

## **Predictions of the Solar Cycle, Past and Present**

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Interest in predictions of the level of solar activity years into the future are widely anticipated and required, both by the general science community and from customers of space weather products. Some customers would like forecasts as much as 17 years in the future. Since 1979, NOAA has periodically convened panels and workshops to address this need. The most recent panel released its initial prediction for solar cycle 24 in April, 2007. In this talk, we will review the modern techniques for predicting the solar cycle, from the precursor method of Ohl in the 1960's to the dynamo models of the 2000's. This will be followed by a summary of the results of each NOAA panel, including what each panel recommended and the bias shown in favor of specific techniques. Finally, we will review those techniques considered most promising in the present day and the prediction released by the solar cycle 24 panel.