

# UKCS Mobilisation and Logistics Plan

May 2016

**Authors:**  
Vanessa Haynes



**Oil Spill Response Limited**

Lower William Street

Southampton,

SO14 5QE

UNITED KINGDOM

Tel: +44 2380 331 551

Fax: +44 2380 331 972

---

## Contents

1. Introduction .....	4
1.1 Purpose .....	4
2. Technical Specifications .....	5
3. Mobilisation .....	7
3.1 Aircraft Location.....	8
OSRL Service subscriber .....	9
4. Flight times.....	10
5. Dedicated crew availability .....	12
6. Services Supplied .....	13
6.1 Responsibility Matrix .....	13
6.2 Potential FOB's.....	14
6.3 Report supplied by OSRL.....	14
6.4 BONN agreement.....	15
6.5 Spidertrack .....	15
7.6 Communication Flow Chart .....	16
7. Activation Fees.....	17
8. Additional Information.....	17
8.1 Table Top Exercises.....	17
8.2 Training .....	17
8.3 Additional Information.....	18

## List of Figures

Figure 1: Range rings based on pilot and observer on board and still winds. Unfavourable weather conditions may affect the performance of the aircraft. ....	10
Figure 2: Range rings based on pilot and observer on board and still winds. Showing the UKCS infrastructure. Unfavourable weather conditions may affect the performance of the aircraft. ....	11
Figure 3: Dedicated crew availability has been based on the realistic prospect of mobilisation times for over flights during daylight hours throughout the year.....	12
Figure 4: Example quantification log found in the report .....	14
Figure 5: Example of a spider track of the UKCS plane on a sortie.....	15
Figure 6: graph showing the communication flow chart between the three parties.....	16

## List of Tables

Table 1: Technical Specification.....	6
Table 2: UKCS Range .....	6
Table 3: Responsibility Matrix.....	13
Table 4: Showing the Bonn agreement codes .....	15

## 1. Introduction

From the 1st January 2016 Oil Spill Response Limited (OSRL) has engaged with a new Aviation contractor 2Excel to provide aerial surveillance coverage for the United Kingdom Continental Shelf (UKCS). To ensure the service requirements are met an aircraft with Interim Operational Capability (IOC) has been provided from 1st January 2016, and an aircraft with Full Operational Capability (FOC) provided by 1st July 2016.

### 1.1 Purpose

The Mobilisation and Logistics Planning Guide is designed to provide clear guidelines with regard to the process of planning and mobilisation during initial deployment phases of the UKCS aerial surveillance system. This will help to ensure that operational capability is delivered on time, as efficiently as possible to arrive at any spill site within the UKCS. The guide provides details on the following:

- Technical specifications
- Mobilisation instructions
- Flight times and range rings
- What OSRL will supply
- The support required from the member company

If the client requires further information or assistance with regards to the UKCS OSRL service they should contact the duty manager.

## 2. Technical Specifications

<b>Aircraft Type</b>	 <p style="text-align: center;">PA-31 Navajo (IOC Platform)</p>
<b>Tail Number (IOC)</b>	G-BEZL, G-RHYM, G-BPYR
<b>Tail Number (FOC)</b>	G-UKCS
<b>Operator</b>	2Excel Aviation Ltd
<b>Base</b>	Doncaster Sheffield Airport EGCN
<b>Call Sign</b>	Broadsword xx
<b>Crew</b>	1 pilot and 1 system operator
<b>Range</b>	See range rings (figure 1 and 2)
<b>On board Equipment (IOC)</b>	Sensor Turret with IR and visual camera, a grab bag with a SLR camera and GPS and communications through a iridium sat phone
<b>On board Equipment (FOC)</b>	Sensor turret with UV, IR and Visual cameras, a fully integrated voice and data Sat system and full CarteNav (mission software) integration.
<b>Communication</b>	Aviation VHF, sat phone

<b>Other Information</b>	Length	33ft
	Wingspan	40ft
	Height (fin)	13ft
	Empty weight	3,930lbs
	Max payload	3,000lbs
	Max fuel load	720litres
	Max Take-off weight	6,500lbs
<b>Max payload</b>	3000 (lbs) 6,600kg	
<b>Runway requirements</b>	3000ft 915m	

\*The aircraft is certified to fly into known icing conditions

Table 1: Technical Specification

	<b>Empty<sup>i</sup></b>	<b>Full</b>
<b>Maximum Range</b>	1100Nm	900Nm
<b>Transit speed</b>	180kts	180kts

\*loiter/survey speed 120 knots (air speed)

Table 2: UKCS Range

Caveat: These are indicative figures only; all details including speed and range are dependent upon operational criteria including: temperature, altitude, weather and payload.

