ATLAS
Tier-1 Experiment sign off for Q4 2019

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RAL Tier1 Resource Review Meeting

21st January 2020
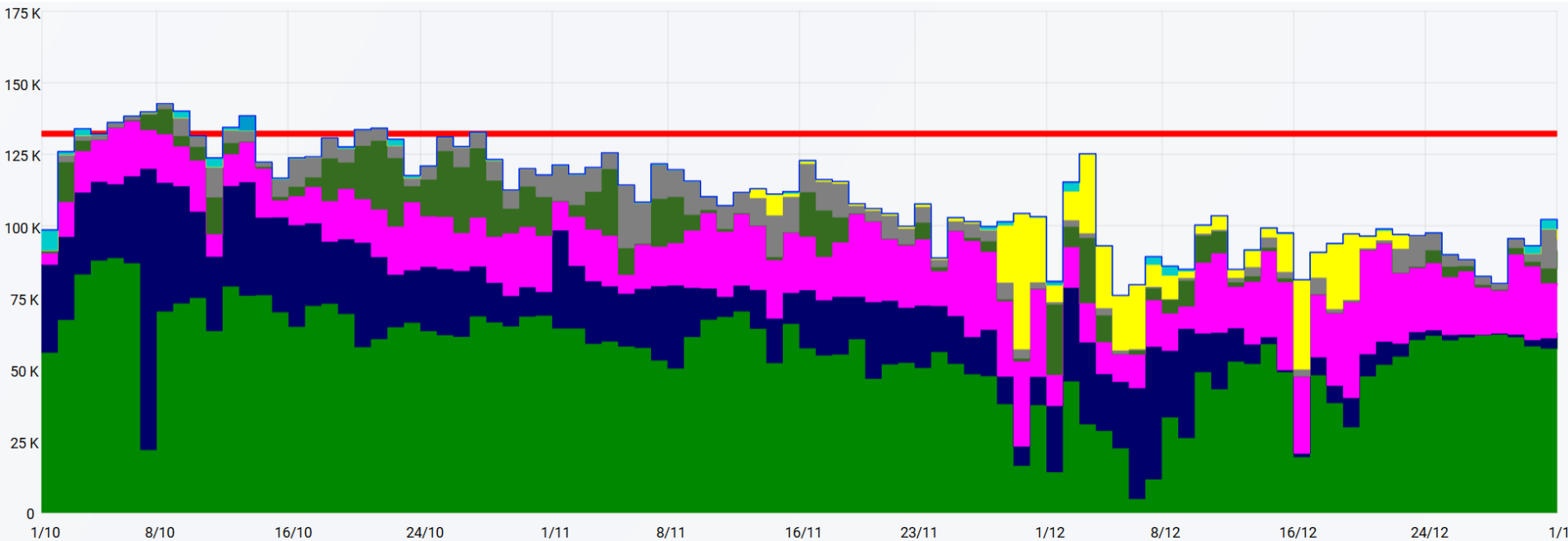
RAL Tier-1 ATLAS CPU use

Slots of running jobs (HEPSPEC06)

