Summer 2014 Outlook
Winter 14-15 Preview

Gary Woodall
National Weather Service
Phoenix, AZ

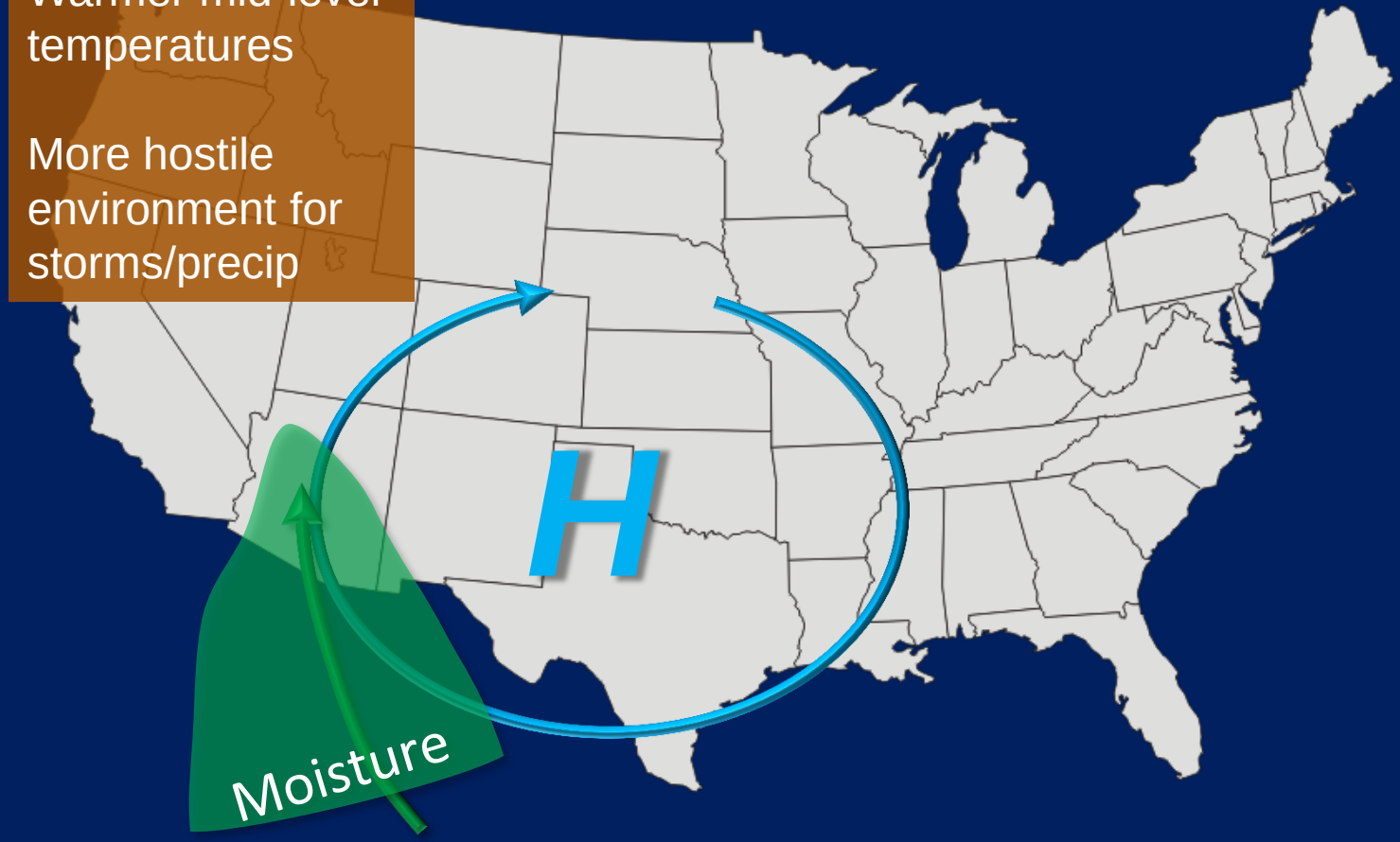
Drought Interagency Coordinating Group
May 13, 2014

@NWSPhoenix
www.weather.gov/phoenix
www.youtube.com/NWSPhoenix
http://www.facebook.com/US.NationalWeatherService.Phoenix.gov

What Can Affect Monsoon Precipitation?