### 3. Mobilisation

OSRL UKCS Surveillance Supplementary service subscribers may mobilise the UKCS Surveillance Service by calling Oil Spill Response at the Southampton number provided.

Notify *Oil Spill Response* Duty  
Manager:+44 (0) 23 8033 1551

#### Mobilisation and Notification Forms

The Duty Manager will call back to the number, and will request all the relevant information this is to be added to the Notification form the Mobilisation Authorisation form will also be requested if the aircraft is required this acts as the financial authority form and is to be signed by a Nominated Authority. A delay in providing these forms may delay the response.

*Early notification of an on going or potential incident will allow the OSRL duty manger to proactively conduct the initial planning. The air contractor will be informed and will be able to conduct preparatory activity without affecting flying hours. If the incident escalates, requiring an aerial surveillance mobilisation, the service subscriber then only needs to inform the duty manager and sign the mobilisation form or if the incident deescalates OSRL will stand down with no costs incurred.*

#### Duty Manager contracts the air contractor

The Duty Manager will promptly call the air contractor to inform them of the incident. OSRL will produce a flight tasking form based on information received on the notification form from the service subscriber. The flight tasking will provide details such as: location, type of mobilisation, and other pertinent information relating to the surveillance mission. The notification form alone does not constitute financial authority to mobilise equipment or personnel.

#### Mobilisation of aircraft

Upon mobilisation, the aircraft will be available to conduct surveillance flights with trained observers within the UKCS region within the four hour window unless there are any excusable delays or force majeure.

#### Mobilisation Time

During daylight hours dedicated aircrews are on standby at Robin Hood Airport (Doncaster) with the dedicated aircraft. OSRL will task the aircraft within 30 minutes (i.e. inform the Service Provider of the requirement to conduct an aerial surveillance flight) once the notification form has come through from the service subscriber. The mobilisation time for the service will be within 60 minutes (during daylight operating hours). Tasking may change dependent on the weather conditions. The aircraft will not depart until OSRL has received a signed mobilisation form.

---

### 3.1 Aircraft Location

The aircraft's normal base is at: Doncaster Sheffield Airport (DSA)

