© Cover photo credits: European Space Agency (http://www.esa.int)

All maps and tables generated by EMSA based on CleanSeaNet data
NOTE REGARDING FIGURES CONTAINED IN THE CLEANSEANET 1ST GENERATION REPORT

All figures contained in the report were directly extracted from the CleanSeaNet data base. It can occasionally happen that these data appear inconsistent due to following issues:

- Images ordered by a coastal State often cover the alert area of another coastal State. Consequently, it may happen that spills are reported for a certain month for a neighbouring country while the list of acquisitions for the country does not show any acquisition for this month.

- Information regarding verification activities by the coastal States is extracted from feedback provided. Entering feedback in the system is the responsibility of each individual coastal State. It is important to highlight that missing feedback information can give a wrong impression of coastal State actions or of the service performance.

Spills detected by CleanSeaNet outside coastal States alert areas, were deliberately included in the “All Europe” figures. The only impact is that the total number of possible spills reported is bigger than the sum of the possible spills detected in each individual country. The overall rate of confirmation by Coastal States remains unchanged.

Information on verification rates was not provided because this rate can easily be misinterpreted. The rate of confirmation mentioned in the report, is the number of spills confirmed when detections are checked within less than 3 hours after satellite pass. This rate demonstrates the ability of CleanSeaNet to detect spills. A bar chart presenting this information is provided for each country.

- Please note that the total number of checked and of confirmed oil spills for each country are of course higher than the given numbers in the figure “Verification by aircraft less than 3 hours after detection”.

16 April 2007 - 31 January 2011
Table of Contents

Introduction 4
The CleanSeaNet Service 4
Objectives 4
Operational results 5
Economic Benefits of Service Provision at European Level 5
CleanSeaNet from January 2011 5
All Europe 7
Country Profiles 11
   Belgium 12
   Bulgaria 14
   Croatia 16
   Cyprus 18
   Denmark 20
   Estonia 22
   Finland 24
   France 26
   Germany 28
   Greece 30
   Ireland 32
   Italy 34
   Latvia 36
   Lithuania 38
   Malta 40
   The Netherlands 42
   Norway 44
   Poland 46
   Portugal 48
   Romania 50
   Slovenia 52
   Spain 54
   Sweden 56
   United Kingdom 58
INTRODUCTION

This report presents an overview of the CleanSeaNet first generation service which was in operation from April 2007 to January 2011.

After a brief introduction presenting aggregated figures of the service at European level, results and activities are detailed for each of the coastal States using CleanSeaNet.

In December 2010 the second generation of the CleanSeaNet service was phased in, and it became fully operational in February 2011.

THE CLEANSEANET SERVICE

Directive 2005/35/EC, as later amended by Directive 2009/123/EC, on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences, tasked EMSA to “work with the Member States in developing technical solutions and providing technical assistance... in actions such as tracing discharges by satellite monitoring and surveillance.” To fulfil this mandate, the Agency has set up and operates CleanSeaNet, the European satellite oil spill monitoring and vessel detection service.

The CleanSeaNet service is based on radar satellite images, covering all European sea areas, which are analysed in order to detect possible oil spills on the sea surface. When a possible oil spill is detected in national waters, an alert message is delivered to the relevant country. Analysed images are made available to national contact points within 30 minutes of the satellite passing overhead. The first generation of CleanSeaNet had access to three satellites via a network of 5 receiving ground stations throughout Europe, allowing wide areas to be monitored at regular time intervals.

The service entered into operation on 16 April 2007. CleanSeaNet supplements existing surveillance systems at national or regional level, strengthens Member States’ response to illegal discharges and supports response operations in the case of accidental spills.

Since its launch in 2007, the service has been continually improved. Key developments have included the delivery of RADARSAT-2 images, the entry into service of the Azores ground station, and the integration of tools to support polluter identification such as the provision of vessel traffic information and oil drift model results.

OBJECTIVES

The two main objectives of the CleanSeaNet service are:

1. To support the European coastal States in responding to illegal discharges through routine monitoring of wide sea areas by:
   - Identifying and tracing oil pollution on the sea surface;
   - Contributing to the identification of polluters.
2. To support coastal State response operations during emergencies by monitoring accidental pollution.

