



## Royal Air Force Brize Norton

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Our Ref: BZN/LCWG/2021/01

Mrs Alison Riseley  
Clerk to Brize Norton Parish Council  
Glebe Farm House  
Burford Road  
Brize Norton  
OX18 3NX

By email - [clerk@brizenortonparishcouncil.co.uk](mailto:clerk@brizenortonparishcouncil.co.uk)

01 February 2021

Dear Mrs Riseley,

Thank you for your email of 19 January 2021 to Royal Air Force Brize Norton regarding the potential new radar tower, due to be located in the North West corner of Tactical Medical Wing (TMW) grounds.

Please find below information relating to the concerns you raised on behalf of the Brize Norton Parish Council.

- 1. Has due consideration been given to the proximity the 700+ homes, the boundary of which is just over 100m away from your proposed location?** In all of our discussions with the installation contractor regarding the siting of the new radar, we have ensured that they are aware of the new housing and business locations that will take place between the location and Monahan Way. The radar site has been located to provide the least impact to the wider community whilst fulfilling military and civilian regulations.
- 2. The proximity of the new Country Park which runs adjacent to the north side of the TMW perimeter wire and the proximity of the new allotments which will run down the west side of the TMW perimeter wire?** As above, the installation contractor will be made aware of developments in the surrounding areas. The radar site has been located to provide the least impact to the wider community whilst fulfilling military and civilian regulations.
- 3. Could we see a drawing to assess the visual impact and intervisibility from various locations in the village?** As part of the Planning Application, Aquila will submit drawings and a 3-D CAD model of the radar. The radar turning gear and rotating antenna will sit on the top of a 25m lattice structure. The total height, including lightning protection will be 33m above ground level. For Flight Safety reasons the tower will be red and white and the radar antenna itself will be red.
- 4. Have you advised Bloor Homes Ltd, who are constructing the adjacent development?** The planning application being submitted by the installation contractor will be brought to their attention.

**5. Could you please advise why this location was chosen, which is extremely close to public housing and public amenities, considering that RAF Brize Norton covers an area of 460 hectares (1.8 square miles)? Is there not a more suitable location that would not cause such a major impact on the skyline?** This will be covered within the planning application but due to civilian regulations it needs to be at least 1.4km from the runway. The Tactical Medical Wing compound is the only area within RAF Brize Norton that fulfils the distance requirements. Any other location external to the Station would not have the power, connectivity or security requirements we need.

**6. With the high awareness of public safety in relation to high frequency electromagnetic fields (EMF), can you confirm that there will be no hazard to health? We would refer you to an article in the Witney Gazette dated 6 January 2021 where residents are extremely concerned about health risks regarding the erection of a 20m high 5G mast.** A full assessment of any Radiation Hazard will form part of the planning application. The Star-NG radar is an S-Band radar which will transmit on a frequency, yet to be allocated to us, but between 2.6-2.9 GHz, and this is the same frequency band as our current Watchman radar. Any source of EM radiation (such as UV light from sun on human skin) can cause potential side effects if you get too close. However, these effects are well known and their impact on the human body and free space dissipation rates are all documented and understood. The EM radiation from our radar also obeys the Inverse-Square Law. The radar installation company have used the International Commission on Non-Ionising Radiation Protection (ICNIRP) Guidelines for limiting exposure to EM Radiation and have identified that the safe distance is 13.3m from the centre of the antenna. The centre of the antenna will be 27.7m above ground level.

**7. What frequency will the radar operate at and will it disrupt/interfere with other civilian services e.g. TV and mobile phones?** The radar operates in the S-Band and will use dedicated ATC Radar frequencies between 2.6-2.9 GHz. These particular frequencies are protected by OFCOM for use throughout the UK by ATC radars to ensure they are not interfered with by other EM emitters. As they are protected, the reverse is also true and there is nothing in the frequency band that they can affect.

**8. What type of construction will the tower be, and will there be any moving elements on the top that may cause additional noise pollution?** The radar tower will consist of a red and white open lattice structure 25m high. On top of the tower will be the radar turning gear, the radar antenna itself and the lightning protection finials. The radar turning gear will generate a small amount of noise. The contractor has commissioned a company to undertake a noise survey and this will take place in February 2021, with the results being included within the planning application.

**9. We note that you have said that Aquila is engaging with the appropriate authorities and will ensure all regulations are complied with, but will there be a planning application submitted to WODC?** Aquila have been working with WODC and the Defence Infrastructure Organisation to determine how the Town and Country Planning Act 2015 applies to this structure. The act is open to interpretation so for transparency Aquila have decided to apply for full planning permission rather than apply permitted development rights. This measure will allow everyone to see the application and comment on it. The application will be submitted in the coming weeks, unfortunately we don't have a date yet.

I do hope you find this information useful,

Yours sincerely,

*[signed electronically]*

Mrs Leanne King  
Media and Communications Officer  
RAF Brize Norton