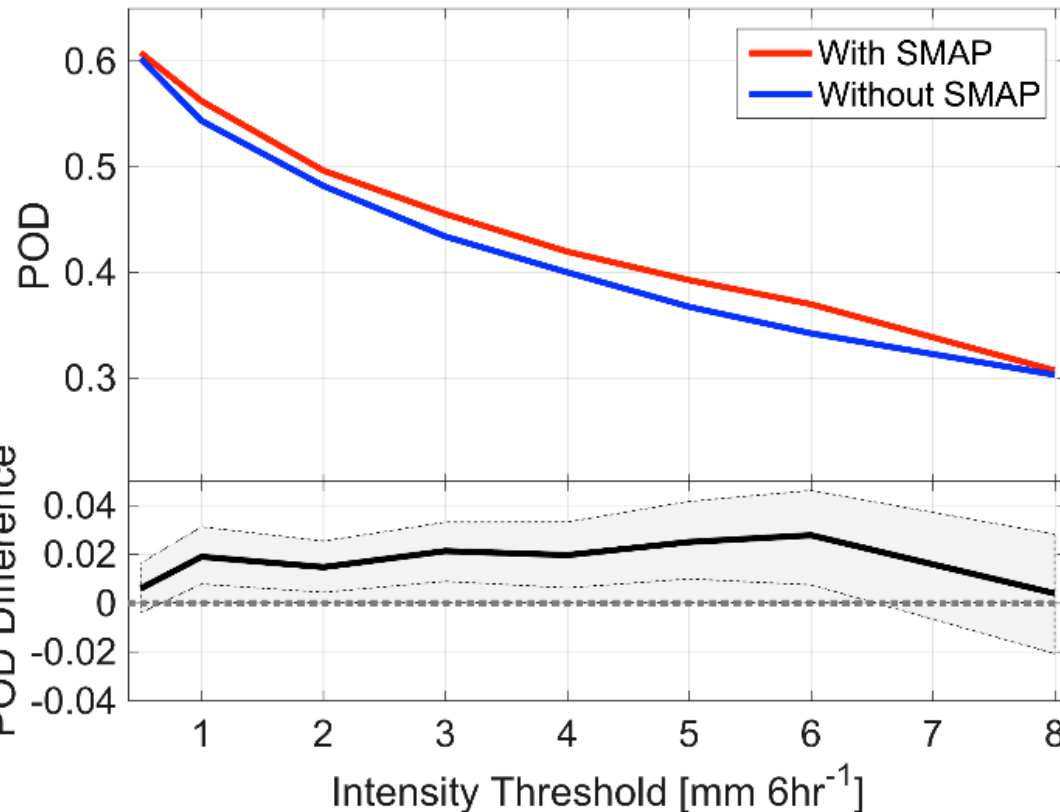




# Initialization of NWP With SMAP Soil Moisture Increases Precipitation Forecast Skill



**Problem:** Prediction of Summer precipitation is challenging and the NWP forecast skills are low



**Finding:** Probability-of-Detection (POD) for range of intensity thresholds increase after initializing NWP with SMAP soil moisture information. False-Alarm rate unaffected.

- North America
- July and August 2015
- T+30 hours (late evening precipitation)

**Impact:** The gain in forecast skill is equivalent to ½ day gain in forecast lead!