

High Resolution Real Time Weather Forecast

Mesoscale Model: Weather Research and Forecasting Model (Version 3.3)

Horizontal Resolution: Nested Domain (45 Km, 15 Km and 5 Km)

Grid Points: Domain 1: 260×235 (45 Km)

Domain 2: 352×373 (15 Km)

Domain 3: 676×721 (5 Km)

Vertical Levels: 36 (upto 10 hPa)

Assimilation Method: 3-Dimensional Variational Data Assimilation (3D-Var)

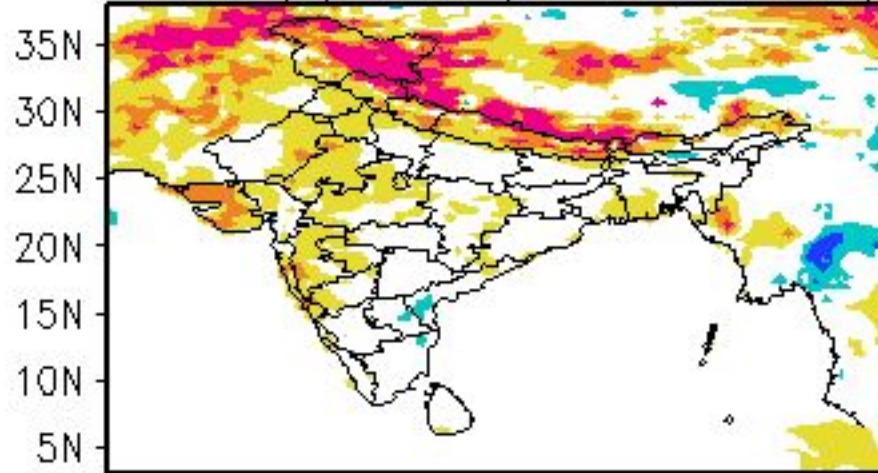
Data Used for Assimilation:

ISRO's AWS, INSAT AMV, Vertical profiles from GTS, Ocean Surface Winds from Oceansat-2 and ASCAT Scatterometer, Temperature and Moisture Profiles from ATOVS and IASI (EUMETCast), Refractivity from GRAS RO (EUMETCast), Conventional observation and AMVs available through GTS.

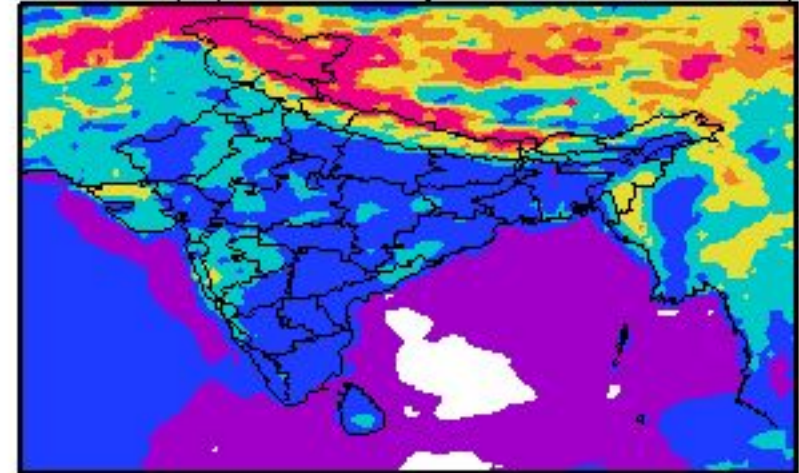
Error Statistics in Surface Meteorological Parameter

Forecast Hour	Temperature (C)	Relative Humidity (%)	Wind Speed (m/s)
	Rmsd (Bias)	Rmsd (Bias)	Rmsd (Bias)
24 Hour	1.58(0.16)	11.26(-4.22)	2.19(0.09)
48 Hour	1.73(0.04)	12.11(-4.47)	2.36(-0.01)
72 Hour	1.86(-0.05)	12.55(-4.39)	2.52(-0.16)

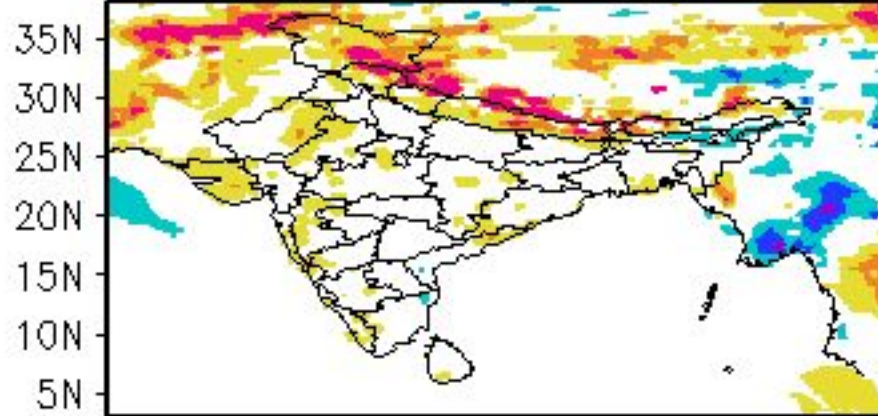
TEMP (C) BIAS (24 hr Forecast)



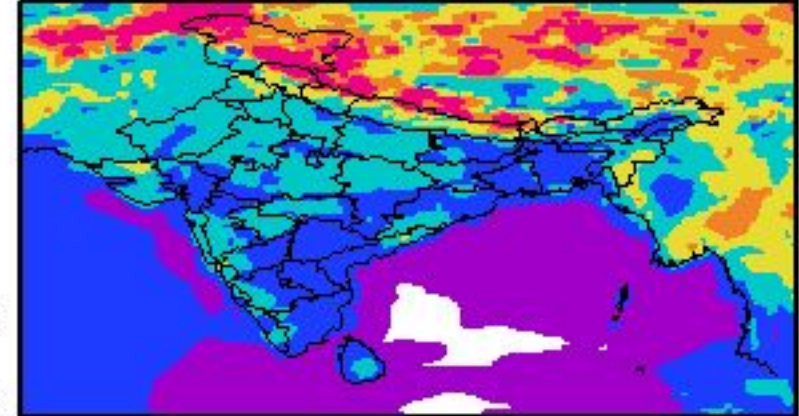
TEMP (C) RMSD (24 hr Forecast)



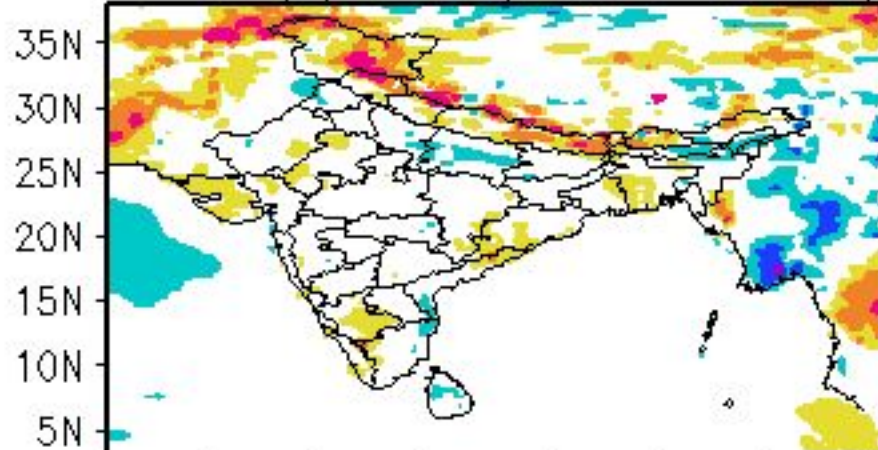
TEMP (C) BIAS (48 hr Forecast)



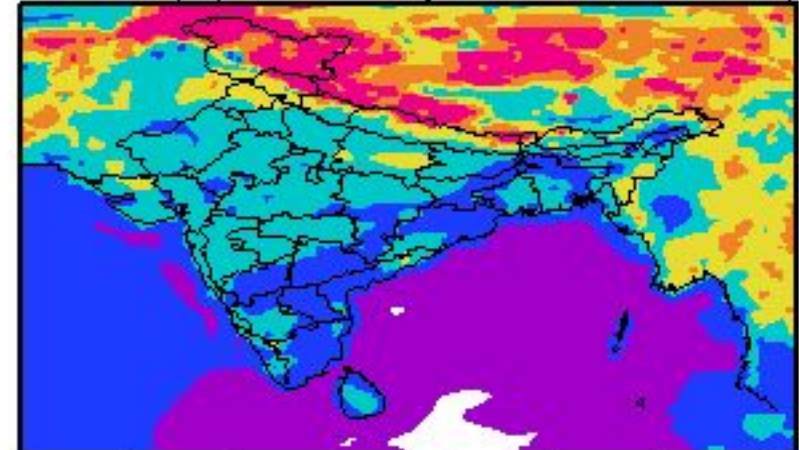
TEMP (C) RMSD (48 hr Forecast)



TEMP (C) BIAS (72 hr Forecast)



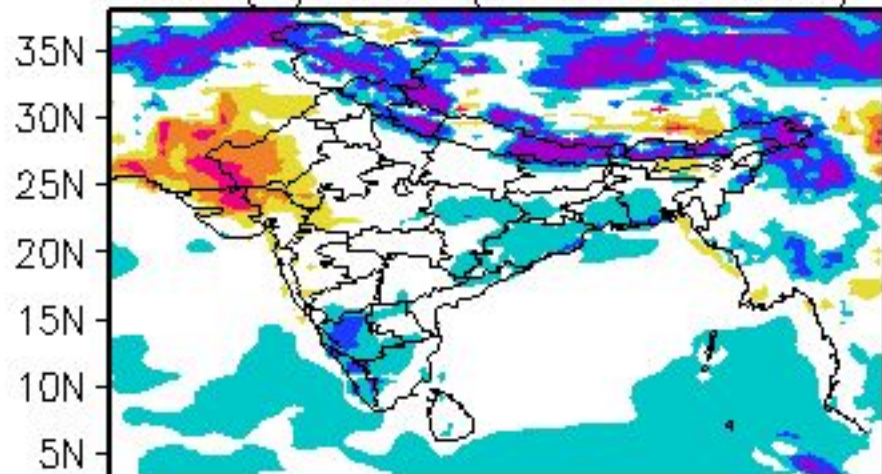
TEMP (C) RMSD (72 hr Forecast)



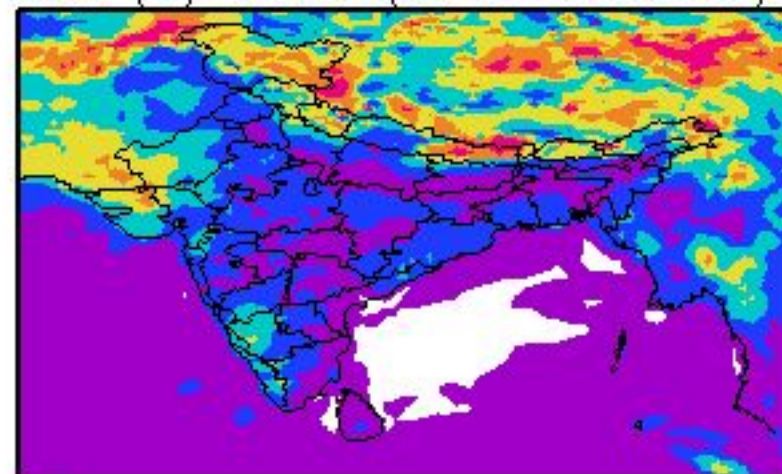
65E 70E 75E 80E 85E 90E 95E 100E

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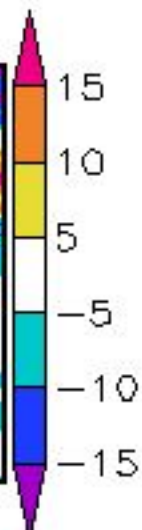
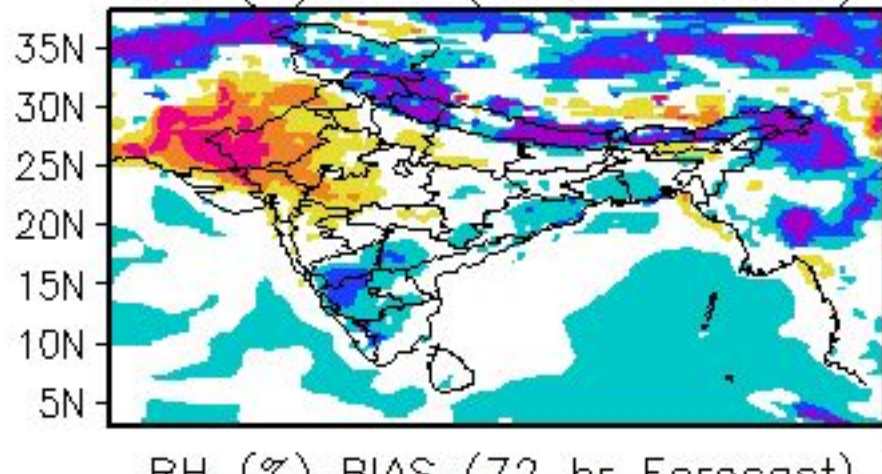
RH (%) BIAS (24 hr Forecast)