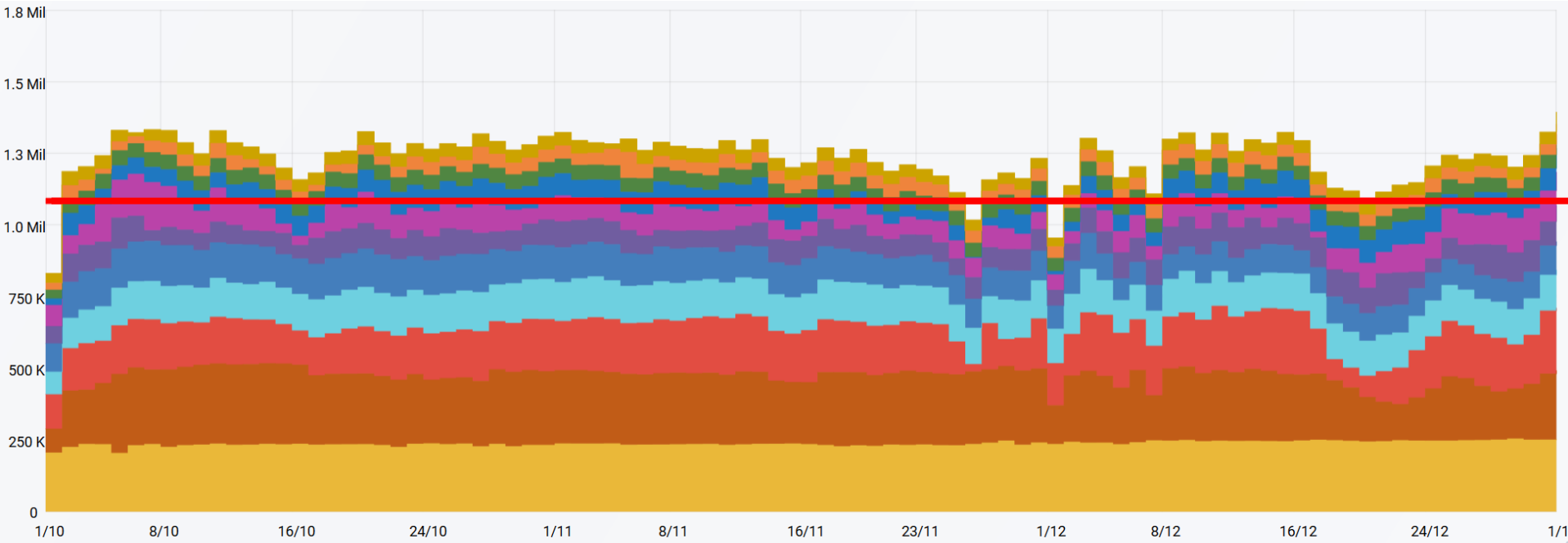|	min	max	avg	total▾
── Pledges	132.1 K	132.1 K	132.1 K	48.7541 Mil
■ Group Production	4.8 K	88.8 K	55.7 K	5.1816 Mil
■ MC Reconstruction	200	98.0 K	19.4 K	1.8041 Mil
■ User Analysis	4.0 K	36.3 K	19.1 K	1.7764 Mil
■ MC Event Generation	7	24.5 K	6.3 K	589.3 K
■ Group Analysis	188	22.0 K	5.2 K	482.0 K
■ Data Processing	0	47.2 K	3.9 K	364.4 K
■ MC Simulation Full	0	6.8 K	520	48.3 K

