## Introduction

The following information is extracted from AIP Denmark and VFR Flight Guide Denmark (VFG) and connects to ICAO ANC 1:500 000 DENMARK (ANC) dated 16 APR 26. The ANC dated 16 APR 26 is published in paper and digital. The digital version will continuously be updated by AIRAC dates. The paper version will be updated once a year.
This document and latest ANC can be found on the Internet: https://aim.naviair.dk

## Aerodromes. Availability

***Public Aerodromes***

The Danish public aerodromes are open for traffic to and from other States as indicated on the list below.

**Customs clearance is compulsory for all flights to Denmark. Immigration is compulsory except for flights between the Schengen States.**

List of Schengen States:

Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lichtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and The Czech Republic.

***Civil use of Military Air Bases***

General

Use of military air bases in Denmark with other than State registered aircraft may be made solely when prior permission has been obtained.
The use of military air bases as an alternate aerodrome may likewise be made solely when prior permission has been obtained.
Aalborg Air Base is not affected by these regulations.
Permission to use Karup Air Base will be granted unless special conditions may be regarded as prohibitive.
As regards other air bases a permission may be granted only if the conditions are favourable.
A permission may at any time be withdrawn with immediate effect, should circumstances so require.

Submission of Application

Application in writing for permission to use a military air base shall be submitted direct to the air base concerned well in advance of the date of the flight.

Addresses

Karup Airport, Airport Office, N.O. Hansensvej 4, DK-7470 Karup J.
TEL: +45 97 10 06 10, FAX: +45 97 10 06 65.

Vojens/Skrydstrup Airport, Lilholtvej 8, Skrydstrup, DK-6500 Vojens
TEL: +45 74 59 16 54, FAX: +45 74 54 00 06.
E-mail: airport@vojens.dk
Application form is available on the Internet: http://vojenslufthavn.dk

Rules and Conditions

Operations on the air base must be carried out in accordance with the rules and conditions stated in the following with due regard to such other conditions as may have been stipulated for each individual permission.

a. A flight plan shall be submitted for each flight. During flight in controlled airspace and during operations on the manoeuvring area, the pilot-in-command shall closely observe the directions given.

b. The Commander of the Air Base lays down the rules which are to be observed by flight crew members and passengers concerning security measures, traffic and stays at the air base. As regards to the Air Bases Karup (Karup/Midtjyllands Airport) and Skrydstrup (Vojens/Skrydstrup), photographing from the air as well as on the ground is prohibited. At the remaining air bases the local ban on photographing will apply, as published by posters.
Flight crew members, respectively ground personnel, shall immediately report to the air base in case it is surmised that the ban on photographing has been violated.

c. The Defence Forces shall not be liable for theft, and fire-, water- or other damage to aircraft, their equipment, flight crew members, passengers, cargo, etc., caused during stays at the air base.
The Defence Forces reserve their right to claim compensation for damage caused by civil aircraft, flight crew members or passengers to the Air Force material, buildings and personnel within the area of an air base.

d. Landing- and other charges will be collected in accordance with the provision of the current "Tariff Regulations applying to Public State-operated Airports in Denmark" approved by the Ministry of Transport.

Karup Air Base. Special Regulations

Request on permission for individual flights to use the military Karup Air Base, within the civilian Karup Airport ATS Reporting Office hours can be made by phone or telefax, as late as the date-of-flight.
If the requested flight will be conducted outside the civilian Karup Airport ATS Reporting Office hours, the request has to be submitted not later than one hour prior to closing time.

***Private Aerodromes***

A private aerodrome is an aerodrome, which is not open to the public. Such aerodrome can be shown on this chart, if the owner so desires, provided

- that the aerodrome is registered according to Regulations for Civil Aviation BL 3-7, and
- that the runway length is at least 500 M, and
- that at least 100 operations are taking place in the busiest month of the year, or
- that the aerodrome is approved by the Danish CAA.

For use of private aerodromes it generally applies that prior permission must be obtained from the owner. Private aerodromes may be affected by local environmental restrictions regarding the maximum permitted number of operations, the permitted periods for use and compulsory routings to/from the aerodrome. Information about this shall be obtained from the owner. A list of private aerodromes is shown in the VFR Flight Guide, which is also available on the Internet: https://aim.naviair.dk. NOTAM for private aerodromes will not be issued.

***Heliports***

Separate public heliports are presently not established. However, helicopter operations may normally take place on public aerodromes.
In connection with exploration and production of oil and gas in the North Sea, a number of helidecks are established as shown in figure 2. Helidecks are also established in vicinity of off-shore Wind Farms. A brief description is given in the VFR Flight Guide (VFG), which is available also on the Internet: https://aim.naviair.dk. These helidecks are available only after prior arrangement with the owner/operator. NOTAM for private heliports and helidecks will not be issued.

## List of Public Aerodromes

| Aerodrome | Open for Traffic to/from | TEL: +45 | FAX: +45 | Remarks |
|---|---|---|---|---|
| Aalborg - EKYT | All States | 98 17 11 44 | 98 17 36 84 | "Aalborg Handling": FREQ 131.555 MHZ. Outside stated hours PPR for non-scheduled flight shall be submitted to airport office not later than 2100 (2000), and for ambulance flights 1 HR prior. (Please note that an extra fee will be charged). |
| Aarhus - EKAH | All States | 87 75 70 50 | 87 75 70 52 | "Aarhus Airport Office": FREQ 131.555 MHZ. PPR outside AD hours for non-scheduled flights and PN for scheduled flights submitted to ADO. |
| Anholt - EKAT * | Schengen States | 46 19 11 14 | | *Self-service AD. Customs: PN 1 HR on TEL +45 21 54 57 57. Company FREQ 131.500 MHZ. Call sign "AIRCAT ANHOLT". |
| Billund - EKBI | All States | 76 50 50 50 | | |
| Bornholm/Rønne - EKRN | All States | 56 95 26 26 | | "Bornholm Handling": FREQ 131.550 MHZ. Customs/Immigration: PN 1 HR. |
| Esbjerg - EKEB | All States | 76 16 90 00 | | "Esbjerg Handling": 131.555 MHZ. |
| Herning - EKHG | All States | 97 14 12 44 | | Customs/Immigration: Are available when ADO is established. PN 1 HR. |
| Kalundborg - EKKL * | National AD | ADO: 20 45 49 11<br>40 41 13 26<br>41 10 88 85<br>ADM: 59 51 33 11 | | *Self-service AD. |
| Karup/Midtjyllands Lufthavn - EKKA | All States | 97 10 06 10 | 97 10 06 65 | MIL AD PPR. "Karup Airport Office": 131.550 MHZ. |
| Kolding/Vamdrup - EKVD | All States | 75 58 18 77 | | PPR 1 HR PN for AD/ADO/AFIS submitted 1 HR before closing time. IFR not permitted outside AFIS hours. Customs/Immigration: PN 1 HR. Remark: for flight originated outside Denmark with destination inside Denmark must state number of PAX of Schengen and non-Schengen citizens onboard in flight plan item 18. |
| Kruså-Padborg - EKPB * | National AD | 30 56 53 03 | | *Self-service AD. SR - SS + civil twilight. VFG Night: PPR TEL: +45 30 56 53 03. |
| København/Kastrup - EKCH | All States | 32 31 24 72 | | "Airside Operations": 131.405 MHZ. |
| København/Roskilde - EKRK | All States | 32 31 32 31 | | Customs/Immigration: PN 1 HR. "Roskilde Handling": 131.555 MHZ. |
| Lemvig - EKLV * | All States | 97 82 13 68 | | *Self-service AD. Customs/Immigration by arrangement TEL +45 97 82 13 68. |
| Lolland Falster/Maribo - EKMB | All States | 54 60 61 13 | | Customs/Immigration: PN 1 HR to ADO. |
| Læsø - EKLS * | Schengen States | 24 98 35 95 | | *Self-service AD. Customs: PN 1 HR submitted MON-WED 0700-1430 (0600-1330), THU 0700-1630 (0600-1530) and FRI 0700-1200 (0600-1100) on TEL +45 72 22 12 12. |
| Morsø - EKNM * | National AD | ADM: 20 33 17 71<br>AD: 51 21 01 73<br>AD: 20 66 56 65 | | *Self-service AD. |
| Odense/Hans Christian Andersen Airport - EKOD | All States | 65 95 50 72 | | Customs/Immigration: PN 1 HR. |
| Randers - EKRD | Schengen States | 86 40 40 11 | 86 43 41 82 | Customs/Immigration: PN 1 HR on E-mail: told3.aarhus@skat.dk. The request for custom clearance and immigration shall contain following information: DEP AD, CS, PIC, PAX and ETA. |
| Ringsted - EKRS * | Schengen States | 20 29 34 28 | | *Self-service AD. Customs: PN 1 HR on FAX: 57 65 16 00. The request for custom clearance and immigration shall contain following information: DEP AD, CS, PIC, PAX and ETA. |
| Samsø - EKSS * | National AD | 40 16 40 44 | | *Self-service AD. |
| Sindal - EKSN | All States | 98 93 58 00 | | PPR outside AD hours for ADO submitted to TEL: +45 98 93 58 00. Customs/Immigration: PN 1 HR to ADO. |
| Skive - EKSV | All States | 61 29 57 77 (mobile) | | *Self-service AD. PPR outside AD hours for AD submitted MON-FRI 0900-1500 (0800-1400) TEL: +45 61 65 82 99. Customs/Immigration: PN 2 HR on TEL +45 61 29 57 77. PN shall be submitted MON-FRI 0900-1500 (0800-1400). |
| Stauning - EKVJ | All States | 97 36 90 44 | | PPR 1 HR PN for AFIS outside ARO service hours. PPR must be submitted not later than 1 HR before ARO closing time. Customs/Immigration: PN 1 HR before ARO closing time. IFR traffic is not permitted outside AFIS service hours. Self-service AVBL for aircraft MTOW BLW 2000KG VFR outside opening hours. |
| Sønderborg - EKSB | All States | 74 42 21 30 | | "Sonderborg Handling" CHANNEL: 131.680. PPR outside AD hours for AD/ADO submitted not later than 1 HR before closing time to ADO. Customs/Immigration: PN 1 HR. |
| Thisted - EKTS * | All States | 99 17 37 80 | | *Self-service when ADO is closed. Customs: PN 1 HR. |
| Tønder - EKTD | Schengen States | 74 72 26 55 | | Customs: PN 1 HR to +45 74 72 26 55. |
| Tåsinge/Elvira Madigan Airport EKST | All States | 62 54 22 94 | 62 53 33 49 | PPR outside AD hours for AD/ADO submitted not later than 2 HR before closing time to ADO on TEL +45 62 54 22 94. Customs/Immigration: PN 2 HR. |
| Vesthimmerland - EKVH * | All States | 99 66 73 85 | | *Self-service AD. PPR outside AD hours (daily 0700-1900 (0500-1700)) to TEL: +45 99 66 73 85. Customs: PN 1,5 HR on TEL +45 40 68 30 24. PN shall be submitted MON-WED 1000-1500 (0900-1400), THU 1000-1700 (0900-1600) and FRI 1000-1230 (0900-1130). |
| Viborg - EKVB | Schengen States | 86 60 18 60 | | PPR outside AD hours for ADO submitted not later than 1 HR before closing time to ADO. Customs: PN 1 HR to ADO. |
| Vojens/Skrydstrup - EKSP | All States | 74 59 16 54 | 74 54 00 06 | MIL AD PPR. Customs/Immigration: PN 1 HR. |
| Ærø - EKAE | All States | AD: 63 52 63 67<br>ADM: 63 52 50 00 | 62 53 33 49 | PPR outside AD hours for AD/ADO submitted not later than 1 HR before closing time to ADO. Customs/Immigration: PN 1 HR to ADO. |

## VFR Reporting Points near Aerodromes

| AD | REP | PSN |
|---|---|---|
| Aalborg | Biersted | 57 09 19N 009 49 24E |
| | Hasseris | 57 02 07N 009 49 55E |
| | Svenstrup | 56 57 38N 009 51 55E |
| | Vildmosen | 57 13 01N 009 50 13E |
| Aarhus | Ebeltoft | 56 09 58N 010 40 26E |
| | Grenaa | 56 22 28N 010 50 56E |
| | Knebel | 56 13 28N 010 26 56E |
| | Langsø | 56 15 58N 010 36 56E |
| | Nødager | 56 20 28N 010 37 26E |
| | Ryomgård | 56 23 18N 010 26 55E |
| Billund | Egtved | 55 37 36N 009 17 52E |
| | Give | 55 50 22N 009 10 42E |
| | Karlskov | 55 47 24N 009 10 42E |
| | Vandel | 55 41 30N 009 10 30E |
| | Vorbasse | 55 38 24N 009 04 14E |
| Bornholm/Rønne | Dueodde | 54 59 28N 015 05 01E |
| | Hasle | 55 11 38N 014 42 36E |
| Esbjerg | Dorid | 55 31 10N 008 00 00E |
| | Gørding | 55 28 23N 008 49 20E |
| | Skads | 55 30 40N 008 33 46E |
| | Store Darum | 55 24 53N 008 37 45E |
| | Varde | 55 37 28N 008 30 55E |
| | Vester Nebel | 55 32 26N 008 32 38E |
| Karup/Midtjyllands Lufthavn | Ikast | 56 08 18N 009 07 55E |
| | Ilskov | 56 13 58N 009 06 46E |
| | Kongenshus | 56 23 00N 009 07 56E |
| | Sjørup | 56 26 28N 009 08 45E |
| København/Kastrup | Holding West | 55 36 48N 012 29 41E |
| | Tuborg | 55 42 58N 012 35 56E |
| | Vallensbæk | 55 36 43N 012 21 56E |
| København/Roskilde | Borup | 55 30 43N 011 58 26E |
| | Ishøj | 55 38 08N 012 17 21E |
| | Køge | 55 28 43N 012 08 16E |
| | Valby | 55 41 36N 012 08 02E |
| Odense/Hans Christian Andersen Airport | Bogense | 55 34 40N 010 11 00E |
| | Lindø | 55 27 25N 010 33 00E |
| | Lumby | 55 28 00N 010 22 00E |
| | Stensby | 55 30 00N 010 18 00E |
| | Vissenbjerg | 55 24 05N 010 08 10E |
| Stauning | Lem | 56 01 48N 008 23 55E |
| | North | 56 00 36N 008 21 30E |
| | Skjern West | 55 56 38N 008 28 25E |
| | South | 55 59 00N 008 22 06E |
| Sønderborg | Bovrup | 54 59 33N 009 35 26E |
| | Broager | 54 54 18N 009 40 36E |
| | Bøjden | 55 04 40N 010 04 25E |
| | Fynshav | 54 59 45N 009 58 24E |
| | Gelting | 54 45 16N 009 53 44E |
| | Nordborg | 55 03 58N 009 48 26E |
| | Ærø North | 54 57 58N 010 11 56E |