Hangar 1,

Second Avenue,

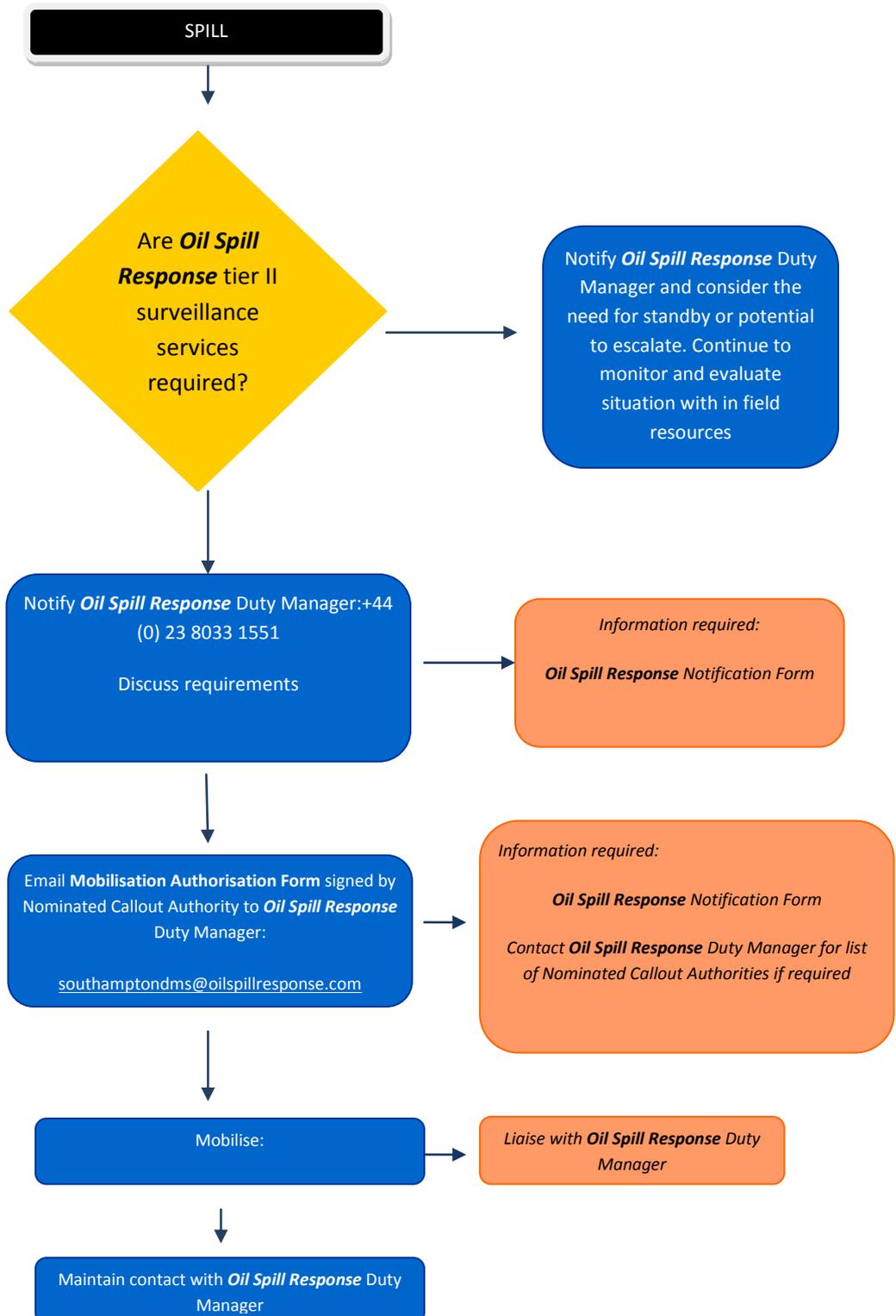
Doncaster Sheffield Airport,

DN9 3GE

*Doncaster airport is a 24-hour licence aerodrome*

The aircraft is kept fully fuelled and in a response ready condition, this allows the aircraft the maximum range and the ability to reach the furthest UKCS platforms under normal flight conditions. There may be some occasions when the aircraft may be based elsewhere for short periods of time (for example due to airport maintenance). In the event of any planned maintenance on the dedicated aircraft a back up aircraft will be provided from 2excel. These aircraft will have a similar specification to the IOC level. In the event of emergency breakdown/maintenance best endeavours will be made to utilise an alternative aircraft from the 2excel fleet.

