

# High resolution global climate modelling; the UPSCALE project, a large simulation campaign

M.S. Mizielinski et al. (gmd-2013-183)

Author response notes:

Following review the following changes have been made, with numbers in square brackets indicating the reviewer suggesting the change.

## 1 Introduction

Line 47-9: Statement added referencing the Japanese Earth Simulator [1]

Line 69-71: Reference to table with description of computing facilities used. [1]

## 2 Model configuration

### 2.1 Science configuration

Line 113-116: Added description of Sea ice ancillary [not requested by review, but pointed out by users of our data set]

### 2.2 Technical configuration

#### 2.2.3 Segment sizes

Line 190- 216: Section revised to clarify concept of segment size and reasons for impact on model performance [2]

#### 2.2.4 Scaling

Line 221: changed 25 thousand to 25,000 [2]

Line 229- 236: Clarification on whether IO or communication was the important factor [2].

#### 2.2.5 Numerical stability issues

Line 246: Reference to procedure for avoiding grid point storms [2]

Line 252-253: Note how stable future climate simulations are [2]

## Appendix A: Grid point storm avoidance procedure

Line 340-354: Added description of technical procedure used to avoid grid point storms [2]

## References:

Line 396: Demory 2014 updated

Line 428: Mizuta 2006 added [1]

Line 434: Ohfuchi 2004 added [1]

Line 453: Schiemann 2014 updated

Table 1 added [1]