## List of Radio Navigation Aids

| ID | FAC | PSN | Designated Operational Coverage and other INFO |
|---|---|---|---|
| **Denmark** | | | |
| AAL | VOR<br>116.700 | 57 06 13.39N<br>009 59 44.08E | FL 500/100 NM.<br>DME INFO from AAL TACAN<br>Unreliable in the sector from radial 160 to radial 200 in a distance of 23 NM from the VOR and out. |
| AAL | TACAN<br>116.700/114X | 57 06 14.16N<br>009 59 34.11E | FL 500/200NM.<br>DME ELEV 56.8 FT |
| ALS | VOR<br>114.700 | 54 54 19.49N<br>009 59 36.16E | FL 500/60 NM, 80 NM 313°-063° MAG, and 80 NM 198°-243° MAG |
| AU | L<br>346 | 55 59 27.58N<br>008 19 06.09E | 15 NM |
| BEL | DME<br>114.65 /93Y | 55 47 28.45N<br>012 05 44.74E | FL195 - 1500FT/60NM<br>DME ELEV 135.0 FT |
| CDA | DME<br>114.900 /96X | 55 00 05N<br>012 22 45E | FL 500/60 NM.<br>DME ELEV 90.2 FT |
| ESE | DME<br>116.600/113X | 55 31 21N<br>008 33 31E | 100 NM<br>DME ELEV 175.5 FT |
| FAU | L<br>334 | 55 01 41.49N<br>014 54 01.79E | 20 NM |
| KAR | TACAN<br>37X | 56 17 48.03N<br>009 00 30.95E | FL 500/200NM<br>DME ELEV 172.8 FT |
| KAS | DME<br>112.500/72X | 55 35 25.87N<br>012 36 48.97E | FL 500/60 NM.<br>DME ELEV 28.9 FT |
| KD | L<br>357 | 55 26 35.87N<br>009 20 05.42E | 15 NM |
| KOR | VOR/DME<br>112.800/75X | 55 26 22N<br>011 37 54E | FL 500/80 NM.<br>DME ELEV 136.2 FT |
| KV | DME<br>52X | 55 35 15.91N<br>012 07 09.24E | DME ELEV 170.6 FT |
| LME | DME<br>115.350/100Y | 55 59 34N<br>008 21 16E | FL195/60NM<br>DME ELEV 76.1 FT |
| ODN | DME<br>115.500/102X | 55 34 52N<br>010 39 11E | FL 500/60 NM, 80 NM 018°-063° MAG, and 80 NM 213°-243° MAG.<br>DME ELEV 24.0 FT. DME ODN 102X reduced range to 24 NM in direction 198 degrees at 3000 FT or below. |
| RAM | DME<br>111.850/55Y | 56 28 42N<br>008 11 15E | FL 500/60NM.<br>DME ELEV 60.4 FT |
| RK | L<br>368 | 55 37 23.27N<br>011 59 49.81E | 30 NM |
| ROE | VOR<br>112.000 | 55 03 56.08N<br>014 45 31.29E | FL 500/80 NM, 017°-152° MAG 150 NM.<br>DME INFO from ROE TACAN |
| ROE | TACAN<br>112.000/57X | 55 03 42.73N<br>014 45 21.07E | FL 500/80NM<br>DME ELEV 78.6 FT |
| SKR | TACAN<br>110.400/41X | 55 13 44.18N<br>009 12 50.61E | FL 500/80 NM.<br>DME ELEV 138.4 FT |
| SN | DME<br>24x | 55 35 13.15N<br>012 08 06.64E | DME ELEV 167.3 FT |
| TL | L<br>384 | 56 18 01.46N<br>010 37 07.22E | 20 NM |
| TNO | VOR/DME<br>117.400/121X | 55 46 27N<br>011 26 21E | FL 500/60 NM.<br>DME ELEV: - 11.9 FT |
| VAM | DME<br>110,050/37Y | 55 26 17N<br>009 20 06E | FL195/60NM<br>DME ELEV 174.5 FT |
| VJ | L<br>328 | 55 59 19.13N<br>008 25 27.97E | 15 NM |
| VO | L<br>321 | 55 13 28.74N<br>009 16 25.36E | 25 NM |
| **Sweden** | | | |
| AH | L<br>417 | 56 15 58.2N<br>012 54 02.7E | 15 NM |
| KD | L<br>375 | 55 52 16.5N<br>014 04 41.4E | 15 NM |
| LAV | DVOR/DME<br>114.60/93X | 57 39 22.0N<br>012 17 23.5E | FL 500/100 NM.<br>DME ELEV 574 FT |
| LB | L<br>370.5 | 56 20 47.6N<br>012 45 58.9E | 25 NM |
| LT | L<br>336 | 56 47 49.3N<br>012 50 32.2E | 25 NM |
| MF | L<br>421 | 56 39 08.9N<br>012 48 30.2E | 15 NM |
| NL | L<br>369 | 57 43 50.1N<br>012 20 39.2E | 15 NM |
| OEM | NDB<br>363 | 55 59 23.1N<br>014 06 03.1E | 30 NM |
| SL | L<br>342 | 57 35 41.5N<br>012 13 13.4E | 15 NM |
| SUP | VOR/DME<br>113.00/77X | 55 32 04.3N<br>013 22 46.5E | FL 500/80 NM. DME ELEV 259 FT. |
| SVD | DME<br>116.20/109X | 56 10 08.1N<br>012 34 25.3E | FL 500/100 NM.<br>DME ELEV 45 FT |
| **Germany** | | | |
| KIL | NDB<br>353 | 54 22 39.26N<br>010 07 12.08E | 30 NM |
| TRT | DME<br>108.45/21Y | 54 30 39.49N<br>013 14 57.58E | FL 500/60 NM<br>DME ELEV 22 FT |

## Public Holidays (HOL)

New Years Day (1 JAN)
Maundy Thursday (THU before Easter)
Good Friday (FRI before Easter)
Easter Monday (MON after Easter)
Ascension Day (6th THU after Easter)
Whit Monday (MON after Whit Sunday)
Christmas (25 DEC)
Boxing Day (26 DEC)

*Note: Some administrative services, banks and alike may be closed on the following days:*
*Labour Day (1 MAY)*
*Constitution Day (5 JUN)*
*Day of Christmas Eve (24 DEC)*
*Day of New Years Eve (31 DEC)*
*FRI after Ascension Day (6th FRI after Easter)*

## Navigation Warnings etc.

***Prohibited, Restricted, and Danger Areas***

Definitions

a. Prohibited area (P): Area within which flight is prohibited.
b. Restricted area (R): Area within which flight may take place only on certain conditions, e.g. after prior permission from ATS.
c. Danger area (D): Area within which activities dangerous to flights may take place, e.g. gun firing.

These areas are identified by two nationality letters EK, the letter P, R or D and a number.

Information about activities

Information about the period and height within which activities actually take place may be obtained from 1100 (1000) the day before. However, activities on SUN and MON may be obtained already friday from 1100 (1000). For information contact ACC (CS: Copenhagen Control), FIS (CS: Copenhagen Information), and the briefing offices at the following airports/aerodromes:

| | |
|---|---|
| Aalborg | København/Kastrup |
| Aarhus | København/Roskilde |
| Billund | Lolland Falster/Maribo |
| Bornholm/Rønne | Odense / |
| Esbjerg | Hans Christian Andersen Airport |
| Karup/Midtjyllands Lufthavn | Stauning |
| Kolding/Vamdrup | Sønderborg |

Information about active areas and NOTAM can be obtained on the Internet: https://briefing.naviair.dk.

***VFR-flying with Military Aircraft***

VFR-flying with military aircraft takes place within København FIR and over the Island of Bornholm. In airspace where the speed limitation 250 KT is valid, military fighter-aircraft will due to the aerodynamic characteristics of the aircraft and the mission objective not be able to comply with the 250 KT speed limitation in all cases.

***Temporary Segregated Areas (TSA)***

Within the areas shown in figure 1. special training flights with military fighter aircraft may take place periodically. The training flights are conducted with due regard to civil flights, but the Rules of the Air procedures concerning right-of-way may not always be complied with. Information about the period and height where activities are planned to take place are notified by NOTAM. Information about actual usage can be obtained by relevant ATS units.
VFR flights should avoid entering an active TSA. If entry cannot be avoided, two-way radio communication should be established with relevant ATS-unit. The ATS-unit will forward the information to the military ATS-units concerned.

***Temporary Reserved Areas (TRA)***

Within the areas shown in figure 1. special training flights with military fighter aircraft may take place periodically. The training flights are conducted with due regard to civil flights but the Rules of The Air procedures concerning right-of-way may not always be complied with. Information about actual usage can be obtained by relevant ATS units.
IFR flights in controlled airspace penetrating an active TRA will be separated from special training flights with the prescribed separation minima. For IFR flights in uncontrolled airspace penetrating an active TRA the ATS-unit in contact with the IFR flight, will forward that information to the military ATS-units concerned.
VFR flights should avoid entering an active TRA. If entry cannot be avoided, two-way radio communication should be established with relevant ATS-unit. The ATS-unit will forward the information to the military ATS-units concerned.

***Fixed Obstacles***

a. All known fixed obstacles of a height of 328 FT (100 M) AGL or more are shown on ANC 1:500 000.
Fixed obstacles of a height less than 328 FT (100 M) AGL are shown if it is deemed necessary.
b. Fixed obstacles of a height of 492 FT (150 M) AGL or more are marked. Fixed obstacles of a height less than 492 FT (150 M) AGL are marked if it is deemed necessary.

***Cable Launching of Glider and Hang Glider***

Cable launching may take place at some sites up to a height of 2500 FT AGL. The cable forms an almost invisible obstacle during launch as well as when falling to the ground. After release, the cable will fall to the ground in the direction with the wind, away from the winch. Normally the cable will fall within the limit of the site, but situations may occur where the cable will fall outside the site.

Collision with the cable may cause damage to an aircraft, in worst case be fatal. A safety distance of 1 NM from the position of the site is considered to be sufficient. Frequency 130.130 MHZ is assigned for operational communication between hanggliders and ultra light aircraft in København FIR.
Glider and hang glider sites are shown on ANC 1:500 000.

***Ballooning***

Frequency 122.655 MHZ is assigned for operational communication between balloons and ground personnel.

***Parachuting***

Parachuting may take place at many locations throughout the country. Locations, known by the Danish CAA, as being frequently used are shown on ANC 1:500 000. Frequency 130.130 MHZ is assigned for operational communication between parachuting and ground personnel. NOTAM about parachuting will be issued only in cases of a special and intensive activity and if the Danish CAA has been informed thereof.

***Helicopter frequencies***

The following frequencies are assigned only for communication between helicopter and ground personnel:
- For medical operations: 121.080
- For helicopter hoist operations: 125.405

The frequencies can be used up to 2000 FT on Danish territory.

***Helicopter Operations in the North Sea***

Helicopter operations to, from and between oil and gas installations in the North Sea are taking place on a 24 hours basis, under IMC as well as VMC, and often with an underslung load, and in heights up to FL 85.

Helicopter routes (HR)

HR have been established for the most used helicopter tracks in that part of the North Sea, where ATS is provided by Denmark.

Other air traffic than civil helicopter operations are advised

a. to avoid flying along or in close vicinity of a HR, and
b. to cross a HR at an angle as close to 90° as possible, and to keep an alert look out.

The following frequency (MHZ) is assigned only for communication between helicopter and helideck personnel on Off-shore installations in the North Sea:
- For helicopter Operations North of 56 00 00N 131.780
- For helicopter Operations South of 56 00 00N 123.455
The frequency can be used up to FL 100 in the North Sea
The HR and the fixed oil/gas installations are shown in figure 2.

***"Cold Flaring" in the North Sea.***

In connection with the exploration and production of oil and gas in the North Sea, "Cold Flaring" may occur which could endanger air traffic.

Gas escaping from the oil production will normally be burned off. When the oil production is restarted after a shut down involving opening of the installations to the atmosphere it is necessary to purge the pipework and vessels before reignition of the gas. During this procedure, called "Cold Flaring", large amounts of gas will be pouring into the atmosphere, creating an explosive mixture. The extend of the mixture is depending on the actual weather conditions.

"Cold Flaring" may take place from all fixed and mobile oil- and gasinstallations.

Actual information about "Cold Flaring" may be obtained from Tyra Information within hours of service.

Air traffic is advised to pass installations from which "Cold Flaring" is taking place at a lateral distance of 3 NM or more or at an altitude of 3.000 FT MSL or above.

***Risk of Explosion in the Vicinity of North Sea Oil and Gas Installations***

In connection with perforation of underground wells, explosive charges are released by means of radio waves.

Radio waves covering the whole frequency spectrum might release an explosion if they are received when detonators are being inserted or removed.

To avoid inadvertent explosion, which can be a risk to the crew on the installation and damage the installation, air traffic is strongly requested to pass all fixed and mobile installations at a lateral distance of 1 NM or more or at an altitude of 3000 FT MSL or above. For fixed oil and gas installations, see AD 3-1.

***Burning of Gas and Condensates from Flare Stacks***

From the flare stacks located at the positions listed below escape and burning of gas and condensates may take place occasionally. See also ENR 5.4.

NW of Varde at PSN 55 40 05N 008 21 55E *
S of Kalundborg at PSN 55 39 13N 011 06 01E *
SW of Egtved at PSN 55 35 57N 009 13 57E
N of Viborg at PSN 56 38 25N 009 25 03E *
SE of Næstved at PSN 55 12 37N 011 59 08E
NE of Stenlille at PSN 55 32 58N 011 37 25E

Due to high temperature and risk of explosion it is recommended to avoid overflying below 2000 FT MSL.
The flare stacks are shown on ANC 1:500 000.

***Bird Migration***

General

Bird migration occurs during the whole year, but culminates in the periods end of March to Mid-May (spring migration) and beginning of September to Mid-November (autumn migration).

Spring Migration

Spring migration culminates in the period end of March to Mid-May. Peak numbers for most species occur in April. The most important factors inducing heavy migration are a rise in temperature over Central and Western Europe, light winds, and southerly winds.
At night, migration is generally in a broad outline covering the entire country and its surrounding waters, with mean direction NNE. Most birds come from Central and Western Europe. In daylight migration tends to concentrate along guiding coasts. The most important points of concentration are:

a. Skagen 57 45N 010 35E
b. Fornæs 56 25N 010 55E
c. North-East Fyn 55 20N 010 45E
d. North and East Sjælland 56 00N 011 40E - 55 20N 012 30E

Generally the altitude of migration at night is higher than by day. At night the average altitude is about 3000 - 5000 FT, by day 1000 - 3000 FT.

Autumn Migration

Autumn migration culminates in the period beginning September to Mid-November. Peak numbers for most species occur in October. The most important factor inducing heavy migration is fall in temperature over Central and Northern Scandinavia. High intensity coincide also with winds from NNE, light winds, little cloud-cover and high atmospheric pressure.
At night, migration is in a broad outline covering the entire country and its surrounding waters with mean direction south. Most birds come from southern part of Norway and southern part of Sweden. By day, migration tends to concentrate in the eastern part of Denmark and along guiding coasts. The most important points of concentration are:

a. Falsterbo (southern Sweden) and Stevns 55 25N 012 50E - 55 20N 012 30E
b. Gedser-Rødby 54 35N 011 55E - 54 40N 011 20E
c. Skælskør 55 15N 011 18E
d. South Langeland 54 45N 010 40E
e. Blåvand 55 35N 008 05E

Generally the altitude of night migration is higher than by day. At night the average altitude is about 3000 - 5000 FT, by day about 1000 - 3000 FT.

Numbers of Birds

At least 100 million birds pass over Denmark and its surrounding waters during autumn. Smaller passerines are dominating. Several species occur in great numbers and are most hazardous to aircraft, e.g. starlings, thrushes and finches. Very numerous and hazardous are also crowbirds, ducks, gulls, waders, pigeons and birds of prey, occurring from tens of thousands to several millions.