## OSRL Service Subscriber



## 4. Flight times

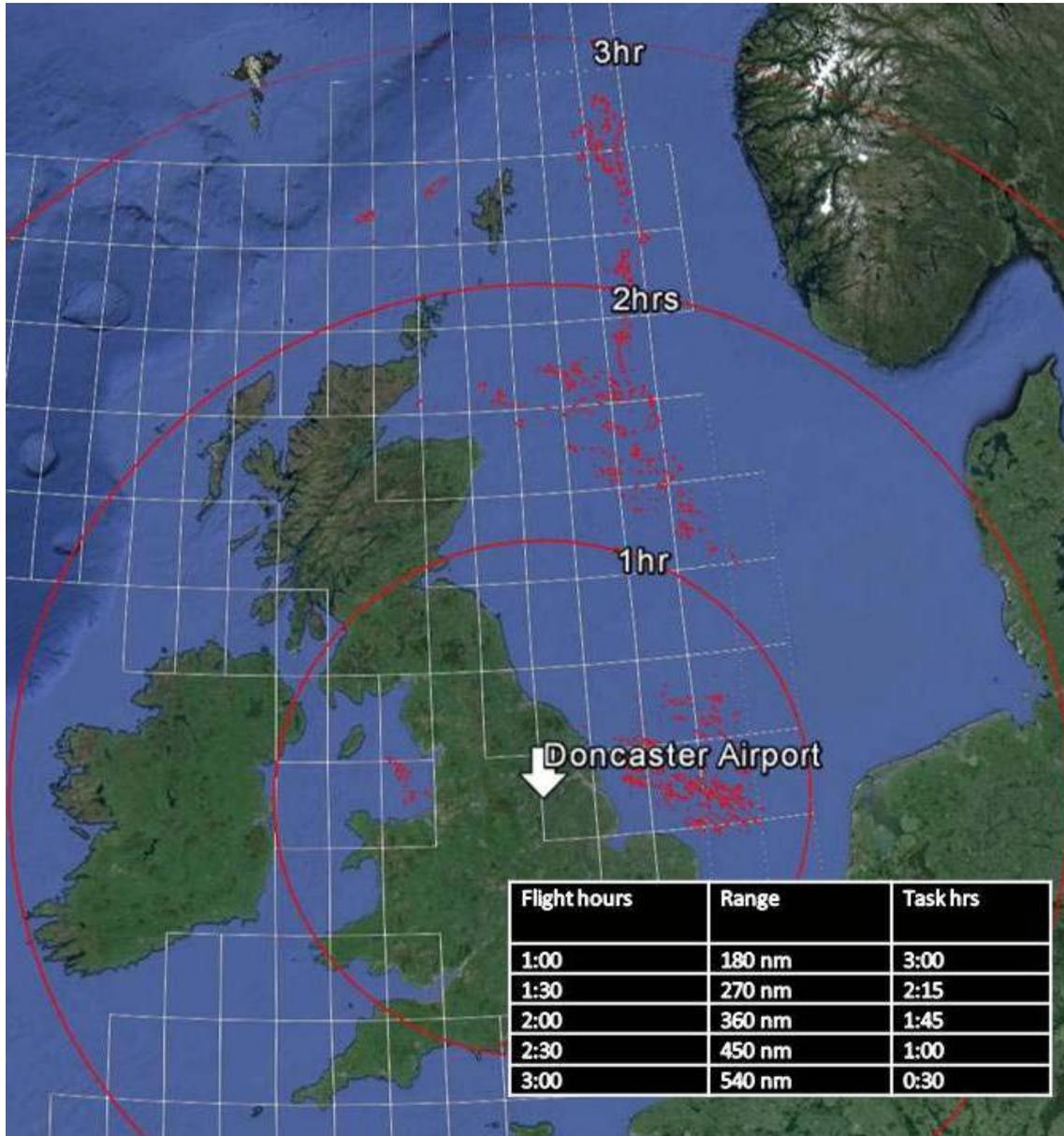


Figure 1: Range rings based on pilot and observer on board and still winds. Unfavourable weather conditions may affect the performance of the aircraft.

