

Angus Model Flying Club

Student Training Book (The A Test)

Student Name: _____

The A test is simple a basic competency test. All the manoeuvres that you have already gone over in 'Basics' have allowed you to progress to this level. The manoeuvres of the A test are very much the same. The main difference is that the standard required for the test is a little tighter.

You have to demonstrate that you are fully in control of the aircraft.

A great guide to this level is given in the BMFA publication 'A Flying Start' as this goes through everything you need. It even details the A test (on page 65).





The table that follows is very similar to that you have seen in 'Basics' but note that the 'Notes' column has different requirements. Things need to be much more correct. The instructors will guide you through this and we'll add comments for you to help you get to this level.


Good luck

Step	Activity	Notes	Comments
-	Legal Requirements	<p>See Modules 4 and 6 of BMFA book 'A Flying Start'</p> <p>Insurance Who/what are the CAA ? Article 16</p> <p>Club Rules <i>Starting area</i> <i>Taxi areas</i></p>	
a)	<p>Carry out pre-flight checks.</p> <p>Throttle kill switch and safety conditions (esp electrics)</p>	<p>See Module 6 of BMFA book 'A Flying Start'</p> <p>Pre-flight checks come first, and it's essential that the examiner sees you go through the motions.</p> <p>Take nothing for granted and make the pre-flights applicable to the type of model you're flying. Liken this to taking a driving test. It's not sufficient to glance up into the rear view mirror like you might when driving normally, the examiner will need to see you move your head and physically look to know that you've done it.</p> <p>Regrettably (and it shouldn't be the case on a national scheme), there appear to be two trains of thought regarding exhibition of pre-flight checks for BMFA examinations. The first would see the pilot performing model checks as if they were 'pre-flying session checks', i.e.:</p> <ul style="list-style-type: none"> * Check the airframe for any transportation damage. * Check that the servos and linkages are secure. * Check the undercarriage for secure fixing and alignment. * Check propeller for damage and secure fixing. <p>These would assume, to a large degree, that your model is unrigged having just unloaded it from the car, and if this is the case then you should certainly perform these checks.</p> <p>Most examiners would expect that when you present yourself for the 'B' examination you will have already checked these issues and had a flight. Therefore expect you to go through the BMFA 'checks before each flight' pre-flights as listed below:</p>	

Step	Activity	Notes	Comments
		<p>* Obtain frequency clearance. The pilot should clear their frequency for use using the adopted frequency control system. This can vary from a transmitter control compound to a simple ask around other site users. You'll not be penalised if there's no pegboard or other organised structure for frequency control as long as you know how frequency use is determined on that site and that you observe the system. A brief note on the use of 2.4GHz here: Whilst it might be sufficient as far as you're concerned to switch on knowing that you're not going to cause or receive any interference from other users of the site, they won't know that. Make sure any other users are aware that you're using 2.4GHz equipment and that you're not a threat to them.</p> <p>* Switch your transmitter on before your receiver. How embarrassing it would be for you to switch the receiver on first and have servos spinning wildly through spurious interference, popping plastic clevises off the servo arms inside the model. You'd have to strip it down to remedy the situation while the examiner stood and watched. Not good for your nerves or their first opinions of your preparation!</p> <p>* Check that all controls operate freely and do not bind or stick. This test is fairly self explanatory, but you must be seen to waggle the sticks and watch the movement of the control surfaces. It's unusual to find an issue with a well flown and sorted model, but it does happen. A bad connection, trapped wire, damaged clevis etc. is all it takes.</p> <p>* Check that all controls move in the correct sense. Checking this from a position behind the model presents a much clearer picture to the examiner. Be methodical and make absolutely sure that everything is moving in the right direction. Visibly check the throttle operation (unless your carburettor is cowled and can't be seen). Show the examiner that you're looking, and make your checks obvious to the point of embarrassment.</p> <p>* Check that all control surfaces are in their correct positions with the transmitter trims at neutral. With most modern transmitters now employing digital trims it's not easy to check the position of a trim. Linkages used to be mechanically adjusted to get the transmitter's mechanical trim into the middle, but this practice occurs less and less now. That said, it's more difficult to accidentally alter a trim position with a</p>	