Warmer mid-level temperatures

More hostile environment for storms/precip



www.weather.gov/phoenix @NWSPhoenix

www.youtube.com/NWSPhoenix

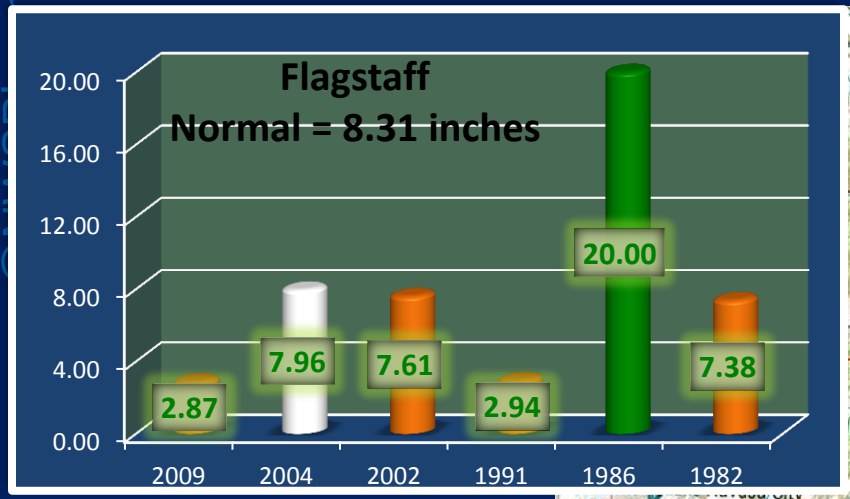
http://www.facebook.com/US.NationalWeatherService.Phoenix.gov

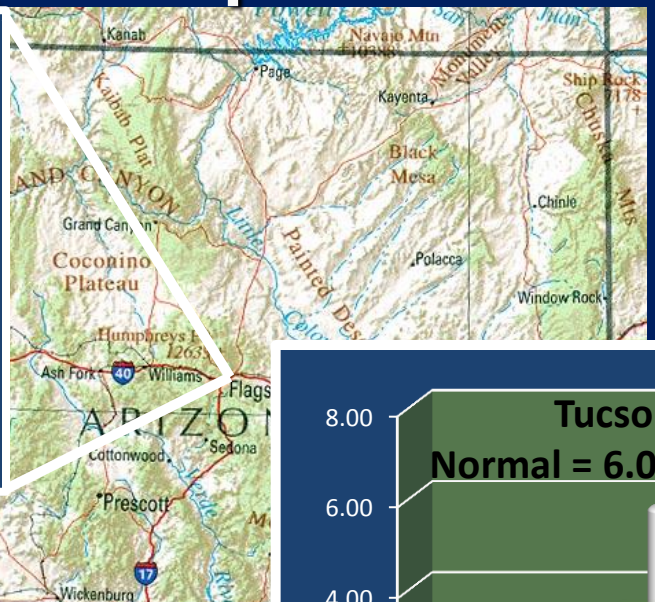
What Can Affect Monsoon Precipitation?

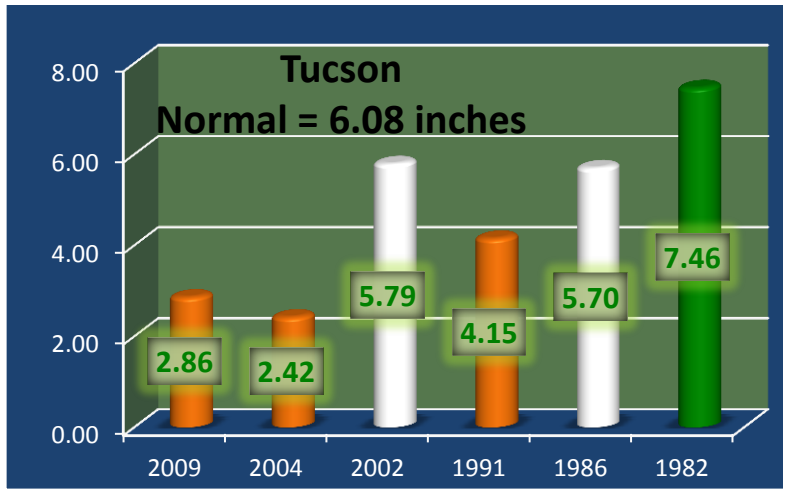
Small upper systems can move around upper high
Temporarily/locally enhance storm/precip chances