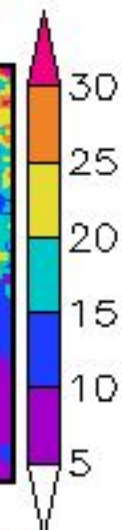
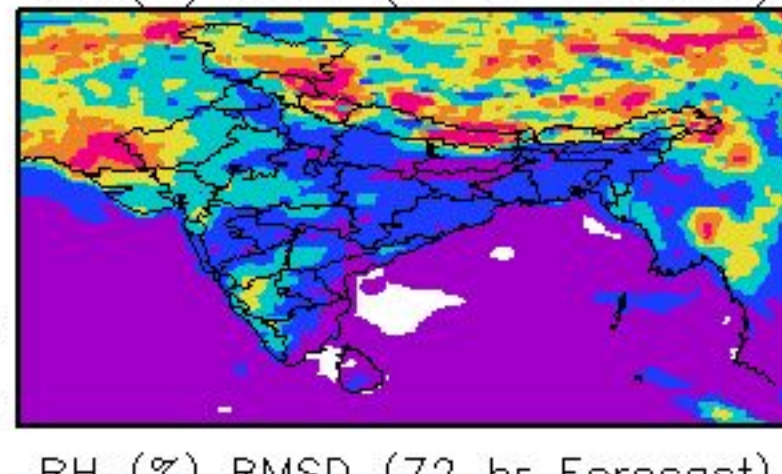
RH (%) RMSD (24 hr Forecast)



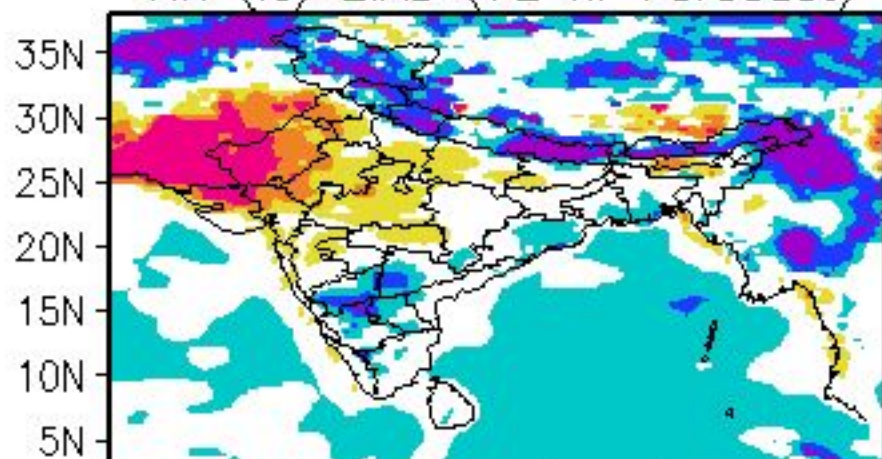
RH (%) BIAS (48 hr Forecast)



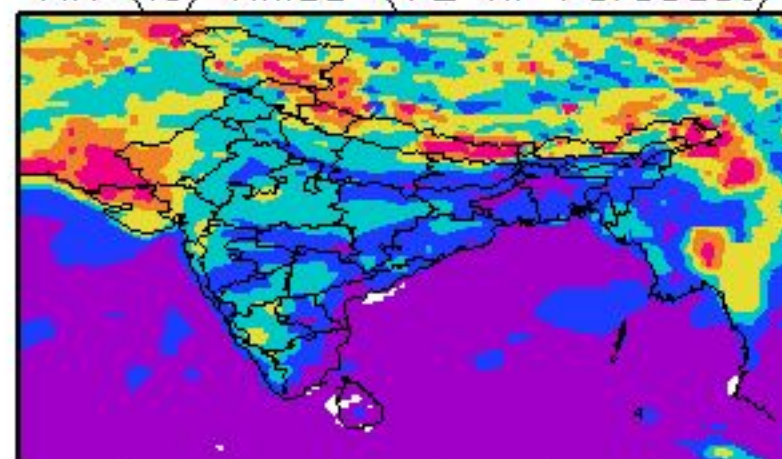
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RH (%) BIAS (72 hr Forecast)



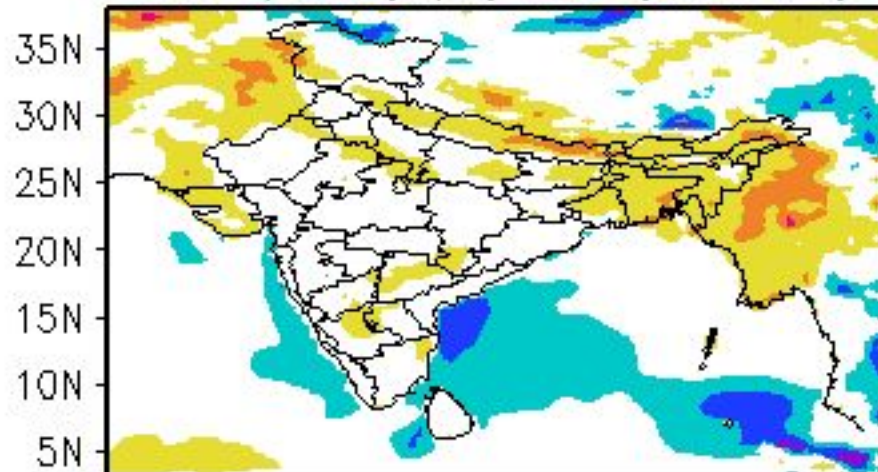
RH (%) RMSD (72 hr Forecast)



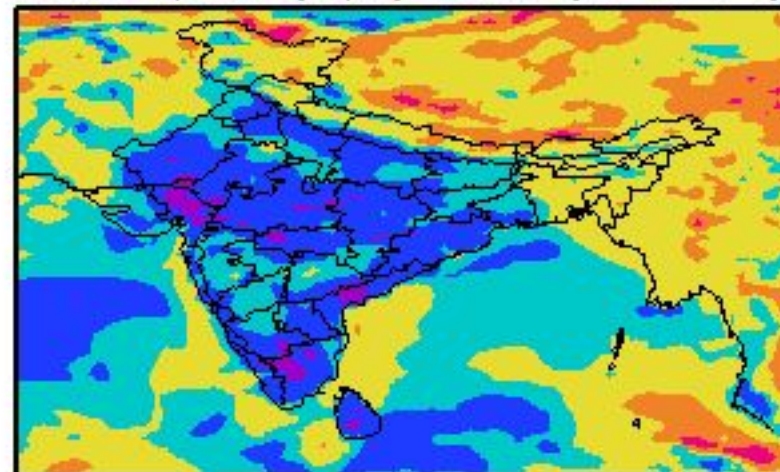
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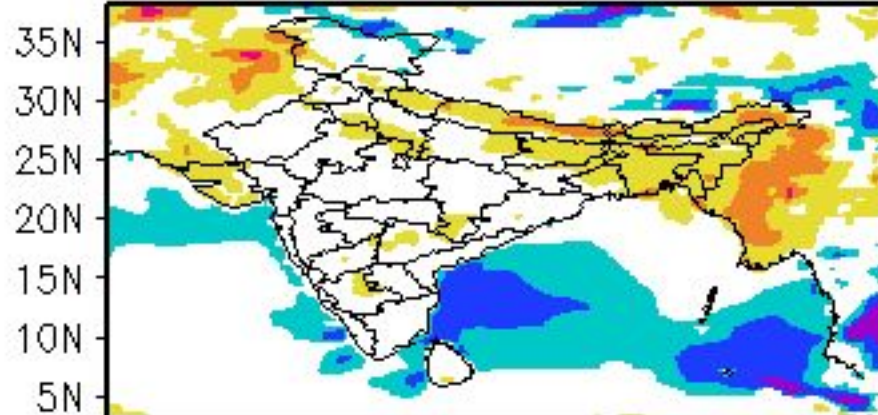
Wind Speed (m/s) BIAS (24 hr FC)



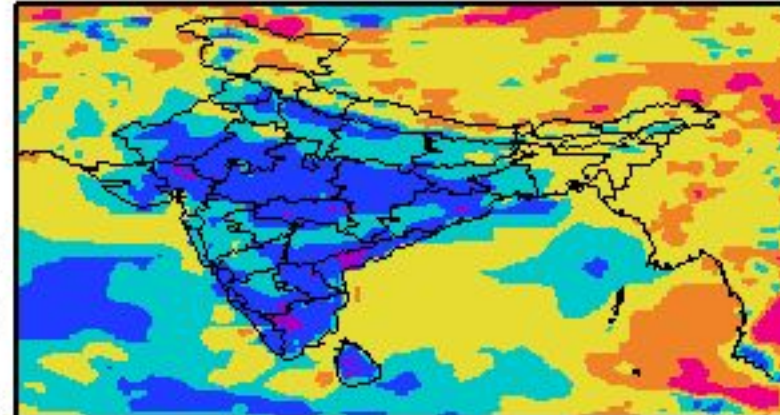
Wind Speed (m/s) RMSD (24 hr FC)



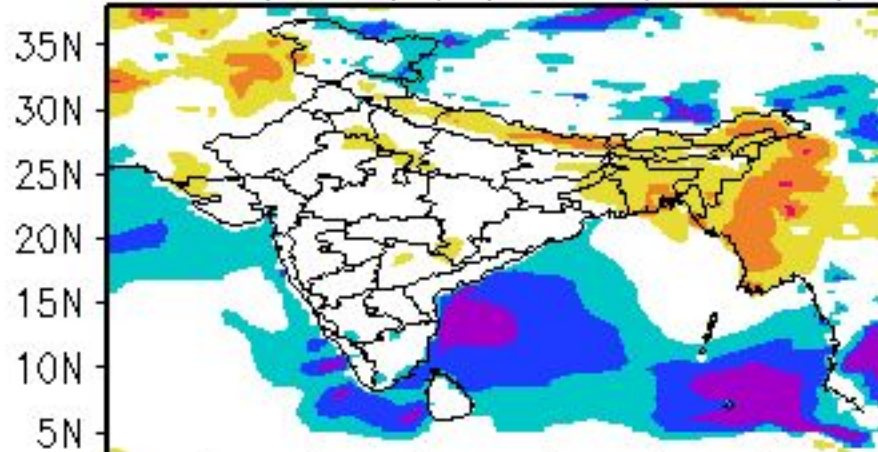
Wind Speed (m/s) BIAS (48 hr FC)



