

A Brief Overview of Sea Fog Research in China during the Past 40 Years

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Sea fog is one kind of weather phenomena occurred widely over oceans and coastal regions wherein tiny water/ice droplets sustained in the atmospheric boundary layer and caused the horizontal atmospheric visibility to be less than 1000 m. A large number of previous studies have indicated that Bohai Sea, Yellow Sea and East China Sea were the most frequent sea fog occurrence areas in the world. The low atmospheric visibility associated with sea fog is a serious threat to the safety of ship navigation. According to the statistics of the China Maritime Safety Administration in Zhoushan, Zhejiang Province, over 70% of the marine accidents such as ship-collision or stranding that occurred at sea were caused by the sea fog. When sea fog occurs, it not only affects the maritime navigation and harbor operations, but also causes coastal high-way transportation to be blocked or even closed. As sea fog is a great threat to coastal high-way transportation, fishing, harbor operation, and electricity power transportation, thus, understanding of sea fog is of both scientific and practical importance.

This talk aims to make a brief overview of sea fog research in China over the past 40 years. The main purposes are twofold: the first one is to briefly summarize the sea fog research in China, and the second one is to look forward to the future development of sea fog research. Some important issues such as academic books and dissertations related to fogs, microphysics of sea fog, numerical simulation, data assimilation and ensemble prediction of sea fog in China were focus. This talk may provide useful information for those who concerns with the progresses of sea fog research in China.