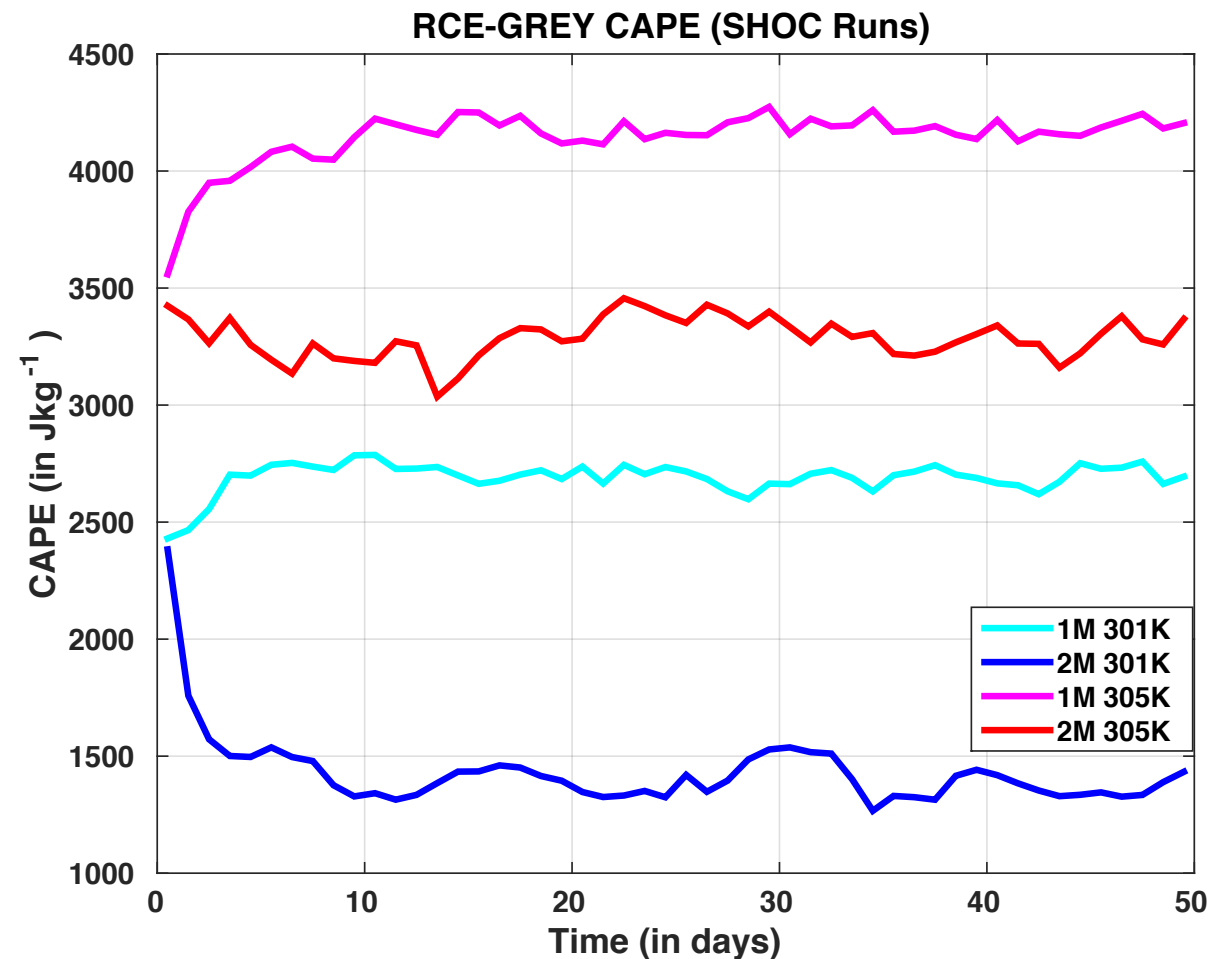
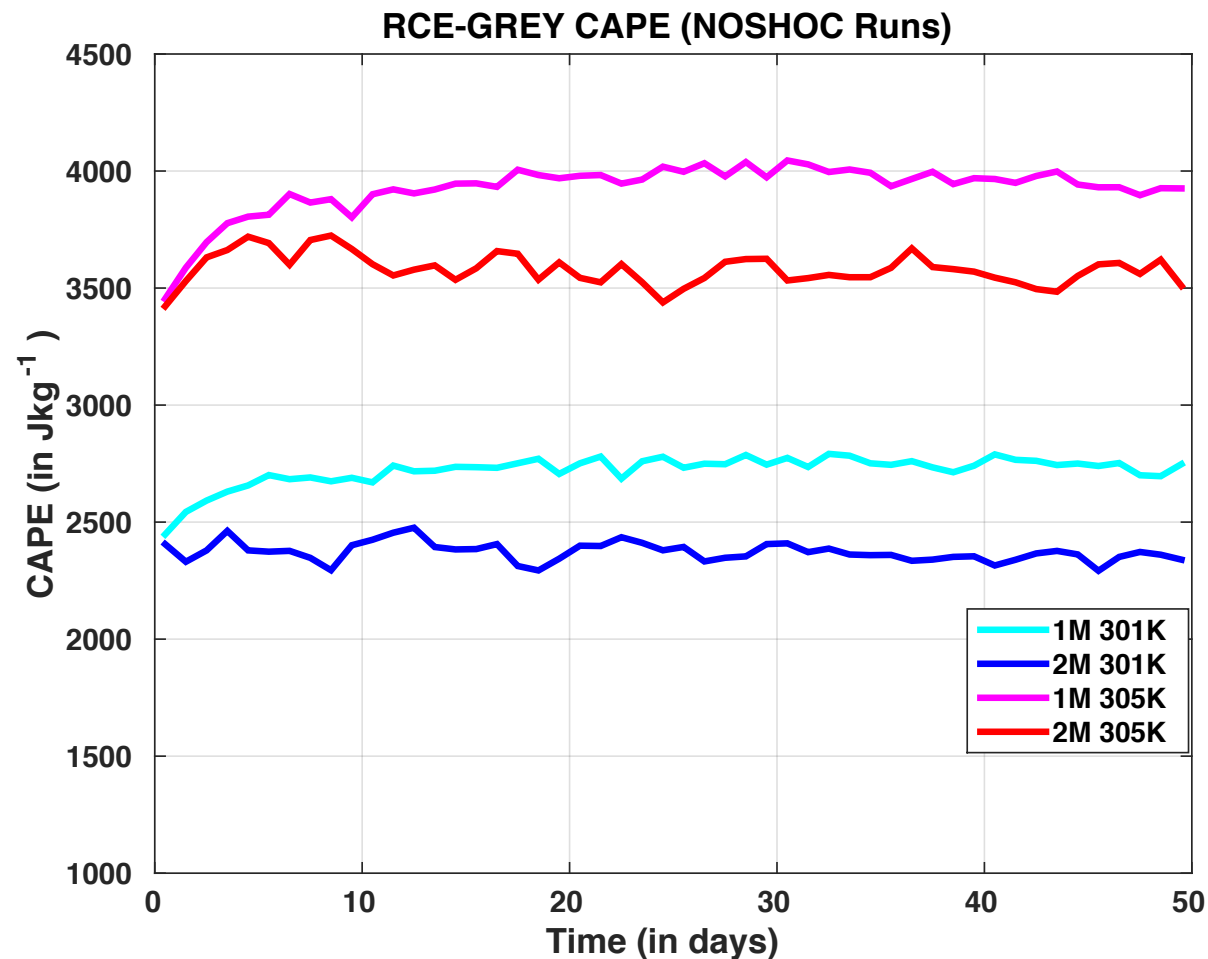
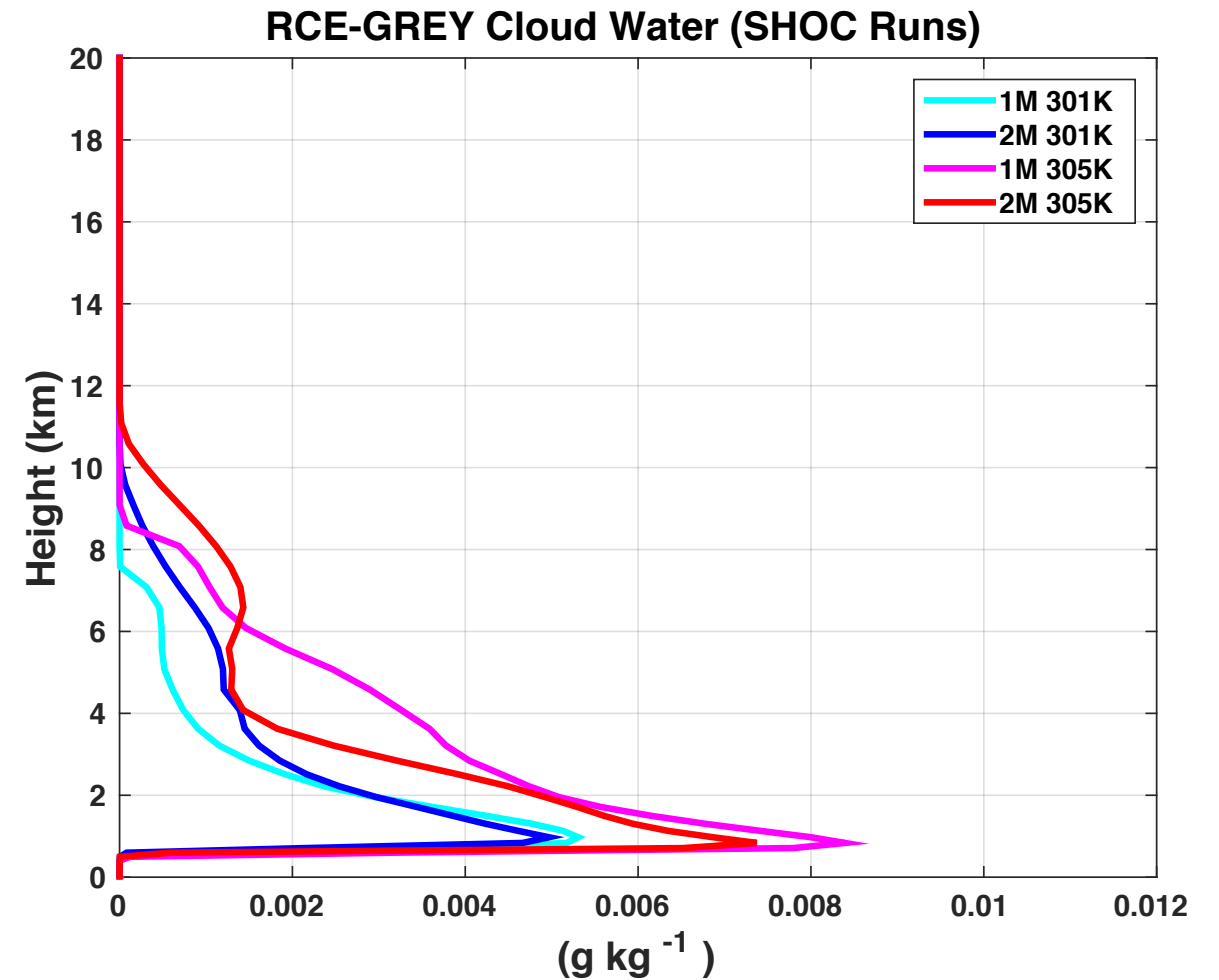
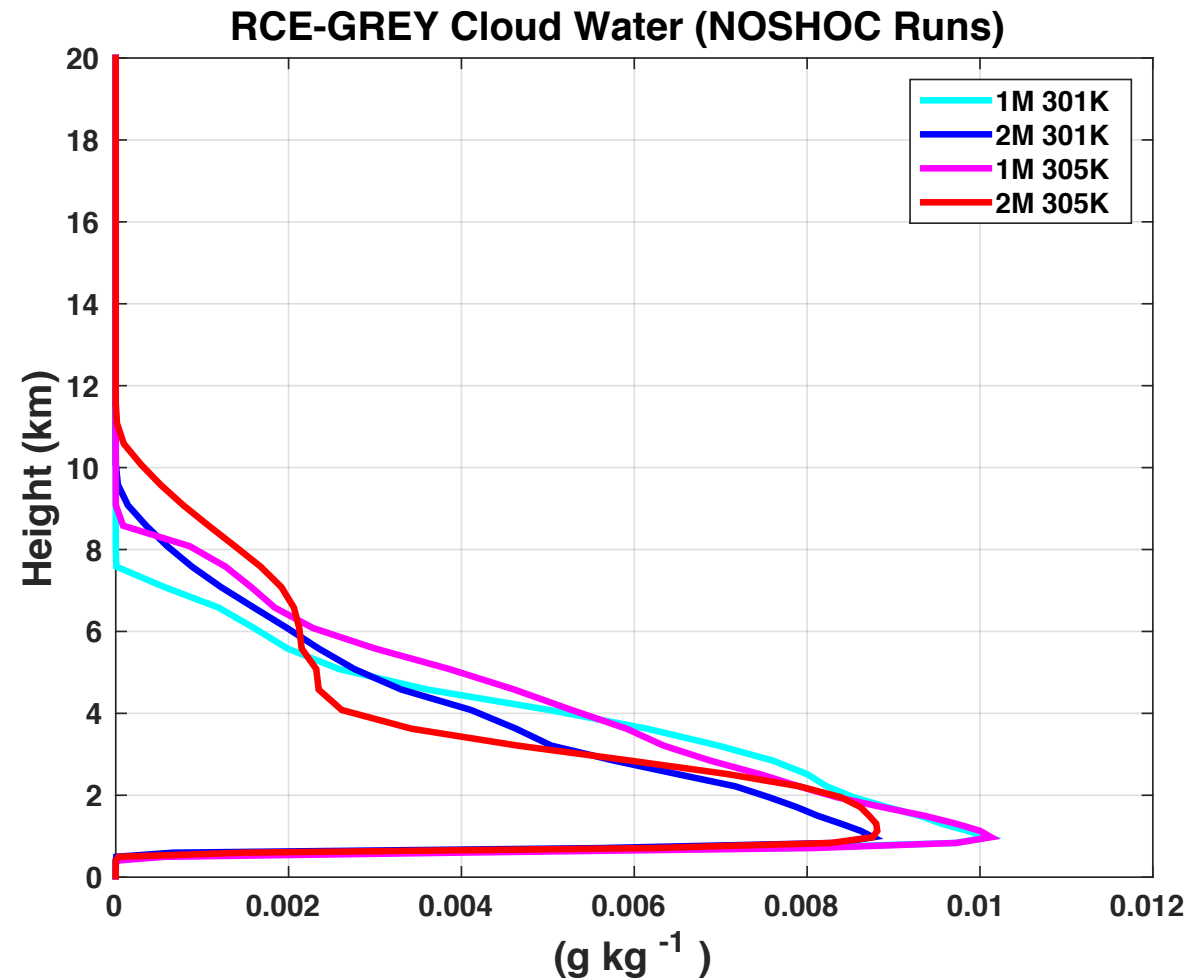


