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Supporting information for

**A Jovian Magnetodisc Model for the Juno Era**

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**Additional Supporting Information (Files uploaded separately)**

Not Applicable

**Figures S1-S23:** Perturbation plots for Juno periapsis passes 1-24 (PeriJoves PJ 1, PJ3-PJ24), illustrating a comparison of the observed vector magnetic field (after removal of the internal field using the JRM09 model) and the modeled ( $r < 30 R_j$ ) magnetodisc field, using the model fit parameters listed in Table 1. From top to bottom we plot the azimuthal, theta, and radial components of the observed (black) and modeled (blue) field. The shaded region represents a strong field region ( $> 1600$  nT) dominated by the planetary field and excluded from consideration.

Table 1: Magnetodisc Parameters

Parameter	Value	Description	Units
<b>R0</b>	7.8	Disc inner radius	Jovian radii
<b>R1</b>	51.4	Disc outer radius	Jovian radii
<b>D</b>	3.6	Half thickness	Jovian radii
$\mu_0 I/2$	139.6	Current constant	nT
$\theta_D$	9.3	Disc normal from rotation axis	degrees
$\varphi_D$	204.2	Azimuth angle of disc normal	degrees



















































