Auxillary Material for

Quantifying the Radiation Belt Seed Population in the March 17, 2013 Electron Acceleration Event

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Introduction

This supplementary information contains the GOES observations of the 17 March 2013 event that were not shown due to the paper's length limit.

1. fs01.eps (Figure S1) GOES-13 and GOES-15 observations from the 17 March 2013 event.

Figure S1 shows the GOES-13 and GOES-15 observations from 02:00 UT on 17 March to 06:00 UT on 18 March 2013. The data shown here is from the EPS-MAGED instrument on-board both spacecraft, which provides fluxes for 30-600 keV electrons. There are clear signatures of electron injections at 6:00 UT, 8:30 UT and 11:40 UT. The effects of these injections were observed by the Van Allen Probes in the 50 MeV/G phase space density profiles. The two shaded regions are the times during the acceleration event when neither of the two Van Allen Probes were close enough to apogee to differentiate between the different acceleration mechanisms. As noted in the text, the first shaded period (15:53 - 20:41 UT) shows some evidence of injections particularly near 16:00 UT. The second period (1:42 - 5:15 UT) shows steady fluxes for both GOES-13 and GOES-15, indicating that there were no injections during this time.