

Interactive comment on “Retrieval of sulphur dioxide from a ground-based thermal infrared imaging camera” by A. J. Prata and C. Bernardo

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Response to reviewer #1

The reviewer has listed several minor irregularities in our paper that we address below. The careful attention to detail and helpful suggestions provided by the reviewer are appreciated.

Comments Page 2, Line 23 – statement on ‘which we will designate’. This is not the first paper to say this range is the MIR, so I would remove the text ‘which we will’
Changed as suggested.

Page 2, Line 25 – what is the format to call references. Is there a need for the double

C1239

brackets, it should be written as (Wright et al., 2004). All reference formats fixed to adhere to AMT format.

Page 2, Line 38 – the acronym should be in the brackets and the full name be outside the bracket. This will ensure consistency in the paper. MIVIS in brackets. Yes, change made. Page 3, Line 1 – the acronym should be in the brackets and the full name is outside the bracket. ASTER in brackets. Yes, change made.

Page 3, Line 2 – should be full name for EOS Yes, change made.

Page 3, Line 16 – format for calling the references. Here should use Stremme et al., (2013) etc. Yes, see above.

Page 3, Line 41 – the acronym should be in the brackets and the full name be outside the bracket. UV in brackets. Yes, change made.

Page 4, Line 4 – the acronym should be in the brackets and the full name is outside the bracket. BLIP in brackets. Yes, change made.

Page 4, Line 29 – the acronym should be in the brackets and the full name is outside the bracket. IR in brackets. Yes, change made.

Page 4, Line 34 – should the spelling of focused be US not UK. Not sure. AMT is a European journal so they may adopt UK spellings.

Page 4, Line 39 – there is a gap between Figure and 2. Yes, change made.

Page 5, Line 1 – there is a gap between Figure and 2 each time. Yes, change made.

Page 5, Line 14 – there is a gap between Figure and 3. Yes, change made.

Page 6, Line 23 – the (left-most panels) should be (a) and (right-most panels) should be (e). Yes, change made.

Page 7, Line 10 – reference format, edit to Prata et al., (2004). Yes, change made.

Page 7, Line 36 – the acronym should be in the brackets and the full name is outside

C1240

the bracket. 2D in brackets. Yes, change made. Page 8, Line 3 – section should have first lower case. Yes, change made.

Page 8, Line 34 – there is a gap between Figure and 6. Yes, change made.

Page 14, Line 8 – the acronym should be in the brackets and the full name is outside the bracket. SNR in brackets. Yes, change made.

Page 15, Line 19 – there is no need to say ‘see next’ as you state earlier that there are three types of error Yes, change made.

Page 15, Line 38 – in the list, you should use 1., 2. Etc. Yes, change made.

Page 15, Line 38 – the acronym should be in the brackets and the full name is outside the bracket. RT in brackets. Yes, change made.

Page 16, Line 10 – reference format should be (Berk et al., 1999). Yes, see above – all reference formats fixed.

Page 16, Line 12 – reference format should be (Strow et al., 2003). Yes, see above – all reference formats fixed.

Page 18, Line 8 – altitudes of the two volcanoes should say if m above sea level. Yes, added.

Page 18, Line 8 – should state that they are both volcanoes. Yes, added.

Page 18, Line 9 – there is a gap between Figure and 9. Yes, change made.

Page 18, Line 13 – what does refetna mean? Error in citation format. This has been fixed.

Page 18, Line 14 – there is a gap between Figure and 9. Yes, change made.

Page 18, Line 23 – there is a gap between Figure and 9. Yes, change made.

Page 18, Line 34 – here you use full name for the Figure and other times you use Fig.

C1241

What is the official journal format? Figure changed to “figure” where it does not appear as the first word in a sentence for consistency.

Page 19, Line 32 – there is a gap between Figure and 12. Yes, change made.

Page 19, Line 36 – there is a gap between Figure and 13. Yes, change made.

Page 20, Line 18 – why state about the data from the second site and not show the data. This is important as later you write in the conclusions that the system was tested at two industrial sites but in the paper you only show one. Either you show the results from the second site or remove that it was tested at a second site. OK. We have removed the offending sentence and no longer refer to a second site.

Page 20, Line 22 – should start section 5.2 as ‘Etna volcano, Italy’ Yes, change made.

Page 20, Line 36 – there is a gap between Figure and 14. Yes, change made.

Page 20, Line 37 – there is a gap between Figure and 14. Yes, change made. Page 20, Line 38 – there is a gap between Figure and 14 Yes, change made.

Page 21, Line 1 – what is the full name for HYSPLIT? We think this is in such common usage now that there is no need to spell it out. We refer to the model just once and the reference includes a full description.

Page 21, Line 6 – should start section 5.3 as ‘Stromboli volcano, Italy’ Yes, change made.

Page 21, Line 10 – you need a reference to the statement on active volcano for last 200 years Actually we say 2000 years. We looked hard for a primary reference to this number but could not find one. We think this may be in the realm of “common knowledge”. Wikipedia use this value and the Global Volcanism Program describe the activity as “known throughout historical time”. Given that the number could easily be 3000 or 4000 years we have changed the text to “throughout historical time”.

Page 21, Line 12 – you need a reference to the typical activity that lasts 10 minutes to

C1242

a few hours. Reference to Andronico et al (2008) added.

Page 21, Line 37 – this comes back to the second industrial test site. If you don't show the results then you cant state it was tested at two sites. You can include a figure of the results from the second site, or just say in this paper, shown it was tested at one industrial site. This part now deleted.

Page 22, Line 11 – there is a gap after the superscript 6. Yes, changed made.

Page 22, Line 37 – why is there double brackets in the reference format. Corrected.

Figures Page 34, Figure 4 – why have a new sentence after each part (b), (c) etc. Changed.

Page 36, Figure 6 – reference format? Prata and Bernardo, 2009 Corrected.

Page 45, Figure 15 – there should be a gap between 07:00 and LT. Corrected.

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