NAVIAIR



INFORMATION TO VFR PILOTS

FLYING TO AND FROM CONTROLLED AERODROMES

Information for VFR Pilots flying to and from controlled aerodromes

This publication has been prepared by Naviair with the purpose of bringing flight safety into focus, and to highlight important topics to be aware of as a VFR pilot. Especially when flying to or from controlled aerodromes. The information given in this publication does not replace the current legislation. Furthermore, the aeronautical charts (ANCs) shown in this publication are not approved for flying. Only officially approved ANCs, AIPs and VFGs are applicable. It is the responsibility of you - as a VFR pilot – at all times – to know and comply with applicable flight rules for VFR flights.

The information for VFR pilots (hereinafter "The Information") is for your guidance only and is therefore used on your own responsibility and does not in any way exempt you – as a VFR pilot – from complying with applicable rules.

Naviair assumes no responsibility if or when you use The Information when you are flying, and Naviair disclaims any liability for loss and/or damage of any kind incurred during flight – where The Information has been used – including both direct and indirect losses.

Controlled aerodromes

A controlled aerodrome has a control tower from which air traffic control (ATC) is provided. It requires ATC clearance to enter a control zone (CTR). All CTRs in Denmark are Airspace Class D. This may differ from abroad. A controlled aerodrome has a manoeuvring area where ATC is providing control for movements with aircrafts and vehicles. It is therefore required to obtain a clearance from ATC, given by a taxi instruction, to taxi on the manoeuvring area.

Controlled airports/aerodromes in Denmark are: Kastrup (EKCH), Roskilde (EKRK), Aalborg (EKYT), Aarhus (EKAH), Billund (EKBI), Rønne (EKRN), Karup (EKKA) and Skrydstrup (EKSP).

Airspace Class D

IFR and VFR traffic are permitted. Airspace Class D is controlled airspace and it requires an ATC clearance to enter this airspace.

VFR traffic receive flight information about other traffic (IFR and VFR), but the pilot in command must ensure sufficient separation to other aircrafts on own discretion, by the means of "right of way".

There is no requirement for use of transponder, but two-way radio communication is a prerequisite. However, transponder shall always be operated with mode C on, if the aircraft is equipped with this (ref. ICAO doc 8186).

Naviair have made a publication with advice on how to fly VFR in Danish airspace. In the publication you can find detailed information about airspace classes, use of transponder etc. Download the publication at: aim.naviair.dk/en/for-vfr-pilots/

General advice

Solid preparation before any flight may give mental surplus to cope with unexpected events en-route.

Make sure to be "mentally present" before the flight. Do not fly under the influence of psychoactive substances, stress or fatigue.

If, at any point during the flight, you are uncertain whether you have understood ATC instructions or clearances correctly – ASK for confirmation! It is always better to ask, than to risk a possible dangerous situation due to misunderstanding.

Always pay attention when ATC is transmitting on the frequency. The call may be for you only. If a ATC call remains unanswered, you shall pay extra attention when the call is retransmitted. A good advice is to have "silent cockpit", meaning there is only essential internal talk in the cockpit between the pilot and the passengers, especially when flying in CTRs with high traffic density. That way focus is kept on the frequency.

Preparing the aircraft

Know your aircraft and its equipment.

Check that the aircraft is approved and found to comply with inspection performed. Perform pre-flight check, walk around, oil check etc.

Fill in a VFR flight plan containing calculation of weight and balance, and fuel.

Check that both sets of radios are working and that you are conversant with the use of the radio.

Flight plan

When flying to or from controlled aerodromes, filing a flight plan is mandatory; either a complete ICAO flight plan or an abbreviated flight plan (at some aerodromes know as a STRIP).

An abbreviated flight plan must contain:

- aircraft call sign/registration
- aircraft type
- speed, if relevant
- flight rules (IFR/VFR)
- entry point/exit point
- requested altitude/flightlevel, if relevant
- for arriving aircraft, estimated time of arrival
- persons on board

When crossing a FIR border a complete ICAO flight plan is always mandatory. An example is flying to and from Bornholm.

