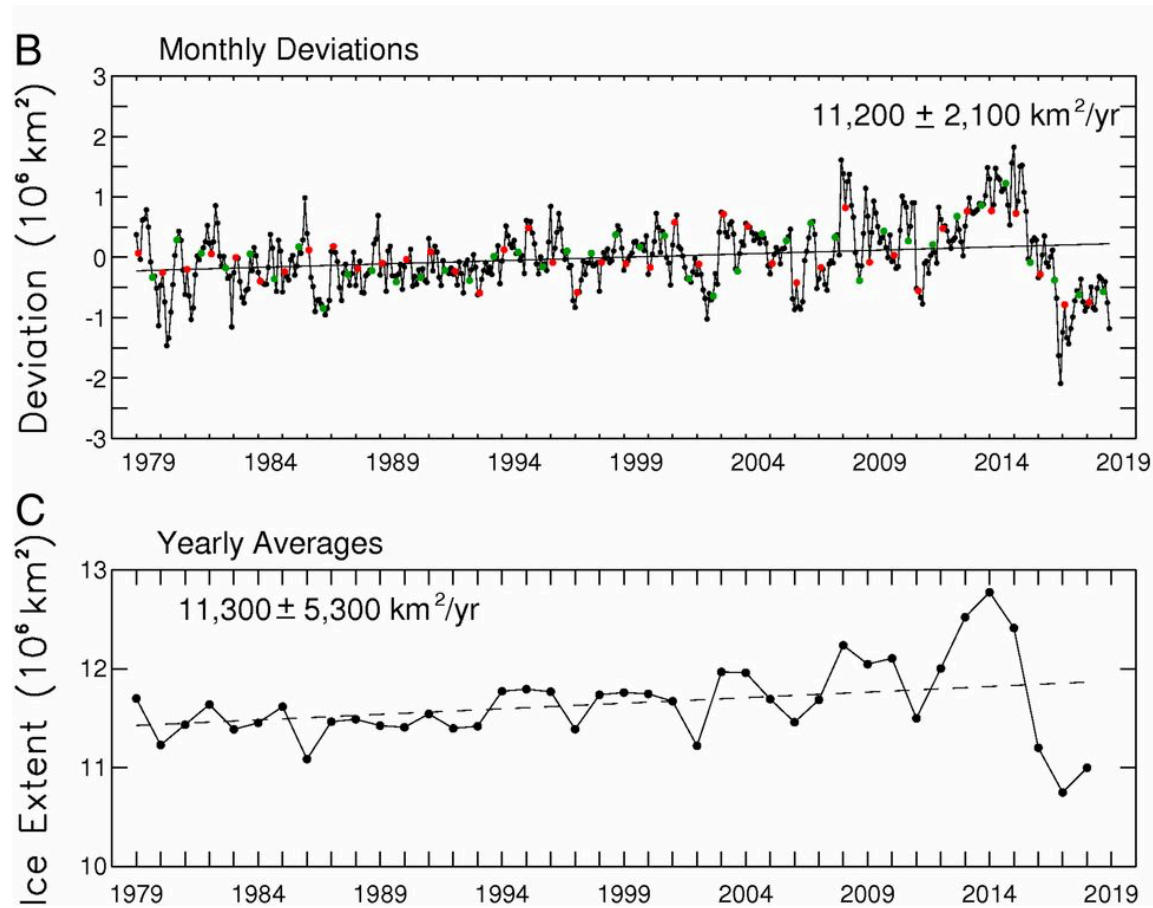


OM2 SIMULATION OF THE 2016 EXTREME ANTARCTIC SEA ICE LOSS