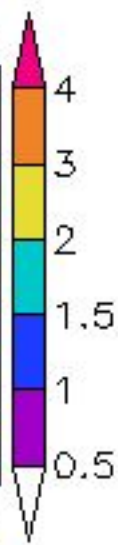
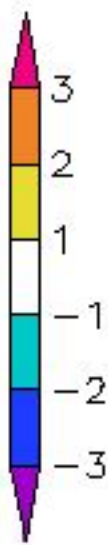
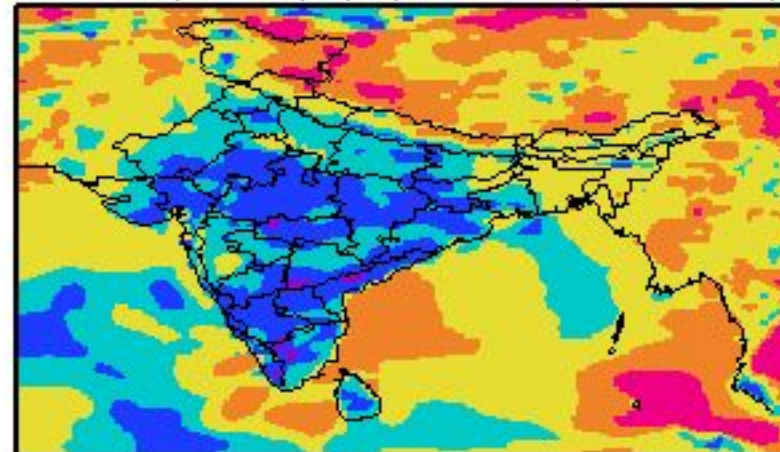
Wind Speed (m/s) RMSD (48 hr FC)



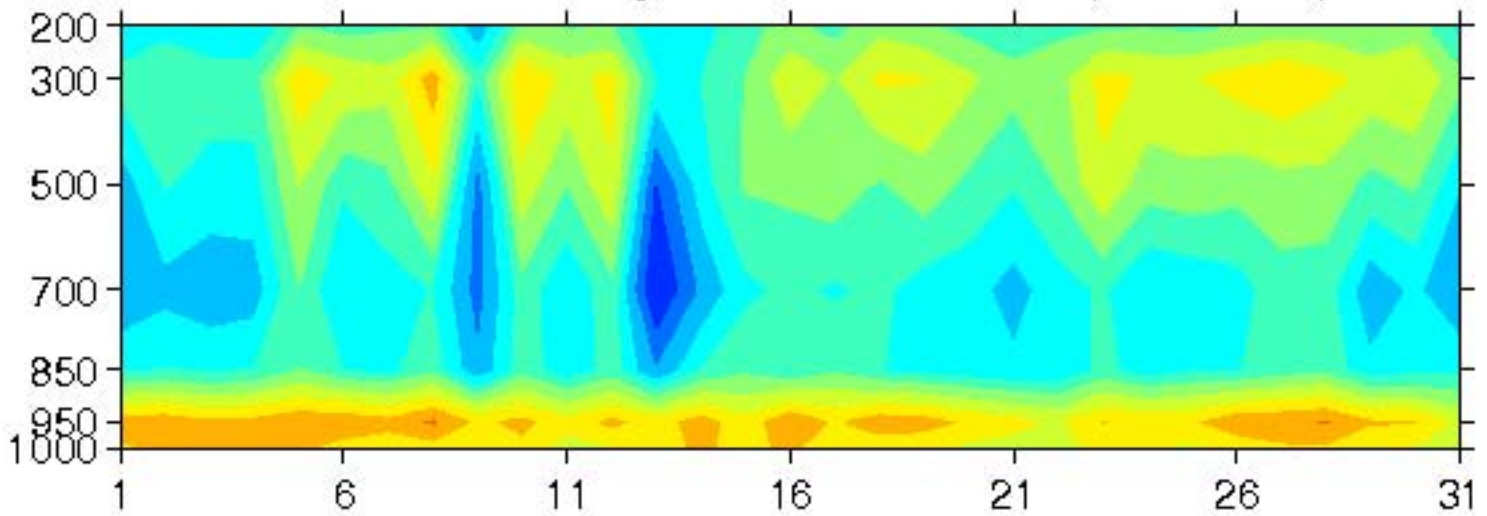
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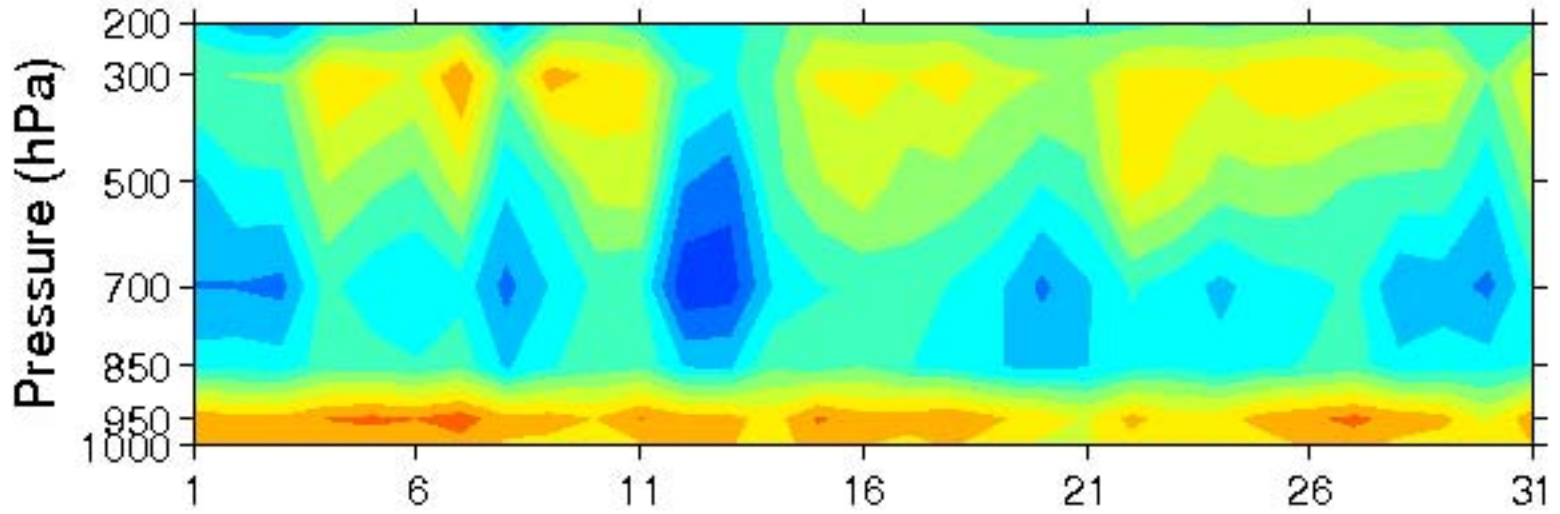
Wind Speed (m/s) RMSD (72 hr FC)



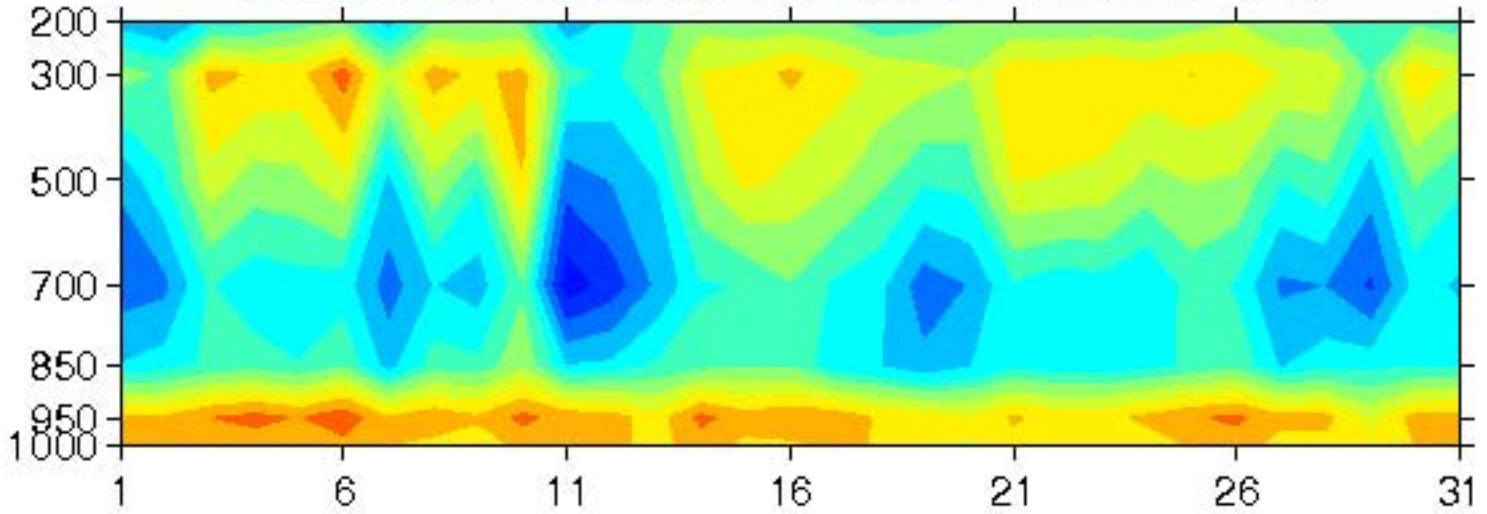
Relative Humidity Mean Difference (24 Hr FC)



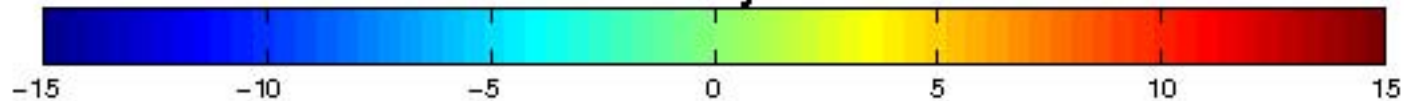
Relative Humidity Mean Difference (48 Hr FC)



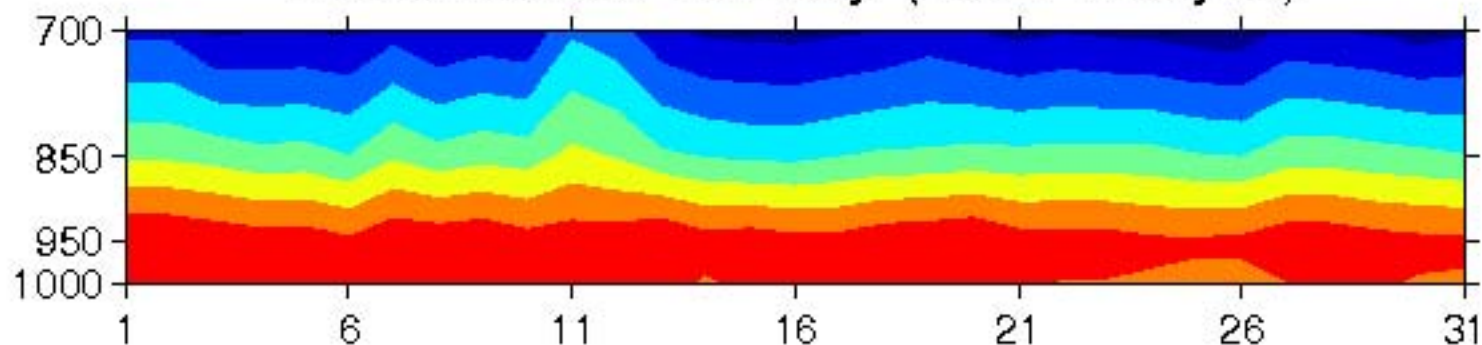
Relative Humidity Mean Difference (72 Hr FC)



