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The Canadian Agriculture Weather Prognosticator

Volume IX, Issue XII | http://www.worldweather.cc | September 5, 2017

Ontario And Quebec

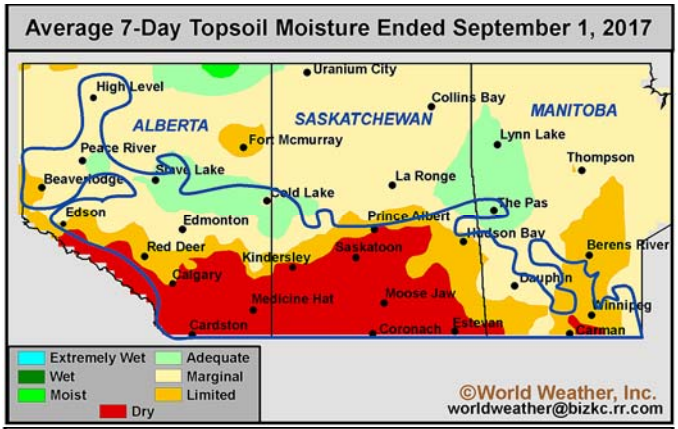
Frost Reported Briefly During This Past Weekend May Have Scared A few Producers, But Crops Will Survive. Additional Cold This Autumn Might Not Spare The Region So Well. Crop Maturation Is Behind The Norm.

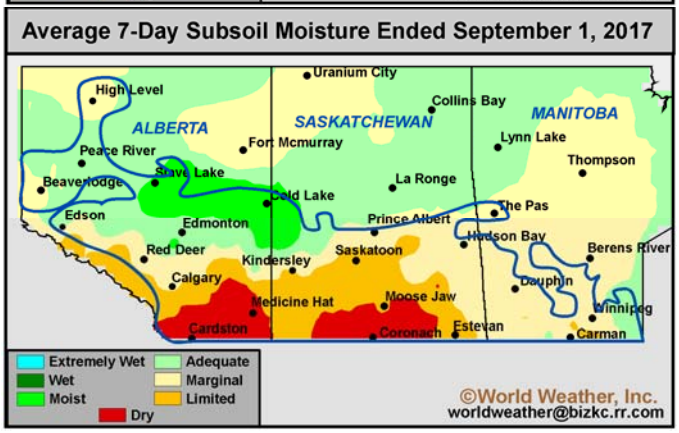
WORLD WEATHER ISSUES

- Queensland And Northern New South Wales, Australia Remain Too Dry For Early Reproduction Of Wheat, Barley And Canola
- Recent Freezes in East Australia Hurt Winter Crop Yield Potentials
- India Late Season Rainfall Still A Little Lackluster; More needed NW
- SE Europe Will Get Needed Rain In September To Ease Dryness
- SE Ukraine, Russia's Southern Region Still Too Dry
- Hurricane Harvey Devastates SE Texas and Western Louisiana
- Hurricane Irma May Damage Florida Next Week
- South America Outlook Good For Start Of Planting

Moisture Replenishment Priority Rising

Soil moisture at the end of August was at its poorest level of the year with the exception of northern, far western and some central Alberta locations where the moisture situation remains mostly favorable after periodic rainfall during the summer. That is certainly not the case for most of Saskatchewan and in portions of Manitoba.





Northwestern Saskatchewan has had plenty of moisture this year and it, like parts of northern Alberta and a few locations in northeastern most Saskatchewan need no more rain for the growing season. However, many very important crop areas in southern Alberta and the remainder of Saskatchewan have exhausted soil moisture to the point that a dry winter and spring would pose a very serious problem for the region's 2018 crops.

Many of the recent severe droughts have bled over into the following growing season with a poor or questionable start to the growing season due to drought and gradual improvement during the summer. Can we do that again in 2018? Producers need a fair amount of moisture this autumn and winter to provide some hope of coming into the spring with enough moisture to get crops started, but timely or routinely occurring precipitation in the spring and summer will be needed to assure drought does not raise its ugly head for another year.

October, as you will see in the 60-day outlook does offer some improvement with greater precipitation and seasonally cooler temperatures working together to put a little moisture into the topsoil before we go into the deep freeze.

