Abstract Details

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Title: Some Advances in Investigation into Dust Storm in North China

Abstract:

To give an up-to-data review of investigation advances in the Dust S (DS) in North China (NC). In this paper the three major stages of the study in NC was firstly reviewed, then some aspects of it, such as the observation, DS climatology, the circulation patterns of the DS outbre dust transport, the causes and trends of DS activity variations in NC a as the further problems to study, have been stated. Main points are a follows: 1) The dust sources of DS in China-Mongolia (CM) come mai Northwest China and Mongolia areas, with the intensifying of dust we intensity (in the order of background atmosphere, dust haze, blowing weak- to strong- and very strong-DS) their dust concentration increas the ratio of about 3-fold. 2) There are five high occurrence areas of D NC, Mongolian DS occurs usually in the South of it. 3) The DS outbrea occurs mainly in the afternoon in spring months, strong wind, dust sc and unstable air stratification are the three main elements forming DS Two types of circulations triggering the DS: the pure cold front type a cold front and squall line (or other meso-scale systems) mixed one ar explored, the latter is the strong convective DS. The long distance tra of the dust depend on the lower level circulation. 5) In the past five d the DS activities in NC change wavily. It changes with the degeneracy ecology environment, particularly the interdecadal variation of lower l cyclone activities are Mongolia and others. 6) The importance of both comprehensive managing of ecology environment in forementioned fi major DS occurrence areas in NC and setting up of DS forecasting an warning systems need to emphasis to combat with the DS, and also t numerical forecast and simulation studies of DS outbreak and dust tra need to intensify.

Presentation Mode:

Keywords: Northern China,Dust concentration observation,Circulation for dust st outbreak,Forecasting and warning systems for dust storm,dust storm trend,Desertification control

Status: Reviewed.

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