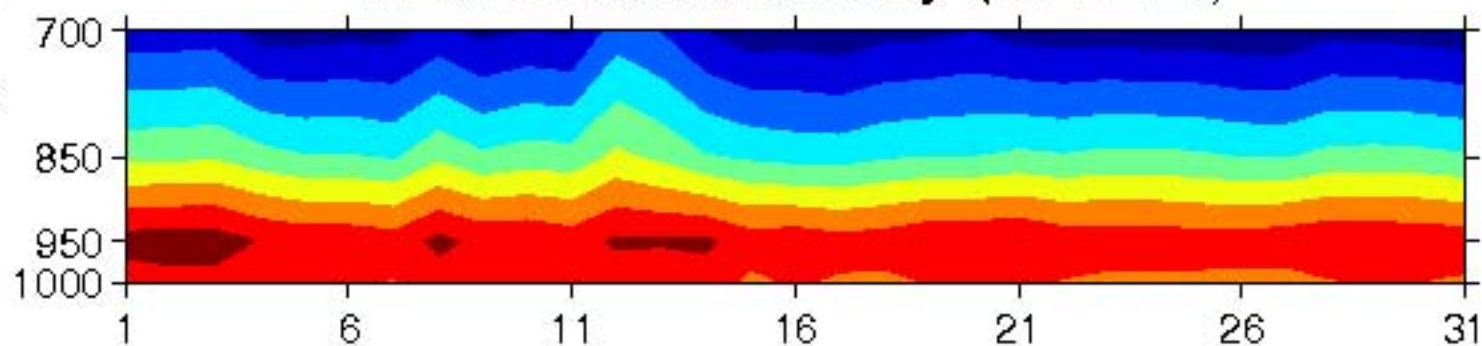
Number of Days Jan 2012



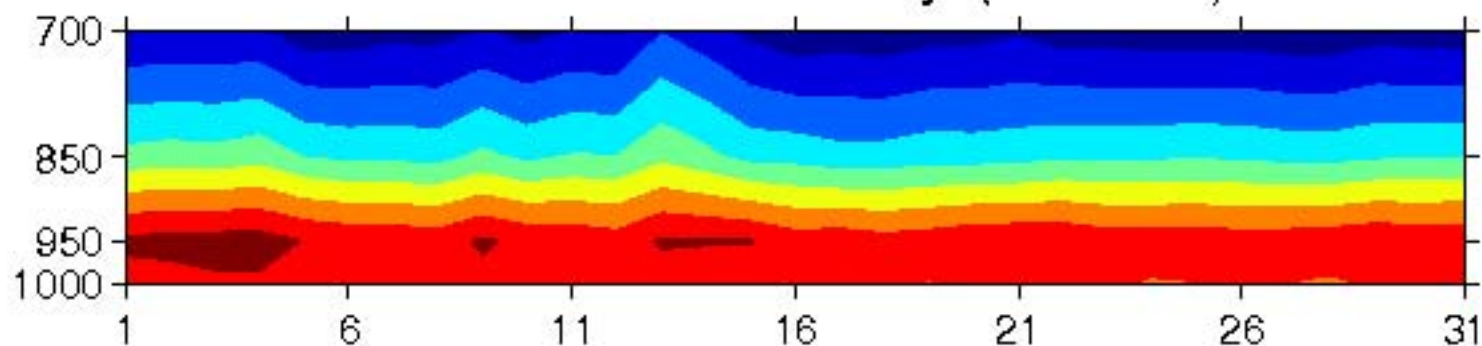
MEAN Relative Humidity (NCEP Analysis)



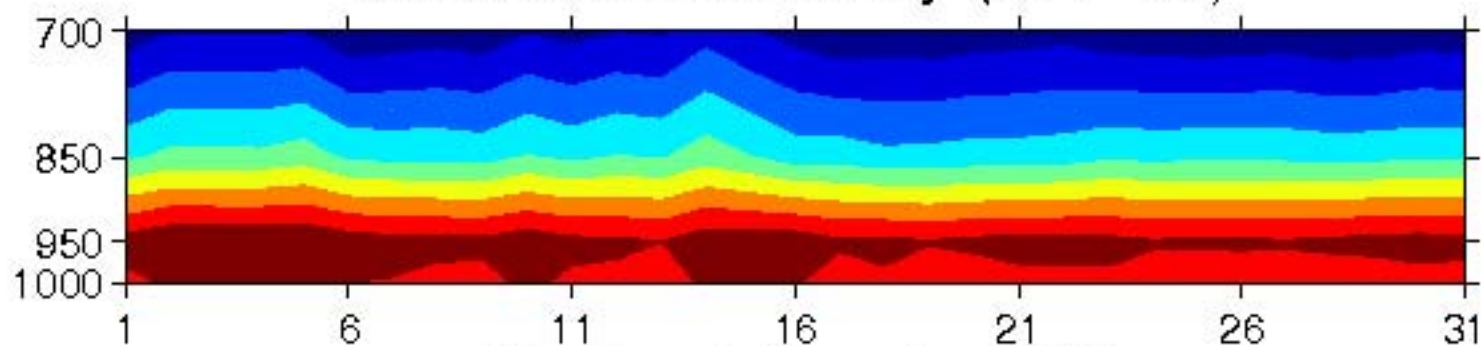
MEAN Relative Humidity (24 Hr FC)



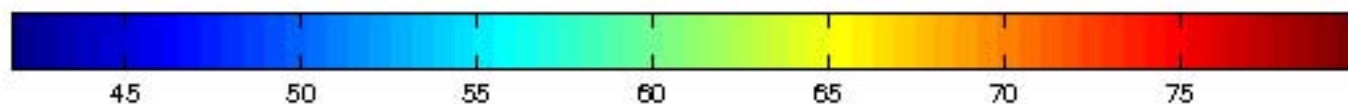
MEAN Relative Humidity (48 Hr FC)



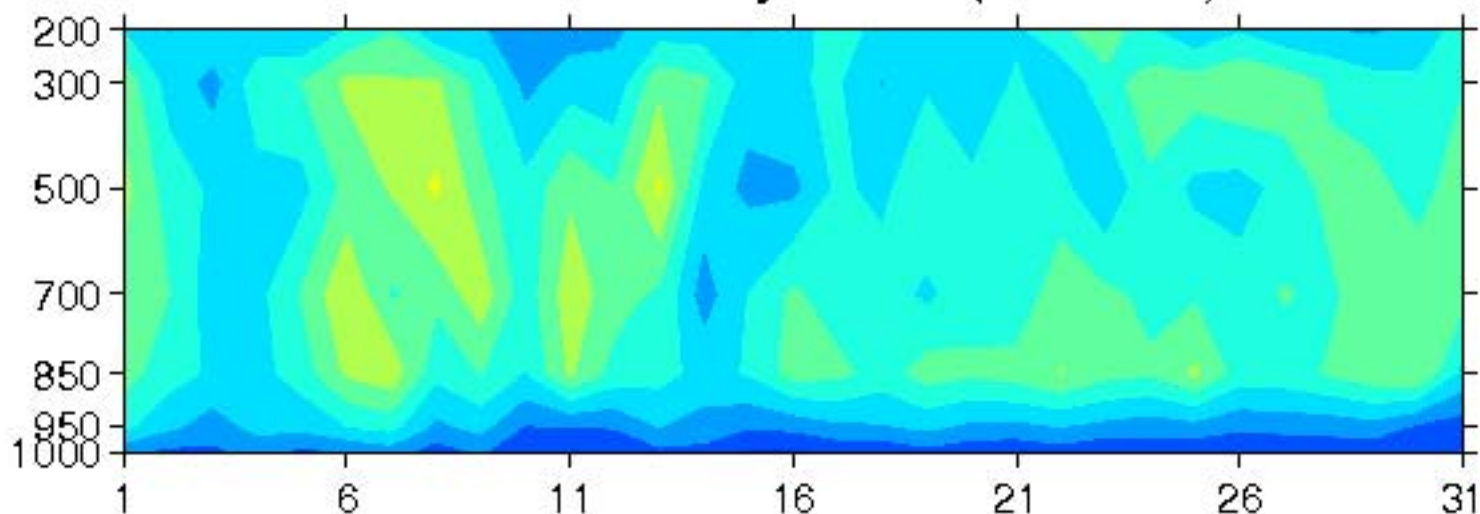
MEAN Relative Humidity (72 Hr FC)



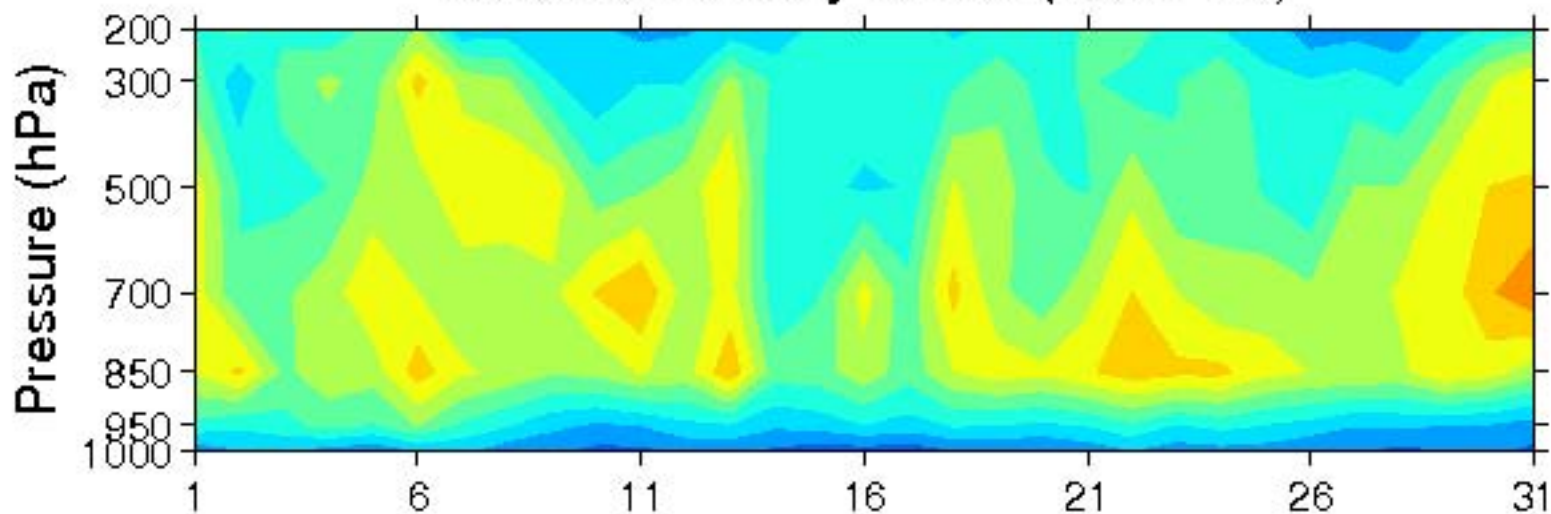
Number of Days Jan 2012



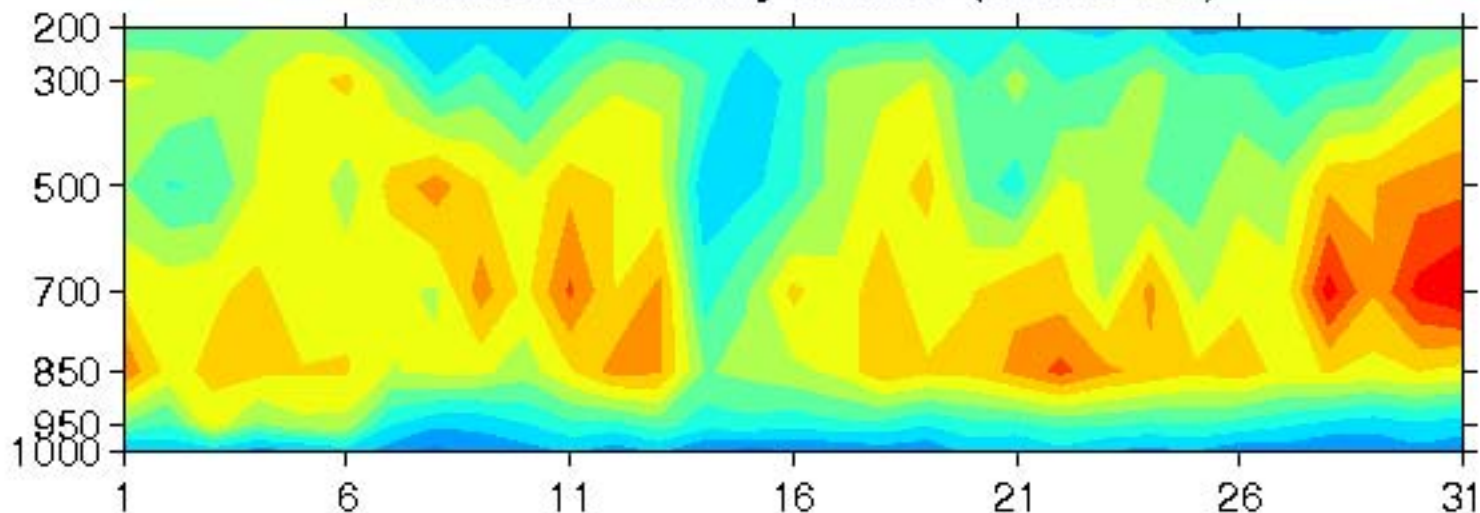
Relative Humidity RMSD (24 Hr FC)



