

# **Progress and Issues in Simulating Boreal Summer Intraseasonal Variability**

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## **Abstract**

Boreal summer intraseasonal variability (BSISV, 30-70 day variability) is more complex than that which occurs during boreal winter. In addition to the near-equatorial eastward propagating component that dominates in winter, there is a substantial northward propagating component that influences the summer Indian-Asian monsoon onset, as well as the active and break cycles that occur during the monsoon season. The progress in modeling boreal summer intraseasonal variability will be highlighted, noting that recent free-running global models show an improved ability to represent the BSISV. One key issue to be discussed is the role that air-sea feedback plays in the northward propagation. Another issue is that there are additional modes of subseasonal variability that modulate the boreal summer monsoon, including 10-20 day variations associated with west and northwest propagating variability that originates in the west Pacific. This latter mode of variability, including its origin, has not been as intensively studied. It is an integral component of the monsoon system that must be modeled correctly, since it is an important modulator of tropical depressions that yield much of the monsoon rainfall. Time-permitting, the strengths and weaknesses of different modal analysis techniques for isolating the BSISV will be discussed.

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