**Figure 1. Temporary Segregated Areas (TSA) and Temporary Reserved Areas (TRA)**

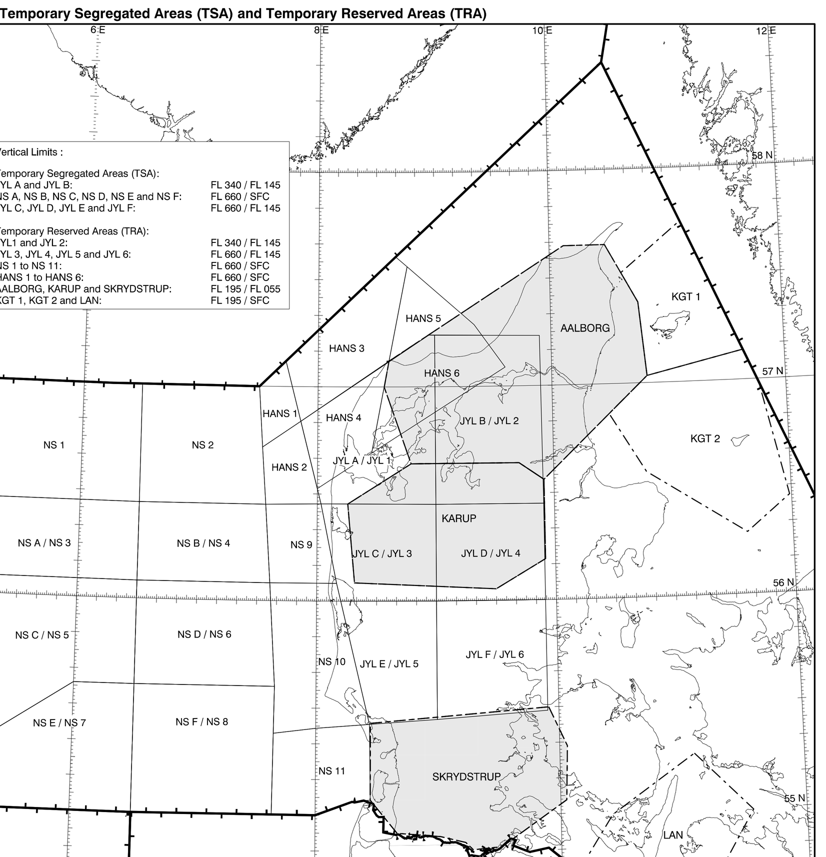



**Figure 2. Helicopter Operations in the North Sea**

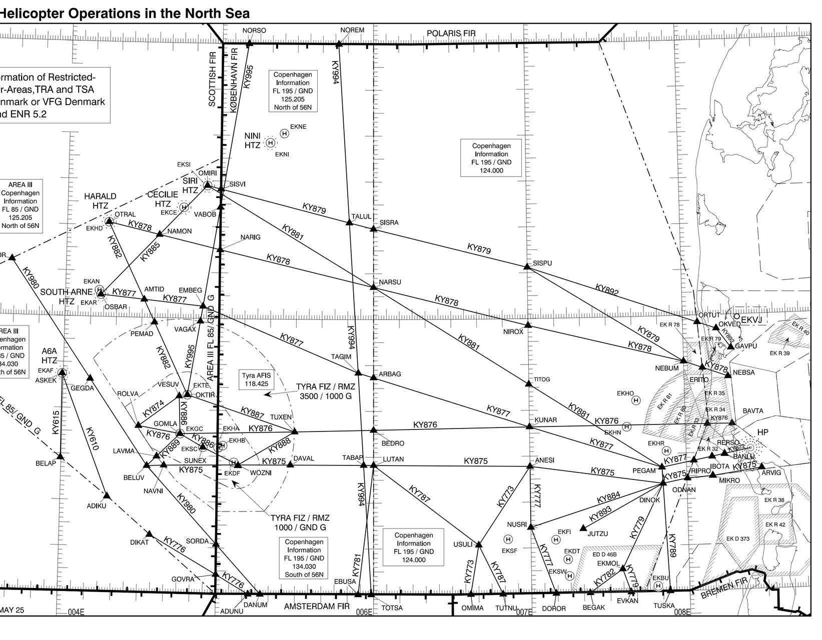
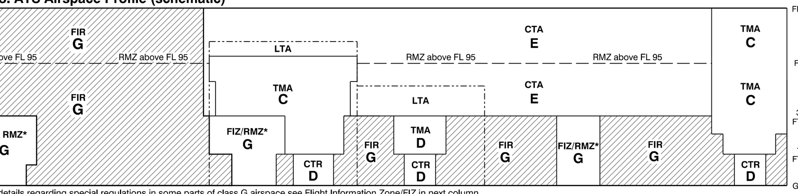



**Figure 3. ATS Airspace Profile (schematic)**




Note : For details regarding special regulations in some parts of class G airspace see Flight Information Zone/FIZ in next column.
*Radio Mandatory Zones (RMZ); Reference Civil Aviation Regulation BL 7-100 and AIP Denmark ENR 1.4 item 3.

**Figure 4. Exception for Compulsory Submission of Flight Plan - Glider Frequency Sectors**

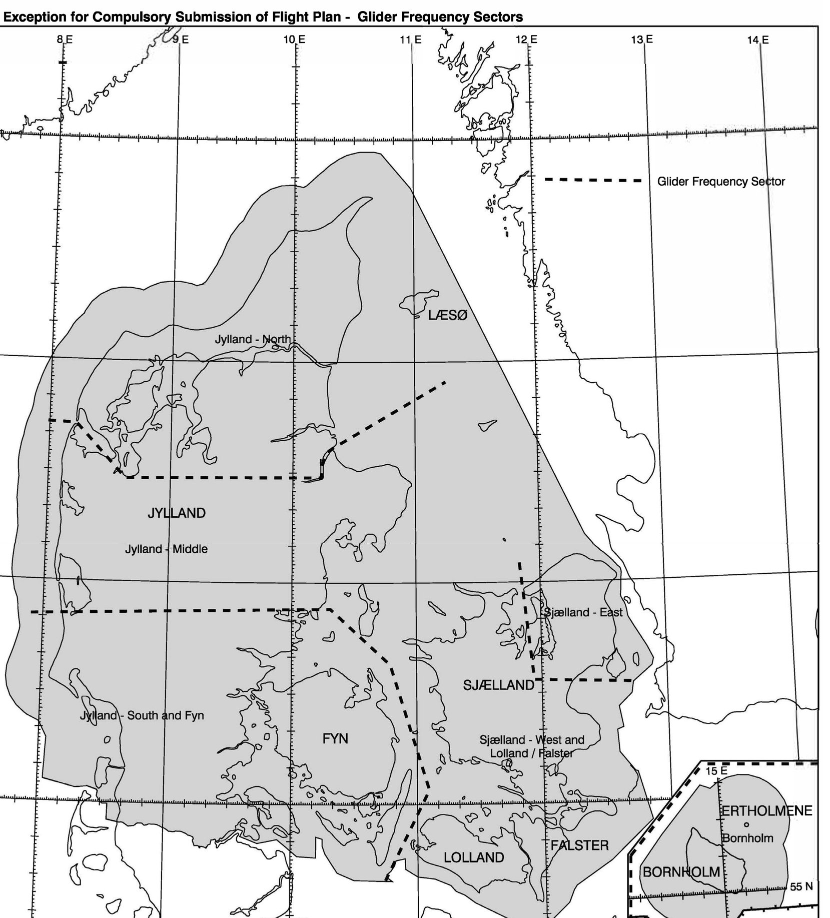
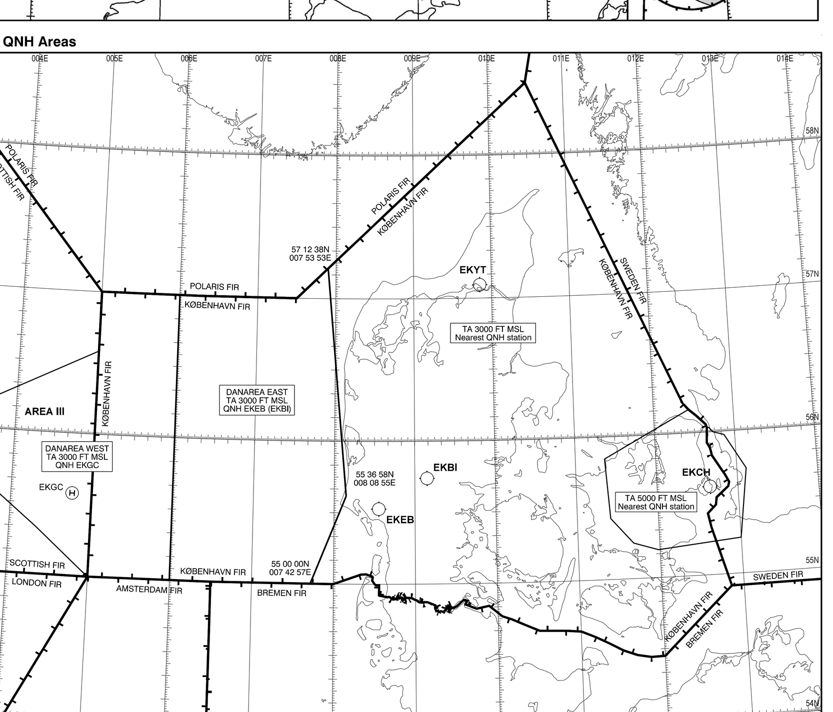



**Figure 5. QNH Areas**




## København FIR. General

VFR flight within København FIR may normally take place at FL 195 and below. ATS airspace (FIR, CTA, LTA, TMA, CTR and FIZ) below FL 200 are shown on the chart. See also figure 3.
ATS-routes are established as follows:
a. Above 3500 FT MSL in the eastern part of the FIR (east of APRX 8°E).
b. Above FL 195 in the western part of the FIR (the North Sea Area).
c. Helicopter routes are established in the North Sea Area below FL85 as shown in figure 2.
ATS-routes are described in AIP Denmark, which is available also on the Internet: https://aim.naviair.dk

## ATS Airspace other than FIR, CTA, TMA and CTR

In addition to the airspace types, FIR, CTA, TMA and CTR, the following ATS airspace are established within København FIR as described hereafter.

***Local ATS Area (LTA)***

Definition
An airspace of defined dimensions, extending upwards from the surface of the earth or water to a specified upper limit within which ATS is provided by the local ATS-unit.

***Transponder Mandatory Zone (TMZ)***

Definition
Transponder Mandatory Zone (TMZ) means an airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory.
Procedures
All flights operating in airspace designated by the competent authority as a transponder mandatory zone (TMZ) shall carry and operate SSR transponders capable of operating on Modes A and C or on Mode S, unless in compliance with alternative provisions prescribed for that particular airspace by the ANSP.
Designation
The airspace within København FIR designated as TMZ is reflected in AIP Denmark ENR 1.4 table 1 ATS airspace classification.

***Radio Mandatory Zone/RMZ***

Definition
Radio mandatory zone (RMZ) means an airspace of defined dimensions wherein the carriage and operation of radio equipment is mandatory.
Procedures
VFR flights operating in parts of Classes E, F or G airspace and IFR flights operating in parts of Classes F or G airspace designated as a radio mandatory zone (RMZ) by the competent authority shall maintain continuous air- ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel, unless in compliance with alternative provisions prescribed for that particular airspace by the ANSP.
Before entering a radio mandatory zone, an initial call containing the designation of the station being called, call sign, type of aircraft, position, level, the intentions of the flight and other information as prescribed by the competent authority, shall be made by pilots on the appropriate communication channel.
Designation
Within København FIR, FIZ and airspace class E and G above FL 95 are designated as RMZ. RMZ is reflected in AIP Denmark, ENR 2 and AD 2 item 17.

***Flight Information Zone/FIZ***

Definition
An airspace of defined dimension within which aerodrome flight information service and alerting service for aerodrome traffic are provided.
*Note: FIZ is also designated as Radio Mandatory Zones (RMZ), reference to Civil Aviation regulation BL 7-100 and ENR 1.4 item 3.*
Procedures
a) IFR and VFR flights operating in a FIZ shall maintain continuous air-ground voice communication watch and establish two-way communication, as necessary, on the appropriate communication channel, except as may otherwise be arranged with the relevant AFIS unit.

b) Before entering an FIZ, an initial call containing the designation of the AFIS unit being called, callsign, type of aircraft, position, level and the intentions of the flight shall be made by pilots on the appropriate communication channel.Changes to level and track - if any - shall be reported immediately to the AFIS unit.

c) Except as may otherwise be arranged with the relevant AFIS unit, a pilot, who intends to cross an FIZ or operate locally, shall, prior to entering an FIZ, establish two-way voice communication with the AFIS unit.

d) Except as may otherwise be arranged with the relevant AFIS unit, a pilot who intends to land on or take-off from the aerodrome shall prior to entering an FIZ or prior to taxiing for take-off establish two-way voice communication with the AFIS unit.

Tyra FIZ is given in AIP Denmark, ENR 2.2 and FIZ for relevant aerodromes are given in AD 2 item 17.

## Flight within LTA, TMA, CTR and FIZ outside Published Hours of Service

Where LTA, TMA, CTR and FIZ are not established H24, information as to whether the area concerned is established shall be obtained from the relevant ATS-unit as given below.

| *Area* | *ATS Unit* |
|---|---|
| Aarhus LTA, TMA and CTR | ACC København |
| Esbjerg FIZ | APP Billund |
| Odense FIZ | ACC København |
| Rønne TMA and CTR | ACC Malmöl |
| Stauning FIZ | APP Billund |
| Sønderborg FIZ | ACC København |
| Tyra FIZ | ACC København |
| Vamdrup FIZ | APP Skrydstrup |

Hours of service can be found in the VFR Flight Guide (VFG), which is also available on the Internet: https://aim.naviair.dk

## ACC Telephone Numbers

ACC København +45 32 46 23 38
ACC in Sweden (ATC Malmö) +46 (0)40 613 16 05

(Telephone numbers for ATS-units at aerodromes, see list of public aerodromes).

## Radio Communication and Secondary Surveillance Radar

***Frequency Protection***

To avoid harmful interference of air - ground communications, aircraft are not permitted to establish connection with ground stations outside the protected areas as stated in the following:

a. For TWR and AFIS not outside 4000FT/25 NM.
However;
1. For Bornholm/Rønne TWR, Esbjerg Information and Sønderborg Information FL 100/40 NM applies.
2. For Tyra Information 6000 FT/40 NM applies.
b. For air-ground stations on minor public aerodromes not outside 4000FT/25 NM.
c. For APP not outside FL 250/50 NM.
However,
1. for Aalborg APP FL 250/60 NM applies
2. for Aarhus APP FL 250/60 NM applies.
3. for Roskilde APP FL 150/50 NM applies.

***ATIS Frequency***

| | | | |
|---|---|---|---|
| - Aalborg | H24 | AIRPORT INFORMATION | 120.480 MHZ |
| - Aarhus | H24 | AIRPORT INFORMATION | 125.155 MHZ |
| - Billund | H24 | ARRIVAL INFORMATION | 118.780 MHZ |
| - Billund | H24 | DEPARTURE INFORMATION | 129.105 MHZ |
| - Karup | H24 | AIRPORT INFORMATION | 120.580 MHZ |
| - Kastrup | H24 | ARRIVAL INFORMATION | 122.755 MHZ |
| - Kastrup | H24 | DEPARTURE INFORMATION | 122.855 MHZ |
| - Roskilde | 0600-2100 (0500-2000) | AIRPORT INFORMATION | 123.805 MHZ |
| - Skrydstrup | H24 | AIRPORT INFORMATION | 133.905 MHZ |

***Air-to-Air Frequency***

The frequency 129.805 MHZ is assigned for air-to-air operational communication within København FIR up to FL 100.

***Guarding of the VHF Emergency Frequency 121.500 MHZ***

Aircraft flying over the North Sea and Skagerrak within København FIR, shall continuously guard the VHF emergency frequency 121.500 MHZ, except for such periods when the aircraft is carrying out communication on other VHF frequencies, or when airborne equipment limitations or cockpit duties do not permit simultaneous guarding of two frequencies.

