NAME III Document
MD13/5(version 1)
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# Deposition Test

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This note briefly records the results of a few model runs that were conducted to investigate the behavior of the deposition routines within NAME III.

A test case was constructed by Andrew Jones for both NAME and NAME III. This used mesoscale met data with a single 6 hour long point release of Sulphur dioxide over the southeast of England.

Figure 1 and 2 present results for nine hours after the start of the release of air concentration and deposition. It should be noted that the contour levels are not the same for all plots and that the source location is plotted incorrectly due to a PV Wave error. As can be seen, given the low particle numbers (5000 per hour), agreement is as good as we would likely expect.

Sulphur dioxide is categorized as having different wet deposition characteristics and uses different sections of computer code within both NAME and NAME III from all other species. Therefore the above test was also carried out for a tracer release. The results for this are presented in Figures 3 and 4. Once again we observe that the results are in excellent agreement.

From these limited runs it is felt that the NAME III deposition schemes are working at least in accordance with NAME.

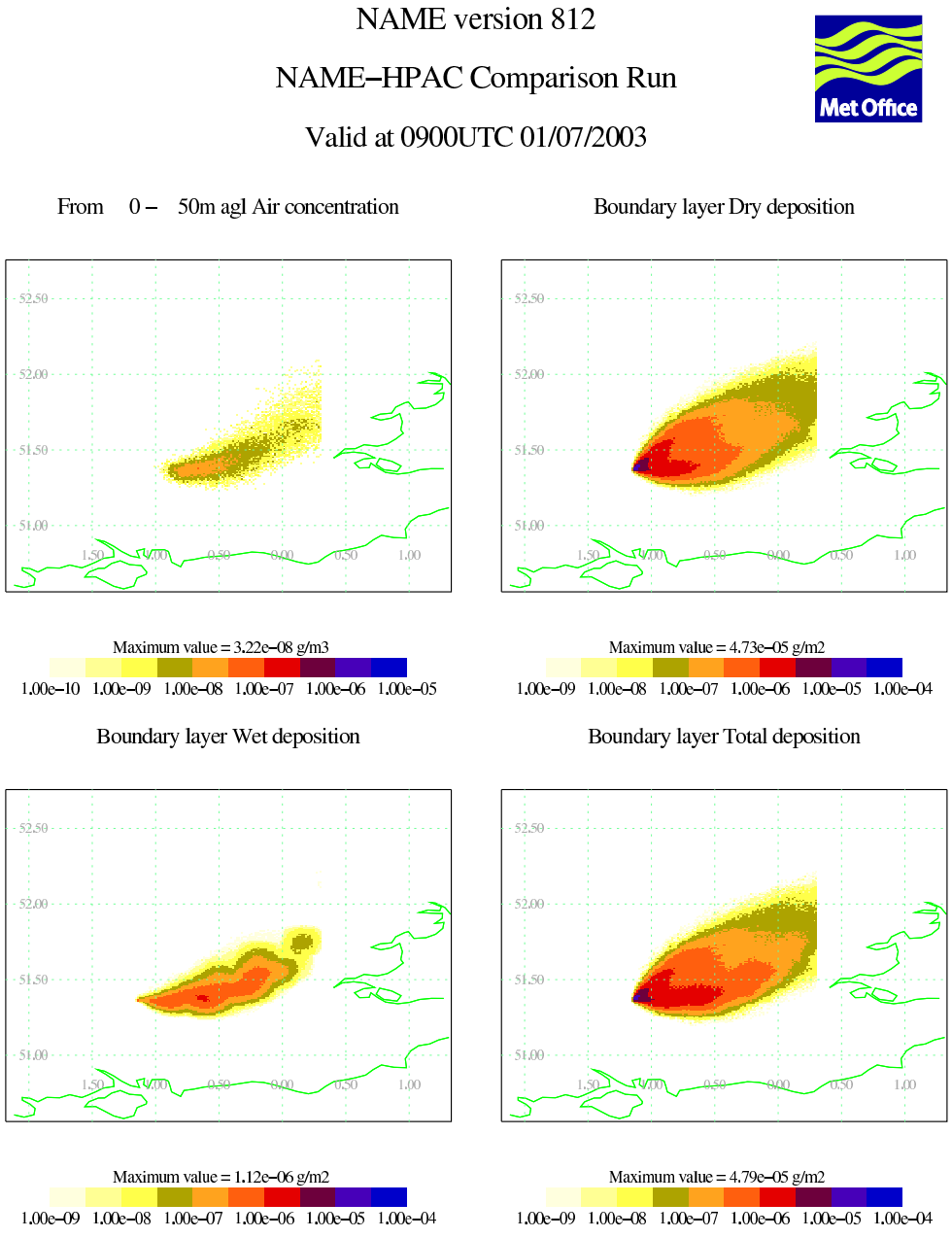


Figure 1: NAME output. SO2 release.

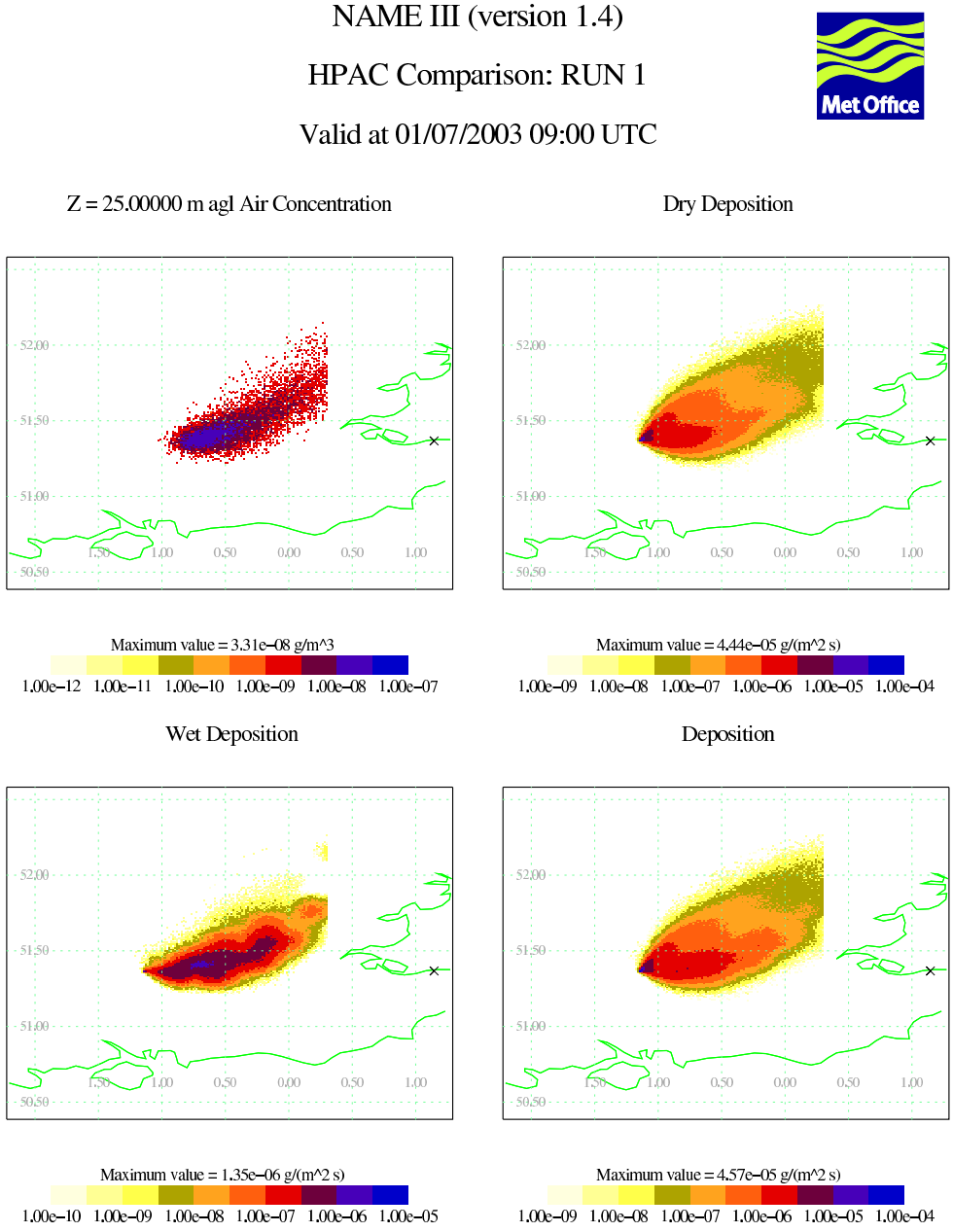


Figure 2: NAME III output. SO2 release.