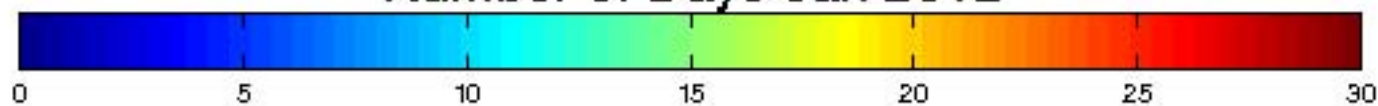
Relative Humidity RMSD (48 Hr FC)



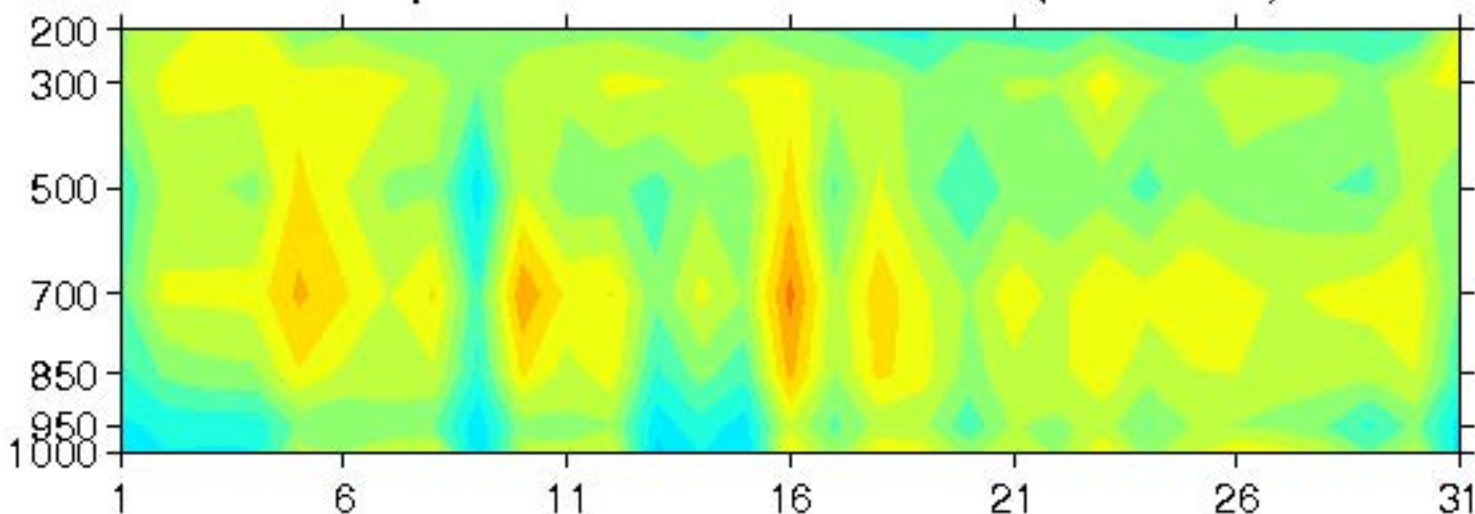
Relative Humidity RMSD (72 Hr FC)



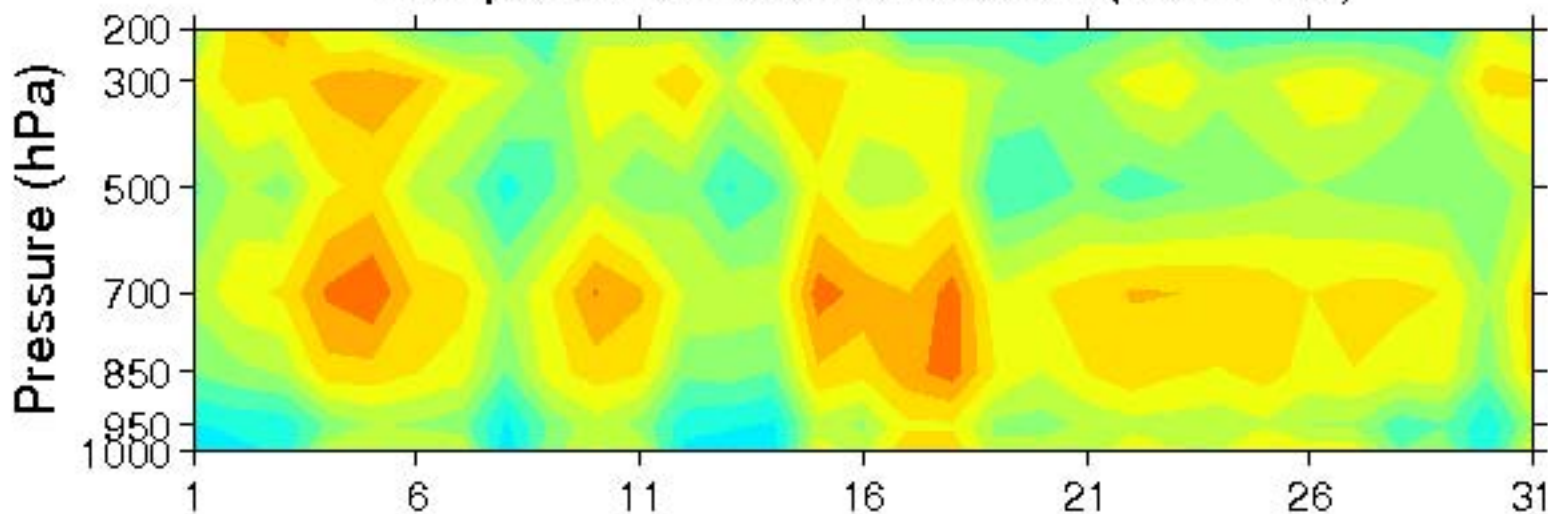
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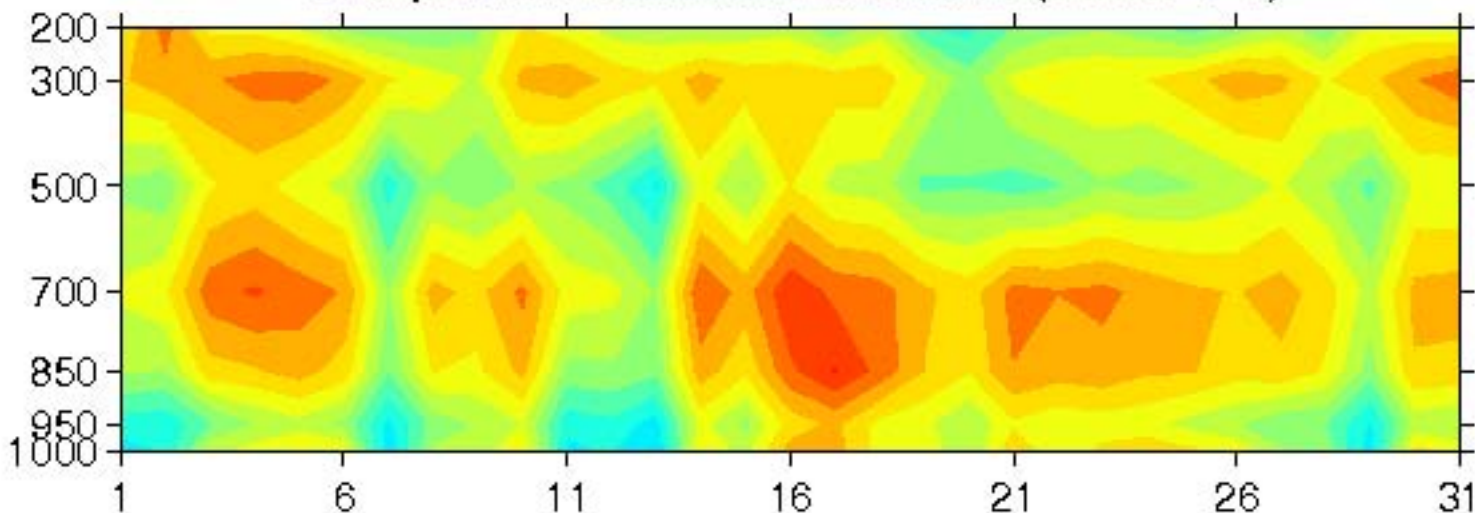
Temperature Mean Difference (24 Hr FC)



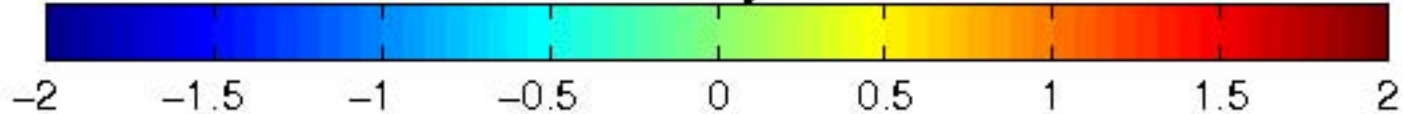
Temperature Mean Difference (48 Hr FC)



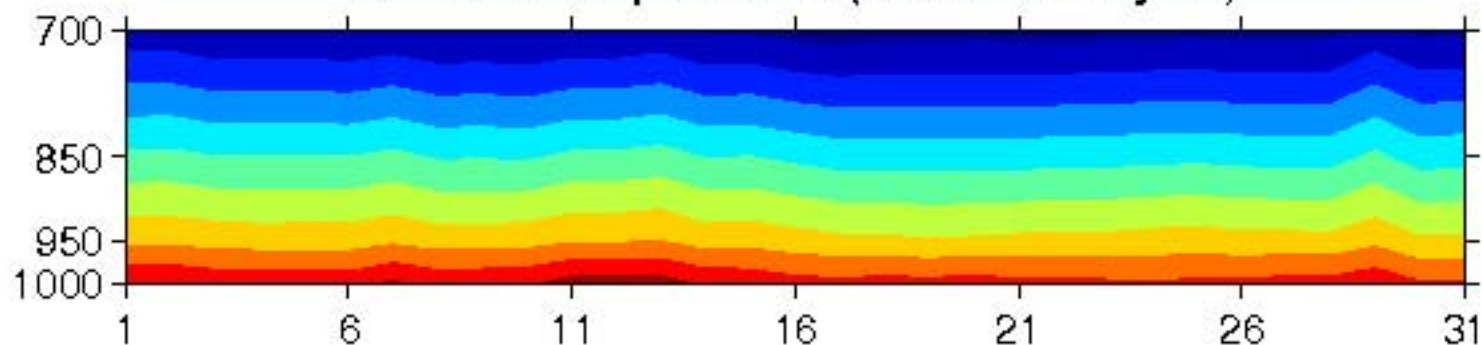
Temperature Mean Difference (72 Hr FC)



