

**ENR 5.3 OTHER ACTIVITIES OF HAZARDOUS NATURE****1. ACTIVITIES IN THE NORTHERN PART OF THE NORTH SEA (Oil rigs)****1.1 General**

In connection with the exploration and production of oil and gas in the northern part of the North Sea, activities may occur which could endanger air traffic in the area. These activities could be: intensive flying with helicopters and "Cold Flaring".

In the following precautionary measures to be taken in order to minimize risk to the air traffic as well as to the staff at the installations concerned will be outlined. Change to this information will be promulgated via NOTAM class I.

**1.2 Cold Flaring**

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 mobile oil- and gasinstallations:

Actual information concerning "Cold Flaring" is available from TYRA Information on frequency 118.425 Mhz within following opening hours:

Winter MON-FRI 0500-1700Z – SAT/SUN CLSD  
Summer MON-FRI 0600-1800Z - SAT/SUN CLSD

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

**1.3 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.

**1.4 Fixed Oil And Gas Installations**

A list of fixed installations are given below.

|        |     |                 |
|--------|-----|-----------------|
| DAN B  | PSN | 552810N 050812E |
| DAN E  | PSN | 552852N 050655E |
| DAN FC | PSN | 552840N 050619E |
| GORM C | PSN | 553446N 044525E |

|             |     |                 |
|-------------|-----|-----------------|
| ROLF        | PSN | 553622N 042931E |
| SKJOLD C    | PSN | 553158N 045431E |
| TYRA EAST A | PSN | 554317N 044806E |
| TYRA WEST A | PSN | 554259N 044500E |

### 1.5 Mobile Oil and Gas Installations:

Positions of mobile installations will not be published in AIP.

### 1.6 Flare Stacks Other Than Off-Shore

From the flare stack located at position stated below escape and burning of gas and condensates may take place occasionally.

- a) NW of Varde at PSN 554005N 082155E (see ENR 5.4: OBST VARDE).
- b) S of Kalundborg at PSN 553913N 110601E (see ENR 5.4: OBST KALUNDBORG 2).
- c) SW of Egtved at PSN 553557E 0091357E (see ENR 5.4: OBST EGTVED).
- d) N of Viborg at PSN 563825N 0092503E (See ENR 5.4, OBST Viborg).
- e) SE of Næstved at PSN 551237N 0115908E (See ENR 5.4, OBST Everdrup).
- f) NE of Stenlille at PSN 55 32 58N 011 37 25E (See ENR 5.4, OBST Stenlille).

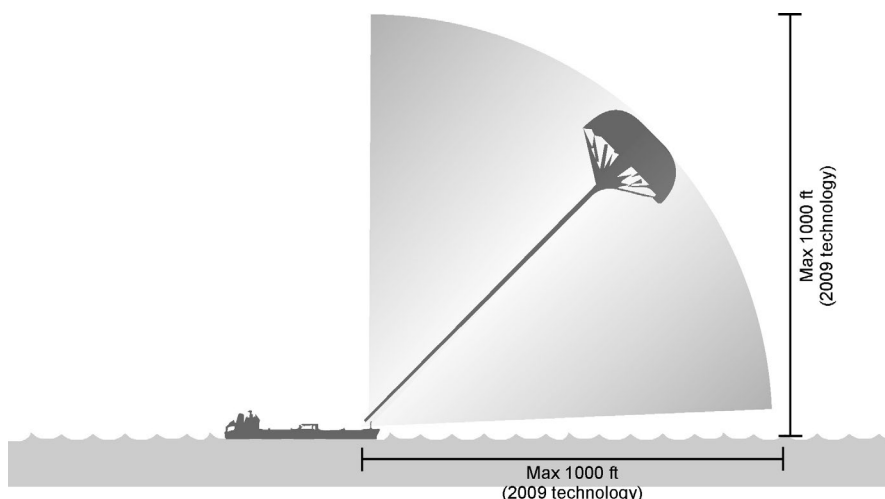
Due to high temperature and risk of explosion it is recommended to avoid overflying of the flare stack below 2000 FT MSL

## 2. USE OF TOWING KITE PROPULSION SYSTEMS

Ships using a towing kite (skysail) as a supplement to traditional propulsion may constitute a danger to low flying aircraft over the sea. The towing kite is a large paraglider look-a-like device that is attached to the ship's bow with a synthetic rope. It normally manoeuvres constantly in a 'horizontal figure-eight' pattern in order to achieve maximum propulsion efficiency. The kite will normally operate ahead of the ship within 50° of its course and at an angle of 30-60° but it may occasionally operate up to 90° off the ship's course and at any angle up to zenith above the ship. The kite is illuminated at night.