Total usage (all activities) = 110.3 kHS06 ("avg"), pledge = 132.1 kHS06 ("avg"), ie. 83.5%
We have dropped below our fairshare of the farm, mostly 89% of farm allocation.
James has tweaked the fairshare parameters and we should catch up the shortfall in the next months.
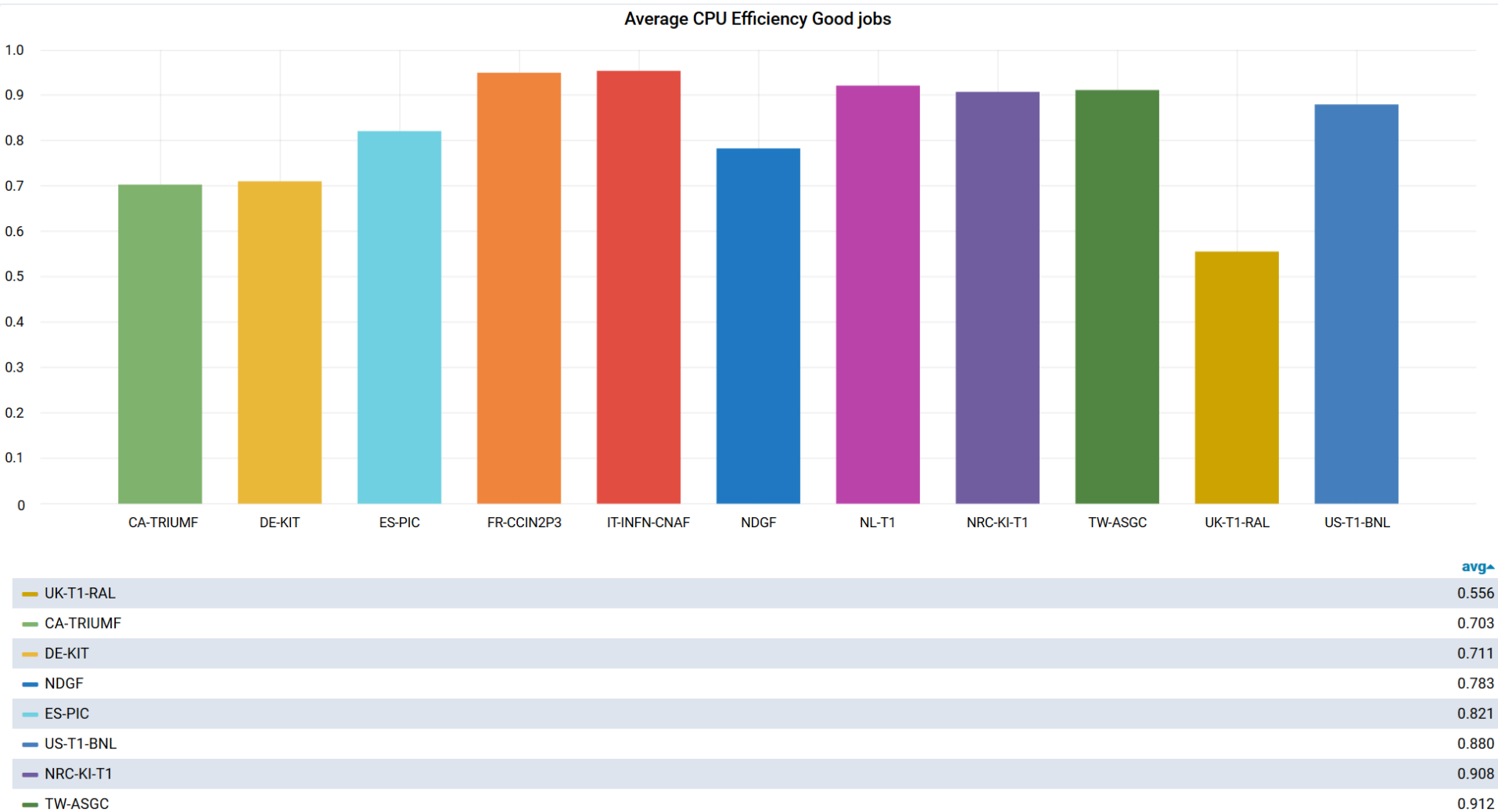
ATLAS Tier-1s CPU use

Slots of running jobs (HEPSPEC06)

	min	max	avg	total▼
▬ Pledges	1.084 Mil	1.084 Mil	1.084 Mil	399.863 Mil
▬ CA-TRIUMF	205 K	255 K	238 K	22.169 Mil
▬ US-T1-BNL	83 K	282 K	234 K	21.741 Mil
▬ FR-CCIN2P3	26 K	227 K	166 K	15.463 Mil
▬ DE-KIT	79 K	152 K	128 K	11.948 Mil
▬ UK-T1-RAL	76 K	143 K	110 K	10.260 Mil
▬ NL-T1	37 K	128 K	81 K	7.511 Mil
▬ NDGF	20 K	168 K	80 K	7.481 Mil

ATLAS Tier-1s CPU efficiency

Average CPU Efficiency Good jobs

|	avg▲
UK-T1-RAL	0.556
CA-TRIUMF	0.703
DE-KIT	0.711
NDGF	0.783
ES-PIC	0.821
US-T1-BNL	0.880
NRC-KI-T1	0.908
TW-ASGC	0.912

ATLAS haven't traditionally worried about efficiencies, since different sites have quite different definitions. Still, 56% doesn't look good.

