|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Scenario**  (36Cl Po,  No.earthquakes) | **Elapsed time mean** | **Elapsed time MAPa** | **Scarp age mean** | **Scarp age**  **MAP** | **Likelihood mean** | **RMSw mean** | **AICc mean** |
| 48.8, 3EQ | 2777 | 2756 | 9090 | 9235 | 0.28 | 13.9 | 864.5 |
| 48.8, 5EQ | 2504 | 2403 | 9217 | 9335 | 0.27 | 14.2 | 888.6 |
| 48.8, 6EQ | 2422 | 2531 | 9270 | 9341 | 0.28 | 14.0 | 889.0 |
| 59.4, 3EQ | 2610 | 2713 | 8186 | 8607 | 0.25 | 14.3 | 863.2 |
| 59.4, 5EQ | 2407 | 2472 | 8289 | 8723 | 0.25 | 14.6 | 886.7 |
| 59.4, 6EQ | 2286 | 2389 | 8398 | 8616 | 0.27 | 14.5 | 893.1 |
| **Mean** | **2501** | **2544** | **8742** | **8976** | **0.27** | **14.2** | **880.8** |
| **1σ** | **173** | **157** | **502** | **363** | **0.01** | **0.3** | **13.4** |

Table S2: Bayesian Markov chain Monte Carlo (MCMC) model statistics

MAP is maximum a posteriori probability model