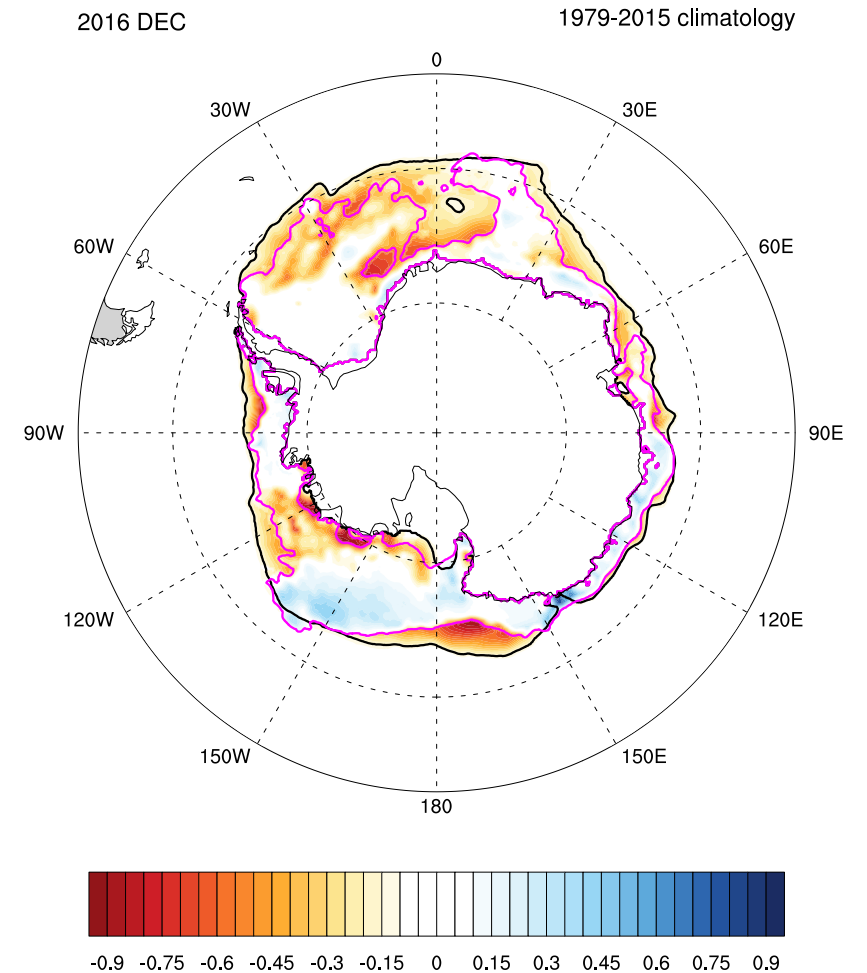
Will Hobbs



THE 2016 SEA ICE 'EVENT'



