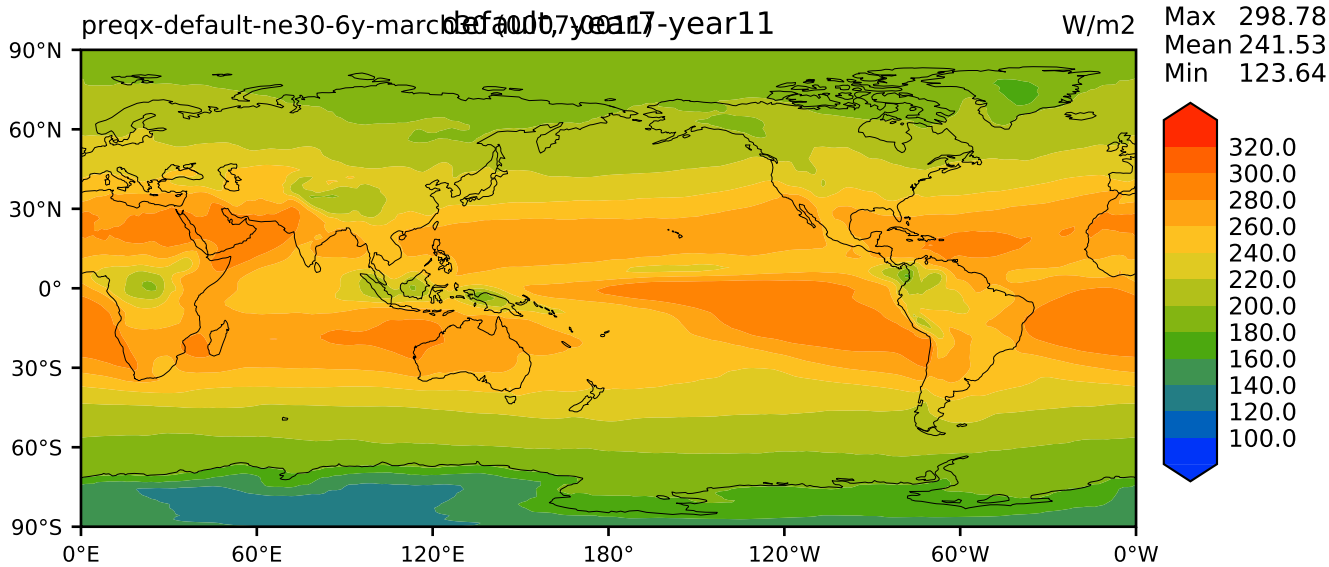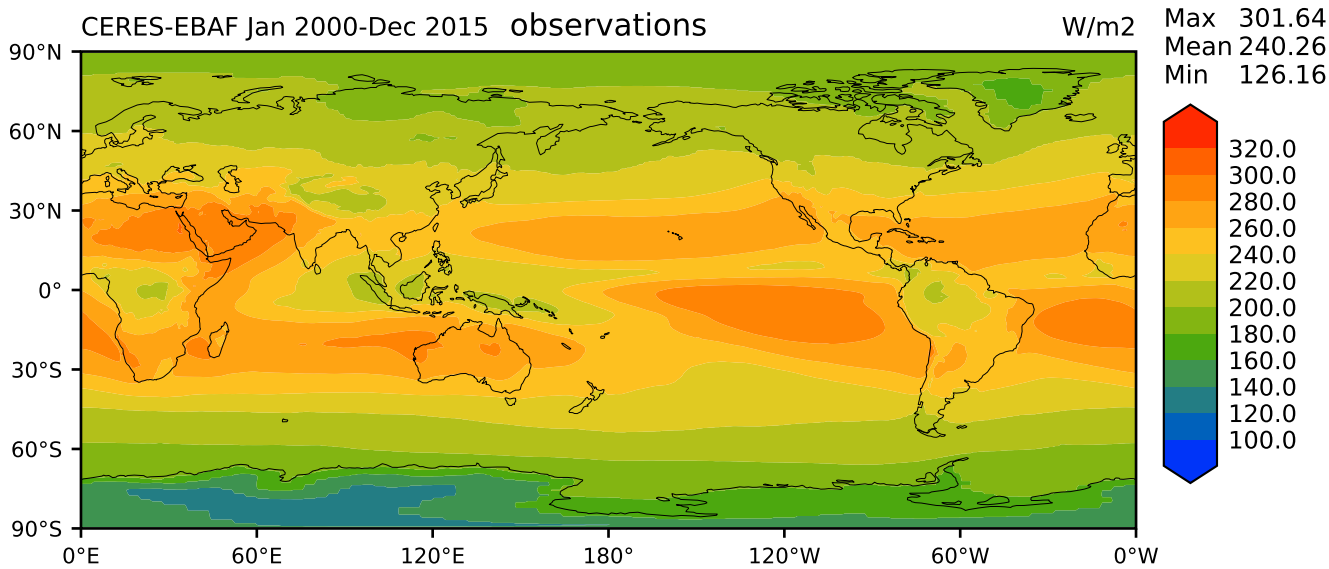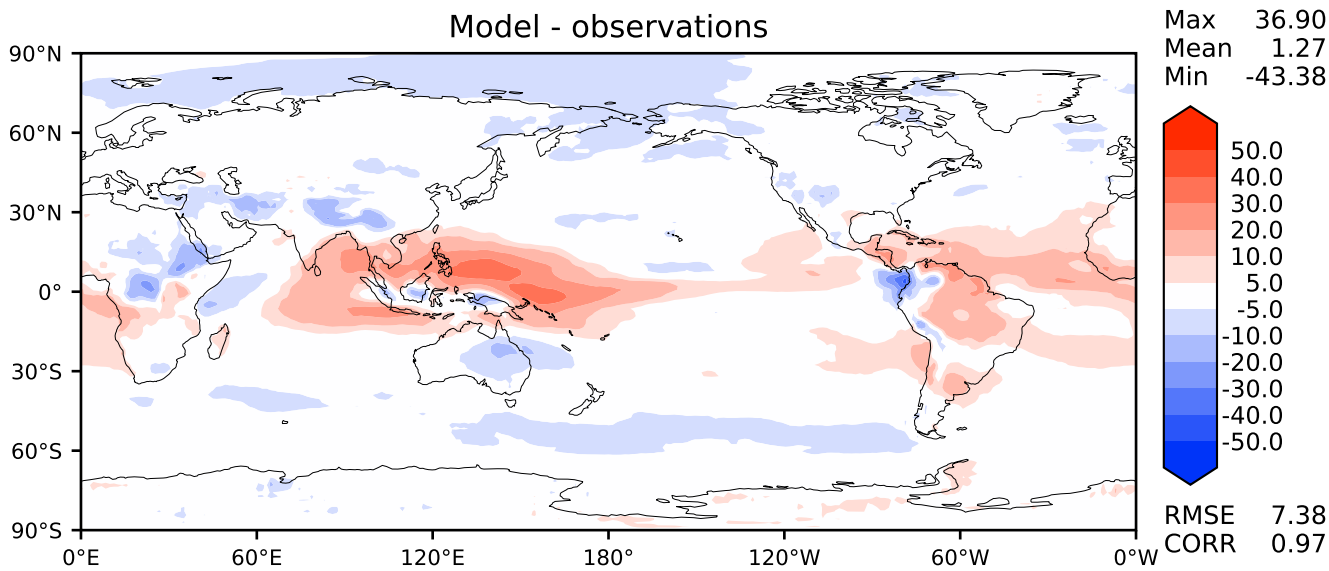FLUT ANN global