

Status of Sea Fog Research in Fujian Province and Taiwan Strait

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The sea fog disaster in Taiwan Strait, which is a foggy traffic artery, often leads to personnel and property losses. There's many mountains and long coastline in Fujian Providence, and fog is one of the natural disasters. This review covers the main achievements of sea fog in the western side of Taiwan Strait and makes a comparison with sea fog research progress in other sea areas, mainly including sea fog synoptic and climatic characteristics, monitoring means, the microphysics and numerical prediction research. The results show that some achievements have been made in terms of sea fog synoptic climatology in the western side of Taiwan Strait. With the development of science and technology, the monitoring method is constantly improving, but the inversion of satellite remote sensing monitoring results still needs further study. The study on micro-physical characteristics of sea fog helps to improve the sea fog model and the retrieval technology of satellite remote sensing sea fog, so it will be the next research focus in the western side of Taiwan Strait. Fujian province meteorological observatory has developed visibility prediction rely on high resolution model and fog probability forecast products rely on ensemble forecast, now they have been used in daily business. But the numerical simulation of sea fog in Taiwan Strait is less, the sea fog formation mechanism is unknown. With the continuous improvement of observation technology and dynamic statistical method, the sea fog forecast ability in Taiwan Strait can be improved by combining the numerical prediction products with traditional synoptic method.