***Glider Frequencies***

Frequencies for operational communication air-to-air and air-to-ground shall, as far as possible, be used as shown hereafter (See Figure 4):

- Jylland - North: 123.380 MHZ
- Jylland - Middle: 122.480 MHZ
- Jylland - South and Fyn: 129.980 MHZ
- Sjælland - West and Lolland/Falster: 123.430 MHZ
- Sjælland - East/Bornholm: 122.655 MHZ

***Secondary Surveillance Radar (SSR)***

SSR Requirements

Aircraft performing VFR flights within Danish ATS Air Space classified C (Billund TMA and TMAs within Copenhagen Area) and within airspace designated as Transponder Mandatory Zone (TMZ), shall carry a serviceable SSR-transponder with Modes A and C or Mode S. Exemption from the requirements may, for individual flights, be granted by the appropriate ATC unit.

Radio Communication Failure Procedure

In the event of a radio communication failure, a VFR-flight shall select Mode-A, Code 7600 and follow established radio communication failure procedures. Subsequent provision of ATS to such flight will be based on those procedures.
*Note: Continuous monitoring of responses on Mode-A, Code 7600 is provided.*

Normal Operating Procedures

a. The provisions of ICAO (PANS-OPS, Volume I, Part III, Secondary Surveillance Radar (SSR) Transponder Operating Procedures) and Commission Regulation (EU) No 923/2012, Section 13, SSR Transponder, shall apply.
b. When an aircraft carries a serviceable SSR transponder with Modes A and C or Mode S, the pilot shall operate the transponder at all times during flight, except as provided for in sub. c below.
c. Except for VFR flights within Danish ATS Air Space classified C (Billund TMA and TMAs within Copenhagen Area) and within airspace designated as Transponder Mandatory Zone (TMZ), aircraft without sufficient electrical power supply are exempted from the requirement to operate the transponder at all times.
d. Pilots shall not operate the IDENT feature unless requested by ATS.
e. Except as provided for in sub. f. below pilots shall operate transponders in accordance with ATS instructions. Pilots who have already received specific instructions from ATS concerning the setting of their transponder, shall, when entering København FIR, maintain that setting until otherwise instructed.
f. Pilots, who have not received specific instructions from ATS concerning the setting of the transponder, shall operate the transponder as stated in the following:
1. IFR Flights within København FIR: Mode-A, Code 2000.
2. VFR flights within København FIR: Mode-A, Code 7000.
3. MIL VFR flights within København FIR: Mode-A, Code 0001.
4. Helicopter engaged in off-shore operations: Mode-A, Code 0040.
g. When the aircraft carries serviceable Mode C equipment, the pilot shall continuously operate this mode, unless otherwise instructed by ATS.
h. For aircraft flying in formation the flight leader only shall operate transponder as listed above, unless otherwise instructed by ATS.

Emergency Procedures

a. If a pilot encountering a state of emergency has previously been directed by ATS to operate the transponder on a specific code, this code setting shall be maintained until otherwise instructed, see sub. b. below.
b. Not withstanding the procedure in sub. a. above, a pilot may select Mode-A, Code 7700, whenever the nature of the emergency is such that this appears to be the most suitable course of action.
c. Pilots subject to unlawful interference shall endeavour to set the transponder to Mode-A, Code 7500, to give indication of the situation, unless circumstances warrant the use of Code 7700.

*Note: Continuous monitoring of responses on Mode-A, Code 7700 and Code 7500 is provided.*

SSR Transponder Failure

Due to the dominating role of SSR in radar data processing it is very complicated to accommodate a flight with a failing transponder. Pilots have to take this into account when interpreting the procedures indicated below.
For aircraft which according to the ATS airspace classification shall be equipped with a SSR transponder the following will apply:

a. Failure before intended departure
In cases where a transponder has failed and definitely cannot be restored prior to departure, permission to perform the flight without SSR must be obtained from ACC KØBENHAVN. If the permission is granted the letter "O" shall be inserted in item 10 of the ICAO flight plan under "SSR" for indicating complete unserviceability of the transponder or - in case of partial transponder failure - the letter corresponding to the remaining transponder capability.
b. Failure after departure
In cases where a transponder failure occurs during flight pilots may expect that ATS units will endeavour to provide continuation of the flight to the aerodrome of first intended landing in accordance with the flight plan. After landing pilots shall make every effort to have the transponder restored to normal operation. If repair cannot be effected, pilots shall comply with the provisions in sub. a. above.

Code Assignment Method

a. SSR codes will be assigned in accordance with the European Code Assignment Plan, which is based on the Originating Region Code Assignment Method (ORCAM).
b. VFR flights may be assigned an individual SSR code.
Assignment of a discrete SSR code to a VFR flight does not imply that the flight will be continuously monitored by radar or that the flight has been cleared to enter airspace in which VFR flights in accordance with Commission Regulation (EU) No 923/2012 shall be operated as controlled flights.

Flight Plan Notification

For flights within København FIR the SSR capability shall be indicated in item 10 of the flight plan.

Radio and Transponder Mandatory Zones

Airspace designated as Radio Mandatory Zone (RMZ) and Transponder Mandatory Zone (TMZ) is shown in the following table:

| Flight Rules | Radio Mandatory Zone (RMZ) | Transponder Mandatory Zone (TMZ) |
|---|---|---|
| VFR | FIZ and airspace classes E and G above FL 95 | Airspace classes C, E and G above FL 95 |

## General Flight Rules and Miscellaneous (Danish Differences and Additions)

***Runway in Use***

The runway in use determined by the appropriate ATS-unit shall be used unless safety determines that another runway to be preferred.

***Surface Movement of Aircraft***

An aircraft taxiing on the manoeuvring area shall stop and hold at all lighted stop bars and may proceed only, when the lights are switched off, and a clearance is received from the control tower.

***Right Turn in connection with Take-Off and landing on Aerodromes with AFIS and on some private Aerodromes and Gliding Sites***

The Danish CAA have prescribed procedures for aerodromes with AFIS and for the below listed private aerodromes and gliding sites, which may imply right turn in connection with approach for landing and after take-off.

| *Place* | *PSN* |
|---|---|
| Frederikssund Syd aerodrome | 55 48 58N 012 04 56E* |
| Gesten aerodrome | 55 33 03N 009 11 05E* |
| Nørre Felding gliding site | 56 17 58N 008 34 55E* |
| Tølløse gliding site | 55 34 53N 011 45 36E* |

Brief details about private aerodromes and gliding sites shown on ANC 1:500 000 can be found in the VFR Flight Guide (VFG), which is also available on the Internet: https://aim.naviair.dk

***Protection of Persons and Property***

The Pilot-in-Command shall take care that other air traffic is not unnecessarily impeded or disturbed.

The Pilot-in-Command shall take care that the flight interferes with the surroundings as little as possible. This applies in particular when flying over built-up-areas, recreational areas and areas with sensitive fauna.

Areas with sensitive fauna are shown on ANC 1:500 000.

***Acrobatic Flight***

No aircraft shall be flown acrobatically unless it is approved for such flight. Acrobatic flight shall be conducted in such a manner as not to endanger life or property of others or other air traffic.

Unless permitted by the Danish CAA acrobatic flight shall not be conducted

a. over densely built-up areas, including areas with summer houses, inhabited camping sites and areas with large gatherings in the open.
b. under instrument meteorological conditions.
c. at a height less than 2000 FT (600 m) above the highest obstacle within a radius of 1.5 KM from the aircraft.

***Unlawful Interference***

If the aircraft is equipped with an SSR transponder, the pilot-in-command shall in case of unlawful interference select Mode A Code 7500 - if possible. See also Secondary Surveillance Radar, Emergency Procedures.

***Conditions for the Acceptance of Licences Issued by or on Behalf of Third Countries***

Ref: Annex III to Commission Regulation (EU) 1178/2011.

Validation of licences

General

1. A pilot licence issued in compliance with the requirements of Annex 1 to the Chicago Convention by a third country may be validated by the competent authority of a Member State.
Pilots shall apply to the competent authority of the Member State where they reside or are established. If they are not residing in the territory of a Member State, pilots shall apply to the competent authority of the Member State where the operator for which they are flying or intend to fly has its principal place of business, or where the aircraft on which they are flying or intend to fly is registered.

2. Notwithstanding the provisions of the paragraphs above, Member States may, for, competition flights or display flights of limited duration, accept a licence issued by a third country allowing the holder to exercise the privileges of a PPL, SPL or BPL provided:
a. prior to the event, the organiser of the competition or display flights provides the competent authority with adequate evidence on how it will ensure that the pilot will be familiarised with the relevant safety information and manage any risk associated with the flights; and
b. the applicant holds an appropriate licence and medical certificate and associated ratings or qualifications issued in accordance with Annex 1 to the Chicago Convention.

3. Notwithstanding the provisions of the paragraphs above, Member States may accept a PPL, SPL or BPL issued in compliance with the requirements of Annex 1 to the Chicago Convention by a third country for a maximum of 28 days per calendar year for specific non-commercial tasks provided the applicant:
a. holds an appropriate licence and medical certificate and associated ratings or qualifications issued in accordance with Annex 1 to the Chicago Convention; and
b. has completed at least one acclimatisation flight with a qualified instructor prior to carrying out the specific tasks of limited duration.

***Regulations on Liability Insurance for Foreign Aircraft***

For foreign aircraft (gliders etc. included) overflying or landing on Danish territory, an insurance policy covering third party liability and liability for damage to passengers in accordance with Regulation (EC) no 785/2004 must be available. For further details consult VFG section GEN 1.2

***Use of Intoxicating Liquor, Narcotics or Drugs***

No person shall perform or attempt to perform such service on board an aircraft in functions specified in section 35 of the Danish Air Navigation Act No. 1036, 28/08/2013 while under the influence of alcoholic beverages, by reason of which the person is unable to perform the service to full satisfaction or in case the proportion of alcohol in the person´s blood is 0.20 per thousand or more.

Neither shall any person perform or attempt to perform such service on board an aircraft for which a licence is required in pursuance of section 35 of the Danish Air Navigation Act No. 1036, 28/08/2013 if, on account of illness, impairment, strain, lack of sleep, or being under the influence of narcotics or drugs or for similar causes his capacity to act safely on board an aircraft is impaired.

## VFR Flight Plan

***Submission of a Flight Plan***

In addition to ICAO Annex 2 and in pursuance of Regulation EU 923/2012 the Danish rules of the air contains the following provision:

A flight plan shall be submitted to ATS prior to operating

a. any VFR flight when crossing the boundaries of København FIR and the Danish territorial waters, except as detailed below.
b. any VFR flight when crossing a FIZ.
c. any VFR flight at night, if leaving the vicinity of an aerodrome.

***Exception for Compulsory Submission of Flight Plan - VFR***

Normally a flight plan is compulsory for flight over international waters and when crossing boundary to another country. However, the Danish CAA has determined that submission of flight plan is not compulsory for VFR flights exclusively flying within the areas shown shaded in figure 4.

*Note: If alerting service is wanted for a VFR-flight within the mentioned areas, a flight plan must be submitted.*

***Changes to a Flight Plan***

In addition to ICAO Annex 2 and in pursuance of Regulation EU 923/2012 the Danish Rules of the Air contain the following provisions:

a. Unless otherwise prescribed by the Danish CAA a departure report shall be made at the earliest possible moment after departure, to the appropriate ATS unit, by any flight for which a flight plan has been submitted.
b. Submission of a departure report is not required after departure from an aerodrome where air traffic services are provided on condition that radio communication or visual signals indicate that the departure has been observed.

***Closing a Flight Plan***

In addition to ICAO Annex 2 and in pursuance of Regulation EU 923/2012 the following provision has been established:

Submission of a report of arrival is not required after landing on an aerodrome where ATS are provided on condition that radio communication or visual signals indicate that the landing has been observed.

In addition of ICAO Annex 2 and in pursuance of Regulation EU 923/2012 the Danish Rules of the Air contain the following provision:

If it is expected that the report of arrival cannot be submitted to the appropriate air traffic services unit within 30 minutes after the estimated time of arrival, information on the time at which the report is expected to be submitted shall be included in the flight plan under item: Other information.

***Air Traffic Service Reporting Office/ARO***

Pilots flying VFR to/from aerodromes without ARO shall - if alerting service is wanted or reporting is required - report as follows:

a. Submit the flight plan to Central ATS Briefing Office Denmark. TEL +45 32 47 82 72.
b. Close the flight plan by telephone to ACC. TEL +45 32 46 23 38

***VFR-Flights between certain Danish and German Border Aerodromes***

Between the below listed Danish and German aerodromes, a special arrangement has been established regarding submission and exchanging of flight plan information due to practical considerations and temporal relations.

VFR flights performed within the daily periods for VFR flights are exempted from the obligation to file a regular ICAO flight plan between the Danish aerodrome:

Sønderborg (EKSB) and

the German aerodromes:

Flensburg/Schäferhaus (EDXF), Heidi-Büsum (EDXB), Husum (EDXJ), Kiel-Holtenau (EDHK), Leck (EDXK), Rendsburg/Schachtholm (EDXR), St. Michaelisdonn (EDXM), Westerland/Sylt (EDXW) and Wyk auf Föhr (EDXY).

The flights may be conducted under the following conditions:

a. The pilot-in-command shall submit the following flight plan information to the ATS-unit at the aerodrome of departure:
1. aircraft identification and type
2. departure aerodrome and estimated off-block time
3. destination and estimated elapsed time
4. endurance
5. number of persons on board
6. name of pilot-in-command
The above-mentioned information may be submitted over radio.
b. The flight plan information and the actual time of departures are being exchanged by and between the ATS-units on the aerodromes of departure and destination without being communicated to the respectively Danish and German Area Control Centres.
c. The flights are considered overdue if they are not arrived at the destination within 10 minutes after the estimated times of arrival based on the flight plan information given by the pilots.
d. Overdue aircraft ref. item c, which have not reported change to the in item a.3 submitted 'estimated elapsed time', may lead to effectuation of search and rescue service.
e. The flights shall be conducted in accordance with the respective national Danish and German VFR-procedures.

## Altimeter Setting

Altimeter setting procedures, as contained in ICAO Doc 8168-OPS / 611, are to be used by all aircraft flying within København FIR, as well as that part of the Danish continental socket area, which is situated within Scottish FIR.

All altimeter settings passed from ground stations to aircraft will be given in hectopascal (HPA) rounded down to the nearest whole hectopascal.

***Transition Altitude (TA)***

The TA for København FIR is 3000 FT MSL, except for the Copenhagen Area, where the TA is 5000 FT MSL.

***Transition Level***

Information on transition level in use will be passed to arriving aircraft immediately after radio contact has been established with the ATC-unit providing approach control service.

***Lowest available Flight Level***

ACC København will continuously establish the lowest available FL for IFR flight within København FIR, except for Copenhagen Area. Lowest available FL will be the IFR cruising level at or immediately above 4000 FT MSL, and it will be established according to the table below.

| Expected pressure: | | FL |
|---|---|---|
| - 942 | HPA | 70 |
| 943 - 977 | HPA | 60 |
| 978 - 1013 | HPA | 50 |
| 1014 - 1050 | HPA | 40 |
| 1051 - | HPA | 30 |

The establishment of the lowest available FL is based on the QNH values for the QNH stations indicated in figure 5.

***QNH Areas***

For use in en-route flight at or below the TA within København FIR a number of QNH areas have been established as shown in figure 5, for which information on the QNH values and temperatures on request will be given by ACC København.

***Information on Altimeter Setting***

For en-route flight

For en-route flight which implies that the aircraft will be flying at an altitude equal to or lower than the transition altitude, ACC København will inform about the altimeter setting to be used within the area concerned.

