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CAA AND LAA AGREE ON NIGHT-IFR CLEARANCE FOR SELECTED PERMIT AIRCRAFT

After more than nine years of work by LAA volunteers and the Association's Engineering staff, the Civil Aviation Authority (CAA) has reached an agreement with the Light Aircraft Association to allow certain Permit to Fly aircraft to fly at night and/or under Instrument Flight Rules.

The Air Navigation Order limits national Permit to Fly aircraft to Day/VFR operation unless with the agreement of the CAA. The CAA has now agreed that under LAA's BCAR A8-26 Approval, additional design and assessment criteria and continuing airworthiness provisions will allow the LAA to clear individual Permit to Fly aeroplanes for flight at night and/or under IFR in UK airspace. In order to be approved, each aircraft must be individually assessed and must demonstrate and be maintained to meet an agreed set of criteria. Additional limitations prohibiting flight in areas of known or forecast airframe icing or thunderstorm activity will be introduced.

Tony Rapson, Head of the General Aviation unit at the CAA, said: "This new policy is the result of a lot of hard work between us and the LAA, and it is fantastic to now see the fruit of that labour. This will be good for pilots and owners of Permit aircraft and also good for GA in general. We are determined to keep improving the regulatory landscape for recreational flying in the UK."

"The project acknowledges and accommodates the huge advances in instrument and navigation technology available nowadays in the non-certificated sphere" said LAA CEO Steve Slater. "It will enhance safety by providing access to the IFR environment for approved Permit aircraft. It is also envisaged that this will result in existing well-equipped aircraft seeking to be IFR-approved, and other candidate aircraft becoming better equipped.

"The CAA has naturally been cautious about extending these clearances to such a potentially diverse fleet, and a great deal of work has been involved in the complexities of developing appropriate criteria and processes, and demonstrating that they are fit for purpose. In particular, I'd like to pay tribute to the small team of highly-skilled LAA volunteers including in particular Mike Barnard, Mike Jackson, Steve Noujaim, Pete Pengilly and Nick Sibley who have driven this project from the outset."

The acceptance of the Night IFR criteria by the CAA follows a detailed review of the LAA's risk-based safety case and a successful trial period on four representative aircraft which have been evaluated using the LAA's newly-developed procedures. Around 50 Members have so far indicated a wish to have their aircraft reviewed for potential Night IFR use, and an initial batch of ten aircraft are currently under assessment.

Acceptance of an aircraft type depends on the aircraft having been assessed as having suitable flight handling qualities, adequate panel space for an IFR fit, and a defined minimum wing loading. Each new type being assessed for Night IFR operation will require a detailed flight test by one of LAA's qualified test pilots to examine its flying qualities. Former certified types that have previously been approved for night and/or IFR operation might not need a handling qualities evaluation, depending on the modifications fitted since moving to a permit.

More information can be found in **LAA Technical Leaflets TL 2.27 and TL 2.28**, which can be downloaded from the LAA website.

Light Aircraft Association

NIGHT IFR - TOP TEN QUESTIONS

1. IS MY AIRCRAFT ELIGIBLE FOR NIGHT IFR FLYING?

Not automatically. First, we need to find out if your aircraft type is suitable, then look at your aeroplane in particular. If the aircraft type has already been found suitable for Night IFR flying by the LAA, then the assessment of your individual aircraft consists of first reviewing its compliance with the type design standard, to make sure that its modification state has not impacted on its generic 'type' acceptance, and then to check the level of equipment fitted and the robustness of the instrumentation and power supplies, and finally a special inspection of its systems for function and quality of installation. The aircraft will also need to have accumulated at least a year's flying and 50 hours flight time to prove its reliability.

2. WHAT ARE THE CRITERIA FOR A TYPE TO QUALIFY?

Acceptance of an aircraft type depends on it having been assessed as having suitable flight handling qualities, adequate panel space for an IFR fit, and a defined minimum wing loading so as not to be inordinately affected by gusts (the current limit being 60 Kg/sq m). Each new type being assessed for Night IFR use will require a detailed flight test by one of LAA's qualified test pilots to examine its flying qualities. Former certified types that have previously been approved for night or IFR operation might not need a handling qualities evaluation, depending on the modifications fitted since moving to a permit.

More information can be found in LAA Technical Leaflet TL 2.27 which can be downloaded from the LAA website.

3. HOW DO I FIND OUT IF MY AIRCRAFT IS LIKELY TO QUALIFY?

Information on the required levels of equipment and approved types can be found in **LAA Technical Leaflet TL 2.28**. It's important to remember that the equipment is only as good as the installation, so the architecture of the systems design will also need to be assessed – for the electrical system the starting point is the aircraft's wiring diagram.

4. I AM CURRENTLY BUILDING AN AIRCRAFT. WHAT EQUIPMENT SHOULD I FIT?

Details of specific requirements and equipment for Night/IFR clearance can be found in **LAA Technical Leaflet TL 2.28**.

5. WILL MY AIRCRAFT NEED A SPECIALIST FLIGHT TEST?

If the type is one that LAA has already cleared for Night/IFR, and your aircraft is a fairly standard example – all home- or kit-built aircraft are inevitably different to a degree - then it will only need a simple check flight by a suitably qualified pilot to make sure the installed systems work properly when airborne.

6. MY AIRCRAFT WAS ORIGINALLY CERTIFIED FOR NIGHT/IFR. WHY CAN'T I FLY SIMILARLY ON A PERMIT RIGHT NOW?

The LAA needs to ensure that the aircraft, now being operated outside a certified maintenance regime, still has the appropriate equipment and that it is in a suitable condition for safe operation. Most former certified aircraft are heritage types which (unless they have been upgraded), may have aging equipment and electrical systems which will need particularly careful checks to see if they remain fit for purpose under Night/IFR operation.

7. WILL THERE BE SPECIAL MAINTENANCE OR CONTINUED AIRWORTHINESS REQUIREMENTS?

Yes. These will need to be included in your Tailored Maintenance Schedules and Inspection procedures. As many appropriate aircraft are by their nature more complex types, this will include areas such as engine and propeller overhaul schedules, instrument and electrical systems inspections.

8. I'M NOT INTERESTED IN IFR, BUT I'D STILL LIKE TO BE ABLE TO FLY AT NIGHT. IS THAT POSSIBLE?

Yes. The procedures include provisions for Night VFR-only.

9. HOW SOON IS THIS COMING ON STREAM?

The CAA have accepted the LAA procedures (December 2016) which allows the LAA to process applications and issue Night/IFR approvals, the approvals for the first four aircraft being imminent. In response to the LAA's invitation, more than 50 LAA members have expressed an interest in submitting their aircraft for the Night/IFR process and ten of these are currently being investigated. See the LAA website for details of how to add your aircraft to the list and how to get in touch with one of the LAA's team of assessors.

10. WHY HAS IT TAKEN THE LAA SO LONG TO OFFER THESE APPROVALS?

The CAA has naturally been cautious about extending these clearances to such a potentially diverse fleet, and a great deal of work has been involved in the complexities of developing appropriate criteria and processes, and justifying to the CAA (and ourselves) that these are valid and fit for purpose. In addition, most of the work in developing this has been carried out by LAA volunteers, to minimize the impact on LAA staff resources. Credit should be given both to these volunteers and to the CAA's GA Unit, who have worked with the LAA at a very detailed level to create a successful final outcome.

December 2016

Light Aircraft Association