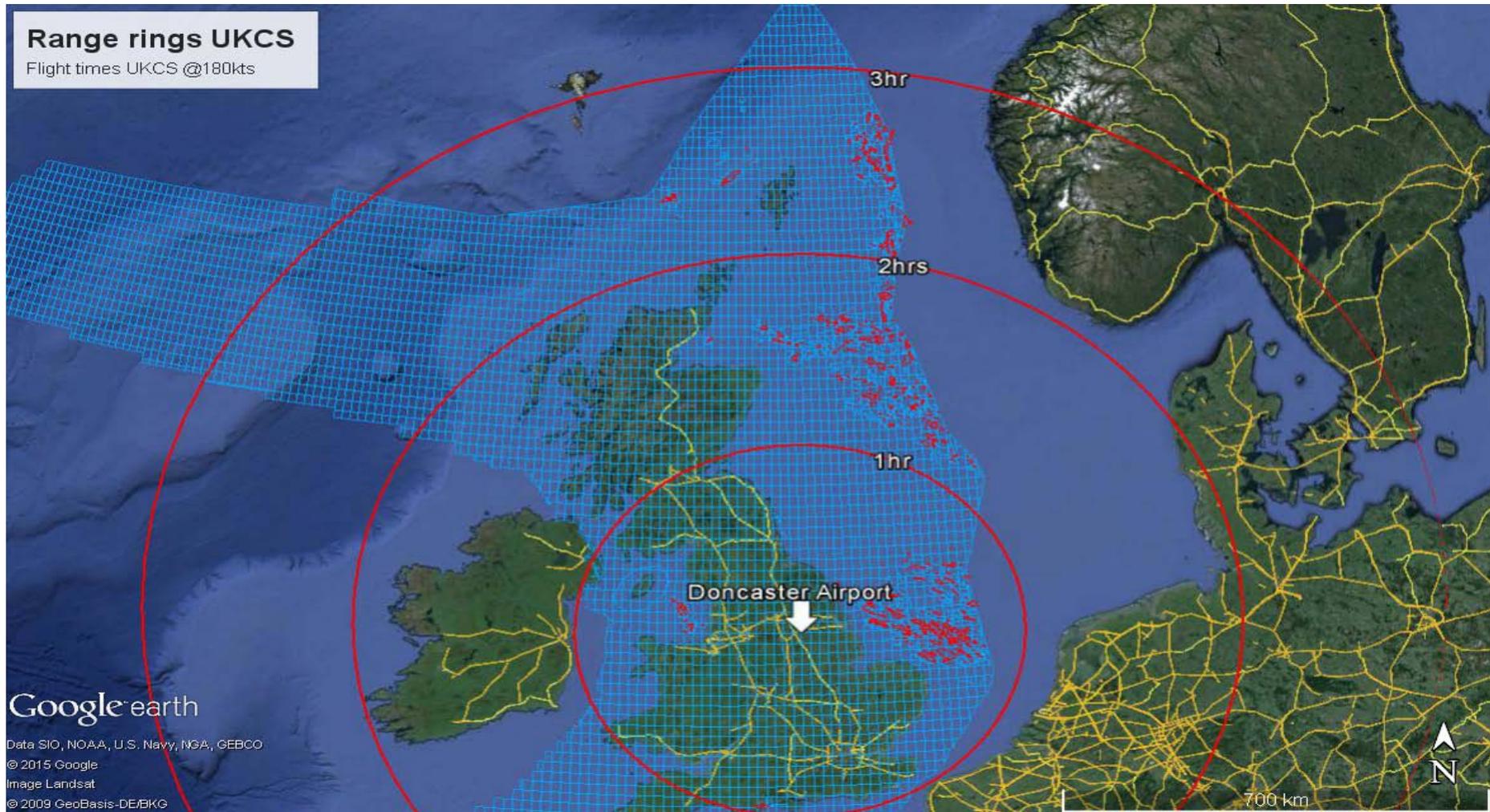


Figure 2: Range rings based on pilot and observer on board and still winds. Figure shows the UKCS infrastructure. Unfavourable weather conditions may affect the performance of the aircraft.

