Department for Transport

Search and Rescue Helicopter Statistics: Year ending March 2016

About this release

This is the third release in a new experimental statistics series covering civilian search and rescue helicopter (SARH) operations in the UK. Totals in this series will change considerably during the transition period, as statistics for the new bases are added. This release covers the period 1 April 2015 to 31 March 2016.

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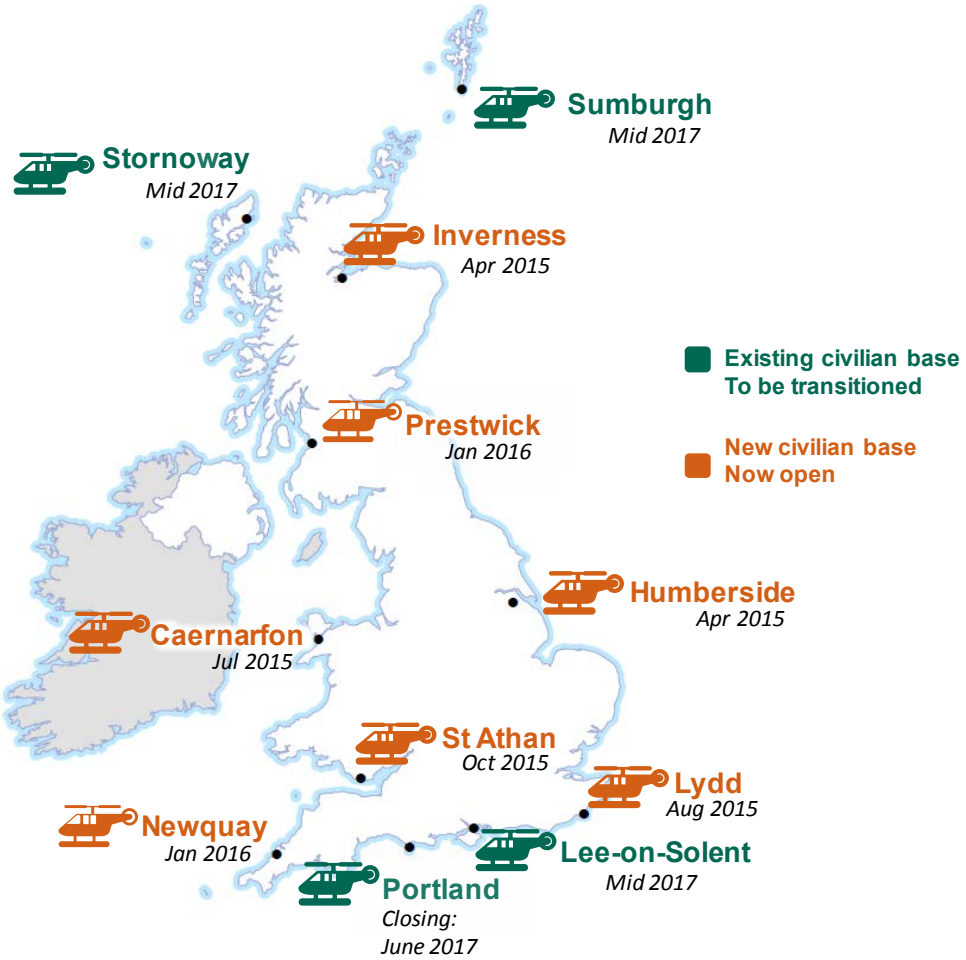
In April 2015, the operational phase of a new contract to operate civilian search and rescue helicopter (SARH) services in the UK, managed by the MCA, commenced. These new arrangements are taking over from the previous mixture of military and coastguard SARH services, previously published by the Ministry of Defence.

There were 1,680 civilian search and rescue helicopter taskings in the UK during the year to end March 2016.

Map 1: Civilian SAR Helicopter Bases, end March 2016



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Overall trends

The latest quarter, January to March 2016 saw 508 taskings overall.

The Inverness base began operating in April 2015 and was tasked the highest number of times in the year with 303 taskings in total, the highest number being in July (36 taskings) and the lowest in November 2015 (16 taskings).

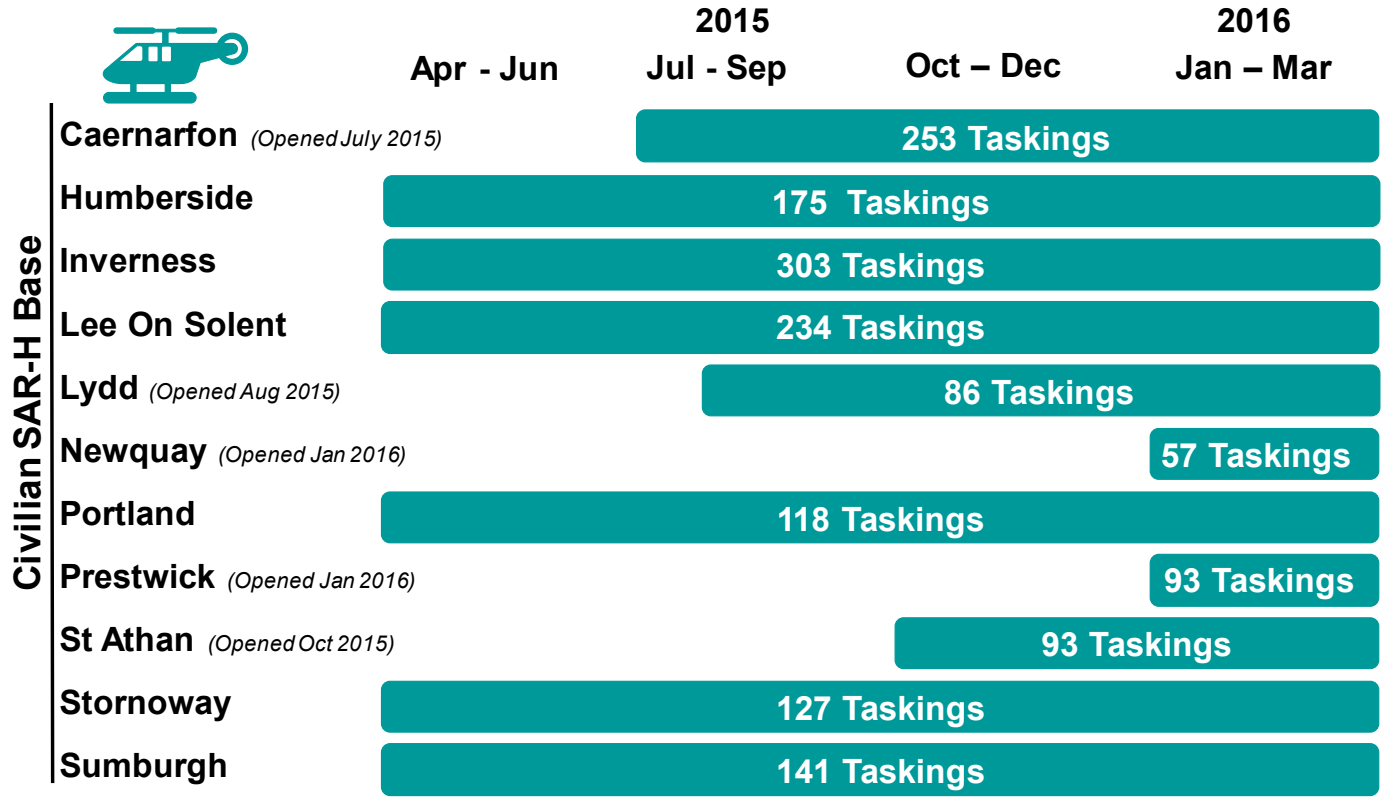
The Newquay and Prestwick bases opened in January 2016 and were tasked 57 and 93 times respectively in their first quarter of operation. Prestwick had the highest monthly average of 31 taskings since it opened on 1 January 2016 and therefore was the busiest of the eleven UK bases during the last quarter.

