

# Autumn Typhoon on the Korean Peninsula - Comparison of Past and Present

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Recently, the characteristics of typhoons affecting the Korean Peninsula are rapidly changing. As the typhoon affects the Korean Peninsula, and the SST in the Northwest Pacific, including the growing Korean Peninsula, increases at a faster rate than the global average SST, the intensity of the typhoon affecting the Korean Peninsula is increasing. In particular, the frequency and intensity of typhoons affecting the Korean Peninsula in September and October, called "Autumn Typhoon," are increasing. In 2019, there were seven typhoons in the Korean Peninsula, of which three typhoons occurred in September, causing significant damage to the Korean Peninsula. Although the frequency and intensity of autumn typhoons are increasing, but previous studies on autumn typhoons are very insufficient. Therefore, this study compared and analyzed the change in overall characteristics including frequency, intensity, maximum instantaneous wind speed, and track for autumn typhoon. The analysis of maximum instantaneous wind speed and distribution during the typhoon period was carried out using the Typhoon Pre-prevention Disaster Model. The analysis showed that the proportion of autumn typhoons affecting the Korean Peninsula was increasing sharply in the 2011-2019 period compared to 2002-2010, and that the maximum instantaneous wind speed that occurs during the period of the fall typhoon was also increasing. In recent years, as the frequency and intensity of autumn typhoons increase simultaneously, the damage caused by autumn typhoons is gradually increasing. Therefore, in terms of disaster prevention, further research on autumn typhoon should be conducted later.

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Keywords: Autumn, Typhoon, 3-second gust

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