Sea clutter characteristic and rejection of CINRAD weather radar

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China has built a weather radar network of 216 radars, known as CINRAD. A large number of s-band CINRAD radars are deployed in China's coastal areas for monitoring and warning of severe weather, such as typhoons and severe convection. In recent years, CINRAD has also taken the lead in the dual-polarization upgrading work in coastal areas, in order to improve the quality of radar data, enhance the hydrometeor classification and improve the accuracy of quantitative precipitation estimation. Sea clutter is one of the key factors affecting the data quality of weather radar. In this paper, based on a large number of CINRAD sea clutter data, the radar moments characteristics of sea clutter under different weather conditions are studied, and a non-meteorological echo fuzzy recognition algorithm is established to identify and eliminate sea clutter.

Keywords: sea clutter, weather radar