CAPE



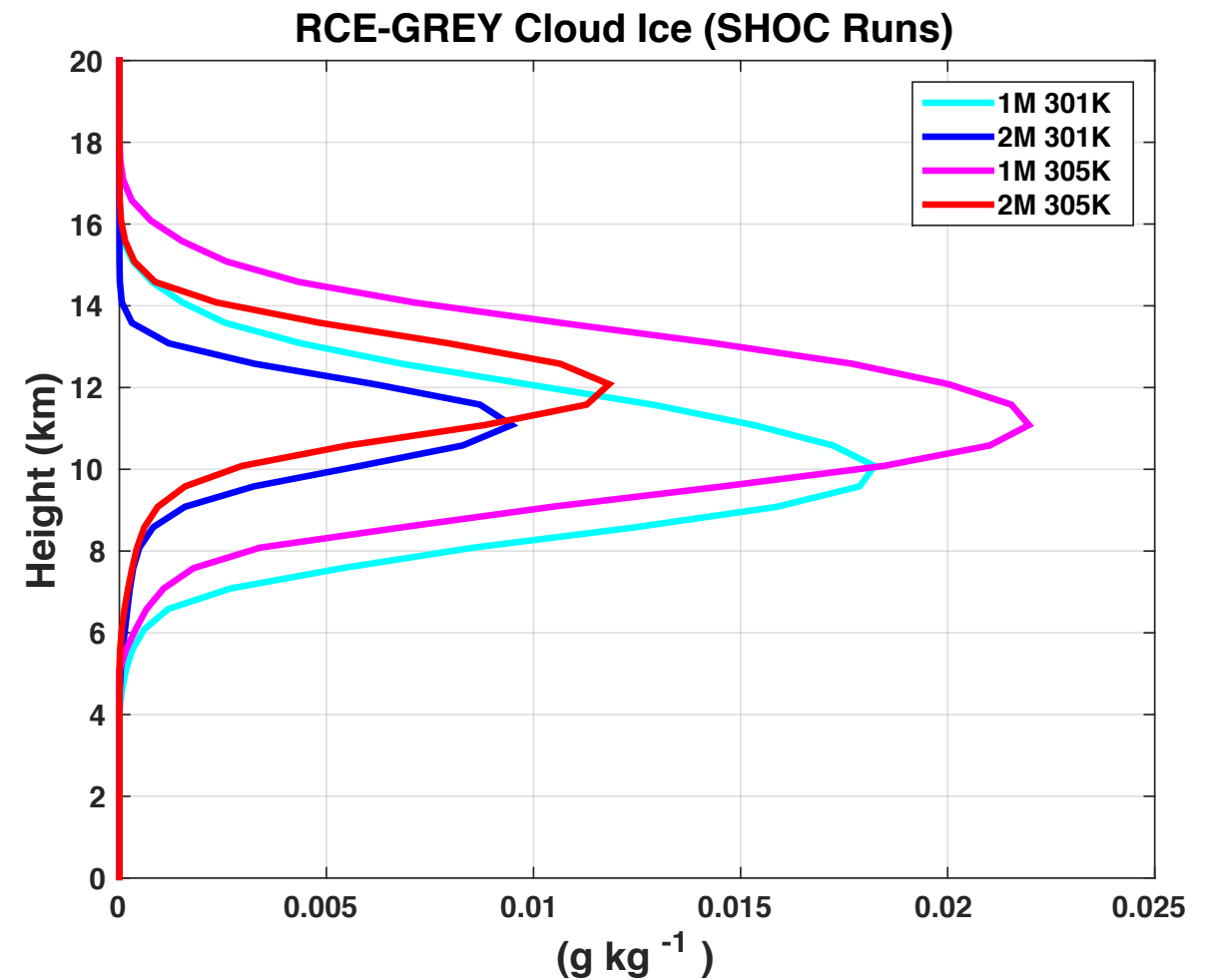
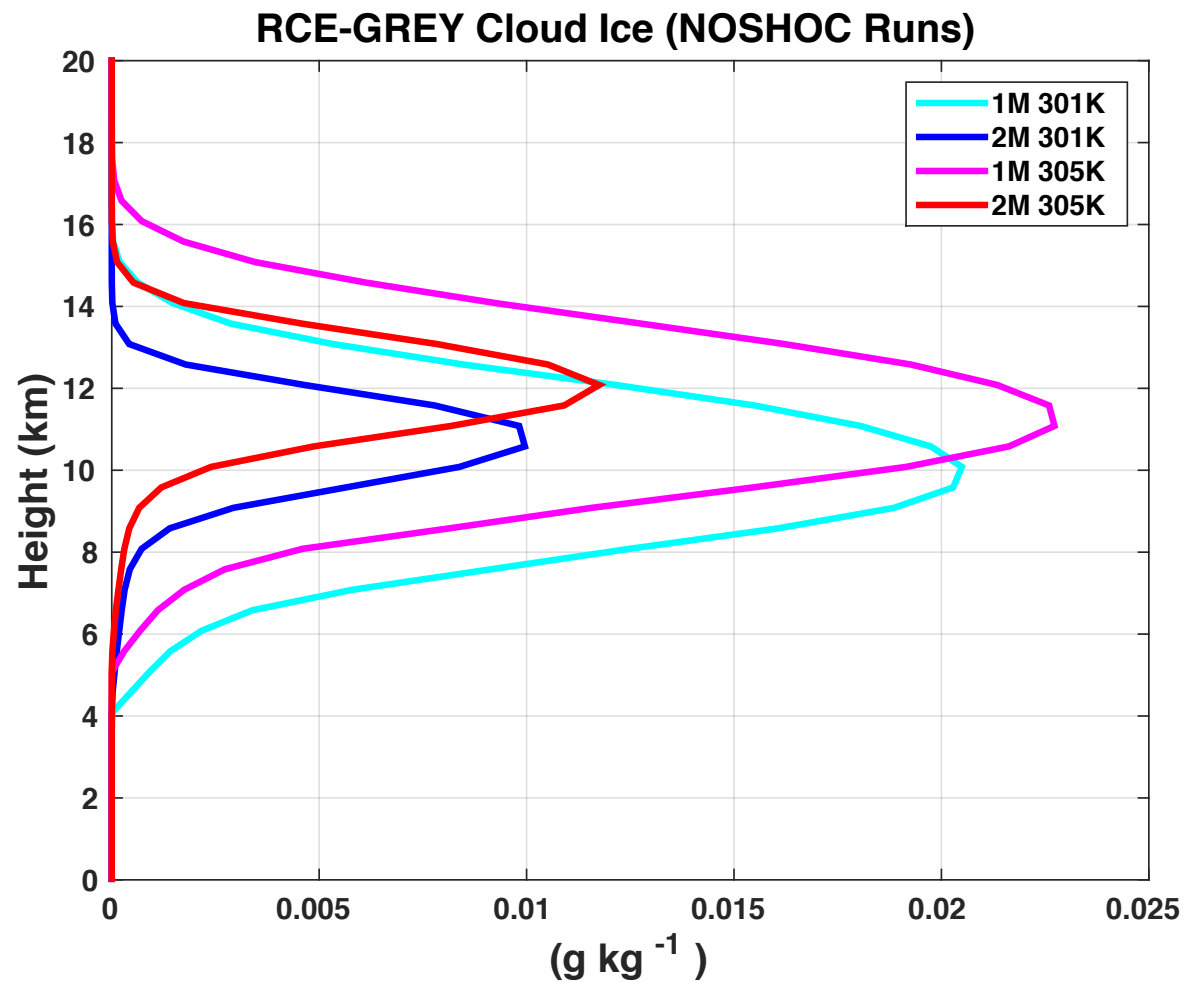
2M runs have lower CAPE than 1M, especially for SHOC.
CAPE levels similar for NOSHOC and SHOC 1M.
Warmer runs have higher CAPE.

Cloud Water



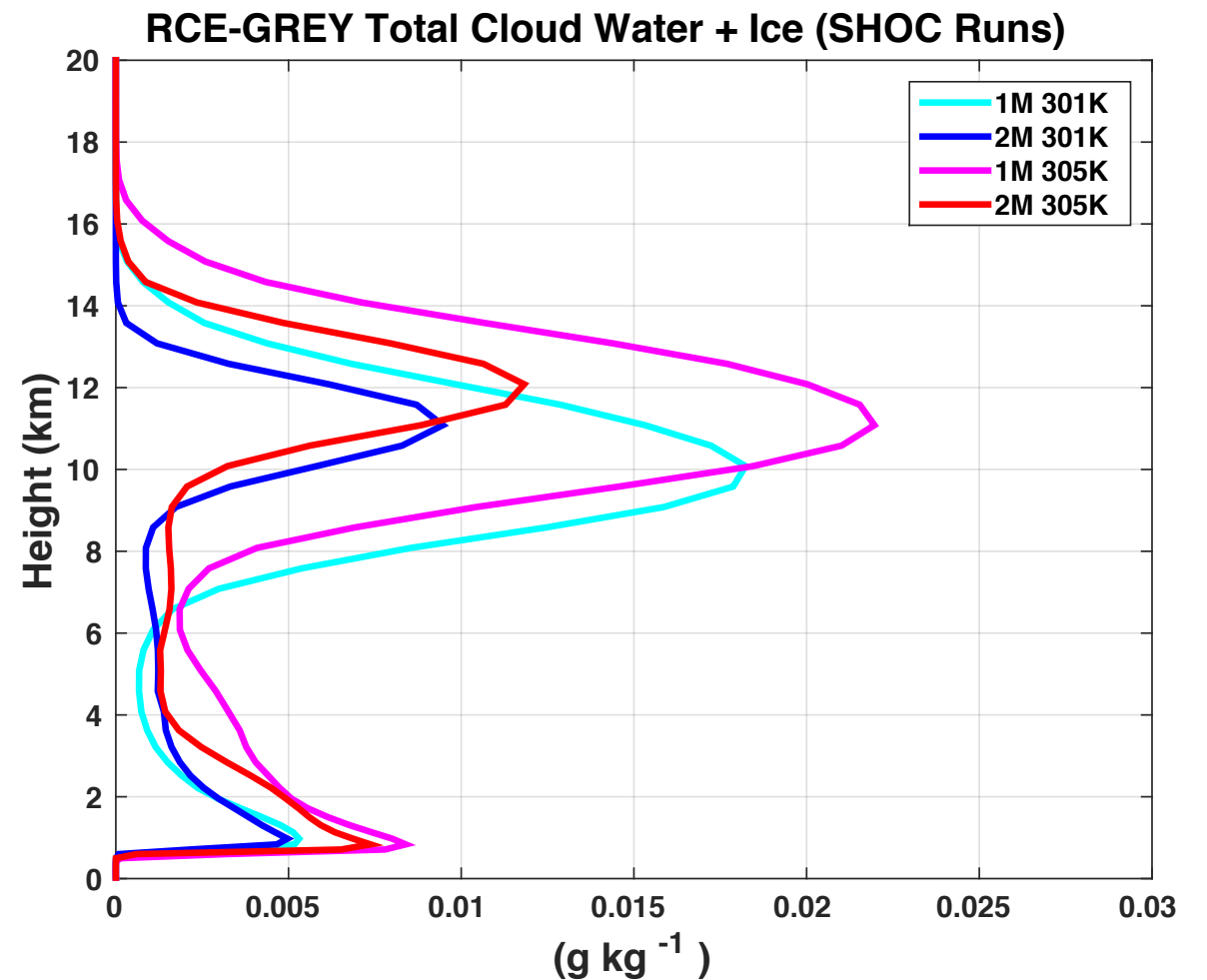
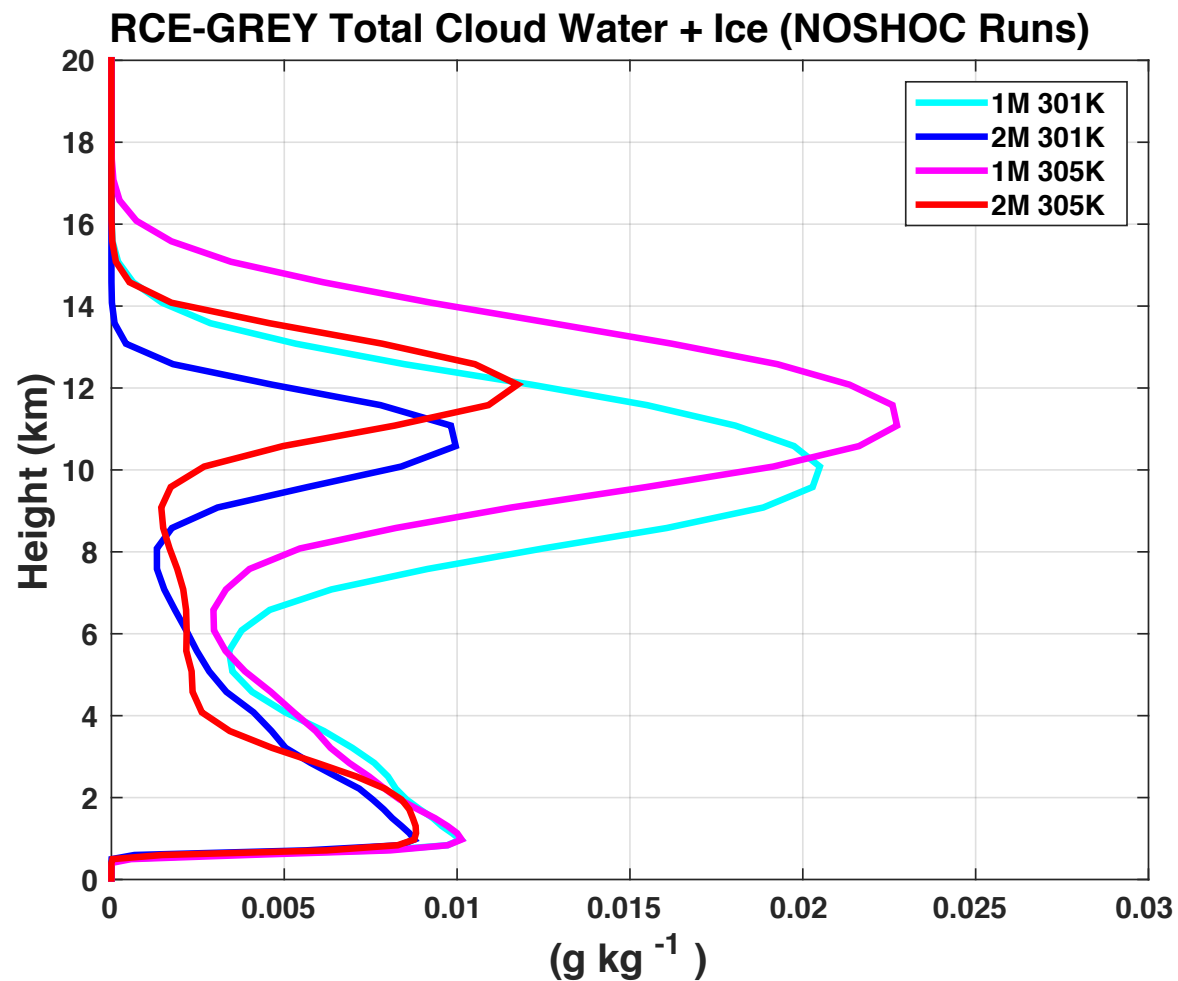
IM has higher cloud water for NOSHOC.
Warmer runs have higher cloud water for SHOC.

Cloud Ice



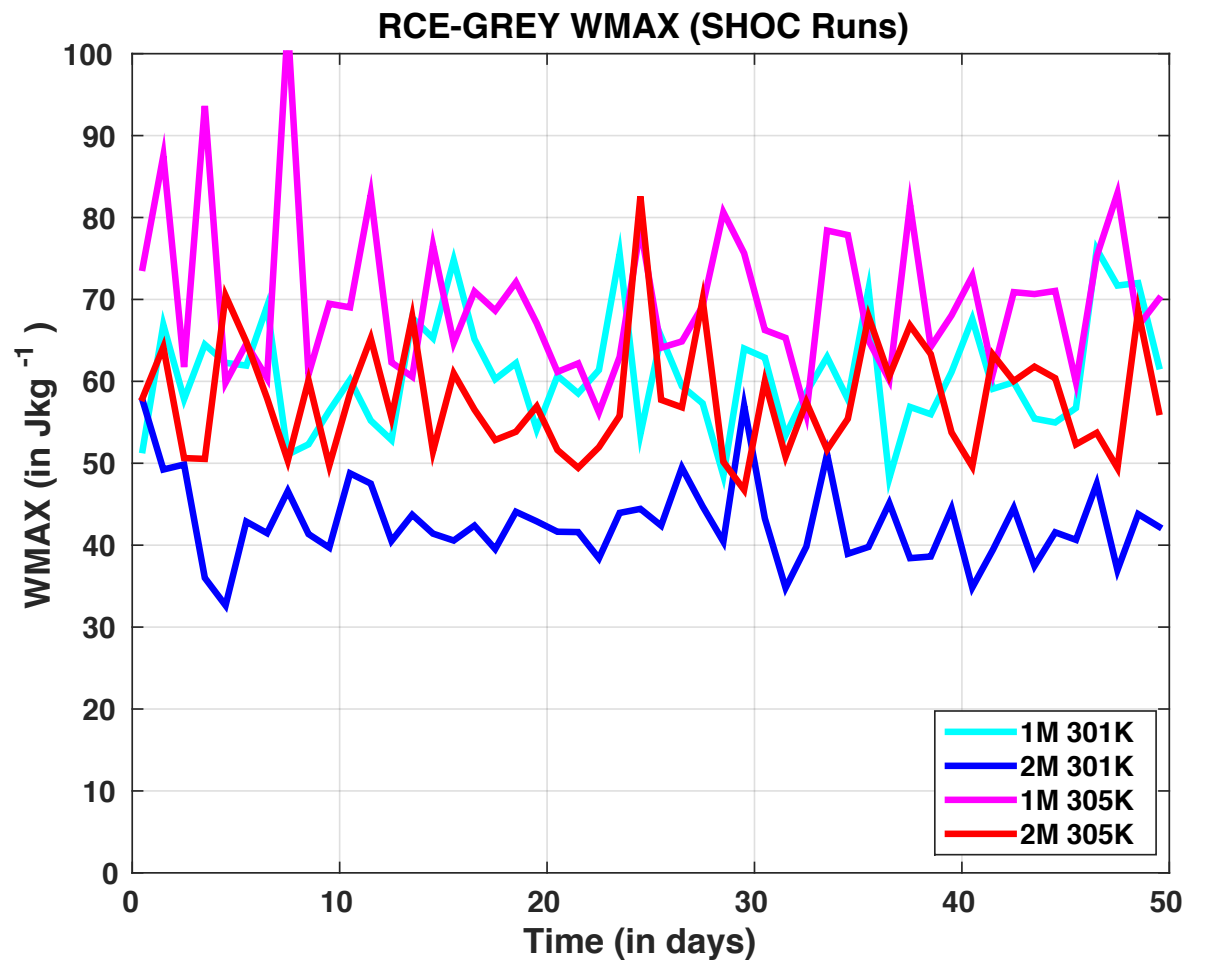
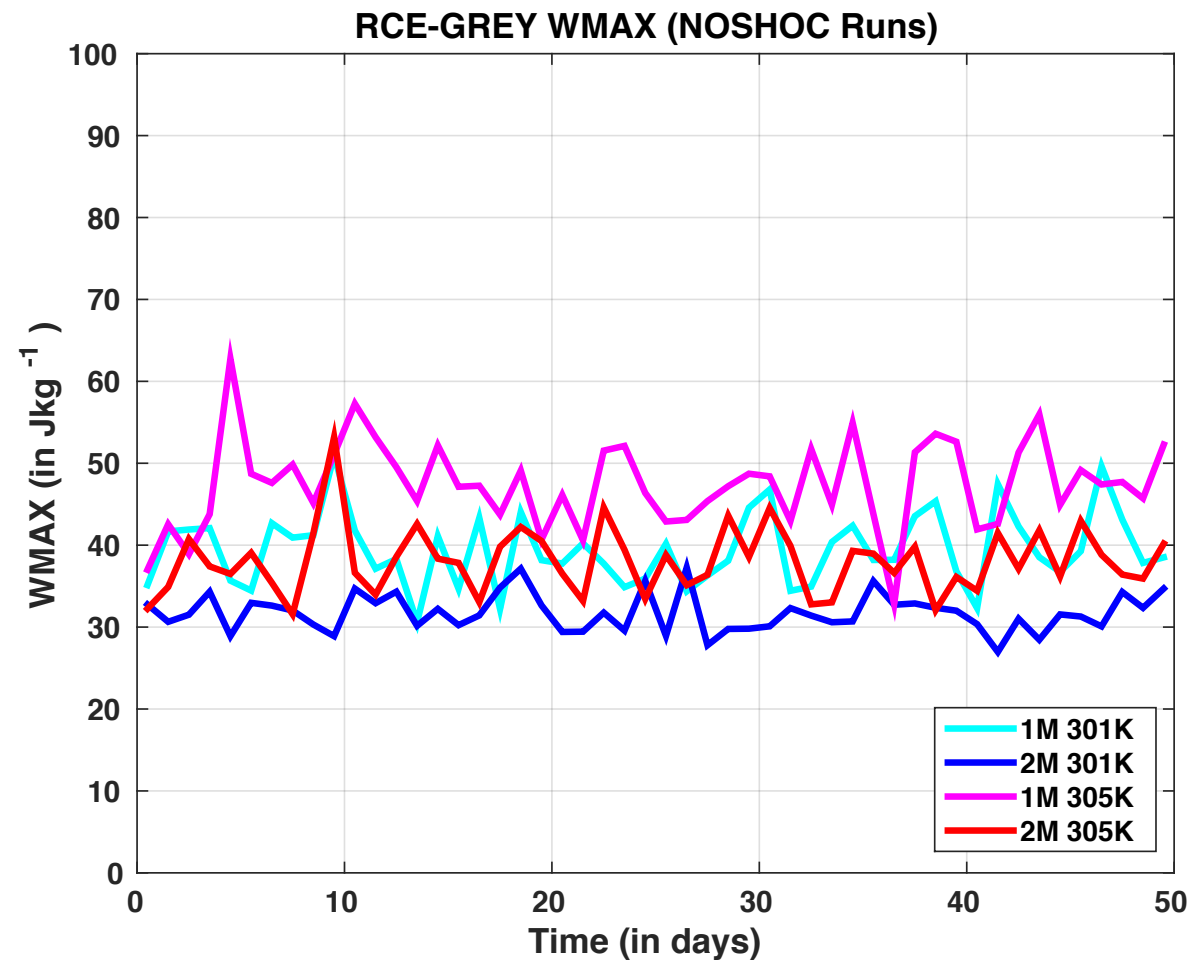
2M runs have cloud ice maximum around 1km higher in elevation.
1M runs have higher magnitude cloud ice than 2M.
Warmer runs have higher magnitude and peak elevation.