## 5. Dedicated crew availability

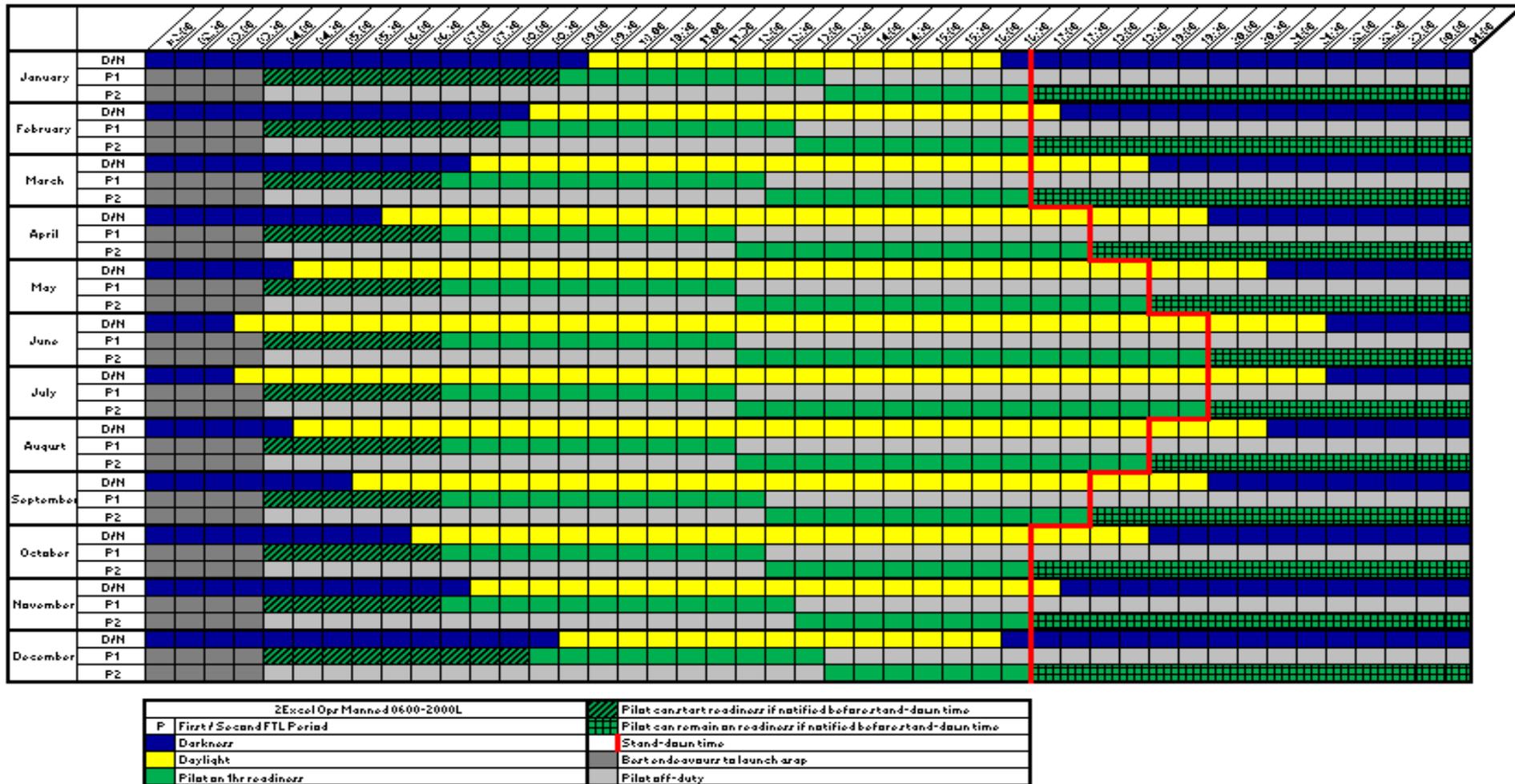


Figure 3: Dedicated crew availability has been based on the realistic prospect of mobilisation times for over flights during daylight hours throughout the year.

## 6. Services Supplied

### 6.1 Responsibility Matrix

Task	OSRL	Aircraft Operator	Service Subscriber
Notification of Incident			X
Notification form & Signed mobilisation form			X
Generate flight tasking and generate over flight/aircraft work order	X		
Over flight clearances/landing permits		X	
Airport handling & refuelling		X	
Surveillance training of system operators	X		
Maintenance of aircraft		X	
Spider track coverage of flights	X		
Verbal Report		X	
Formal Report	X		
Booking of any commercial flights and accommodation for air crew and observers	X		
Modelling support for tracking spilled oil	X		
Supply of aerial grab bag*	X		
FOB (forward operating base) location	X		
Supply of daily cost sheets and invoicing	X		
Trained and experienced observers	X	X	
Demobilisation from the incident including signed demobilisation form			X
Provide Purchase Order			X
Invoicing	X		
Paying OSRL			X
Paying the operator	X		
No Notice drills	X		

Table 3: Responsibility Matrix

\* OSRL Grab bag contents: SLR Camera, GPS, Iridium Sat phone, Spidertrack, surveillance hand book, external hard drive

## 6.2 Potential Forward Operating Base's (FOB)

The aircraft will initially fly out of Doncaster airport during in-field operations. The Forward Operating Base (FOB) is dependent on the spill location which will determine the most efficient transit times to and from the survey site. Examples of FOB, this could include Inverness, Sumburgh, Aberdeen, Wick or Teeside. The FOB may also be dependent on the weather. Airport handling will be arranged through OSRL and / or aircraft operator.

## 6.3 Report supplied by OSRL

A verbal sighting report will be delivered immediately upon landing with the following outputs delivered within 2 hours of landing

- Full written report including quantification
- Flight track
- Hi-res Geo referenced photos
- Video footage from the over flight.