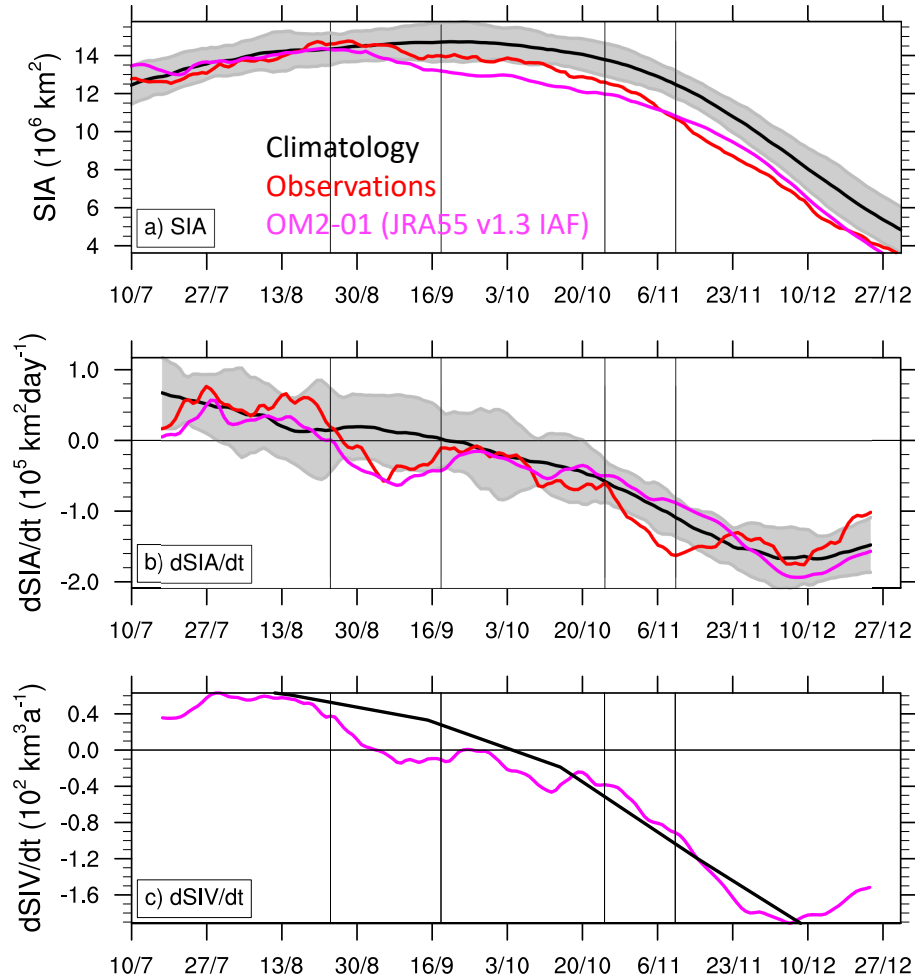
Parkinson (2019)



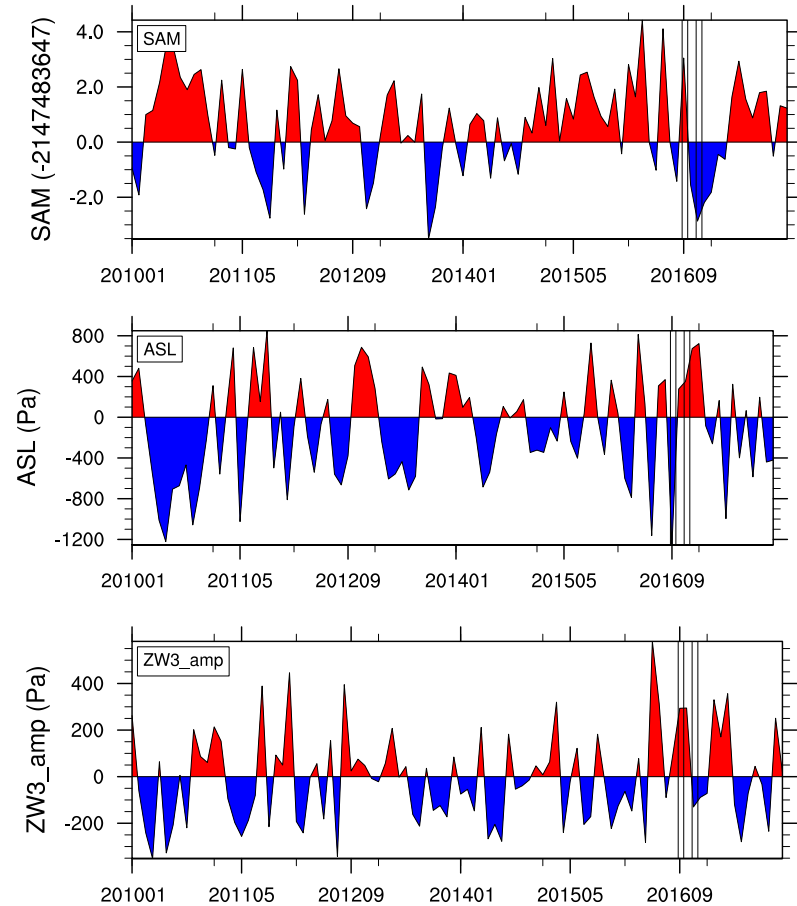
OPEN QUESTIONS

- WAS THERE A CORRESPONDING REDUCTION IN SEA ICE VOLUME?
 - Melt or dynamic redistribution?
- DID THE OCEAN PLAY A (SIGNIFICANT) ROLE, EITHER AS A PRECURSOR OR DURING THE EVENT ITSELF?

