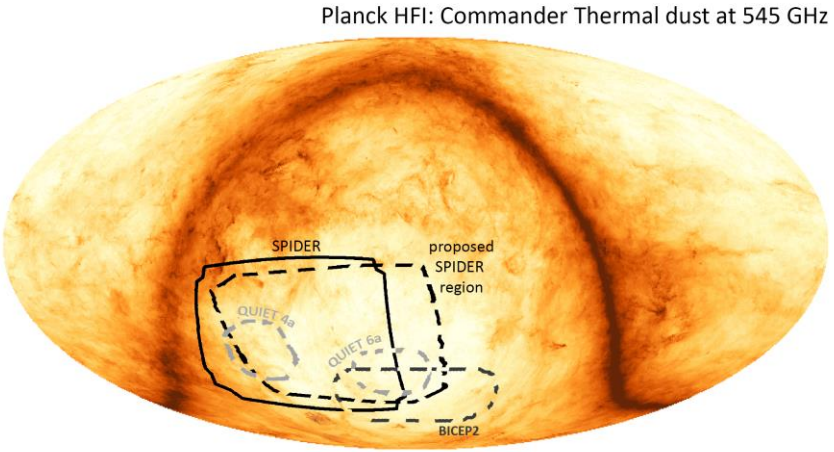
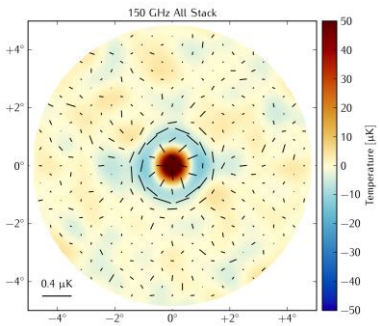
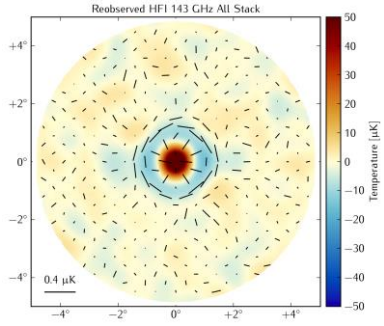
Complementarity of sub-orbital and orbital missions

1) Technical Heritage: COBE DMR, WMAP and Planck
   All relied on sub-orbital pathfinders to demonstrate technology and techniques
2) Comparable per-detector sensitivity
   Balloon borne payloads have demonstrated loading comparable to HFI at L2
3) Targeted sky coverage
   Only 20% of the full sky is plausibly clean enough for B-mode work
4) Orthogonal systematics
   Cross correlations of data with comparable sensitivity