An ICAO flight plan can be completed and submitted at: http://briefing. naviair.dk/index.php?sLan=UK

NOTAMs and weather information

Make sure to obtain the latest weather information, and check the NOTAMs for the entire flight; departure point, destination, the complete route, and alternate destination.

Unless you and the aircraft are approved for IFR operations, flying in marginal weather conditions must be taken into careful considerations. Consider that the weather may deteriorate during your flight, and make it impossible to land at the planned aerodrome. It is therefore necessary to include a realistic alternate destination in your plan.

Chart

Study the aerodrome layout chart (taxi plate in VFG) carefully before contacting Tower, especially if you are not familiar with the aerodrome. ATIS (Automatic Terminal Information Service) regarding runway-in-use can give you an indication of the expected taxi instruction, and help you with your preparations by means of taxiway diagrams before requesting taxi clearance.

Remember to bring the latest updated charts (ANC/VFG) on the flight. Also check AIP.

ATIS

Where ATIS is provided, all pilots are required to listen to the broadcasted ATIS before initial call to Tower is made. ATIS frequencies are available in VFG/AIP. ATIS is broadcasted in English.

If ATIS is not available, ATC will give all relevant weather information to the pilot in connection with the taxi clearance.

Initial call

Start contact with ATC by making an initial call; "xxxx Tower, OY-xxx".

When ATC has called back, confirm receipt of ATIS and request taxi instruction or en-route clearance. Sometimes the en-route clearance is given before the taxi instruction, like an IFR flight receiving clearance first.

Taxiing

If taxiing to runway in use means crossing another runway, the taxi instruction must be clear as whether to hold before or to cross the other runway. If, contrary to expectations, clear information about this is not given to you in the taxi instruction, ATC has to be asked in order to avoid any uncertainty as to what clearance has been given.

Never cross a runway if you are not absolute certain to have the ATC clearance to do so.

In some cases, taxi instruction to a holding point is given. In other cases, taxi instruction is given for run-up area. Follow the route given in the taxi instruction. Check charts of the manoeuvring area and follow the signs, if you are not familiar with the taxiways and the airport layout. If you are uncertain as to whether you are on the correct taxiway or not, stop and ask Tower for help. Taxiway location signs with yellow letters and black backgrounds indicate the taxiway on which you are located. Taxiway direction signs with black letters and yellow backgrounds will be placed before intersecting taxiways and indicate the name and direction of the intersecting taxiways, possibly with arrows. Located at the side of the taxiway before the taxiway crosses a runway, a red holding point sign with the runway number in white, indicates runway ahead. Do not move beyond this sign unless you are absolutely certain that you have been given clearance to cross the runway.





If there is a need for performing run-up at a run-up area, ATC will give taxi instruction to holding point before proceeding. Report ready to ATC and hold you position until you are given further taxi instructions.

• "Taxi to holding point runway XX"

Taxi to the holding point (marked with a stopline) and hold.

The holding point can look like the one in the picture. When you approach the holding point and meet double solid yellow lines, you must stop until cleared to cross by ATC. If coming from the other direction (after landing and vacating the runway), you will meet the dashed lines first and must cross the line to clear the runway.



En-route clearance

If en-route clearance has not been given to you before taxi instructions, you will receive it, when you are ready for departure. The en-route clearance is a permission to fly in the CTR.

It may contain a VFR reporting point or a geographic direction to leave the CTR. The en-route clearance is based on information from the flight plan. In case of changes to the flight plan, advise ATC.

An en-route clearance is NOT a permission to depart, nor a permission to start taxiing, not on the runway or anywhere else, so hold your position until further taxi clearance is given to you by ATC.