CleanSeaNet satellite image of a possible oil discharge off the coast of Cyprus

Satellite image © ESA (European Space Agency) / EMSA 2007
OPERATIONAL RESULTS

Prior to the launch of CleanSeaNet in 2007, the use of satellite images for pollution detection and identification of polluters was limited. Four years later, 72 authorised users in 24 coastal States are using the service for pollution monitoring operations.

Key figures (16 April 2007 - 31 January 2011):
- Over 8,000 satellite images have been delivered, an average of over 2,000 images per year;
- The service was based on 3 polar orbiting SAR satellites: the European Space Agency’s ENVISAT, and the Canadian Space Agency’s RADARSAT-1 and RADARSAT-2;
- Image coverage density varies from 1-2 images per month in some areas to more than 20 images per month in others, based on coverage requirements defined by the coastal States;
- Over 1,000 million km² were monitored. To cover the same surface area with aerial surveillance would have required more than 50,000 flight hours;
- 8,866 possible spills were detected and reported by CleanSeaNet;
- On average, the trend is a global reduction in the number of possible spills detected in the images: from 1.38 possible spills identified per image in 2008 to 1.0 in 2009 and to 0.75 in 2010;
- 2,828 satellite detections were checked on site of which 745 were confirmed as mineral oil or other substance;
- 50% of spills checked by aircraft within 3 hours of satellite acquisition were confirmed;
- Of the confirmed spills, 80% were mineral oil and 20% were other substances;
- CleanSeaNet provided emergency support for 10 accidental spills.

ECONOMIC BENEFITS OF SERVICE PROVISION AT EUROPEAN LEVEL

The CleanSeaNet service strengthens, in a cost-efficient way, the mechanisms set up in coastal States to address illegal discharges and to support coastal States’ response to accidental pollution. The first generation of the service cost 2.7 million EUR per year, including development, implementation and maintenance of the service, satellite image licence prices, processing and analysis of the images, and the yearly fixed costs.

A collective system at European level gives advantages by optimising the use of resources and offering economies of scale as detailed below:
- Satellite monitoring to cover wide and/or remote areas is up to 10 times cheaper than aerial surveillance;
- The surface area covered by CleanSeaNet would have cost at least 30 million EUR to monitor by aircraft;
- By ordering a large number of images and data via centralised contracts, a reduction of approximately 20% on the cost of image licences and of service provision was achieved;
- On average, one CleanSeaNet image covered the alerting area of 2.6 Member States. By ordering images centrally, it was therefore possible to significantly reduce the number of images needed to fulfil coastal States’ national coverage requirements.

CLEANSEANET FROM JANUARY 2011

CleanSeaNet first generation contracts were due to expire at the beginning of 2011. To ensure the continuity of the service, EMSA put in place provisions for the second generation of CleanSeaNet.

The new service was designed taking into account the experience gained in previous years and recommendations from the users. The CleanSeaNet data centre, hosted and operated in-house by EMSA, has been fully operational since 1 February 2011. It offers a comprehensive and flexible system with a number of new features such as the implementation of nautical charts, a systematic vessel detection analysis, and the capacity to acquire longer satellite image segments.

1 Belgium; Bulgaria; Croatia; Cyprus; Denmark; Estonia; Finland; France; Germany; Greece; Ireland; Italy; Latvia; Lithuania; Malta; the Netherlands; Norway; Poland; Portugal; Romania; Slovenia; Spain; Sweden; and the United Kingdom.

2 Information on the time interval between satellite acquisition and on-site verification of possible spills is only available as of January 2009.

3 The first generation service was built upon two different types of contract: 1) for the acquisition of satellite image licences; and 2) for the provision of oil spill monitoring services.
A possible spill detected by CleanSeaNet close to the Balearic Islands was confirmed by aircraft as mineral oil.

