



Information to VFR pilots

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This publication has been prepared by Naviair with the purpose of focusing on flight safety and clarifies topics, which are important to know for VFR pilots, to prevent airspace penetration of controlled airspace.

Airspace Classes

In Denmark the airspace below FL195 is divided into four different airspace classes, namely Airspace Class C, D, E and G, with Airspace Class C being the most restrictive airspace and Airspace Class G the least restrictive.

Airspace Class G

In general, the airspace in Denmark, outside CTRs and TMAs, is Airspace Class G from GND to 3500 feet.

Over the North Sea it is Airspace Class G from GND to FL195.

Both IFR and VFR traffic are permitted. Airspace Class G is uncontrolled airspace and therefore both IFR and VFR traffic only receive FIS, including traffic information about other known traffic.

There is no requirement for two-way radio communication or transponder for VFR flights. Note however, that when flying in TIZs and TIAs two-way radio communication is mandatory, even though they are Airspace Class G.

Airspace Class E

Airspace in Denmark outside TMAs is Airspace Class E from 3500 feet to FL195.

Both IFR and VFR traffic are permitted. Airspace class E is controlled airspace, but VFR traffic does not require ATC Clearance. Known VFR traffic receives FIS only, including traffic information about other known traffic, IFR as well as VFR.

There is no requirement for two-way radio communication or transponder.

Airspace Class D

All CTRs and some TMAs in Denmark, e.g. Aarhus, Rønne, Aalborg, Karup and Skrydstrup are Airspace Class D. Both IFR and VFR traffic are permitted.

Airspace Class D is controlled airspace and ATC Clearance is required.

VFR traffic receives traffic information about other traffic, IFR included.

There is no requirement for transponder, but two-way radio communication is required.

Airspace Class C

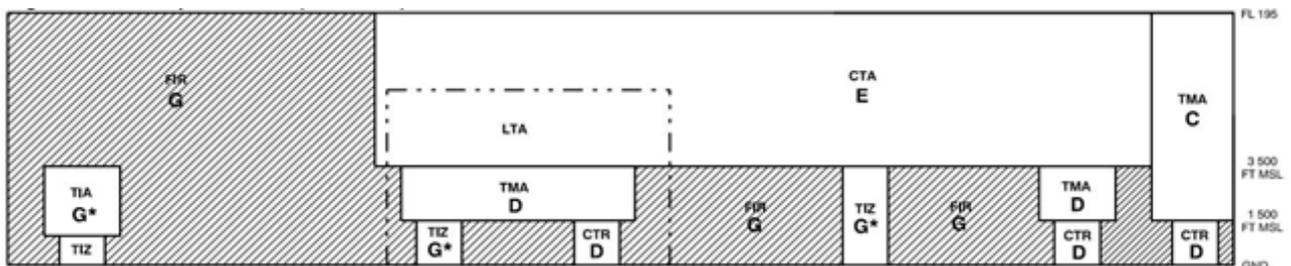
Billund TMA and Copenhagen Area, which consists of Roskilde and Kastrup TMA, are Airspace Class C.

Both IFR and VFR traffic are permitted.

Airspace Class C is controlled airspace and ATC Clearance is required. Unlike Airspace Class D, VFR traffic is separated from IFR traffic; therefore Airspace Class C is more complex than Airspace Class D. VFR traffic receives traffic information about other VFR traffic.

Transponder with Mode A and C and two-way radio communication is required.

Below is a schematic overview of how airspace is designed in Denmark. Consult the VFR map and the AIP/VFG to get an accurate picture.



Use of transponder

If an aircraft is transponder equipped, the transponder must always be switched on in Mode A and Mode C.

In large parts of the airspaces in Denmark there is no requirement for the use of transponder as such. This means that if your aircraft is not transponder equipped, there are certain airspaces in which you can fly.

ATC radar equipment has different safety nets built in, which generate alarms if there is a risk of two aircraft getting too close to each other, an aircraft is about to getting too close to terrain, or an aircraft is entering controlled airspace without permission. All these alarms, as well as warning systems of other aircraft, use Mode A and C for their calculations and therefore act only if the transponder is turned on in Mode A and C.

In addition, a transponder with Mode A and C on provides information to the ATS to pass on to other pilots.



Copenhagen Area

Copenhagen Area, consisting of Roskilde TMA and Kastrup TMA, is Airspace Class C. The airspace is designed with the purpose of protecting IFR departures and arrivals to and from Kastrup and Roskilde. Therefore, the lower limits of the two TMAs become lower, the closer you get to these aerodromes.

