

## A Study on the Characteristics of Tonghae Coastal Winds

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Three years of hourly wind data obtained by five eastern coastal meteorological stations of Korea were analyzed for the characteristics of coastal surface winds and their industrial applicability. The prevailing winds at Sokcho were south-easterly and north-westerly in spring, south-easterly in summer, north-westerly and south-westerly in fall, and north-westerly in winter, respectively. At Ullungdo located in the Tonghae prevailing winds during all seasons distingtively blew north-eastward and south-westward. Any prevailing winds at Ulchin of the Tonghae coastal region were not detected in both spring and summer, but north-westerly wind was found with a maximum occurrence in fall, and both north-westerly and south-westerly winds in winter. At Pohang north-easterly and south-westerly winds were dominant in the spring, summer and fall seasons, but south-westerly wind in winter. Prevailing wind directions at Pusan were northeast in both spring and summer seasons, northeast in fall and northwest in winter. Although there were not apparently observed latitudinal variations of prevailing wind directions the similarity in their monthly distributions exist at Sokcho and Ulchin located in the relatively high latitude, but the consistency at Pohang and Pusan in the low latitude. The prevailing wind directions at Ullugndo were much different from those at other 4 meteorological stations.

Near the coastal zone the surface winds exhibited two kinds of wind types. One is a marine wind type, which shows a wind speed minimum during the day, but a wind speed maximum near midnight shown at Ullungdo. The other is an inland wind type, which leads to an afternoon wind maximum near the earth surface and a minimum wind speed near midnight at the other observation stations - Sokcho, Ulchin, Pohang and Pusan. The maximum occurrence of coastal jetlike wind during all seasons was found at Ullungdo and the minimum one at Pohang except for summer season.