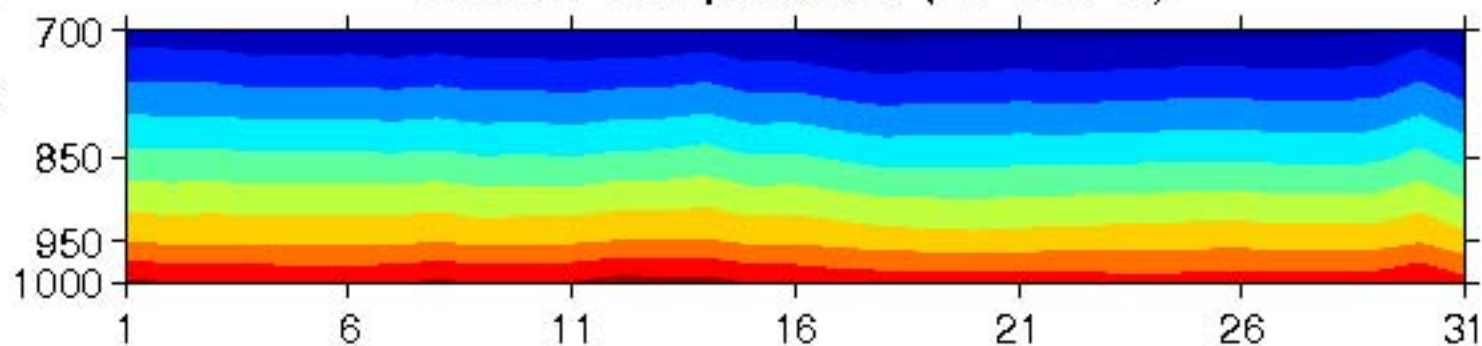
Number of Days Jan 2012



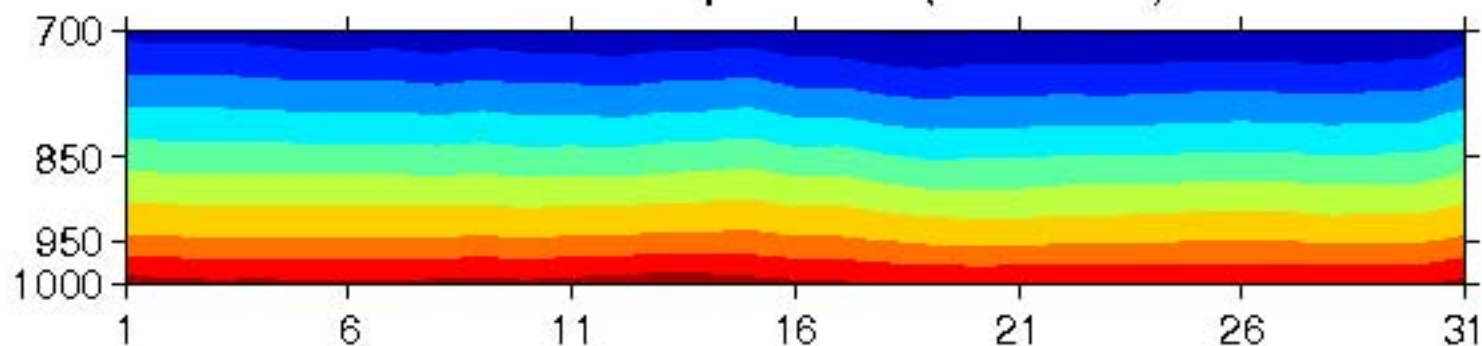
MEAN Temperature (NCEP Analysis)



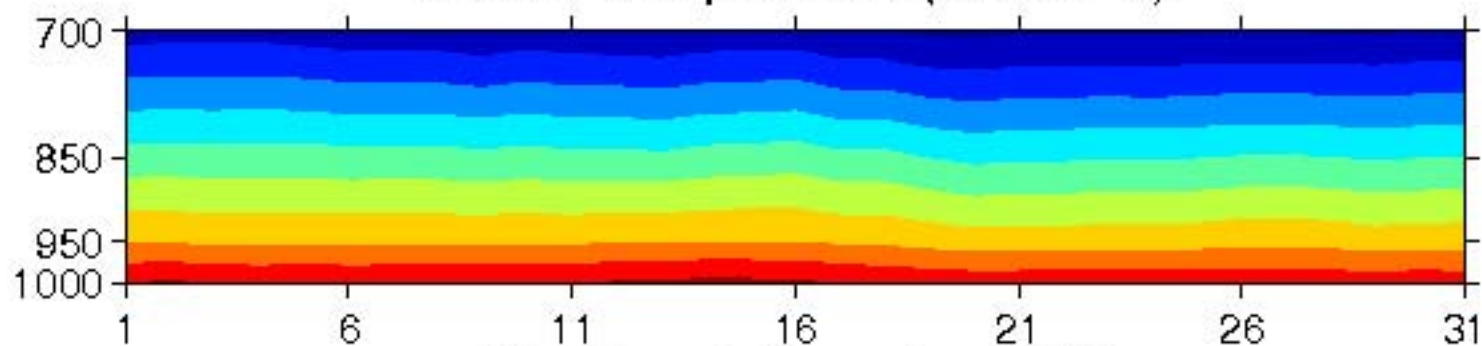
MEAN Temperature (24 Hr FC)



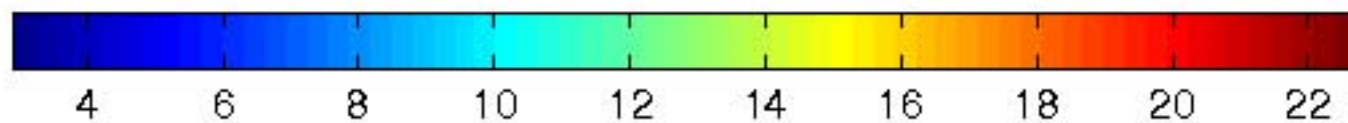
MEAN Temperature (48 Hr FC)



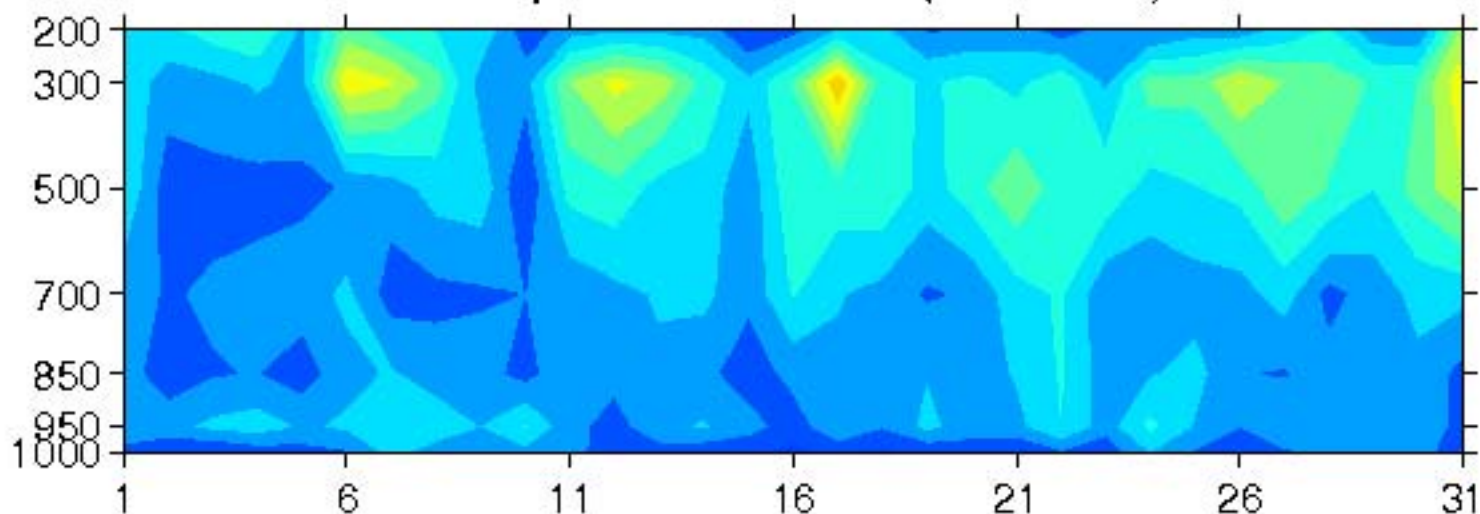
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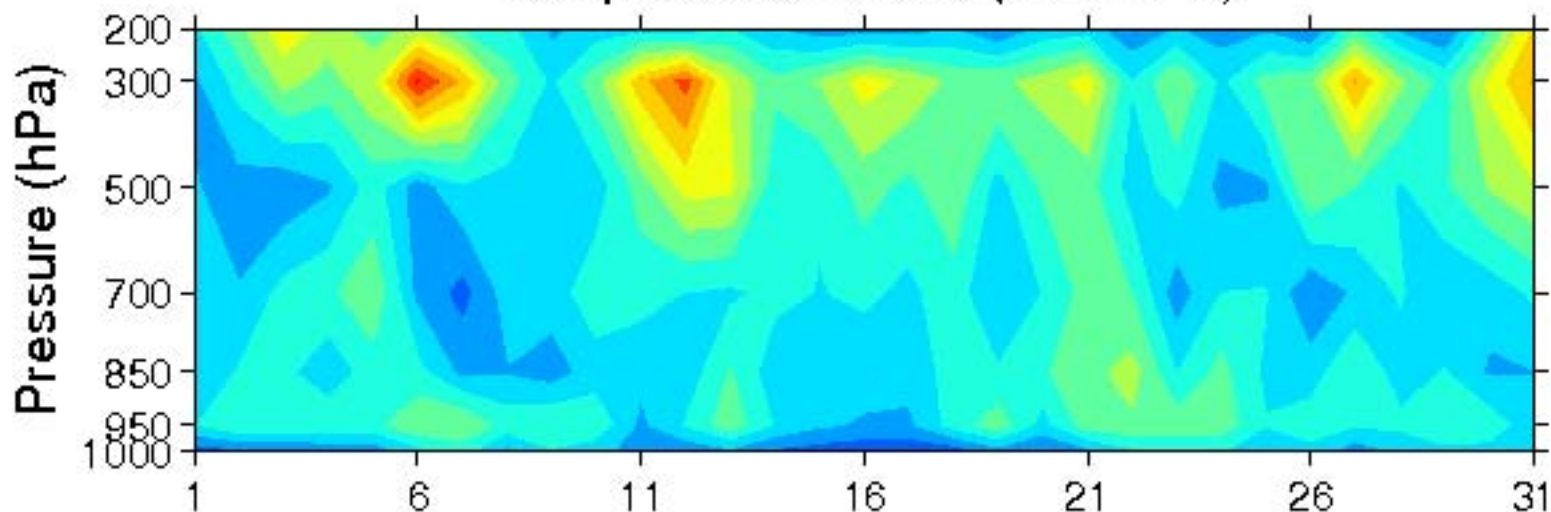
Number of Days Jan 2012



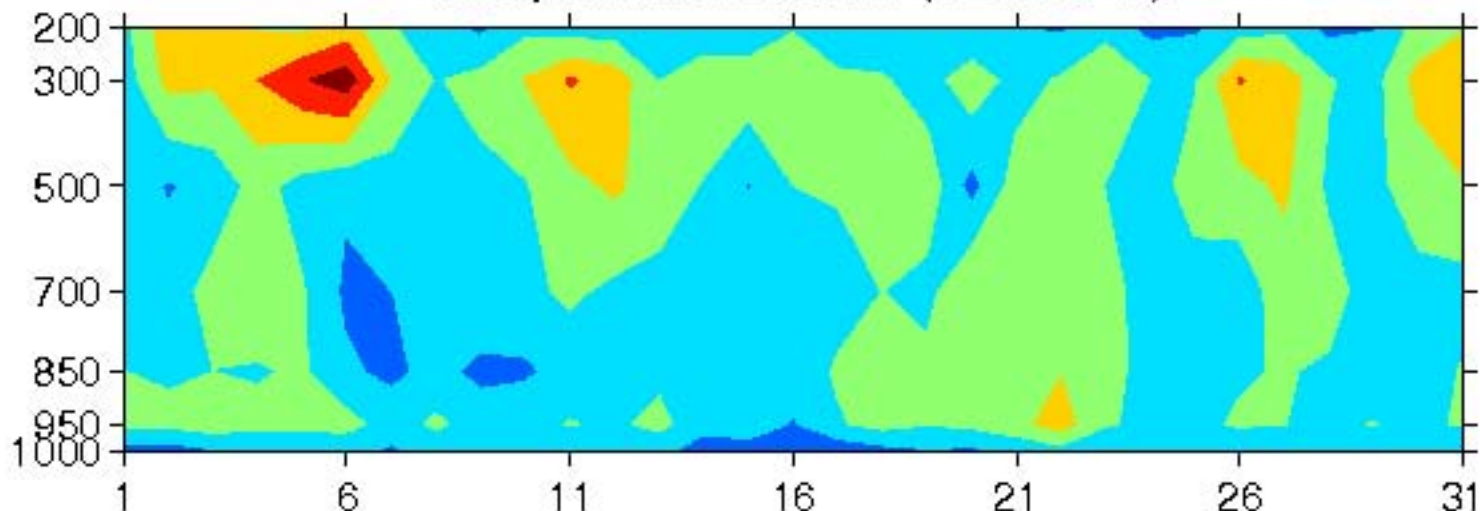
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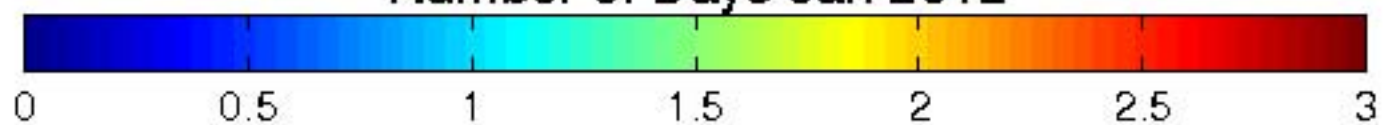
Temperature RMSD (48 Hr FC)