On the map below the two CTRs are shown, in which an ATC Clearance is always required. Outside the CTRs, and inside the red-dotted line, it is Airspace Class G from GND to 1500

feet, and Airspace Class C above. Between the red-dotted line and the yellow-dotted line, the airspace class is G from GND to 2500 feet, and Airspace Class C above.

You can always request permission to enter Roskilde and Kastrup TMA. Remember to place your request well in advance and be prepared that it might not be possible, so always arrange your flight to be able to avoid the TMA in case of a rejection.

Do note that if you are flying from Sweden, between Falsterbo and Helsingborg, towards Sjælland, that the lateral limit of Copenhagen Area extends into the western part of Sweden. Please also note that the rules in general are a little different in Sweden. In Sweden there is no allocated FIS unit, so it is always controllers at an ATC sector that provides FIS to VFR traffic, even though it is outside controlled airspace. Therefore it is very important to remember to switch on the transponder in both Mode A and C, so the Air Traffic Controller is able to determine your position and altitude.

Billund LTA/TMA

Billund is divided into several different airspace classes and altitude limits, but as in Copenhagen Area, the lower limit of the TMA is lower closest to the airport. The CTR is Airspace Class D from GND to 1500 feet.

Above the CTR is the TMA which is Airspace Class C. Closest to the airport the lower limit of the TMA is 1500 feet. The TMA consists of several layers as illustrated below. Above the TMA, Billund furthermore has an LTA from FL105 to FL125 which is Airspace Class E.

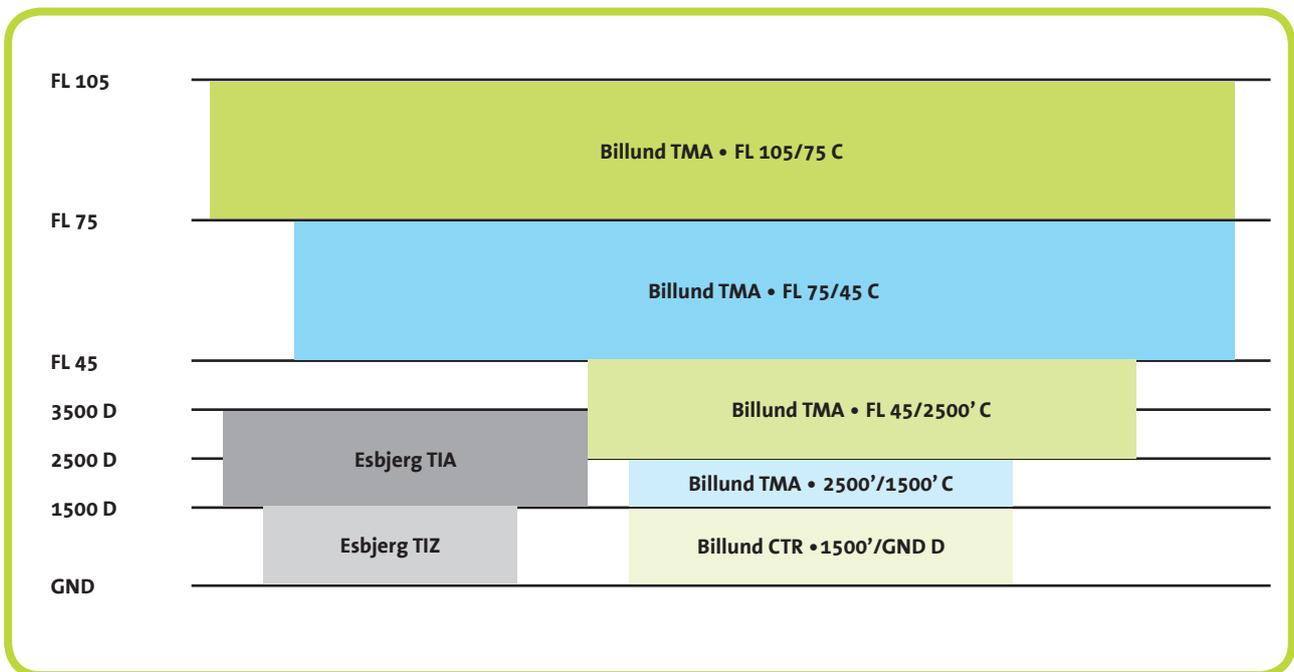
Always consult the VFR map and the AIP/VFG prior to flying in Billund airspace.

The TMA and the CTR are Airspace Class D and ATC Clearance is required. You can always request permission to enter Billund TMA and CTR. Remember to place your request well in advance and be prepared that it might not be possible, so always arrange your flight so as to be able to avoid the TMA and the CTR in case of a rejection.