Satellite image © ESA (European Space Agency) / EMSA 2008 - Photo © SASEMAR 2008
All Europe
CleanSeaNet First Generation
16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

Satellite detections - Annual

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 50%

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.
CleanSeaNet alerted the Irish authorities about this spill off the coast of Ireland caused by a refuelling at sea incident involving the Russian aircraft carrier Admiral Kuznetsov (visible on both images).

Satellite image © ESA (European Space Agency) / EMSA 2009 - Photo © Irish Coast Guard - MCA
Country Profiles
BELGIUM

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>47</td>
<td>67</td>
<td>53</td>
<td>64</td>
<td>1</td>
<td>232</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>39</td>
<td>63</td>
<td>25</td>
<td>9</td>
<td>0</td>
<td>136</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>6</td>
<td>27</td>
<td>34</td>
<td>5</td>
<td>72</td>
</tr>
<tr>
<td>TOTAL</td>
<td>86</td>
<td>136</td>
<td>105</td>
<td>107</td>
<td>6</td>
<td>440</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Belgian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Belgium.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>5</td>
<td>12</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.06</td>
<td>0.09</td>
<td>0.05</td>
<td>0.06</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 0%

BELGIUM

Rate of confirmation: 0%

Number of possible spills

Note: Images ordered by neighbouring countries may partially cover the Belgian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Belgium.
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders.
CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>6</td>
<td>40</td>
<td>38</td>
<td>39</td>
<td>1</td>
<td>124</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>5</td>
<td>18</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
<td>58</td>
<td>48</td>
<td>52</td>
<td>3</td>
<td>172</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Bulgarian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Bulgaria.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite detection</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>10</td>
<td>88</td>
<td>75</td>
<td>56</td>
<td>3</td>
<td>232</td>
</tr>
<tr>
<td>Average number per image</td>
<td>1.11</td>
<td>1.52</td>
<td>1.56</td>
<td>1.08</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>2</td>
<td>45</td>
<td>26</td>
<td>50</td>
<td>0</td>
<td>123</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>1</td>
<td>27</td>
<td>37</td>
<td>13</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>7</td>
<td>27</td>
<td>39</td>
<td>8</td>
<td>81</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3</td>
<td>79</td>
<td>90</td>
<td>102</td>
<td>8</td>
<td>282</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Croatian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Croatia.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>0</td>
<td>42</td>
<td>36</td>
<td>44</td>
<td>1</td>
<td>123</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.00</td>
<td>0.53</td>
<td>0.40</td>
<td>0.43</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Satellite detection

Detection checked

Detection confirmed

Number of possible spills

Rate of confirmation: N/A

Satellite 2007 2008 2009 2010 2011 Total

ENVISAT 41 55 25 20 0 141

RADARSAT-1 38 42 7 0 0 87

RADARSAT-2 0 0 1 4 0 5

TOTAL 77 97 33 24 0 231

Note: Images ordered by neighbouring countries may partially cover the Cypriot area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Cyprus.

CleanSeaNet image acquisitions - Annual

Satellite 2007 2008 2009 2010 2011 Total

Number of detections 139 243 67 56 0 505

Average number per image 1.81 2.51 2.03 2.33 N/A N/A

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Detections and verifications - Monthly

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
DENMARK
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders

CleanSeaNet
16 April 2007 - 31 January 2011
- Detection Confirmed
- Detection Checked
- Satellite Detection

Satellite coverage
Average # of images per month
1 - 2
2 - 4
4 - 6
6 - 8
8 - 10
10 - 12
12 - 14
14 - 16
16 - 20
> 20

Note: CleanSeaNet alert areas are shown by black borders
### Image acquisitions - Monthly

- **Number of images delivered**

### Detections and verifications - Monthly

- **Number of possible spills**
  - Satellite detection
  - Detection checked
  - Detection confirmed

### Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>171</td>
<td>311</td>
<td>284</td>
<td>265</td>
<td>15</td>
<td>1046</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>149</td>
<td>255</td>
<td>141</td>
<td>94</td>
<td>4</td>
<td>643</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>55</td>
<td>156</td>
<td>235</td>
<td>46</td>
<td>492</td>
</tr>
<tr>
<td>TOTAL</td>
<td>320</td>
<td>621</td>
<td>581</td>
<td>594</td>
<td>65</td>
<td>2181</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Danish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Denmark.

