CCMC Simulation Outputs Onboarding Questionnaire

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| By completing this questionnaire, you agree to the [CCMC DATA Collection Consent Agreement](https://ccmc.gsfc.nasa.gov/consent/). |

# 1. Simulation Output Originator Metadata

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| --- | --- |
| **Contact Information** (add a copy of this table for each contact) | |
| **First name** |  |
| **Middle name** (optional) |  |
| **Last name** |  |
| **Organization Name** |  |
| **Email** (work/school) |  |
| **Role** (check all that apply) | Model User  Model Developer |

# 2. General Model Metadata

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| --- | --- |
| **Model Name** (e.g., WSA) |  |
| **Model Full Name if applicable** (e.g., Wang-Sheeley-Arge Model) |  |
| **Model Release Date** |  |
| **Model Version** (e.g., 3.8) |  |
| **Code Languages** (e.g., IDL, Fortran, C++) |  |
| **Model Description** |  |
| **Change Log** (notable changes compared to previous version) |  |
| **Inputs Description** |  |
| **Outputs Description** |  |
| **Model Caveats** |  |
| **Model institution acknowledgement** (Optional. Add rows as needed) | |
| **Name** |  |
| **URL** |  |
| **Relevant Links, if any** (example: link to source code on Github, link to online documentation about the model): | |
| **Brief link name** |  |
| **URL** |  |
| **Long link Description** (optional) |  |
| **Publication(s)** (add rows as needed) | |
| **DOI** | **Title** |
|  |  |
|  |  |

# 3. Model and Science Use Metadata

*These are used to filter models on the CCMC website model catalog*

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| --- | --- |
| **Simulation Type** (required; can select more than one):  Data Assimilation  Empirical  Ensemble  Physics-based  Physics-based.Kinetic  Physics-based.MHD  Post\_Processing\_Tools  **Temporal Dependence Possible?** Can the results evolve with time?  True  False | **Model Domains** (required; can select more than one):  Solar  Heliosphere.Inner\_Heliosphere  Heliosphere.Outer\_Heliosphere  Geospace  Magnetosphere.Global\_Magnetosphere  Magnetosphere.Inner\_Magnetosphere.Plasmasphere  Magnetosphere.Inner\_Magnetosphere.RadiationBelt  Magnetosphere.Inner\_Magnetosphere.RingCurrent  Local\_Physics  Global\_Ionosphere  High\_Latitude\_Ionosphere/Auroral\_Region  Thermosphere |

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| **Space Weather Impacts:**  Atmosphere variability (satellite/debris drag)  Galactic cosmic rays - GCRs (human exploration, aviation safety, aerospace assets functionality)  Geomagnetically induced currents - GICs (electric power systems)  Ionosphere variability (navigation, communications)  Near-earth radiation and plasma environment (aerospace assets functionality)  Solar energetic particles - SEPs (human exploration, aviation safety, aerospace assets functionality) | |
| **List of Phenomena (This is domain specific)**  **Solar List:**  Solar\_Magnetic\_Field  Coronal\_Holes  Coronal\_Mass\_Ejections  Solar\_Electromagnetic\_Emissions  Solar\_Energetic\_Particles  Solar\_Flares  Solar\_Spectral\_Irradiance  **Heliosphere List:**  Solar\_Energetic\_Particles  Ambient\_Solar\_Wind  Magnetic\_Connectivity  High\_Speed\_Stream  Stream\_Interaction\_Regions  Interplanetary\_Shocks  Heliospheric\_Current\_Sheet  Interplanetary\_Scintillation  Coronal\_Mass\_Ejections\_Propagation  Coronal\_Mass\_Ejection\_Arrival  **Global Magnetosphere List:**  Geomagnetic\_Storms  Geomagnetic\_Sub-storms  Magnetosphere\_Current\_Systems  Plasma\_Sheet  Magnetopause  Bow-shock  Cusp  Magnetosheath  Magnetic\_Mapping  Magnetotail\_Dynamics  Plasmoids  Magnetic\_Perturbations\_at\_Geosynchronous\_Orbit  Ground\_Magnetic\_Perturbations  Ultra\_Low\_Frequency\_Waves  Flux\_Transfer\_Events  Busty\_Bulk\_Flows  Kelvin-Helmholtz\_Instabilities  Distant\_Tail  Near-Earth\_Neutral\_Line  Magnetic\_Reconnection | **Inner Magnetosphere List:**  Ultra\_Low\_Frequency\_Waves  Whistler\_Chorus\_Waves  Plasmaspheric\_Hiss  Electromagnetic\_Ion\_Cyclotron\_Waves  Other\_Tyes\_of\_Waves  Wave-particle\_Interactions  Particle\_Dynamics  Plasmasphere/Plasmapause\_Dynamics  Inner\_Magnetosphere-ionosphere-thermosphere\_Coupling  Inner\_Magnetosphere\_and\_Outer\_Magnetosphere/Tail\_Coupling  Seed\_Population\_for\_the\_Ring\_Current\_and\_Radiation\_Belt/ Preconditioning  **Geospace List:**  Coupled\_Geospace\_System\_Response\_To\_Drivers  Magnetosphere-ionosphere\_Convection  Energy\_Distribution\_In\_Coupled Geospace\_System  **Ionosphere List:**  Variablility\_of\_Plasma\_Density  Ion\_Drift\_Velocity  Equatorial\_Anomaly  Traveling\_Ionospheric\_Disturbances  Ionospheric\_Scintillations  HF\_Signal\_Absorption  **Thermosphere List**:  Atmosphere\_Expansion  Neutral\_Composition\_Change  Neutral\_Wind\_Change  Traveling\_Atmospheric\_Disturbances  **High Latitude Ionosphere/Auroral Region List**:  Ionosphere\_Electrodynamics  Particle\_Precipitation  Energy\_Flow\_into\_Ionosphere  Joule\_Heating  Ionosphere\_Convection  Polar\_Wind  Ionosphere\_Particle\_Outflow  Field-aligned\_Currents  Cross-polarcap\_Electric\_Potential |

# 4. Resources

What storage/hardware resources does the simulation(s) outputs need?

What **hardware resources** does this model need? (List here or attach documentation)

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| --- | --- |
| **Total Size/Disk Space needed (e.g. 500 GB)** |  |
| **Any special requirements or notes that CCMC should be aware of?** |  |
| **Have these simulations been used/referenced in any publication? If so, please provide the list of publication name and the associate DOI.** |  |

What **software resources** does the output reader/interpolation/visualization code need including any **version dependency**? (List here or attach documentation)

|  |  |
| --- | --- |
| **Specialized/licensed software and toolkits** (e.g., IDL, Matlab) |  |
| **Compilers** (e.g., Intel, Nvidia, gcc) |  |
| **Libraries** |  |
| **Other** (e.g., Python, Java) |  |
| List any **licensing info** for the code and any third-party open-source software used by the code |  |

# 5. Guidelines for the Delivery Package to CCMC

**Delivery package should include the following:**

* Simulation(s) output
* Pre-and post-processing, visualization, validation, interpolation, and/or output reader scripts/codes
* Documentation on how to use the output (and any other documentation