FLM Testing of MMIF

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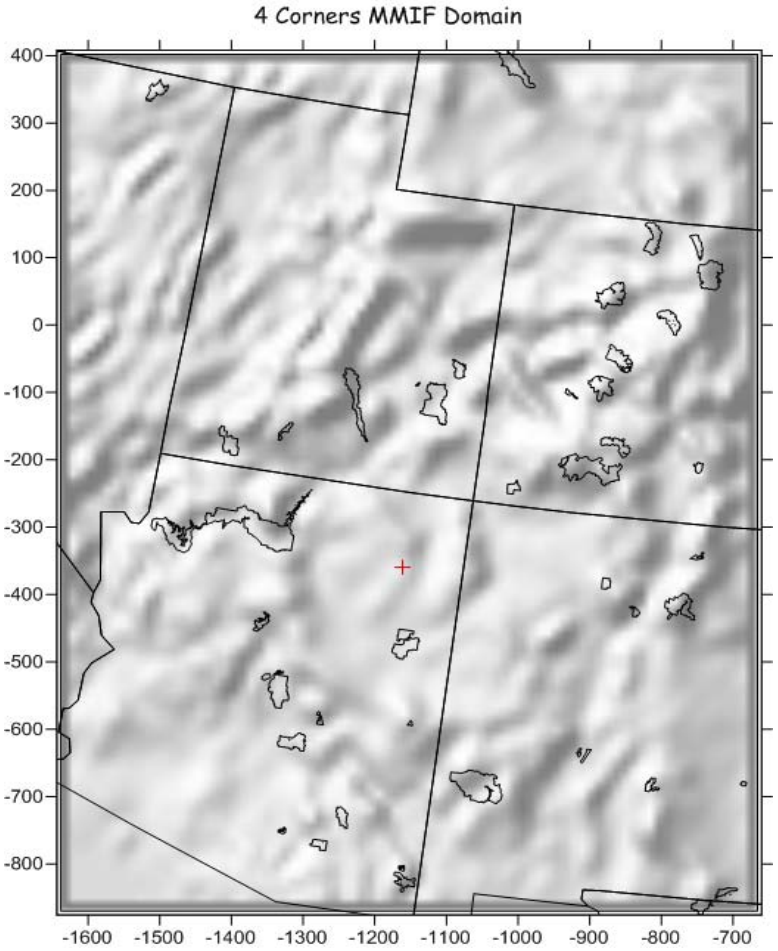
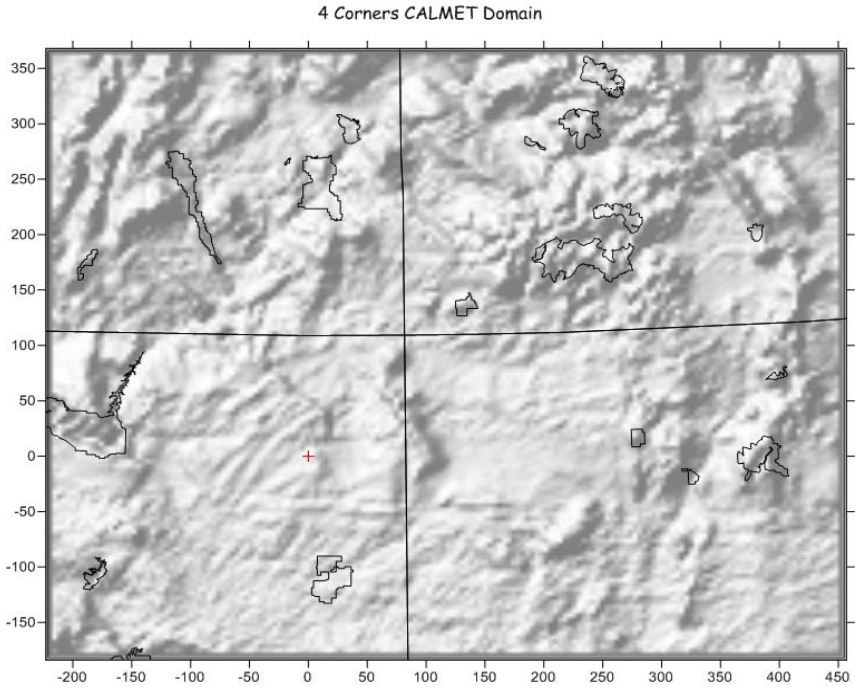
FLM Testing of MMIF