Total cloud water + ice



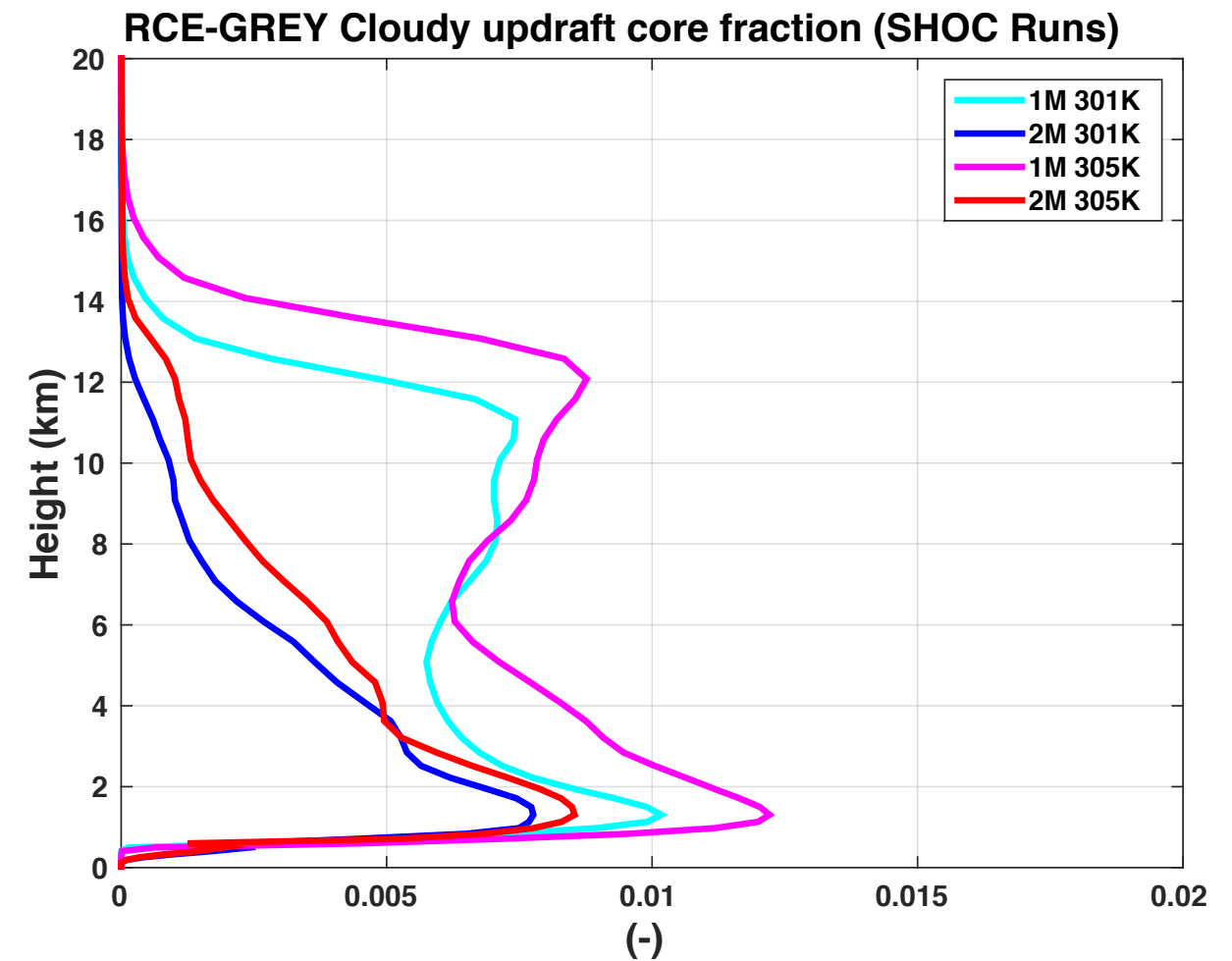
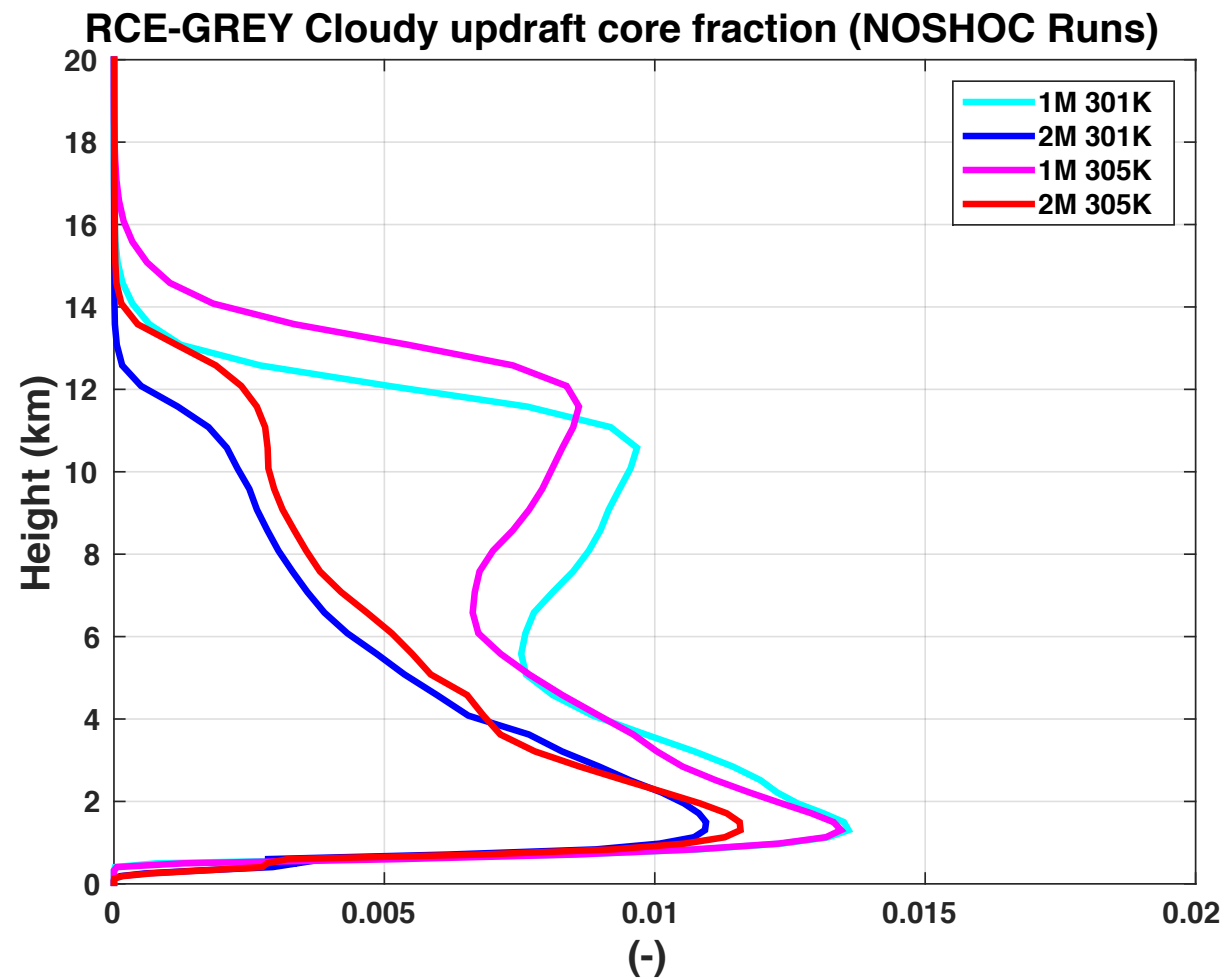
NOSHOC runs have higher QN in mid-levels.
Other details largely stem from previous two slides points.

Maximum vertical velocity



SHOC has higher WMAX than NOSHOC.
Warmer runs have higher WMAX.
1M has higher WMAX than 2M.

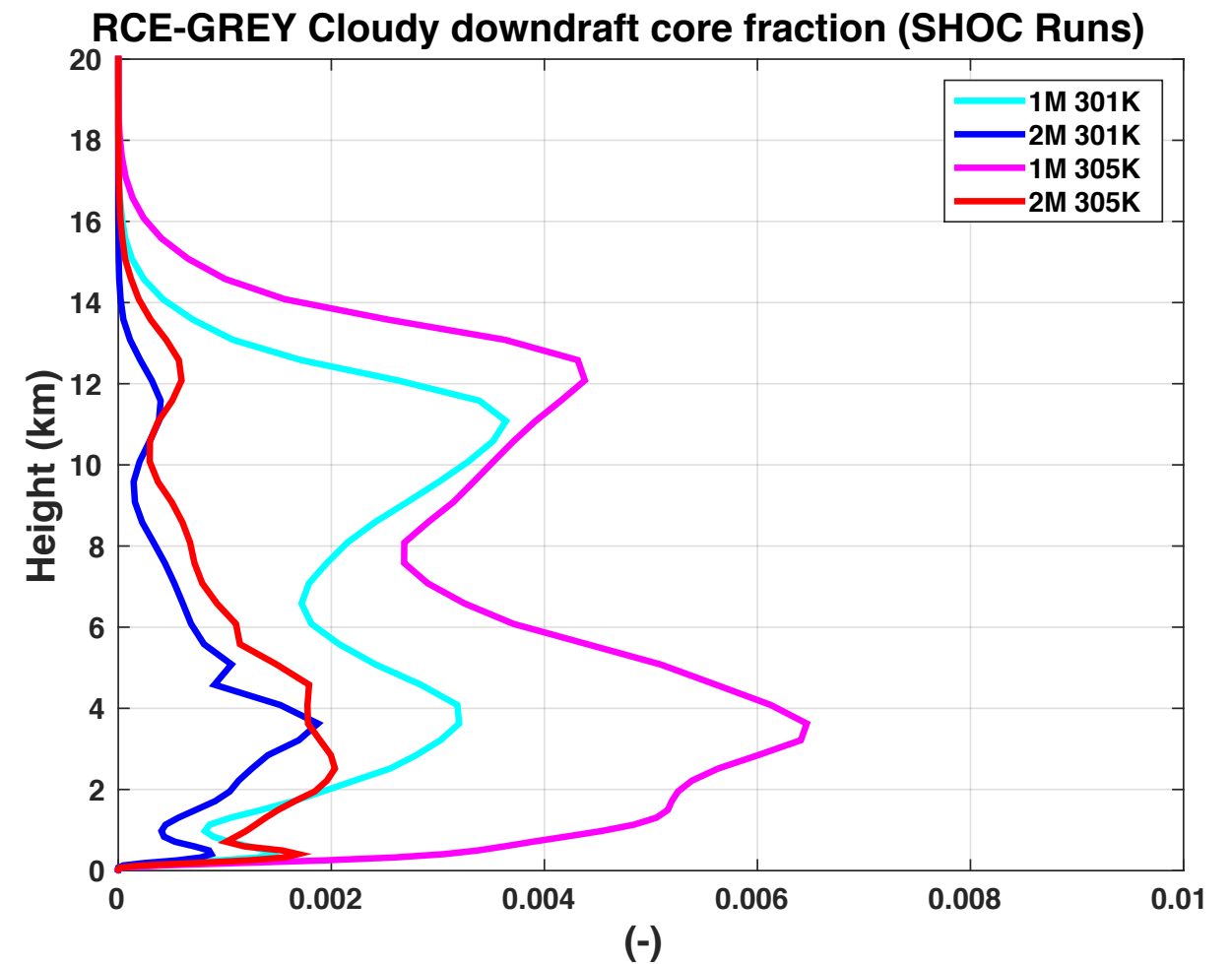
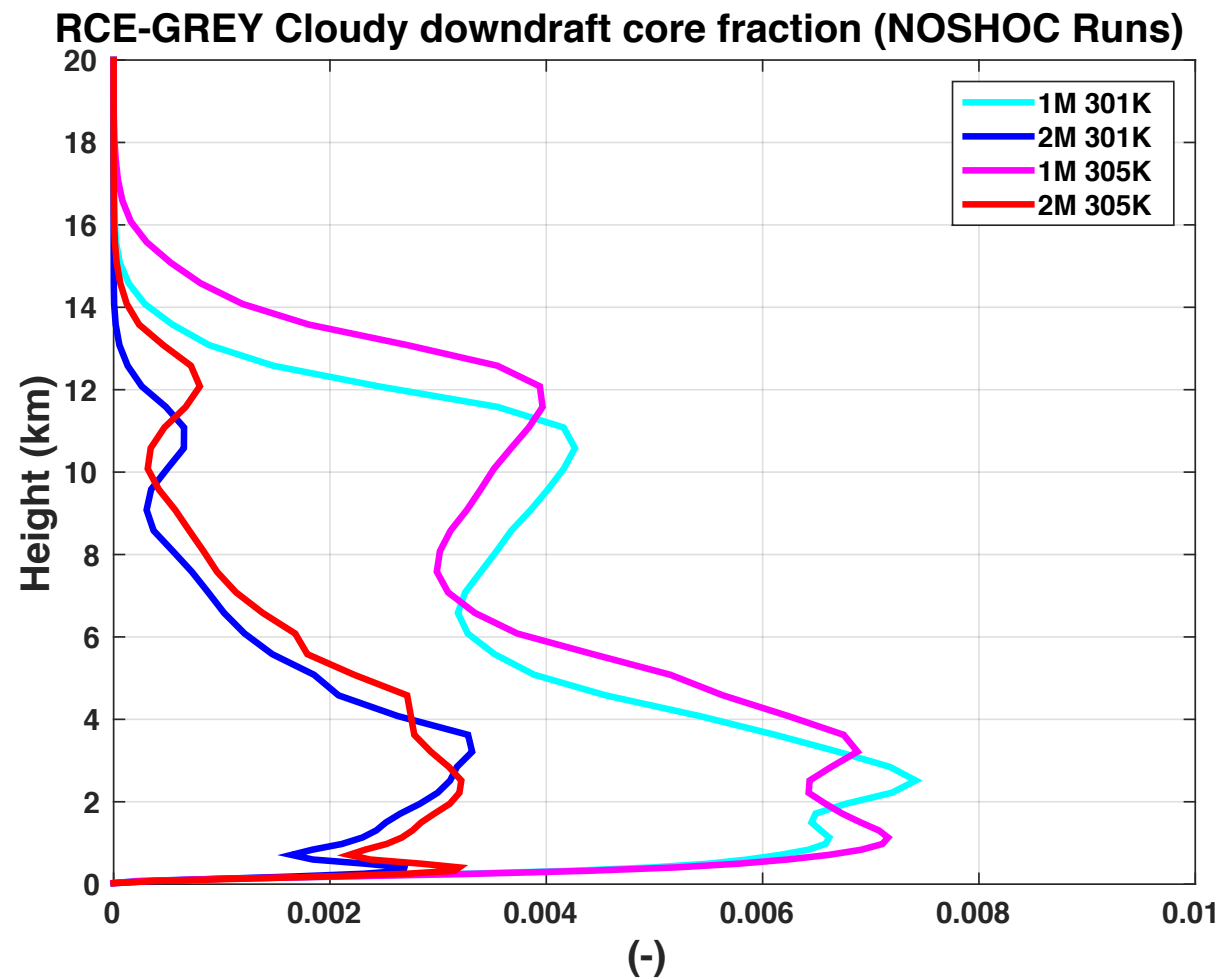
Cloudy updraft core fraction



1M runs have higher cloudy updraft core fractions, especially around 10-12km.

