

## ***Interactive comment on “Seasonal Prediction of Winter Haze Days in the North-Central North China Plain” by Zhicong Yin and Huijun Wang***

### **Anonymous Referee #1**

Received and published: 12 September 2016

#### General Comments:

The paper entitled “Seasonal prediction of winter haze days in the north-central North China Plain” selected seven predictors based on the analysis, and then used them to establish two statistical schemes for the prediction of the winter haze days over the north-central North China Plain. The two prediction models were demonstrated to have good ability to capture the interannual and interdecadal trends and the extremums of the haze days over the north-central North China. Thus, this study provides a good basis for the prediction of the haze days. I recommend the manuscript a minor revision before it be published in the journal.

#### Specific Comments:

(1) As is known, the human activity, especially the energy consumption, is the first

C1

driver for the increasing of the haze days in North China in recent years, while the climatic conditions may be the second driver. So, how to take the human influence into account in the current prediction models? Some discussions about this issue are suggested to be included in the study.

(2) The predictors are selected mainly based on the correlation analysis. The correlations may indicate some relations (phenomena) but do not really imply causality (reason). To confirm the reliability of the selected predictors for the prediction models, the physical mechanisms underlying their relationships are suggested to be presented.

(3) There are far too many acronyms. This made me very confused when reading this paper. So, how can the authors expect the readers to remember all these acronyms in reading through the paper?

(4) The writing are needed to be further improved, and some sentences are needed to be rephrased to make them more clear. At several places, I cannot understand what is being conveyed. For example, “some new climatic finding have been helpful seasonal. . .”, “soil moisture is an important . . . but only after SST”, and so on. Please re-edit before submitting.

(5) Some references are cited in the text but not listed in the Reference section. Please check throughout the manuscript.

---

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-691, 2016.

C2