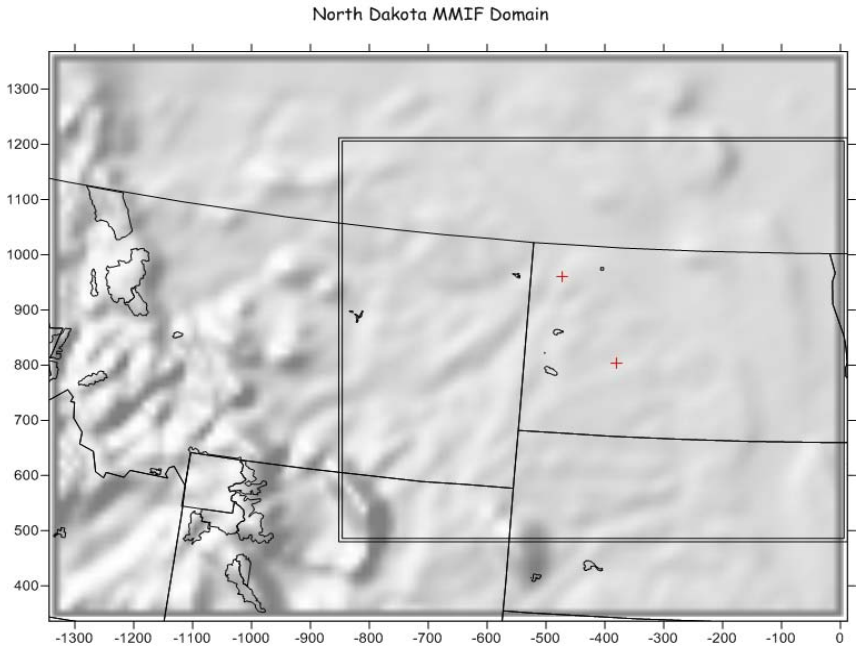
- Consequence analysis of CALPUFF results examining differences between CALMET and MMIF. Key concern was to examine effect of prognostic fields on AQRV's (visibility, deposition).
- 3 Domains were developed to test MMIF under climatological regimes
  - Four Corners
  - North Dakota
  - VISTAS Domain 5
- Analysis of effect of wet deposition (on/off), dry deposition
- Emissions Scenarios Tested:
  - 2 stack EGU
  - Cement Plant

