Solar Cycle Length and Northern Hemisphere mean temperature revisited.

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The statistical relationship between the smoothed curve for solar cycle length and northern hemisphere land mean temperature has been a source of investigation in the question of whether and how much the Sun influences climate variations. The relationship was widely discussed following the 1991 paper by Friis-Christensen and Lassen and was updated in 2000 by Thejll and Lassen. Data for one more solar cycle has now accumulated, and the relationship is again reviewed and discussed. We derive and show the updated SCL and mean temperature curves. The relationship between the two is analysed using standard statistical methods. Additional climate forcing factors are introduced to improve the fit. Changes in the historical part of the mean temperature curve has occurred which modifies the previously seen relationship, and this is discussed.