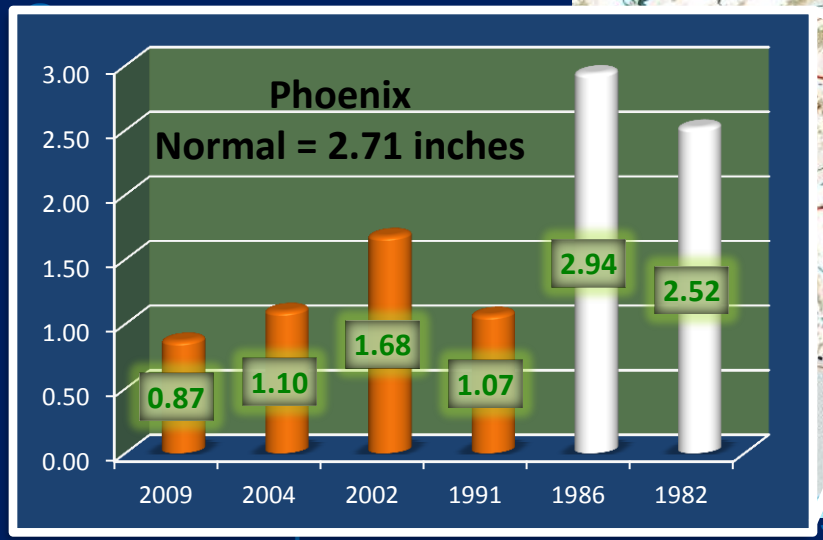
www.weather.gov/phoenix @NWSPhoenix
www.youtube.com/NWSPhoenix

