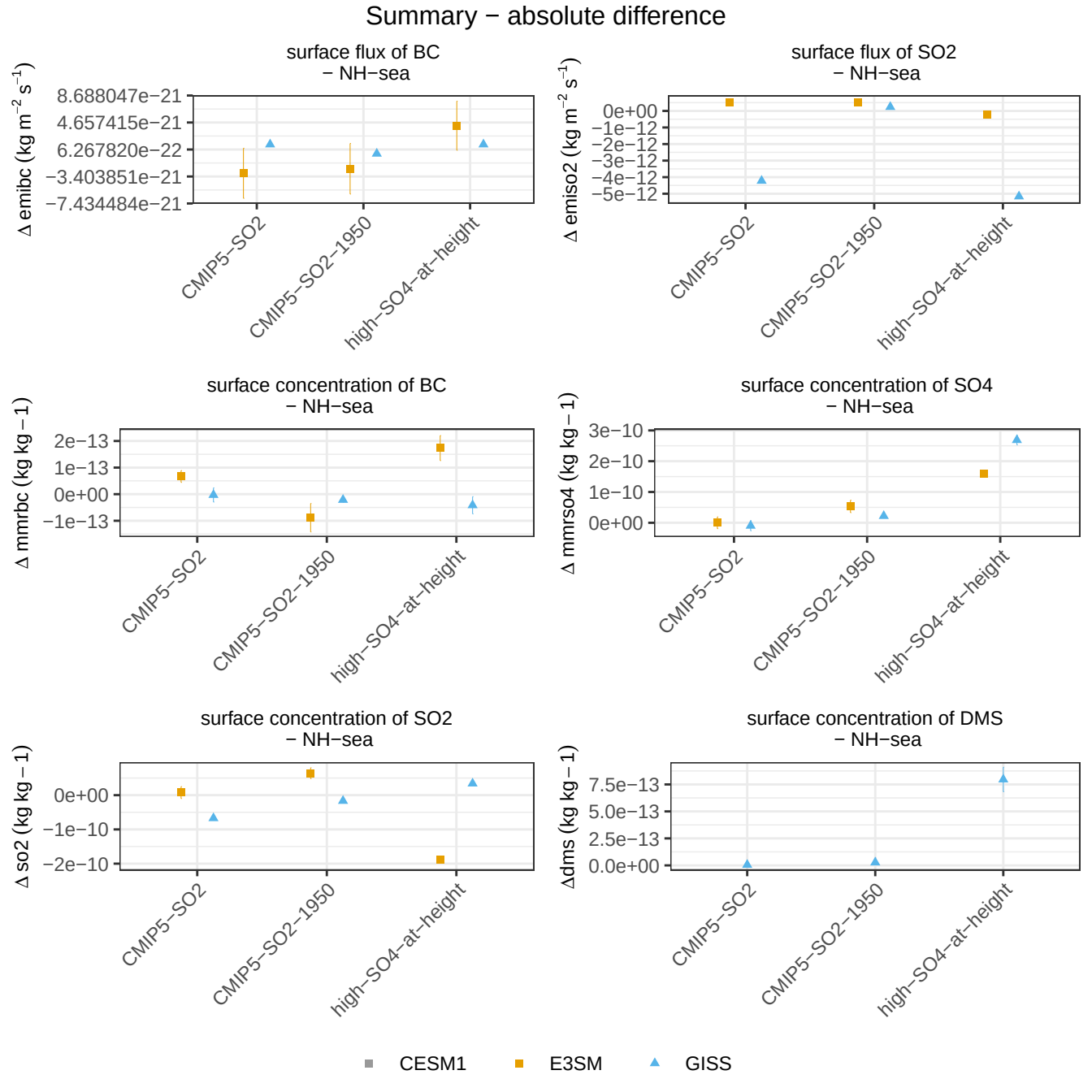
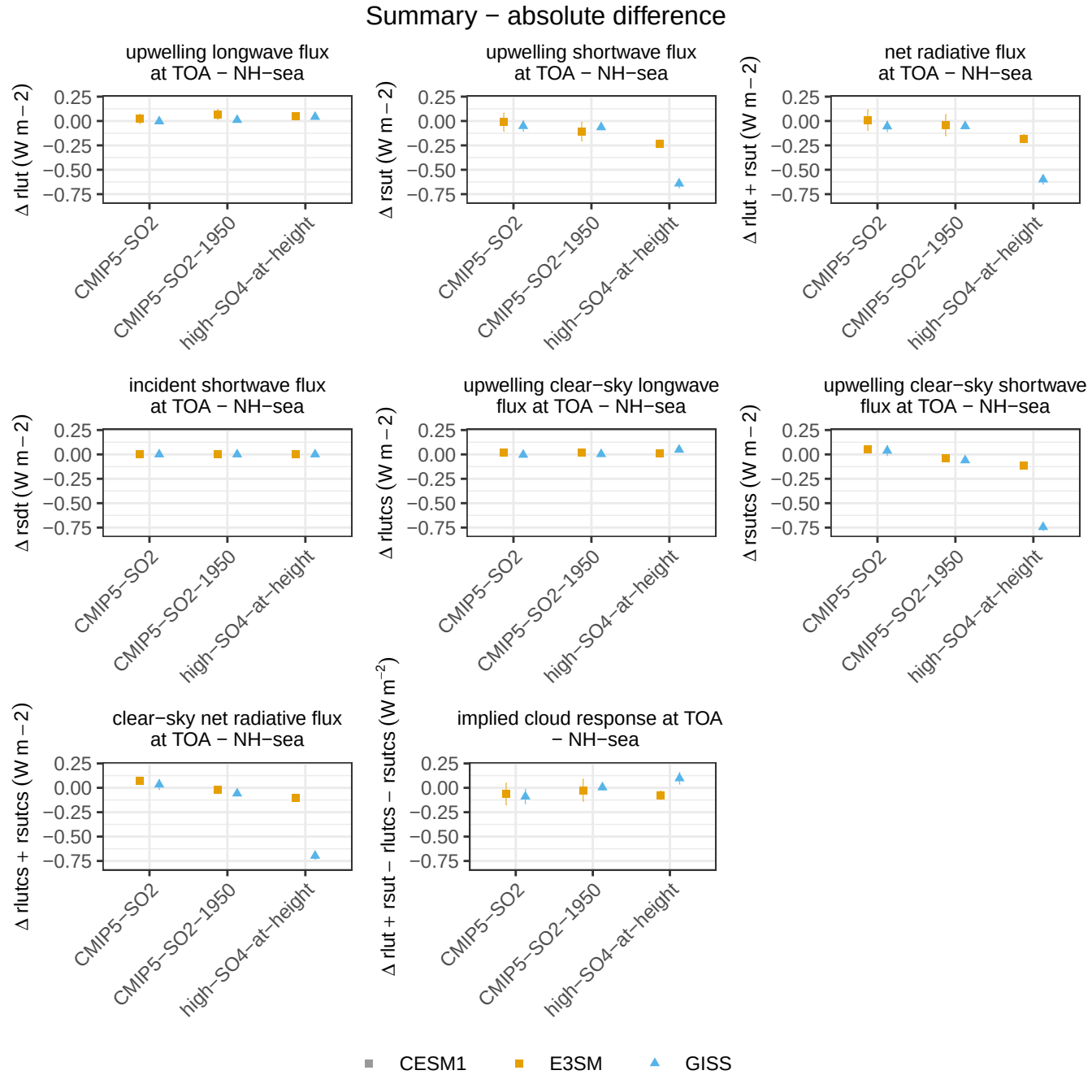
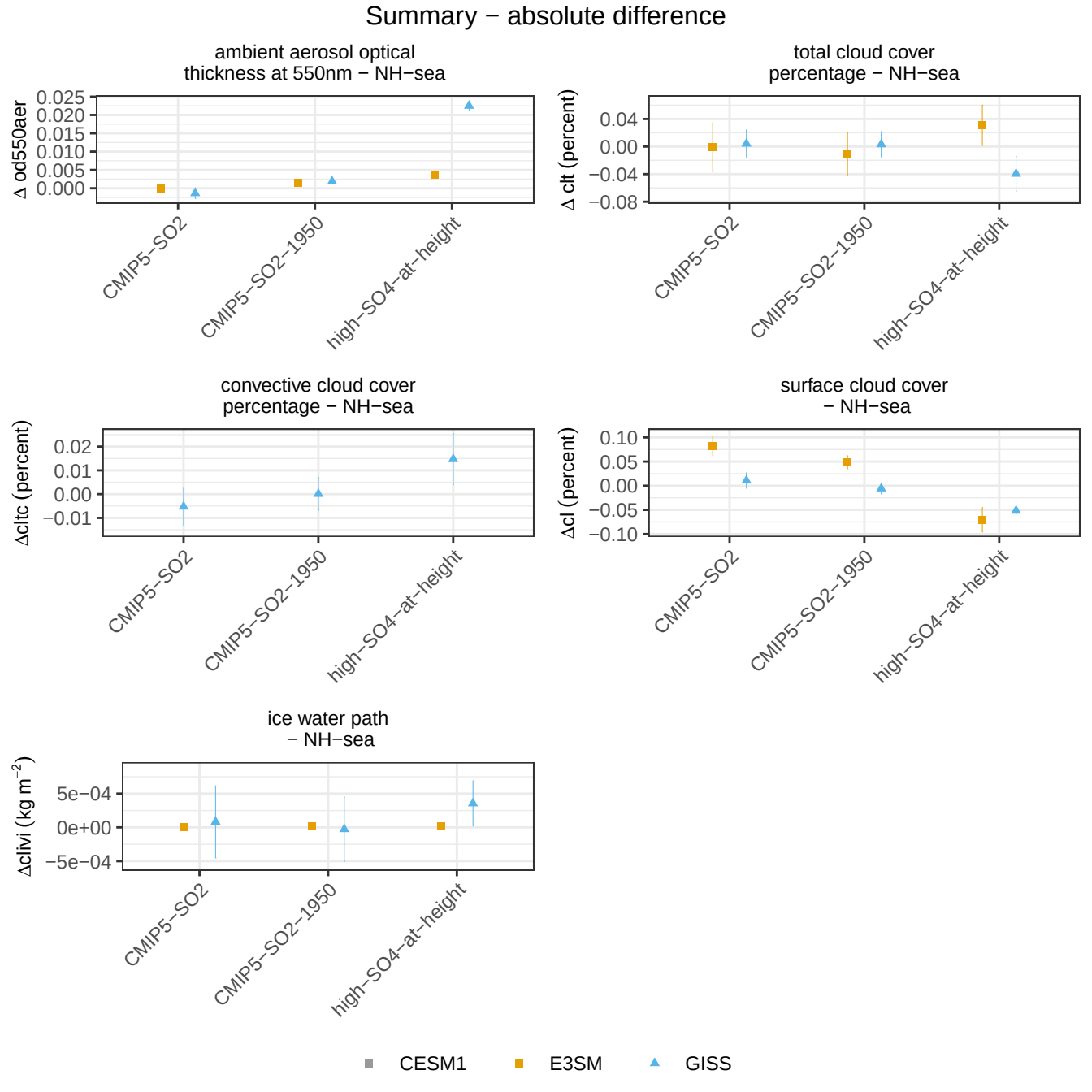
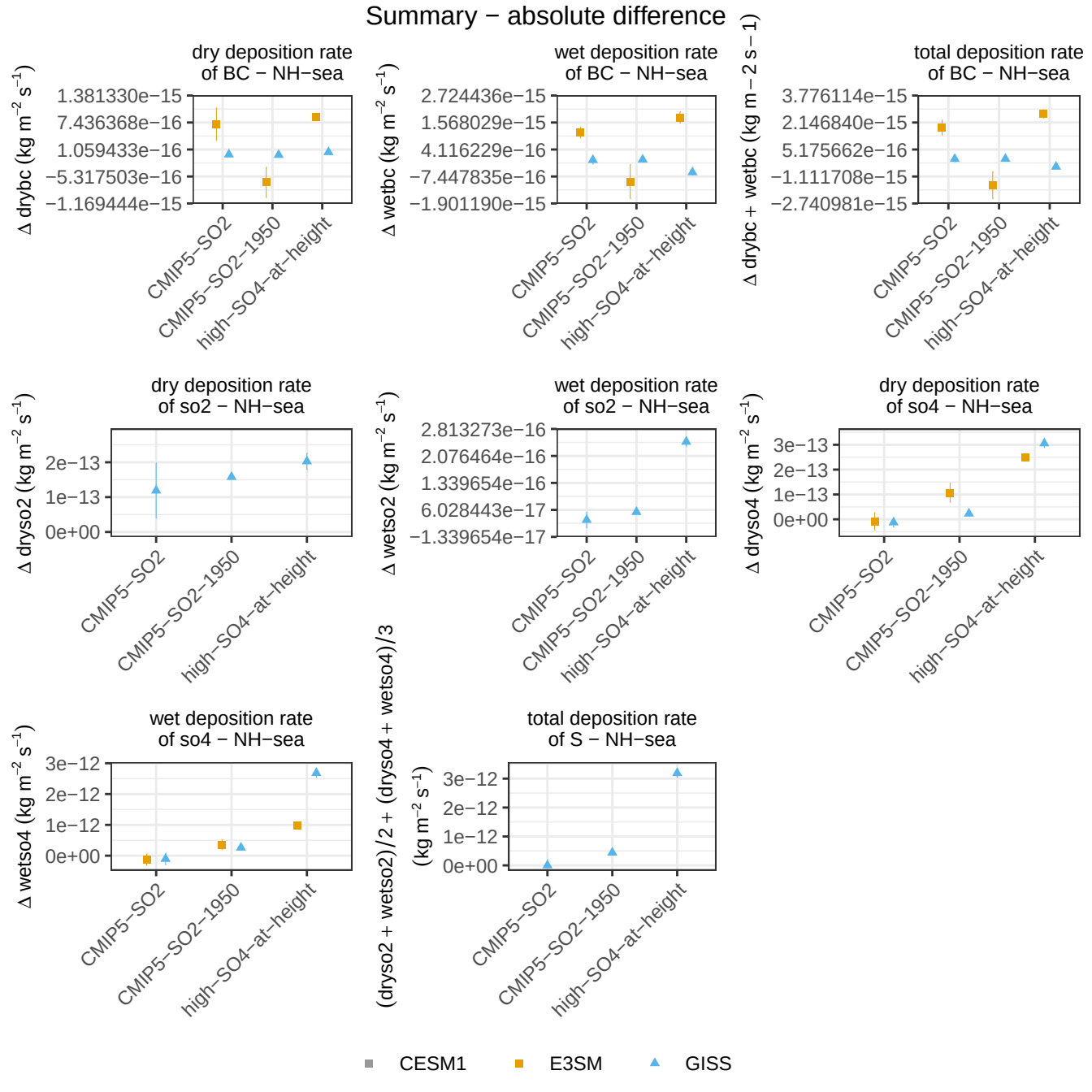
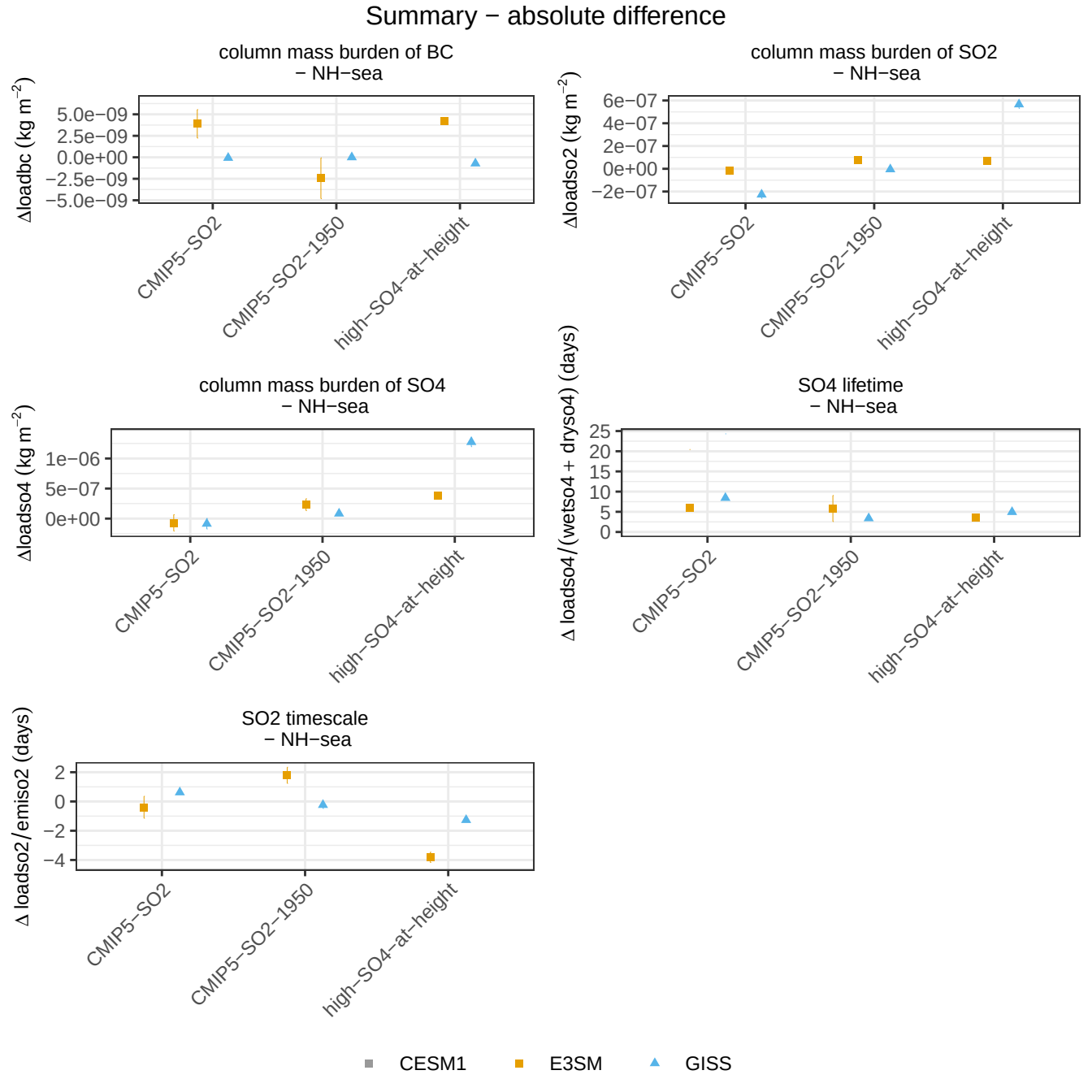

Summary − absolute difference
surface flux of BC
− NH−sea
Δ emibc (kg m−2 s−1)
8.688047e−21
4.657415e−21
6.267820e−22
−3.403851e−21
−7.434484e−21
surface flux of SO2
− NH−sea
Δ emiso2 (kg m−2 s−1)
0e+00
−1e−12
−2e−12
−3e−12
−4e−12
−5e−12
surface concentration of BC
− NH−sea
Δ mmrbc (kg kg − 1)
2e−13
1e−13
0e+00
−1e−13
surface concentration of SO4
− NH−sea
Δ mmrso4 (kg kg − 1)
3e−10
2e−10
1e−10