Incident		0	Date	01/01/1904	Observers	0							
Aircraft Type	0	Call Sign	0	Area of Survey	0								
Survey Start Time	0	Survey End Time	0	Average Altitude (feet)	0								
Wind Speed (knots)	0	Wind Direction	0	Notes									
Cloud Base (feet)	0	Visibility (nm)	0	0									
SLICK DETAILS													
Slick	TIME UTC	OIL POSITION (CENTRE)		SLICK ORIENT Degrees	OIL SLICK LENGTH	OIL SLICK WIDTH	AREA	AREA COVER	OILED AREA				
		LAT North/South	LONG East/West		DISTANCE km	DISTANCE km	km <sup>2</sup>	%	km <sup>2</sup>				
A	0	00°00'00.0"	00°00'00.0"	0	0.00	0.00	0.00	0.00	0.00				
B	0	00°00'00.0"	00°00'00.0"	0	0.00	0.00	0.00	0.00	0.00				
C	0	00°00'00.0"	00°00'00.0"	0	0.00	0.00	0.00	0.00	0.00				
D	0	00°00'00.0"	00°00'00.0"	0	0.00	0.00	0.00	0.00	0.00				
E	0	00°00'00.0"	00°00'00.0"	0	0.00	0.00	0.00	0.00	0.00				
Slick	OIL APPEARANCE COVERAGE - %						MINIMUM VOLUME - m <sup>3</sup>	MAXIMUM VOLUME - m <sup>3</sup>	TYPE OF DETECTION (etc. visual, IR)	THE BONN AGREEMENT OIL APPEARANCE CODE (BAOAC)			
	1	2	3	4	5	OTH				No	OIL APPEARANCE	MIM. VOLUME	MAX. VOLUME
A	0	0	0	0	0	0	0.00	0.00	visual IR UV	1	SHEEN	0.04	0.3
B	0	0	0	0	0	0	0.00	0.00	visual IR UV	2	RAINBOW	0.3	5
C	0	0	0	0	0	0	0.00	0.00	visual IR UV	3	METALLIC	5	50
D	0	0	0	0	0	0	0.00	0.00	visual IR UV	4	DISCONTINUO	50	200
E	0	0	0	0	0	0	0.00	0.00	visual IR UV	5	TRUE COLOUR	200	>200
Total Oil Volume Sighted							0.00	0.00					

Figure 4: Example quantification log found in the report

## 6.4 BONN Agreement

The Bonn Oil Appearance Code is a European Agreement; used to quantify the minimum and maximum oil observed over water.

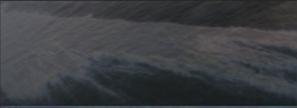
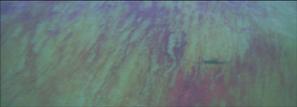
Code	Description/ Appearance	Layer Thickness Interval (Microns)	Litres per km <sup>2</sup>	Typical Appearance
1	Sheen (silver/grey)	0.04 - 0.30	40 - 300	
2	Rainbow	0.30 - 5.0	300 - 5000	
3	Metallic	5.0 - 50	5000 - 50.000	
4	Discontinuous True Oil Colour	50 - 200	50.000 - 200.000	
5	Continuous True Oil Colour	>200	>200.000	

Table 4: Showing the Bonn agreement codes

## 6.5 Spidertrack

Spidertrack is a programme that OSRL use to track the UKCS plane when it is on a sortie. The service subscriber can be given access to the site to observe the status of the plane.



