Inspectorate Visit 19th March 2019 - notes for visit

- Show where the normal aircraft approach line to the airport was.
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- Show the line of landings and the deviant lines of landing Airportwatch.org.uk 'flightpath can be up 10 degrees either side of the centre line and up to 6km from the touchdown point'.
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 - Ramsgate harbour it is said that aircraft should be approximately 289m above sea level. A 10% error would bring this down to 289m less 29 =260 m the aircraft height above sea level.
 - My house is approximately 45m above sea level and approximately 1.6kmfrom the harbour. Aircraft descend at approximately 52m per km so by the time the aircraft reach my house the aircraft would be approximately: Aircraft height above sea level = 260m (height above sea level at Ramsgate Harbour). Drop of decent after 1.6km based on a height above sea level of 260m = 83m (52m x 1.60). So the height of the aircraft above my home would be height of aircraft above sea level less the height of my house above sea level less the drop in height on the approach to the airport = 260mm 45m 83m = 132m or 433 feet.
- Height of aircraft over my house on a normal approach: height of aircraft above sea level –
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Damage to my roof in June 2003

An Ethiopian cargo airliner flew into Manston airport which resulted in my roof being badly damaged. The vortex from the aircraft removed tiles from my roof and deposited them into by next door neighbours garden, many tiles that were not removed from my side and back roof were either cracked/broken or moved. Much of the roof lining felt was pulled through the gaps in the tiles and lay in small pieces (postcard size and down) around my garden.

The damage was such that the insurance assessor deemed that the roof had to be stripped of tiles and felt and completely re-roofed. This was paid for, as I understood it at the time, my the airport and I was reimbursed the £50 excess charge on my house insurance. Had my builder not arrive so promptly at my home — he arrive before I did from work — the damage to my home would have been much more as he managed to put some tiles back and get what was left of the hole before very heavy rain fell.

My next door neighbour was very luck to not he injured or killed by the flying tiles as she was sitting on her patio only a few minutes before the incident happened.

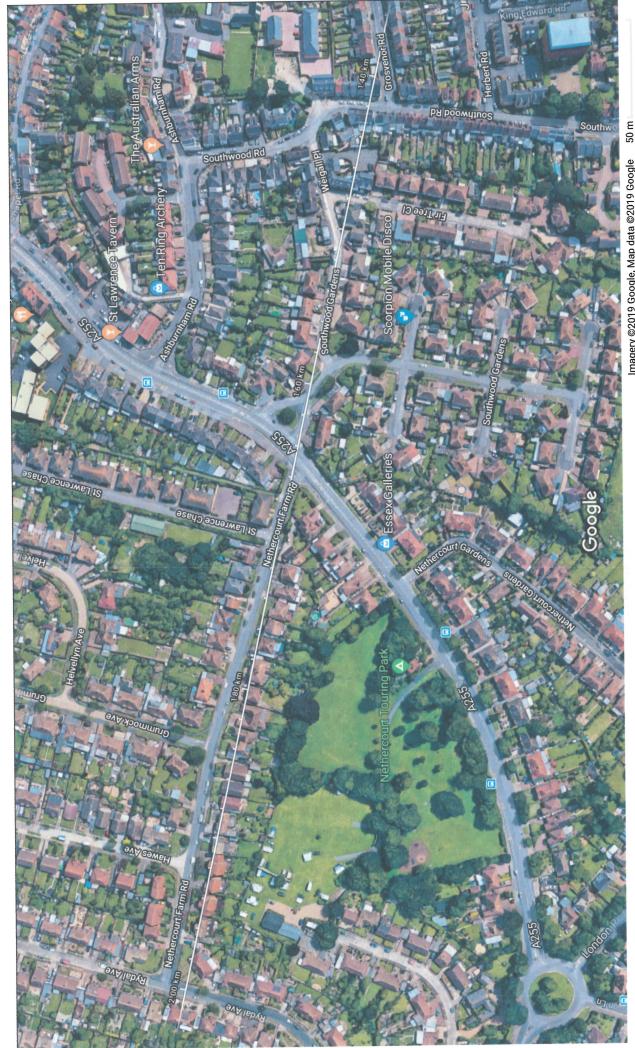
In the latter years of the Manston Airport being opened the roof of one of my neighbours across the road was also badly damage. I saw the aircraft come over, I heard the tiles hit the ground and I saw the hole. Knowing my roof had been damaged some years before she asked me what she should do

- I told her to inform the airport asap, to inform her insurance company and get her builder their as soon as possible but before any work was done to take a photo of the damage to show it was 'typical vortex damage'.

1/2

Google Maps

18/03/2019



Imagery ©2019 Google, Map data ©2019 Google

Measure distance

Total distance: 4.74 km (2.95 mi)



https://www.google.com/maps/@51.3319643,1.3840375,14z

Measure distance Total distance: 4.72 km (2.93 mi)

Inspectorate Visit 19th March 2019 – notes for visit

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Pleasurama court battle is halted

JIMMY Godden this week withdrew from court action over the Pleasurama site in Ramsgate, leaving Thanet Council clear to begin devel-

Council clear to begin develquestion and his company
mediates and his company
Blaeridge Properties were
being sued by the council for
not developing the land and
for failing to remove an annefrom the Land Register.
The case was due to be held
at the High Court on Tuesday.
The business man said he
pulled out against his own
legal advice and added; "We
decited against persuing the
issue so that a development
can go abead in the interest losed people and businesses."
Council leader Sandy
Ezekiel said: "We will work to
ensure there is quick progress
on the site and we get a development which local people and
visitors can be proud of."