El Nino's Effect on Monsoon Precip





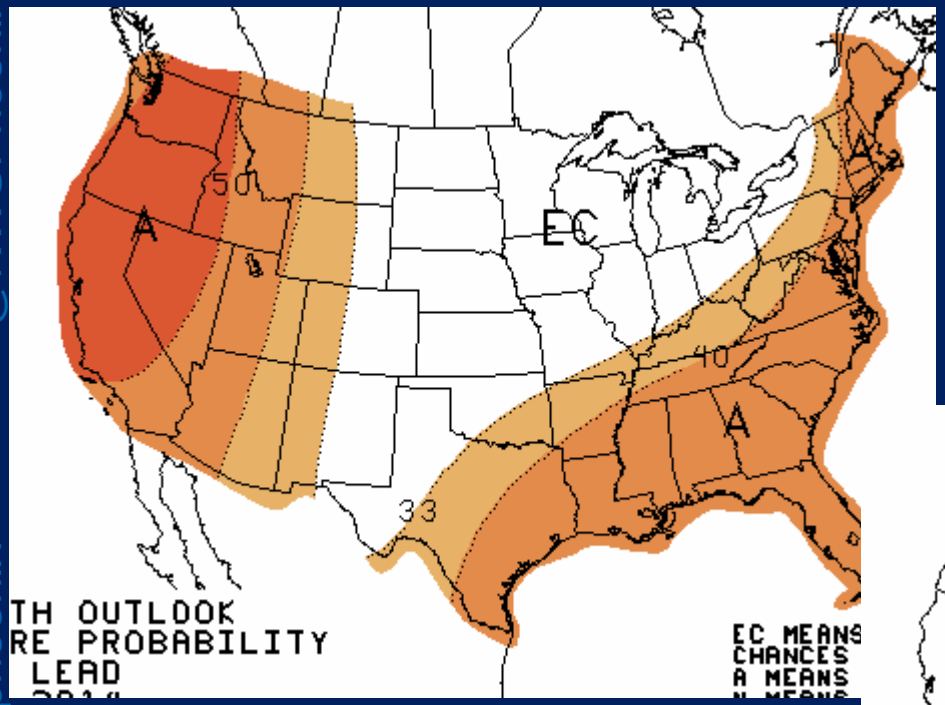




Graphic: Mark O'Malley

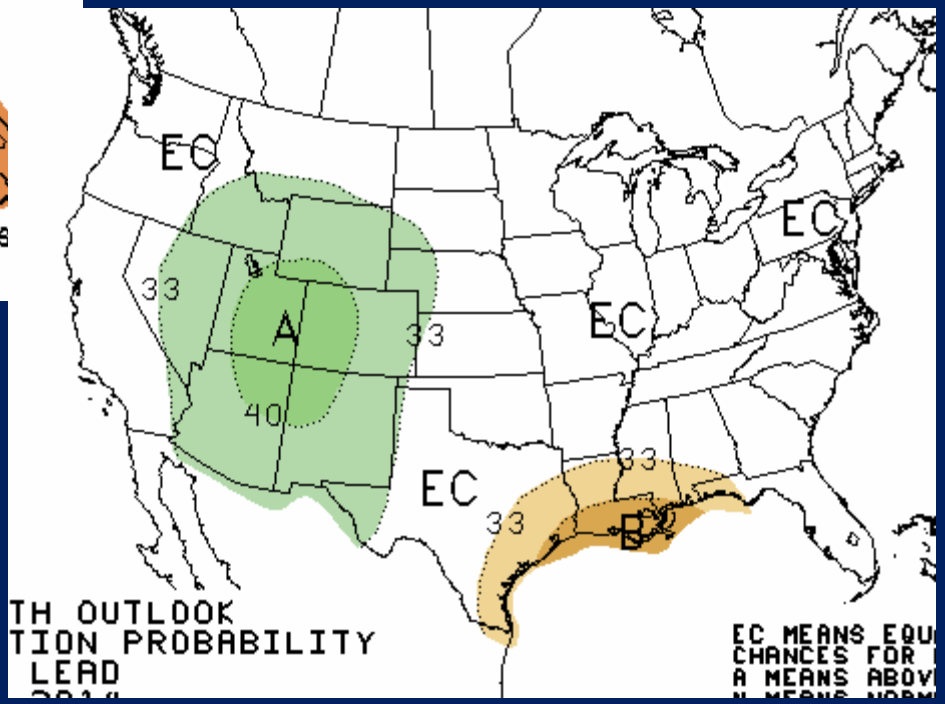
weather.gov/Phoenix
NWSPhoenix

Outlook: Jul/Aug/Sep



Three-month averages

Shading indicates chances of above/below normal



Temp outlook follows previous trends

Precip odds from model details

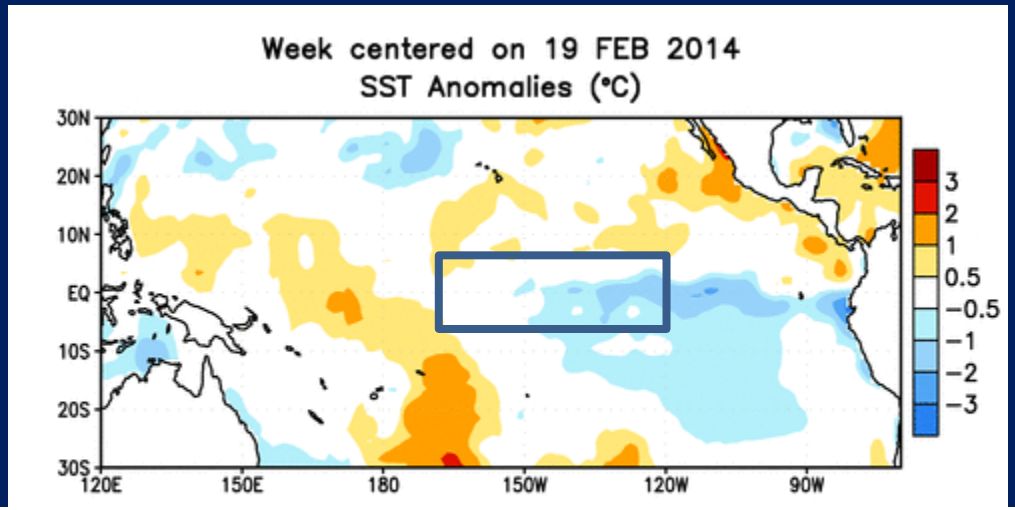
www.weather.gov/phoenix @NWSPhoenix
www.youtube.com/NWSPhoenix

