

Future Challenges in Tropical Cyclone Models and the Emphasis on Integrated Digital Systems

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The demand for good and timely information for both the planning and response to tropical cyclone has significantly increased – particularly with increased risk on the impact on affected communities and critical or expensive infrastructure. The timescales for forecasting is both short-term (hourly or less) and long-term (monthly and seasonal) scales that each require more information and in specific formats to suit different purposes. The recent rise in need to use machine-to-machine data exchanges, that have progressively replaced consultation with knowledgeable forecasters, is demanding additional improvements in quality of technical systems that need to assimilate the data and deliver more useable information. With additional high-frequency sensors, new styles of data coming online, and more systems that use the data, there are further demands on how to manage and integrate these information sources. This talk with discuss some of these currently and trending technical challenges and attempts to address them.