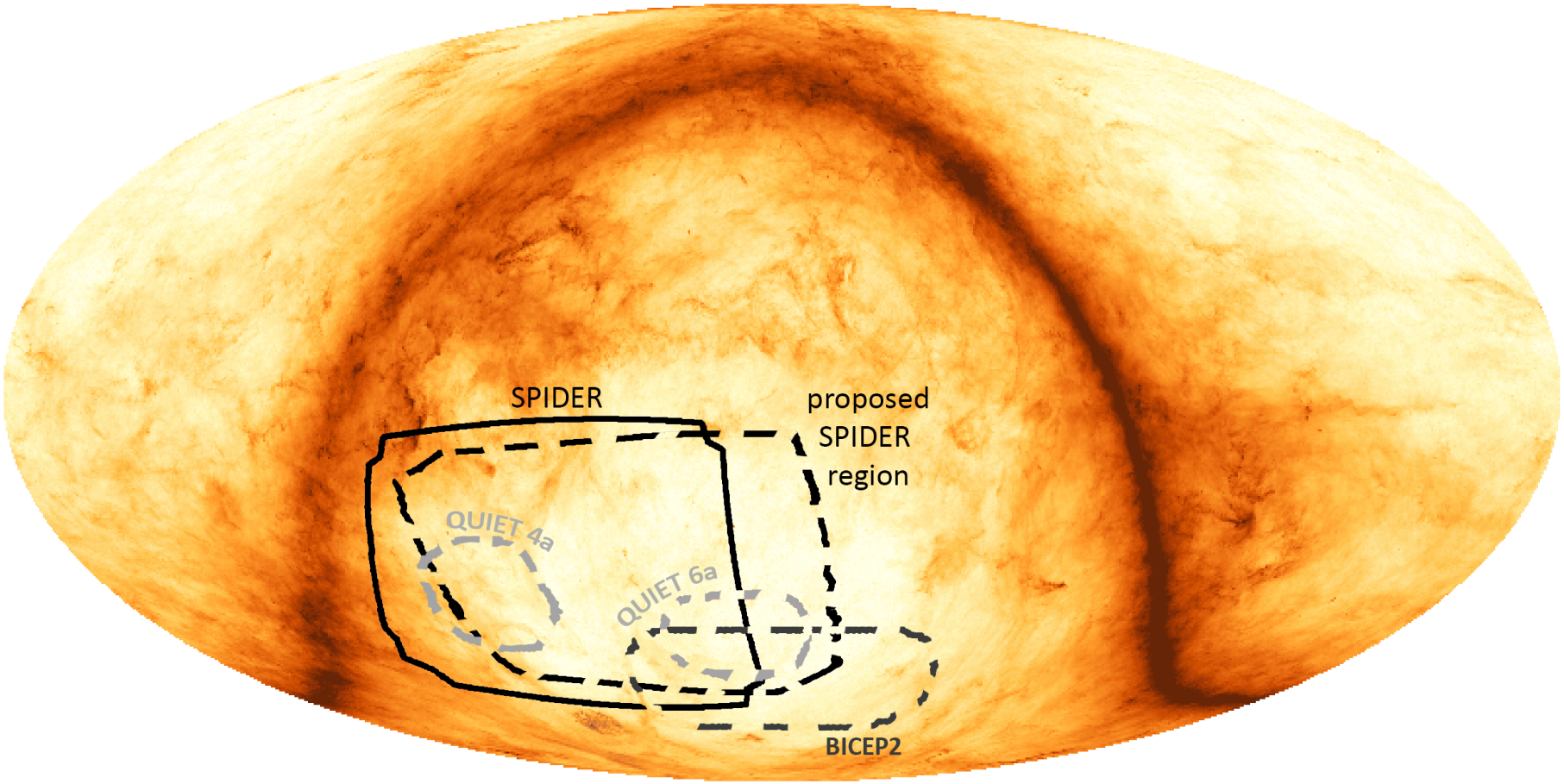




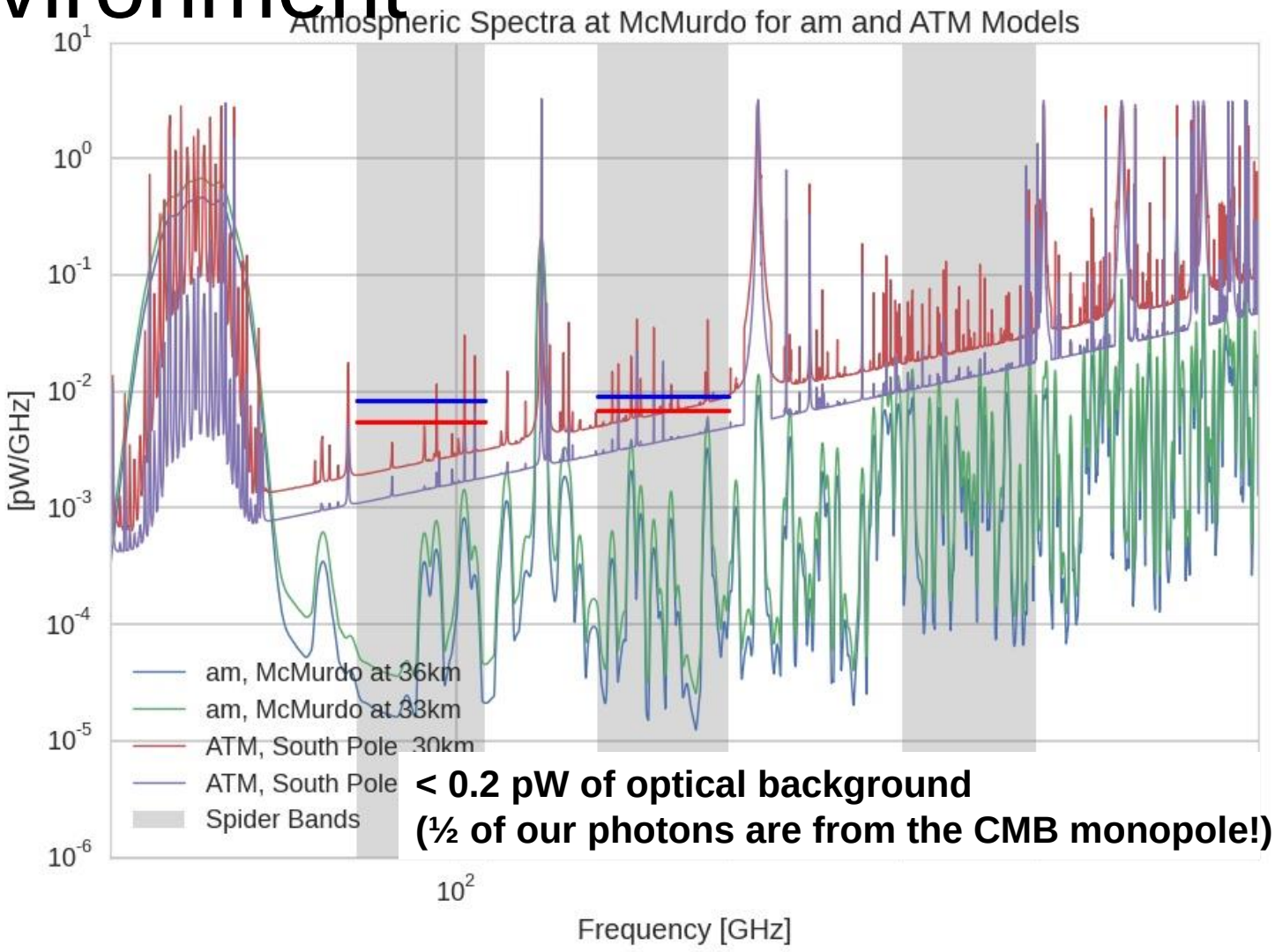


Only 20% of the full sky is plausibly clean enough to do B-mode work. Sub-orbital experiments can exceed the map depth of orbital missions in these regions, allowing valuable cross correlations of data with orthogonal systematics.

Planck HFI: Commander Thermal dust at 545 GHz



Spider 2015: radiative environment



Spider 2015: radiative environment