For approach and landing

For approach and landing the QNH altimeter setting for the aerodrome concerned will be included in the routine approach and landing instructions. The QFE altimeter setting will be given on request only.

## Visual Flight Rules

1. Except when operating as a Special VFR Flight according to item 1.1, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in the following table indicating the limits of visual meteorological conditions (VMC):

| Altitude | Airspace Class | Flight visibility | Distance from cloud |
|---|---|---|---|
| At and above FL 100 | A* B C D E F G | 8 KM | 1500 M horizontally<br>300 M (1000 FT) vertically |
| Below FL 100 and above 900 M (3000 FT) AMSL, or above 300 M (1000 FT) above terrain, whichever is the higher | A* B C D E F G | 5 KM | 1500 M horizontally<br>300 M (1000 FT) vertically |
| At and below 900 M (3000 FT) AMSL, or 300 M (1000 FT) above terrain, whichever is the higher | A* B C D E | 5 KM | 1500 M horizontally<br>300 M (1000 FT) vertically |
| | F G | 5 KM<br>3 KM**/140 KT | Clear of cloud and with the surface in sight |

* The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.
** For aircraft established in the aerodrome traffic circuit, flight is permitted with a flight visibility of at least 1.5 KM clear of cloud and with the aerodrome in sight.
Flight with manned balloons at or below 450 M (1500 FT) MSL or 300 M (1000 FT) above terrain, whichever is the higher, is permitted with a flight visibility of at least 1.5 KM.
With helicopters, flight is permitted with a flight visibility of at least 0.8 KM, provided that the helicopter is operated at a speed that will give adequate opportunity to observe other traffic or any obstacle in time to avoid collision.

1.1 Except when a clearance for a Special VFR Flight is obtained from the appropriate air traffic control unit, VFR flights shall not take place within a control zone
a. when the ceiling is less than 450 M (1500 FT), or
b. when the ground visibility is less than 5 KM.
1.2 The appropriate Air Traffic Control Unit may within a control zone issue clearance for Special VFR flight, if the ceiling is not below
a. 180 M (600 FT) within the daily periods for VFR flights
b. 330 M (1100 FT) outside the daily periods for VFR flights,
and the reported visibility at the aerodrome is not less than
a. 1,5 KM within the daily periods for VFR flights, and
b. 5 KM outside the daily periods for VFR flights.
1.2.1 Special VFR flight shall be operated clear of clouds and in sight of the surface, at a speed of 140 KT IAS or less to give adequate opportunity to observe other traffic and any obstacle in time to avoid a collision and with a flight visibility of not less than
a. 1,5 KM within the daily periods for VFR flights, and
b. 5 KM outside the daily periods for VFR flights.
1.2.2 However, helicopters may operate Special VFR, within the daily periods for VFR flights, if the reported visibility at the aerodrome and the flight visibility is not less than 0,8 KM, if manoeuvred at a speed that will give adequate opportunity to observe any obstacle in time to avoid collision.
1.2.3 When the reported ground visibility at the aerodrome is less than 1 500 m, ATC may, within the daily periods for VFR flights, issue a special VFR clearance for a flight crossing the control zone and not intending to take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or aerodrome traffic circuit when the flight visibility reported by the pilot is not less than 1 500 m, or, for helicopters, not less than 800 m.
1.3 VFR flights not in sight of the surface shall be operated in accordance with the Regulations for Civil Aviation BL 5-61 (available in Danish only).
2. Cloud flying with gliders are permitted when operated in accordance with the Regulations for Civil Aviation BL 7-7 and BL 7-7 A (available in English).
3. En route VFR flights shall not be operated above FL 195 in airspace class C.
4. Unless permission has been obtained from the Danish CAA, VFR flights shall not be operated
a. above FL 195,
b. outside the daily periods for VFR flights, with the exception of VFR flight carried out in accordance with the requirements stated for VFR-NIGHT flight, ref. The Regulations for Civil Aviation BL 5-61, BL 5-65, BL 7-100 (available in Danish only) and BL 5-38 (available in English), and
c. at transonic and supersonic speed.
5. Unless permission has been obtained from the Danish CAA VFR flights, day and night, shall be flown:
a. over the congested areas of cities, towns or settlements (including summer resorts and inhabited camping sites) or over an open-air assembly of persons at a height not less than 300 M (1000 FT) above the highest obstacle within a radius of 600 M from the aircraft. Flying at a lower height, however, is allowed in connection with take-off from or landing at an approved aerodrome.
b. over other than the areas mentioned in a., at least 150 M (500 FT) above ground or water, or 150 M (500 FT) above the highest obstacle within a radius of 150 M (500 FT) from the aircraft. Flying at a lower altitude are, however, permitted in connection with take-off or landing.
*Note: Bridges with pylons separated by 300 M (1000 FT) or more shall be perceived as one obstacle.*
6. Except where otherwise indicated in air traffic control clearances or prescribed by the Danish CAA in AIP/VFR Flight Guide, VFR flights in levels higher than transition altitude, shall be conducted at a flight level appropriate to the track as specified in the table of cruising levels shown below. Exempted is flight during climb or descend.

| Magnetic Track | | | | | |
|---|---|---|---|---|---|
| 000° - 179° | | | 180° - 359° | | |
| FL | Above Sea Level M | Above Sea Level FT | FL | Above Sea Level M | Above Sea Level FT |
| 35 | 1050 | 3500 | 45 | 1350 | 4500 |
| 55 | 1700 | 5500 | 65 | 2000 | 6500 |
| 75 | 2300 | 7500 | 85 | 2600 | 8500 |
| 95 | 2900 | 9500 | 105 | 3200 | 10500 |
| 115 | 3500 | 11500 | 125 | 3800 | 12500 |
| 135 | 4100 | 13500 | 145 | 4400 | 14500 |
| 155 | 4700 | 15500 | 165 | 5050 | 16500 |
| 175 | 5350 | 17500 | 185 | 5650 | 18500 |
| 195 | 5950 | 19500 | | | |

7. Pilot-in-command carrying out VFR-flight, shall
a. when flying in airspace classes B, C and D, or
b. when part of aerodrome traffic on controlled aerodromes, or
c. when flying Special VFR
follow the regulations concerning ATC clearances regarding adherence to flight plan, position reports, cease of control and radio communication.
8. A pilot-in-command carrying out VFR-flight within or into certain specified areas or certain specified routes, for which requirement for establishing two-way radio communication is published in AIP/VFR Flight Guide, shall maintain continuous listening watch on the specified frequency and submit position report if requested, to the ATS-unit providing flight information service.
*Note 1: SELCAL or similar automatic signalling devices satisfy the requirement to maintain an air-ground voice communication watch, when specifically noted in AIP/VFR Flight Guide.*
*Note 2: The requirement for a pilot-in-command to maintain air-ground voice communication watch remains in effect after data link communication between air traffic controller and pilot has been established.*
9. A pilot-in-command flying in accordance with the visual flight rules, and who wishes to change to compliance with the instrument flight rules shall:
a. if a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan, or
b. submit a flight plan to the appropriate air traffic services unit and if the flight is to be conducted in airspace classes B, C, D or E, obtain a clearance prior to proceeding IFR.

## Sunrise/Sunset Tables

Denmark has been divided into 4 areas in which VFR flights may take place within the periods given in the tables below. The tables are valid for 2024 - 2031.

**Table 1: West of 11°E including the island of Læsø. Data REF: EKKA - Karup/Midtjyllands Lufthavn (MIL/CIV) PSN 56 18N 009 07E.**

| Day | JAN TWIL FROM | SR | SS | TWIL TO | Day | FEB TWIL FROM | SR | SS | TWIL TO | Day | MAR TWIL FROM | SR | SS | TWIL TO | Day | APR TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 07:10 | 07:57 | 14:57 | 15:44 | 01 | 06:39 | 07:21 | 15:54 | 16:36 | 01 | 05:36 | 06:14 | 16:58 | 17:36 | 01 | 04:15 | 04:53 | 18:03 | 18:41 |
| 03 | 07:09 | 07:56 | 15:00 | 15:47 | 03 | 06:36 | 07:17 | 15:58 | 16:39 | 03 | 05:31 | 06:09 | 17:02 | 17:40 | 03 | 04:08 | 04:47 | 18:07 | 18:46 |
| 05 | 07:08 | 07:55 | 15:02 | 15:49 | 05 | 06:32 | 07:13 | 16:03 | 16:44 | 05 | 05:27 | 06:04 | 17:07 | 17:44 | 05 | 04:03 | 04:42 | 18:11 | 18:50 |
| 07 | 07:07 | 07:54 | 15:05 | 15:52 | 07 | 06:29 | 07:09 | 16:07 | 16:47 | 07 | 05:22 | 05:59 | 17:11 | 17:48 | 07 | 03:58 | 04:37 | 18:15 | 18:54 |
| 09 | 07:07 | 07:53 | 15:08 | 15:54 | 09 | 06:24 | 07:04 | 16:12 | 16:52 | 09 | 05:17 | 05:54 | 17:15 | 17:52 | 09 | 03:52 | 04:32 | 18:20 | 19:00 |
| 11 | 07:05 | 07:51 | 15:12 | 15:58 | 11 | 06:20 | 07:00 | 16:16 | 16:56 | 11 | 05:12 | 05:49 | 17:19 | 17:56 | 11 | 03:47 | 04:27 | 18:24 | 19:04 |
| 13 | 07:03 | 07:49 | 15:15 | 16:01 | 13 | 06:17 | 06:56 | 16:21 | 17:00 | 13 | 05:06 | 05:43 | 17:24 | 18:01 | 13 | 03:41 | 04:21 | 18:28 | 19:08 |
| 15 | 07:02 | 07:47 | 15:19 | 16:04 | 15 | 06:12 | 06:51 | 16:25 | 17:04 | 15 | 05:01 | 05:38 | 17:28 | 18:05 | 15 | 03:35 | 04:16 | 18:32 | 19:13 |
| 17 | 07:00 | 07:45 | 15:23 | 16:08 | 17 | 06:07 | 06:46 | 16:30 | 17:09 | 17 | 04:56 | 05:33 | 17:32 | 18:09 | 17 | 03:30 | 04:11 | 18:36 | 19:17 |
| 19 | 06:58 | 07:42 | 15:27 | 16:11 | 19 | 06:03 | 06:42 | 16:34 | 17:13 | 19 | 04:50 | 05:27 | 17:36 | 18:13 | 19 | 03:24 | 04:06 | 18:40 | 19:22 |
| 21 | 06:55 | 07:39 | 15:31 | 16:15 | 21 | 05:59 | 06:37 | 16:38 | 17:16 | 21 | 04:45 | 05:22 | 17:40 | 18:17 | 21 | 03:19 | 04:01 | 18:44 | 19:26 |
| 23 | 06:53 | 07:36 | 15:35 | 16:18 | 23 | 05:54 | 06:32 | 16:43 | 17:21 | 23 | 04:39 | 05:17 | 17:44 | 18:22 | 23 | 03:13 | 03:56 | 18:48 | 19:31 |
| 25 | 06:50 | 07:33 | 15:39 | 16:22 | 25 | 05:49 | 06:27 | 16:47 | 17:25 | 25 | 04:33 | 05:11 | 17:49 | 18:27 | 25 | 03:09 | 03:52 | 18:53 | 19:36 |
| 27 | 06:47 | 07:30 | 15:43 | 16:26 | 27 | 05:44 | 06:22 | 16:52 | 17:30 | 27 | 04:28 | 05:06 | 17:53 | 18:31 | 27 | 03:03 | 03:47 | 18:57 | 19:41 |
| 29 | 06:44 | 07:26 | 15:47 | 16:29 | 29 | 05:39 | 06:17 | 16:56 | 17:34 | 29 | 04:23 | 05:01 | 17:57 | 18:35 | 29 | 02:57 | 03:42 | 19:01 | 19:46 |
| 31 | 06:41 | 07:23 | 15:52 | 16:34 | | | | | | 31 | 04:17 | 04:55 | 18:01 | 18:39 | | | | | |

| Day | MAY TWIL FROM | SR | SS | TWIL TO | Day | JUN TWIL FROM | SR | SS | TWIL TO | Day | JUL TWIL FROM | SR | SS | TWIL TO | Day | AUG TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02:53 | 03:38 | 19:05 | 19:50 | 01 | 01:44 | 02:43 | 20:01 | 21:00 | 01 | 01:37 | 02:40 | 20:14 | 21:17 | 01 | 02:38 | 03:27 | 19:32 | 20:21 |
| 03 | 02:47 | 03:33 | 19:09 | 19:55 | 03 | 01:41 | 02:41 | 20:03 | 21:03 | 03 | 01:40 | 02:42 | 20:13 | 21:15 | 03 | 02:43 | 03:31 | 19:27 | 20:15 |
| 05 | 02:42 | 03:29 | 19:13 | 20:00 | 05 | 01:38 | 02:39 | 20:06 | 21:07 | 05 | 01:43 | 02:44 | 20:12 | 21:13 | 05 | 02:47 | 03:34 | 19:23 | 20:10 |
| 07 | 02:36 | 03:24 | 19:17 | 20:05 | 07 | 01:36 | 02:38 | 20:08 | 21:10 | 07 | 01:46 | 02:46 | 20:10 | 21:10 | 07 | 02:52 | 03:38 | 19:19 | 20:05 |
| 09 | 02:32 | 03:20 | 19:21 | 20:09 | 09 | 01:35 | 02:37 | 20:10 | 21:12 | 09 | 01:49 | 02:49 | 20:08 | 21:08 | 09 | 02:56 | 03:42 | 19:14 | 20:00 |
| 11 | 02:27 | 03:16 | 19:25 | 20:14 | 11 | 01:33 | 02:36 | 20:12 | 21:15 | 11 | 01:52 | 02:51 | 20:06 | 21:05 | 11 | 03:01 | 03:46 | 19:10 | 19:55 |
| 13 | 02:22 | 03:12 | 19:29 | 20:19 | 13 | 01:31 | 02:35 | 20:13 | 21:16 | 13 | 01:56 | 02:54 | 20:04 | 21:02 | 13 | 03:06 | 03:50 | 19:05 | 19:49 |
| 15 | 02:17 | 03:08 | 19:33 | 20:24 | 15 | 01:30 | 02:34 | 20:14 | 21:18 | 15 | 02:00 | 02:57 | 20:01 | 20:58 | 15 | 03:10 | 03:54 | 19:00 | 19:44 |
| 17 | 02:13 | 03:05 | 19:37 | 20:28 | 17 | 01:30 | 02:34 | 20:15 | 21:19 | 17 | 02:04 | 03:00 | 19:58 | 20:54 | 17 | 03:15 | 03:58 | 18:55 | 19:38 |
| 19 | 02:08 | 03:01 | 19:40 | 20:33 | 19 | 01:30 | 02:34 | 20:16 | 21:20 | 19 | 02:08 | 03:03 | 19:55 | 20:50 | 19 | 03:19 | 04:02 | 18:51 | 19:34 |
| 21 | 02:04 | 02:58 | 19:44 | 20:38 | 21 | 01:30 | 02:34 | 20:16 | 21:20 | 21 | 02:13 | 03:07 | 19:52 | 20:46 | 21 | 03:24 | 04:06 | 18:46 | 19:28 |
| 23 | 02:00 | 02:55 | 19:47 | 20:42 | 23 | 01:31 | 02:35 | 20:17 | 21:21 | 23 | 02:17 | 03:10 | 19:49 | 20:42 | 23 | 03:28 | 04:10 | 18:41 | 19:23 |
| 25 | 01:56 | 02:52 | 19:50 | 20:46 | 25 | 01:32 | 02:36 | 20:16 | 21:20 | 25 | 02:22 | 03:14 | 19:45 | 20:37 | 25 | 03:33 | 04:14 | 18:36 | 19:17 |
| 27 | 01:52 | 02:49 | 19:53 | 20:50 | 27 | 01:33 | 02:37 | 20:16 | 21:20 | 27 | 02:26 | 03:17 | 19:41 | 20:32 | 27 | 03:37 | 04:18 | 18:30 | 19:11 |
| 29 | 01:48 | 02:46 | 19:56 | 20:54 | 29 | 01:35 | 02:38 | 20:15 | 21:18 | 29 | 02:31 | 03:21 | 19:38 | 20:28 | 29 | 03:42 | 04:22 | 18:25 | 19:05 |
| 31 | 01:45 | 02:44 | 19:59 | 20:58 | | | | | | 31 | 02:36 | 03:25 | 19:34 | 20:23 | 31 | 03:46 | 04:26 | 18:20 | 19:00 |