OW-FLYING PLANE CAUSES MES SCA

0% APR

OVER 3 YEARS WITH NIL DEPOSIT ON ALL FIESTA AND FOCUS LX AND GHIA

ENDS JUNE

30TH

TYPICAL EXAMPLE

Fiesta 1.4 16v LX 3dr

£9599.76 Cash price Nil Deposit

£9599.76 Balance 36 monthly payments of £266.66 Total amount payable £9599.86

APR 0%

APR 0%
FUNCE AVAILABLE TO OVER 18, SUBJECT
TO STATUS WRITTEN DETAILS ON REQUEST.
LICENSED CREDIT BROKER, INDEMNITIES
MAY BE REQUIRED VEHICLES MUST BE
REGISTERED BY JUNE 30.

INVICTA MOTORS MARGATE RD, WESTWOOD Tel 853555





Tiles ripped off roof

TILES were ripped off a roof in Ramsgate after a plane flew low over homes.

Residents claim a large white plane flew so close to nomes in Southwood Gardens that it blew windows open and knocked over garden furniture.

A Manston airport official confirmed a complaint had been ceived and said an investiga-

Report by Gareth Dorrian and Katy Goodship

• To page 2





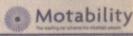
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National Society for Epilepsy 01494 601400

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high tides at Ramsgate

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Saturday	05.04	17.21	
Skinday	06.09	18.28	
Monday	07.21	19.40	
Tuenday	08.29	20.45	
Wirdnesday	09.27	21.43	

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- Take Action!

Vortex damage to house roofs from over-flying planes

There have been a considerable number of incidents where houses have been damaged by vortices, caused by planes flying overhead.

The reason is well understood. Planes cause turbulence in the air they fly through, and these can continue for some time, and descend to the ground, especially if there is little wind to break them up.

The effect is often that tiles or slates are sucked off roofs, and can then cause injury as they fall to the ground. The house holder is left with a damaged roof in need or urgent repair.

The airports see themselves as not being liable for the damage, and say it is up to the airlines to provide compensation.

However, at a number of airports, there is a scheme through which householders whose roofs are damaged can obtain prompt compensation.

Details of the Birmingham Airport Vortex Protection Scheme and the VPS Leaflet.

Details of the Manchester Vortex Protection Scheme.

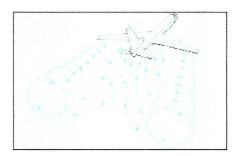
Details of the <u>Heathrow Vortex Protection Scheme</u> and <u>Download Vortex Protection Scheme leaflet</u> (1,221KB PDF).

How the damage is caused:

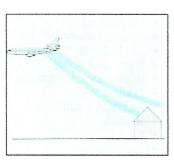
On a clear day it is possible to see the path of an aircraft high in the sky, travelling to some far off destination. The path is clearly marked by a vapour trail that has a defined width, and remains in the sky for a long period after the aircraft has passed. The vapour trail is technically known as an aircraft wake vortices. At many hundreds of miles per hour, the strength of the vortices generated by the wings and fuselage cutting through the air, and added too by the thrust from the jet engines, are enormous.



The disturbance generates spiralling cones of air (the vortices), much like a tornado. The force of the vortices takes a long time to dissipate as there is little in the upper atmosphere to slow it down.



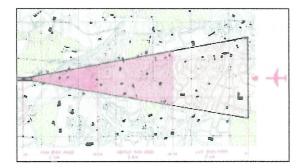
Closer to the ground large aircraft travel much slower, and the atmosphere is much thicker, so the vortices that are generated are less powerful and dissipates quicker. The most critical period is when a large aircraft is coming into land, when it is common for the aircraft wake vortex to reach the ground. The force of the vortex can suck tiles or slates off the roofs close to the flight path.



The main risk factors

The risks of being affected by an aircraft wake vortices can be assessed by looking at various know factors

Is the location of the building under the flight path into a major airport or military air base? The flight path can be up to 10 degrees either side of the
centre line and up to 6Km from the touchdown point.



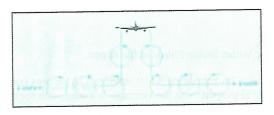
- The direction of landing. More damage is created by aircraft coming in to land than taking off, due to the shallow rate of decent, relative to the steep
 rate of climb when taking off. Coming in to land the aircraft are lower beyond the end of the runway
- The size and weight of the aircraft, and the speed at which they land can make a big difference. It is the widebodied aircraft that record the most strikes, as there are more surfaces on the aircraft to generate the vortices.



• The weather conditions have a major effect. Windy and wet weather breaks up the structure of a vortex quicker than still clear conditions.

