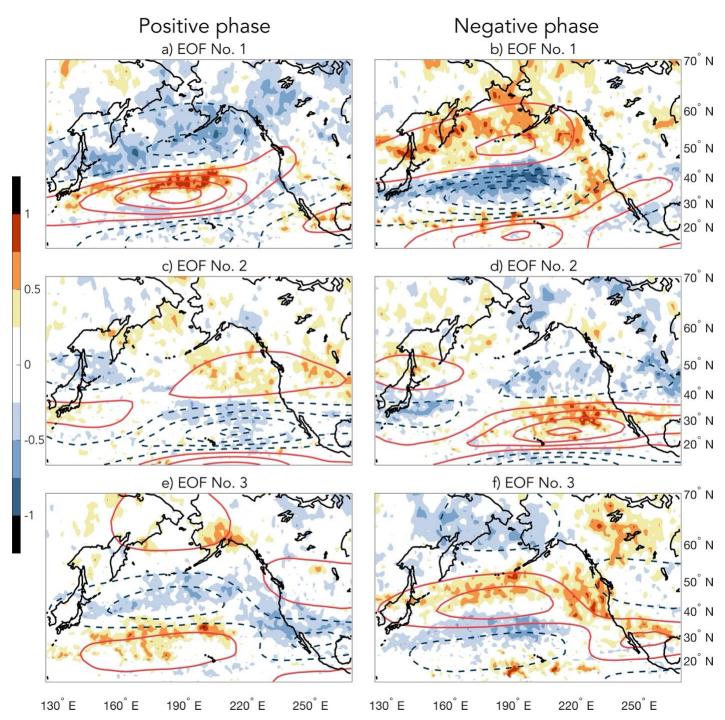
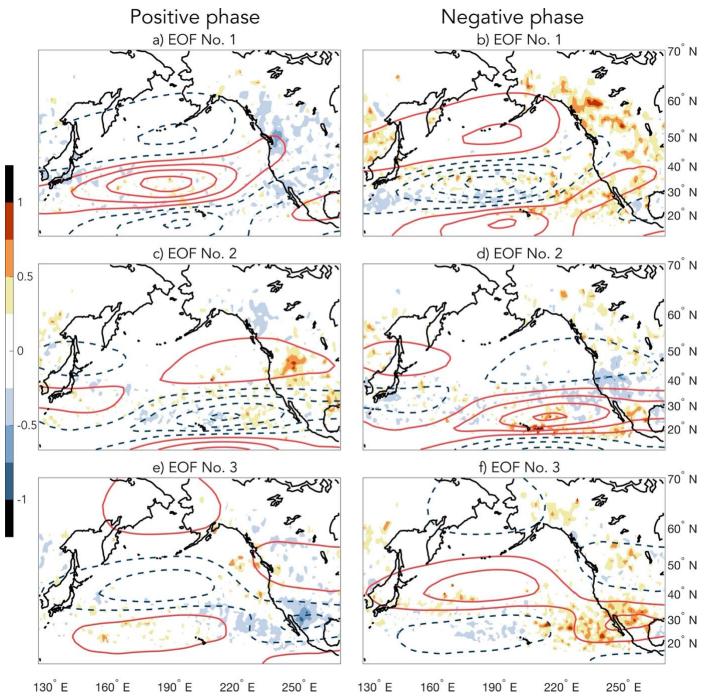


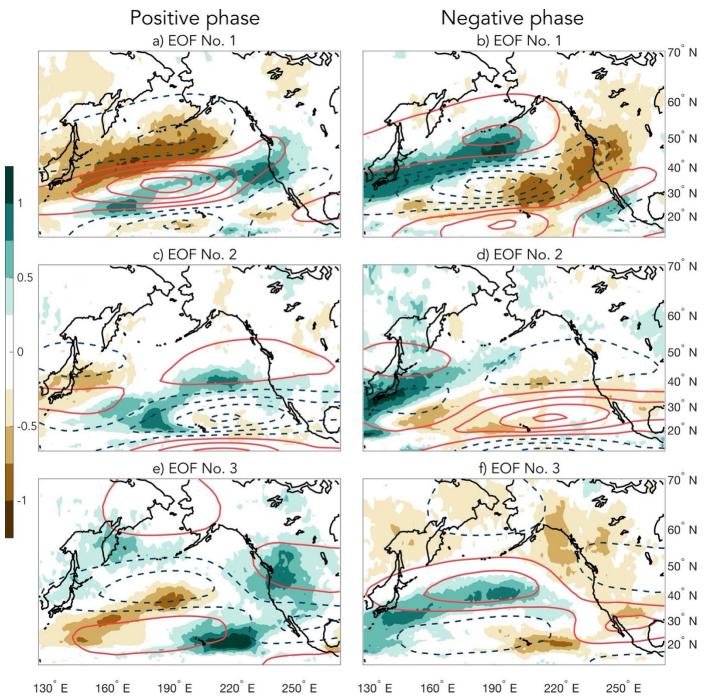
**Figure S1:** Monthly mean (MAM, 1979-2014) jet frequencies (filled contours) for time periods when PCs 1-3 are greater than +/-1 STDs from climatology (units of STDs). Colored contours show the EOF patterns associated with each composite.



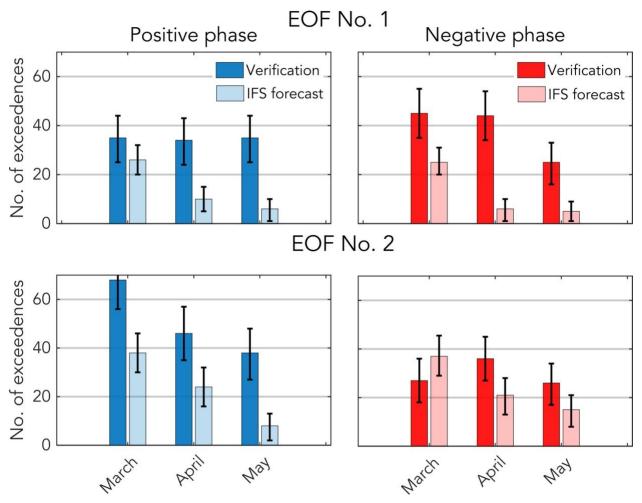
**Figure S2:** Monthly mean (MAM, 1979-2014) frequencies of STT to 500 hPa (filled contours) for time periods when PCs 1-3 are greater than +/-1 STDs from climatology (units of STDs). Colored contours show the EOF patterns associated with each composite.



**Figure S3:** Monthly mean (MAM, 1979-2014) frequencies of STT to the PBL (filled contours) for time periods when PCs 1-3 are greater than +/-1 STDs from climatology (units of STDs). Colored contours show the EOF patterns associated with each composite.



**Figure S4:** Monthly mean (MAM, 1979-2014) frequencies of TME (filled contours) for time periods when PCs 1-3 are greater than +/-1 STDs from climatology (units of STDs). Colored contours show the EOF patterns associated with each composite.



**Figure S5:** Number of times that a weeks 3-5 average verification or forecast exceeded the 0.8 STD threshold for the 1997-2016 hindcast period (i.e., the periods in Fig. 4 where the black or orange lines, respectively, was above or below the dashed horizontal STD reference lines). 95<sup>th</sup> percentile bootstrap confidence intervals are shown as whiskers.