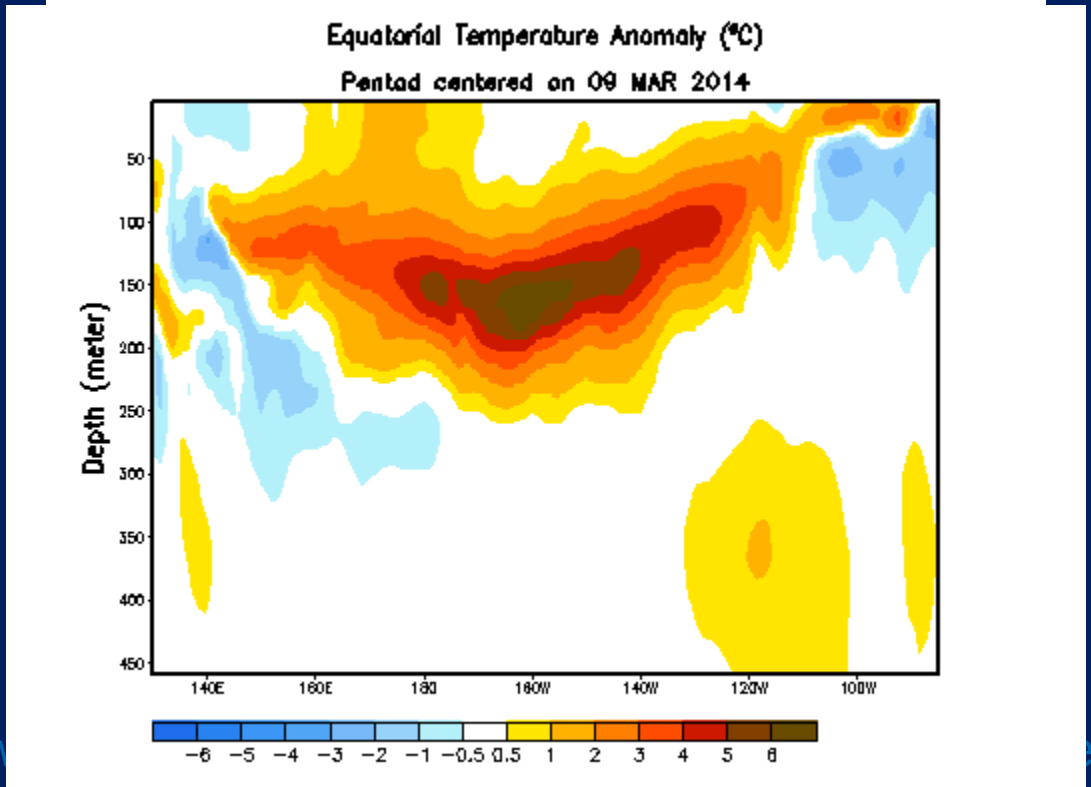
Arizona Winter Impacts

- El Nino winters…
  - Mild/cool temperatures, usually wetter than normal
- La Nina winters…
  - Warm temperatures, drier than normal
- Neutral winters…
  - Near normal temperatures overall, varying amounts of precip (other factors in play)
- Pacific Decadal Oscillation
  - “Warm phase” enhances precip chances
  - “Cold phase” decreases precip chances
  - Usually only a factor if no strong ENSO signal

@NWSPhoenix
www.weather.gov/phoenix
www.youtube.com/NWSPhoenix
http://www.facebook.com/US.NationalWeatherService.Phoenix.gov