### Verifications by aircraft less than 3 hours after detection - Annual

- **Rate of confirmation:** 48%

- **Number of possible spills**
  - Detection checked
    - 2012: 5, 2019: 3, 2021: 2
  - Detection confirmed
    - 2012: 0, 2019: 2, 2021: 1
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>94</td>
<td>142</td>
<td>142</td>
<td>185</td>
<td>4</td>
<td>567</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>56</td>
<td>111</td>
<td>56</td>
<td>12</td>
<td>0</td>
<td>235</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>31</td>
<td>70</td>
<td>89</td>
<td>5</td>
<td>195</td>
</tr>
<tr>
<td>TOTAL</td>
<td>150</td>
<td>284</td>
<td>268</td>
<td>286</td>
<td>9</td>
<td>997</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Estonian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Estonia.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>45</td>
<td>44</td>
<td>20</td>
<td>19</td>
<td>0</td>
<td>128</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.30</td>
<td>0.15</td>
<td>0.07</td>
<td>0.07</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes:
- As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.
- Images ordered by neighbouring countries may partially cover the Estonian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Estonia.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 80%
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>89</td>
<td>98</td>
<td>115</td>
<td>181</td>
<td>4</td>
<td>487</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>55</td>
<td>82</td>
<td>37</td>
<td>11</td>
<td>0</td>
<td>185</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>19</td>
<td>43</td>
<td>81</td>
<td>4</td>
<td>147</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144</td>
<td>199</td>
<td>195</td>
<td>273</td>
<td>8</td>
<td>819</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Finnish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Finland.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>21</td>
<td>23</td>
<td>7</td>
<td>13</td>
<td>0</td>
<td>64</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.15</td>
<td>0.12</td>
<td>0.04</td>
<td>0.05</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the French area of interest.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 25%
FRANCE
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRO</td>
<td>141</td>
<td>224</td>
<td>219</td>
<td>271</td>
<td>3</td>
<td>858</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>104</td>
<td>192</td>
<td>83</td>
<td>32</td>
<td>1</td>
<td>412</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>20</td>
<td>69</td>
<td>151</td>
<td>26</td>
<td>266</td>
</tr>
<tr>
<td>TOTAL</td>
<td>245</td>
<td>436</td>
<td>371</td>
<td>454</td>
<td>30</td>
<td>1536</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the French area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by France.

- **Satellite image acquisitions - Annual**
- **Satellite detections - Annual**
- **Verifications by aircraft less than 3 hours after detection - Annual**

Rate of confirmation: 53%
GERMANY

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders.
**Image acquisitions - Monthly**

- Satellite detections

- Number of images delivered:
  - 2007: 273
  - 2008: 497
  - 2009: 485
  - 2010: 544
  - 2011: 56

**Detections and verifications - Monthly**

- Average number per image:
  - 2007: 0.22
  - 2008: 0.24
  - 2009: 0.13
  - 2010: 0.09
  - N/A

**Verifications by aircraft less than 3 hours after detection - Annual**

- Rate of confirmation: 30%

Note: Images ordered by neighbouring countries may partially cover the German area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Germany.
GREECE

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
**European Maritime Safety Agency**

**CleanSeaNet First Generation: 16 April 2007 - 31 January 2011**

**Detections and verifications - Monthly**

- Satellite detections - Annual
  - Number of possible spills  Number of images delivered
  - Satellite 2007 2008 2009 2010 2011 Total
  - ENVISAT 77 154 150 145 9 535
  - RADARSAT-1 59 117 37 8 0 221
  - RADARSAT-2 0 0 4 47 8 59
  - TOTAL 136 271 191 200 17 815
  - Note: Images ordered by neighbouring countries may partially cover the Greek area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Greece.

