PROJECT TIMELINE

R1 = Responsibility 1

2017

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
2 9 16 23 30	6 13 20 27 0	6 13 20 27 0	3 10 17 24 0	1 8 15 22 29	5 12 19 26 0	3 10 17 24 31	7 14 21 28 0	4 11 18 25 0	2 9 16 23 30	6 13 20 27 0	4 11 18 25 0

Choose events; choose model settings; choose metrics; establish benchmarks; GONG-WSA-Enlil runs and validation

- **SWPC R1:** Provide (a) list of historic events to validate (CME start time) (b) model CME parameter inputs for all events. Preliminary list available in mid-July. (Doug)
- **SWPC R2:** Provide detailed inputs and outputs for a select number (~3) of operational WSA-Enlil runs from the event list (including all model settings, WSA input file, magnetogram input file information, and CME parameters). Vic
- **SWPC R2:** Provide detailed inputs for all available operational WSA-Enlil runs from event list (including all model settings, WSA input file, magnetogram input file information, and CME parameters). Doug
- **CCMC:** replicate test run provided. Leila, Peter
- **CCMC (SWPC R2):** Create online database of provided SWPC simulations, including all necessary metadata. Chiu
- **CCMC (SWPC R2):** Provide test runs with different grid resolutions, test replication. Discuss desired grid resolution, time resolution, and model ambient settings to be used for CCMC R1 & R2. Leila, Peter
- **SWPC R2:** Evaluate any test runs. Discuss and decide desired grid resolution, grid outer boundary, time resolution, magnetogram input frequency, model versions, model ambient settings, number of blocks, and other relevant information to be used for CCMC R1 & R2. SWPC will evaluate whether low-resolution grid runs will suffice for this and all subsequent items. Vic
- **SWPC R3:** Prepare an evaluation of the required resolution for model runs. Vic
- **SWPC R1:** Provide metrics to be used for model validation tasks. Metrics may be revised as needed. These metrics will be used for the validation tasks in the items below.
- **CCMC R1:** Create an on-line database of simulations using GONG-WSA-Enlil driven by a single GONG magnetogram to establish model performance benchmarks. (continues into 2018)

2018

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 8 15 22 29	5 12 19 26 0	5 12 19 26 0	2 9 16 23 30	1 7 14 21 28 0	4 11 18 25 0	2 9 16 23 30	6 13 20 27 0	3 10 17 24 0	1 8 15 22 29	5 12 19 26 0	3 10 17 24 31

ADAPT-WSA-Enlil runs and validation; interim report

- **CCMC:** Install ENLIL 2.9+ upgrades and successfully achieve 2.6 replication
- **CCMC R1:** Create an on-line database of simulations using GONG-WSA-Enlil driven by a single GONG magnetogram to establish model performance benchmarks. (continued from 2017)
- **CCMC R2:** Perform validation of GONG-WSA-Enlil driven by time-dependent GONG magnetograms. The results will be compared to GONG-WSA-Enlil runs from NASA responsibility 1. (continued from 2017)
- **SWPC (CCMC R3):** Choose one event for CCMC R3. Discuss and provide source for GONG-ADAPT maps to be used in CCMC R3-R5
- **CCMC R3:** Perform a preliminary time-dependent ADAPT-WSA-Enlil simulation for all 12 realizations for one event. Necessary ADAPT-WSA model outputs will be obtained from subject matter experts if WSA 4.0 has not yet been implemented at CCMC.
- **Joint R1:** prepare interim report due Sep 1st
- **CCMC R4:** Perform validation of ADAPT-WSA-Enlil (WSA Version 4.0 or higher, Enlil version 2.8f or higher) driven by 12 realizations of single ADAPT maps. The results will be compared with GONG-WSA-Enlil runs from R1 and R2.
- **CCMC R5:** Perform validation of ADAPT-WSA-Enlil driven by time-dependent ADAPT maps (one sequence for each of the 12 realizations). The results will be compared to the GONG-WSA-Enlil runs from responsibilities R1, R2, and R4. CCMC will investigate ways to take best advantage of 12 realizations. (continues into 2019)

2019

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
7 14 21 28 0	4 11 18 25 0	4 11 18 25 0	1 8 15 22 29	6 13 20 27 0	3 10 17 24 0	1 8 15 22 29	5 12 19 26 0	2 9 16 23 30	7 14 21 28 0	4 11 18 25 0	2 9 16 23 30

Final report

- **CCMC R4:** Perform validation of ADAPT-WSA-Enlil (WSA Version 4.0 or higher, Enlil version 2.8f or higher) driven by 12 realizations of single ADAPT maps. The results will be compared with GONG-WSA-Enlil runs from R1 and R2.
- **Joint R2:** Prepare final report due Sep 1st.