Figure 5: Example of a spider track of the UKCS plane on a sortie

## 7.6 Communication Flow Chart

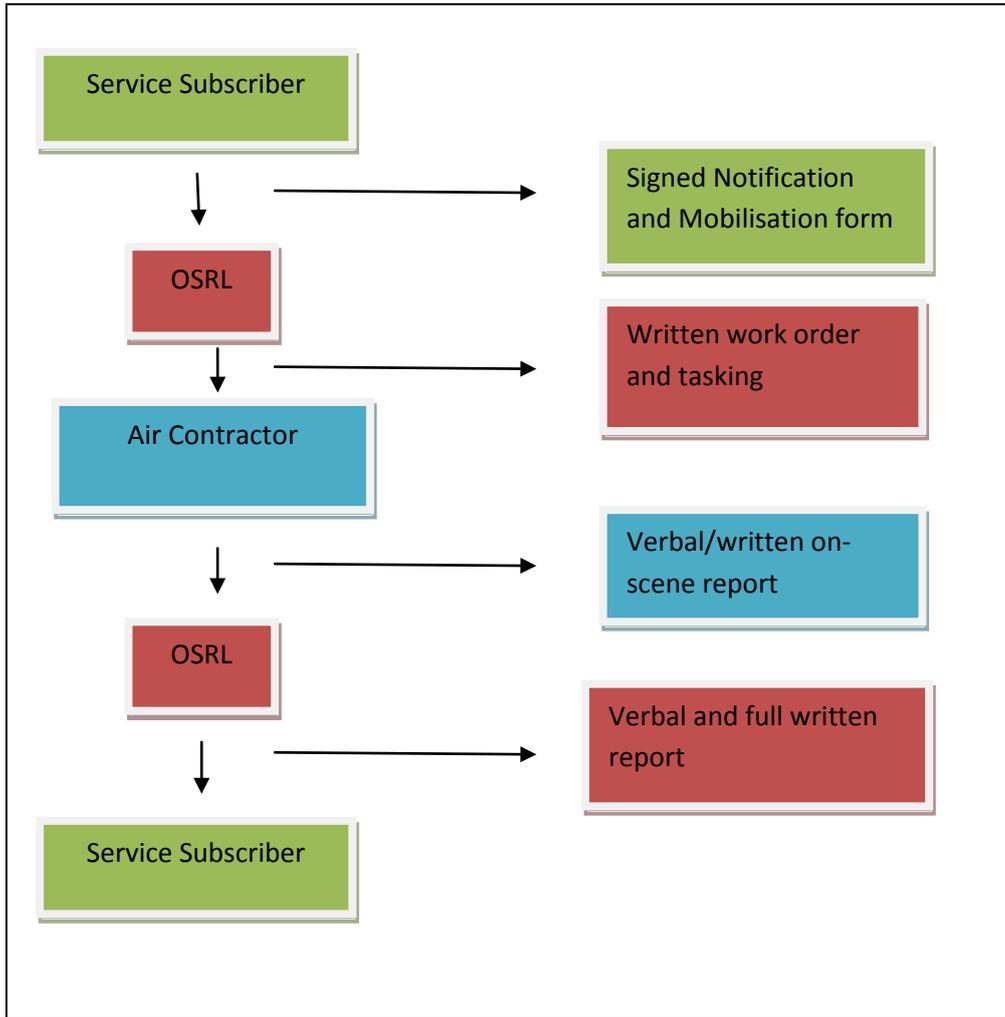


Figure 6: Graph showing the communication flow chart between the three parties

## 7. Activation Fees

In the event of a mobilisation the below fees will be due from the service subscriber to conduct aerial surveillance operations or be available on standby in country:

- Daily standby fee £3000 charged on days where no response flights occur
- Response flights £595 per hour including fuel (plus any direct operating costs +10% handling fee)

## 8. Additional Information

### 8.1 Table Top Exercises

During any table top exercise the service subscriber can call through to the Duty Manager to get real time flight information to any platform within the UKCS. The format the data will be presented is:

Estimated time to scene:

Time on scene:

Time back from scene/to FOB:

### 8.2 Training

OSRL are responsible for the training of their air contractors as they conduct the initial verification and quantification of oil on water. The training includes:

- The use of the Bonn agreement
- Use of surveillance equipment
- The use of remote sensing in aerial surveillance
- Discrimination of false alarms
- Data management

The training is backed up with practice flights with trained observers, drills and no notice exercises to ensure their level of understanding of what is expected and their ability to produce the deliverables within the time frame agreed between OSRL and the air contractor.

---

## 8.3 Additional Information

### **Flying with additional observers**

The aircraft operates under a public transport AOC (Air Operator Certificate); this allows the possibility of the carriage of an observer on board the aircraft on any subsequent flights after the initial verification flight. The carriage of the additional person may impact flight times dependent on incident location, weight restrictions may apply.

### **Exercise flights**

The aircraft is available for the use on exercises at normal operating rates. In the event of a developing incident the exercise would be cancelled as the incident would take precedence.

### **Multiple spills**

In the event of multiple incidents occurring at the same time OSRL will make best endeavours to supply suitable aircraft although the UKCS aircraft will be prioritised dependent on the incident details. OSRL will work in conjunction with the service provider to come up with best possible solution to all parties.

### **Flight Hours Restrictions**

The aircraft services are bound by the FTL (flight time limitation) as required by CAA. This limits the total number of flying hours per calendar day and may mean on a multi day operation that crew may need to be exchanged. OSRL will make the changes.

### **Extended Mobilisations**

The contract allows for the primary aircraft to be contracted by one service subscriber for a maximum of seven (7) days before it has to be released back for use by the other service subscribing companies. OSRL will endeavour to assist in identifying alternative platforms for use in extended duration mobilisations.

---