In most cases, ATC gives you maximum flight altitude as part of the en-route clearance. Even if ATC does not give you a flight altitude, CTRs in Denmark has an altitude limit at 1,500ft, which means that maximum flight altitude is 1,500ft unless another flight altitude has been given to you by ATC. Flight altitude above 1,500ft is within TMA and requires a separate clearance.

(More detailed description of TMAs is available in Naviair's publication "VFR in danish airspace").

Line-up and take-off

Clearance to enter runway can be given to you in different ways:

• "Line up runway XX and wait" Line up runway XX, hold your position and wait for further instructions

• "Runway XX, cleared for take-off" ATC sometimes leave out "Line up runway XX" and give take-off clearance directly. Of course, this also gives clearance to enter the runway.

• "Behind xxxxx on final, line up runway XX behind and wait" An aircraft has to land before you can depart. When the landing aircraft has passed you, you may enter the runway. NOT before! The landing aircraft to consider, is the first landing aircraft, so you have to be absolutely certain that the first coming aircraft approaching the runway for landing is the one you see. If in doubt about anything, ASK!!

"Behind the departing xxxx, line up runway XX behind and wait"
An aircraft is departing before you.
Line up when the mentioned aircraft begins its take-off roll and leaves sufficient space behind.

• Immediate take-off. If ATC want you to make an immediate take-off, you will be asked if you are able to make an immediate departure. This is not a clearance for take-off, nor clearance to enter runway. This is merely a question of whether an immediate take-off is possible for you or not. If in doubt, say no! It may prolong your wait, but it will also give you more time on runway. If you accept, ATC will use the phraseology: "Runway XX, cleared for immediate take-off". Then taxi onto runway immediately and begin a rolling take-off without stopping the aircraft.

After take-off

Set course for the VFR reporting point when safe flight altitude is obtained.

If flight information about other traffic, possibly passing en-route, is received, keep a look out for this and navigate in order to maintain safe distance to the traffic.

In order to let ATC provide accurate traffic information, it is important to advise ATC, if you have amendments to your flight plan, e.g. leaving CTR via another EXIT point or a detour in the CTR. ATC can only provide the best service and give you correct flight information, if your intensions are known.

After crossing CTR boundary report "Leaving CTR". ATC provides alerting service and flight information service in the CTR. Relevant flight information about known flights outside the CTR is also provided. However, to ATC there is a difference between the requirements inside and outside the CTR. It is not very relevant for ATC to known that you are soon leaving the CTR. Report leaving the CTR when you are leaving the CTR or right after, if the frequency is busy.

Approach to a controlled aerodrome

When performing a flight using a complete ICAO flightplan, the destination aerodrome has an Estimated Time of Arrival (ETA) calculated on the estimated elapse time (EET) listed in the flight plan. If delayed, it is important to advice ATC at the destination about the delay and give a revised ETA. If ATC on the destination aerodrome have no contact on radio nor radar, and the flight were supposed to be arriving according to ETA, ATC will start a search and rescue action shortly after.

If ATIS is provided at the aerodrome, all pilots are required to listen to ATIS before initial call to ATC is made.

Whether an ICAO flight plan or abbreviated flight plan is used, contact is initiated with "initial call". When ATC has called back, provide all the necessary information. Confirm ATIS and advise entry point.

ATC provides approach instruction containing information about runway in use and information about traffic you may meet en-route. Whether instructed to or not, it is mandatory to report entering CTR. If other flights are approaching for landing, ATC will provide number in sequence for landing and point out the aircraft to follow. If you lose sight of the traffic to follow, or if in doubt, ask ATC to avoid "jumping in sequence" or getting to close to the aircraft.

Kastrup (EKCH)

At Kastrup different frequencies are used, depending on your position (e.g. TMA, CTR, APRON etc.). These frequencies are found in the VFG and AIP.