| Day | SEP TWIL FROM | SR | SS | TWIL TO | Day | OCT TWIL FROM | SR | SS | TWIL TO | Day | NOV TWIL FROM | SR | SS | TWIL TO | Day | DEC TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 03:48 | 04:28 | 18:17 | 18:57 | 01 | 04:50 | 05:27 | 16:58 | 17:35 | 01 | 05:52 | 06:32 | 15:41 | 16:21 | 01 | 06:47 | 07:33 | 14:52 | 15:38 |
| 03 | 03:53 | 04:32 | 18:12 | 18:51 | 03 | 04:54 | 05:31 | 16:52 | 17:29 | 03 | 05:57 | 06:37 | 15:37 | 16:17 | 03 | 06:50 | 07:36 | 14:51 | 15:37 |
| 05 | 03:57 | 04:36 | 18:07 | 18:46 | 05 | 04:59 | 05:36 | 16:47 | 17:24 | 05 | 06:00 | 06:41 | 15:32 | 16:13 | 05 | 06:52 | 07:39 | 14:49 | 15:36 |
| 07 | 04:01 | 04:40 | 18:02 | 18:41 | 07 | 05:03 | 05:40 | 16:42 | 17:19 | 07 | 06:04 | 06:45 | 15:28 | 16:09 | 07 | 06:55 | 07:42 | 14:48 | 15:35 |
| 09 | 04:06 | 04:44 | 17:56 | 18:34 | 09 | 05:06 | 05:44 | 16:37 | 17:15 | 09 | 06:08 | 06:50 | 15:24 | 16:06 | 09 | 06:58 | 07:45 | 14:47 | 15:34 |
| 11 | 04:10 | 04:48 | 17:51 | 18:29 | 11 | 05:10 | 05:48 | 16:31 | 17:09 | 11 | 06:12 | 06:54 | 15:21 | 16:03 | 11 | 06:59 | 07:47 | 14:47 | 15:35 |
| 13 | 04:14 | 04:52 | 17:46 | 18:24 | 13 | 05:14 | 05:52 | 16:26 | 17:04 | 13 | 06:16 | 06:58 | 15:17 | 15:59 | 13 | 07:01 | 07:49 | 14:46 | 15:34 |
| 15 | 04:18 | 04:56 | 17:40 | 18:18 | 15 | 05:18 | 05:56 | 16:21 | 16:59 | 15 | 06:19 | 07:02 | 15:13 | 15:56 | 15 | 07:03 | 07:51 | 14:46 | 15:34 |
| 17 | 04:22 | 05:00 | 17:35 | 18:13 | 17 | 05:22 | 06:00 | 16:16 | 16:54 | 17 | 06:23 | 07:06 | 15:10 | 15:53 | 17 | 07:05 | 07:53 | 14:47 | 15:35 |
| 19 | 04:25 | 05:03 | 17:30 | 18:08 | 19 | 05:27 | 06:05 | 16:11 | 16:49 | 19 | 06:26 | 07:10 | 15:07 | 15:51 | 19 | 07:06 | 07:54 | 14:47 | 15:35 |
| 21 | 04:30 | 05:07 | 17:24 | 18:01 | 21 | 05:30 | 06:09 | 16:06 | 16:45 | 21 | 06:30 | 07:14 | 15:04 | 15:48 | 21 | 07:07 | 07:55 | 14:48 | 15:36 |
| 23 | 04:34 | 05:11 | 17:19 | 17:56 | 23 | 05:34 | 06:13 | 16:02 | 16:41 | 23 | 06:34 | 07:18 | 15:01 | 15:45 | 23 | 07:08 | 07:56 | 14:49 | 15:37 |
| 25 | 04:38 | 05:15 | 17:13 | 17:50 | 25 | 05:38 | 06:17 | 15:57 | 16:36 | 25 | 06:37 | 07:22 | 14:59 | 15:44 | 25 | 07:09 | 07:57 | 14:51 | 15:39 |
| 27 | 04:42 | 05:19 | 17:08 | 17:45 | 27 | 05:43 | 06:22 | 15:52 | 16:31 | 27 | 06:41 | 07:26 | 14:56 | 15:41 | 27 | 07:09 | 07:57 | 14:53 | 15:41 |
| 29 | 04:46 | 05:23 | 17:03 | 17:40 | 29 | 05:46 | 06:26 | 15:48 | 16:28 | 29 | 06:43 | 07:29 | 14:54 | 15:40 | 29 | 07:09 | 07:57 | 14:55 | 15:43 |
| | | | | | 31 | 05:50 | 06:30 | 15:43 | 16:23 | | | | | | 31 | 07:10 | 07:57 | 14:57 | 15:44 |

**Table 2: East of 11°E with the exception of the islands Læsø, Bornholm and Ertholmene. Data REF: EKCH - København/Kastrup PSN 55 37N 012 39E.**

| Day | JAN TWIL FROM | SR | SS | TWIL TO | Day | FEB TWIL FROM | SR | SS | TWIL TO | Day | MAR TWIL FROM | SR | SS | TWIL TO | Day | APR TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 06:52 | 07:38 | 14:47 | 15:33 | 01 | 06:23 | 07:04 | 15:43 | 16:24 | 01 | 05:22 | 05:59 | 16:45 | 17:22 | 01 | 04:01 | 04:39 | 17:48 | 18:26 |
| 03 | 06:52 | 07:38 | 14:50 | 15:36 | 03 | 06:20 | 07:00 | 15:47 | 16:27 | 03 | 05:17 | 05:54 | 16:49 | 17:26 | 03 | 03:56 | 04:34 | 17:52 | 18:30 |
| 05 | 06:51 | 07:37 | 14:53 | 15:39 | 05 | 06:16 | 06:56 | 15:51 | 16:31 | 05 | 05:12 | 05:49 | 16:53 | 17:30 | 05 | 03:51 | 04:29 | 17:56 | 18:34 |
| 07 | 06:51 | 07:36 | 14:55 | 15:40 | 07 | 06:12 | 06:52 | 15:56 | 16:36 | 07 | 05:07 | 05:44 | 16:57 | 17:34 | 07 | 03:46 | 04:24 | 18:00 | 18:38 |
| 09 | 06:49 | 07:34 | 14:58 | 15:43 | 09 | 06:09 | 06:48 | 16:00 | 16:39 | 09 | 05:02 | 05:39 | 17:02 | 17:39 | 09 | 03:40 | 04:19 | 18:04 | 18:43 |
| 11 | 06:48 | 07:33 | 15:02 | 15:47 | 11 | 06:05 | 06:44 | 16:04 | 16:43 | 11 | 04:57 | 05:34 | 17:06 | 17:43 | 11 | 03:35 | 04:14 | 18:08 | 18:47 |
| 13 | 06:47 | 07:31 | 15:05 | 15:49 | 13 | 06:00 | 06:39 | 16:09 | 16:48 | 13 | 04:52 | 05:29 | 17:10 | 17:47 | 13 | 03:29 | 04:09 | 18:12 | 18:52 |
| 15 | 06:45 | 07:29 | 15:09 | 15:53 | 15 | 05:57 | 06:35 | 16:13 | 16:51 | 15 | 04:47 | 05:24 | 17:14 | 17:51 | 15 | 03:24 | 04:04 | 18:16 | 18:56 |
| 17 | 06:43 | 07:27 | 15:12 | 15:56 | 17 | 05:52 | 06:30 | 16:17 | 16:55 | 17 | 04:41 | 05:18 | 17:18 | 17:55 | 17 | 03:19 | 03:59 | 18:20 | 19:00 |
| 19 | 06:41 | 07:24 | 15:16 | 15:59 | 19 | 05:48 | 06:26 | 16:22 | 17:00 | 19 | 04:36 | 05:13 | 17:22 | 17:59 | 19 | 03:13 | 03:54 | 18:24 | 19:05 |
| 21 | 06:39 | 07:22 | 15:20 | 16:03 | 21 | 05:43 | 06:21 | 16:26 | 17:04 | 21 | 04:31 | 05:08 | 17:26 | 18:03 | 21 | 03:08 | 03:49 | 18:28 | 19:09 |
| 23 | 06:37 | 07:19 | 15:24 | 16:06 | 23 | 05:38 | 06:16 | 16:30 | 17:08 | 23 | 04:26 | 05:03 | 17:30 | 18:07 | 23 | 03:03 | 03:45 | 18:32 | 19:14 |
| 25 | 06:34 | 07:16 | 15:28 | 16:10 | 25 | 05:35 | 06:12 | 16:34 | 17:11 | 25 | 04:21 | 04:58 | 17:34 | 18:11 | 25 | 02:58 | 03:40 | 18:36 | 19:18 |
| 27 | 06:30 | 07:12 | 15:32 | 16:14 | 27 | 05:30 | 06:07 | 16:39 | 17:16 | 27 | 04:15 | 04:52 | 17:38 | 18:15 | 27 | 02:52 | 03:35 | 18:40 | 19:23 |
| 29 | 06:28 | 07:09 | 15:36 | 16:17 | 29 | 05:25 | 06:02 | 16:43 | 17:20 | 29 | 04:10 | 04:47 | 17:42 | 18:19 | 29 | 02:47 | 03:31 | 18:44 | 19:28 |
| 31 | 06:25 | 07:06 | 15:41 | 16:22 | | | | | | 31 | 04:04 | 04:42 | 17:46 | 18:24 | | | | | |

| Day | MAY TWIL FROM | SR | SS | TWIL TO | Day | JUN TWIL FROM | SR | SS | TWIL TO | Day | JUL TWIL FROM | SR | SS | TWIL TO | Day | AUG TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02:42 | 03:26 | 18:48 | 19:32 | 01 | 01:37 | 02:34 | 19:42 | 20:39 | 01 | 01:32 | 02:31 | 19:55 | 20:54 | 01 | 02:29 | 03:16 | 19:14 | 20:01 |
| 03 | 02:37 | 03:22 | 18:52 | 19:37 | 03 | 01:35 | 02:32 | 19:44 | 20:41 | 03 | 01:34 | 02:33 | 19:54 | 20:53 | 03 | 02:33 | 03:20 | 19:10 | 19:57 |
| 05 | 02:32 | 03:18 | 18:56 | 19:41 | 05 | 01:33 | 02:30 | 19:47 | 20:45 | 05 | 01:37 | 02:35 | 19:53 | 20:51 | 05 | 02:37 | 03:23 | 19:06 | 19:52 |
| 07 | 02:27 | 03:13 | 19:00 | 19:46 | 07 | 01:30 | 02:29 | 19:49 | 20:48 | 07 | 01:39 | 02:37 | 19:51 | 20:49 | 07 | 02:42 | 03:27 | 19:02 | 19:47 |
| 09 | 02:22 | 03:09 | 19:04 | 19:51 | 09 | 01:28 | 02:28 | 19:51 | 20:50 | 09 | 01:42 | 02:39 | 19:49 | 20:46 | 09 | 02:46 | 03:31 | 18:57 | 19:42 |
| 11 | 02:17 | 03:05 | 19:07 | 19:55 | 11 | 01:26 | 02:26 | 19:52 | 20:52 | 11 | 01:46 | 02:42 | 19:47 | 20:43 | 11 | 02:51 | 03:35 | 18:53 | 19:37 |
| 13 | 02:13 | 03:02 | 19:11 | 20:00 | 13 | 01:26 | 02:26 | 19:54 | 20:54 | 13 | 01:50 | 02:45 | 19:45 | 20:40 | 13 | 02:56 | 03:39 | 18:48 | 19:31 |
| 15 | 02:09 | 02:58 | 19:15 | 20:04 | 15 | 01:24 | 02:25 | 19:55 | 20:56 | 15 | 01:53 | 02:47 | 19:43 | 20:37 | 15 | 02:59 | 03:42 | 18:44 | 19:27 |
| 17 | 02:04 | 02:54 | 19:18 | 20:08 | 17 | 01:24 | 02:25 | 19:56 | 20:57 | 17 | 01:56 | 02:50 | 19:40 | 20:34 | 17 | 03:04 | 03:46 | 18:39 | 19:21 |
| 19 | 02:00 | 02:51 | 19:22 | 20:13 | 19 | 01:24 | 02:25 | 19:57 | 20:58 | 19 | 02:01 | 02:54 | 19:37 | 20:30 | 19 | 03:08 | 03:50 | 18:34 | 19:16 |
| 21 | 01:56 | 02:48 | 19:25 | 20:17 | 21 | 01:24 | 02:25 | 19:57 | 20:58 | 21 | 02:05 | 02:57 | 19:34 | 20:26 | 21 | 03:13 | 03:54 | 18:30 | 19:11 |
| 23 | 01:52 | 02:45 | 19:29 | 20:22 | 23 | 01:25 | 02:26 | 19:57 | 20:58 | 23 | 02:09 | 03:00 | 19:31 | 20:22 | 23 | 03:17 | 03:58 | 18:25 | 19:06 |
| 25 | 01:48 | 02:42 | 19:32 | 20:26 | 25 | 01:26 | 02:27 | 19:57 | 20:58 | 25 | 02:13 | 03:03 | 19:27 | 20:17 | 25 | 03:22 | 04:02 | 18:20 | 19:00 |
| 27 | 01:45 | 02:39 | 19:35 | 20:29 | 27 | 01:28 | 02:28 | 19:57 | 20:57 | 27 | 02:18 | 03:07 | 19:24 | 20:13 | 27 | 03:26 | 04:06 | 18:15 | 18:55 |
| 29 | 01:42 | 02:37 | 19:38 | 20:33 | 29 | 01:29 | 02:29 | 19:56 | 20:56 | 29 | 02:22 | 03:11 | 19:20 | 20:09 | 29 | 03:30 | 04:09 | 18:10 | 18:49 |
| 31 | 01:39 | 02:35 | 19:40 | 20:36 | | | | | | 31 | 02:26 | 03:14 | 19:16 | 20:04 | 31 | 03:34 | 04:13 | 18:05 | 18:44 |