With 2009 technology towing kites may operate up to 300 meters (1000 ft) above the sea. However, as technology improves this figure may double.

Towing kites may be used in class G airspace outside the territorial boundary, i.e. beyond the limits of national jurisdiction under the United Nations Convention on the Law of the Sea (UNCLOS).



### 3. AIR-TO-AIR REFUELING AREAS (AARA)

#### 3.1 General

Air refueling (AAR) in EKDK FIR should normally be performed in one of the preplanned AAR Tracks listed in 3.2. AAR is however not limited to the preplanned AAR tracks and can be completed in the entire EKDK FIR after coordination with ACC Copenhagen.

AAR in the AAR Tracks listed in 3.2 will normally include a clearance to remain inside the associated TSA / TRA (see chart 3.4 and ENR 5.2) which requires the AAR participants to stay within and not closer than 2.5NM to the lateral limits of the associated TSA / TRA unless otherwise coordinated with the controlling agency.

The inbound track is flown from the Additional Point and to the Anchor Point followed by a turn in the specified direction. The inbound track can be shortened but not extended unless coordinated with the controlling agency.

#### 3.2 Air Refueling Tracks

|   |   |
|---|---|
| JENNA track<br>Altitude Block: FL180-280<br>Anchor Point: N55°32.00' E006°20.00'<br>Additional Point: N55°32.00' E007°25.00'<br>Inbound Track: 270°T<br>Turn direction: Left<br>Associated TSA: FANO and DOGGER | RANDI track<br>Altitude Block: FL150-240<br>Anchor Point: N57°00.00' E009°00.00'<br>Additional Point: N57°25.00' E010°10.00'<br>Inbound Track: 235°T<br>Turn direction: Left<br>Associated TRA: AALBORG       |
| SOFIA track<br>Altitude Block: FL180-280<br>Anchor Point: N56°12.00' E005°55.00'<br>Additional Point: N56°50.00' E005°55.00'<br>Inbound Track: 180°T<br>Turn direction: Left<br>Associated TRA: NS 1 and NS 3   | EMILY track<br>Altitude Block: FL185-245<br>Anchor Point: N56°34.00' E009°32.00'<br>Additional Point: N55°56.00' E009°32.00'<br>Inbound Track: 360°T<br>Turn direction: Left<br>Associated TRA: JY 1 and JY 2 |
| ANGEL track<br>Altitude Block: FL180-280<br>Anchor Point: N56°15.00' E006°00.00'<br>Additional Point: N56°15.00' E007°30.00'<br>Inbound Track: 270°T<br>Turn direction: Left<br>Associated TRA: NS 3 and NS 4   | SARAH track<br>Altitude Block: FL150-240<br>Anchor Point: N55°20.00' E008°45.00'<br>Additional Point: N55°20.00' E009°45.00'<br>Inbound Track: 270°T<br>Turn direction: Left<br>Associated TRA: SKRYDSTRUP    |
| KYLIE track<br>Altitude Block: FL180-280<br>Anchor Point: N56°50.00' E007°30.00'<br>Additional Point: N57°20.00' E008°30.00'<br>Inbound Track: 230°T<br>Turn direction: Left<br>Associated TSA: HANSTHOLM-A     |   |

### 3.3. Reservation and allocation

A reservation request must be forwarded via e-mail to RDAF National Air Operations Center (NAOC) NLT 72 hours prior intended use: FKO-KTP-F-NAOC-AIRSPACE@MIL.DK

The reservation request must include the following information:

- AAR Date
- Start Time (Z)
- End Time (Z)
- Tanker Type
- Tanker Callsign
- Requested Altitude Block
- Preferred AAR Track
- Alternate AAR Track
- Refueling equipment (boom and/or drogue)
- Receivers (callsign(s), number, type, expected offload per receiver)
- Desired RV procedure
- Expected Total Offload
- Opportunity (dry) hookup by RDAF F-16/F-35A permitted (Y/N)
- Fuel Owner POC during AAR (Name, contact phone#, chat handle)
- AAR POC (Name, contact phone#, e-mail).

A confirmation by NAOC only guarantees that no known military activity is scheduled in the specific area during the requested timeframe. Specific allocation will be performed by the controlling agency when approaching the AAR area. AAR units must therefore be flexible and always ready to move to another area.

NAOC Future Operations, phone: +45 728 40619