School and training flights, as well as approaches, departures and landings at Kastrup requires prior permission from CPH, ref. VFG and AIP. Kastrup is an airport with a lot of commercial traffic and sometimes the frequencies can be very busy. Always be absolutely certain that your call has been received and that you understand the instructions given, before you continue the flight. If you need a marshaller to guide you or if you are uncertain of your position – stop – and request a marshaller. In some cases, a short wait may occur.



Roskilde (EKRK)

Roskilde ATC has 2 tower frequencies and 1 approach frequency. These are found in the VFG and AIP. Roskilde Tower is responsible for traffic in the CTR and Roskilde approach for traffic in the TMA. Contact ATC on the frequency managing the airspace you are requesting to enter. Abbreviated flight plan (strip) can be made from a pc in the entrance hall, at the airport office, or by using airport office frequency, which is found in the VFG/AIP, or file the abbreviated flight plan at www.rke-booking.dk

Abbreviated flight plan has to be filed at least 20 minutes before calling Roskilde Tower. Before ATC has the information from the abbreviated flight plan, the briefing personnel at the airport office have to process it and send it to the Tower. In periods with high traffic density, Roskilde Tower can be divided into 2 positions. This means that unusual frequency changes may occur.

When Roskilde Tower uses the phraseology: "Standby on frequency xxx.xxx, it means that you have to switch to the announced frequency, but not to call. Just listen in. ATC will contact you on the announced frequency when the controller is ready.



Aalborg (EKYT)

Aalborg ATC has 1 tower frequency and 1 approach frequency. Always contact Aalborg Tower before entering the CTR. Always contact Aalborg Approach when requesting to enter the TMA. If requested, you can receive air traffic information from Aalborg Approach when flying in Aalborg Local Traffic Area (LTA). However, you will often experience that the frequencies are merged and operated by the same air traffic controller. Before departing from Aalborg, you have to file an abbreviated flight plan at the Airport Office, where you pay take-off fee, and where METARs, TAFs, and NOTAMs etc. are available for reading. If approaching Aalborg, without a complete ICAO flight plan, ATC will be able to receive the abbreviated flight plan information on radio before entering TMA or CTR.

Be well prepared before flying to Aalborg, study the CTR and TMA, runways and taxiways, and parking facilities and fuel stations charts. ATC Aalborg mainly operates on runway 26R/08L which means that most taxi instructions include either to cross a parallel runway or to taxi along the parallel runway, when going to/from GA/airport area. Pay close attention to the instructions you receive from ATC, and do not hesitate to ask if in doubt. Be specific about which runway you would like to use for take-off/landing and whether you would like departure from a runway intersection.



Aarhus ATC (EKAH)

Aarhus ATC has 1 tower frequency and 1 approach frequency. Always contact Aarhus Tower for permission to enter the CTR. Always contact Aarhus Approach before entering the TMA. However, you will often experience that the frequencies are merged and operated by the same air traffic controller. Before departing from Aarhus, you have to file a flight plan or an abbreviated flight plan at the Airport Office, where you pay take-off fee, and where METARs, TAFs, NOTAMs etc. are available for reading. If approaching Aarhus, without a complete ICAO flight plan, ATC will be able to receive the abbreviated flight plan information on radio before entering TMA or CTR. Be well prepared before flying to Aarhus, study the runway, taxiways, GA parking facilities and fuel station charts. As GA pilot you will often be offered to take off/land from runway 28R/10L nearest to the apron and GA parking facilities.

NOTE: The grass parking facilities is closed due to construction of a new hangar.



Billund (EKBI)

Billund ATC is divided into 2 ATC units with their respective frequencies.

Billund Tower controls Billund CTR and has to be called prior entering Billund CTR, and before taxi. Billund Approach provides ATS (Air Traffic Service) in Billund TMA including traffic information and alerting services in Billund Local Traffic Area (LTA). Clearance to cross Billund TMA will be given by Billund APP. Use of mode A/C transponder is mandatory in Billund TMA. Billund TMA is airspace Class C. At least 10 minutes before departure and before contacting Billund TWR, you have to send a flight plan or an abbreviated flight plan to the ATS Reporting Office (ARO) by telephone or by RTF on ARO frequency.

