



The study of Merydunal and Zonal Index and its relationships with Cyclone Gonu

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Distinguishing the integrated natural disaster management is basic, also there happens rarely during 100 years. Cyclone Gonu, an unusually strong tropical cyclone, developed in the eastern part of the Arabian Sea on June 1st. The cyclone made landfall in Oman on the 6th with maximum sustained winds near 148 km/hr. A few days prior to landfall, Gonu had intensified to a powerful super cyclonic storm with maximum sustained winds near 260 km/hr on the 5th, becoming the first documented super cyclone in the Arabian Sea and tied for the strongest cyclone in the North Indian Ocean. After making landfall in Oman, Gonu moved through the Gulf of Oman making a second landfall in Iran. Tropical Cyclone Gonu affected more than 20,000 people and was responsible for 49 fatalities and 27 missing people in Oman. Gonu brought heavy rainfall which caused floods and landslides. Meanwhile in Iran 5 fatalities were reported and 9 people remain missing. Tropical cyclones as strong as Gonu are rare in the Arabian Sea.

Severe thunderstorms, associated with an outer band of the tropical cyclone Yemyin, produced heavy rains and winds during June 23-25. The storms produced heavy rains which caused floodings and destroyed thousands of homes. Tropical Cyclone Yemyin developed as a depression in the Bay of Bengal on the 21st and made landfall in India's southern state on the 22nd. Yemyin brought heavy rain in the southern parts of India, leaving over 254 mm of rain. After crossing over India, Yemyin moved into the Arabian Sea and began moving towards the northwest. On June 26, the cyclone intensified and maximum sustained winds reached 93 km/hr. The cyclone was responsible for at least 21 fatalities in the Baluchistan province. Meanwhile in Afghanistan, Yemyin produced heavy rainfall which prompted floods that were responsible for 56 deaths and left thousands of people homeless.

Because of these happenings we decided surveying the synoptic patterns in this month.

Key words: Tropical cyclones, Tropical Cyclone Gonu, meridional index, zonal index.