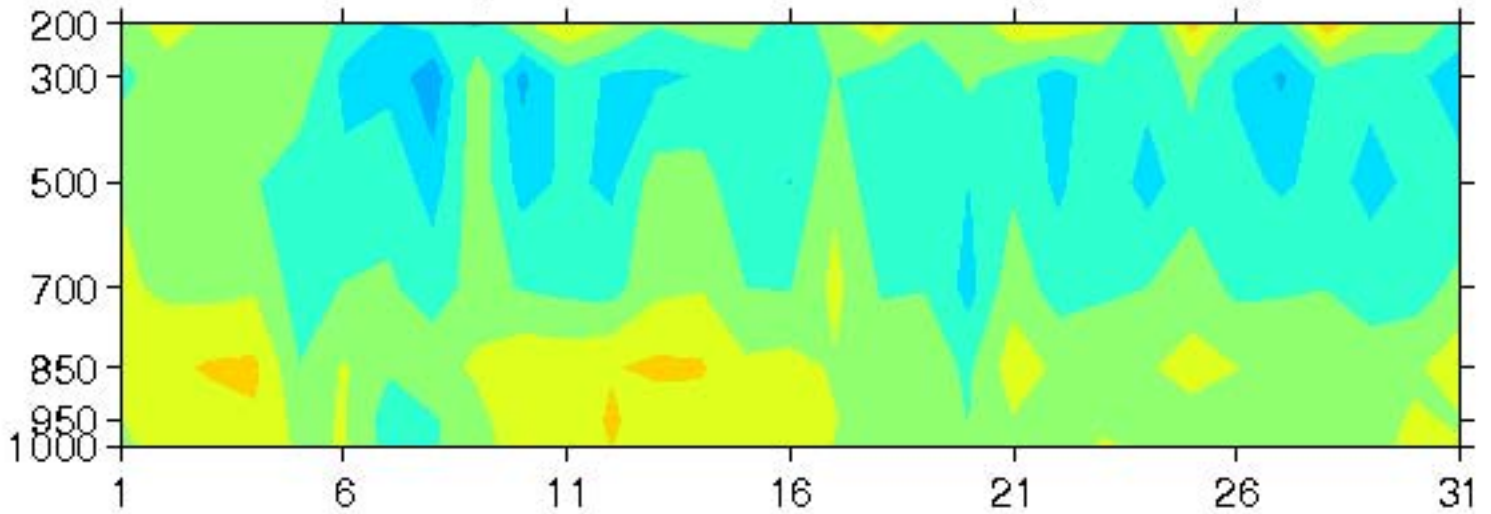
Temperature RMSD (72 Hr FC)



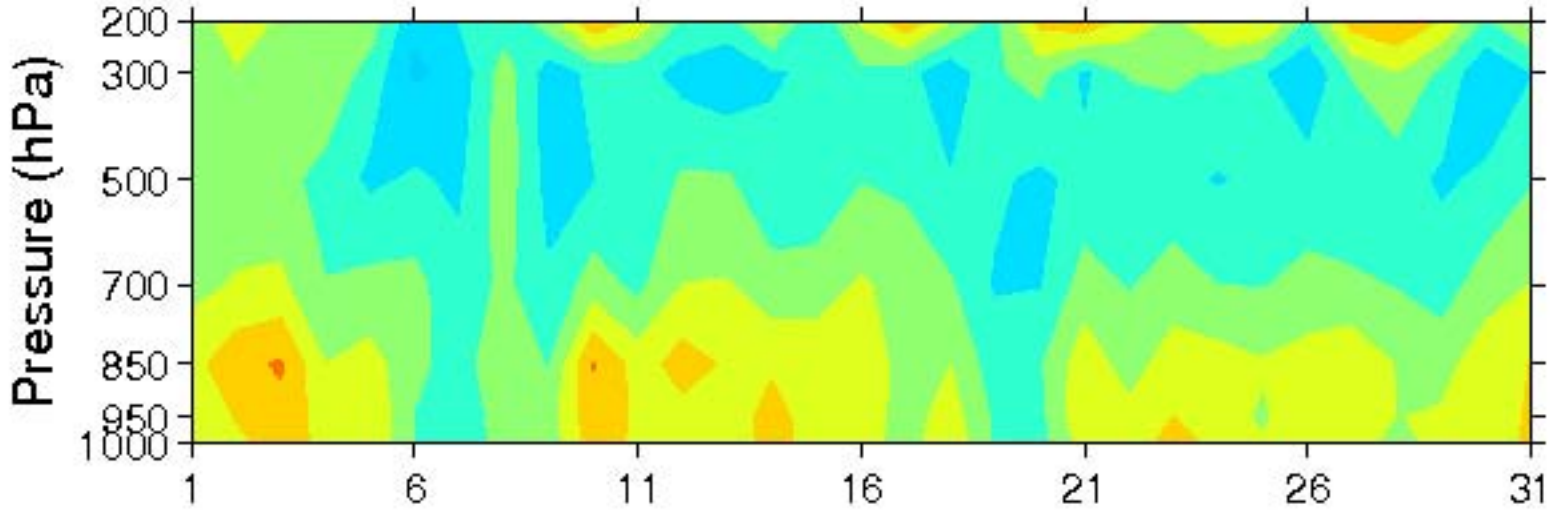
Number of Days Jan 2012



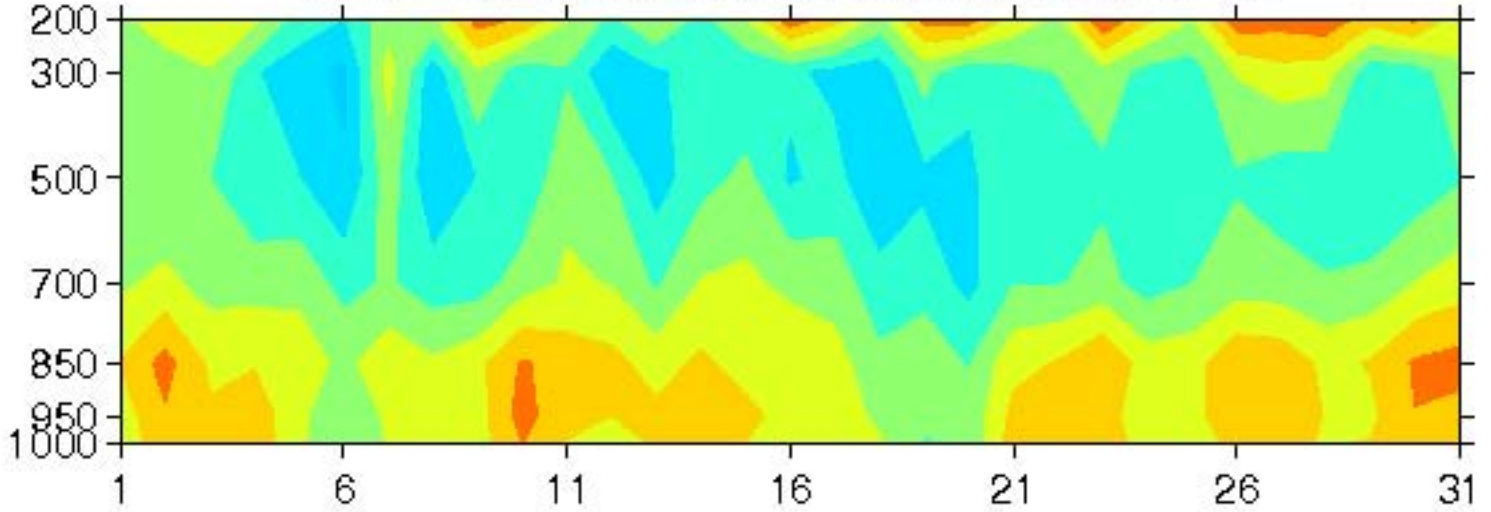
Wind Speed Mean Difference (24 Hr FC)



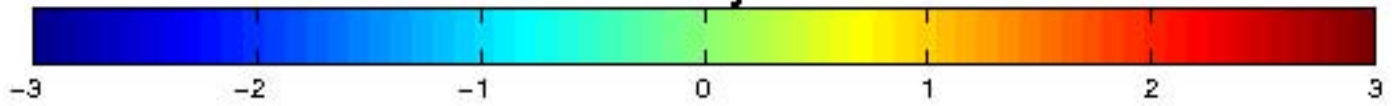
Wind Speed Mean Difference (48 Hr FC)



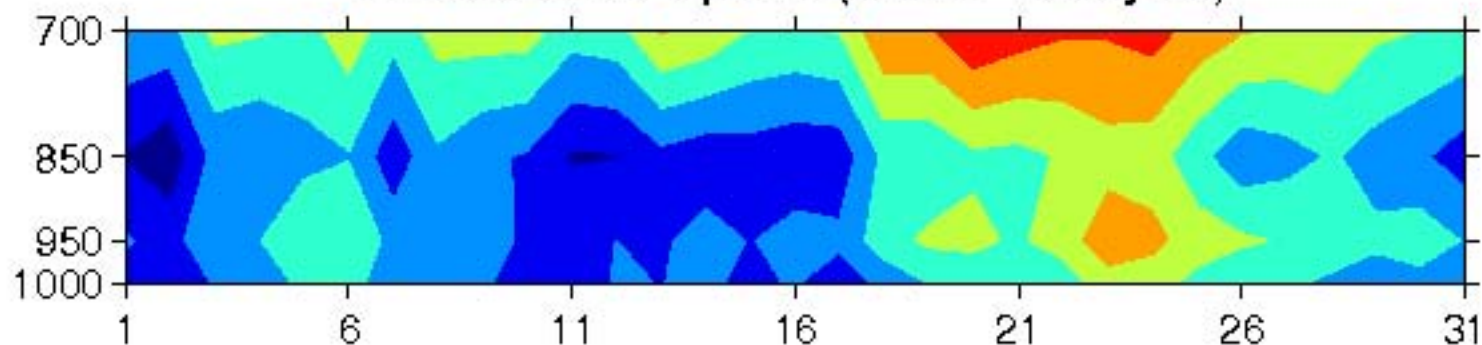
Wind Speed Mean Difference (72 Hr FC)



