

## **FAST identifies rapid flows associated with ring current injection.**

- **Plasmasheet ion injections into the ring current are the primary source of magnetic perturbations during magnetic storms.**
- **FAST's orbit allows it to resolve storm-time ion injections at 2 local times with ~2 hour resolution.**
- **FAST observations show that storm-time plasma flows are ~4 times faster than currently modeled.**
- **These new observations provide constraints that will allow a more accurate storm modeling effort.**