Definition

Tasking: The response of a SAR helicopter to an emergency as notified by the Aeronautical Rescue Coordination Centre (ARCC).

June, July and August were the busiest three months overall for the bases that were operational for the whole year. The Caernarfon base, which opened in July, had the highest number of taskings in a single month of all of the bases, with 52 taskings in August.

Chart 1: Number of taskings by base, year ending March 2016 (SARH0101)



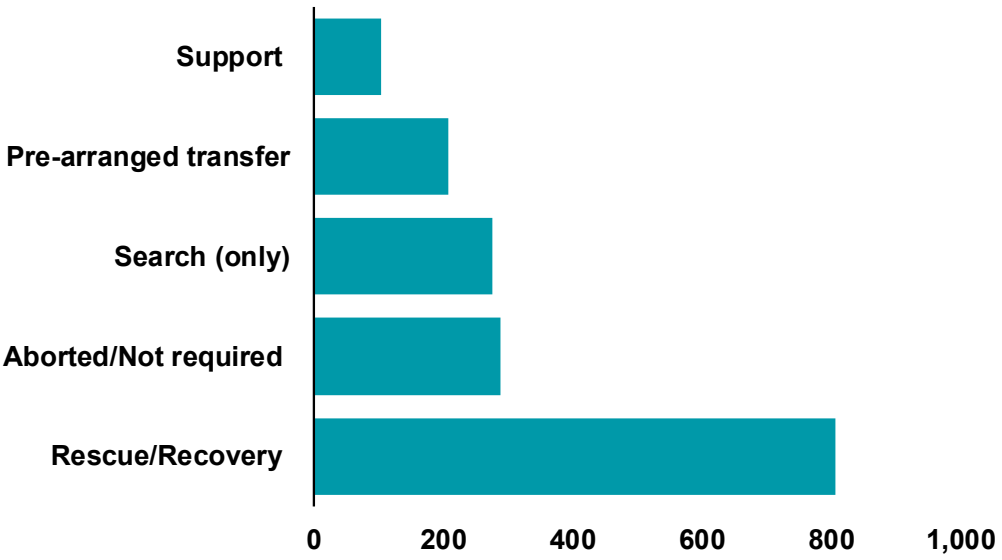
Tasking Categories

There were 806 rescue/ recovery taskings during the year to end March 2016, accounting for just under half of all taskings (48 per cent).

Rescues/ recoveries were the most common tasking category at most bases, except for Lee-On-Solent where pre-arranged transfers were more common, and Lydd, where searches were the most common tasking type.

During its first quarter of operation in January to March 2016, more than half of taskings at the Newquay base were rescues/ recoveries (51 per cent). Rescues/ recoveries at the Prestwick base accounted for around 34 per cent of taskings, closely followed by pre-arranged transfers at 33 per cent during the latest quarter.

Chart 2: Number of taskings by tasking category, year ending March 2016 (SARH0102)



There were 276 search (only) taskings during the year. Nearly a quarter of all search (only) taskings were responded to by the Inverness base.

Location

Just over half of all taskings were land based (54 per cent) during the year to end March 2016. Maritime taskings made up 18 per cent of the total whilst coastal taskings accounted for 28 per cent of taskings overall.

Definition - Tasking category

Aborted/ Not required: Includes taskings in which a SAR helicopter has been stood down (e.g. due to bad weather, en route or on scene/ incident resolved by partner agencies), hoaxes and false alarms.

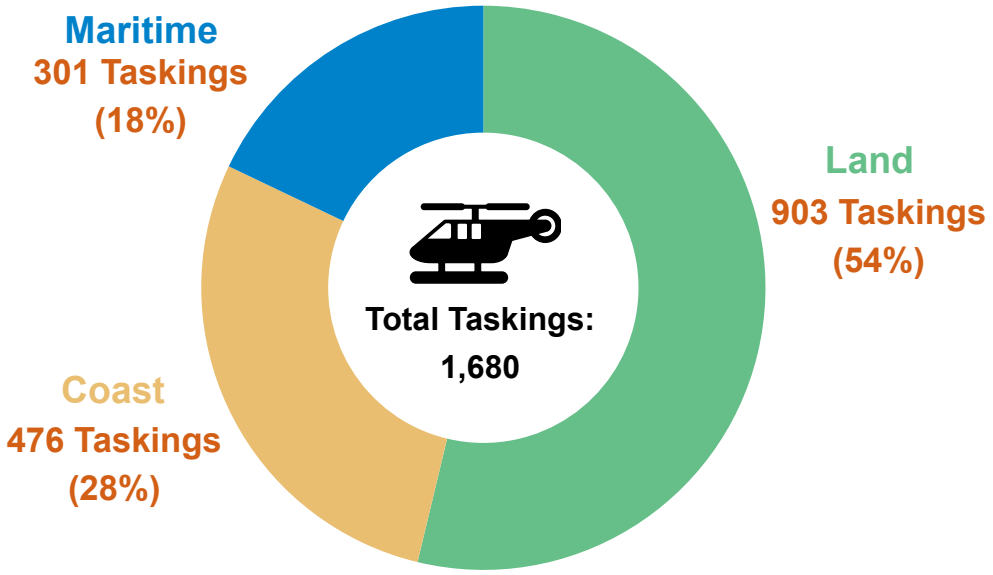
Pre-arranged transfer: Transfer of patients or organs between medical establishments.

Rescue/ Recovery: The transfer of person(s) resulting in them being delivered to a safe environment (including medical facilities). Includes any rescue that involves an element of search, and the recovery of persons apparently dead.

Search (only): Search for craft, person(s) etc which does not result in moving a person.

Support: Includes on-scene assistance, pre-positioning of SAR units for a potential incident and movement of equipment/personnel.

Chart 3: Proportion of taskings by location type, year ending March 2016 (SARH0103)



Definition - Land, coast and maritime

Coast: Taskings occurring between 0.2 miles inland and 3 nautical miles out to sea.

