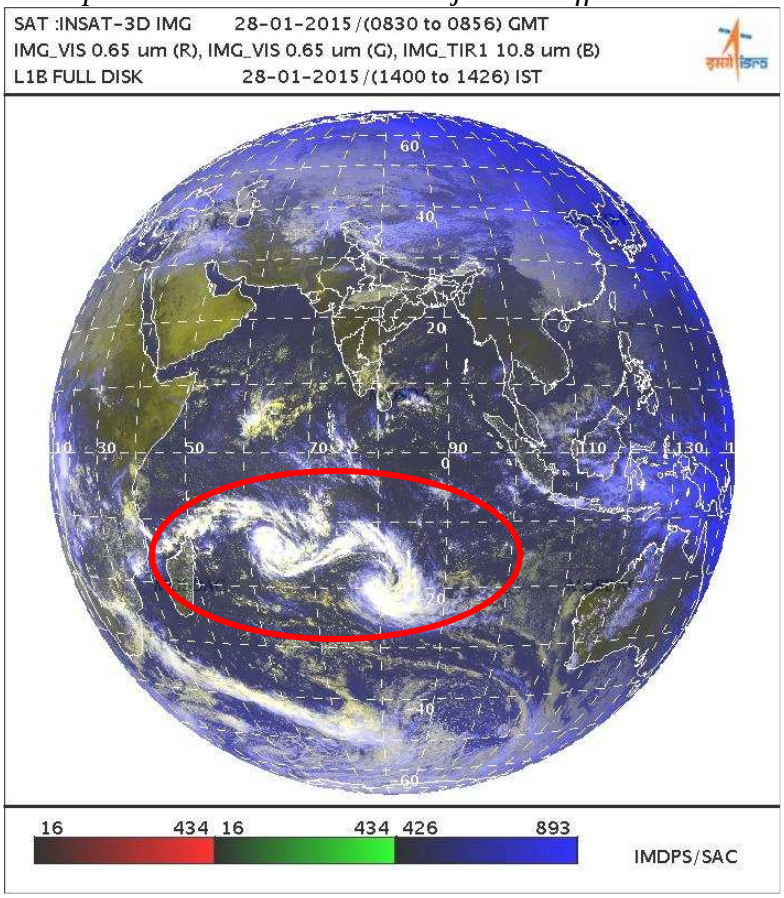
Twin Tropical Cyclones in the South Indian Ocean Observed by INSAT-3D

The interaction of multiple tropical cyclones is infrequent phenomenon. Twin tropical cyclones (cyclone DIAMONDRA and EUNICE) were observed in the satellite imageries on 28 January, 2015 in the South Indian Ocean. DIAMONDRA and EUNICE formed in the south Indian Ocean on 26 January and 27 January, respectively and moved towards south east direction. DIAMONDRA had the maximum intensity of 45 knots and diffused on 29 January without making landfall. However, EUNICE turned into very intense tropical cyclone with the maximum intensity of 145 knots and diffused in the ocean itself on 02 February. The satellite view of these two systems captured by Indian Geostationary satellite INSAT 3D have been shown in the Figure. The movements of these twin systems do not show any impact of the *Fuziwhara effect.*

Dr. S. Fujiwhara explained the interactive motion of twin cyclone system which is called Fuziwhara effect. When two cyclones approach one another, their centers will begin orbiting cyclonically about a point between the two systems. Depending on their separation distance and strength, these systems may simply orbit around one another or else may spiral into the center point and merge. When the two vortices are of unequal size, the larger vortex will tend to dominate the interaction, and the smaller vortex will orbit around it. This phenomenon is called the Fujiwhara effect.



False color composite image of INSAT3D satellite on 0845 GMT 28 January, 2015 showing the twin cyclones DIAMONDRA and EUNICE in the South Indian Ocean