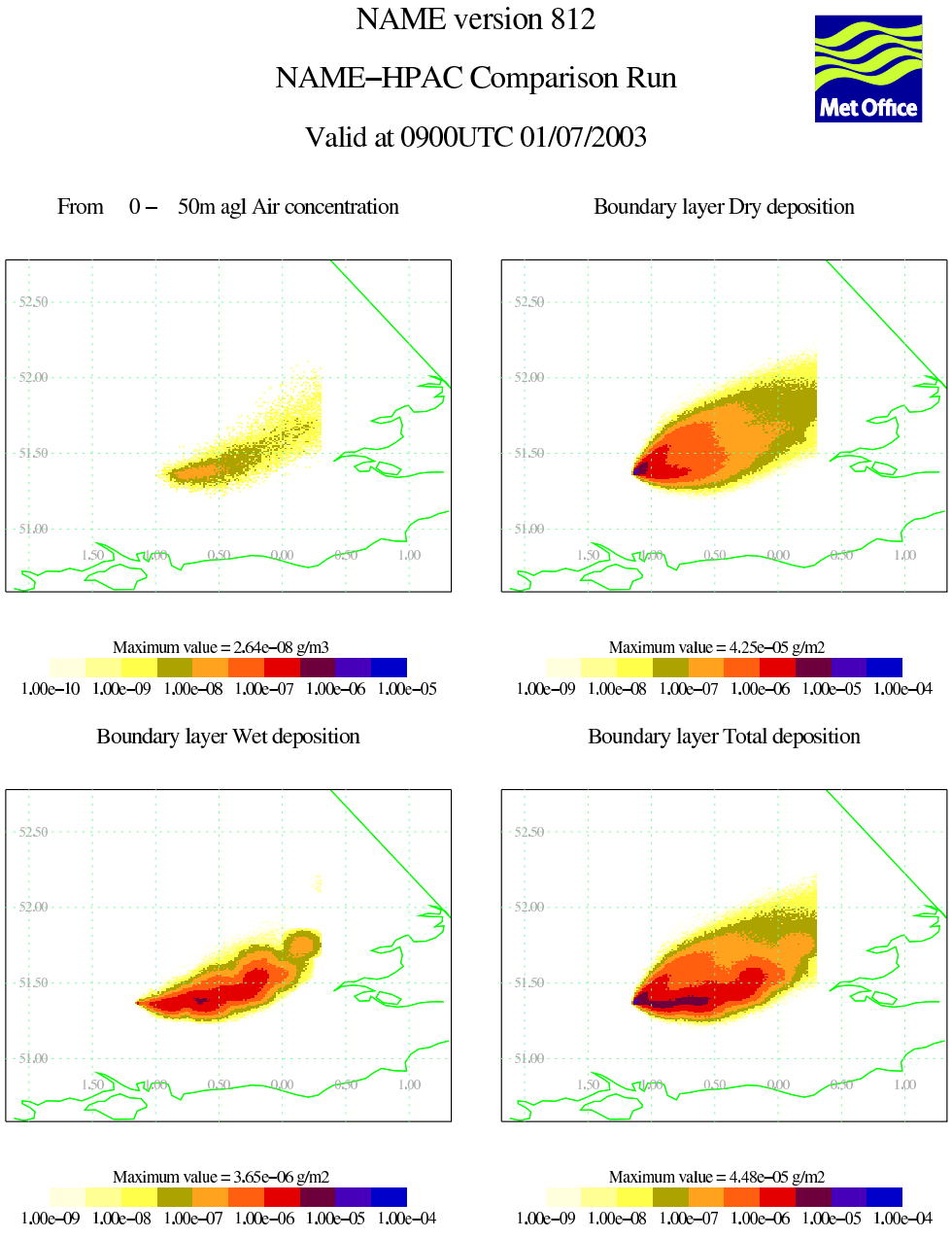


Figure 3: NAME output. Tracer release.

