

ANNOUNCING THE NEW AUXILIARY AVIATION TRAINING MANUAL

By Robert T. Shafer DVC-OA

The new edition of the *Auxiliary Aviation Training Manual*, COMDTINST M16798.5B, has been approved and is now available for download. It can be found on the Chief Directors web site under Aviation Operations. The direct link is http://www.cgaux.info/g_ocx/publications/comdtinst/M16798.5B.pdf. Or, you may go to the Operations Department Aviation page, where you will find a link.

The new Manual outlines techniques and training guidance necessary for effective operation of the Coast Guard Auxiliary Aviation Program. The Coast Guard Auxiliary has been a critical part of the Coast Guard's historic transition to the Department of Homeland Security (DHS), and the Auxiliary now assumes the role and responsibility as the Department's lead organization of dedicated volunteers. This Manual further sets the course for the ready, reliable, and relevant Auxiliary operational support of the full spectrum of

Coast Guard missions, both traditional and new, and in a different and far more complex maritime security (MARSEC) environment.

This new Manual represents a major revision of the previous *Coast Guard Auxiliary Air Operations Training Text* which dates back to 1993. Due to the extensive changes, units and individuals are encouraged to conduct a thorough review of the new Manual. This edition of the Manual contains the following significant changes:

- ☞ Improved format of entire Manual to facilitate ease of use, including utilizing information mapping features, and reorganized text.
- ☞ Inserted terms and definitions into various chapters.
- ☞ Expanded Crew Resource Management (CRM) material.
- ☞ Included Risk Assessment Matrix material.
- ☞ Improved section on human factors affecting flight safety.
- ☞ Improved section on survival discussion and techniques.



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- ♥ NEW AVIATION TRAINING MANUAL
- ♥ ONE STOP SHOP FOR WEATHER INFORMATION
- ♥ TERMS PILOTS SHOULD KNOW

- ☞ New material on Maritime Domain Awareness (MDA) and Multi-Mission concepts.
- ☞ Updated Search and Rescue (SAR) information.
- ☞ New list of acronyms.

This manual is the product of many people working over a long period of time. There was an earlier version of this manual drafted some years ago, but it was never approved or officially released. Because the AV program was changing so rapidly, that draft manual was deemed obsolete before it was even completed.

With the publication, earlier this year, of the new *Auxiliary Operations Policy Manual*, COMDTINST M16798.3, (series), all of the various regulations and policies governing AUXAIR were consolidated into one publication. Once that was accomplished,

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THE NEW AUXILIARY AVIATION TRAINING MANUAL

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the *Auxiliary Aviation Training Manual* could be completed. Whereas the *Auxiliary Operations Policy Manual* is regulatory, the *Auxiliary Aviation Training Manual* is explanatory, giving more detail and instruction on the various aspects of AUXAIR operations and activities.

This new *Auxiliary Aviation Training Manual* (AATM) should be reviewed in its entirety.

It's also important to note that where this Manual may conflict with the *Auxiliary Operations Policy Manual* (OPM), the *Auxiliary Operations Policy Manual* takes precedence. An analogy is a comparison between the FARs and the AIM. The Federal Air Regulations (the FARs) are regulatory – they are the rules. The Aeronautical Information Manual (the AIM) is advisory and explanatory. Likewise, the OPM is regulatory, and the AATM is advisory and explanatory.

Now that these two manuals defining the AUXAIR

program have been released, the online written AV examinations are being revised to reflect the many changes contained in them. We anticipate having the new test questions online shortly after the beginning of 2006.

Please take the time to download the AATM and read it. Although it's only available on the web right now, it will soon be available in printed and CD form. The manual is in the Adobe PDF format, and is a 12 MB download. Members with broadband internet connections are encouraged to lend their dial up connected colleagues a hand by assisting with the download. Until printed and CD copies are widely available, units are encouraged to print out copies which members may share.

Even the "old hands" in Auxiliary Aviation will find some new things to learn in the new manual. There is a great deal of emphasis on crewmembers working together to be safe and effective and the many new missions of AUXAIR are discussed. For those new to the AUXAIR program, there is finally a current "how to" guide. This manual, plus the OPM, explains Auxiliary Aviation in detail.

