Resources Review Meeting: 2020Q3+4 ATLAS RAL
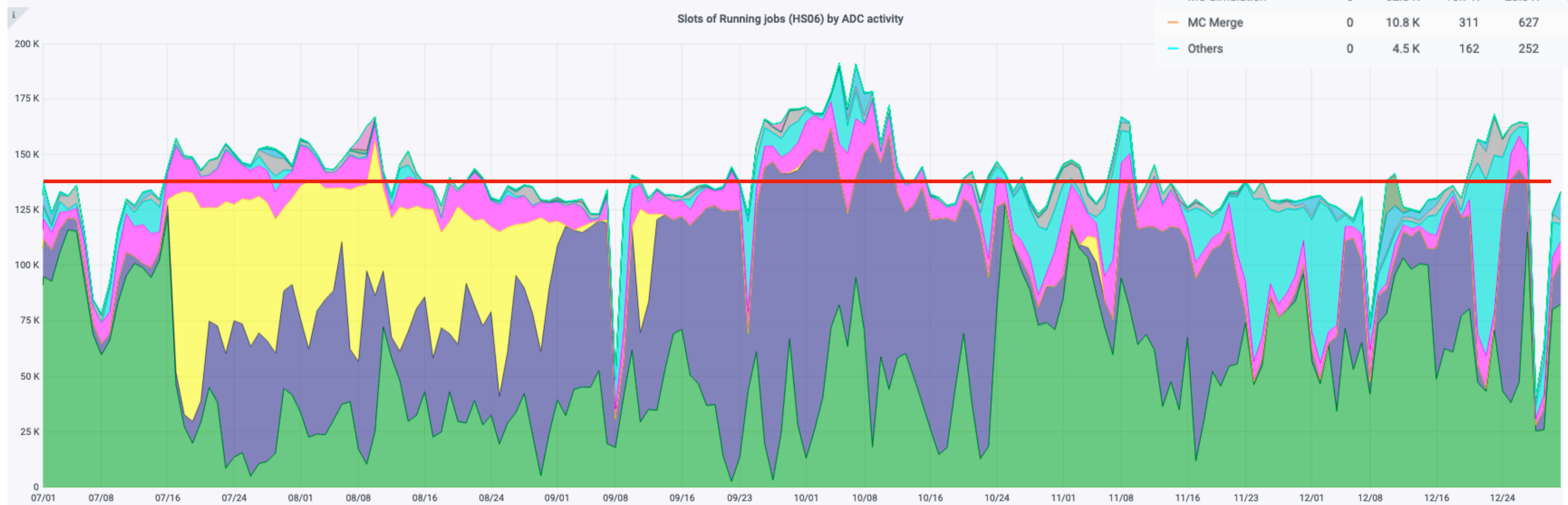
James Walder
27 01 2021

Highlights

- Reporting period:

  - Q3+4 2020: 1 Sep – 31 Dec (accompanying separate slides for just Q3 and Q4 available)

- Highlights:

  - Deletion campaigns on MCTAPE and DATATAPE

  - Data reprocessing (in Data Carousel model) for full Run-2 data, for RPVLL analysis

    - Disk carousel as 'production'; "Staging throughput at RAL has been high and stable. What are your secrets to reach such a good performance ? :)"

  - Changes to data placement model => fewer replicas on disk of AOD formats

  - Repack of ATLAS Tape to new robot largely completed over this period (Q4).

- Major issues / events:

  - Occasional ATLAS/CERN issues, time taken for ATLAS to recover to fairshare

- New/Ongoing Issues

  - RAL to be able to run singularity in unpriviliged mode; Experiments can then use own version of Singularity (from CVMFS)

    - Rolled into updating to Centos7 (and related batch farm services).

    - Also presume RAL to move to WLCG baseline version (3.5.2) for local version.

Batch farm CPU commitment

- 2020–21 pledge: 156.4 kHS06 (13.9% of ATLAS T1 pledge)