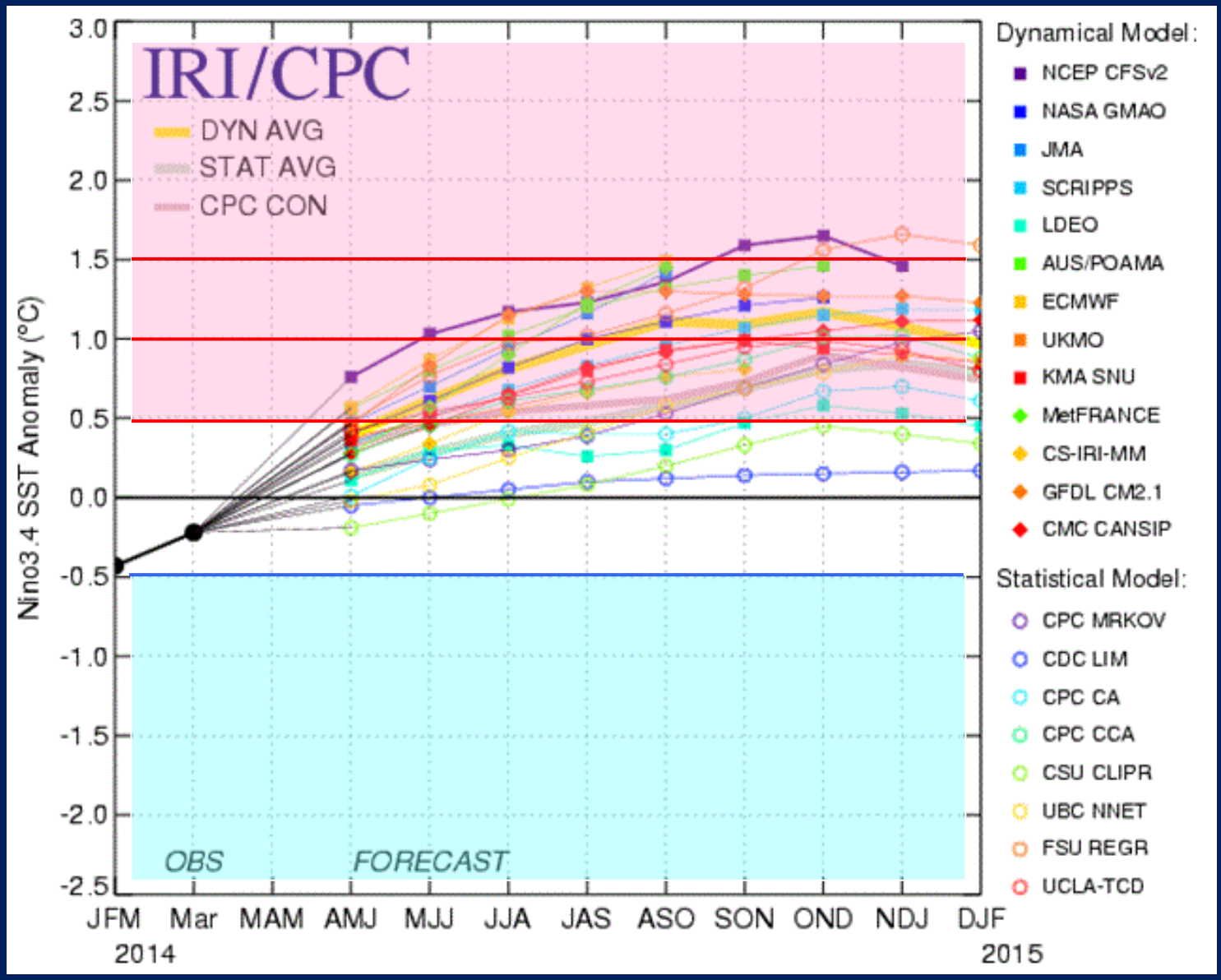
Recent El Nino Developments





@NWSPhoenix
www.weather.gov/phoenix
www.youtube.com/NWSPhoenix
http://ww
enix.gov

El Nino/La Nina Outlook...



www.weather.gov/phoenix @NWSPhoenix

www.youtube.com/NWSPhoenix

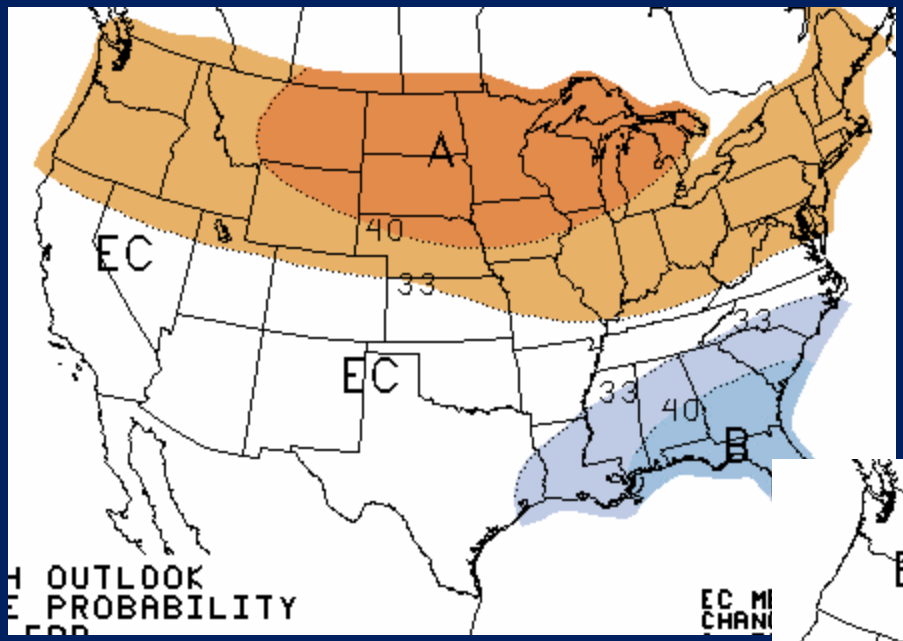
http://www.facebook.com/US.NationalWeatherService.Phoenix.gov

