Supplement for "Lifecycle of Updrafts and Mass Flux in Isolated Deep Convection over the Amazon Rainforest: Insights from Cell Tracking"

Siddhant Gupta^{1#}, Dié Wang¹, Scott E. Giangrande¹, Thiago S. Biscaro², and Michael P. Jensen¹

Correspondence to: Siddhant Gupta (sid.gupta@anl.gov)

Table S1: List of ISO days from 2014 and 2015.

```
20140310, 20140311, 20140313, 20140326, 20140331, 20140401, 20140409, 20140420, 20140423, 20140426, 20140430, 20140503, 20140521, 20140604, 20140606, 20140611, 20140612, 20140622, 20140625, 20140626, 20140704, 20140709, 20140710, 20140712, 20140717, 20140718, 20140722, 20140725, 20140729, 20140804, 20140809, 20140811, 20140815, 20140827, 20140901, 20140907, 20140908, 20140909, 20140910, 20140913, 20140916, 20140922, 20140928, 20141004, 20141006, 20141112, 20141117, 20141128, 20141202, 20141205, 20141206, 20141217, 20141218, 20141219, 20141221, 20141222, 20141223, 20141225, 20141227, 20141228, 20141230, 20141231
```

20150104, 20150106, 20150112, 20150118, 20150224, 20150302, 20150303, 20150313, 20150314, 20150315, 20150322, 20150323, 20150329, 20150330, 20150401, 20150412, 20150415, 20150503, 20150507, 20150509, 20150510, 20150511, 20150522, 20150523, 20150524, 20150527, 20150528, 20150607, 20150609, 20150610, 20150614, 20150716, 20150722, 20150806, 20150902, 20150904, 20151012, 20151013, 20151103, 20151125

¹Brookhaven National Laboratory, Upton, NY, ²National Institute for Space Research, Brazil

^{*}Now at: Argonne National Laboratory, Lemont, IL

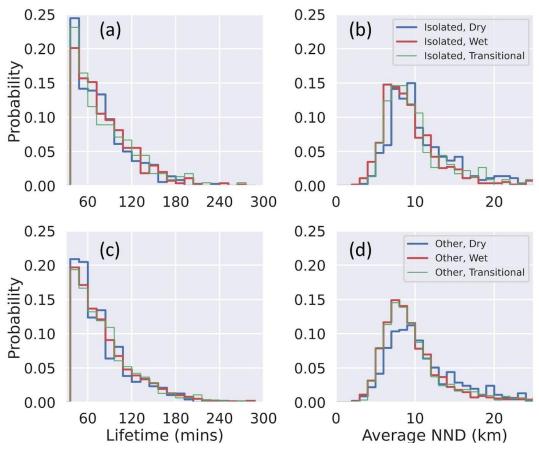


Figure S1: Seasonal histograms of the DCC lifetime and average nearest neighbor distance (NND) for cells observed on (a,b) ISO days (represented as 'isolated') and (c,d) ACE days (represented as 'other').

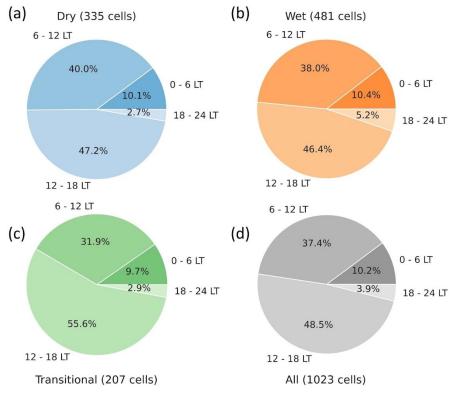


Figure S2: The relative proportion of cells initiating pre-sunrise (0 and 6 LT), in the morning (6 and 12 LT), in the afternoon (12 and 18 LT), or in the evening (18-24 LT) during the three seasons.

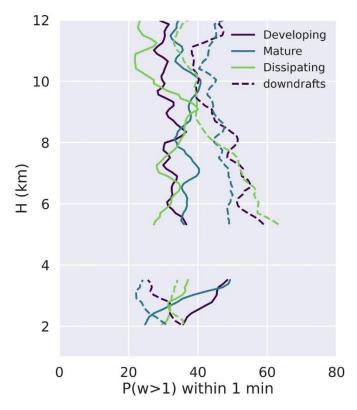


Figure S3: Vertical profiles of the average probability of updraft and downdraft observations within 2 mins of DCC sampling by the RWP.

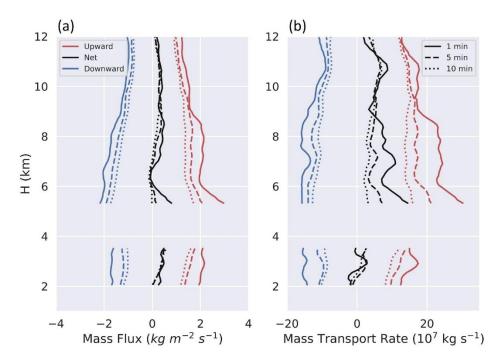


Figure S4: Profiles of mass flux and mass transport rate calculated based on RWP observations up to 1, 5, and 10 mins before and after the passage of the DCCs.