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I'd like to acknowledge the excellent work by the National AV staff on this new manual. The deadline was very tight and there were many revisions and changes along the way. BC-OAH, Bob Fratangelo, BC-OAS, Byron Moe, and BC-OAT, Mike Belica all made significant contributions to the project. DC-Od David Elliot spent a great deal of time on this project as well, editing and exchanging revisions with me on an almost daily basis. We must also recognize the many contributions of the fine staff at G-OCX, the Chief Director's office. Thank you to all for a job well done.

ONE STOP SHOPPING FOR WEATHER INFO!

By Robert T. Shafer, DVC-OA

Weather is a subject near and dear to most Auxiliarists. No matter whether we operate a boat, an airplane, or a car, we want accurate and timely information about the weather.

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ONE STOP SHOPPING FOR WEATHER INFO!

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A weather information site I'd like to tell you about is "Weather Underground", www.wunderground.com, is jam packed with weather products of all descriptions. I may be the last person connected to the Internet to "discover" Weather Underground, so if you've been using it for years, please forgive me. But if you haven't yet gone to the "underground" for weather, you have to check this site out!

The home page of Weather Underground shows a national view of the nation's weather with links to information on temperature, heat index, wind-chill, radar, wind, visibility, satellite views and lots of other things, including forecasts. Of particular interest to operational Auxiliarists are the links to Aviation and Marine weather pages. Entering a city name brings up detailed information on that locality, including details on current weather, forecasts, radar, nearby conditions, historical and almanac information, astronomical data, air quality info, and data from nearby individual personal weather stations.

Aviators and Mariners need to know when the sun rises and sets, so those times are listed for that location. In addition to the actual time of sunrise and set and moonrise and set, accurate times are listed for Civil Twilight, Nautical Twilight, Astronomical Twilight, and length of day.

Aviators will find the current METAR data displayed, and a single click will open an expanded aviation weather report, complete with METAR, TAF, PIREP, AIRMET, SIGMET and NOTAM information. But wait – there's more, including the area forecast and several aviation specific maps such as winds aloft, turbulence, freezing level and others. If you have forgotten what the METAR abbreviations mean or if you are new to these coded station reports, there is an excellent METAR help page. This includes a link to the Federal Meteorological Handbook, the mother lode of details on Government weather products.



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Mariners will find that one click can access marine forecasts and conditions around the world. Current data from the National Data Buoy Center network of marine observation buoys is presented in great detail. Do you want to know the air temperature, water temperature, humidity, wind speed and direction, barometric pressure, and wave height for your patrol area? It's just a few clicks away.

For real weather geeks, there's even a Scientific Forecaster Discussion full of big technical words Words like "290k isentropic analysis cpd/S from the GFS/NAM" and "Theta-E advection" and stuff like that. Wow!

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ONE STOP SHOPPING FOR WEATHER INFO!

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For the rest of us, Weather Underground has many other cool features such as star charts, weather photos, weather blogs, weather chat rooms, and trip planners. You can even set up personal preferences for your weather information display.

Check out Weather Underground. It's a very informative weather information site.

TERMS ALL PILOTS SHOULD KNOW

All pilots need to be familiar with the terms related to aircraft weight and balance. Some of the more common terms are:

Arm: (moment arm) the horizontal distance, in inches, from the reference datum to the item

Center of Gravity (c.g.): the point about which an aircraft would balance if it were possible to suspend it at that point.

Center of Gravity Limits: the specified forward and aft points beyond which the c.g.

must not be located during flight.

Datum Line: an imaginary vertical plane or line from which all measurements of arm are taken.

Fuel Load: the expendable part of the aircraft load. Fuel load Includes only usable fuel.

Moment: the product of the weight of an item multiplied by its arm.

Station: a location in the aircraft which is identified by a number designating its distance in inches from the datum.

Useful Load: the weight of the pilot, copilot, passengers, baggage, usable fuel, and drainable oil; empty weight-the airframe, engines, and all items of operating equipment that have fixed locations and are permanently installed in the aircraft. It includes optional and special equipment, fixed ballast, hydraulic fluid, unusable (residual) fuel, and undrainable (residual) oil.



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