**CleanSeaNet image acquisitions - Annual**

- Satellite 2007 2008 2009 2010 2011 Total
  - ENVISAT 77 154 150 145 9 535
  - RADARSAT-1 59 117 37 8 0 221
  - RADARSAT-2 0 0 4 47 8 59
  - TOTAL 136 271 191 200 17 815

**Satellite detections - Annual**

- Number of detections 2007 2008 2009 2010 2011 Total
  - 290 425 303 270 16 1304
- Average number per image 2.13 1.57 1.59 1.35 N/A N/A
  - Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

**Verifications by aircraft less than 3 hours after detection - Annual**

- Rate of confirmation: N/A

---

31
IRELAND

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>32</td>
<td>60</td>
<td>64</td>
<td>92</td>
<td>0</td>
<td>248</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>18</td>
<td>35</td>
<td>18</td>
<td>5</td>
<td>0</td>
<td>76</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>29</td>
<td>10</td>
<td>56</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50</td>
<td>95</td>
<td>99</td>
<td>126</td>
<td>10</td>
<td>380</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Irish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Ireland.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>1</td>
<td>18</td>
<td>13</td>
<td>8</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.02</td>
<td>0.19</td>
<td>0.13</td>
<td>0.06</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 100%
Note: CleanSeaNet alert areas are shown by black borders.
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

**Satellite detection**

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIROSAT</td>
<td>23</td>
<td>152</td>
<td>76</td>
<td>116</td>
<td>1</td>
<td>368</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>35</td>
<td>134</td>
<td>80</td>
<td>25</td>
<td>0</td>
<td>274</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>12</td>
<td>44</td>
<td>108</td>
<td>21</td>
<td>185</td>
</tr>
<tr>
<td>TOTAL</td>
<td>58</td>
<td>298</td>
<td>200</td>
<td>249</td>
<td>22</td>
<td>827</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Italian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Italy.

**Image acquisitions - Monthly**

**Detection checked**

**Detection confirmed**

**Number of possible spills**

**Rate of confirmation:** N/A

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

**Verifications by aircraft less than 3 hours after detection - Annual**

*Rate of confirmation: N/A*
LATVIA
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Satellite detections - Annual

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
Note: CleanSeaNet alert areas are shown by black borders.
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

Satellite detection
Detection checked
Detection confirmed

Number of possible spills
Number of images delivered

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.
Note: CleanSeaNet alert areas are shown by black borders.

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011
CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>3</td>
<td>48</td>
<td>33</td>
<td>38</td>
<td>2</td>
<td>124</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>10</td>
<td>23</td>
<td>28</td>
<td>5</td>
<td>0</td>
<td>66</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>20</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13</td>
<td>73</td>
<td>75</td>
<td>63</td>
<td>4</td>
<td>228</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Maltese area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Malta.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>0</td>
<td>33</td>
<td>30</td>
<td>23</td>
<td>1</td>
<td>87</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.00</td>
<td>0.45</td>
<td>0.40</td>
<td>0.37</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 100%
Note: CleanSeaNet alert areas are shown by black borders.
Image acquisitions - Monthly

Satellite detections - Annual

Note: Images ordered by neighbouring countries may partially cover the Dutch area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by The Netherlands.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 16%
Note: CleanSeaNet alert areas are shown by black borders.
CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>68</td>
<td>297</td>
<td>276</td>
<td>228</td>
<td>31</td>
<td>900</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>17</td>
<td>69</td>
<td>47</td>
<td>17</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>17</td>
<td>50</td>
<td>88</td>
<td></td>
<td>13</td>
<td>168</td>
</tr>
<tr>
<td>TOTAL</td>
<td>85</td>
<td>383</td>
<td>373</td>
<td>333</td>
<td>44</td>
<td>1218</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Norwegian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Norway.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>13</td>
<td>82</td>
<td>39</td>
<td>23</td>
<td>1</td>
<td>158</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.15</td>
<td>0.21</td>
<td>0.10</td>
<td>0.07</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
Note: CleanSeaNet alert areas are shown by black borders.