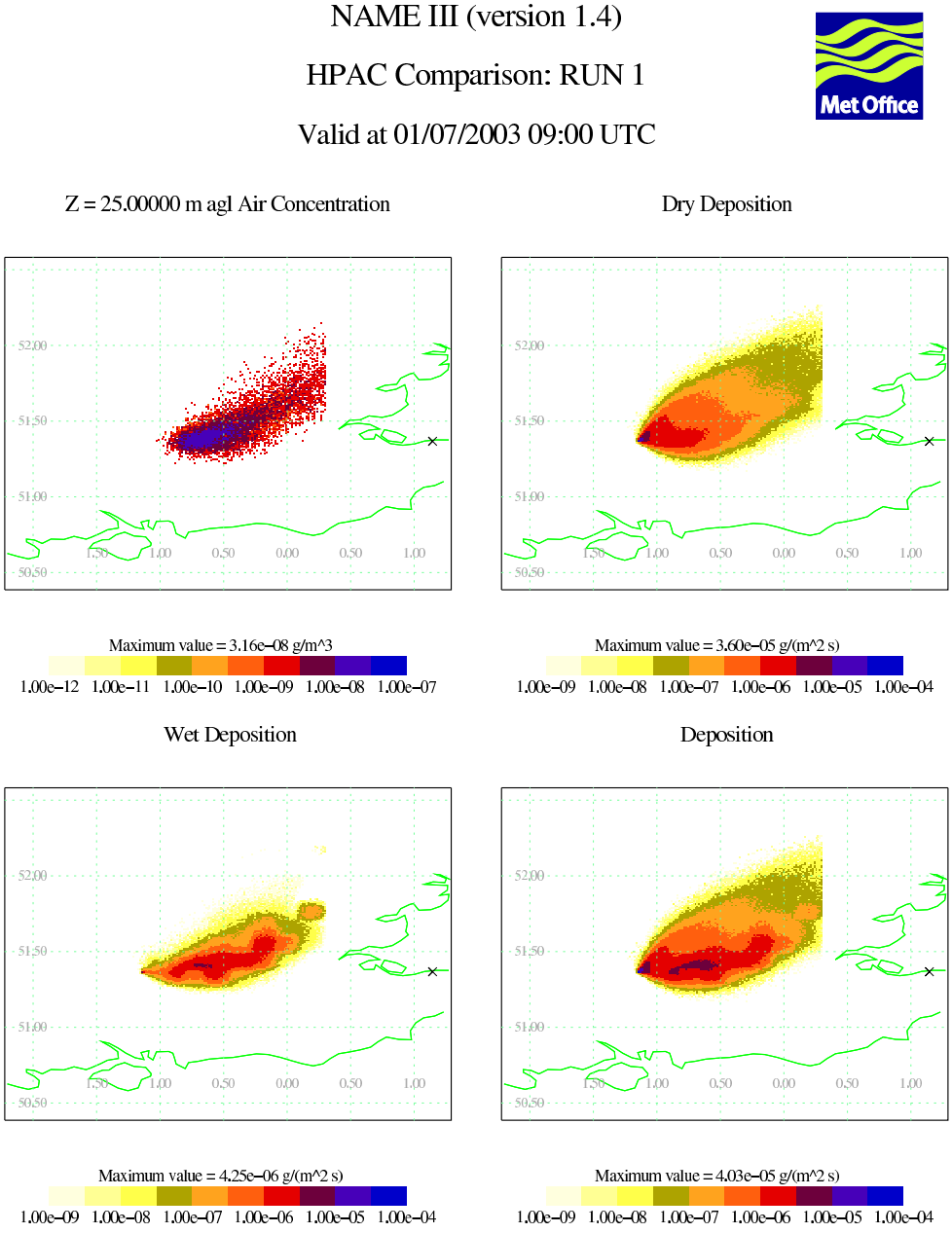


Figure 4: NAME III output. Tracer release.