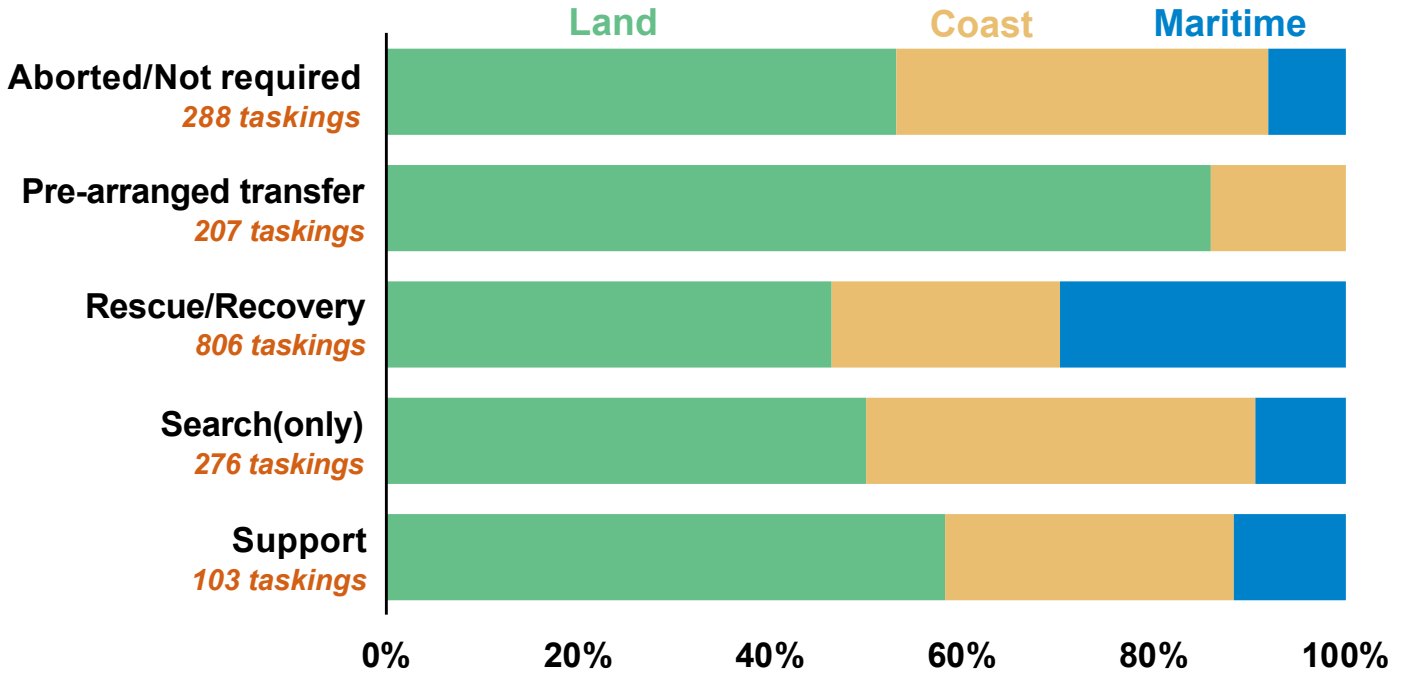
Land: All other taskings that are not classed as maritime or coastal.

Maritime: Taskings that occur more than 3 nautical miles out to sea.

Of all maritime taskings, 80 per cent were rescues/ recoveries. However, the proportion was much smaller for the other location types, with rescues/ recoveries accounting for around 41 per cent of all land based taskings, and 40 per cent of coastal taskings. On the coast, it was more common for taskings to involve searches only, or for taskings to be aborted/ not required.

Despite the fact that land was the most common location type during the year overall, the proportion of land taskings varied by tasking category. Around 86 per cent of all pre-arranged transfers happened on land, and nearly 91 per cent of searches took place on land or in coastal locations, showing that very few searches took place more than 3 nautical miles out to sea.

Chart 4: Proportion of taskings by category and location type, year ending March 2016 (SARH0105)



During January to March 2016, the majority of Prestwick taskings (67 per cent) were carried out on land whilst nearly half (47 per cent) of Newquay taskings took place on the coast.

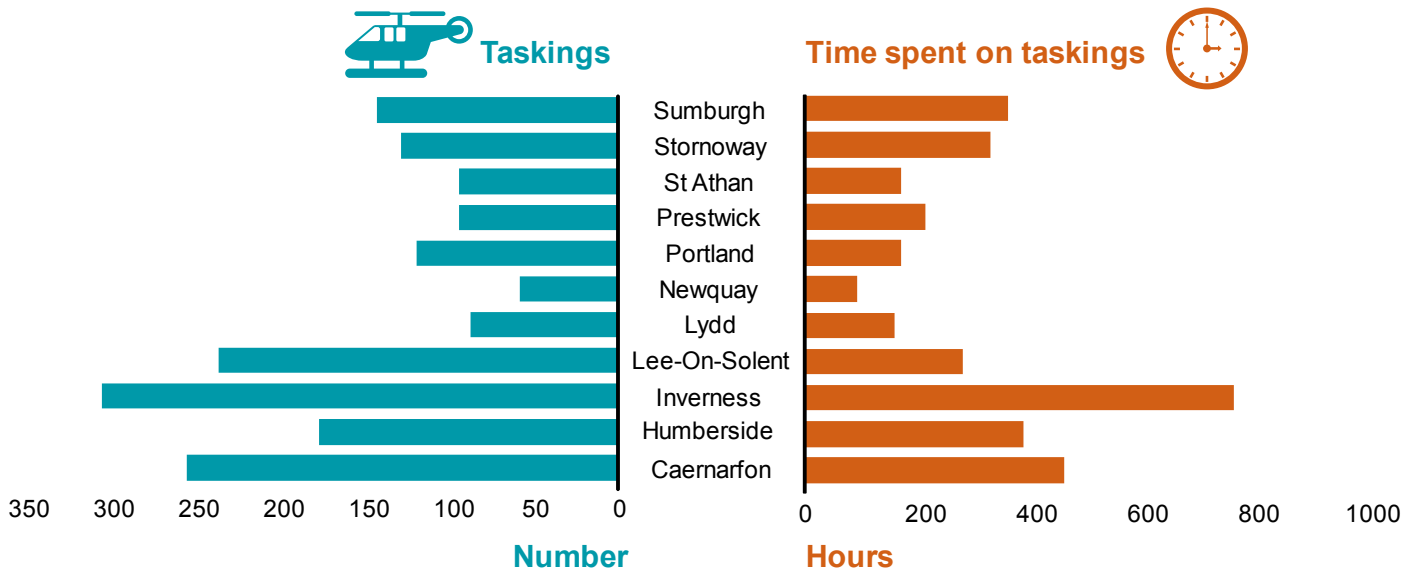
Time Spent on Taskings

During the year to end March 2016, civilian SARH units spent 3,416 hours on taskings. Inverness recorded the highest amount of tasking time during the year, spending 771 hours on taskings (across 303 taskings).

Between January and March 2016, when all eleven bases were operational, 1,036 hours were spent on taskings, of which the Prestwick base recorded the highest amount of tasking time with 215 hours during the quarter (across 93 taskings). Portland spent the least amount of time on taskings with 27 hours in the latest quarter (across 19 taskings).

Taskings taking place in mountainous areas or in maritime locations such as the Nevis range or Snowdonia tended to take longer per tasking than in areas such as the South Coast of England, where incidents tended to happen closer to the base and therefore took less time.