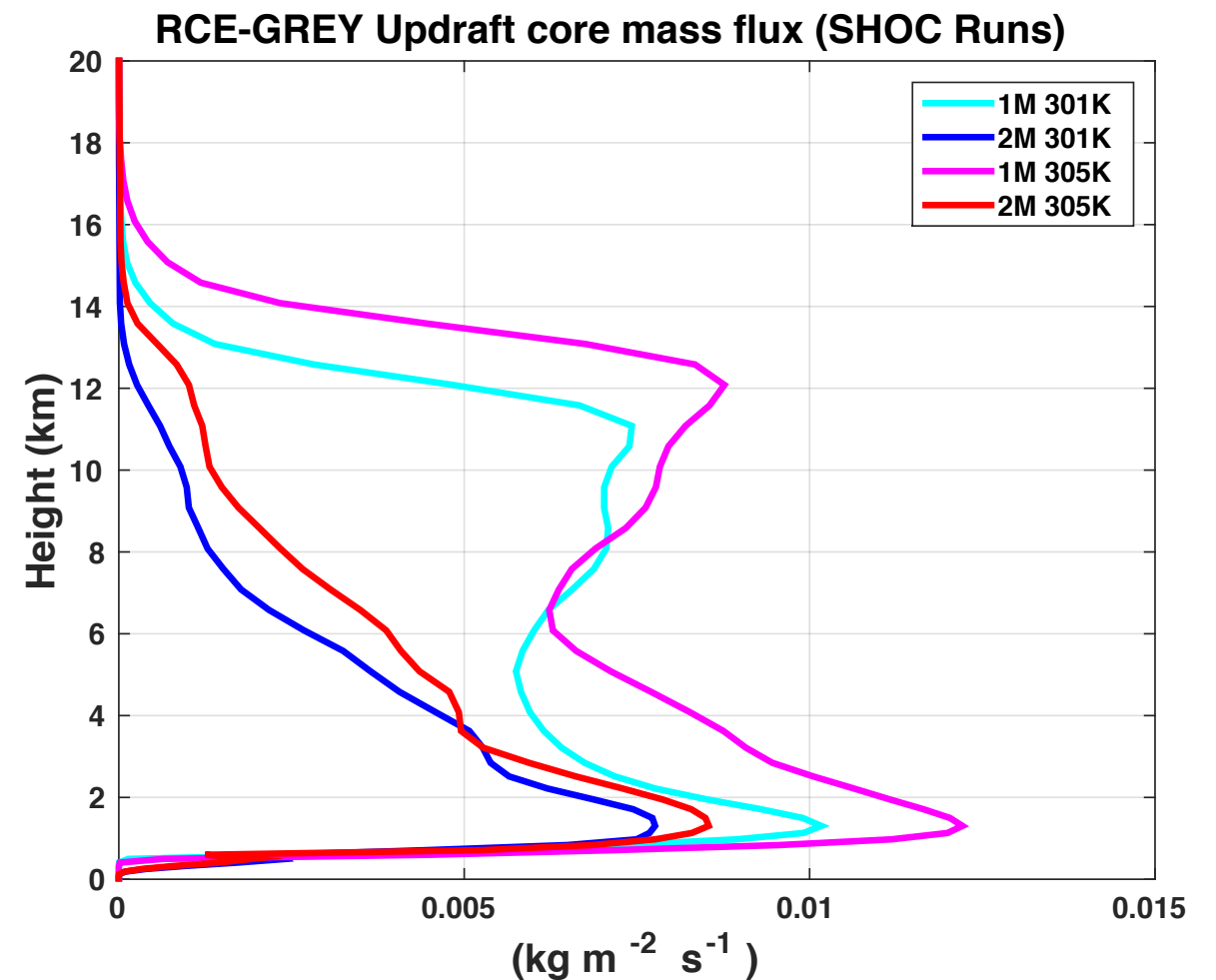
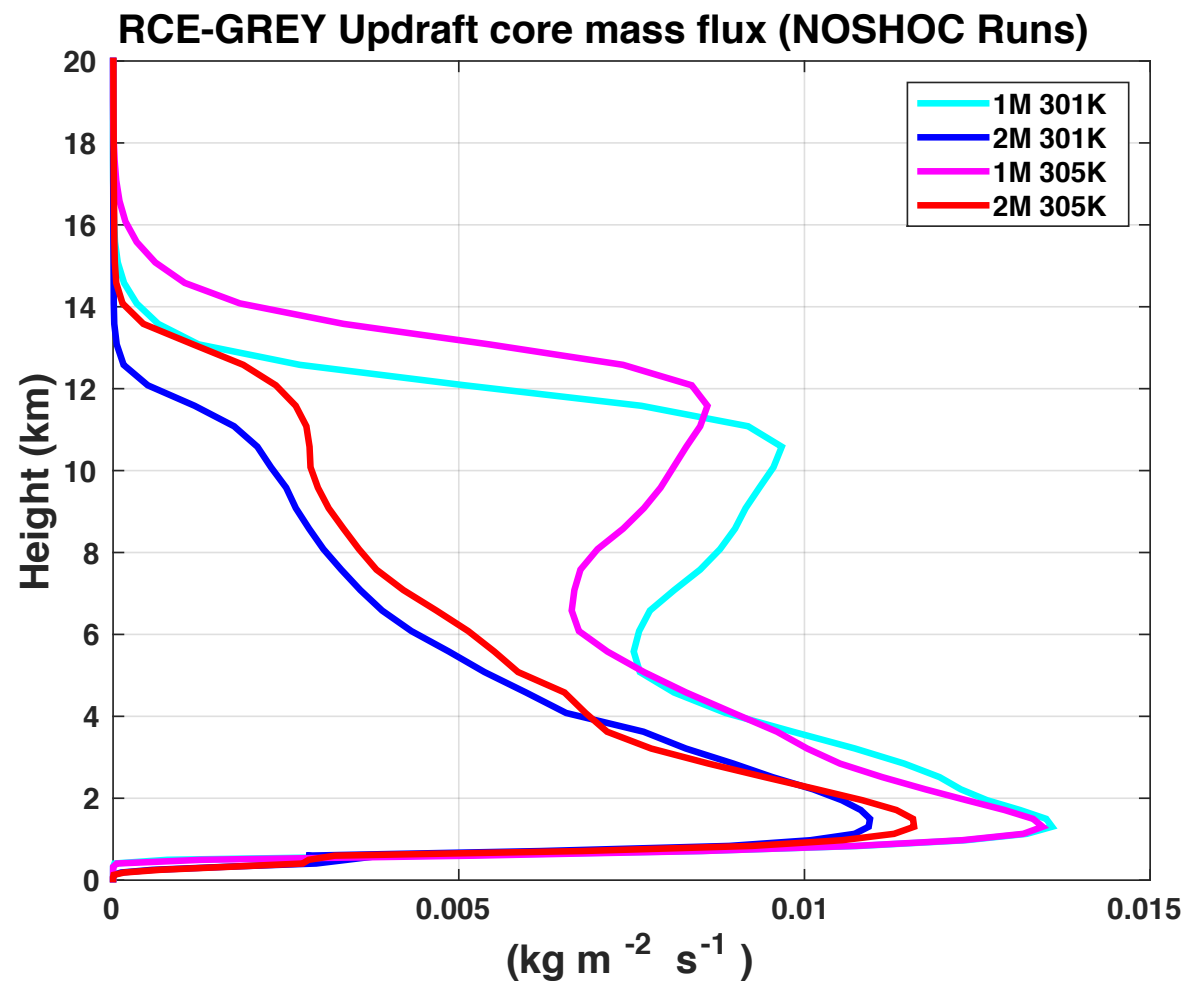
Warmer runs fall to 0 at higher elevation.

Cloudy downdraft core fraction



1M runs have significantly higher cloudy updraft core fractions at all levels from .5-16km except for lowest levels of 1M 301K SHOC. Warmer runs fall to 0 at higher elevation.

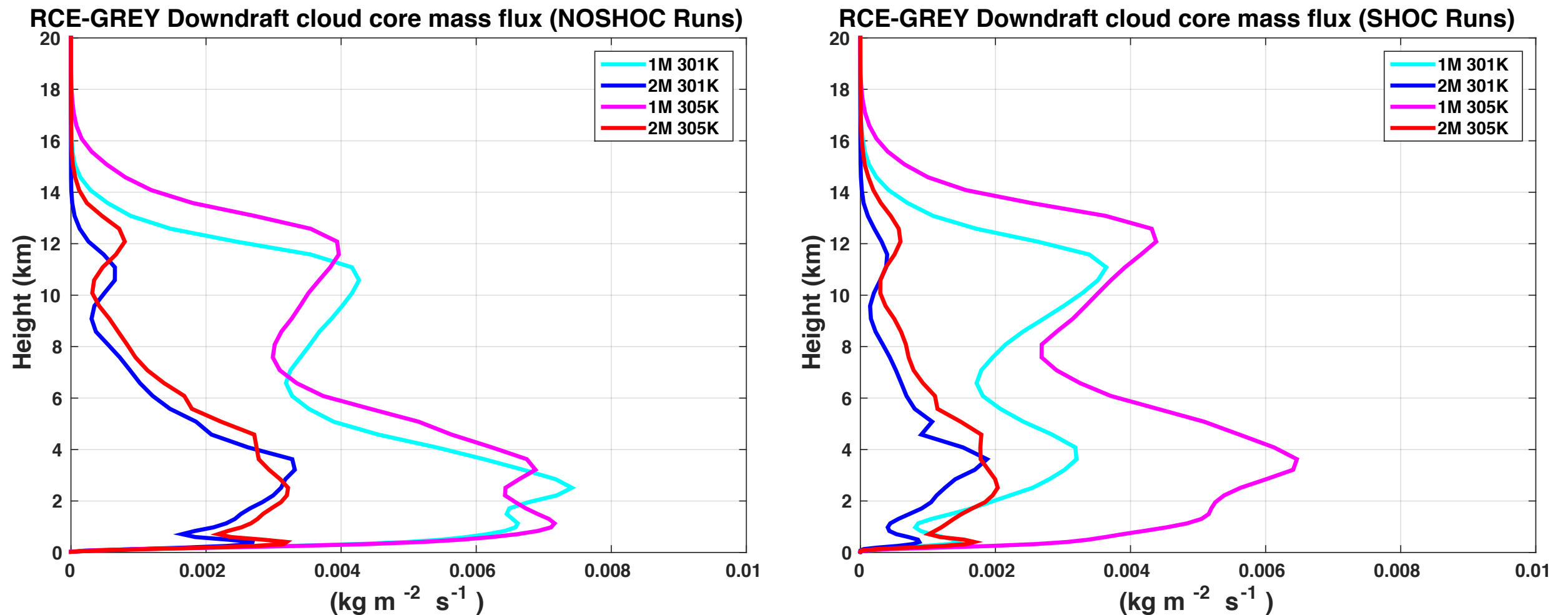
Updraft core mass flux



1M runs have higher cloudy updraft core fractions, especially around 10-12km.

Warmer runs fall to 0 at higher elevation.
Unsurprisingly looks a lot like updraft core fraction.

Saturated downdraft core mass flux



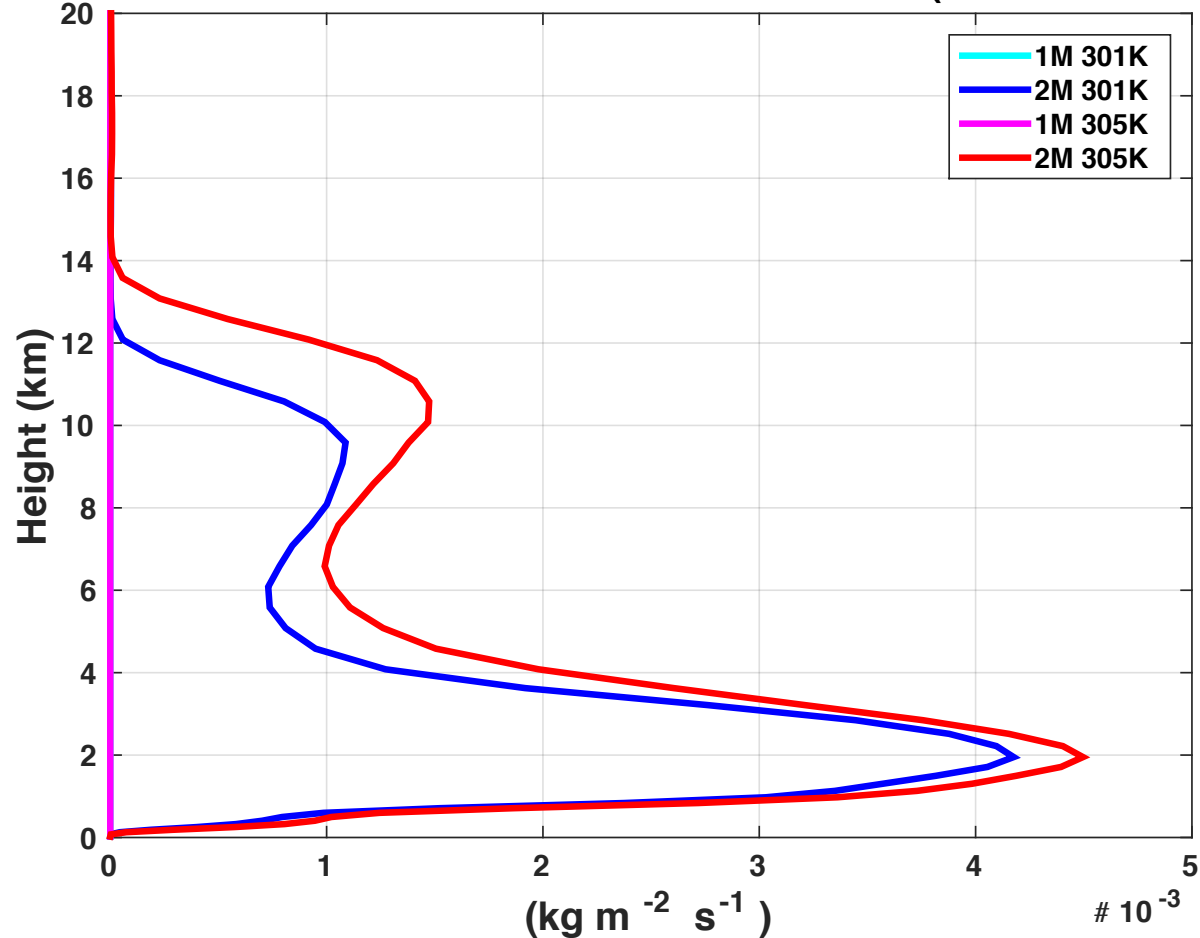
1M runs have significantly higher cloudy updraft core fractions at all levels from .5-16km except for lowest levels of 1M 301K SHOC.

Warmer runs fall to 0 at higher elevation.

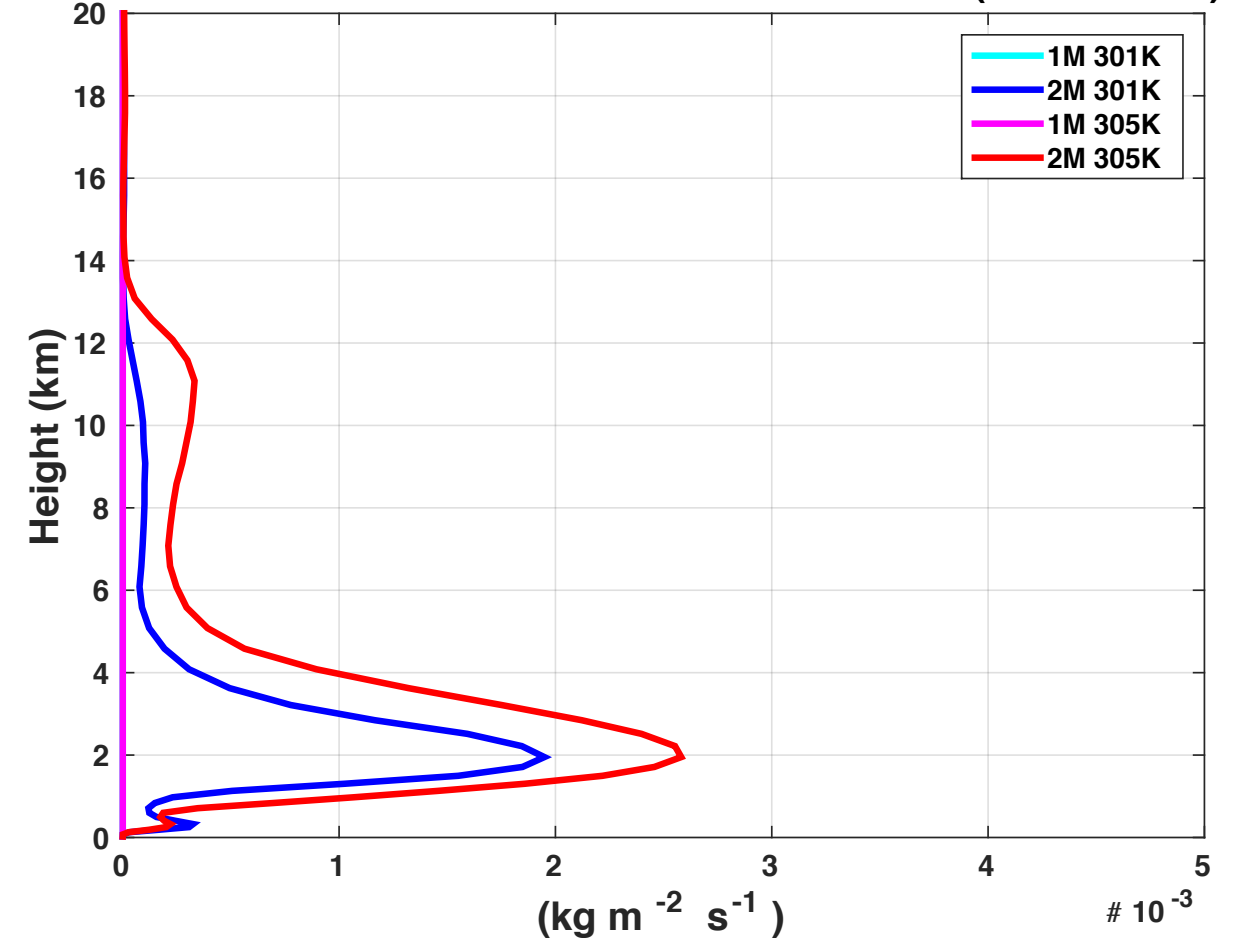
Unsurprisingly looks a lot like downdraft core fraction.