  - Increases to 173.2 kHS06 from 2021 Q2

- (Pledge line scaled by 10/11.7 to match effective corepower of site in Plot).
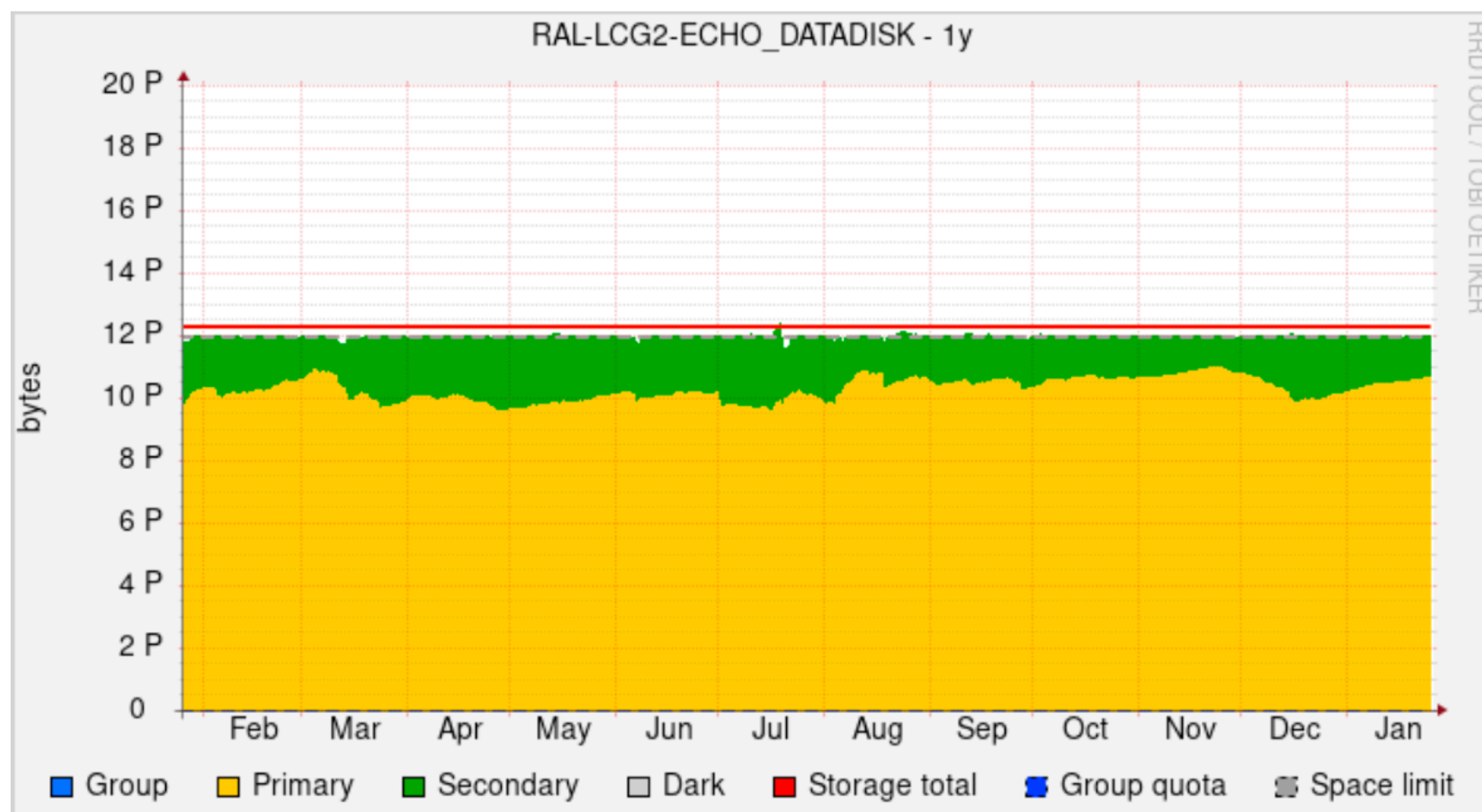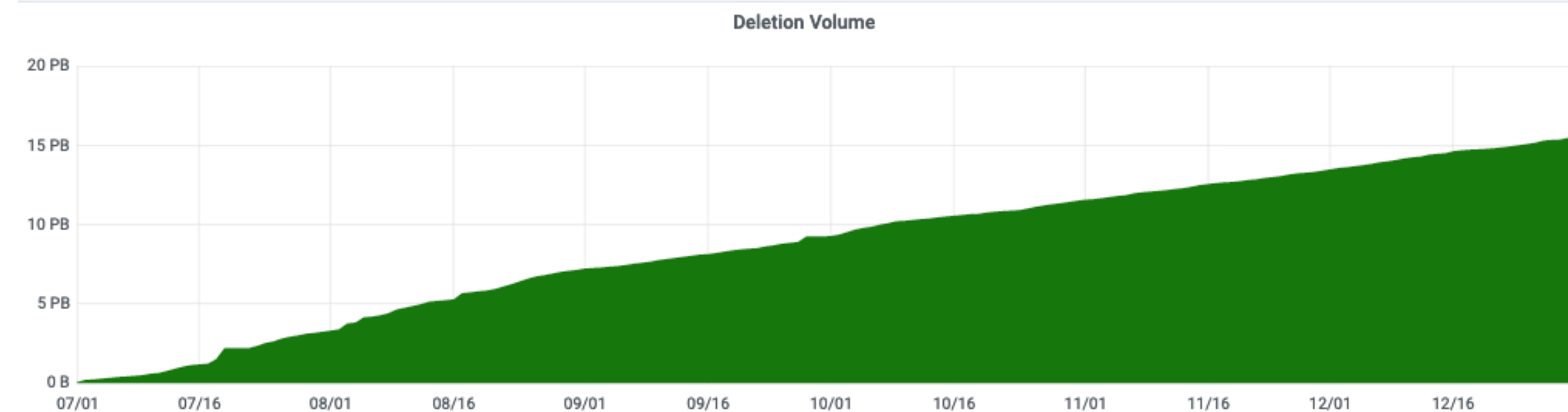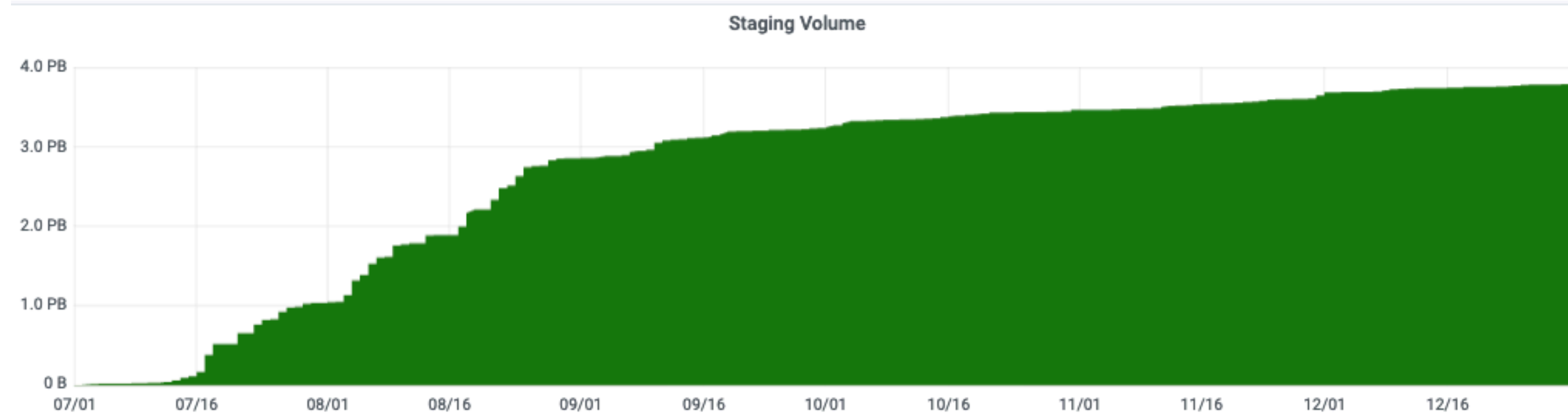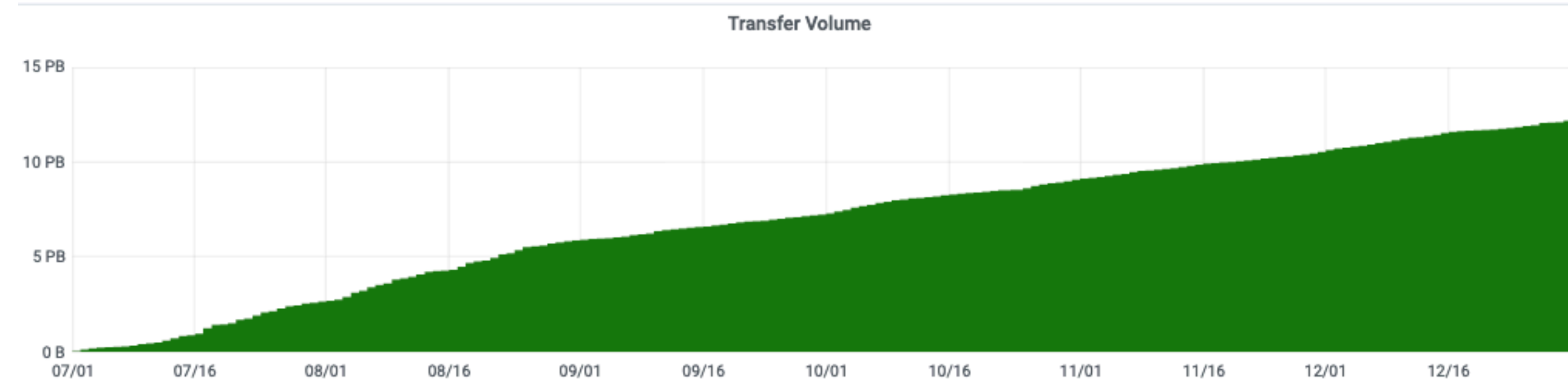

Slots of Running jobs (HS06) by ADC activity

	min	max	avg	current	total
— Group Production	2.7 K	127.8 K	53.2 K	82.4 K	9.8364 M
— MC Reconstruction	6	143.5 K	45.5 K	19.8 K	8.4181 M
— Data Processing	0	102.9 K	14.5 K	0	2.6764 M
— Analysis	342	33.7 K	13.1 K	10.3 K	2.4255 M
— MC Simulation	0	82.0 K	10.7 K	20.0 K	1.9826 M
— MC Merge	0	10.8 K	311	627	57.6
— Others	0	4.5 K	162	252	29.9

- Average over period: 160.8 = 137.4*(11.7/10) kHS06 (with scaling of corepower).

Disk usage

- 12PB used on disk

  - 15.6PB deleted over period

  - (includes scheduled lifetime deletion and obsolesce campaigns).

- Pledge to increase to 15.5PB from 2021 Q2

Tape

- ~24 PB used at end of period (~32PB pledged).

- 8 PB deleted over period.

- 4.8PB transferred into Tape over the period

- Pledge to increase to 34.8 PB from 2021 Q2