RAL Tier-1 ATLAS CPU efficiency

CPU Efficiency: Good jobs

We have been investigating a problem where some worker nodes have can get stuck staging in files. This would likely affect MC reco jobs worst.
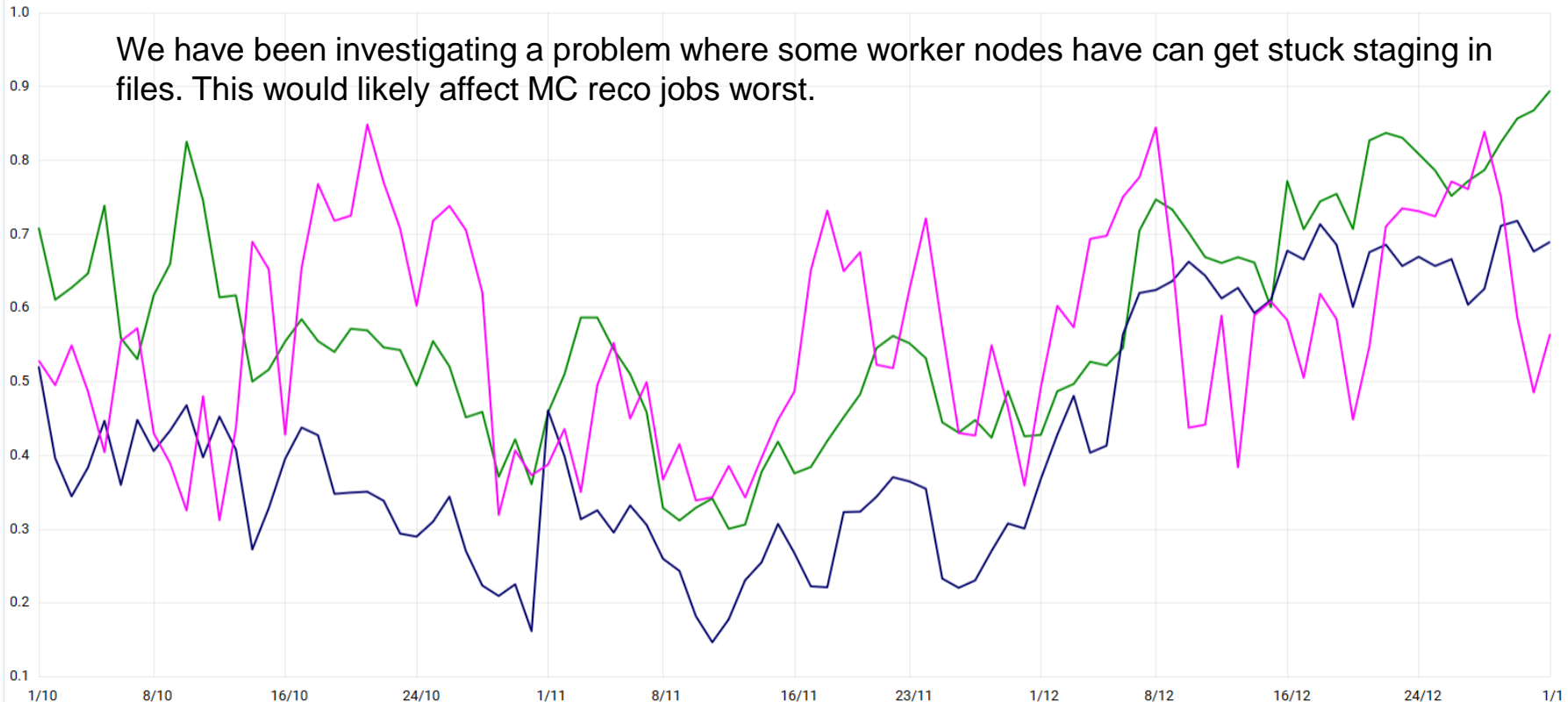
	min	max	current
Data Processing	0	0.912	0
Group Analysis	0.211	0.968	0.849
Group Production	0.301	0.894	0.894
MC Event Generation	0	1.882	0.989
MC Reconstruction	0.147	0.718	0.689
MC Simulation	0	0.547	0.523
MC Simulation Fast	0	0.992	0.917
MC Simulation Full	0	0.979	0.978
Others	0	0.765	0.283
Testing	0.155	0.781	0.691
User Analysis	0.312	0.848	0.565