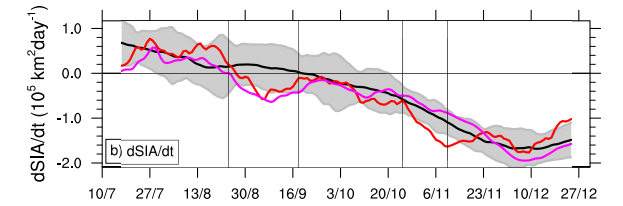
TIMELINE OF 'THE EVENT'



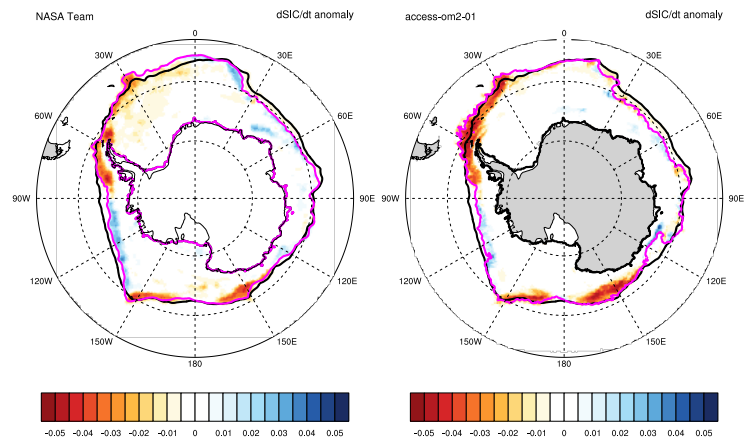
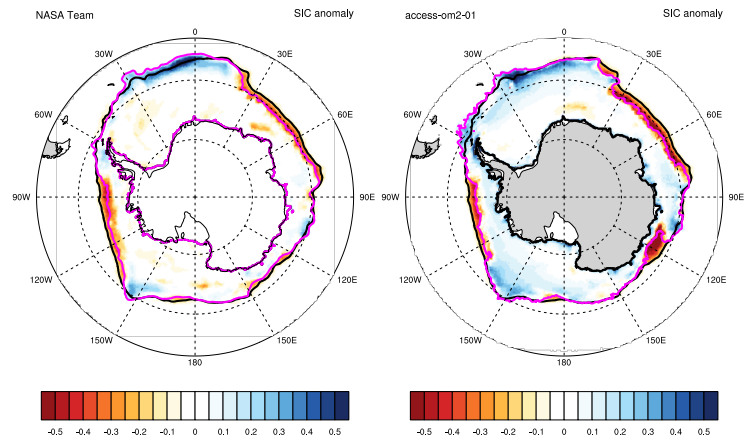
Atmospheric Indices