Chart 5: Taskings vs Time Spent on Taskings, year ending March 2016 (SARH0106)

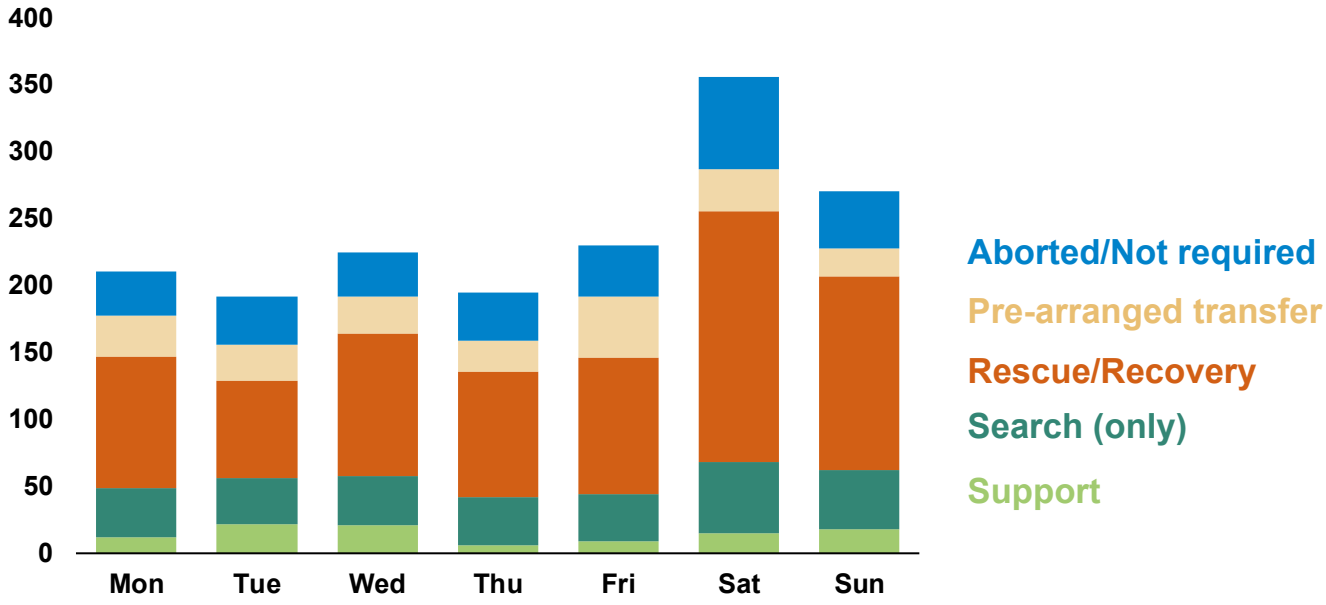


Tasking category by day of week

During the year to end March 2016, taskings occurred more frequently on the weekend - there were 356 taskings on Saturdays and 271 on Sundays compared to the weekday average of 211 taskings. Fewer taskings took place on Tuesdays and Thursdays, with 192 and 195 taskings respectively over the year.

Types of taskings differed depending on the day of the week. Rescues/ recoveries accounted for over half of taskings on weekends. Pre-arranged transfers were more common on a Friday compared to any other day of the week.

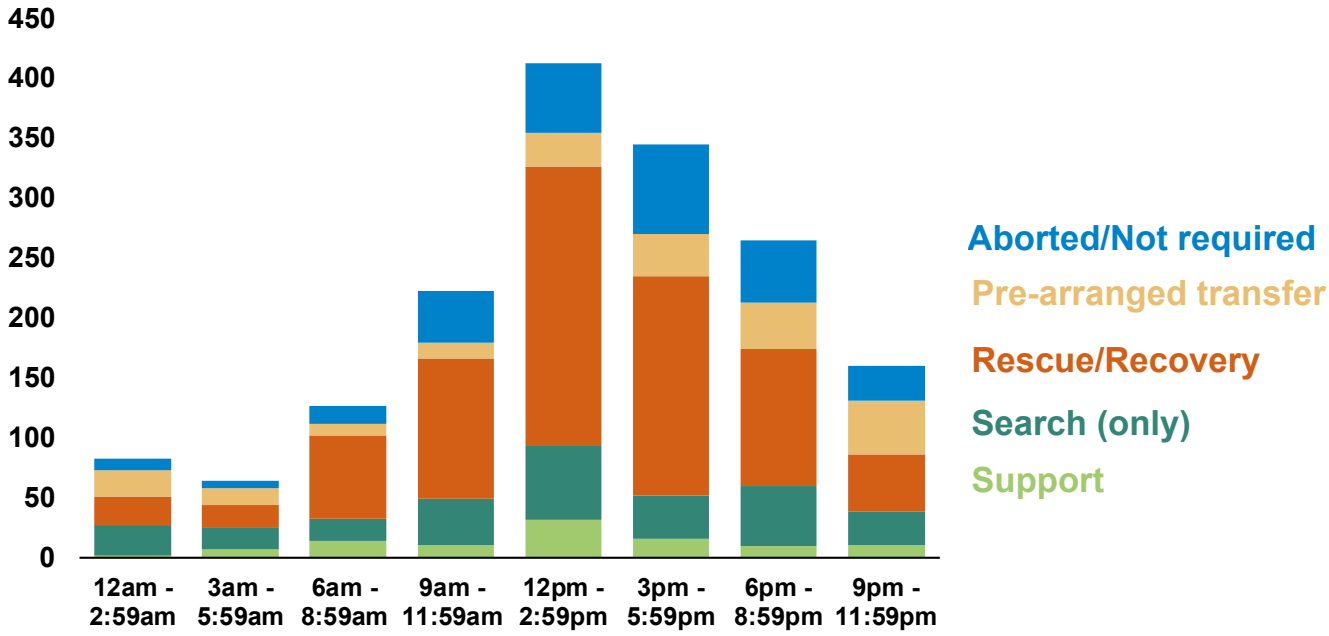
Chart 6: Number of taskings by day of the week when the base was tasked, year ending March 2016 (SARH0107)



Tasking category by time of day

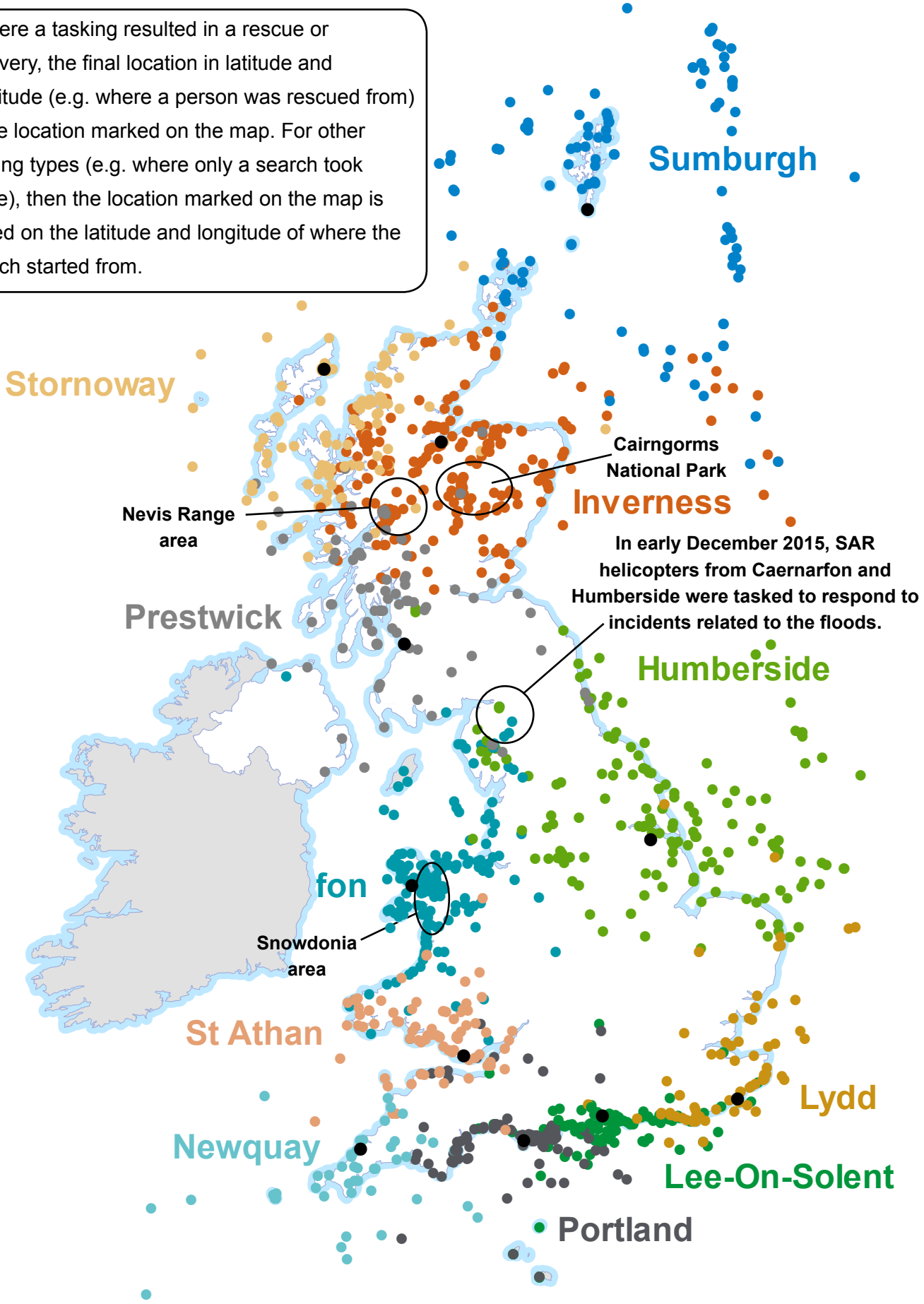
Nearly three quarters of taskings started between 9am and 8:59pm during the year, with a peak of 413 taskings taking place between 12pm and 2:59pm. The quietest three hour period was between 3am and 5:59am, with 64 taskings starting at those times during the year.