RAL Disk usage

RAL-LCG2-ECHO_DATADISK - 1y
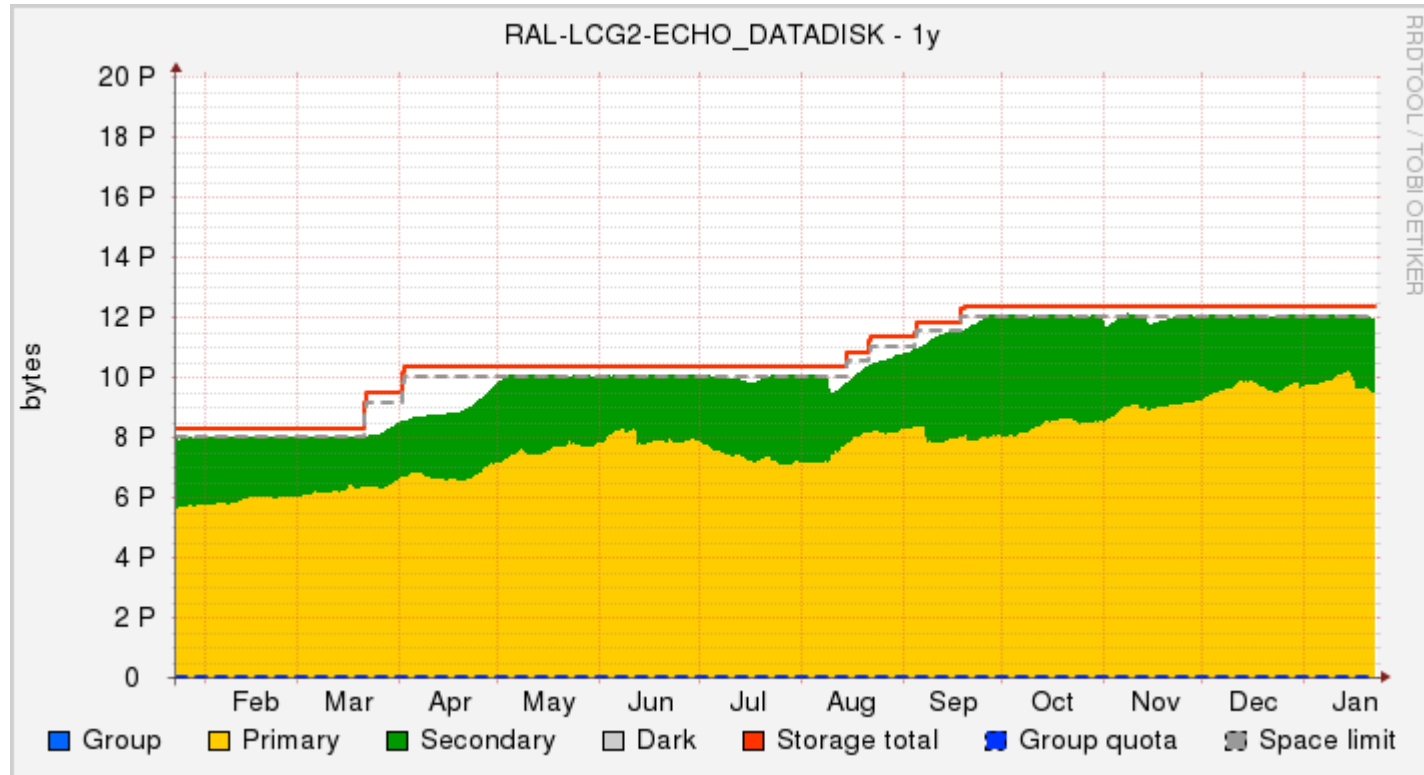
RAL Echo quota increased on request in Aug/Sep to provide 2020 quota early.

