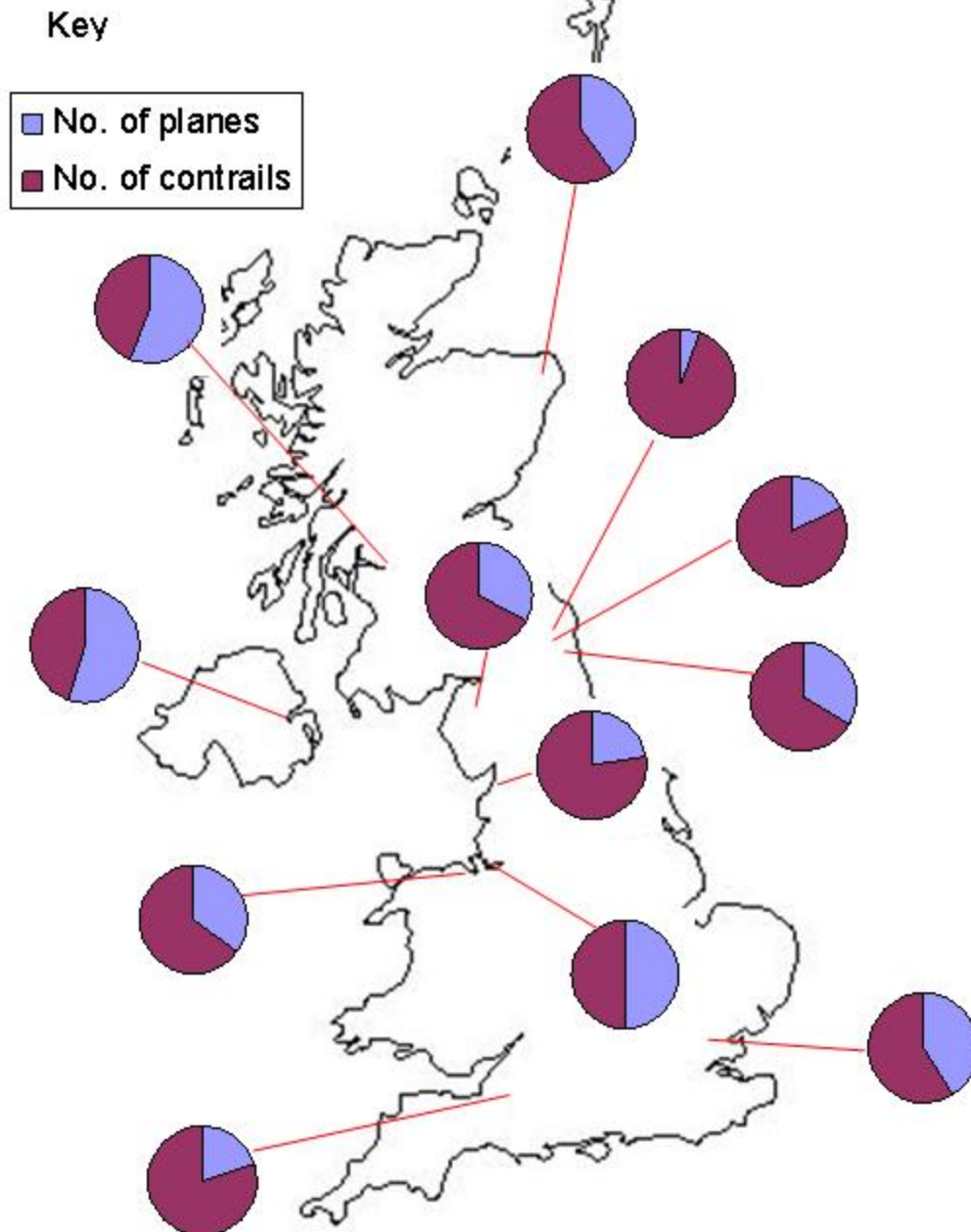


The Average Number of Planes Compared to The Average Number of Contrails

The image below shows the ratio of the average number of planes to the average number of contrails (averaged over the whole observation period, from August 2003, only including those days when observations were taken) at each station. To see the actual numerical averages used roll the cursor over the image.

The Ratio of Average Contrail Number to Average Plane Number at Each Station



From this analysis it was generally expected that, when contrails are observed, there would be more contrails than planes observed (when no contrails are observed then obviously you would expect to see either more planes than contrails or no planes). At the majority of the stations this proves to be the case but at Mugdock and Bangor there are more planes than contrails observed and at Neston there are equal numbers of planes and contrails.

It may actually be the case that these stations have seen more planes than contrails, Mugdock and Bangor are remote stations and so there are no neighbouring stations we can compare these patterns to, and Neston may see more planes than contrails due to its proximity to Liverpool John Lennon Airport, however Moel Y Crio does not show a similar pattern and Lancaster, which is relatively close to Neston and Liverpool John Lennon Airport, also does not see more planes than contrails.

Another possibility to explain why in some cases more planes than contrails have been observed is observer error, but as this is a simple case of counting this is not very likely to affect the results, the main difficulty in counting comes when there are more than about 10 contrails but this situation would not then really mean that more planes than contrails would be observed as so many planes in the sky at 1 time is not likely.

An important point to note here is that this analysis has been carried out using average values (total values cannot be used as not all the stations have observed for the same number of days) and as contrails are not seen every day and the observation period over which the values have been averaged is long, compared to the number of days when contrails are observed, the average numbers that are being used are small (this can be seen when the cursor is rolled over the figure above). Therefore although we may see more planes than contrails at Mugdock the actual average values we are talking about are very small and the differences between the number of planes and contrails is only 0.1. We therefore cannot draw any firm conclusions from this data yet, we need a longer timeframe of observations to ensure more reliable data. This is therefore an area that will need further study in the future.

[Contrail Type](#)

[The National Contrail Network. Discussion and Conclusions.](#)

[Home](#)