In the TMA it is required to have two way radio communication and transponder on.

Outside the TMA and the CTR it is not required to have two-way radio communication and transponder on, however a good idea due to traffic information.

Stauning TIZ and Esbjerg TIZ/TIA are below Billund TMA and is Airspace Class G, but two-way radio communication is required.



Aalborg, Aarhus, Karup and Skrydstrup LTA/TMA

Airspace above these four airports is designed almost the same way.

The LTAs are outside the TMAs and the CTRs and are Airspace Class G from GND to 3500 feet, and is Airspace Class E from 3500 feet to FL65 for Aarhus and Skrydstrup LTA. For Aalborg and Karup the LTA extends up to FL125.

For VFR traffic in airspace class E and G, two way-radio communication and transponder is not required, but transponder must always be on if the aircraft is transponder equipped.

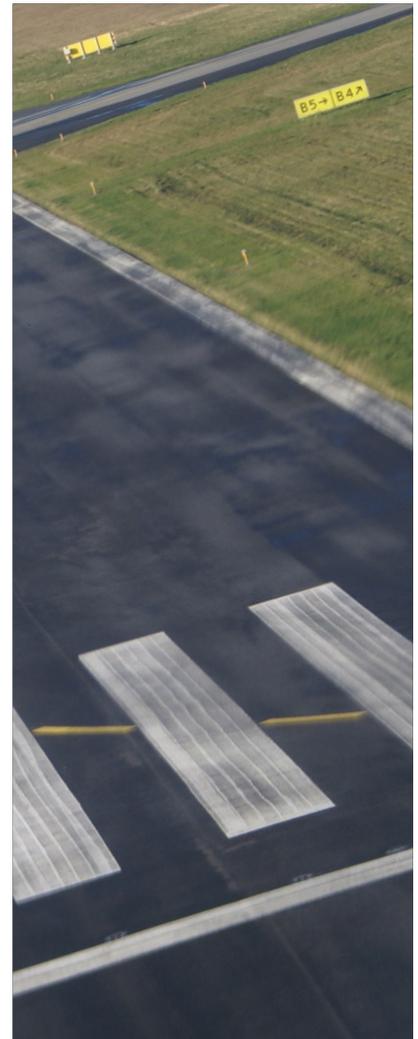
TMA and CTR are Airspace Class D and ATC Clearance is required. Two-way radio communication is required; however transponder is not required.

TIZ/TIA

TIZ/TIA is classified as airspace class G in general.

In Denmark two-way radio communication is required when entering a TIZ/TIA, even though it is outside AFIS opening hours. For relevant information consult the AIP, ENR 1.1.

Transponder Mode A and C is not required but must always be on if the aircraft is transponder equipped.



Overall good advice to VFR traffic

When approaching airspace, requiring ATC Clearance, Airspace Class C and D, the PIC is always responsible for obtaining the clearance to enter in due time. This prevails even though you are in contact with COIF.

COIF will NOT call in advance to obtain clearance on your behalf.

Danish airspace is designed as it is for a reason. The TMAs are designed with the purpose of protecting IFR departures and arrivals to and from larger aerodromes. TMAs are controlled airspace and most likely the concentration of air traffic can be quite high, therefore it is of great importance that you request ATC Clearance well in advance, otherwise ATC is not able to provide separation and traffic information.

No matter which airspace class you are operating in always pay attention, be aware of other traffic.

If the aircraft is transponder equipped, the transponder must always be switched on in Mode A and Mode C.

When operating in airspace class E or G, it is recommended to maintain two-way radio communication with COIF or another relevant ATS unit. By doing so, you will receive relevant information and can receive assistance if required.

If you are too close to larger aircraft, then increase your distance as soon as possible and be aware of wake turbulence, which may be quite severe.

Be observant during the entire flight, even though the navigation is GPS supported. Always mentally monitor your navigation to know your exact position at any time, in case of an emergency.

Prepare your flight thoroughly in advance and stay focused on the ENTIRE flight. This means from doing the relevant pre-flight checks to paying attention to ATC instructions, in order to avoid causing a runway incursion or an airspace penetration of controlled airspace.

Always ask if in doubt.

Abbreviations

FL = Flight Level

CTR = Control Zone

GND = Ground

TIZ = Traffic Information Zone

TIA = Traffic Information Area

TMA = Terminal Control Area

LTA = Local ATS Area

ATS = Air Traffic Service

ATC = Air Traffic Control

FIS = Flight Information Service

AFIS = Aerodrome Flight Information Service

PIC = Pilot in Command

COIF = Copenhagen Information

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