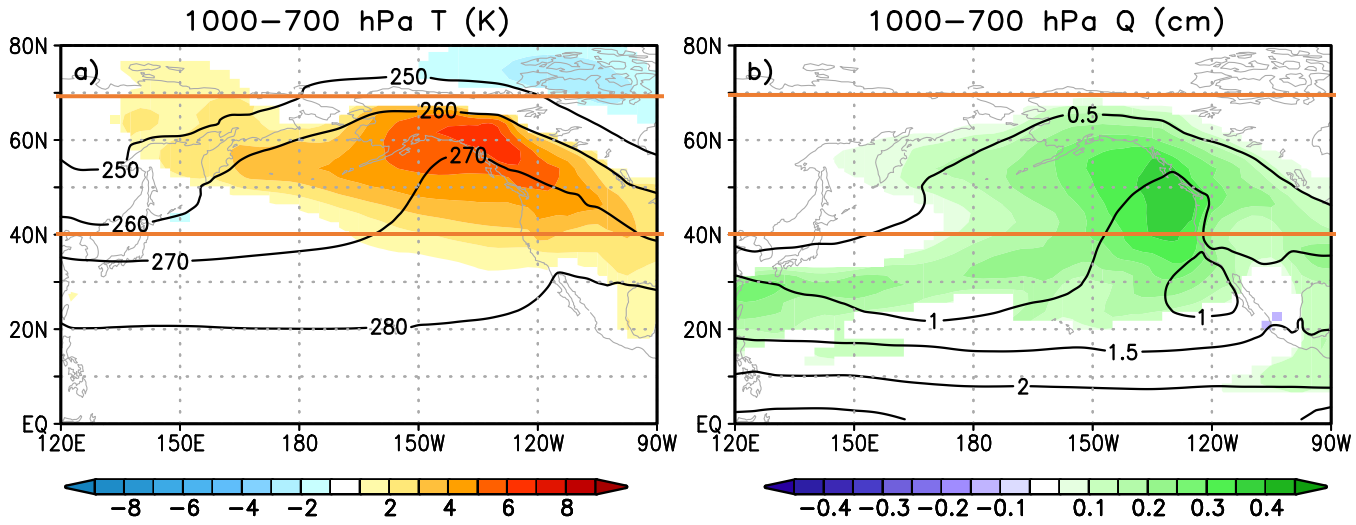
Impact of Relaxation on Mean Temperature and Moisture



Low level warming and moistening in the northeastern Pacific and western North America in *Clim*

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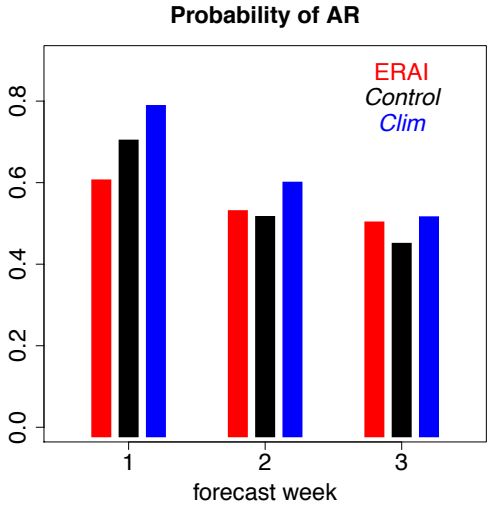
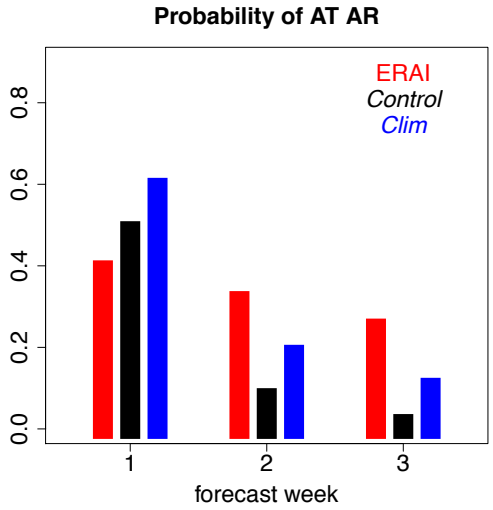
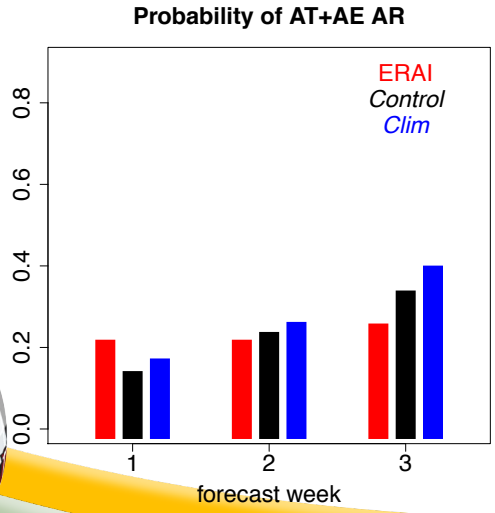
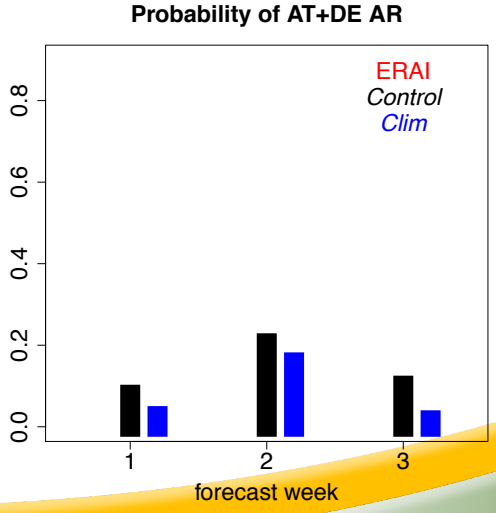
Fractional Probability of AR occurrence