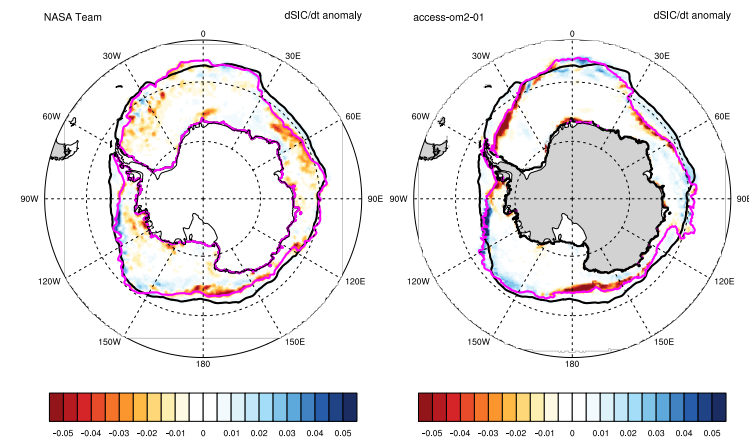
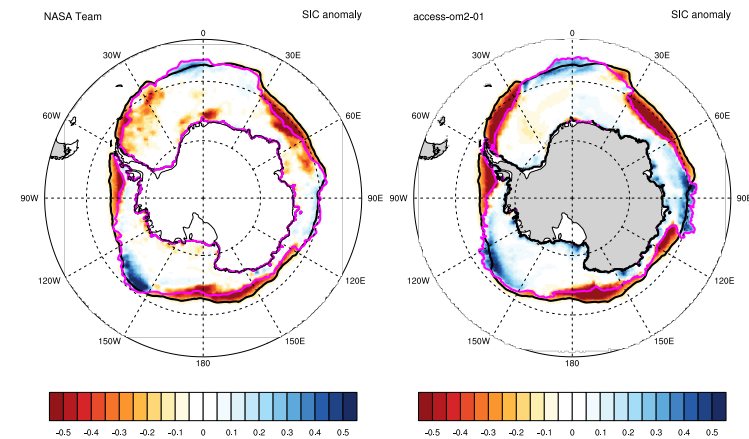
SPATIAL PATTERN OF CHANGES



