

## Observation of Unusual Current Structure in June 26, 1998, Substorm

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One of the key features in the typical substorm expansion is the formation of the so-called current wedge system. The wedge consists of a pair of oppositely flowing field-aligned currents(FACs) between high latitude ionosphere and nightside tail, which in turn connect to the westward electrojet in the ionosphere. Normally a single wedge is formed and it is centered at around 23 LT. In contrast, in a substorm that occurred on June 26, 1998, we find some unusual features in the current system. First, we find two pairs of region I type FACs, one in the pre-midnight sector and the other in the post-midnight region. This seems to imply a double wedge formation. Also, the westward electrojet appears over unusually broad longitudinal area, covering from nearly 17 LT in the evening side to 06 LT in the morning side. Implications will be discussed.