Chart 7: Number of taskings by time of day when the base was tasked, year ending March 2016 (SARH0108)



Map 2: Tasking location by base, year ending March 2016

Where a tasking resulted in a rescue or recovery, the final location in latitude and longitude (e.g. where a person was rescued from) is the location marked on the map. For other tasking types (e.g. where only a search took place), then the location marked on the map is based on the latitude and longitude of where the search started from.



Map 3: Location of taskings by tasking category, year ending March 2016

Where a tasking resulted in a rescue or recovery, the final location in latitude and longitude (e.g. where a person was rescued from) is the location marked on the map. For other tasking types (e.g. where only a search took place), then the location marked on the map is based on the latitude and longitude of where the search started from.

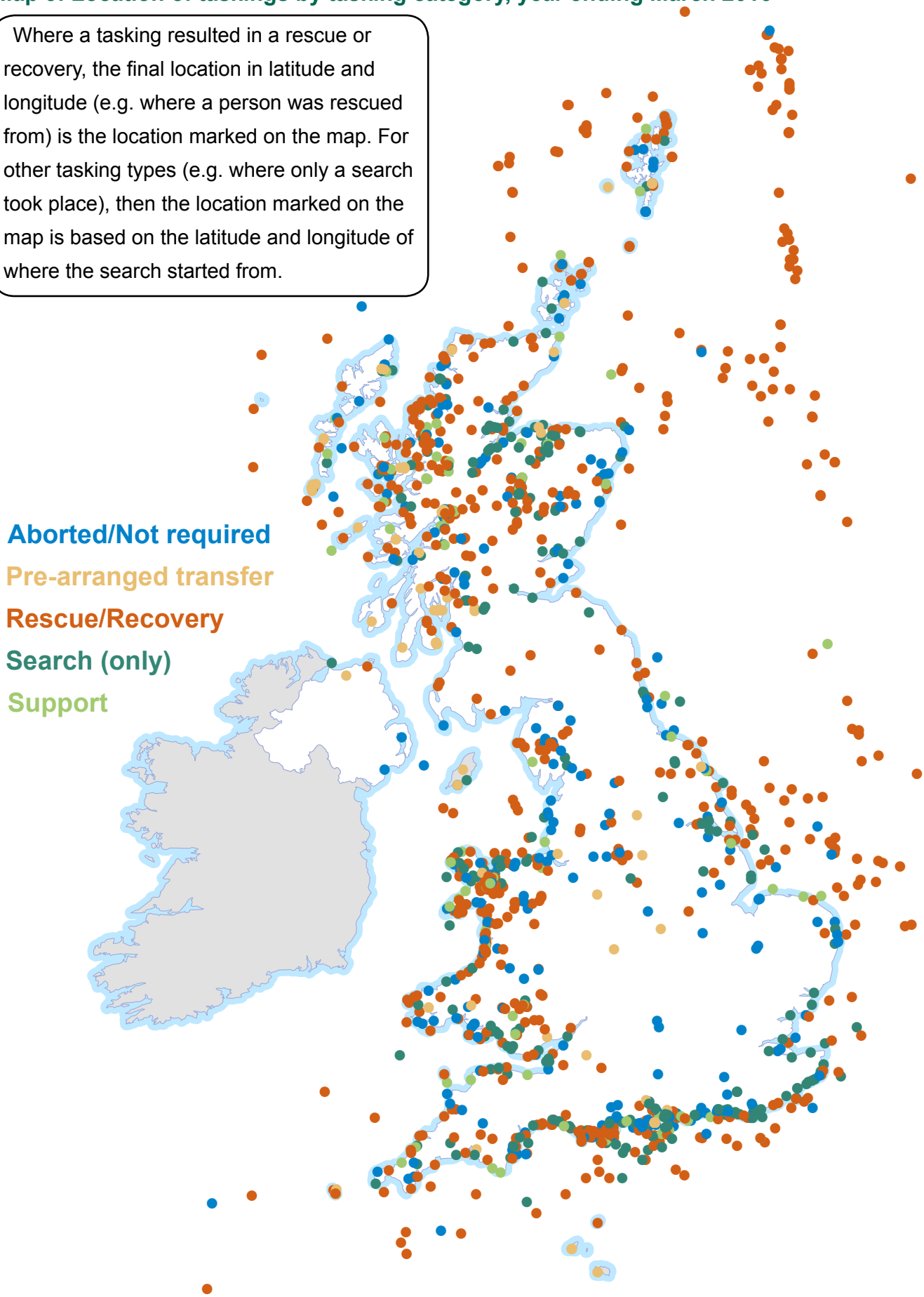
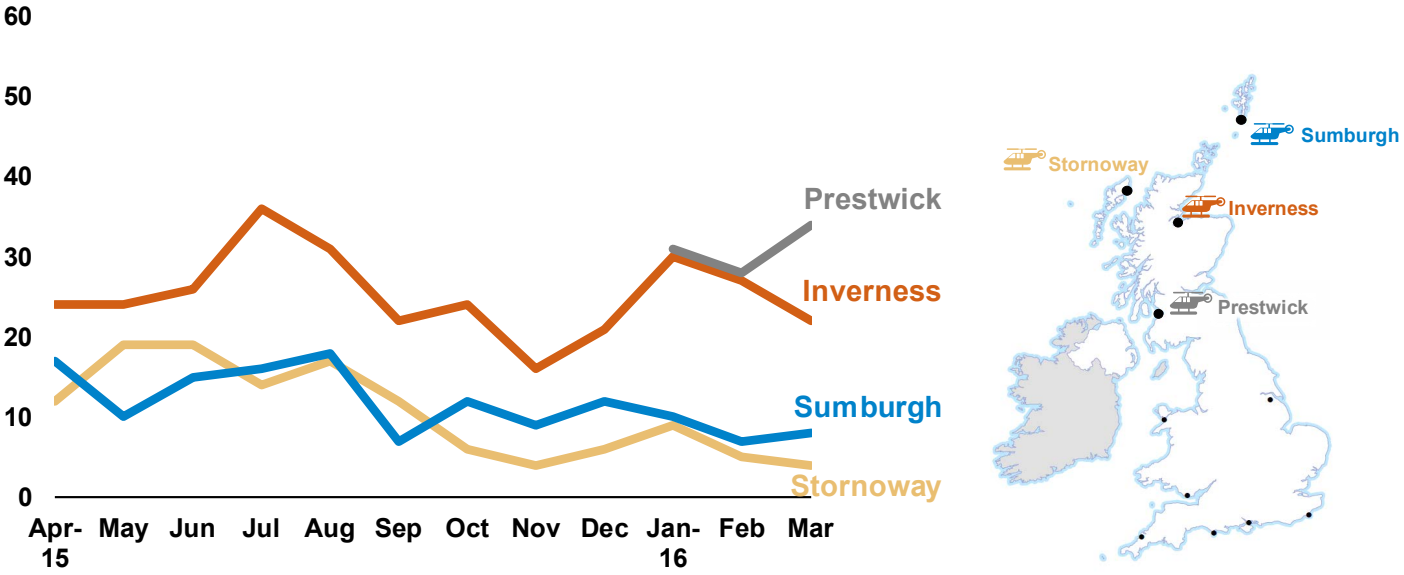


