Changes in the Relationship between $F_{10.7}$ and Sunspot Number – An Update

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F10.7

Monthly Means























Comments/Conclusions

- Soon after the maximum of Cycle 23, the relationship between F10.7 and sunspot number changed, with an excess of F10.7 over what we would expect on the basis of the sunspot number value. There was an increase in the short term fluctuations too. There were signs of this change in Cycles 21 and 22. Cycle 24 continues with this deviation.
- It could be due to decreases in the number of observed small sunspots and the resulting decreased observed short-term sunspot activity.
- Since we have only about 60 years with values for both indices, we cannot say how atypical these changes are, which of course impact our ability to forecast anything.