informative. It explained why we check things the way we do and the possible consequences—details that none of my instructors ever explained—and I've been flying over 30 years!

I would like permission to share this article in our chapter's Ninety-Nines newsletter, as I think it would enlighten many of the other gals who have never had it explained how a propeller can still start when it appears to be shut down or how the magnetos work. (Editors Note: Permission was granted).

-- Marjy Leggett

Really like the email on hot props and magnetos. Busy like everyone else, but really do appreciate short safety articles via email. I read 'em!

--Steve Ray

Long-time insured pilot

Interesting article on magneto checks, I learned some things about hot props and mag checks that I had not heard or thought about before.

Thank you.

--Steve Young

This PIREP on Hot Props was very well written and explained. I learned a few things that I never considered such as turning the ignition key to OFF to see if engine is actually OFF, then back to On before moving the mixture control to Off to shut down the engine. The other thing was turning the prop clockwise when facing the prop. This is turning the engine backwards which doesn't allow the mags to spark which could ruin your whole day if the mags/prop were hot. Thanks for this and I look forward to more PIREPS.

--Ken Yoskowitz

Very good review and ground lesson. It should be followed up by showing the student/pilot just what is taking place. In my years of being a DPE I would say 1/4 to 1/3 of the applicants could not perform this task and it covered every grade. CFI's had a hard time explaining the mag switch. In my prop operation, I never turn a prop by standing in front of it. I always stand behind it. I learned that from flying J3 Cubs on floats.

-- James A Cotter. Sr

Lonce interviewed a man that was struck in the head by a hot prop in Michigan, he was in a motorized wheelchair. I could not offer him the job however we had a long conversation. Each time I grab the prop to move my plane I think of him! Great article should be taught way more than it is.

--Jeff Quandt

The article on hot props and mag checks was insightful. I enjoy the detailed explanation of how the systems work and the safety tips. Please keep publishing articles like this one.

--Jim Asbury

COMING TO A HANGAR NEAR YOU!

The most fun we have all year is meeting our customers in person and strengthening our ties within the aviation community.

Avemco currently is a sponsor of the Bonanza & Baron Pilot Training clinics. For a list of upcoming clinics click here. The courses are custom designed for pilots and owners of Bonanzas, Barons, Travel Airs, Twin Bonanzas and Dukes.

Avemco is exhibiting next at the following aviation tradeshows this year:

JULY 23-29

EAA AirVenture Oshkosh WI Booth # 1159/1160 **SEPTEMBER 14-15**

AOPA Flv In #2 Santa Fe (KSAF) NM Booth #63

OCTOBER 5-6

AOPA Flv In #3 Carbondale (KMDH) IL Booth #59

OCTOBER 26-27

AOPA Flv In #4 Gulf Shores (KJKA) AL Booth # 61

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On Approach

Avemco Policyholder News

SUMMER 2018

On Approach

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