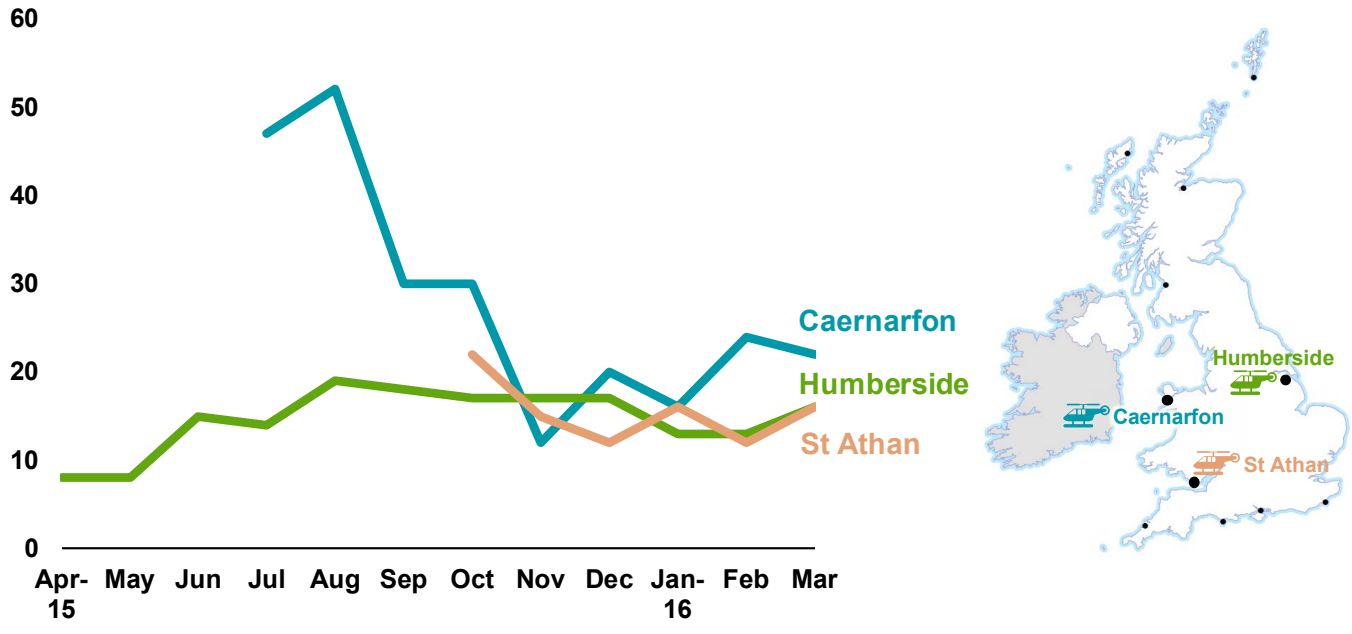
Chart 8: Number of taskings from the Scotland bases, year ending March 2016 (SARH0101)



The Prestwick base began operating in January 2016 and had the highest number of taskings of the Scotland bases during the latest quarter, with 93 taskings. The number of taskings from the Inverness base peaked in July 2015 with 36 taskings, with a secondary peak of 30 taskings in January 2016.

The three Scotland bases that were operational for the whole year (Inverness, Sumburgh and Stornoway) had their busiest periods during the warmer months of May to August, and saw declines in activity during the colder months of the year.

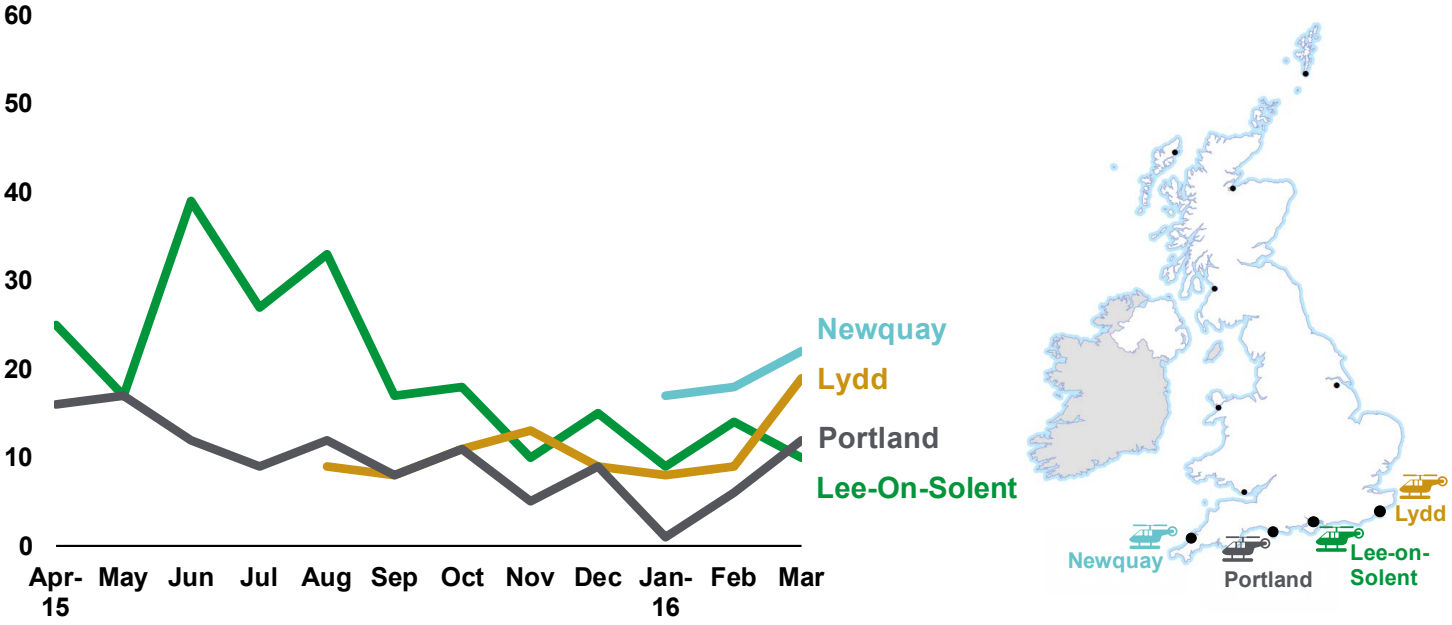
Chart 9: Number of taskings from the Wales and Northern England bases, year ending March 2016 (SARH0101)



Between January and March 2016, Caernarfon was the busiest of the three bases in Wales and Northern England with 62 taskings in the period. Caernarfon also had the highest peak of the year in August 2015 (52 taskings) but then dropped sharply to a monthly average of 22 taskings during September 2015 to March 2016.