Unsaturated downdraft core mass flux

RCE-GREY Total Downdraft unsat. core mass flux (NOSHOC Runs)



RCE-GREY Total Downdraft unsat. core mass flux (SHOC Runs)



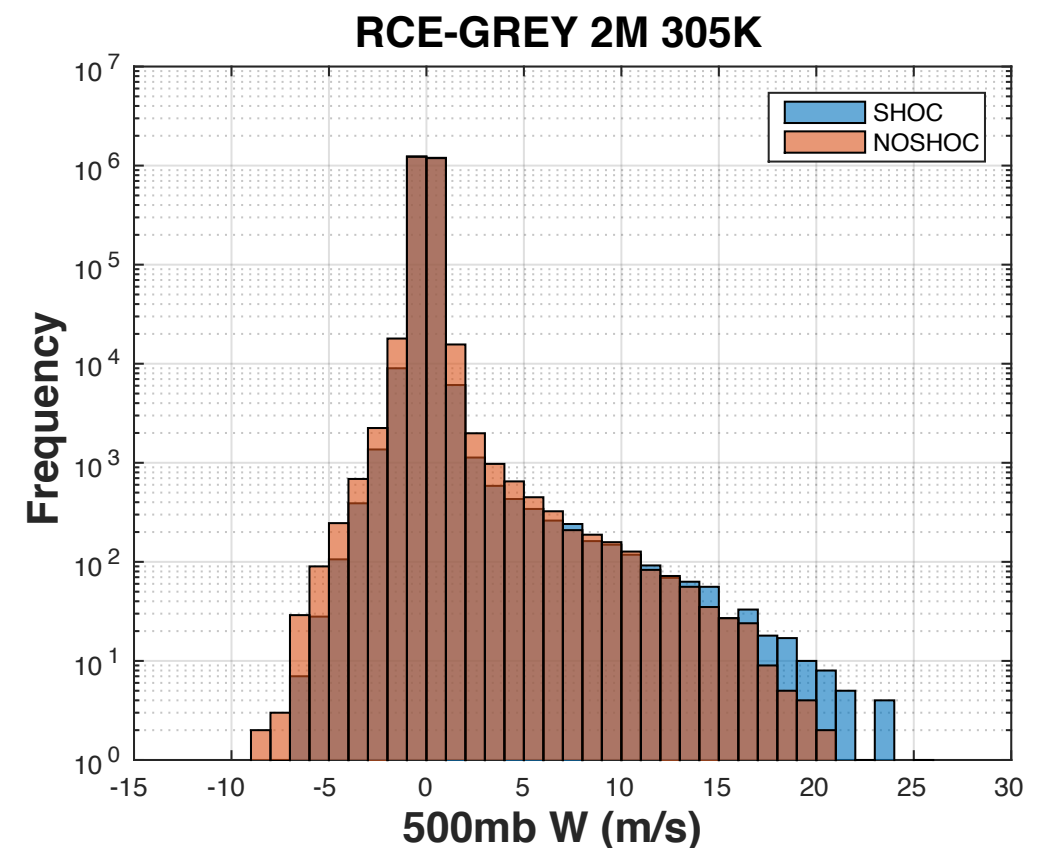
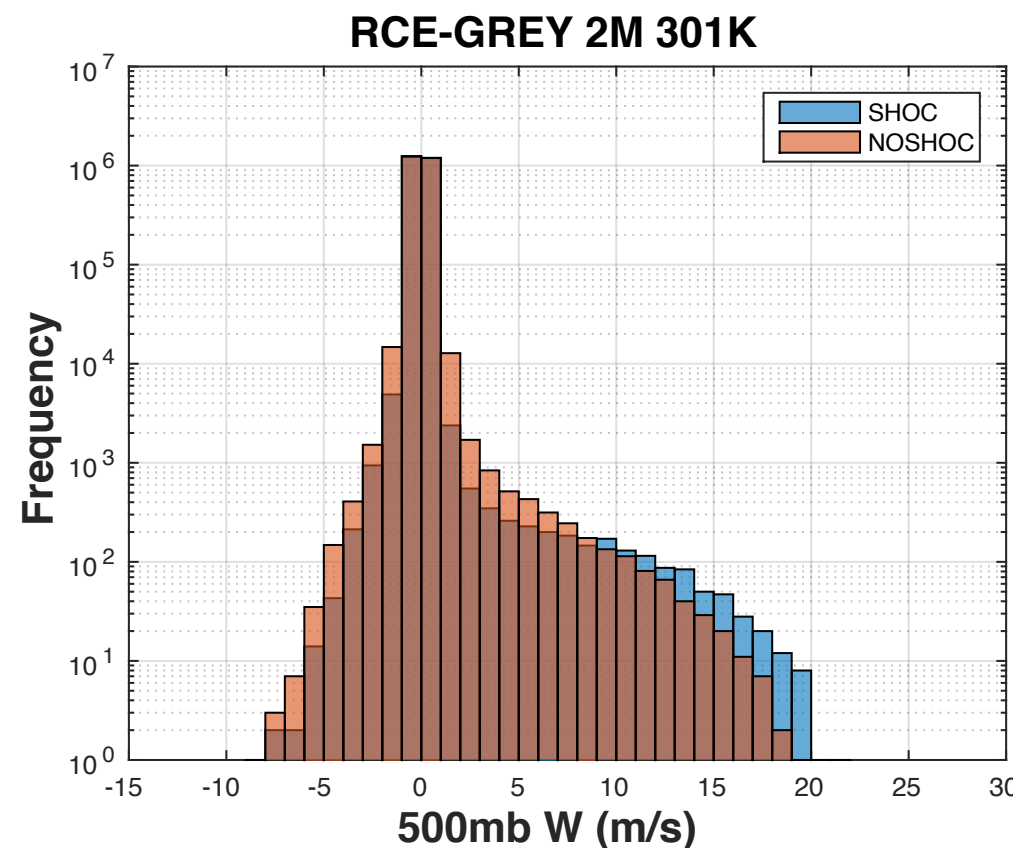
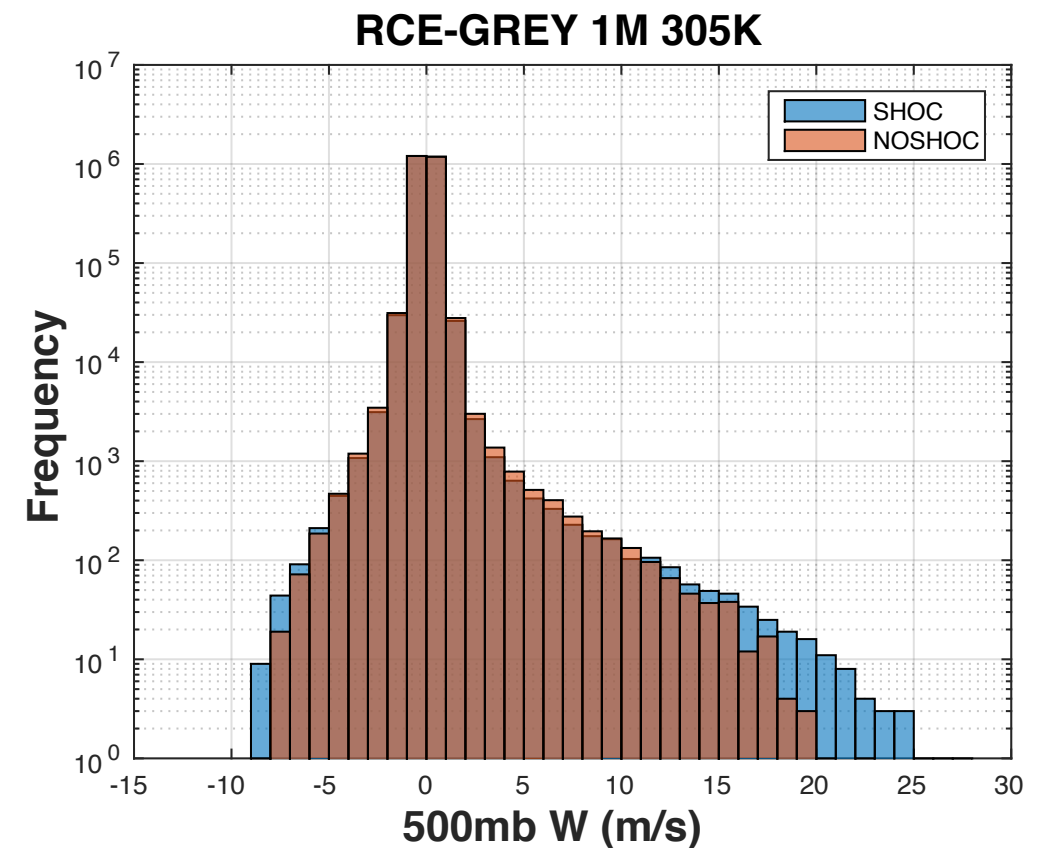
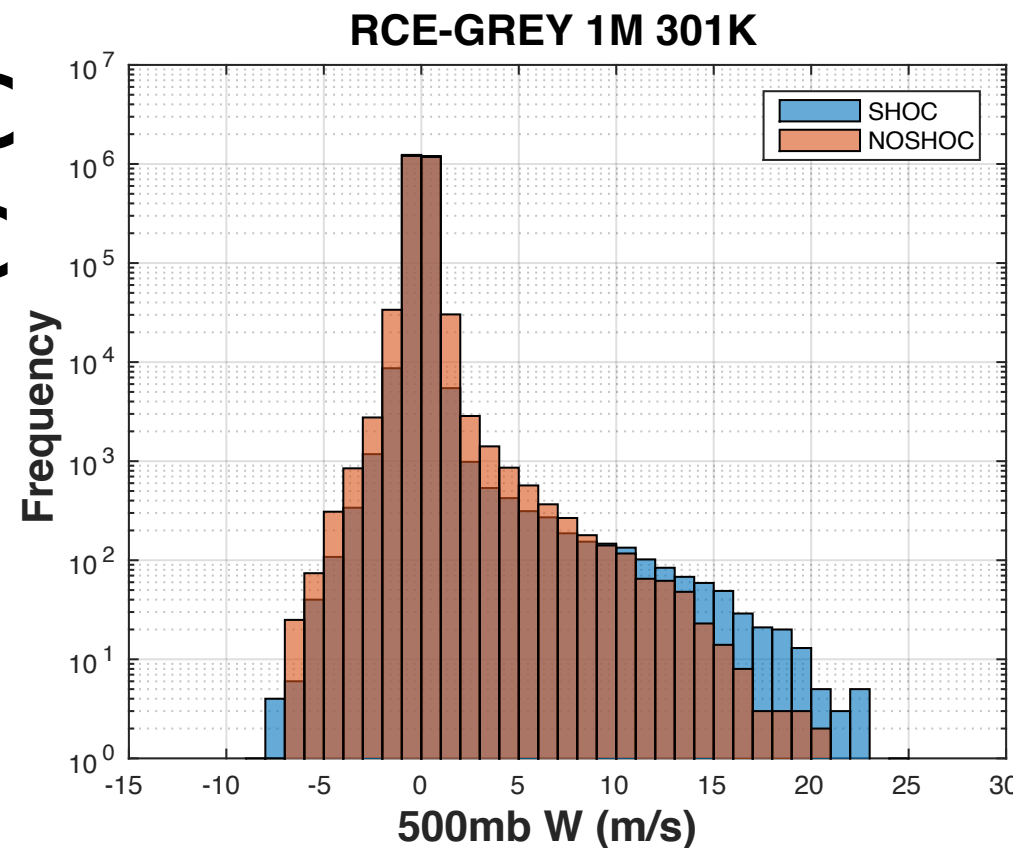
There is no unsaturated core downdraft mass flux in the single moment runs.

NOSHOC runs have higher unsaturated downdraft core mass fluxes.
Warmer runs have larger unsaturated downdraft core mass fluxes.

W500 SHOC vs NOSHOC

More large
positive W values
in SHOC.