Vortex strikes

Unlike hurricane force winds, which affect the perimeters of a roof (especially the ridge and verge), aircraft wake vortices damage occurs in the centre of a roof slope, as the edges of the roof break up the vortices rather than help it. The average vortex is approx. 500mm wide, will travel at about 5 Knots, and last for approx. 3 minutes in clear air. Once it comes into contact with a roof, the vortices can exert their total force of up to -1200N/m² on just one or two slates or tiles for a fraction of a second, before they break up and loses their energy. If the tiles or slates are not fixed securely, the sucking and twisting action of the vortices can lift them out of place.



Fixing specification

To resist the force of the vortices it is essential that the tiles and slates can not lift at the tail of the tile or slate, and can not rotate. This can be achieved with tiles by being head nailed to the batten and tail clipped with a rigid clip. The smaller the tiles the more fixing can be installed per square metre of roof. Plain tiles should be fixed with either ring shank nails with a thick strong nail head or screwed. For double lap slate, centre nailing with ring shank nails should be adequate. Roofs clad with metal sheeting or built up systems do not appear to be vulnerable to aircraft wake vortices damage as the small footprint of a vortex relative to the large surface area of the panel will allow the load to spread to a greater number of fixings.

Program of repairs

The existing roofs that are under the flight path into major UK airports, starting with London Heathrow, are likely to be subject to a planned or programmed roof replacement scheme. However for all new buildings under a flight path it is the responsibility of the designer/ specifier to ensure the correct fixing specification is used to ensure no roof damage is caused by the effect aircraft wake vortices. In most instances the airport authority will be able to advise if the size of aircraft using the airport is an issue, and the exact line of the flight paths. With this information, the assistance of the roof tile or slate manufacturer should next be sought to determine the correct fixing specification for the roof.

Further reference

To assist designers and engineers, the Building Research Establishment has produced a Digest number 467 entitled "Slate & Tiled Roofs: Avoiding Damage from Aircraft Wake Vortices", giving all the information needed, including sample calculations.

Conclusion

The number of pitched roofs in the UK that may be affected by aircraft wake vortices is very small, but the affect an aircraft wake vortex can have on a pitched roof can be very disruptive. The development of some brown field sites under the flight path into airports, and the extension of existing airports to take more air traffic will increase the overall number of roofs that could be affected. It is therefore important for building designers and specifiers, who intend to build near an airport to understand and be aware of the potential problems that aircraft wake vortices can have and where to get the information needed to ensure it does not become a problem for their project.

link to article

There is a report done by Halcrow, for London City Airport, in December 2010, which gives a lot of detail about wake vortices; LCY Wake Turbulence Study by Halcrow for City Airport 2010

Some incidents of roof damage - from the news:

28 incidents of roof damage in Florsheim, near Frankfurt between opening of new 4th runway in October 2011 and April 2016. read more

Damage to roof and falling tiles, Birmingham 12.10.2014 read more

Damage to roof in Florsheim, Germany 3.4.2013 read more

Damage to house in Old Windsor 22.3.2013 read more

Belfast residents call for independent inquiry into yet another roof tiles incident 6.6.2010 read more

I was hit by roof tile dislodged by jet, claims Belfast resident 10.6.2010 <u>read more ...</u>. and <u>read more ...</u>.

Damage at George Best Belfast City airport 13.9.2009 read more

Damage at Birmingham airport over several years read more

Damage in Germany 13.11.2009 read more

Damage in Thailand 6.10.2006 read more

There is an interesting article about the potential dangers to planes of flying into the vortex of the plane infront.

Press release from GACC (Gatwick Area Conservation Campaign)

6 June 2011

New Vortex Strike Policy

GACC is glad to announce agreement on a new Vortex Strike Policy at the airport.

When Gatwick Airport sought planning permission for scheduled A380 services, GACC was concerned that such large aircraft create powerful vortex wakes that might cause damage to properties in the vicinity. We suggested the airport should offer to compensate owners of properties damaged in this way. The airport responded, in October 2010, with a scheme that was inferior to that at Heathrow, covered only domestic properties and was limited to £10k.

We are now pleased that, as a result of pressure from GACC, Gatwick Airport Ltd have agreed a much improved scheme that covers domestic properties (including homes above commercial properties), schools, churches and hospitals. Only commercial properties are excluded, on the basis that they would normally have adequate insurance protection.

Anybody who thinks they have suffered vortex damage to their roof should call Gatwick Airport Ltd on 0800 393 070 or email lgwnoise_line@gatwickairport.com.

The full policy is available on the Gatwick web site at

http://www.gatwickairport.com/PublicationFiles/business_and_community/all_public_publications/aircraft_noise/VortexPolicyMarch2011.pdf

The original Vortex Damage Policy submitted as part of the planning application is on the Crawley Borough Council Web site at :- http://www.crawley.gov.uk/stellent/groups/public/documents/plappother/int197201.pdf

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- Issues in a nutshell
- · Effects of Aircraft Noise on Children's Cognition and Long Term Memory
- Aviation Emissions and Climate Change An Overview
- Public health impact of large airports
- Vortex damage to house roofs from over-flying planes

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