

LONDON EAST KENT COAST AIRPORT (MANSTON) LIMITED

[REDACTED]

The Principal Inspector
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol BS1 6PN

26th January 2019

Manston Airport Ref: TR020002

Dear Sir,

Following my verbal submission on the evening of Thursday 10th January 2019 at one of your preliminary meetings held at the Margate Winter Gardens, Fort Crescent, Margate, CT9 1HX I now have much pleasure in submitting my written report as requested by yourselves. Thank you for your consideration of this report.

Yours faithfully

[REDACTED]

Gordon Warren
Director - Flight Operations

encl.

LONDON EAST KENT COAST AIRPORT (MANSTON) LIMITED

MANSTON AIRPORT

Manston Airport, formerly IATA: **MSE** and ICAO: **EGMH**

The single east - west runway is located about 1 mile from the coastline at 178 ft (54 m) above sea level.

At 9,016 ft (2,748 m) long, it has the eleventh longest civilian runway in the United Kingdom (after Heathrow (2), Gatwick, Birmingham, Manchester, Stansted, East Midlands, Doncaster, Prestwick and Belfast International). (1)

The runway heading approaching from the west is 100 degrees magnetic. Approaching from the east the runway heading is 280 degrees magnetic.

The prevailing winds are South Westerly or Westerly for 78% of the time and the remaining 22% of winds are divided almost equally from other points of the compass. (2)

The majority of speakers at the recent PINS hearings at 'The Winter Gardens', Margate had a variety of concerns regarding the noise and elevation of aircraft on the approach to the 280 degree facing runway. Approaches from the other direction are all over open arable farmland.

As a person with 20 years experience in Flight Operations at London Heathrow Airport and now living in Ramsgate may I humbly submit to the authority two suggestions that if used in conjunction with one another should alleviate many of the noise concerns?

SUGGESTION 1

The usual approach to any airport runway for commercial aircraft is made using a 3 degree down from the horizontal flight path until the aircraft is over the threshold of the runway. There are however a number of properly licensed exceptions both within the United Kingdom and Europe. London City Airport uses a 6 degree approach to alleviate noise from the surrounding population in east London. Barra in Scotland uses a 6 degree approach to avoid low lying hills adjacent to the runway threshold. Further, a recent trial by the United Kingdom Civil Aviation Authority has tested a 3.2 degree approach to the southern runway at London Heathrow Airport. (1). Further, there are over 30 international commercial airports in Europe that use approach angles in excess of 3 degrees. (3)

LONDON EAST KENT COAST AIRPORT (MANSTON) LIMITED

Should the Development Consent Order (DCO) be granted then a condition of the Licensing of London Manston through the United Kingdom Civil Aviation Authority (UKCAA) could be that aircraft on approach must use a 6 degree approach to the threshold of runway 280. The benefit would be a reduction in noise of an approaching aircraft.

Evidence suggests approximately 5 - 10% (average 7%) reduction in noise footprint area for every 0.25 degree increase in glide path angle. For example a 6 degree approach angle would reduce the more usual 3 degree approach noise by between 60% - 120% (average 84%) as the aircraft would be passing over Ramsgate at considerably higher altitude. (3)

SUGGESTION 2

To further reduce the noise footprint a number of international commercial airports use a displaced threshold (DTHR) for landing purposes. This threshold is located at a point other than the physical beginning or end of the runway. The portion of the runway so displaced may be used for takeoff but not for landing. Landing aircraft from the opposite direction may use the displaced area for roll out.

Most often, the displaced threshold is in place to give arriving aircraft clearance over an obstruction. A displaced threshold may also be introduced as a noise mitigation measure for the communities overflown on approach. Aircraft are expected to land beyond the displaced threshold. Departing aircraft are permitted to use the displaced section of runway for takeoffs or landing rollouts. International commercial airports that use DTHR are Delhi, Kennedy International Airport and some 20 others. (4)

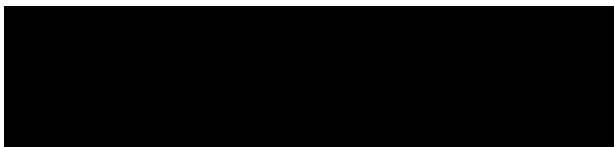
The runway 280 threshold at Manston could safely be moved west by 1,000 feet to give an available 8016 feet for the safe arrival of all modern commercial jet aircraft listed below allowing for nil wind and would thus further increase the height of approaching aircraft over Ramsgate and if used with SUGGESTION 1 would further decrease the noise profile of approaching aircraft over Ramsgate.

LONDON EAST KENT COAST AIRPORT (MANSTON) LIMITED

Sources

- All variants of Boeing 737, 747, 757, 767, 777 (5)
- All variants of Airbus A220, A320, A330, A350 XWB (6)
- All variants of Embraer E170, E175, E190, E195 (7)
- Both variants of British Aerospace 146 (8)

- Sources:
- (1) Statistics from the UK Civil Aviation Authority
 - (2) Statistics from Windfinder (March 2002 - December 2018)
 - (3) Statistics from International Civil Aviation Organisation.
 - (4) Statistics from the Federal Aviation Administration
 - (5) Boeing aircraft flight operations manual for Maximum Landing weight (MLW)
 - (6) Airbus aircraft flight operations manual for Maximum Landing weight (MLW)
 - (7) Embraer aircraft flight operations manual for Maximum Landing Weight (MLW)
 - (8) British Aerospace flight operations manual for Maximum Landing Weight (MLW)



Gordon Warren
Flight Operations Director,
London East Kent Coast Airport (Manston) Ltd..