The Caernarfon and Humberside bases responded to six taskings in Cumbria during the floods in early December, when Storm Desmond brought heavy rainfall to many parts of the UK. Most of these taskings were rescues, and most included moving multiple persons.

Chart 10: Number of taskings from the Southern England bases, year ending March 2016 (SARH0101)



The Newquay base began operating in January 2016 and was the busiest of the Southern England bases with 57 taskings during January to March 2016. Rescue/recovery taskings accounted for half of all taskings at the Newquay base during this period.

For the bases that were operational for the whole year, both Lee-on-Solent and Portland bases saw a decline in the number of taskings throughout the year.

The Portland base responded to one tasking in January 2016, making it the quietest base of all bases in that month. Most of the Southern England bases saw an increase in the number of taskings from February to March 2016 with Lydd responding to 19 taskings, its highest monthly figure since opening in August 2015.

Around 45 per cent of taskings in Lydd were search (only) taskings during the year, with Lydd responding to 17 search (only) taskings between January and March 2016.

Taskings by region

During the period **January to March 2016**, there were 508 civilian SARH taskings, of which 30 per cent took place in the Highlands and Islands region of Scotland. More than two thirds of taskings in the Scotland region were land based and taskings in this region were dominated by rescues/recoveries.

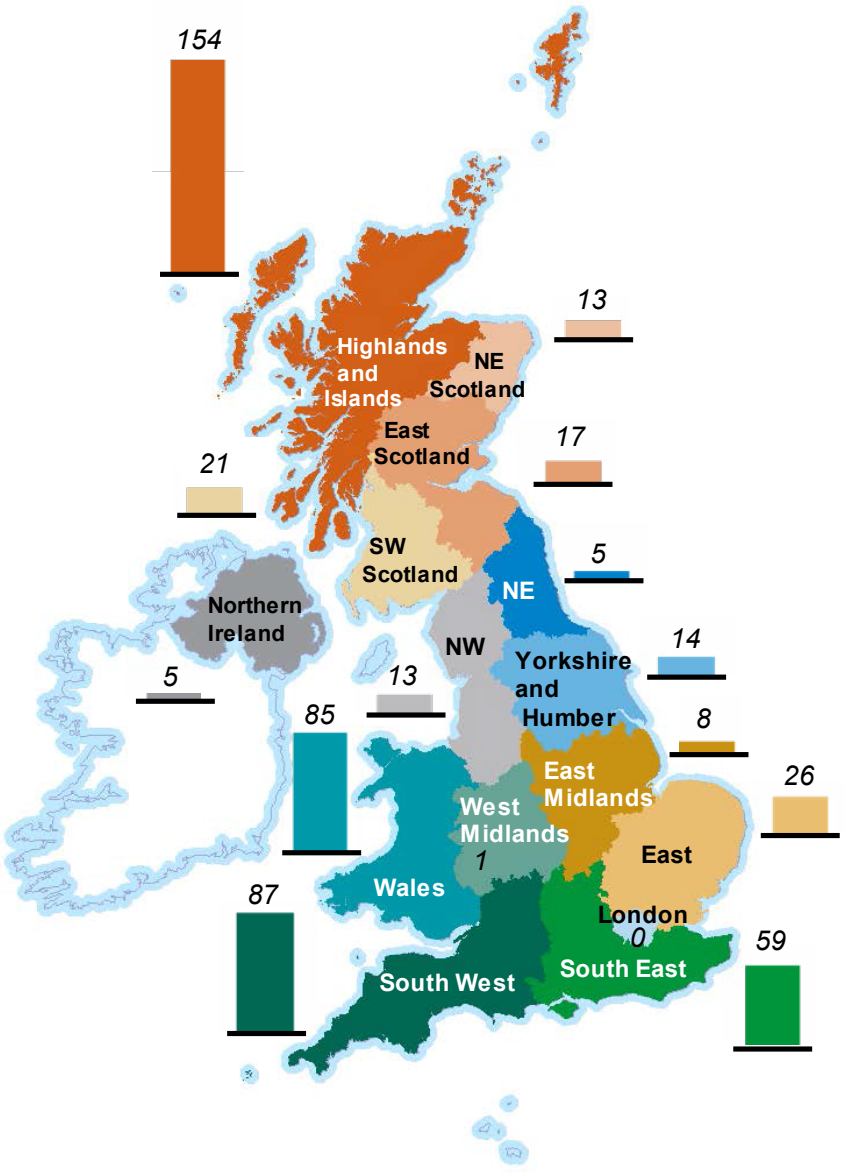
The South West England region was the second busiest in the UK, with 87 taskings during the latest quarter. Nearly half of taskings in this region took place on the coast. Wales was another busy area, with 85 taskings during January to March 2016, of which 78 per cent were land based.

Definition - Region

Taskings which took place in maritime and coastal locations have been classed to the nearest region. The breakdown was obtained by calculating the distance between the taskings and the outline of the UK regions using the longitude and latitude of the tasking location.

No taskings took place in London during the quarter. Emergencies in London are more likely to be taken care of by other emergency services. The land-locked region of the West Midlands had only one tasking during the latest quarter.