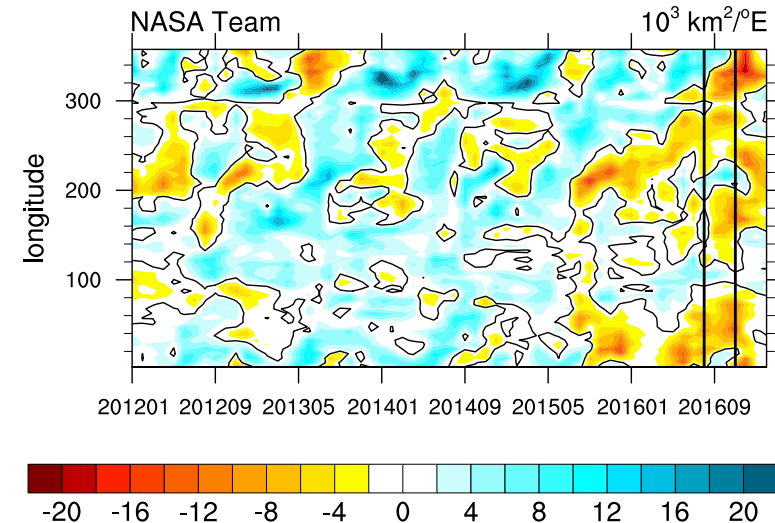
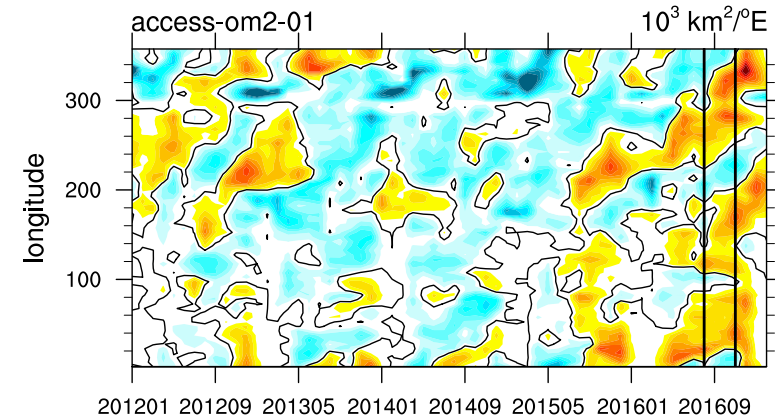
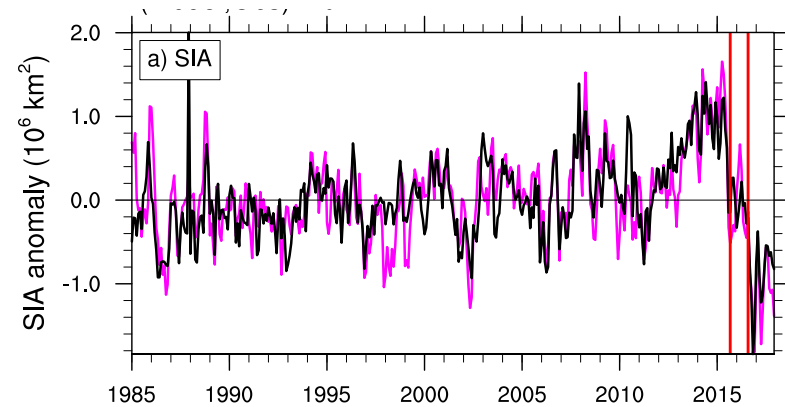
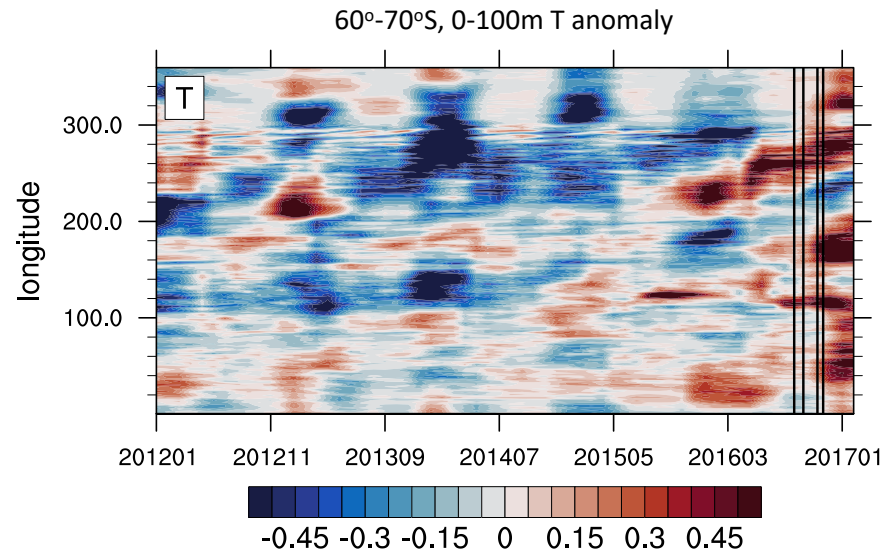
24-08-2016 - 18-09-2016 (Initial loss)



