Contrail Retrievals from MODIS for ACCRI

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To improve our understanding of contrail impacts on climate, a consistent contrail climatology is being developed at NASA Langley based on measurements from the MODerate-resolution Imaging Spectroradiometer (MODIS) on the Terra and Aqua satellites. Data taken over the Northern Hemisphere from 2 different years are being analyzed using several different algorithms to detect linear contrails and compute their radiative forcings in context of the environment. Both clouds and contrails are retrieved and the radiative forcing is computed using both theoretical and empirical approaches. This paper provides an overview of the approach, processing system, and the initial results of the project, which is supported by the FAA Aviation Climate Change Research Initiative (ACCRI).