0e+00
surface concentration of SO2
− NH−sea
Δ so2 (kg kg − 1)
0e+00
−1e−10
−2e−10
surface concentration of DMS
− NH−sea
Δdms (kg kg − 1)
7.5e−13
5.0e−13
2.5e−13
0.0e+00
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
CESM1
E3SM
GISS


Summary − absolute difference
upwelling longwave flux at TOA − NH−sea
upwelling shortwave flux at TOA − NH−sea
net radiative flux at TOA − NH−sea
incident shortwave flux at TOA − NH−sea
upwelling clear−sky longwave flux at TOA − NH−sea
upwelling clear−sky shortwave flux at TOA − NH−sea
clear−sky net radiative flux at TOA − NH−sea
implied cloud response at TOA − NH−sea
Δ rlut (W m − 2)
Δ rsut (W m − 2)
Δ rlut + rsut (W m − 2)
Δ rsdt (W m − 2)
Δ rlutcs (W m − 2)
Δ rsutcs (W m − 2)
Δ rlutcs + rsutcs (W m − 2)
Δ rlut + rsut − rlutcs − rsutcs (W m−2)
0.25
0.00
−0.25
−0.50
−0.75
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
CESM1
E3SM
GISS


Summary − absolute difference
ambient aerosol optical thickness at 550nm − NH−sea
Δ od550aer
0.025
0.020
0.015
0.010
0.005
0.000
total cloud cover percentage − NH−sea
Δ clt (percent)
0.04
0.00
−0.04
−0.08
convective cloud cover percentage − NH−sea
Δcltc (percent)
0.02
0.01
0.00
−0.01
surface cloud cover − NH−sea