Billund ATC will provide departure instructions before taxi instructions.



Rønne (EKRN)

Rønne ATC has 1 tower frequency to be found in VFG and AIP. Always contact Rønne Tower for permission to enter the CTR and the TMA. Entry to the CTR has to take place via VFR reporting points Hasle or Dueodde. Alternatively, DETNI – KEKOV can be used. Bornholm is situated in Swedish FIR. Consequently, complete ICAO flight plans for flights to and from Rønne must always be filed. Abbreviated flight plans for local flights are given on the frequency before taxiing or reported from Self Briefing room to Tower by telephone.



Karup (EKKA)

Frequencies for Karup are to be found in VFG and AIP.

In the southern part of Karup intensive school and training flights with light aircrafts (T-17 from the Royal Danish Airforce Flying School) frequently take place.

Permission to fly to or from Karup requires PPR (Prior Permission Required). Request on permission for individual flights is to be obtained no later than 24 hours before the planned flight. For further information, see VFG.



Skrydstrup (EKSP)

Permission to fly to or from Skrydstrup requires PPR (Prior Permission Required). For further information, see VFG.



Transponder requirements

In large parts of Danish airspace there is no requirement for use of transponder below FL 95. Above FL 95 there is Transponder Mandatory Zone (TMZ) and Radio Mandatory Zone (RMZ) and beside that transponder shall always be operated with mode C on, if the aircraft is equipped with this (ref. ICAO doc 8186).

ATC radar equipment has different integrated safety systems providing alerts if 2 aircraft are getting too close to each other, an aircraft is getting too close to the ground, or and aircraft is flying in controlled airspace without clearance. All these alerts and other aircrafts alerting systems uses Mode A and C for their calculations and are only operational if the transponder is on and set for Mode A and C.

Furthermore, a transponder switched on and set for Mode A and C, provides quick and exact traffic information to ATC to pass on to other pilots.

General advice for VFR traffic

As pilot it is always your responsibility to obtain clearance in due time when you would like to fly in airspace requiring clearance (Airspace Class C and D). Even if in contact with Copenhagen Information. Copenhagen Information is an information service and not a ATC (Air Traffic Control) unit.

The TMAs are designed with the purpose of giving approaching and departing IFR traffic to and from major airports, the possibility to stay in controlled airspace at all times, so ATC can provide traffic information or provide separation to VFR traffic in Airspace Class C. The presence of other traffic including IFR in Airspace Class C and D is very likely. Consequently, it is very important that you have obtained clearance prior to entering into Airspace Class C and D. Otherwise ATC are unable to provide traffic information and ensure separation in Airspace Class C and safe flight for all.

Always keep alert and look out for other traffic when flying VFR, no matter in which airspace you are flying. It is a very good idea to maintain two-way radio communication with Copenhagen Information or other relevant ATS unit, when flying in Airspace Class E and G. That way you will receive relevant traffic information and can receive assistance quickly if necessary.

If getting too close to large aircraft, make sure to increase 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 entire planned route is GPS supported, always make sure that you know your exact position. Knowing your exact position is vital, especially in case of emergency.

Maintain focus on the entire flight. flyvningen.

Enjoy, and have a safe flight.

Abbreviations

ANC = Aeronautical Chart AIP = Aeronautical Information Publication ATC = Air Traffic Control ATIS = Automatic Terminal Information Service ATS = Air Traffic service CTR = Control zone EET = Estimated Elapse Time ETA = Estimated Time of Arrival GA = General Aviation LTA = Local Traffic Area METAR = METerological Aerodrome Report NOTAM = NOtice To Airmen RMZ = Radio Mandatory Zone TAF = Terminal Aerodrome Forecast TMA = Terminal Control Area TMZ = Transponder Mandatory Zone VFG = Visual Flight Guide



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