Island Delta Definition

An "island" delta configuration is a special case of a delta configuration, which has four additional complexities. The first three are the most important.

1. Within the common penumbra there is dominant umbra, usually of p polarity, two or more surrounding umbrae of opposite polarity, and additional surrounding umbrae of p polarity.

2. The polarity structure is typically inverted, i.e., the westernmost umbra is f polarity.

3. The umbrae making up the configuration emerge together, i.e.,the configuration does not form by merging or successive emergence of separate bipoles.

4. The common penumbra is surrounded by weaker flux whose polarity is opposite that of the single umbra. The weaker flux is typically the residual of a previous AR.

On and off-band images and white-light drawings showing the island delta region of August, 1972 can be found in this sunspot_classification folder, in the Yang, Chang, & Harvey 1983 paper and the Zirin & Liggett 1987 paper.

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