Δcl (percent)
0.10
0.05
0.00
−0.05
−0.10
ice water path − NH−sea
Δclivi (kg m^{-2})
5e−04
0e+00
−5e−04
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
CESM1
E3SM
GISS


Summary − absolute difference
dry deposition rate of BC − NH−sea
wet deposition rate of BC − NH−sea
total deposition rate of BC − NH−sea
dry deposition rate of so2 − NH−sea
wet deposition rate of so2 − NH−sea
dry deposition rate of so4 − NH−sea
wet deposition rate of so4 − NH−sea
total deposition rate of S − NH−sea
Δ drybc (kg m−2 s−1)
Δ wetbc (kg m−2 s−1)
Δ drybc + wetbc (kg m−2 s−1)
Δ dryso2 (kg m−2 s−1)
Δ wetso2 (kg m−2 s−1)
Δ dryso4 (kg m−2 s−1)
Δ wetso4 (kg m−2 s−1)
(dryso2 + wetso2)/2 + (dryso4 + wetso4)/3 (kg m−2 s−1)
1.381330e−15
7.436368e−16
1.059433e−16
−5.317503e−16
−1.169444e−15
2.724436e−15
1.568029e−15
4.116229e−16
−7.447835e−16
−1.901190e−15
3.776114e−15
2.146840e−15
5.175662e−16
−1.111708e−15
−2.740981e−15
2e−13
1e−13
0e+00
2.813273e−16
2.076464e−16
1.339654e−16
6.028443e−17
−1.339654e−17
3e−13
2e−13
1e−13
0e+00
3e−12
2e−12
1e−12
0e+00
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
CESM1
E3SM
GISS


Summary − absolute difference
column mass burden of BC
− NH−sea
Δloadbc (kg m−2)
5.0e−09
2.5e−09
0.0e+00
−2.5e−09
−5.0e−09
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
column mass burden of SO2
− NH−sea
Δloadso2 (kg m−2)
6e−07
4e−07
2e−07
0e+00
−2e−07
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
column mass burden of SO4
− NH−sea
Δloadso4 (kg m−2)
1e−06
5e−07
0e+00
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
SO4 lifetime
− NH−sea
Δ loadso4/(wetso4 + dryso4) (days)
25
20
15
10
5
0
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
SO2 timescale
− NH−sea
Δ loadso2/emiso2 (days)
2
0
−2
−4
CMIP5−SO2
CMIP5−SO2−1950
high−SO4−at−height
CESM1
E3SM
GISS