

Interactive comment on “The Ionospheric response over the UK to major bombing raids during World War II” by Christopher J. Scott and Patrick Major

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We would like to thank the referee for bringing the reference ‘Pokhotelov O. A., V. A. Liperovskii, Yu. P. Fomichov, L. N. Roubtsov, O. A. Alimov, Z. S. Sharadze and R. K. Liperovskaya (1991), Ionosphere modifications during military actions in the Persian Gulf war, Dokl. AN SSSR, v. 321, No 6, 1168-1172’ to our attention and we are pleased to include this reference in our manuscript as follows;

“There have been a number of case-studies into the impact of terrestrial explosions on the upper atmosphere (e.g. Rishbeth 1996), most notably the events surrounding the explosion at the Flixborough chemical plant in 1974 (Jones and Spracklen, 1974;

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Krasnova et al, 2003) while O. A. Pohotelov et al (1991) considered the impact on the F2 and Es ionospheric layers during a 32 day period of bombing in the Gulf War. In this current paper we make use of historical records to identify large bombing raids over mainland Europe during the Second World War (WWII) and, using a superposed epoch, or composite analysis (Chree, 1913), look for any consistent response in ionospheric measurements made at the Radio Research Station at Slough in the UK. Using historical records, reasonable quantitative estimates of the type and tonnage of explosives for each raid can be made, enabling the raids to be subdivided by size.”

Having obtained and translated Pokhotelov et al, we feel that although the nature of the research is indeed similar, there are significant differences between the approach used in the 1991 paper and our current manuscript, most significantly the analysis techniques used, the number of events considered and the quantitative information available regarding the nature and quantity of the explosives used.

We attach a revised version of the manuscript.

Please also note the supplement to this comment:

<https://www.ann-geophys-discuss.net/angeo-2018-44/angeo-2018-44-AC2-supplement.pdf>

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2018-44>, 2018.

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