RAL tape usage
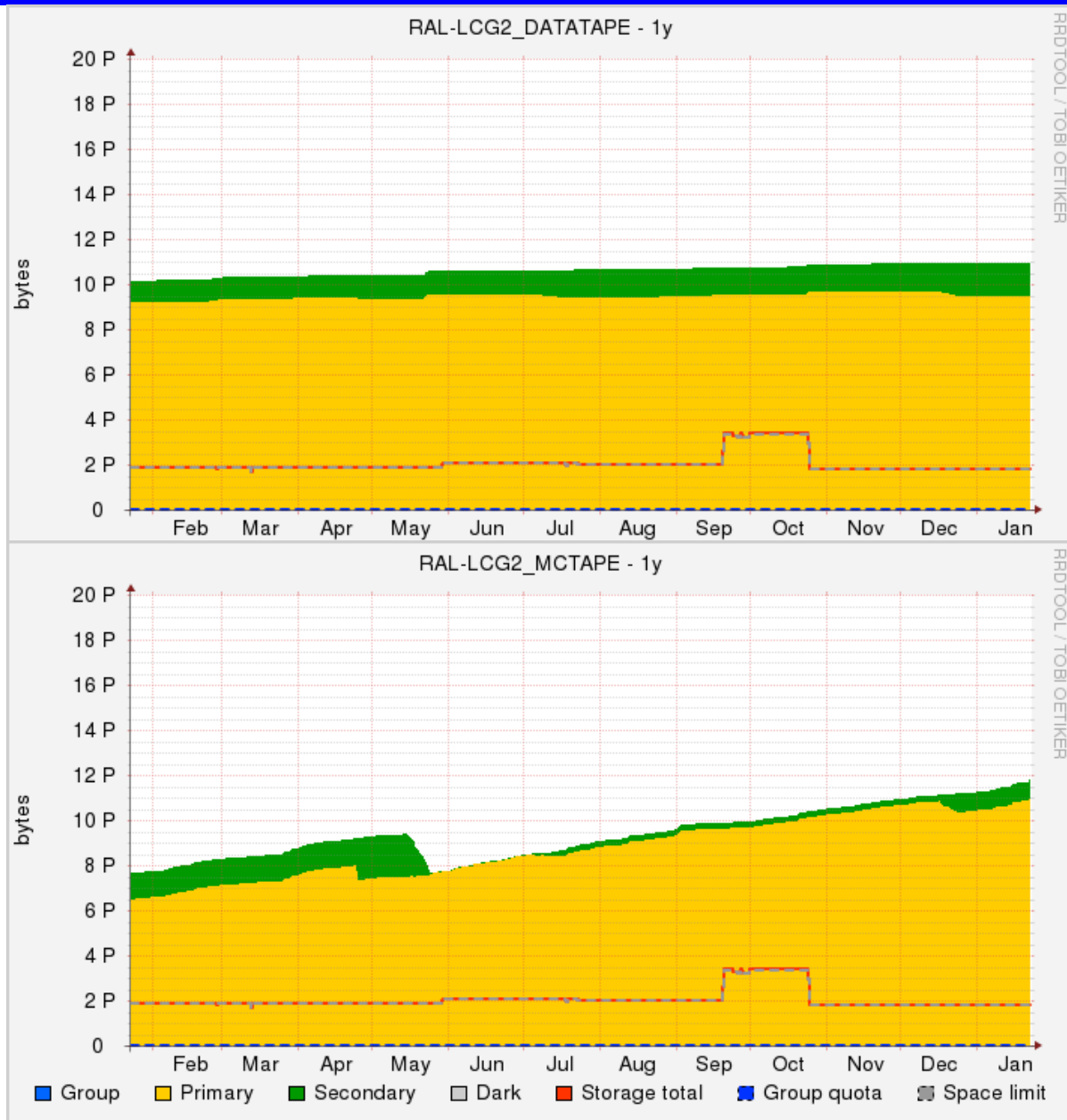
SRM quotas don't seem to be used for RAL tape.
No problem, as we are still well below our allocation.
We should keep an eye on this.