

**AERO-MEDICAL
UPDATE**

***AME Assisted Special
Issuance (AASI)
Procedures***

***By Bob Hampton, MD
BC-OAA***

Aviation medical examiners (AMEs) are permitted to reissue medical certificates to pilots with significant medical histories that require special issuance.

Originally launched in 2002 with 20 selected medical conditions for third class certificates, the AASI program was expanded to first and second class in 2004, and now covers over 34 significant medical conditions including third class cardiac cases such as bypass surgery and angioplasty.

Under AASI Protocol, the FAA's staff physicians provide the initial certification decision and grant authorization via an authorization letter. The letter is accompanied by attachments specifying the information that the treating physician must provide for the FAA to make a determination on re-issuing the medical certificate.

Thereafter, medical certificate renewals are not difficult to obtain. Once the

airman has an authorization letter from the FAA, the AASI program allows AMEs to renew special issuance medicals on the spot instead of forcing the pilot to wait 10-12 weeks for consideration.

The authorization letter may be valid for up to six years, but the pilot may be required to provide the AME with periodic medical reports confirming that the condition is unchanged. The authorization letter details exactly what information is needed for continued certification and the time frame in which that information will need to be submitted.

The FAA reviews each case and determines whether it will be placed under the AASI protocol. Until the pilot receives an authorization that allows the AME to reissue the certificate, she/he should continue to send periodic medical reports to the FAA. Conditions covered include:

- ♥ Autoimmune Disorders
 - Arthritis
- ♥ Cardiovascular (third class)
 - Angina Pectoris
 - Atherectomy
 - Atrial Fibrillation
 - Brachytherapy
 - Coronary Artery Disease, Coronary Bypass Grafts, Mitral and Aortic Insufficiency

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- ♥ Neurologic
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 - Chronic Obstructive Pulmonary Disease
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- ♥ Vision Glaucoma or Ocular Hypertension

Please contact me if you have any questions about medical certificates.

ON TOP OF UP TOP

By Bob Shafer, DVC-OA

This edition of "Up Top in Operations" has some good information of interest to Auxiliary Aviators. But I encourage surface operators and other Auxiliarists to read it, too, as there is a little something for everyone.

Dr. Bob Hampton has some useful information for Auxiliary pilots who fly with Special Issuance Medical Certificates. Those of you who do, and there are more of us each year, will want to look into this.

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Hank Demler, Editor
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Byron Moe gives us some insight into the summer weather machine, and how it affects us as we fly. Think you know all about maneuvering speed? Read on!

Speaking about summer weather, have you checked the air pressure in your tires lately? Keeping your tires inflated to the correct pressure is one of the best ways that you can keep your tires in good shape.

The smaller the tires are, the tougher the job they have to do. You have four tires carrying the weight of your car, but you may have only two smaller tires carrying the weight of your trailer and boat. The smaller the tires are, the more revolutions they make to travel a given distance. The more revolutions, the more flexing and the more heat they will build.

Even smaller than boat trailer tires are airplane tires (unless you have a really big airplane!) Although airplane tires usually don't roll as far as car or trailer tires, they have a pretty tough job.

Airplane tires must go from a standstill to around one hundred miles per hour in an instant, while cushioning the arrival of a couple of tons of airplane as it smites the earth. (What? All of your landings are *perfect*, I suppose?) Keep those tires properly inflated, and they're much less likely to leave you flat when you need them the most.

I've received several reports from AUXAIR units conducting SAR exercises of late. It's great to learn that these training operations are going on. Most of these involved surface and air assets working together as a SAR team.

Flight crews must work to develop and maintain the skills used to search. It's not as easy as one might think! One brand new flight crew learned that recently during an air / surface exercise. They over flew the target several times without detecting it. Finally, a surface crew motored over to the target (an "Oscar" dummy) and pointed it out to the circling plane. "So THAT'S what it looks like!" the flight crew exclaimed. They had mistaken it for flotsam and seagulls and the like.



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I encourage all AUXAIR and surface units to join forces to conduct air / surface training exercises. Practice the skills necessary to be an effective SAR team. Aviators, take some of those "boat people" up with you so they can see what the view is like from the air. Surface operators - take some of those "Airedales" along with you so they can get a deck plate view of things. Learn how to relate to each other and how to communicate with each other. It will pay dividends for a long time. And you'll find that it's fun, too.

Fun! While we are polishing our skills and performing operations this summer, please remember to have some fun. Staying safe is the most important way to have fun, because if it's not safe, it's definitely not fun.

Fun can mean different things to different people. For some, it's a sense of satisfaction, a feeling of accomplishment, and pride in a job well done. For others, it's an opportunity to do things they might otherwise never do, to be up in the air or out on the water.

For many of us, there's pleasure in the fellowship with like minded folks working together as a team to do good things.

Remember to thank your fellow flight crew members and shipmates for their time and efforts. You can't do your jobs without each other. So respect each other's time, thank each other and try to keep some fun in your flight / float plan. Be careful, be safe and have fun!

SUMMER FLYING SAFETY

Beware the Thunderstorm!

By Byron Moe BC-OAS

Welcome to summertime flying and the threat of a thunderstorm! **First rule of thunderstorms is to stay out of them!** Pilots should never venture closer than 20 miles to any visible storm cloud with over-hanging areas because of the possibility of encountering hail. Pilots should be extremely cautious in

attempting flight beneath all thunderstorms, even when



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visibility is good, because of the destructive potential of shear turbulence in these areas. Pilots flying in the vicinity of thunderstorms should, at the first sign of turbulence, reduce airspeed immediately to the manufacturer's recommended airspeed for turbulent air penetration for a specific gross weight (Va) or to below that airspeed!

Despite widespread beliefs to the contrary, flying through severe turbulence at Va speed does **not necessarily** protect the pilot and plane. *Flying Magazine* recently reported that *the* crash of an American Airlines Airbus in New York, in November of 2001, has revealed that the beliefs about

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maneuvering speed (V_a) are incorrect. A pilot can break the airframe by moving the flight controls even when flying at an airspeed below V_a . Pilots have generally been taught not to make full or abrupt control inputs when flying faster than V_a in turbulent conditions. The implication is that full or abrupt control inputs at airspeeds below V_a can't break the airframe and this is now known not to be true! Pilots have been taught that an airplane won't break when flying at airspeeds below V_a because it will stall first, even if the sudden change in angle of attack was caused by the pilot moving the flight controls.

V_a is a calculated airspeed. The calculation is based on the actual gross weight of the airplane and how the wing responds to a 50-foot per second wind gust, or to movement of the elevator. There are certification parameters for loads caused by the gusts in turbulence, for maneuvering with the flight controls, and for the gusts combined with maneuvering. V_a is at one corner of the combined gust and maneuvering limit. What pilots

have been taught about not being able to break the airplane with the controls when flying at or below V_a is mostly true for use of the elevator, but the elevator can break.

Loads on an airplane in turbulence are complicated because gusts are not symmetrical. Also, the flight controls exert their own bending and twisting loads on the plane when they are deflected. That's why each element of the airframe and its flight controls has its own design limit loads. When

controls are moved in combination with each other and turbulence, the calculation of the loads on the airframe become very complex and V_a doesn't offer structural preservation in every situation.

So there you have it. When you first start to hit turbulence, you need to slow to V_a ; and, if it's severe turbulence, you may need to get even slower than V_a .



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