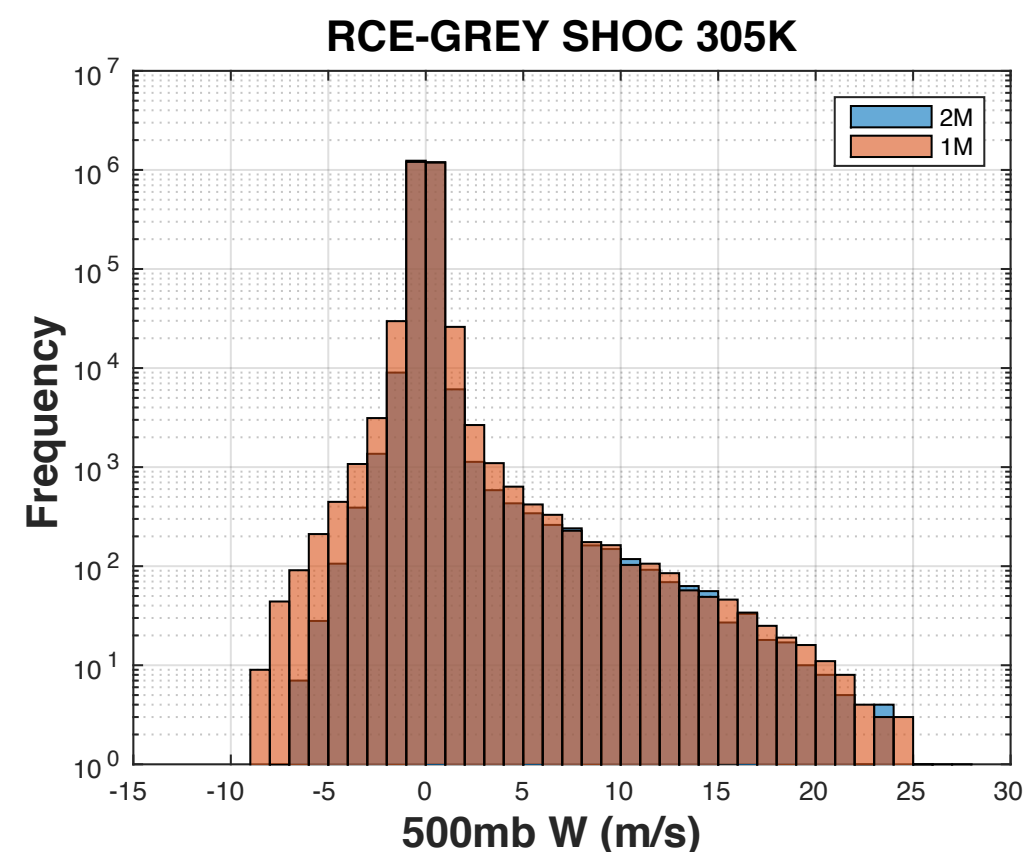
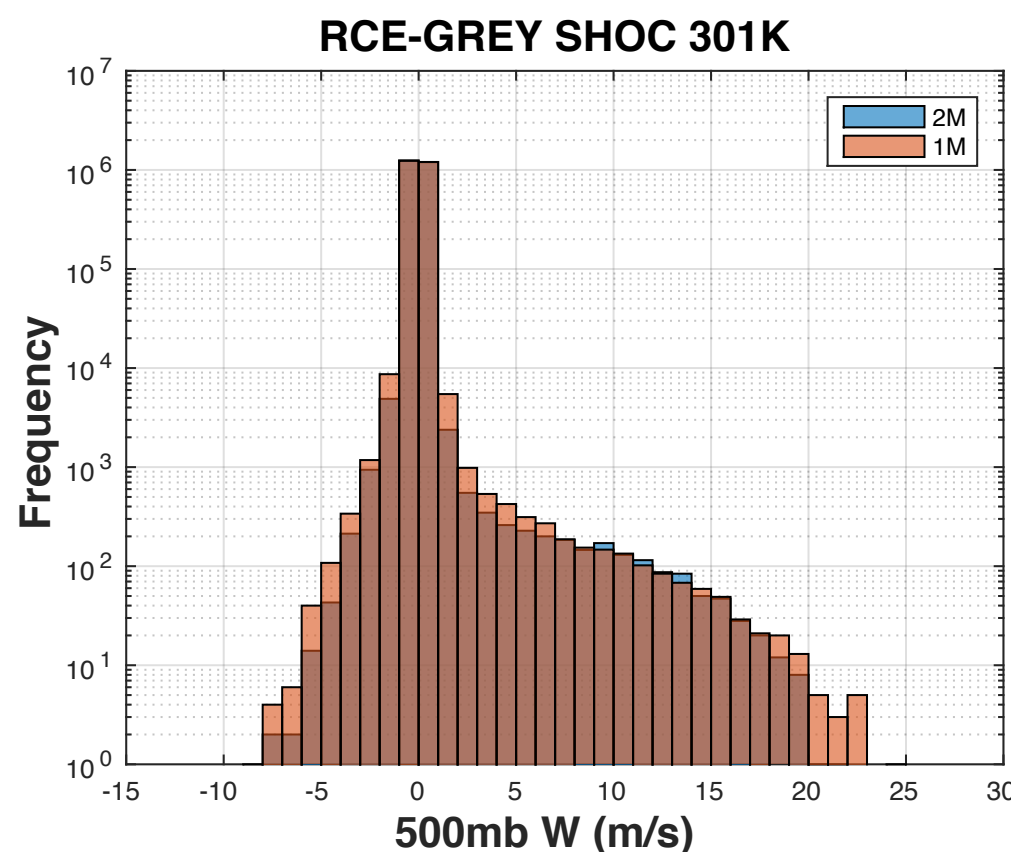
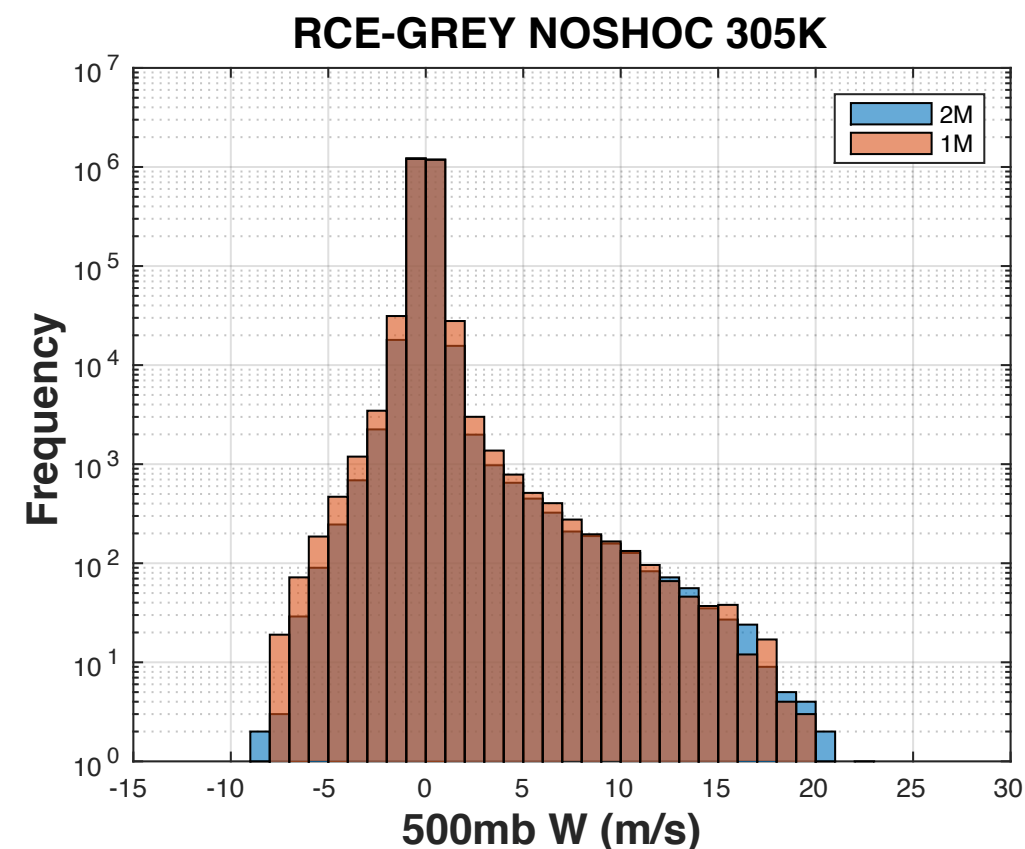
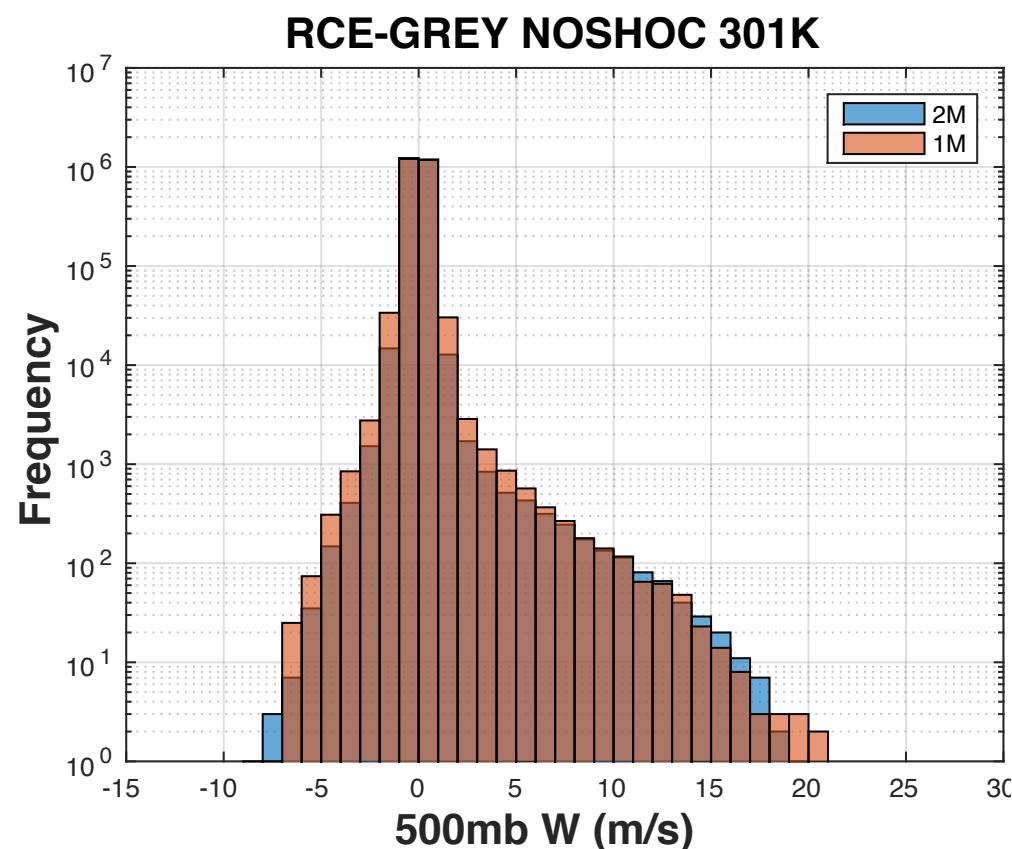
More large
negative W values
in NOSHOC
except 1M 305K.



W500 IM vs 2M

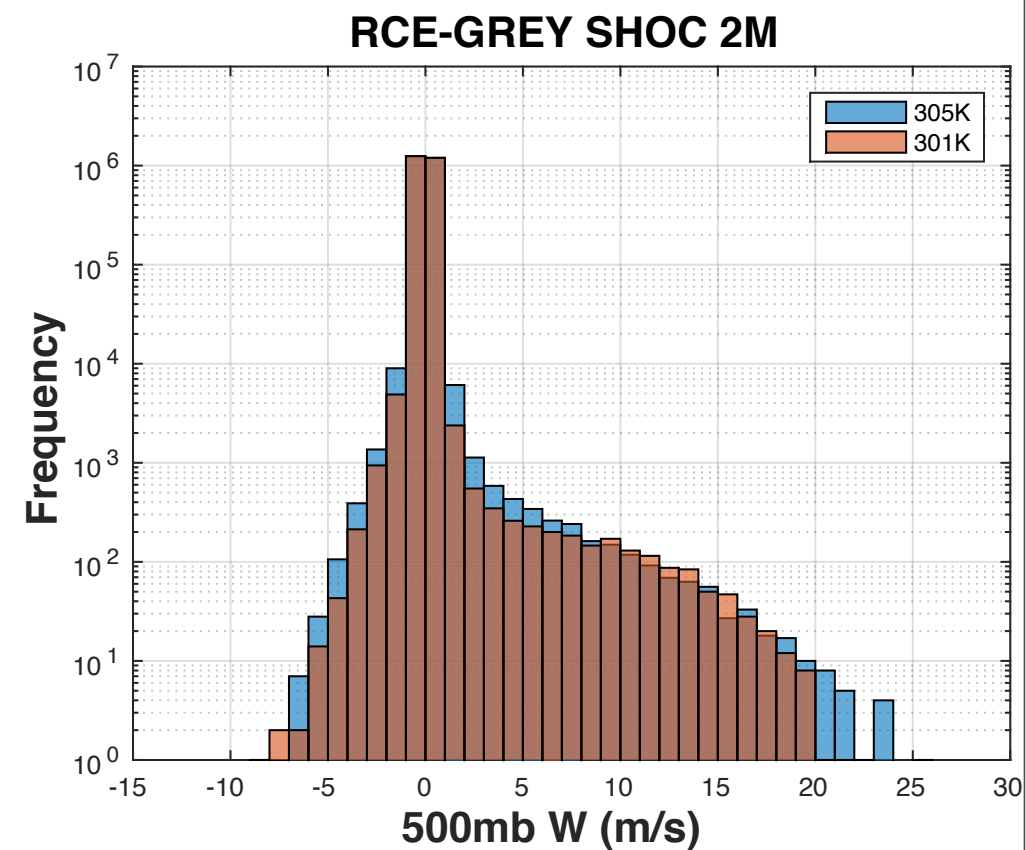
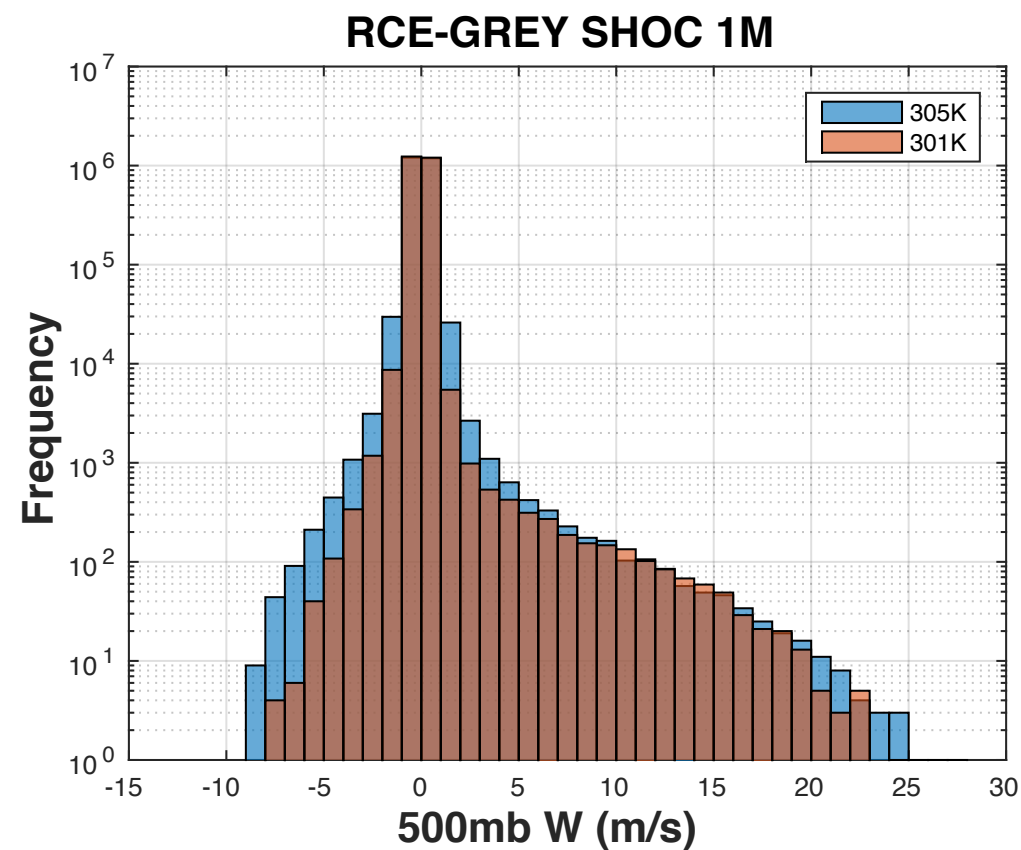
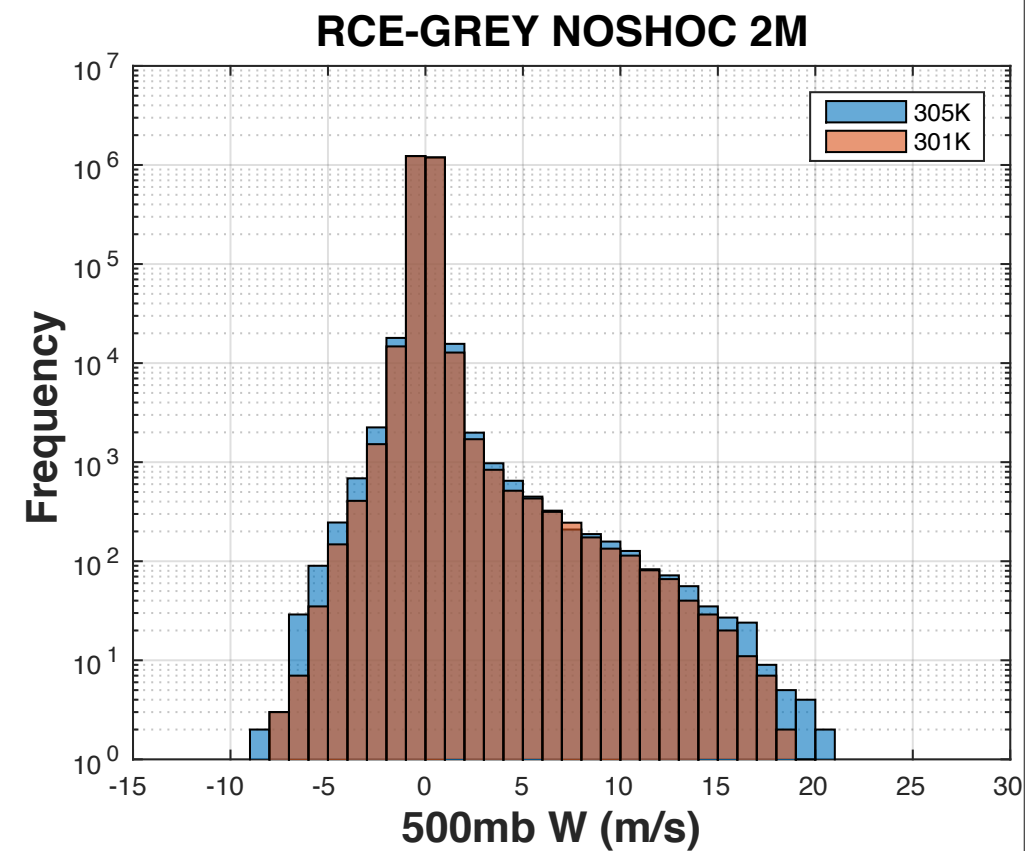
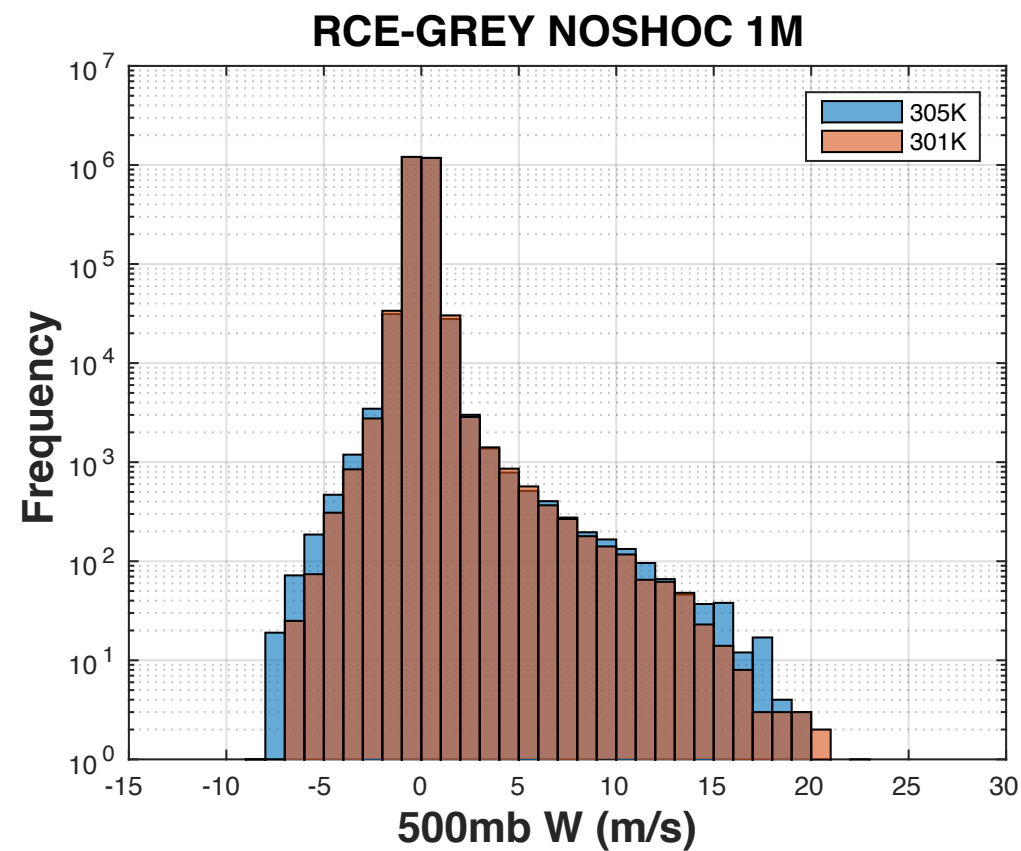
For NOSHOC IM has more >1m/s downdrafts though 2M seems to have more extremes.