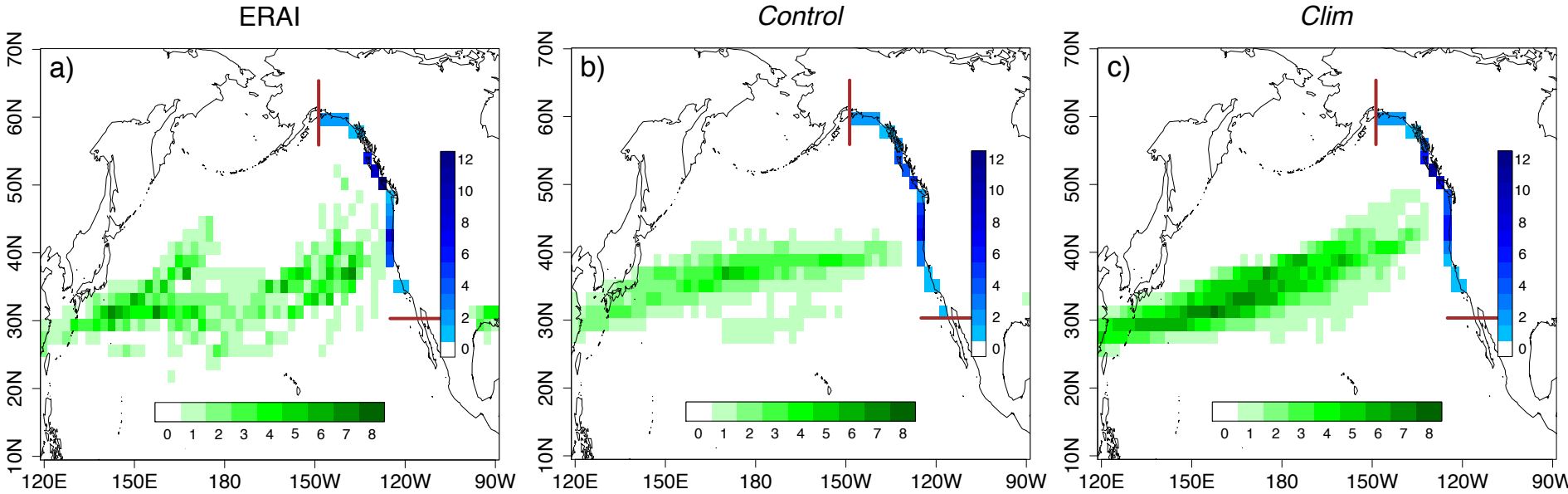








AR Tracks and Landfall Occurrence



In *Clim*:

Increase of AR events in the West Pacific relative to *Control*

ARs shift northward as they move into the eastern Pacific

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AR Average Duration (days)

AR duration	AT	AT+AE	AT+DE	Mixture	All
ERAI	1.02	1.55	_____	2.12	1.32
Control	1.34	2.08	1.82	4.74	2.50
Clim	1.73	2.53	0.97	4.98	2.68

Probability of ARs making landfall

AR duration	AT	AT+AE	AT+DE	Mixture	All
ERAI	0.48	0.5	_____	0.31	0.47
Control	0.60	0.32	0.19	0.49	0.44
Clim	0.48	0.55	0.13	0.54	0.50

Average Latitude (°N) of Landfall for AR Events

AR duration	AT	AT+AE	AT+DE	Mixture	All
ERAI	51.7	47.6	_____	53.1	50.3
Control	49.7	43.7	41.2	48.2	47.3
Clim	51.1	46.0	46.2	48.9	48.5

Conclusions

- Mid-latitude high frequency variability has a significant influence on the characteristics of ARs including the probability of occurrence, type of event, length of event, and landfall location
- The forecast skill of midlatitude variability can influence the forecast skill of AR events
- Additional studies of more events and with other models can shed more light on the role of midlatitude variability on the AR events.