

Model Comparison Data File

| Location | 44.64 N | 105.46 E | | | | | | | |
|----------------|------------------------|----------|--------|-------------------------|------------|-----------|--------------------------|----------|----------|
| | Surface Temperature | | | Atm. Temperature 50 kPa | | | Specific Humidity 50 kPa | | |
| Model | 2000 | 2099 | Δ | 2000 | 2099 | Δ | 2000 | 2099 | Δ |
| bcc csm 1-1 | -3.97 | 1.79 | 5.76 | -29.5 | -24.25 | 5.25 | | | |
| BNU-ESM | -3.88 | 2.41 | 6.29 | | | | | | |
| CanESM2 | -2.33 | 2.98 | 5.31 | -28.6 | -22.6 | 6 | 0.000689 | 0.0012 | 0.000511 |
| CCSM4 | -4.18 | 1.38 | 5.56 | -27.81 | -21.43 | 6.38 | 0.000755 | 0.00125 | 0.000495 |
| CNRM-CM5 | -5.59 | -3.9 | 1.69 | -31.81 | -25.79 | 6.02 | 0.000597 | 0.001 | 0.000403 |
| CSIRO-Mk3-6-0 | -4.37 | 0.0831 | 4.4531 | -30.48 | -23.18 | 7.3 | 0.000727 | 0.00119 | 0.000463 |
| GISS-E2-H | -6.17 | -0.116 | 6.054 | -31.59 | -24.05 | 7.54 | 0.00047 | 0.000782 | 0.000312 |
| IPSL-CM5A-LR | -5.71 | 1.87 | 7.58 | | | | | | |
| MIROC-ESM | -2.56 | 5 | 7.56 | -28.71 | -22.42 | 6.29 | 0.000874 | 0.00148 | 0.000606 |
| MRI-CGCM3 | -5.01 | -0.2 | 4.81 | | | | | | |
| NorESM-1-M | -6.68 | -0.21 | 6.47 | -29.83 | -24.46 | 5.37 | 0.000699 | 0.00107 | 0.000371 |
| AVERAGE | -4.59 | | 5.59 | -29.79 | | 6.27 | 0.00 | | 0.000452 |
| STDEV | 1.34 | | 1.55 | 1.34 | | 0.76 | 0.00 | | 0.000091 |
| STDEV/ABS(AVG) | 29% | | 28% | 5% | | 12% | 17% | | 20% |
| Location | 44.64 N | 105.46 E | | | | | | | |
| | Cloud Fraction σ = 0.5 | | | Precipitation | | | Leaf Area Index | | |
| Model | 2000 | 2099 | Δ | 2000 | 2099 | Δ | 2000 | 2099 | Δ |
| bcc csm 1-1 | | | | 0.0000099 | 0.00000966 | -2.4E-07 | 0.955 | 1.27 | 0.315 |
| BNU-ESM | | | | 0.000014 | 0.0000147 | 7E-07 | 1.03 | 1.85 | 0.82 |
| CanESM2 | | | | 0.00000872 | 0.0000131 | 4.38E-06 | 0.106 | 0.271 | 0.165 |
| CCSM4 | 5.2 | 6.3 | 1.1 | 0.0000101 | 0.0000143 | 4.2E-06 | 0.163 | 0.245 | 0.082 |
| CNRM-CM5 | | | | | | | | | |
| CSIRO-Mk3-6-0 | 7.15 | 7.43 | 0.28 | 0.00000939 | 0.0000111 | 1.71E-06 | | | |
| GISS-E2-H | 12.63 | 11.09 | -1.54 | 0.00000773 | 0.00000895 | 1.22E-06 | | | |
| IPSL-CM5A-LR | | | | | | | | | |
| MIROC-ESM | | | | 0.0000147 | 0.0000207 | 0.000006 | 0.12 | 0.318 | 0.198 |
| MRI-CGCM3 | | | | | | | | | |
| NorESM-1-M | 8.72 | 8.15 | -0.57 | 0.0000147 | 0.0000161 | 1.4E-06 | 0.645 | 0.694 | 0.049 |
| AVERAGE | 8.43 | | -0.18 | 1.116E-05 | | 2.421E-06 | 0.50 | | 0.27 |
| STDEV | 2.73 | | 0.98 | 2.662E-06 | | 2.026E-06 | 0.39 | | 0.26 |
| STDEV/ABS(AVG) | 32% | | 538% | 24% | | 84% | 78% | | 96% |

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|----------------|---------------|----------|--------|--------------|------------|----------|------------|-------|--------|
| | | | | | | | | | |
| Location | 44.64 N | 105.46 E | | | | | | | |
| | Soil Moisture | | | Total Runoff | | | Snow Cover | | |
| Model | 2000 | 2099 | Δ | 2000 | 2099 | Δ | 2000 | 2099 | Δ |
| bcc csm 1-1 | 34.67 | 33.65 | -1.02 | 7.05 | 8.86 | 1.81 | | | |
| BNU-ESM | | | | 1.27 | 6.03 | 4.76 | | | |
| CanESM2 | 53.46 | 66.54 | 13.08 | 0 | 0 | 0 | | | |
| CCSM4 | 41 | 40.79 | -0.21 | -2.39 | -1.23 | 1.16 | 25.12 | 11.81 | -13.31 |
| CNRM-CM5 | | | | -1.47 | 2.09 | 3.56 | | | |
| CSIRO-Mk3-6-0 | | | | | | | | | |
| GISS-E2-H | 66.6 | 52.84 | -13.76 | 0 | 0 | 0 | 30.63 | 17.01 | -13.62 |
| IPSL-CM5A-LR | | | | | | | | | |
| MIROC-ESM | 43.47 | 43.32 | -0.15 | 0 | 0.00000143 | 1.43E-06 | | | |
| MRI-CGCM3 | | | | | | | | | |
| NorESM-1-M | 42.63 | 42.83 | 0.2 | 1.02 | 4.09 | 3.07 | 35.33 | 26.72 | -8.61 |
| AVERAGE | 46.97 | | -0.31 | 0.69 | | 1.80 | 30.36 | | -11.85 |
| STDEV | 10.37 | | 7.76 | 2.66 | | 1.72 | 4.17 | | 2.29 |
| STDEV/ABS(AVG) | 22% | | 2502% | 388% | | 96% | 14% | | 19% |
| | | | | | | 2.872 | | | |
| | | | | | | 1.28 | | | |
| | | | | | | 44% | | | |