

BJE Walker, M.Sc.

By email to: economicregulation@caa.co.uk

19 February 2020

Subject: RESPONSE TO CAA CONSULTATION

Ref: CAA CONSULTATION, Early Costs Of Capital Expansion, CAP 1871, Dec 2019

<https://consultations.caa.co.uk/cmng/early-costs-of-capacity-expansion/>

Dear Sirs,

Further to my email submission dated 18 February 2020, I attach a revision to page 11 followed by additional page 12. I have added a paragraph “Conclusions” and “Further Information” and request that this revision is forwarded to the appropriate persons who are dealing with consultation.

Best regards

John Walker

See below for separate pages, revision to original page 11 and additional page 12.

“The options we’ve proposed for crossing the motorway are tried-and-tested at other airports around the world,” said Heathrow Airport spokesperson.

(Comments by the writer John Walker; this is an untrue statement because as the New Civil Engineer states:

“the lack of expansion joints over such a long length and span was **“untested”** and would require a “specialist review team [...] to ensure both its short-term constructability and its likely long-term performance”

and no such bridge exists at any airport elsewhere in the world, particularly in the ground conditions existing at the M25 crossing).

“Highways England has reviewed our early design and confirmed that our plans are robust and deliverable. *(Comments by the writer John Walker; the review above, by the New Civil Engineer, indicates the exact opposite and does not confirm anything except many worrying items about this untested design).*

Unquote

Conclusion

As of February 2020 the design basis for the third runway crossing the M25 is unacceptable. The cost of this crossing is not “owned” by HAL or the UK Government or any other entity such as Highways England or TfL. There is no real evidence that the M25 crossing is fundable. These items must be specifically addressed in the DCO application, and until they are properly addressed, the third runway project at Heathrow airport cannot proceed. The cost of the specifications, detailed design, design certification, construction (including traffic management on the existing M25) and commissioning (flood prevention pump stations, structural integrity systems et cetera) is conservatively estimated at £5 billion.

Further Comments

The M25 crossing has a long history. I have made a detailed study of this crossing following its development over the years, however, this is rather a long document (with maps etc) which cannot be sent by email and I give below some important items from my study. HAL have stated that there are two examples of an airport runway crossing a motorway, namely Charles de Gaulle Airport and Atlanta airport USA.

Charles de Gaulle Airport

Charles de Gaulle airport shows a main, level, runway (R 09) crossing a bridge over a 10 lane wide motorway A1. See YouTube www.youtube.com/watch?v=sZBw7Yp-Us4 Google Earth and YouTube show good soil conditions at the runway, as the airport is surrounded by farmed land. No gravel pits or rivers. Nearest habitation 3km distant. The runway bridge is approximately 325 m long by 60 m wide over the motorway. There is a separate bridge for the aircraft taxiway which is approximately 60 m long by 60 m wide. The A1 motorway between these two bridges is not covered by a bridge structure. The motorway is in a standard “open cut” through good solid ground.

Atlanta Airport

Atlanta airport shows a runway 2742m (runway 10/28) crossing a 15 lane wide motorway 285/47.

The runway bridge is approximately 330 m long consisting of four staggered segments with a total width of approximately 150 m. There is a separate bridge for the taxiway which is approximately 260 m long (at an angle across the motorway) and approximately 50 m wide.

<https://www.youtube.com/watch?v=I0QsBmtQ1CI>

<https://www.youtube.com/watch?v=uWkS9b1rjPI>

<https://www.youtube.com/watch?v=2vB5GSVRzM0>

However, it is strange that there are comments on videos that airplanes are not seen on this runway (?)

<https://www.reinforcedearth.com/project/hartsfield-jackson-atlanta-airport.html>

The website article states "The foundation soils underlying this project were entirely adequate to support the proposed retaining walls, but some settlement was predicted at several locations". And the photograph of the open cut excavations shows very good ground conditions.

Basic Design

The basic design, showing the solution to all of the above problems, is not known and therefore the cost and the source of finance are unknown.

HAL have stated that they will "inform the development of the masterplan and Environmental Impact Assessment and will be available as part of our Development Consent Order submission."

In other words we have to trust HAL to present a fully viable solution, both technically and financially, at the DCO stage. In the meantime the Government is being led from one decision to the next to approve the 3rd runway. This is known as "mission creep".

For instance at the DCO stage if the Government continue to insist that the tax payer will not fund the M25 crossing, and all related flood plain works, then HAL will insist on immediately raising the Air Passenger Duty (APD) to provide funds, and the Government will be obliged to agree as the Government will be too far along the road to refuse this "reasonable" request.

Even if, throughout the world, there are two examples of an aircraft runway crossing a motorway these examples cannot carry any weight in the DCO submission as the detailed design of the third runway crossing the M25 must be location specific and not least must answer all of the items raised by Highways England.