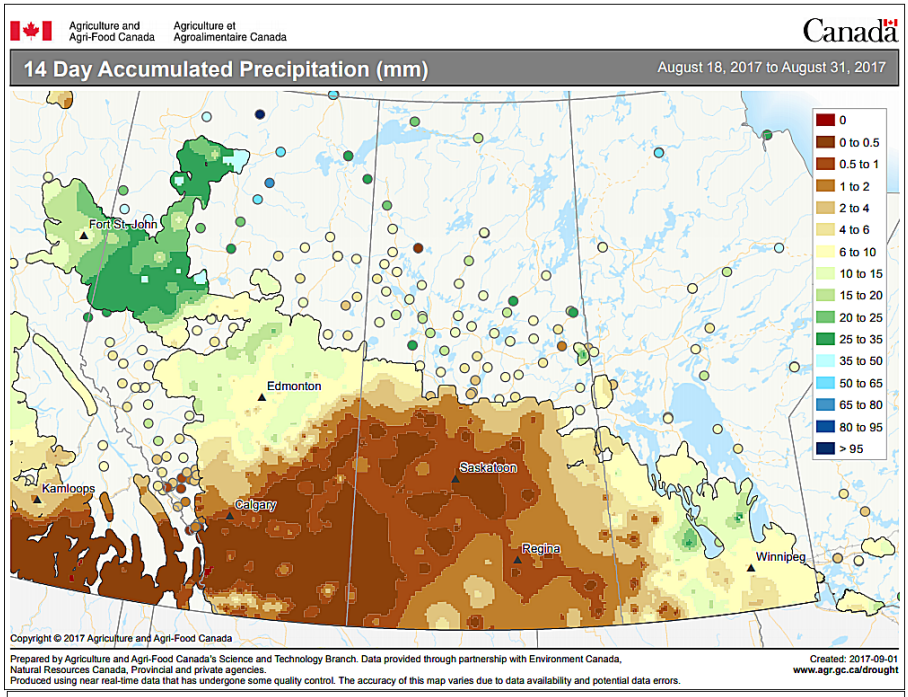
The October precipitation will be welcome for moistening the topsoil, but it is not likely to be the saving grace for 2018. The moisture could interfere with late season crop harvesting more than it may replenish soil moisture.

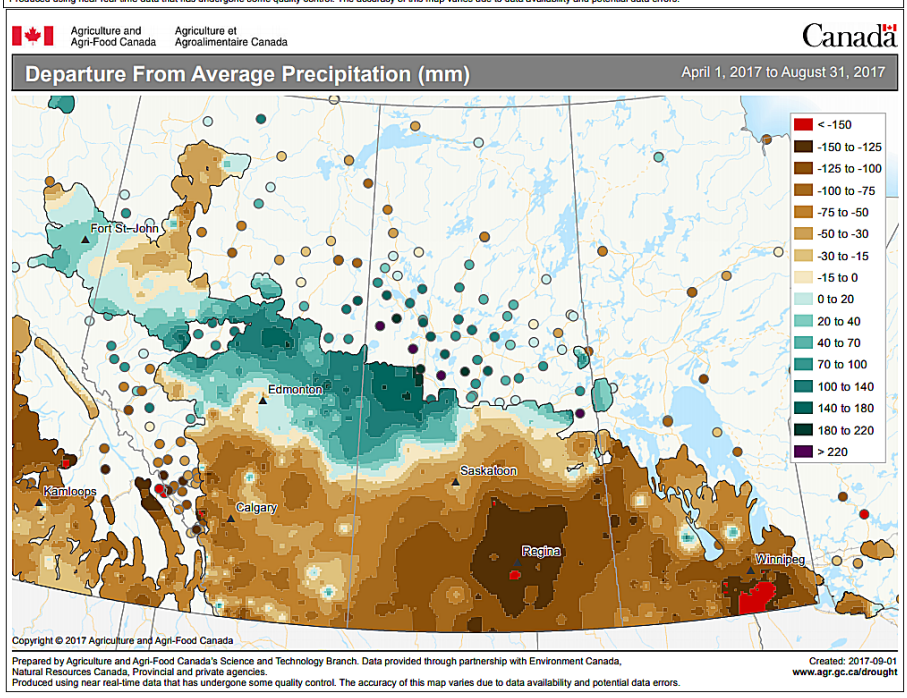
Early Harvest Goes Strong In Drought Areas

Drought in the Prairies prevailed during August. The last prognosticator suggested there would be no change in the second half of August and that turned out to be correct. Perhaps a little too correct. Drought expanded during the month a little farther into central Alberta and into northern Saskatchewan, although the far northwest, several RM districts in the north-central and some in the far northeast of Saskatchewan were still plenty, if not a little too wet.

The last two weeks in August were dry except in the Peace River Region where it was plenty moist and in a few other western and northern Alberta and far northwestern Saskatchewan locations Rainfall was not excessive during the second half of August, but it was sufficient to slow some crop maturity rates and disrupt some early season farming activity.

Manitoba also received some showers and thunderstorms periodically in the latter part of August that kept the ground from drying as much as it has to the west and that has really been the story for Manitoba most of the summer. Manitoba's rainfall was not all that impressive during the summer, but when it rained it was timely and helped to keep the most serious drought outside of the province.





Many areas in central, southern and far eastern Alberta and western, central and southern Saskatchewan received a few millimeters or less rainfall during the second half of August and many areas were not reporting much greater rain in the first half of the month.

The most revealing agricultural weather map of the season is the departure from normal rainfall map for the entire growing season. A massive area in Saskatchewan and Manitoba was reporting moisture deficits for the entire growing season of 75 to 150 millimeters. A rather large area in central Saskatchewan reported deficits of 125 to 150 millimeters and had it not been for the extremely wet year we had in 2016 and the numerous other years wetter biased earlier in this decade the losses this summer would have been many times worse. That does not make the pain of production cuts and lower income any better, but with so many folks in southeastern Texas without their homes and near empty pockets we do need to be thankful for what we have.