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Satellite coverage
Average # of images per month
1 - 2
2 - 4
4 - 6
6 - 8
8 - 10
10 - 12
12 - 14
14 - 16
16 - 20
> 20
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>97</td>
<td>177</td>
<td>175</td>
<td>171</td>
<td>2</td>
<td>622</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>74</td>
<td>157</td>
<td>92</td>
<td>38</td>
<td>2</td>
<td>363</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>34</td>
<td>93</td>
<td>124</td>
<td>17</td>
<td></td>
<td>268</td>
</tr>
<tr>
<td>TOTAL</td>
<td>171</td>
<td>368</td>
<td>360</td>
<td>333</td>
<td>21</td>
<td>1253</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Polish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Poland.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>14</td>
<td>44</td>
<td>31</td>
<td>48</td>
<td>1</td>
<td>138</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.08</td>
<td>0.12</td>
<td>0.09</td>
<td>0.14</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 80%
Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>15</td>
<td>84</td>
<td>131</td>
<td>189</td>
<td>8</td>
<td>427</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>26</td>
<td>84</td>
<td>28</td>
<td>55</td>
<td>14</td>
<td>207</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>12</td>
<td>25</td>
<td>9</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>TOTAL</td>
<td>41</td>
<td>180</td>
<td>184</td>
<td>253</td>
<td>22</td>
<td>680</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Portuguese area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Portugal.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>30</td>
<td>97</td>
<td>81</td>
<td>57</td>
<td>6</td>
<td>271</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.73</td>
<td>0.54</td>
<td>0.44</td>
<td>0.23</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 100%
Note: CleanSeaNet alert areas are shown by black borders

CleanSeaNet

16 April 2007 - 31 January 2011

Detection Confirmed
Detection Checked
Satellite Detection

Satellite coverage
Average # of images per month
1 - 2
2 - 4
4 - 6
6 - 8
8 - 10
10 - 12
12 - 14
14 - 16
16 - 20
> 20

Romania
**European Maritime Safety Agency**

**CleanSeaNet First Generation: 16 April 2007 - 31 January 2011**

**Image acquisitions - Monthly**

- Satellite detections - Annual
  - **Satellite** | **2007** | **2008** | **2009** | **2010** | **2011** | **Total**
  - ENVIROSAT | 8 | 40 | 38 | 39 | 1 | 126
  - RADARSAT-1 | 7 | 18 | 9 | 3 | 0 | 37
  - RADARSAT-2 | 0 | 0 | 1 | 10 | 2 | 13
  - **TOTAL** | 15 | 58 | 48 | 52 | 3 | 176

*Note: Images ordered by neighbouring countries may partially cover the Romanian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Romania.*

**Satellite detections - Annual**

- **Number of detections** | **2007** | **2008** | **2009** | **2010** | **2011** | **Total**
  - | 8 | 69 | 49 | 37 | 0 | 163

- **Average number per image** | **2007** | **2008** | **2009** | **2010** | **2011** | **N/A**
  - | 0.53 | 1.19 | 1.02 | 0.71 | N/A | N/A

*Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.*

**Verifications by aircraft less than 3 hours after detection - Annual**

*Rate of confirmation: N/A*
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>4</td>
<td>39</td>
<td>1</td>
<td>20</td>
<td>0</td>
<td>64</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>7</td>
<td>25</td>
<td>27</td>
<td>13</td>
<td>0</td>
<td>72</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>7</td>
<td>20</td>
<td>33</td>
<td>7</td>
<td>67</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
<td>71</td>
<td>48</td>
<td>66</td>
<td>7</td>
<td>203</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Slovenian area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Slovenia.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: N/A
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Image acquisitions - Monthly

Detections and verifications - Monthly

CleanSeaNet image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIROSAT</td>
<td>80</td>
<td>159</td>
<td>238</td>
<td>286</td>
<td>6</td>
<td>769</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>71</td>
<td>127</td>
<td>55</td>
<td>49</td>
<td>12</td>
<td>314</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>18</td>
<td>39</td>
<td>43</td>
<td>7</td>
<td>107</td>
</tr>
<tr>
<td>TOTAL</td>
<td>151</td>
<td>304</td>
<td>332</td>
<td>378</td>
<td>25</td>
<td>1190</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Spanish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Spain.

Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIROSAT</td>
<td>135</td>
<td>204</td>
<td>184</td>
<td>130</td>
<td>6</td>
<td>659</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>71</td>
<td>127</td>
<td>55</td>
<td>49</td>
<td>12</td>
<td>314</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>18</td>
<td>39</td>
<td>43</td>
<td>7</td>
<td>107</td>
</tr>
<tr>
<td>TOTAL</td>
<td>151</td>
<td>304</td>
<td>332</td>
<td>378</td>
<td>25</td>
<td>1190</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 70%
Note: CleanSeaNet alert areas are shown by black borders.
European Maritime Safety Agency

CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Detections and verifications - Monthly
CleanSeaNet image acquisitions - Annual

### Satellite image acquisitions - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
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<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>ENVISAT</td>
<td>192</td>
<td>299</td>
<td>303</td>
<td>330</td>
<td>7</td>
<td>1131</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>173</td>
<td>265</td>
<td>153</td>
<td>55</td>
<td>4</td>
<td>650</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>64</td>
<td>175</td>
<td>206</td>
<td>31</td>
<td>476</td>
</tr>
<tr>
<td>TOTAL</td>
<td>365</td>
<td>628</td>
<td>631</td>
<td>591</td>
<td>42</td>
<td>2257</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the Swedish area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by Sweden.

### Satellite detections - Annual

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>99</td>
<td>178</td>
<td>121</td>
<td>48</td>
<td>9</td>
<td>455</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.27</td>
<td>0.28</td>
<td>0.19</td>
<td>0.08</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

### Verifications by aircraft less than 3 hours after detection - Annual

Rate of confirmation: 32%
UNITED KINGDOM
CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

Note: CleanSeaNet alert areas are shown by black borders
### CleanSeaNet First Generation: 16 April 2007 - 31 January 2011

**Image acquisitions - Monthly**

- Number of images delivered:
  - 2007: 40, 50, 30, 50, 40, 40, 50, 30, 50, 30, 50, 30
  - 2008: 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50
  - 2009: 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30
  - 2011: 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10

**Detections and verifications - Monthly**

- Number of detections:
  - 2007: 10, 20, 10, 20, 10, 10, 10, 10, 10, 10, 10, 10
  - 2009: 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10
  - 2010: 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10
  - 2011: 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10

**CleanSeaNet image acquisitions - Annual**

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVISAT</td>
<td>227</td>
<td>346</td>
<td>327</td>
<td>368</td>
<td>20</td>
<td>1288</td>
</tr>
<tr>
<td>RADARSAT-1</td>
<td>116</td>
<td>225</td>
<td>97</td>
<td>35</td>
<td>0</td>
<td>473</td>
</tr>
<tr>
<td>RADARSAT-2</td>
<td>0</td>
<td>19</td>
<td>84</td>
<td>179</td>
<td>35</td>
<td>317</td>
</tr>
<tr>
<td>TOTAL</td>
<td>343</td>
<td>590</td>
<td>508</td>
<td>582</td>
<td>55</td>
<td>2078</td>
</tr>
</tbody>
</table>

Note: Images ordered by neighbouring countries may partially cover the British area of interest. They are nevertheless counted towards the total even if their acquisition was not requested by United Kingdom.

**Satellite detections - Annual**

<table>
<thead>
<tr>
<th>Satellite</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of detections</td>
<td>142</td>
<td>241</td>
<td>185</td>
<td>136</td>
<td>14</td>
<td>718</td>
</tr>
<tr>
<td>Average number per image</td>
<td>0.41</td>
<td>0.41</td>
<td>0.36</td>
<td>0.23</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: As figures for 2011 refer only to January, the average number of possible spills detected per image would not be representative and is therefore not calculated.

**Verifications by aircraft less than 3 hours after detection - Annual**

Rate of confirmation: 25%
About EMSA

The European Maritime Safety Agency is one of the European Union’s decentralised agencies. Based in Lisbon, the Agency provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security. It has also been given operational tasks in the field of oil pollution response, vessel monitoring and long-range identification and tracking of vessels.

www.emsa.europa.eu