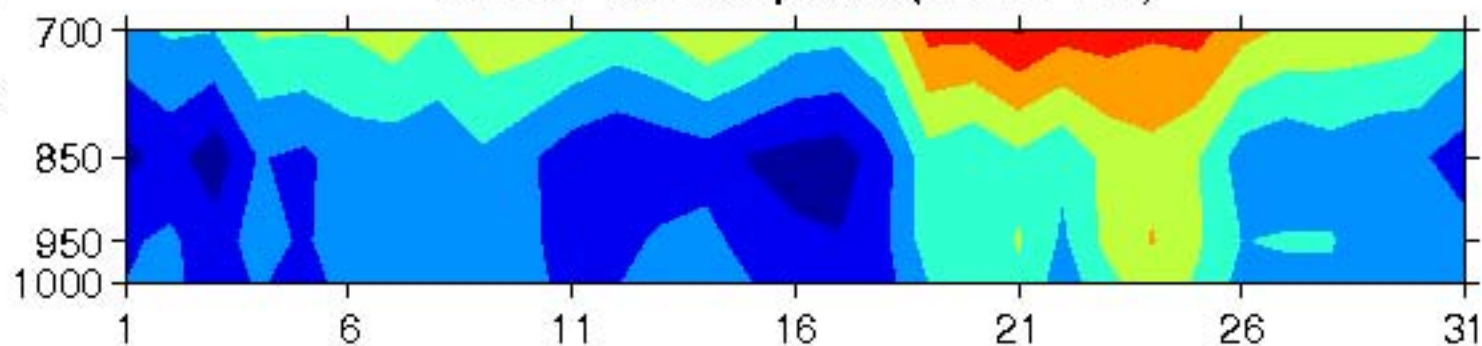
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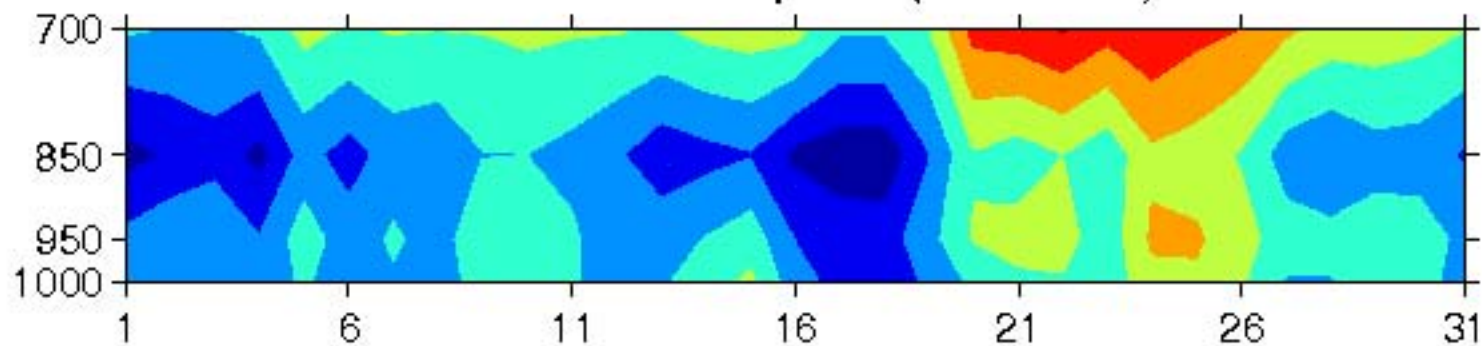
MEAN Wind Speed (NCEP Analysis)



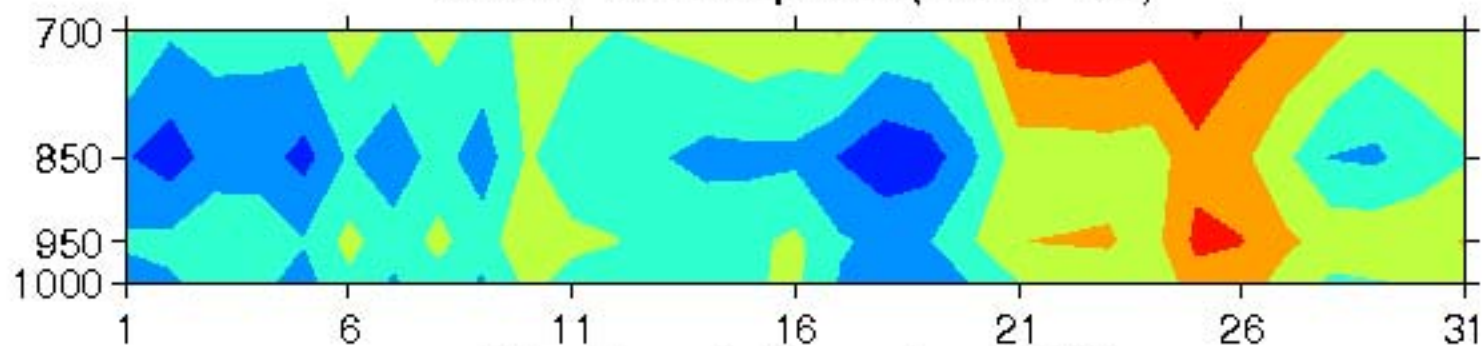
MEAN Wind Speed (24 Hr FC)



MEAN Wind Speed (48 Hr FC)



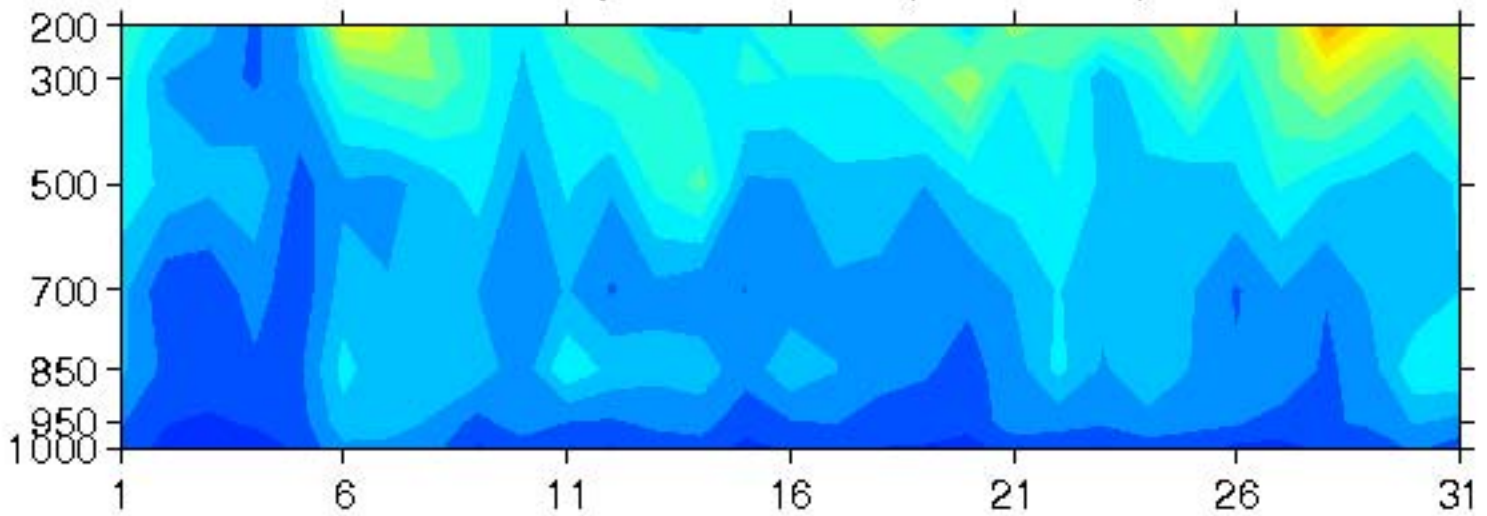
MEAN Wind Speed (72 Hr FC)



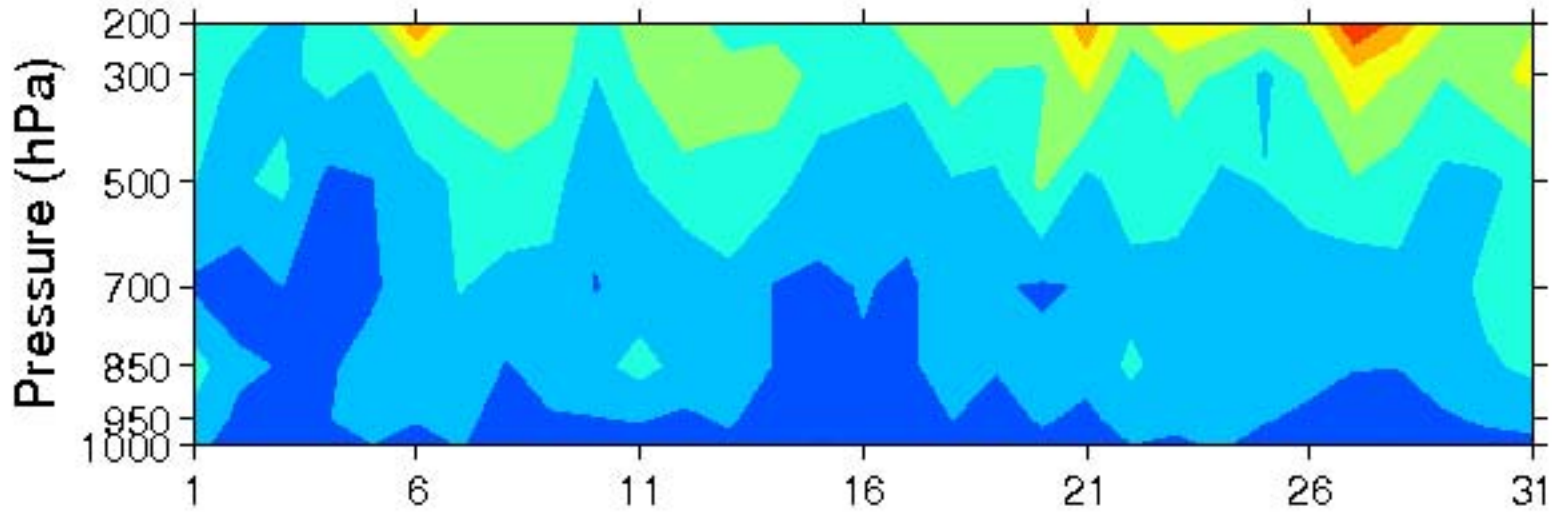
Number of Days Jan 2012



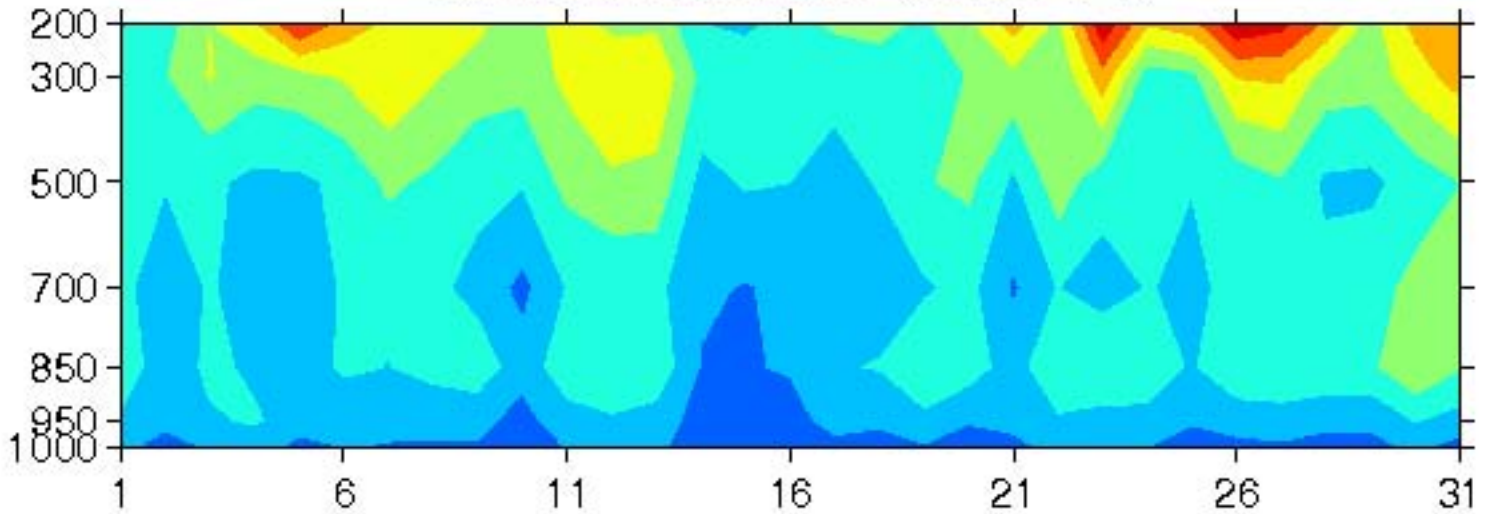
Wind Speed RMSD (24 Hr FC)



Wind Speed RMSD (48 Hr FC)



Wind Speed RMSD (72 Hr FC)



Number of Days Jan 2012