For SHOC, IM runs have higher magnitude values more often, particularly downdrafts.



W500 301K vs 305K

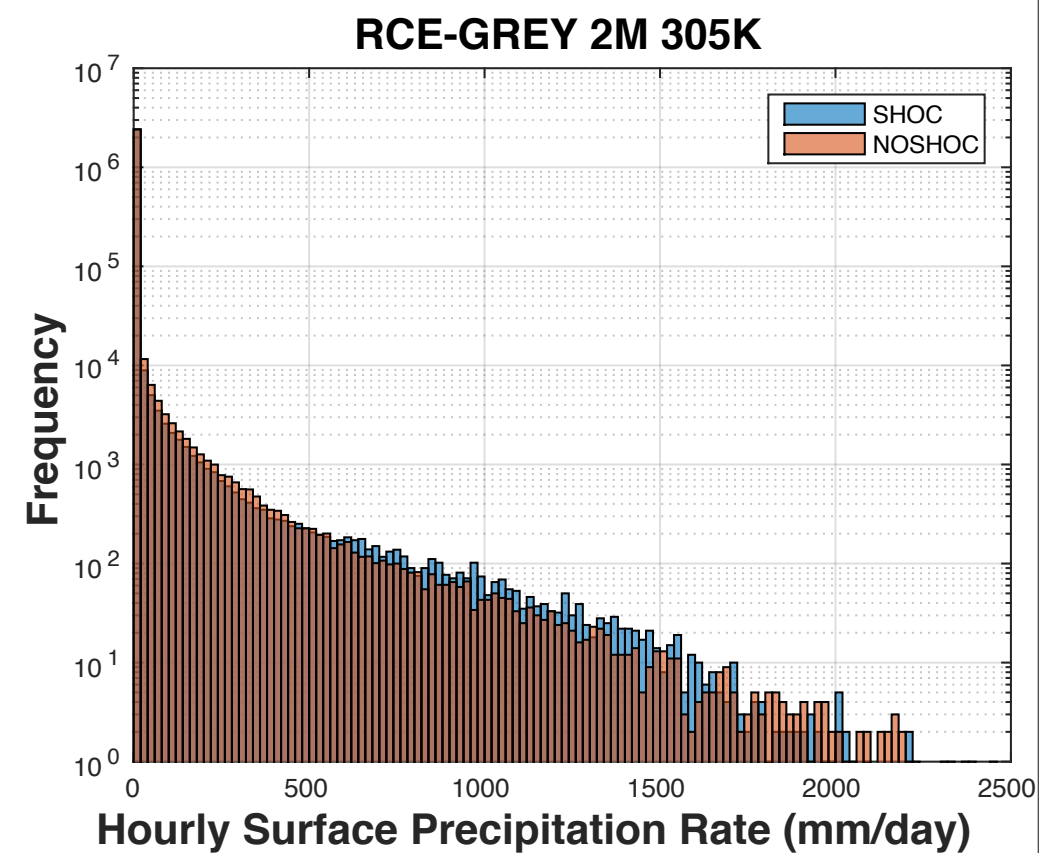
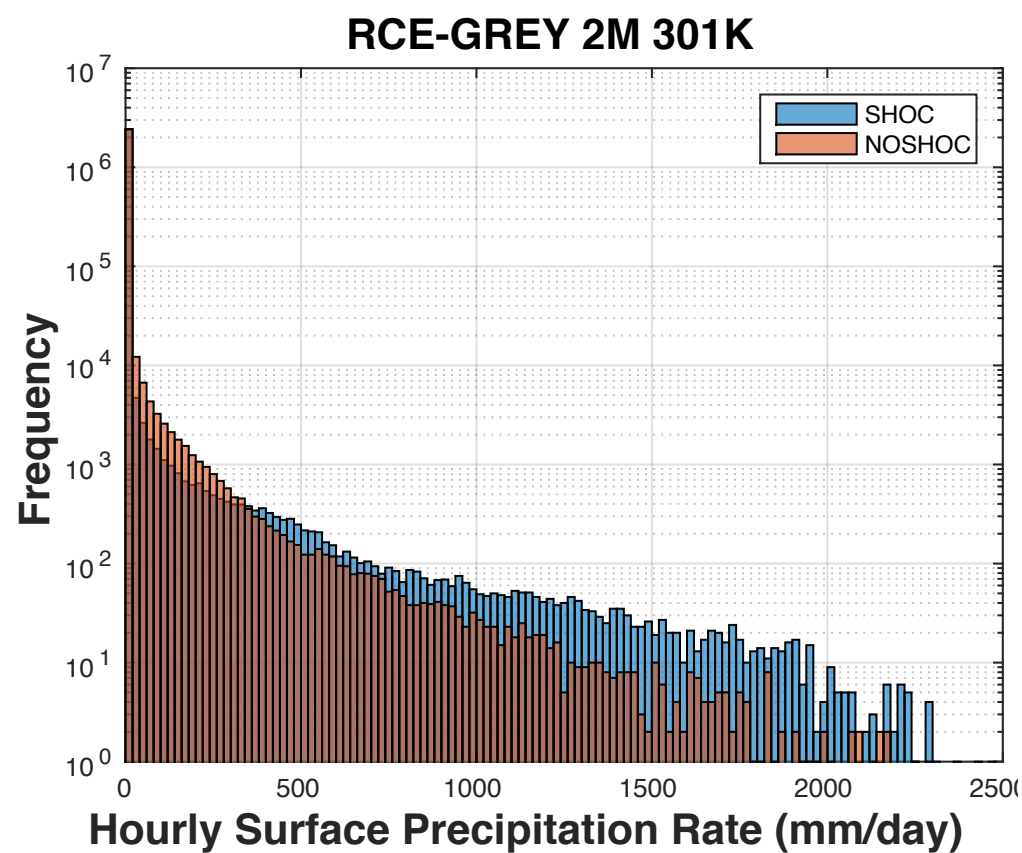
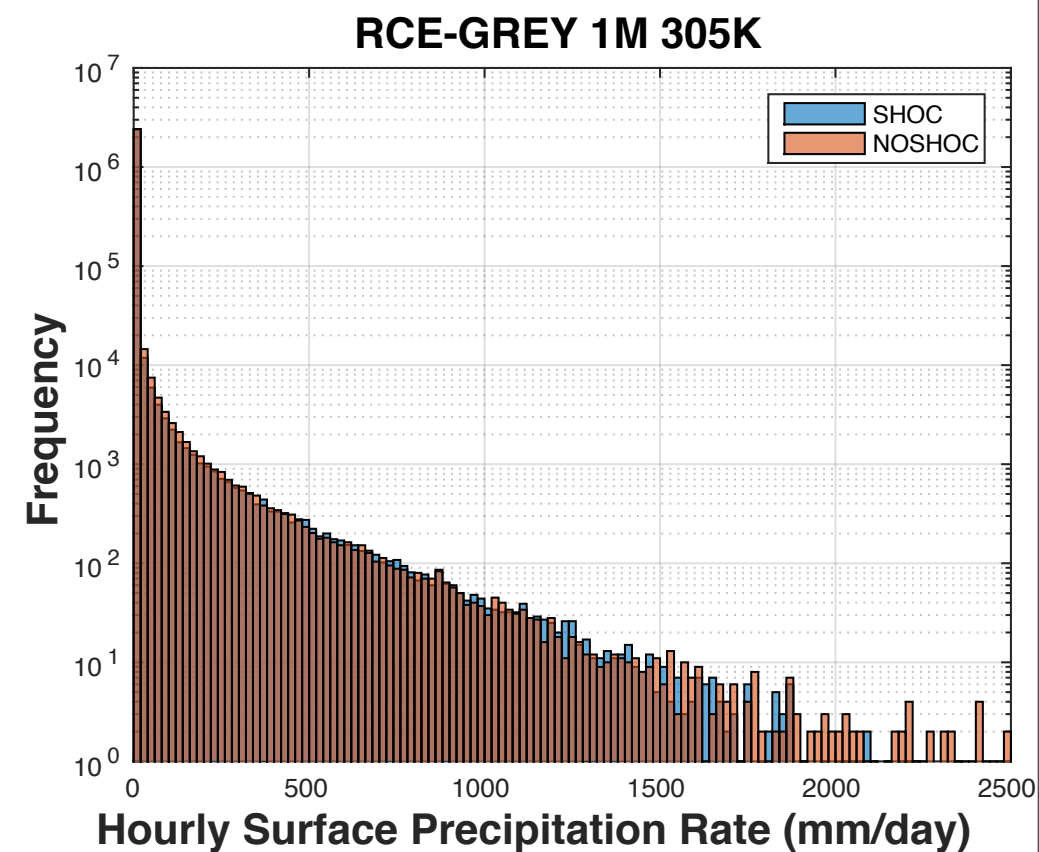
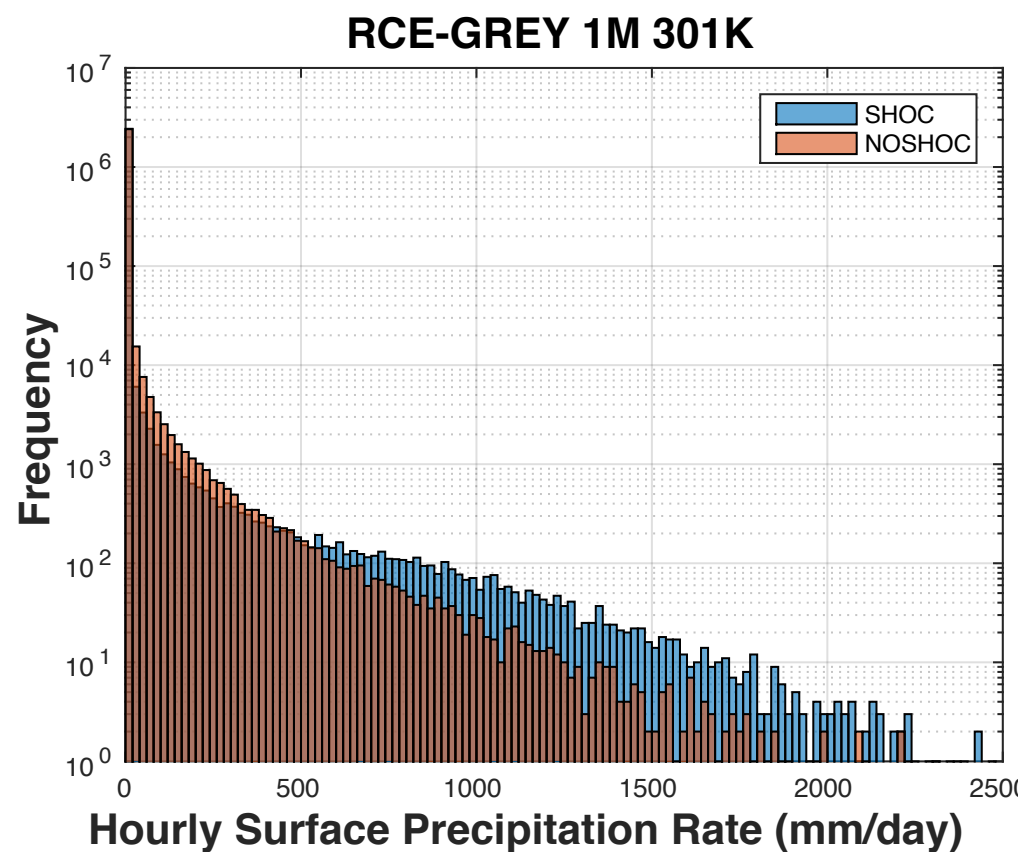
Warmer runs
have more high
magnitude W
values.



