

MU-2 CHECKLISTS REVISED

by Rick Wheldon

On May 6, the Federal Aviation Administration formally accepted checklist revisions submitted by Mitsubishi Heavy Industries Ltd. and certified those revisions as SFAR 108 compliant. Compared with the previous editions of those checklists, the new revisions offered improvements in both content and format, with the most prominent change being that the Normal Procedures section was condensed to a one page, front and back, format, as had been requested by many operators. While the previous checklist editions remain legal and valid under SFAR 108, the new revisions will be easier to utilize for a typical single pilot operator.

With the revisions, the format changes were made to the Normal Procedures section only. Operators were complaining that the old format required shifting between several pages as the flight progressed, thus increasing the workload. The new single page provides a folded and laminated single page checklist in a plastic pocket, enabling the pilot to remove it and keep it in a suitable place in the cockpit, such as in the pocket by their seat, on a clipboard between the seats, or in any other convenient place. However, since the Abnormal and Emergency checklists remain in the blue checklist binder, along with the Expanded Procedures and Performance sections, the blue binder checklist must also remain nearby in the cockpit, but will not typically be opened except in an emergency situation.

The checklist introduction is worth reviewing, since many

worthwhile suggestions for proper checklist use are included. First, pilots should be aware that the checklist was designed as a “Do-verify” type checklist. Simply stated, the pilot is responsible for accomplishing all tasks in a particular phase of flight and then, when convenient, picking up the checklist to quickly review that everything has been accomplished. For example, on the AFTER TAKEOFF checklist, the pilot would raise the gear, retract the landing lights, and raise the flaps shortly after liftoff. Rather than pick up the checklist, he would concentrate on his flying duties until the departure workload is reduced. He could also turn on the synchrophaser and set the pressurization at a comfortable point in the departure. When clear of the departure area, he could then pick up the checklist to ensure that all tasks were completed. For a single pilot operation, this is the most expeditious checklist technique, minimizing distractions inside the cockpit, but it requires complete familiarity with the procedures.

Many items on the checklist have optional positions. For these tasks, the response column in the checklist would say “AS REQUIRED”, “SET ___”, or something similar. When encountered, this is a reminder to the pilot that several positions may be correct, and the proper response would be to state what the actual position selected was. For example, in the AFTER STARTING ENGINES checklist, one task reads “Flaps.....SET ___” (*Fig. 1*). Since the flaps may be set to either 5° or

20° for takeoff, the proper checklist response would be “Flaps....SET 20°” or “Flaps...SET 5°”.

One addition to the Approach checklist has been made. A line has been added just prior to the last two tasks, which are landing lights and flaps 5° (*Fig. 2*). Both of these items are airspeed restricted. All items in that checklist except these two airspeed restricted items can and should be accomplished well prior to the terminal area. The pilot can then halt the checklist at the line, and, once he slows in preparation for the approach, complete the last two items, thus finishing the Approach checklist. The line effectively makes the Approach checklist into 2 checklists, completed at different points in the arrival sequence.

The new checklists removed a number of steps which were in the AFM or SFAR profiles, but not considered appropriate for inclusion in a checklist. Among those steps were items which a competent pilot should accomplish routinely, such as knowing and maintaining the proper normal airspeeds in the landing pattern, and also steps which must be accomplished routinely by memory, such as checking the BETA lights after touchdown prior to selecting reverse. Obviously, as described in the introduction, the pilot remains responsible for accomplishing those procedures despite their absence from the checklist.

One technique that can expedite checklist completion would be to anticipate the steps and, where possible, complete them beforehand. For example, on the BEFORE

LANDING checklist, most landings will be made in clear air, so the ignition switches will already be in auto, the wing deice off and the yaw damper off (*Fig.3*). All three of those items can be checked early in the configuration sequence, and then, when the gear, brakes and flaps are set, the landing checklist can be read expeditiously, noting that those three items have already been accomplished.

The revised checklists will be distributed after printing to all operators and other parties who had

previously received their checklists from MHIA. They will be distributed so that the entire content of the previous edition can be removed from its blue cover and the new revised checklist inserted in its place. (Pull the white checklist binder rings apart opposite the spline, remove the previous pages, and insert the new revision.) Feel free to contact Leslie Thomas or myself at Turbine Aircraft Services at 972-248-3108 if you have questions regarding the checklists or any of your MU-2 Publications requirements. **AAOG**

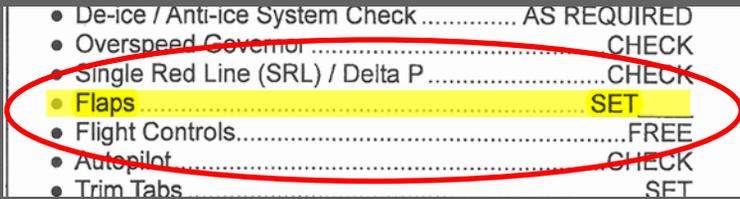


Fig.1 – This checklist item has several options for flap settings. State the actual setting used in the blank space in the checklist.

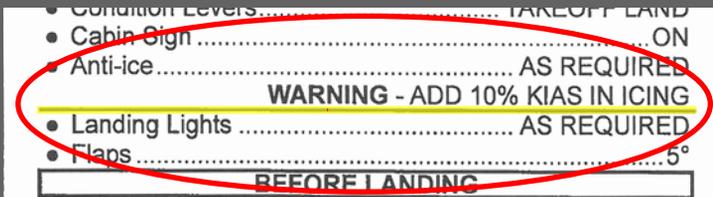


Fig.2 – Note the divider line in the APPROACH checklist. Best technique is to complete items prior to the line well away from the airport, then slow and complete the final two items.

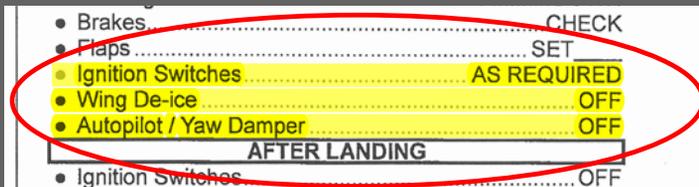


Fig.3 – Like many other checklists, the BEFORE LANDING checklist has tasks which can be accomplished early, then read and confirmed once the airplane is fully configured.

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