| Day | SEP TWIL FROM | SR | SS | TWIL TO | Day | OCT TWIL FROM | SR | SS | TWIL TO | Day | NOV TWIL FROM | SR | SS | TWIL TO | Day | DEC TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 03:36 | 04:15 | 18:02 | 18:41 | 01 | 04:36 | 05:13 | 16:44 | 17:21 | 01 | 05:37 | 06:16 | 15:29 | 16:08 | 01 | 06:30 | 07:15 | 14:42 | 15:27 |
| 03 | 03:40 | 04:19 | 17:57 | 18:36 | 03 | 04:40 | 05:17 | 16:39 | 17:16 | 03 | 05:40 | 06:20 | 15:25 | 16:05 | 03 | 06:33 | 07:18 | 14:41 | 15:26 |
| 05 | 03:45 | 04:23 | 17:52 | 18:30 | 05 | 04:44 | 05:21 | 16:34 | 17:11 | 05 | 05:44 | 06:24 | 15:21 | 16:01 | 05 | 06:36 | 07:21 | 14:39 | 15:24 |
| 07 | 03:49 | 04:27 | 17:47 | 18:25 | 07 | 04:48 | 05:25 | 16:28 | 17:05 | 07 | 05:48 | 06:28 | 15:17 | 15:57 | 07 | 06:37 | 07:23 | 14:38 | 15:24 |
| 09 | 03:53 | 04:31 | 17:41 | 18:19 | 09 | 04:52 | 05:29 | 16:23 | 17:00 | 09 | 05:52 | 06:33 | 15:13 | 15:54 | 09 | 06:40 | 07:26 | 14:37 | 15:24 |
| 11 | 03:56 | 04:34 | 17:36 | 18:14 | 11 | 04:56 | 05:33 | 16:18 | 16:55 | 11 | 05:56 | 06:37 | 15:09 | 15:50 | 11 | 06:42 | 07:28 | 14:37 | 15:23 |
| 13 | 04:01 | 04:38 | 17:31 | 18:08 | 13 | 05:00 | 05:37 | 16:13 | 16:50 | 13 | 06:00 | 06:41 | 15:06 | 15:47 | 13 | 06:45 | 07:31 | 14:37 | 15:23 |
| 15 | 04:05 | 04:42 | 17:26 | 18:03 | 15 | 05:04 | 05:41 | 16:08 | 16:45 | 15 | 06:03 | 06:45 | 15:03 | 15:45 | 15 | 06:45 | 07:32 | 14:37 | 15:24 |
| 17 | 04:09 | 04:46 | 17:20 | 17:57 | 17 | 05:08 | 05:45 | 16:04 | 16:41 | 17 | 06:07 | 06:49 | 14:59 | 15:41 | 17 | 06:47 | 07:34 | 14:37 | 15:24 |
| 19 | 04:13 | 04:50 | 17:15 | 17:52 | 19 | 05:11 | 05:49 | 15:59 | 16:37 | 19 | 06:10 | 06:53 | 14:56 | 15:39 | 19 | 06:48 | 07:35 | 14:38 | 15:25 |
| 21 | 04:16 | 04:53 | 17:10 | 17:47 | 21 | 05:15 | 05:53 | 15:54 | 16:32 | 21 | 06:14 | 06:57 | 14:53 | 15:36 | 21 | 06:50 | 07:37 | 14:39 | 15:26 |
| 23 | 04:20 | 04:57 | 17:05 | 17:42 | 23 | 05:19 | 05:57 | 15:49 | 16:27 | 23 | 06:18 | 07:01 | 14:51 | 15:34 | 23 | 06:51 | 07:38 | 14:40 | 15:27 |
| 25 | 04:24 | 05:01 | 16:59 | 17:36 | 25 | 05:22 | 06:00 | 15:45 | 16:23 | 25 | 06:20 | 07:04 | 14:48 | 15:32 | 25 | 06:51 | 07:38 | 14:41 | 15:28 |
| 27 | 04:28 | 05:05 | 16:54 | 17:31 | 27 | 05:26 | 06:05 | 15:40 | 16:19 | 27 | 06:24 | 07:08 | 14:46 | 15:30 | 27 | 06:51 | 07:38 | 14:43 | 15:30 |
| 29 | 04:32 | 05:09 | 16:49 | 17:26 | 29 | 05:31 | 06:10 | 15:36 | 16:15 | 29 | 06:27 | 07:11 | 14:44 | 15:28 | 29 | 06:52 | 07:38 | 14:45 | 15:31 |
| | | | | | 31 | 05:35 | 06:14 | 15:31 | 16:10 | | | | | | 31 | 06:52 | 07:38 | 14:47 | 15:33 |

**Table 3: The islands Bornholm and Ertholmene. Data REF: EKRN - Bornholm/Rønne PSN 55 04N 014 46E.**

| Day | JAN TWIL FROM | SR | SS | TWIL TO | Day | FEB TWIL FROM | SR | SS | TWIL TO | Day | MAR TWIL FROM | SR | SS | TWIL TO | Day | APR TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 06:41 | 07:26 | 14:42 | 15:27 | 01 | 06:13 | 06:53 | 15:37 | 16:17 | 01 | 05:14 | 05:50 | 16:37 | 17:13 | 01 | 03:55 | 04:32 | 17:39 | 18:16 |
| 03 | 06:41 | 07:26 | 14:45 | 15:30 | 03 | 06:09 | 06:49 | 15:41 | 16:21 | 03 | 05:09 | 05:45 | 16:41 | 17:17 | 03 | 03:50 | 04:27 | 17:43 | 18:20 |
| 05 | 06:40 | 07:25 | 14:47 | 15:32 | 05 | 06:07 | 06:46 | 15:45 | 16:24 | 05 | 05:04 | 05:40 | 16:45 | 17:21 | 05 | 03:44 | 04:22 | 17:47 | 18:25 |
| 07 | 06:40 | 07:24 | 14:50 | 15:34 | 07 | 06:03 | 06:42 | 15:49 | 16:28 | 07 | 04:59 | 05:35 | 16:49 | 17:25 | 07 | 03:39 | 04:17 | 17:51 | 18:29 |
| 09 | 06:39 | 07:23 | 14:53 | 15:37 | 09 | 05:59 | 06:38 | 15:53 | 16:32 | 09 | 04:54 | 05:30 | 16:53 | 17:29 | 09 | 03:34 | 04:12 | 17:54 | 18:32 |
| 11 | 06:37 | 07:21 | 14:56 | 15:40 | 11 | 05:55 | 06:33 | 15:58 | 16:36 | 11 | 04:49 | 05:25 | 16:57 | 17:33 | 11 | 03:28 | 04:07 | 17:58 | 18:37 |
| 13 | 06:36 | 07:20 | 15:00 | 15:44 | 13 | 05:51 | 06:29 | 16:02 | 16:40 | 13 | 04:44 | 05:20 | 17:01 | 17:37 | 13 | 03:23 | 04:02 | 18:02 | 18:41 |
| 15 | 06:35 | 07:18 | 15:03 | 15:46 | 15 | 05:47 | 06:25 | 16:06 | 16:44 | 15 | 04:39 | 05:15 | 17:05 | 17:41 | 15 | 03:18 | 03:57 | 18:06 | 18:45 |
| 17 | 06:33 | 07:15 | 15:07 | 15:50 | 17 | 05:42 | 06:20 | 16:10 | 16:48 | 17 | 04:34 | 05:10 | 17:09 | 17:45 | 17 | 03:12 | 03:52 | 18:10 | 18:50 |
| 19 | 06:31 | 07:13 | 15:10 | 15:52 | 19 | 05:39 | 06:16 | 16:14 | 16:51 | 19 | 04:29 | 05:05 | 17:13 | 17:49 | 19 | 03:07 | 03:47 | 18:14 | 18:54 |
| 21 | 06:28 | 07:10 | 15:14 | 15:56 | 21 | 05:34 | 06:11 | 16:19 | 16:56 | 21 | 04:24 | 05:00 | 17:17 | 17:53 | 21 | 03:01 | 03:42 | 18:18 | 18:59 |
| 23 | 06:26 | 07:08 | 15:18 | 16:00 | 23 | 05:30 | 06:07 | 16:23 | 17:00 | 23 | 04:19 | 04:55 | 17:21 | 17:57 | 23 | 02:57 | 03:38 | 18:22 | 19:03 |
| 25 | 06:24 | 07:05 | 15:22 | 16:03 | 25 | 05:25 | 06:02 | 16:27 | 17:04 | 25 | 04:13 | 04:50 | 17:25 | 18:02 | 25 | 02:51 | 03:33 | 18:26 | 19:08 |
| 27 | 06:21 | 07:02 | 15:26 | 16:07 | 27 | 05:20 | 05:57 | 16:31 | 17:08 | 27 | 04:07 | 04:44 | 17:29 | 18:06 | 27 | 02:47 | 03:29 | 18:30 | 19:12 |
| 29 | 06:17 | 06:58 | 15:30 | 16:11 | 29 | 05:16 | 05:52 | 16:35 | 17:11 | 29 | 04:02 | 04:39 | 17:33 | 18:10 | 29 | 02:41 | 03:24 | 18:33 | 19:16 |
| 31 | 06:15 | 06:55 | 15:34 | 16:14 | | | | | | 31 | 03:57 | 04:34 | 17:37 | 18:14 | | | | | |

| Day | MAY TWIL FROM | SR | SS | TWIL TO | Day | JUN TWIL FROM | SR | SS | TWIL TO | Day | JUL TWIL FROM | SR | SS | TWIL TO | Day | AUG TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 02:37 | 03:20 | 18:37 | 19:20 | 01 | 01:34 | 02:29 | 19:30 | 20:25 | 01 | 01:29 | 02:26 | 19:43 | 20:40 | 01 | 02:24 | 03:10 | 19:03 | 19:49 |
| 03 | 02:32 | 03:16 | 18:41 | 19:25 | 03 | 01:32 | 02:27 | 19:32 | 20:27 | 03 | 01:31 | 02:28 | 19:42 | 20:39 | 03 | 02:28 | 03:14 | 18:59 | 19:45 |
| 05 | 02:27 | 03:11 | 18:45 | 19:29 | 05 | 01:29 | 02:25 | 19:34 | 20:30 | 05 | 01:34 | 02:30 | 19:41 | 20:37 | 05 | 02:32 | 03:17 | 18:55 | 19:40 |
| 07 | 02:22 | 03:07 | 18:49 | 19:34 | 07 | 01:27 | 02:24 | 19:36 | 20:33 | 07 | 01:36 | 02:32 | 19:39 | 20:35 | 07 | 02:37 | 03:21 | 18:51 | 19:35 |
| 09 | 02:17 | 03:03 | 18:53 | 19:39 | 09 | 01:26 | 02:23 | 19:38 | 20:35 | 09 | 01:40 | 02:35 | 19:37 | 20:32 | 09 | 02:41 | 03:25 | 18:47 | 19:31 |
| 11 | 02:13 | 03:00 | 18:56 | 19:43 | 11 | 01:24 | 02:22 | 19:40 | 20:38 | 11 | 01:43 | 02:37 | 19:35 | 20:29 | 11 | 02:45 | 03:28 | 18:42 | 19:25 |
| 13 | 02:09 | 02:56 | 19:00 | 19:47 | 13 | 01:23 | 02:21 | 19:41 | 20:39 | 13 | 01:46 | 02:40 | 19:33 | 20:26 | 13 | 02:50 | 03:32 | 18:38 | 19:20 |
| 15 | 02:04 | 02:52 | 19:03 | 19:51 | 15 | 01:23 | 02:21 | 19:42 | 20:40 | 15 | 01:49 | 02:42 | 19:31 | 20:24 | 15 | 02:54 | 03:36 | 18:33 | 19:15 |
| 17 | 02:00 | 02:49 | 19:07 | 19:56 | 17 | 01:22 | 02:21 | 19:43 | 20:41 | 17 | 01:53 | 02:45 | 19:28 | 20:20 | 17 | 02:59 | 03:40 | 18:29 | 19:10 |
| 19 | 01:56 | 02:46 | 19:10 | 20:00 | 19 | 01:22 | 02:21 | 19:44 | 20:43 | 19 | 01:57 | 02:48 | 19:25 | 20:16 | 19 | 03:02 | 03:43 | 18:24 | 19:05 |
| 21 | 01:53 | 02:43 | 19:14 | 20:04 | 21 | 01:22 | 02:21 | 19:44 | 20:43 | 21 | 02:01 | 02:51 | 19:22 | 20:12 | 21 | 03:07 | 03:47 | 18:19 | 18:59 |
| 23 | 01:49 | 02:40 | 19:17 | 20:08 | 23 | 01:23 | 02:22 | 19:45 | 20:43 | 23 | 02:05 | 02:54 | 19:19 | 20:09 | 23 | 03:11 | 03:51 | 18:15 | 18:55 |
| 25 | 01:45 | 02:37 | 19:20 | 20:12 | 25 | 01:23 | 02:23 | 19:45 | 20:43 | 25 | 02:09 | 02:58 | 19:16 | 20:05 | 25 | 03:15 | 03:55 | 18:10 | 18:50 |
| 27 | 01:41 | 02:34 | 19:23 | 20:16 | 27 | 01:26 | 02:24 | 19:44 | 20:42 | 27 | 02:13 | 03:01 | 19:12 | 20:00 | 27 | 03:19 | 03:58 | 18:05 | 18:44 |
| 29 | 01:38 | 02:32 | 19:26 | 20:20 | 29 | 01:27 | 02:25 | 19:44 | 20:42 | 29 | 02:18 | 03:05 | 19:09 | 19:56 | 29 | 03:23 | 04:02 | 18:00 | 18:39 |
| 31 | 01:36 | 02:30 | 19:28 | 20:22 | | | | | | 31 | 02:21 | 03:08 | 19:05 | 19:52 | 31 | 03:28 | 04:06 | 17:55 | 18:33 |

| Day | SEP TWIL FROM | SR | SS | TWIL TO | Day | OCT TWIL FROM | SR | SS | TWIL TO | Day | NOV TWIL FROM | SR | SS | TWIL TO | Day | DEC TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 03:30 | 04:08 | 17:53 | 18:31 | 01 | 04:28 | 05:04 | 16:36 | 17:12 | 01 | 05:27 | 06:06 | 15:23 | 16:02 | 01 | 06:19 | 07:03 | 14:37 | 15:21 |
| 03 | 03:34 | 04:12 | 17:47 | 18:25 | 03 | 04:32 | 05:08 | 16:31 | 17:07 | 03 | 05:31 | 06:10 | 15:18 | 15:57 | 03 | 06:22 | 07:06 | 14:35 | 15:19 |
| 05 | 03:37 | 04:15 | 17:42 | 18:20 | 05 | 04:36 | 05:12 | 16:26 | 17:02 | 05 | 05:35 | 06:14 | 15:15 | 15:54 | 05 | 06:24 | 07:09 | 14:34 | 15:19 |
| 07 | 03:42 | 04:19 | 17:37 | 18:14 | 07 | 04:40 | 05:16 | 16:21 | 16:57 | 07 | 05:38 | 06:18 | 15:11 | 15:51 | 07 | 06:27 | 07:12 | 14:33 | 15:18 |
| 09 | 03:46 | 04:23 | 17:32 | 18:09 | 09 | 04:43 | 05:19 | 16:16 | 16:52 | 09 | 05:42 | 06:22 | 15:07 | 15:47 | 09 | 06:29 | 07:14 | 14:33 | 15:18 |
| 11 | 03:49 | 04:26 | 17:27 | 18:04 | 11 | 04:47 | 05:23 | 16:11 | 16:47 | 11 | 05:46 | 06:26 | 15:03 | 15:43 | 11 | 06:31 | 07:16 | 14:32 | 15:17 |
| 13 | 03:53 | 04:30 | 17:22 | 17:59 | 13 | 04:51 | 05:27 | 16:06 | 16:43 | 13 | 05:49 | 06:30 | 15:00 | 15:41 | 13 | 06:34 | 07:19 | 14:32 | 15:17 |
| 15 | 03:57 | 04:34 | 17:17 | 17:54 | 15 | 04:54 | 05:31 | 16:01 | 16:38 | 15 | 05:53 | 06:34 | 14:57 | 15:38 | 15 | 06:34 | 07:20 | 14:32 | 15:18 |
| 17 | 04:01 | 04:38 | 17:12 | 17:49 | 17 | 04:58 | 05:35 | 15:56 | 16:33 | 17 | 05:57 | 06:38 | 14:53 | 15:34 | 17 | 06:36 | 07:21 | 14:32 | 15:18 |
| 19 | 04:05 | 04:41 | 17:07 | 17:43 | 19 | 05:02 | 05:39 | 15:51 | 16:28 | 19 | 06:00 | 06:42 | 14:51 | 15:33 | 19 | 06:37 | 07:23 | 14:33 | 15:19 |
| 21 | 04:09 | 04:45 | 17:01 | 17:37 | 21 | 05:06 | 05:43 | 15:47 | 16:24 | 21 | 06:03 | 06:45 | 14:48 | 15:30 | 21 | 06:39 | 07:25 | 14:34 | 15:20 |
| 23 | 04:13 | 04:49 | 16:56 | 17:32 | 23 | 05:09 | 05:47 | 15:42 | 16:20 | 23 | 06:06 | 06:49 | 14:45 | 15:28 | 23 | 06:39 | 07:25 | 14:35 | 15:21 |
| 25 | 04:17 | 04:53 | 16:51 | 17:27 | 25 | 05:13 | 05:51 | 15:38 | 16:16 | 25 | 06:10 | 06:53 | 14:43 | 15:26 | 25 | 06:40 | 07:26 | 14:36 | 15:22 |
| 27 | 04:20 | 04:56 | 16:46 | 17:22 | 27 | 05:17 | 05:55 | 15:33 | 16:11 | 27 | 06:13 | 06:56 | 14:41 | 15:24 | 27 | 06:41 | 07:26 | 14:38 | 15:23 |
| 29 | 04:24 | 05:00 | 16:41 | 17:17 | 29 | 05:21 | 05:59 | 15:29 | 16:07 | 29 | 06:16 | 07:00 | 14:39 | 15:23 | 29 | 06:41 | 07:26 | 14:40 | 15:25 |
| | | | | | 31 | 05:25 | 06:04 | 15:25 | 16:04 | | | | | | 31 | 06:41 | 07:26 | 14:42 | 15:27 |

