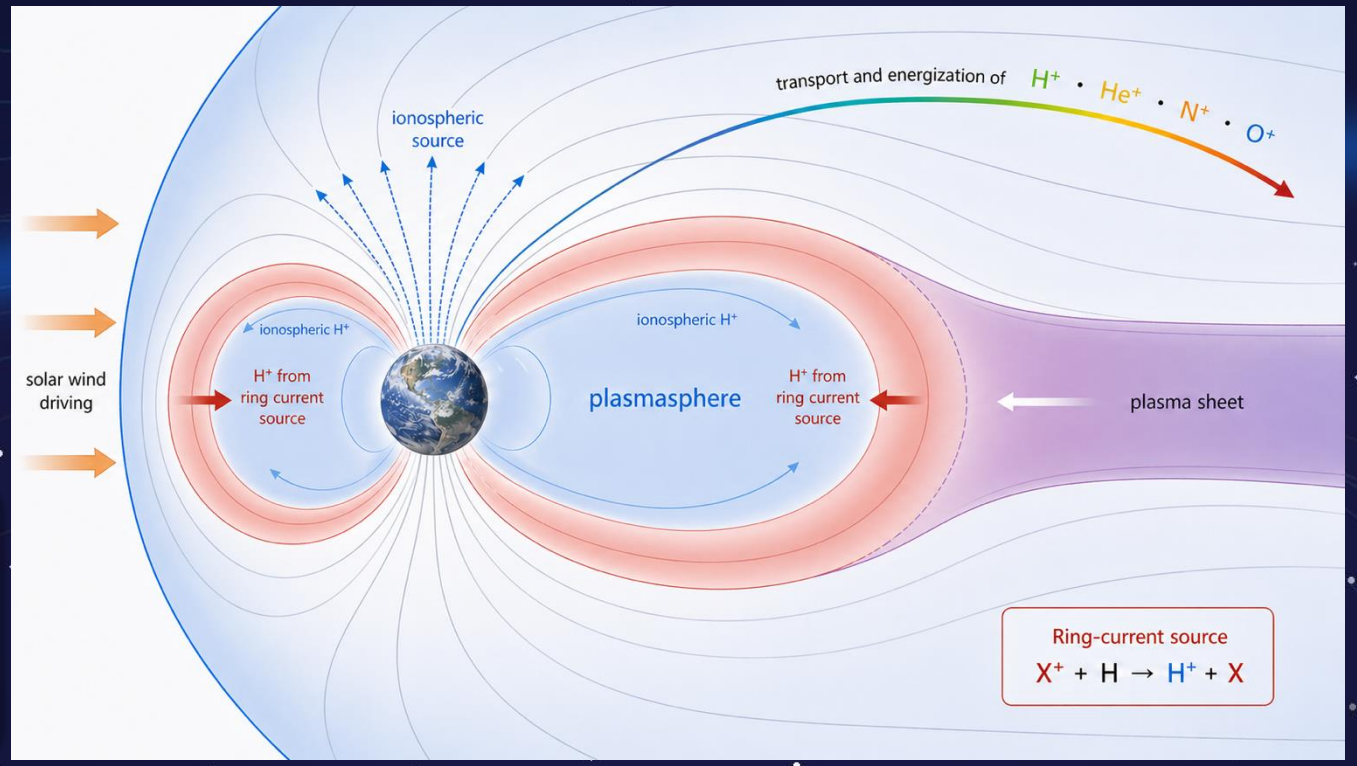
Can a ring current “loss” process help refill the plasmasphere?

Energetic N^+ and O^+ charge exchange with geocoronal H to create cold H^+ during early recovery

MAIN FINDING

Charge exchange adds a localized, measurable cold H^+ source during plasmaspheric recovery



Mechanism: ring current → charge exchange → cold H^+ source

WHERE?

Localized MLT–L regions near low to moderate L shells

HOW MUCH?

Upwards of 12% during early recovery

WHY DO WE CARE?

This source could narrow the model-observations gap

Come see the poster: “Refilling the plasmasphere: the role of ring current charge exchange”

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