Analysis on the characteristics and prediction possibility of the marine fog over and near the East Sea.

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Through the climatological analysis on the fog occurrences over and near the East Sea, we show that the fog occurrences are closely associated with the strength of Asian summer monsoon and topographic over the East Sea. Also we examine the possibility of sea fogprediction.

In case of the strong summer monsoon with the strong south-westerly wind and strong contrast of high pressure system over the Pacific ocean to the low pressure system over the Asia land, fog occurrences increase. The fog concentrated season coincides quantatively with the progress of summer monsoon. At southern area, fog occurrences become frequent from 19 pentad till 42 pentad of the year and at northern area from 30 pentad to 45 pentad. At Kangnung station, sea fog occurs from June till August and steam fog occurs from September till June, then total fog is the most frequent at June. Besides, warmer temperature and big annual variation of temperature caused more fog frequencies and bigger yearly variation of mean temperature caused the bigger variation of fog frequencies.

Associated with topographic characteristics, we show that it is much more frequent at the western side of Dast sea than another side. Also, it is the most frequent at the stations opened directly to the north-easterly cold sea-current.

Another important characteristics which means some climatological changes over East Sea are detected by the several kind of computation, those are the rapid decrease of fog occurrences and gradual northward movement of fog occurring area per year.

A little prediction possibility of the sea fog detected also. 60 % of whole sea fog cases classified as one category by the statistical model. Other cases could be categorized also if observed data stored enough. It is proposed that the focused research on this categorized data will make progress on the model itself and prediction possibility.