**Table 4: North Sea Area west of 8°E. Data REF: EKTE - Tyra E PSN 55 43N 004 48E.**

| Day | JAN TWIL FROM | SR | SS | TWIL TO | Day | FEB TWIL FROM | SR | SS | TWIL TO | Day | MAR TWIL FROM | SR | SS | TWIL TO | Day | APR TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 07:24 | 08:10 | 15:18 | 16:04 | 01 | 06:54 | 07:35 | 16:14 | 16:55 | 01 | 05:54 | 06:31 | 17:16 | 17:53 | 01 | 04:33 | 05:11 | 18:20 | 18:58 |
| 03 | 07:24 | 08:10 | 15:21 | 16:07 | 03 | 06:52 | 07:32 | 16:18 | 16:58 | 03 | 05:49 | 06:26 | 17:20 | 17:57 | 03 | 04:28 | 05:06 | 18:24 | 19:02 |
| 05 | 07:23 | 08:09 | 15:23 | 16:09 | 05 | 06:48 | 07:28 | 16:22 | 17:02 | 05 | 05:44 | 06:21 | 17:24 | 18:01 | 05 | 04:22 | 05:00 | 18:28 | 19:06 |
| 07 | 07:22 | 08:08 | 15:26 | 16:12 | 07 | 06:44 | 07:24 | 16:27 | 17:07 | 07 | 05:39 | 06:16 | 17:29 | 18:06 | 07 | 04:16 | 04:55 | 18:32 | 19:11 |
| 09 | 07:21 | 08:06 | 15:29 | 16:14 | 09 | 06:40 | 07:19 | 16:31 | 17:10 | 09 | 05:34 | 06:11 | 17:33 | 18:10 | 09 | 04:11 | 04:50 | 18:36 | 19:15 |
| 11 | 07:20 | 08:05 | 15:33 | 16:18 | 11 | 06:36 | 07:15 | 16:35 | 17:14 | 11 | 05:28 | 06:05 | 17:37 | 18:14 | 11 | 04:06 | 04:45 | 18:40 | 19:19 |
| 13 | 07:18 | 08:03 | 15:36 | 16:21 | 13 | 06:32 | 07:11 | 16:40 | 17:19 | 13 | 05:23 | 06:00 | 17:41 | 18:18 | 13 | 04:00 | 04:40 | 18:44 | 19:24 |
| 15 | 07:17 | 08:01 | 15:40 | 16:24 | 15 | 06:28 | 07:07 | 16:44 | 17:23 | 15 | 05:18 | 05:55 | 17:45 | 18:22 | 15 | 03:55 | 04:35 | 18:48 | 19:28 |
| 17 | 07:15 | 07:59 | 15:43 | 16:27 | 17 | 06:24 | 07:02 | 16:49 | 17:27 | 17 | 05:12 | 05:50 | 17:49 | 18:26 | 17 | 03:50 | 04:30 | 18:52 | 19:32 |
| 19 | 07:13 | 07:56 | 15:47 | 16:30 | 19 | 06:19 | 06:57 | 16:53 | 17:31 | 19 | 05:08 | 05:45 | 17:53 | 18:30 | 19 | 03:44 | 04:25 | 18:56 | 19:37 |
| 21 | 07:10 | 07:53 | 15:51 | 16:34 | 21 | 06:15 | 06:53 | 16:57 | 17:35 | 21 | 05:02 | 05:39 | 17:57 | 18:34 | 21 | 03:39 | 04:20 | 19:00 | 19:41 |
| 23 | 07:08 | 07:51 | 15:55 | 16:38 | 23 | 06:10 | 06:48 | 17:01 | 17:39 | 23 | 04:57 | 05:34 | 18:01 | 18:38 | 23 | 03:34 | 04:16 | 19:04 | 19:46 |
| 25 | 07:05 | 07:48 | 15:59 | 16:41 | 25 | 06:06 | 06:44 | 17:05 | 17:43 | 25 | 04:52 | 05:29 | 18:05 | 18:42 | 25 | 03:29 | 04:11 | 19:08 | 19:50 |
| 27 | 07:02 | 07:44 | 16:03 | 16:45 | 27 | 06:01 | 06:38 | 17:10 | 17:47 | 27 | 04:47 | 05:24 | 18:09 | 18:46 | 27 | 03:23 | 04:06 | 19:12 | 19:55 |
| 29 | 07:00 | 07:41 | 16:07 | 16:48 | 29 | 05:56 | 06:33 | 17:14 | 17:51 | 29 | 04:42 | 05:19 | 18:14 | 18:51 | 29 | 03:18 | 04:02 | 19:16 | 20:00 |
| 31 | 06:56 | 07:37 | 16:12 | 16:53 | | | | | | 31 | 04:35 | 05:13 | 18:18 | 18:56 | | | | | |

| Day | MAY TWIL FROM | SR | SS | TWIL TO | Day | JUN TWIL FROM | SR | SS | TWIL TO | Day | JUL TWIL FROM | SR | SS | TWIL TO | Day | AUG TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 03:13 | 03:57 | 19:20 | 20:04 | 01 | 02:07 | 03:04 | 20:14 | 21:11 | 01 | 02:02 | 03:02 | 20:27 | 21:27 | 01 | 02:59 | 03:47 | 19:46 | 20:34 |
| 03 | 03:08 | 03:53 | 19:24 | 20:09 | 03 | 02:04 | 03:02 | 20:16 | 21:14 | 03 | 02:04 | 03:03 | 20:26 | 21:25 | 03 | 03:04 | 03:51 | 19:42 | 20:29 |
| 05 | 03:02 | 03:48 | 19:28 | 20:14 | 05 | 02:02 | 03:00 | 20:19 | 21:17 | 05 | 02:06 | 03:05 | 20:25 | 21:24 | 05 | 03:08 | 03:54 | 19:38 | 20:24 |
| 07 | 02:58 | 03:44 | 19:32 | 20:18 | 07 | 02:00 | 02:59 | 20:21 | 21:20 | 07 | 02:10 | 03:08 | 20:23 | 21:21 | 07 | 03:13 | 03:58 | 19:34 | 20:19 |
| 09 | 02:53 | 03:40 | 19:36 | 20:23 | 09 | 01:58 | 02:58 | 20:23 | 21:23 | 09 | 02:13 | 03:10 | 20:21 | 21:18 | 09 | 03:17 | 04:02 | 19:30 | 20:14 |
| 11 | 02:48 | 03:36 | 19:39 | 20:27 | 11 | 01:57 | 02:57 | 20:24 | 21:24 | 11 | 02:16 | 03:13 | 20:19 | 21:15 | 11 | 03:22 | 04:06 | 19:25 | 20:09 |
| 13 | 02:43 | 03:32 | 19:43 | 20:32 | 13 | 01:55 | 02:56 | 20:26 | 21:27 | 13 | 02:19 | 03:15 | 20:17 | 21:13 | 13 | 03:27 | 04:10 | 19:20 | 20:03 |
| 15 | 02:39 | 03:29 | 19:47 | 20:37 | 15 | 01:55 | 02:56 | 20:27 | 21:28 | 15 | 02:23 | 03:18 | 20:15 | 21:10 | 15 | 03:31 | 04:14 | 19:15 | 19:58 |
| 17 | 02:35 | 03:25 | 19:50 | 20:40 | 17 | 01:55 | 02:56 | 20:28 | 21:29 | 17 | 02:27 | 03:21 | 20:12 | 21:06 | 17 | 03:35 | 04:17 | 19:11 | 19:53 |
| 19 | 02:31 | 03:22 | 19:54 | 20:45 | 19 | 01:55 | 02:56 | 20:29 | 21:30 | 19 | 02:31 | 03:24 | 20:09 | 21:02 | 19 | 03:39 | 04:21 | 19:06 | 19:48 |
| 21 | 02:27 | 03:19 | 19:57 | 20:49 | 21 | 01:55 | 02:56 | 20:29 | 21:30 | 21 | 02:35 | 03:27 | 20:06 | 20:58 | 21 | 03:44 | 04:25 | 19:01 | 19:42 |
| 23 | 02:23 | 03:16 | 20:01 | 20:54 | 23 | 01:56 | 02:57 | 20:29 | 21:30 | 23 | 02:40 | 03:31 | 20:03 | 20:54 | 23 | 03:48 | 04:29 | 18:56 | 19:37 |
| 25 | 02:19 | 03:13 | 20:04 | 20:58 | 25 | 01:57 | 02:58 | 20:29 | 21:30 | 25 | 02:44 | 03:34 | 20:00 | 20:50 | 25 | 03:53 | 04:33 | 18:51 | 19:31 |
| 27 | 02:15 | 03:10 | 20:07 | 21:02 | 27 | 01:58 | 02:59 | 20:29 | 21:30 | 27 | 02:48 | 03:38 | 19:56 | 20:46 | 27 | 03:57 | 04:37 | 18:46 | 19:26 |
| 29 | 02:12 | 03:08 | 20:10 | 21:06 | 29 | 02:00 | 03:00 | 20:28 | 21:28 | 29 | 02:52 | 03:41 | 19:52 | 20:41 | 29 | 04:01 | 04:41 | 18:41 | 19:21 |
| 31 | 02:09 | 03:05 | 20:13 | 21:09 | | | | | | 31 | 02:57 | 03:45 | 19:48 | 20:36 | 31 | 04:05 | 04:44 | 18:36 | 19:15 |

| Day | SEP TWIL FROM | SR | SS | TWIL TO | Day | OCT TWIL FROM | SR | SS | TWIL TO | Day | NOV TWIL FROM | SR | SS | TWIL TO | Day | DEC TWIL FROM | SR | SS | TWIL TO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 04:07 | 04:46 | 18:34 | 19:13 | 01 | 05:07 | 05:44 | 17:15 | 17:52 | 01 | 06:09 | 06:48 | 16:00 | 16:39 | 01 | 07:02 | 07:47 | 15:13 | 15:58 |
| 03 | 04:11 | 04:50 | 18:28 | 19:07 | 03 | 05:11 | 05:48 | 17:10 | 17:47 | 03 | 06:12 | 06:52 | 15:56 | 16:36 | 03 | 07:05 | 07:50 | 15:11 | 15:56 |
| 05 | 04:16 | 04:54 | 18:23 | 19:01 | 05 | 05:15 | 05:52 | 17:05 | 17:42 | 05 | 06:16 | 06:56 | 15:52 | 16:32 | 05 | 07:07 | 07:53 | 15:10 | 15:56 |
| 07 | 04:20 | 04:58 | 18:18 | 18:56 | 07 | 05:19 | 05:56 | 17:00 | 17:37 | 07 | 06:20 | 07:00 | 15:48 | 16:28 | 07 | 07:10 | 07:56 | 15:09 | 15:55 |
| 09 | 04:24 | 05:02 | 18:13 | 18:51 | 09 | 05:23 | 06:00 | 16:55 | 17:32 | 09 | 06:23 | 07:04 | 15:44 | 16:25 | 09 | 07:12 | 07:58 | 15:08 | 15:54 |
| 11 | 04:28 | 05:06 | 18:08 | 18:46 | 11 | 05:27 | 06:04 | 16:50 | 17:27 | 11 | 06:27 | 07:09 | 15:40 | 16:21 | 11 | 07:14 | 08:00 | 15:08 | 15:54 |
| 13 | 04:33 | 05:10 | 18:02 | 18:39 | 13 | 05:31 | 06:08 | 16:45 | 17:22 | 13 | 06:31 | 07:13 | 15:37 | 16:19 | 13 | 07:16 | 08:03 | 15:08 | 15:55 |
| 15 | 04:36 | 05:13 | 17:57 | 18:34 | 15 | 05:35 | 06:12 | 16:40 | 17:17 | 15 | 06:35 | 07:17 | 15:33 | 16:15 | 15 | 07:18 | 08:05 | 15:08 | 15:55 |
| 17 | 04:40 | 05:17 | 17:52 | 18:29 | 17 | 05:38 | 06:16 | 16:35 | 17:13 | 17 | 06:39 | 07:21 | 15:30 | 16:12 | 17 | 07:19 | 08:06 | 15:08 | 15:55 |
| 19 | 04:44 | 05:21 | 17:47 | 18:24 | 19 | 05:43 | 06:21 | 16:30 | 17:08 | 19 | 06:42 | 07:25 | 15:27 | 16:10 | 19 | 07:21 | 08:08 | 15:09 | 15:56 |
| 21 | 04:48 | 05:25 | 17:41 | 18:18 | 21 | 05:47 | 06:25 | 16:25 | 17:03 | 21 | 06:46 | 07:29 | 15:24 | 16:07 | 21 | 07:22 | 08:09 | 15:09 | 15:56 |
| 23 | 04:52 | 05:29 | 17:36 | 18:13 | 23 | 05:51 | 06:29 | 16:20 | 16:58 | 23 | 06:48 | 07:32 | 15:22 | 16:06 | 23 | 07:23 | 08:10 | 15:11 | 15:58 |
| 25 | 04:56 | 05:33 | 17:31 | 18:08 | 25 | 05:55 | 06:33 | 16:16 | 16:54 | 25 | 06:52 | 07:36 | 15:19 | 16:03 | 25 | 07:23 | 08:10 | 15:12 | 15:59 |
| 27 | 05:00 | 05:37 | 17:26 | 18:03 | 27 | 05:58 | 06:37 | 16:11 | 16:50 | 27 | 06:56 | 07:40 | 15:17 | 16:01 | 27 | 07:23 | 08:11 | 15:14 | 16:01 |
| 29 | 05:03 | 05:40 | 17:20 | 17:57 | 29 | 06:02 | 06:41 | 16:07 | 16:46 | 29 | 06:58 | 07:43 | 15:15 | 16:00 | 29 | 07:24 | 08:10 | 15:16 | 16:03 |
| | | | | | 31 | 06:07 | 06:46 | 16:02 | 16:41 | | | | | | 31 | 07:24 | 08:10 | 15:18 | 16:04 |