Recent PDO Values

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2010	0.83	0.82	0.44	0.78	0.62	-0.22	-1.05	-1.27	-1.61	-1.06	-0.82	-1.21
2011	-0.92	-0.83	-0.69	-0.42	-0.37	-0.69	-1.86	-1.74	-1.79	-1.34	-2.33	-1.79
2012	-1.38	-0.85	-1.05	-0.27	-1.26	-0.87	-1.52	-1.93	-2.21	-0.79	-0.59	-0.48
2013	-0.13	-0.43	-0.63	-0.16	0.08	-0.78	-1.25	-1.04	-0.48	-0.87	-0.11	-0.41
2014	0.30	0.38	0.97	1.13								

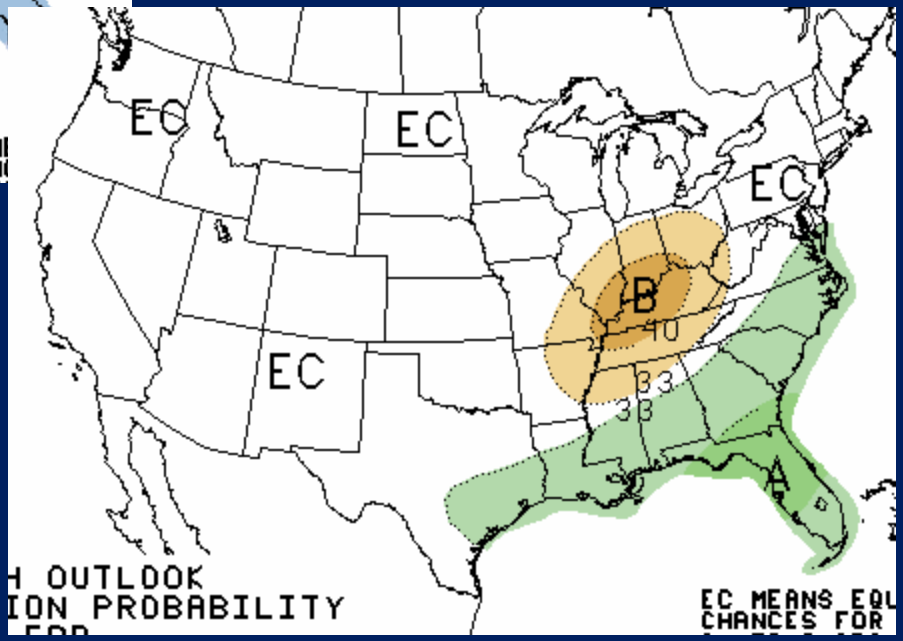
www.weather.gov/phoenix

Outlook: Jan/Feb/Mar 2015



Three-month averages

Shading indicates chances of above/below normal



Equal chances for temps across the state

"Only" even chances for precip?

www.weather.gov/phoenix @NWSPhoenix
www.youtube.com/NWSPhoenix

Summary

- During summer/warm season, large-scale signals have less effect on Arizona's weather
- The 2014 summer outlook's odds favor above-normal temps, slight odds for enhanced precip
- Signals point to an El Nino of some strength for the 2014-15 winter
- Still much uncertainty regarding strength of El Nino and impacts on our winter weather
- Overall, no favorite for precip in winter 2014-15

www.weather.gov/phoenix @NWSPhoenix
www.youtube.com/NWSPhoenix
http://www.facebook.com/US.NationalWeatherService.Phoenix.gov

Questions? Contact us!

Telephone: 602-275-0073

Home page: www.weather.gov/phoenix

Facebook: www.facebook.com, search for “National Weather Service Phoenix”

Twitter: www.twitter.com/NWSPhoenix

YouTube: www.youtube.com/NWSPhoenix

E-mail: gary.woodall@noaa.gov

@NWSPhoenix

www.weather.gov/phoenix

www.youtube.com/NWSPhoenix

http://www.facebook.com/US.NationalWeatherService.Phoenix.gov