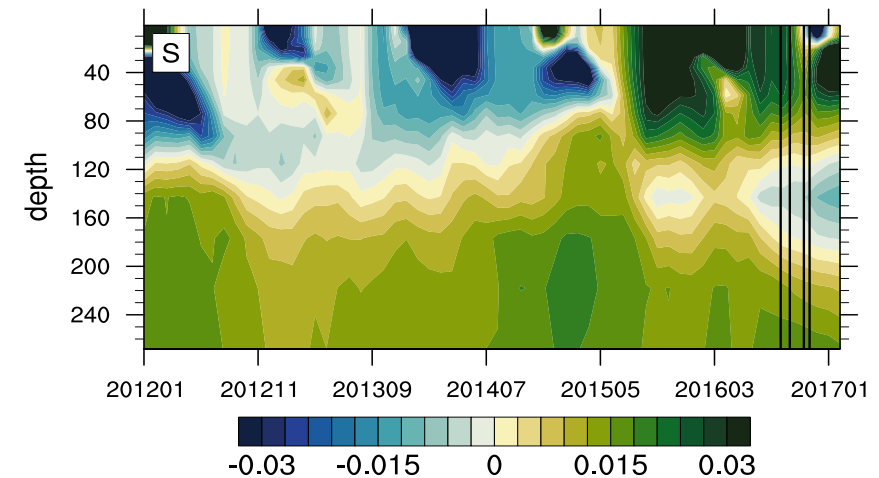
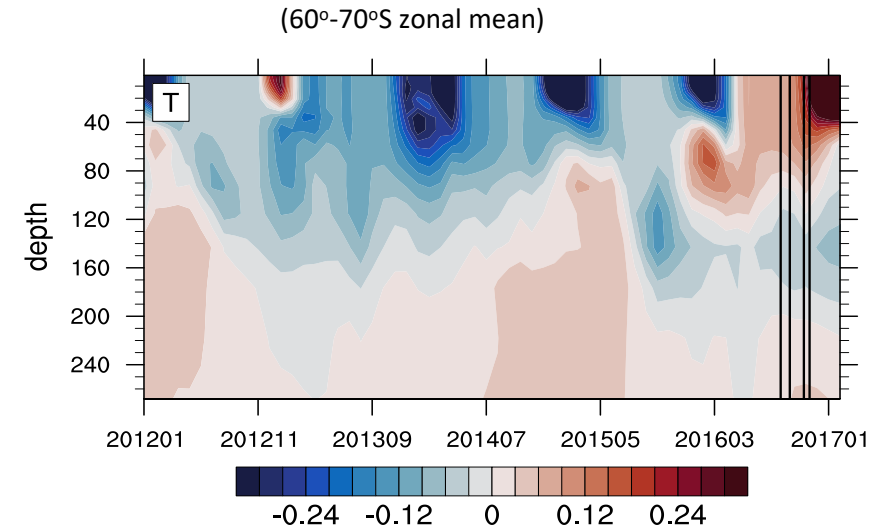
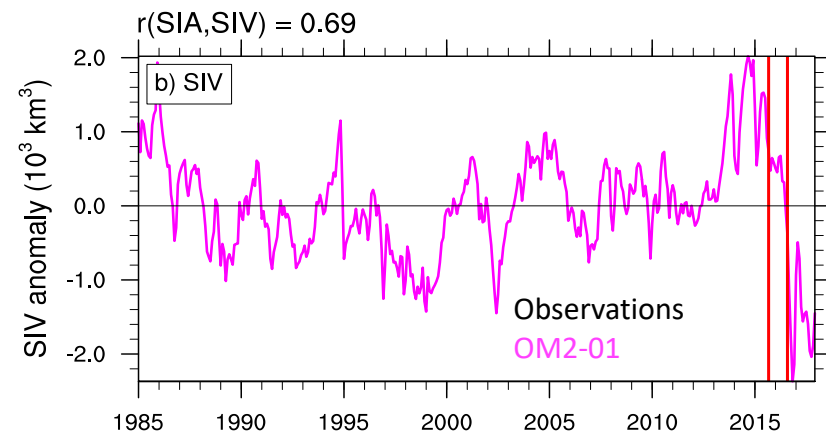
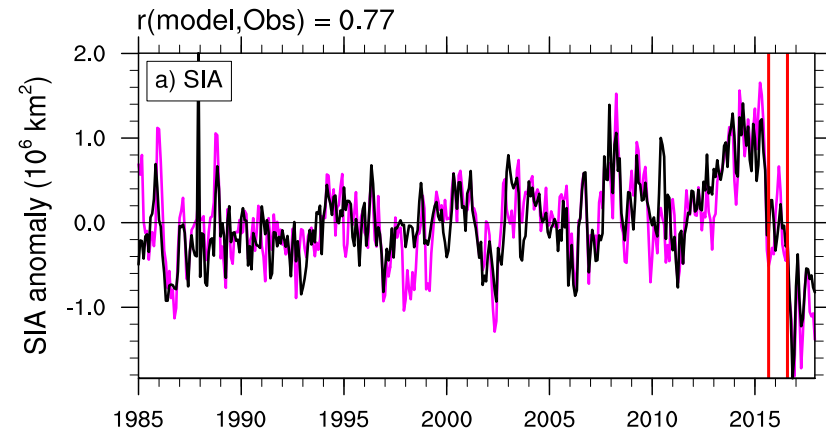
25-10-2016 - 10-11-2016 (October-November loss)



DID THE OCEAN PLAY A ROLE?