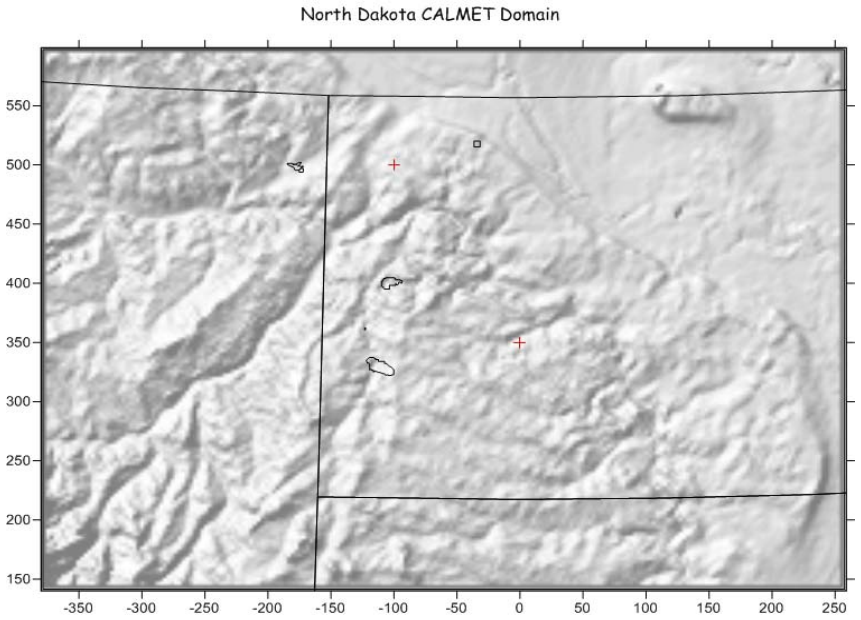
Four Corners Domains



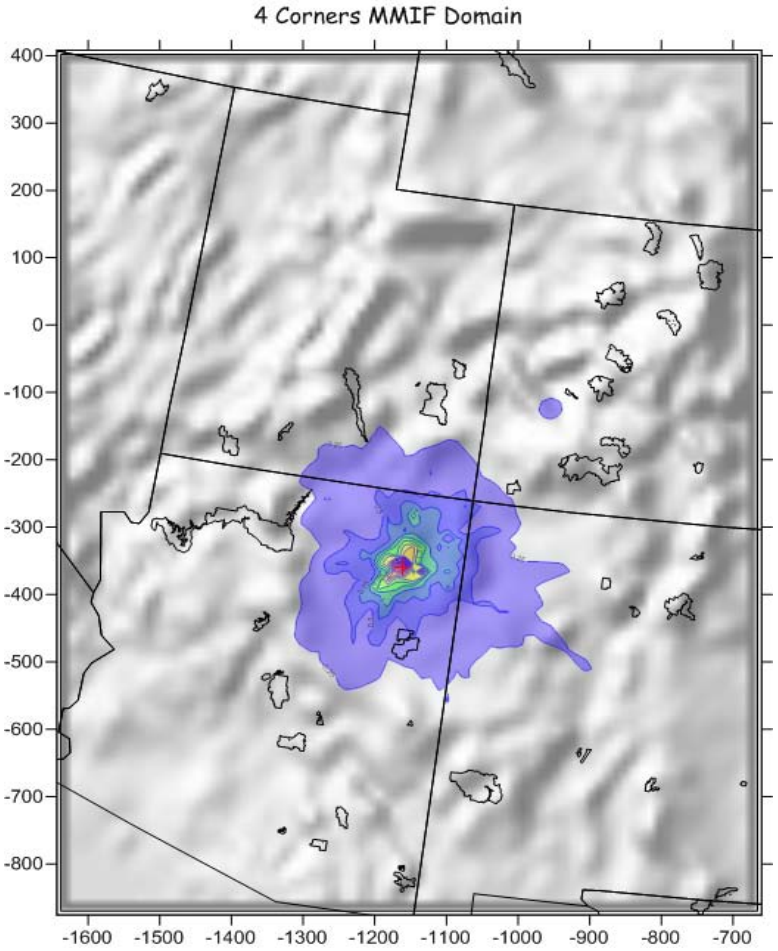


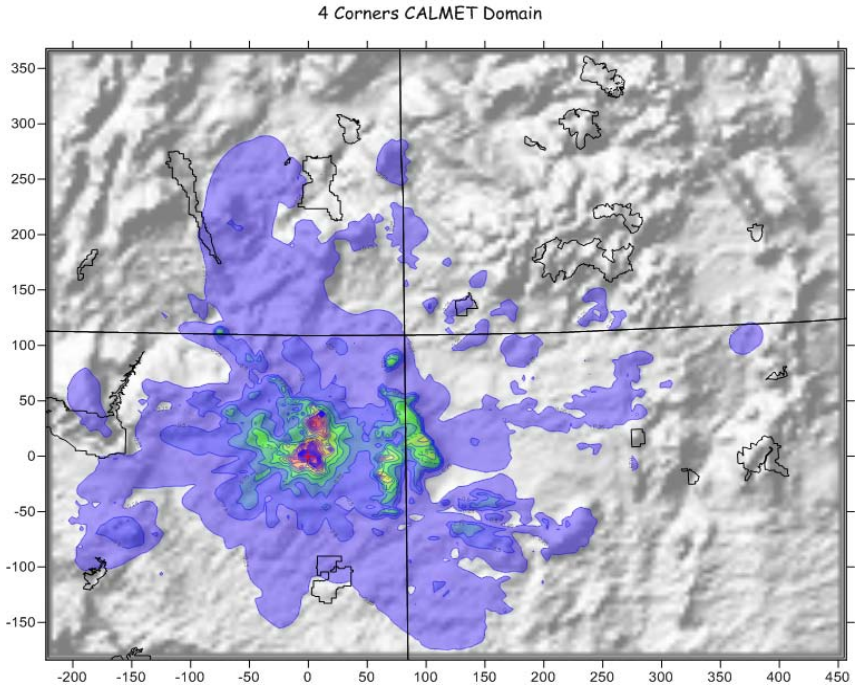
North Dakota Domains



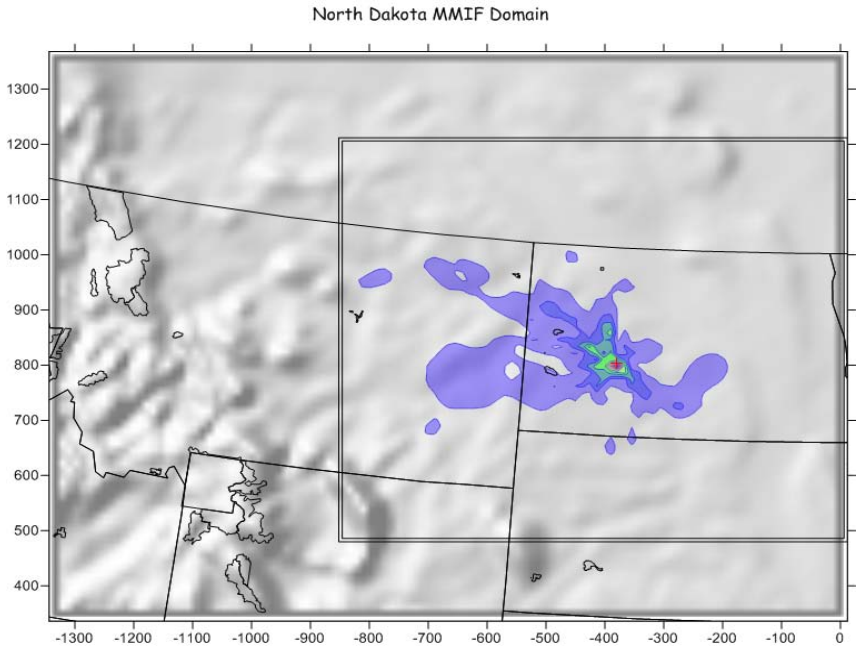


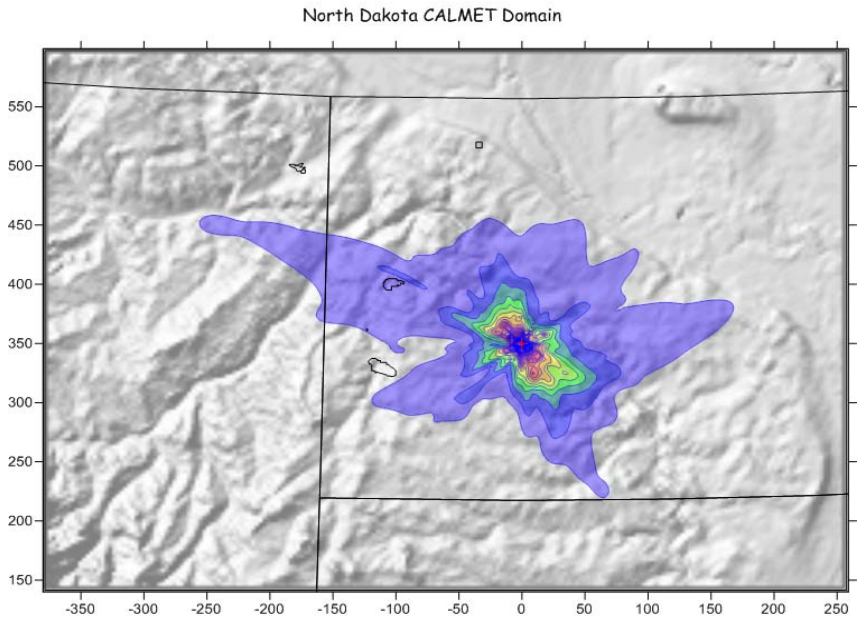
Four Corners - Deposition





North Dakota - Deposition





Initial Observations from FLM Testing

- Significant differences noted in deposition levels and patterns between MMIF and CALMET results.
  - Possible Causes:
    - Stability
    - Mixing Heights
    - Precipitation
    - Transport directionality
- Additional examination of results is necessary in order to make more definitive conclusions.
- Important to reiterate that this is not a model validation exercise. These tests are designed to examine the effect of different methods of supplying meteorological data to the dispersion model and their subsequent effects on AQRV's.