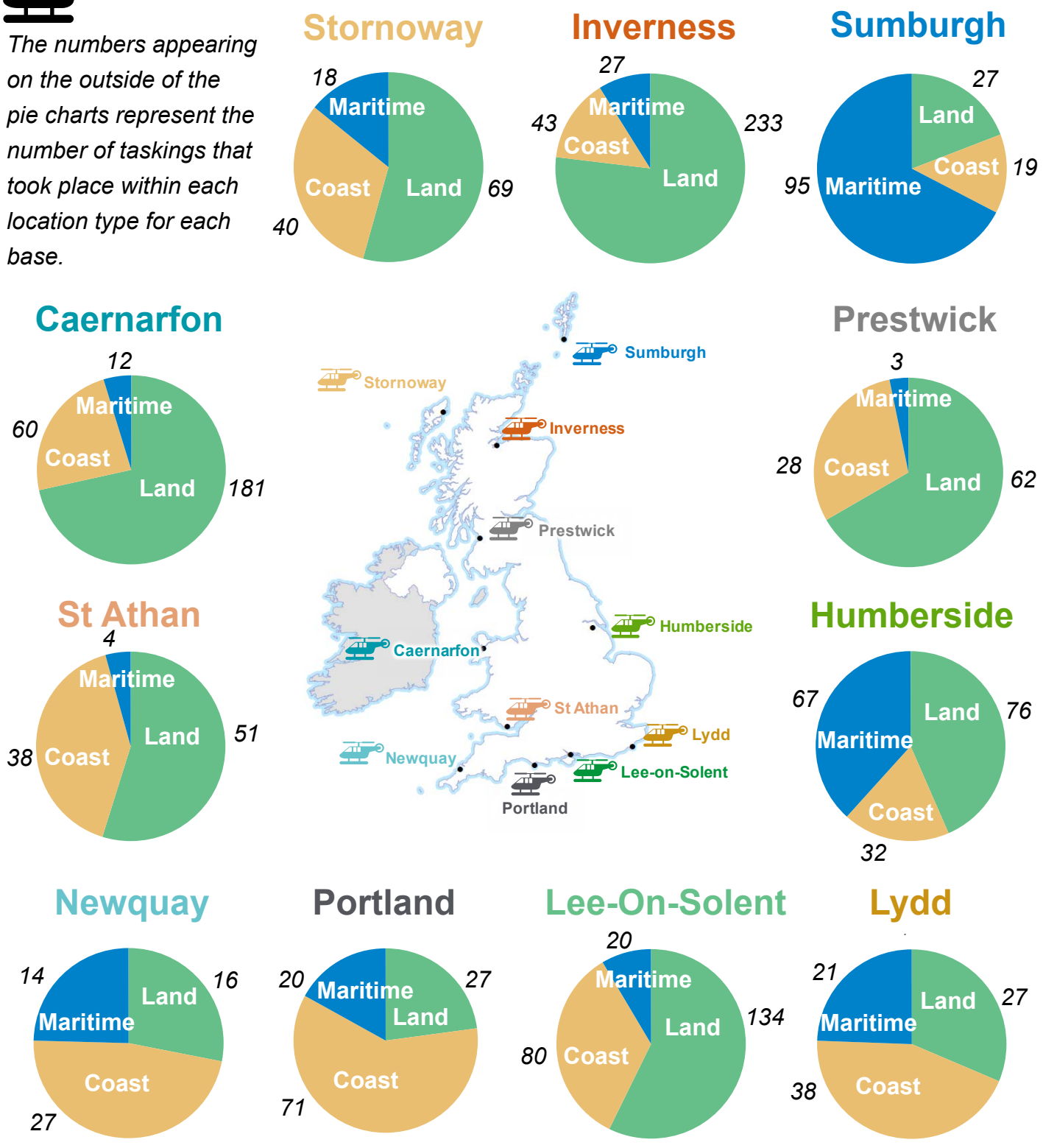
Map 4: Number of taskings by UK region, January to March 2016 (SARH0109)



The location type of taskings differed between bases. During the year, maritime taskings made up the greatest proportion of taskings at the Sumburgh base in Scotland, whereas at Inverness, land based taskings made up the majority and at Portland, most tasking took place on the coast.

Map 5: Taskings by location type and base, year to end March 2016 (SARH0104)

The numbers appearing on the outside of the pie charts represent the number of taskings that took place within each location type for each base.



User feedback and future releases

This experimental statistics series is under continuous development as we gain views from users and learn more about the data. The current plan is to publish the statistics each quarter, but only produce breakdowns by region (West Midlands, South East, Wales, etc), day of the week and time of day for the annual publications that are released after the end of each financial year.

We would be grateful for any feedback that users have on this or on any of the changes made so far to the series so that we can consider how the release can better meet user needs and how the dissemination of information can be improved.

You can contact us by email to SARH.Stats@dft.gsi.gov.uk or phone 020 7944 4676.

We thank all respondents for taking the time to give us their views.

Strengths and weaknesses of the data

These data are derived from an administrative system used by the helicopter operators, and provided to DfT by the Maritime and Coastguard Agency (MCA).

Data are recorded for management information purposes and not directly for use in statistics. For this reason, they should be treated with caution.

The time spent on taskings, the time of day of the tasking and the day of the week are all thought to be recorded accurately and can be checked against information in the flight recording system of the helicopter that responded to the tasking. This information is therefore thought to be highly reliable.

If an emergency occurs where a helicopter is called out more than once, this is usually counted as one tasking. If helicopters from different bases are called out to the same emergency, this is counted separately - once for each base. This means that the definition of “taskings” is slightly different to the definitions of “callouts” and “incidents” used by the Ministry of Defence.

If a rescue or recovery takes place then the location is recorded by the helicopter pilot, based on the coordinates of where the persons were found. For other tasking types, the initial location (e.g. for where a search will take place) is recorded, as supplied by the tasking authority. Both of these methods have the possibility of human error, but this is thought to be low. It is not possible to assess whether the original coordinates provided to the tasking authority for a search were accurate.

The coordinates of the tasking location are also used to define the location type (land, coast and maritime) as well as identifying which region the tasking occurs in. The latitude and longitude of the tasking location are overlaid onto a geographically accurate map of the UK, and distances between the taskings and the outline of the map are used to categorise the data. The definitions of the boundaries between land, coast and maritime were chosen based on other widely used definitions, what was sensible given the nature of the topic and what was possible using the data.

The regional analysis was calculated based on ONS Government Office Regions (GOR), Scotland NUTS2 regions and latitude/longitude of Northern Ireland taskings. This breakdown is only as accurate as the coordinate data. If errors occur in the latitude or longitude then this may cause errors in the location type or regional data. As mentioned above, the risk of error is thought to be low.

The tasking category (rescue/ recovery, pre-arranged transfer, etc.) is taken from a free text field completed by the helicopter operators and coded by database administrators at the MCA. The logic used in coding the data is documented and is kept consistent as far as is possible, but as this process is essentially conducted through individual interpretation, there will always be a potential for human error to be involved.

The data are validated and verified as they are received by the MCA, and signed off at the end of each month, so it is unlikely that data would be revised at a later date. Therefore, figures published in this release will be carried forward for use in future publications (for time comparisons, etc.) with any revisions being specifically pointed out to users.

As all fields are filled in by the contractors, there are no missing data.

There are currently few other sources to compare the data against. Data from the flight recording systems in the helicopters are used for verification, as mentioned above, but this can only be used to verify the timing and duration of the tasking. Data from the co-ordination centres that log the initial calls that request the search and rescue services will become available in 2016. There is currently little information available regarding what data will be useable from this source, but users will be updated on this in a future edition of the statistics release.

Users and uses of the data

As this is the third civilian search and rescue helicopter statistics release, we are still in the process of determining users and finding out how the data can be used.

Within the Department for Transport, they will be used:

- For ministerial briefing and to answer public enquiries;
- As background to policy development;
- For monitoring trends in search and rescue activity; and,
- By analysts in modelling overall search and rescue operations.

Outside of DfT, users include:

- Search and rescue partners, national parks, tourist boards, mountaineering/ walking groups and others, monitoring the use of search and rescue services by tourists/ members;
- Air ambulance charities monitoring SAR activity in their areas; and,
- Maritime organisations monitoring SAR activity related to their businesses (e.g. near ports).

Links to other information

- Historically, the Ministry of Defence published statistics on military and civilian SARH activity, and they continued to publish statistics on military activity until February 2016. Their final release can be found here: https://www.gov.uk/government/collections/military-search-and-rescue-quarterly-statistics-index
- Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: https://www.gov.uk/government/publications/pre-release-access-lists-for-maritime-and-shipping-series
- Eventually, the plan is to badge these statistics as National Statistics. National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs: http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html
- Alongside this publication a series of data tables have been published, where you can find the key statistics: https://www.gov.uk/government/statistical-data-sets/search-and-rescue-helicopter.