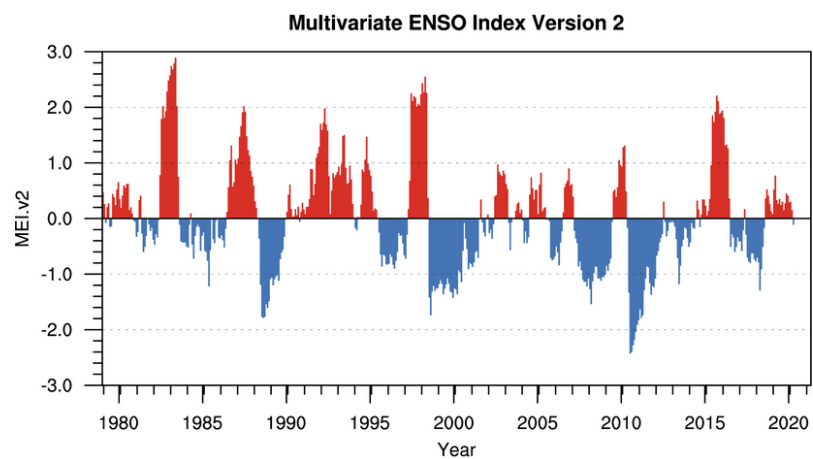
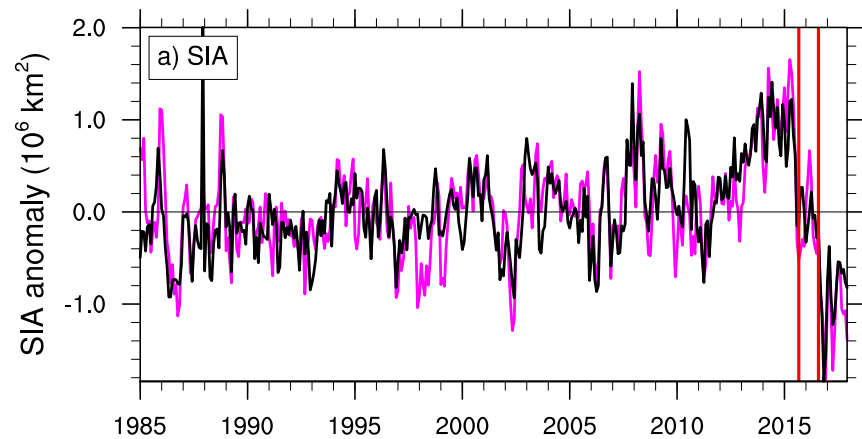
DID THE OCEAN PLAY A ROLE?



SUMMARY (SO FAR)

- SUMMER 2016/2017 EXTREME LOW ANTARCTIC SEA ICE COVER RESULTED FROM:
 - AN INITIAL, EXTREME LOSS IN LATE AUGUST-EARLY SEPTEMBER
 - A SECOND RETREAT IN LATE OCTOBER-EARLY NOVEMBER
- OM2-01 SIMULATES THE FORMER BUT NOT THE LATTER. THE 2ND RETREAT IS A STRONG ZW3 PATTERN, BUT THE OBS DO NOT HAVE OFFSETTING REGIONS OF ADVANCE AS WELL AS RETREAT
- 2016 EVENT MAY HAVE RESULTED FROM 2015 MELT SEASON

ENSO?



+ve ENSO response