Prec SHOC vs NOSHOC

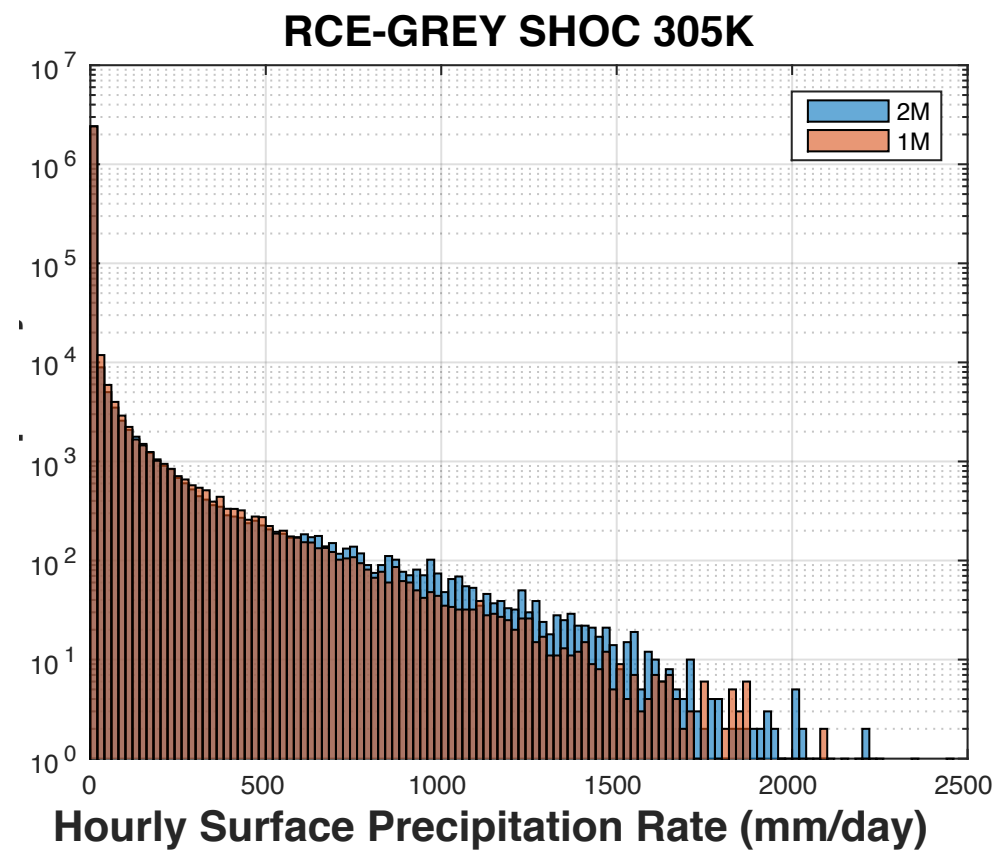
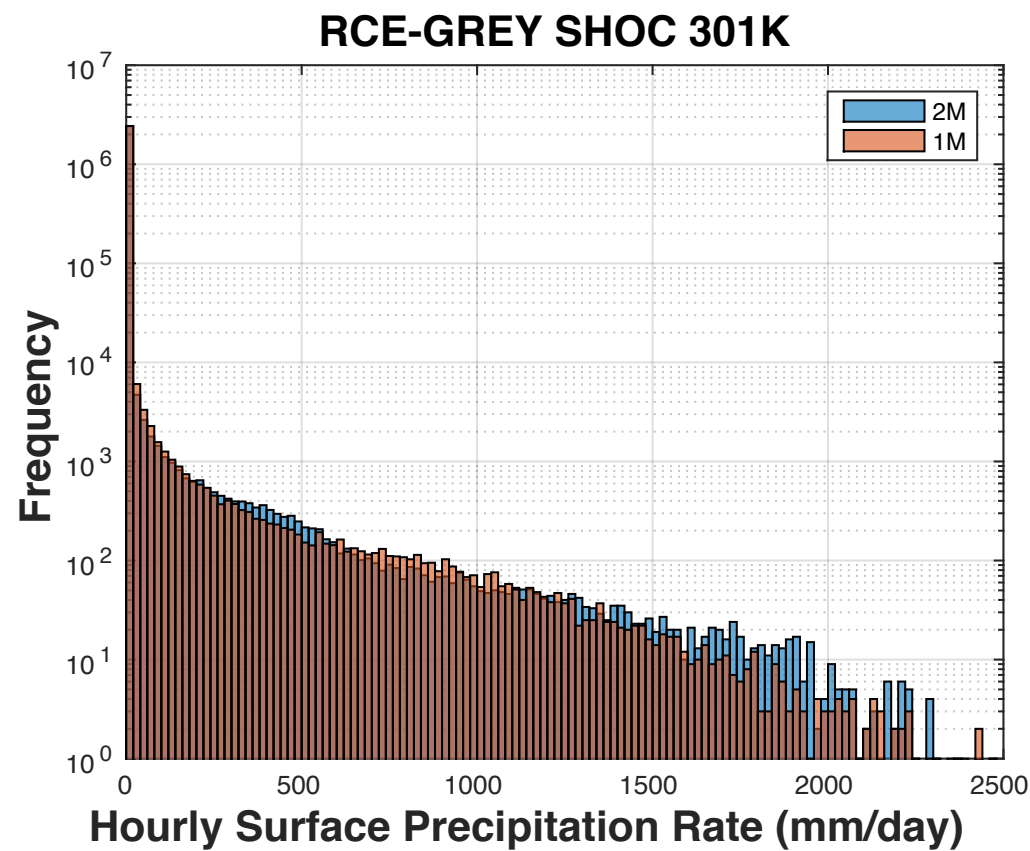
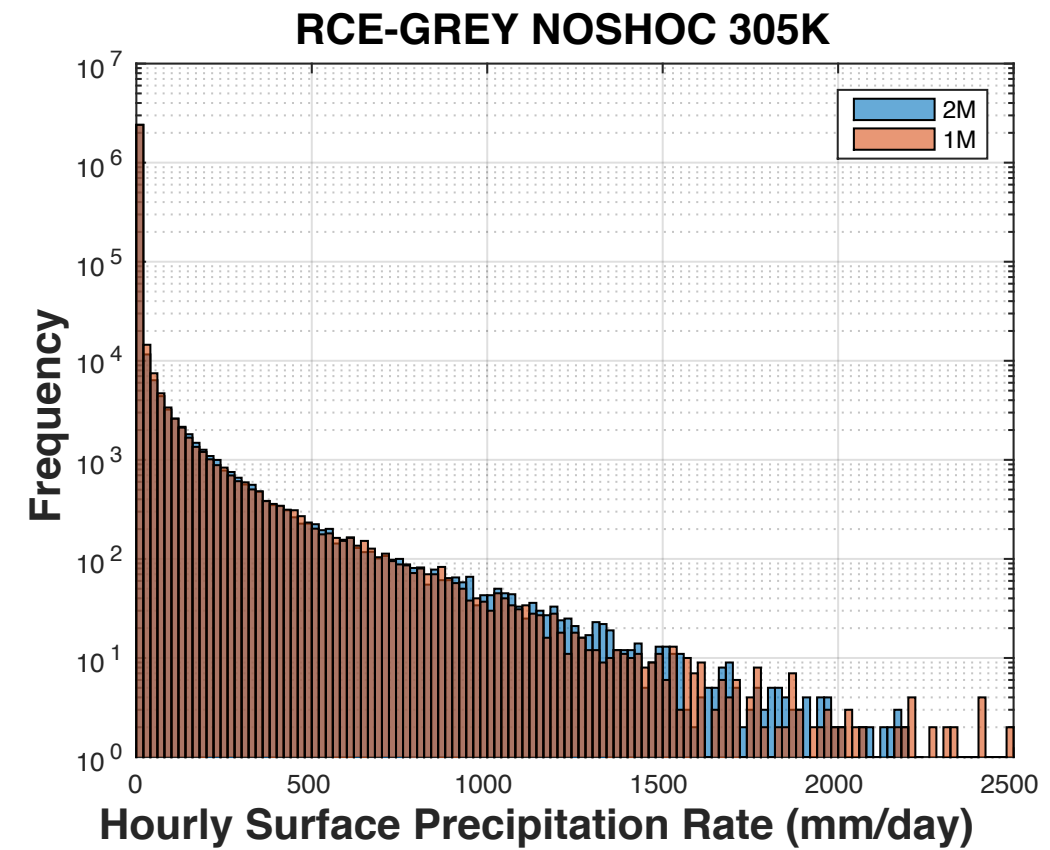
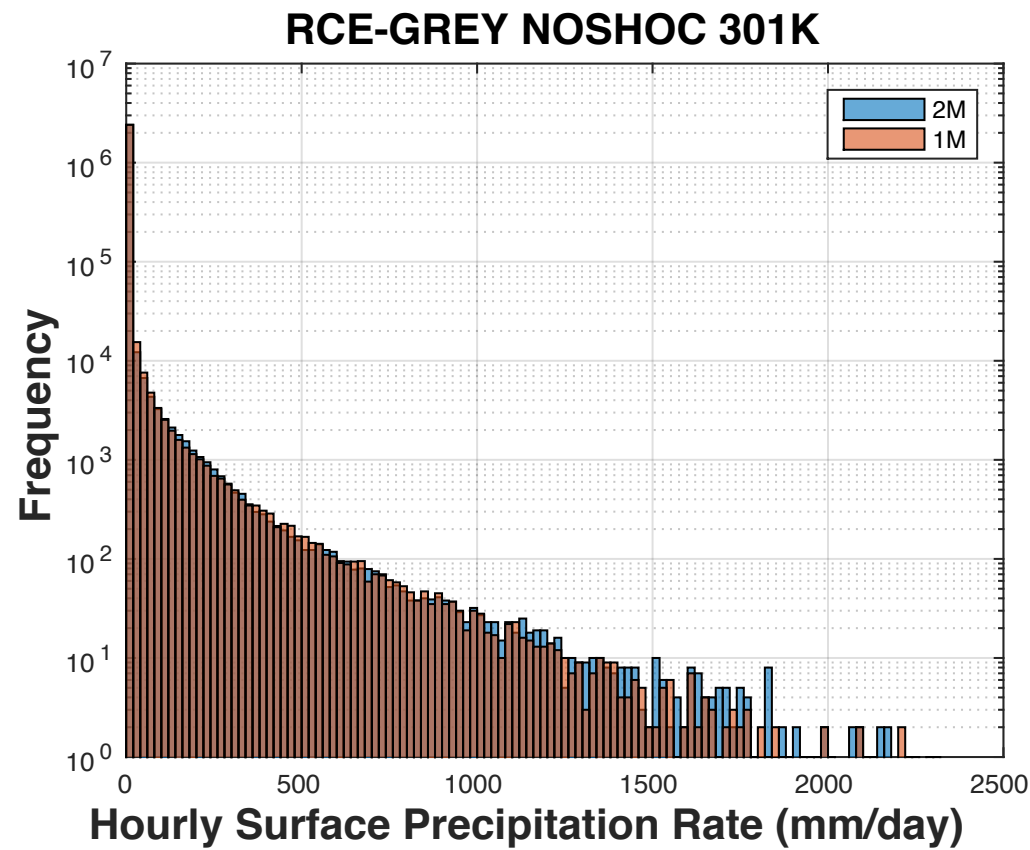
More heavy
precip events in
SHOC for cooler
runs.

Less variation in
warmer runs.



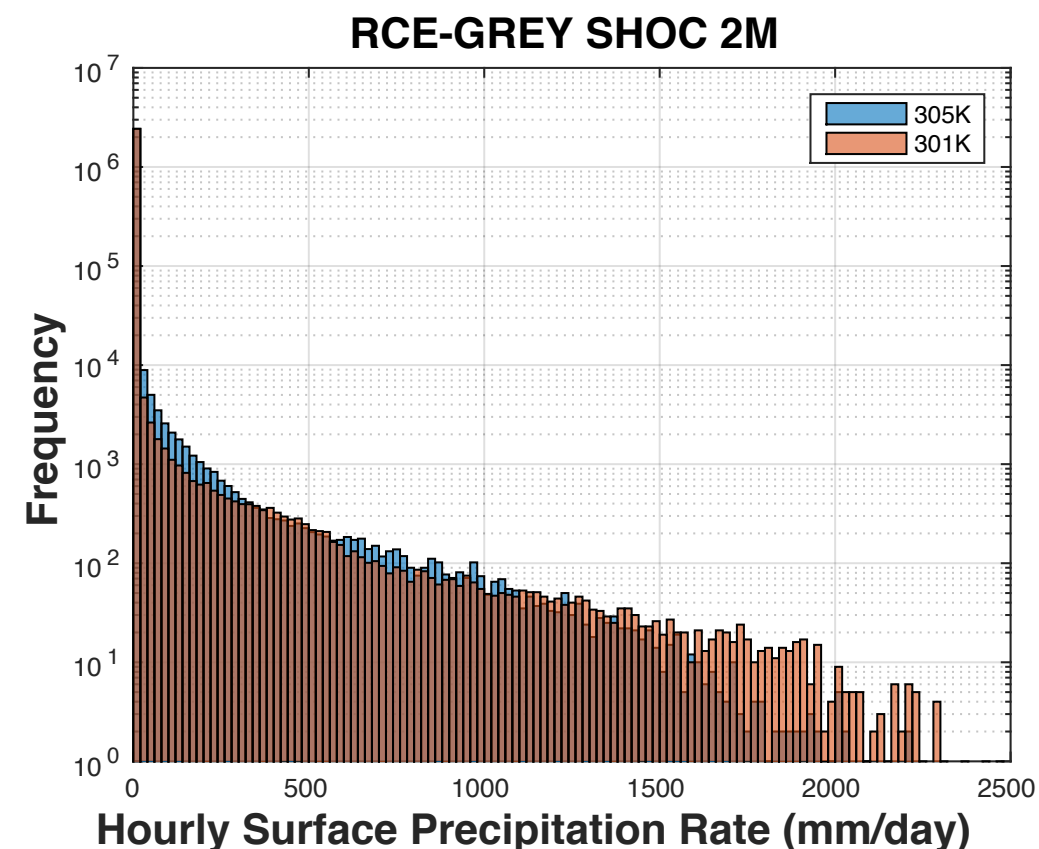
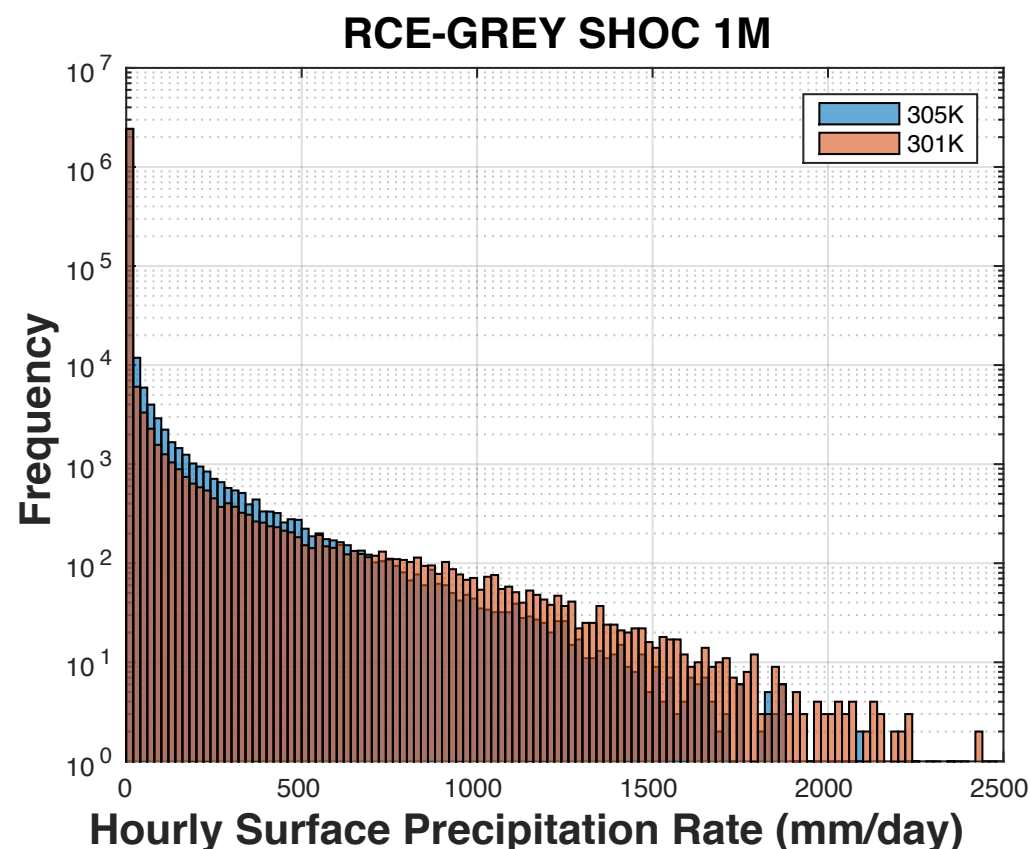
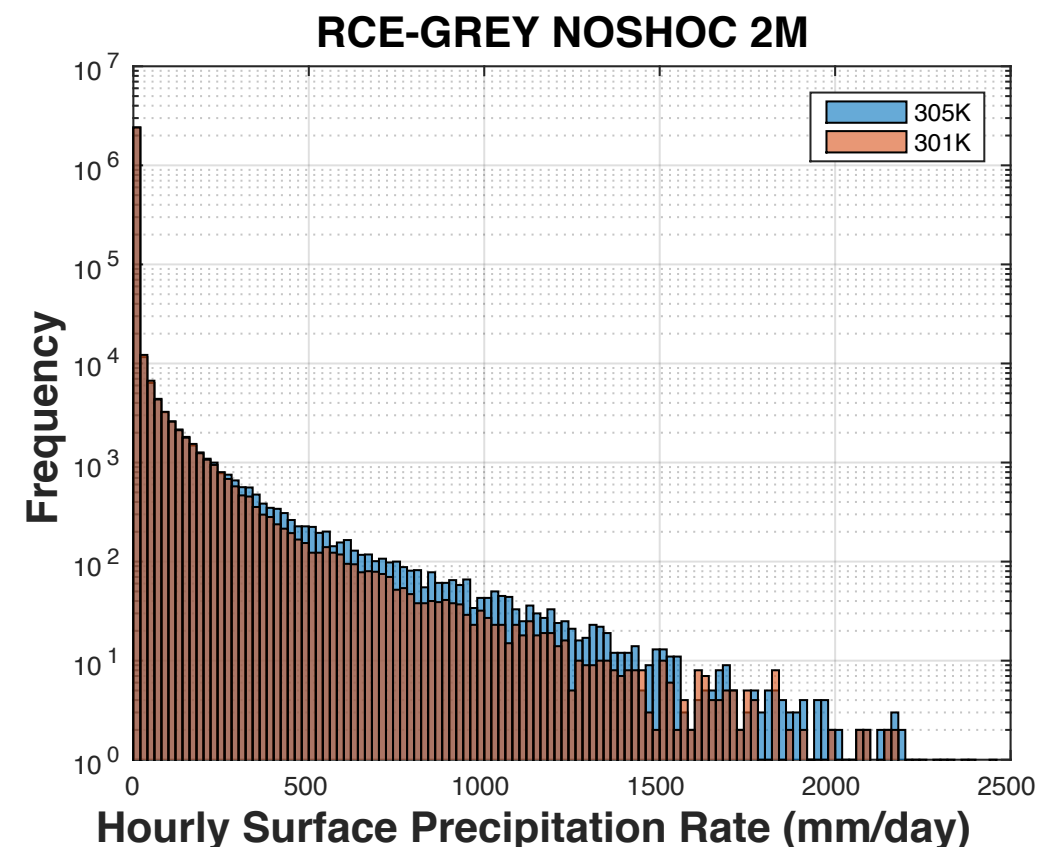
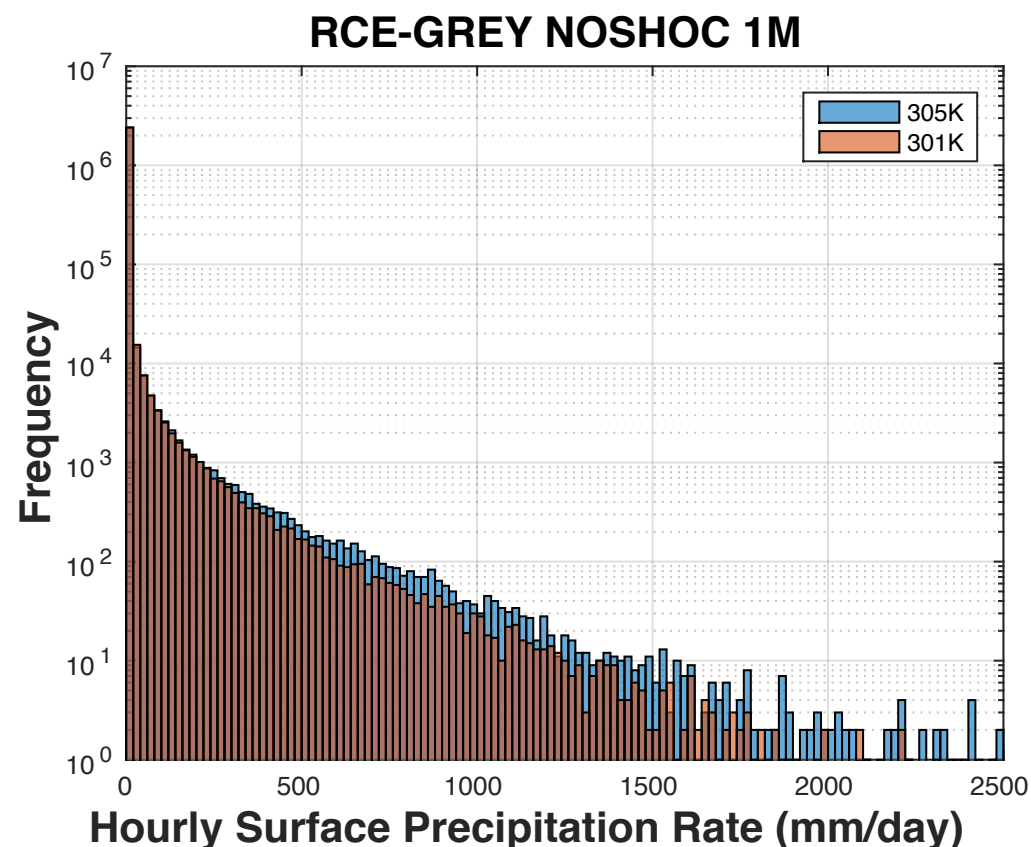
Prec 1M vs 2M

For SHOC, 2M runs have higher magnitude precip events more often.



Prec 301K vs 305K

Warmer runs
have more
moderate and
heavy precip
events in
NOSHOC.



Cooler runs have
more heavy
precip events in
SHOC but fewer
lighter precip
events.