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		<p>digital set-up as the transmitter has to be switched on to effect any change, deliberate or accidental. And when it is switched on, the unwanted disturbance of a trim is usually accompanied with a clearly audible beep.</p> <p>* Look for any minor radio malfunctions such as slow or jittery servos, glitches etc. Any slow servos or unexpected jitters when checking the operation of the control surfaces could be a sign of something more onerous. This is especially applicable to a slow-moving servo, which could indicate the beginnings of battery failure. You should immediately examine any such problem, and if you're in any doubt at all, don't fly. You'll not be penalised for stopping due to an electromechanical hiccup. However if you end up having to charge your batteries, it could be the end of that day's activities.</p> <p>* After starting the motor (i.c. engine) and allowing it to warm up, check that it throttles well from tick-over to full power, and carry out a lean check. You're probably well used to doing this, but watch out for canny examiners who may stand in line with the prop, waiting for you to ask them to move before you start the motor. Make sure that your pit area is tidy, with no stray wires that can come into contact with the rotating prop and no loose rags or the like that can get sucked into the prop as it spins. Make any adjustments to the needle setting from behind the motor and be sure to give your helper clear instructions of when to raise and lower the model for the lean check. The motor of an electric powered model should be treated like an idling i.c. engine once power has been connected. As a final precaution before carrying the model to the strip, double-check your transmitter using one of the BMFA- favoured acronyms,</p> <p>SMART: * Switch on. * Model selected is correct / meter in the green. * Aerial extended and secure (if such an aerial is used). * Rate switches positioned correctly. * Transmitter voltage good and all trims in the right place.</p>	

Step	Activity	Notes	Comments
b)	Take off and fly a left or right hand circuit 	Calls to flight line "Ok to take off ?" Gentle bank turns (around 20° angle) Keep it centred on the field and not too far away. The downwind leg is about 50m out.	
c)	Fly a figure 8 	Keep a constant height Turns are steady not exceeding 30°, you may have to vary the angle to adjust for wind conditions to keep the circles constant Keep the crossing point in front of you.	
d)	Fly a rectangle circuit and land 	Gentle bank turns (around 20° angle) Keep it centred on the field and not too far away. The downwind leg is about 50m out. Use the throttle to approach landing. Call to the flight line "Landing"	
e)	Retrieve the model and set up to take off again	Calls to the flight line "Entering runway" "Clear of runway" "Ok to take off ?"	
f)	Take off and fly a left or right hand circuit 	Calls to flight line "Ok to take off ?" Gentle bank turns (around 20° angle) Keep it centred on the field and not too far away. The downwind leg is about 50m out.	

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g)	Fly a rectangle circuit in the opposite direction to d) 	Use a procedure turn to swap the direction Gentle bank turns (around 20° angle) Keep it centred on the field and not too far away. The downwind leg is about 50m out.	
h)	Dead-stick Landing	Use a procedure turn to swap the direction before you start this Perform a simulated deadstick landing with the engine at idle, beginning at a safe height (approx. 200 ft) tracking into wind over the take-off area, the landing to be made in a safe manner on the designated landing area. 'See' the flightline to the landing zone as best you can. Turn onto final allowing for the wind, early or late ? Calls to flight line "Deadstick" "Landing"	
g)	Retrieve the model	Calls to the flight line "Entering runway" "Clear of runway" "Ok to take off ?"	

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h)	Carry out post-flight checks.	<p>These post-flight checks are listed in your BMFA member's handbook, and are detailed as follows:</p> <ol style="list-style-type: none"> 1. Receiver off, then transmitter off. 2. Clear the frequency control system. 3. Clean the aircraft down. 4. Check propeller, airframe, undercarriage, wing fixings etc. for security of fastening and possible flight or landing damage. <p>These are all fairly clear from their descriptions, but to be sure that you're observed doing them, go a little 'over the top' with your post-flight checks and make a point of exaggerating them a little, just as we did for the pre- flight checks.</p> <p>Leave nothing to chance by assuming that the examiner has seen you do them. A word of caution about electric-powered models here: these should be considered to be 'live' until the flight pack has been properly disconnected.</p> <p>The easiest way to ensure you treat them this way is to pretend that the motor is still running and carry the model or restrain it accordingly during retrieval. Even though your electric-powered model doesn't require a 'clean down', go over it as if you were doing just that as it gives the opportunity to really look for any damage that you might have missed.</p> <p>With the conclusion of the post- flight checks the first part of the test is over, and you can relax a little.</p> <p>It should be clear to you by now whether you've passed or failed the flying task, but if it isn't, just ask. There's little point in sitting through the scary process of answering the part two questions if you need to fly again that day, although your examiner may request that you do so just for practice or to better assess your competency. If you failed the flying, well, you can have another go at it later the same day. If you clearly passed then well done to you, and we can move to the bit that terrifies most candidates...</p>	

Step	Activity	Notes	Comments
i)	Answer Safety Questions See Mandatory questions List	Answer correctly a minimum of five questions from the AS Mandatory questions list if you don't already have a current (post 1/1/2021) Registration Competency Certificate (RCC), plus a minimum of five questions on safety matters, based on the BMFA Safety Code for General Flying and local flying rules.	

Relax !