Now that the harvest season is here many producers are working hard in their fields and are already well ahead of the progress last year. That raises a bit of dichotomy for the rest of the harvest season. Dryness is desired to finish off crops and support harvest progress, but rain is needed to improve the outlook for 2018.

October Precipitation "May" Increase Beneficially

The first half of September is expected to continue quite dry across the Prairies with temperatures staying well above average. The environment will continue to support aggressive farming activity while leaving worry over long term drought at a high.

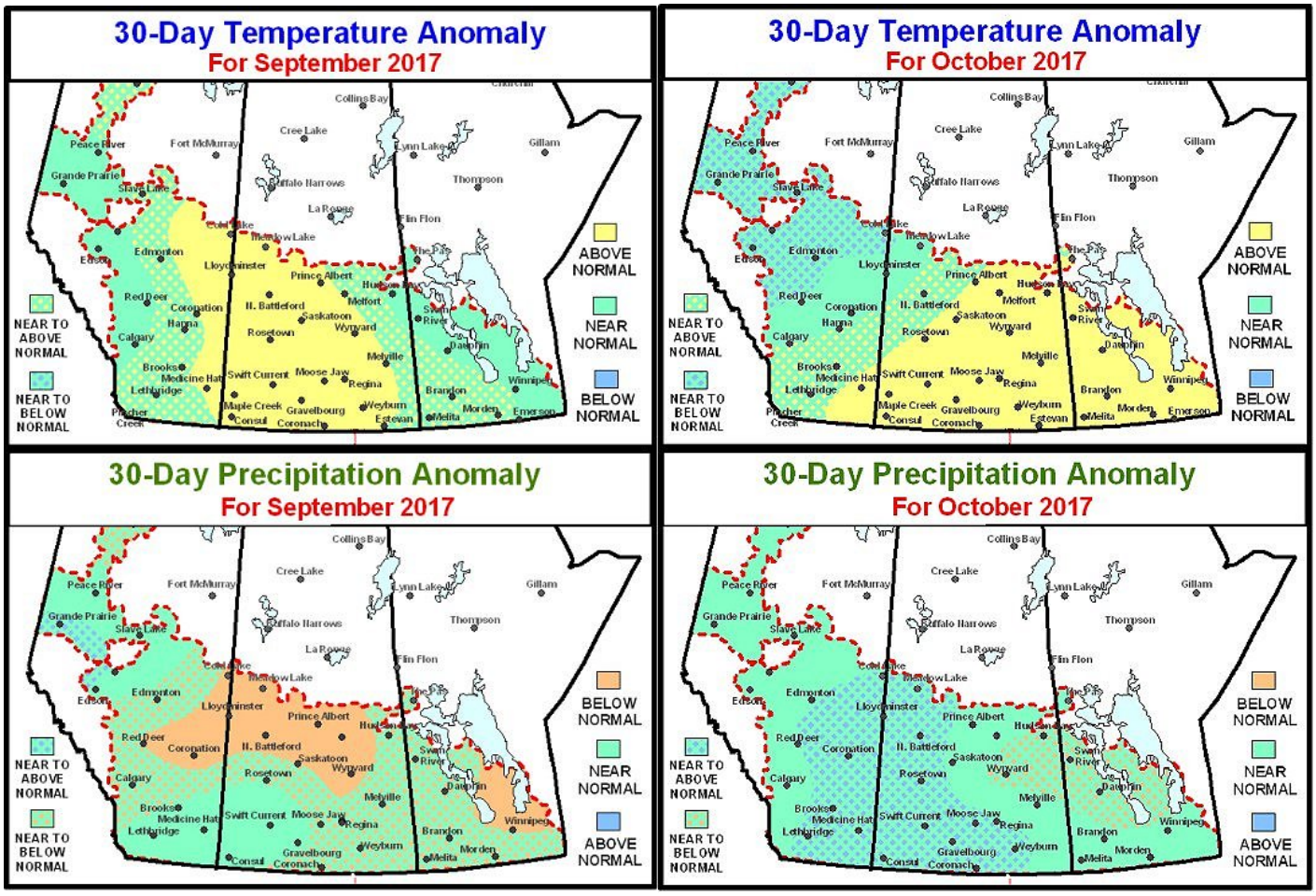
Once all of the tropical cyclone activity in the western Atlantic Ocean abates there will be opportunity for change in the Prairies. However, for the next week to ten days, the situation will remain at status quo with little to no rain outside of northwestern Alberta and a few areas in Manitoba and temperatures that will continue unusually warm after a short term bout of more seasonable weather over the next couple of days.

Changes in the second half of September will not be dramatic, but we do not expect the hot dry weather to prevail without disruptions. Temperatures will not be nearly as anomalously warm in the second half of this month, but the average for September will still be warmer than usual.

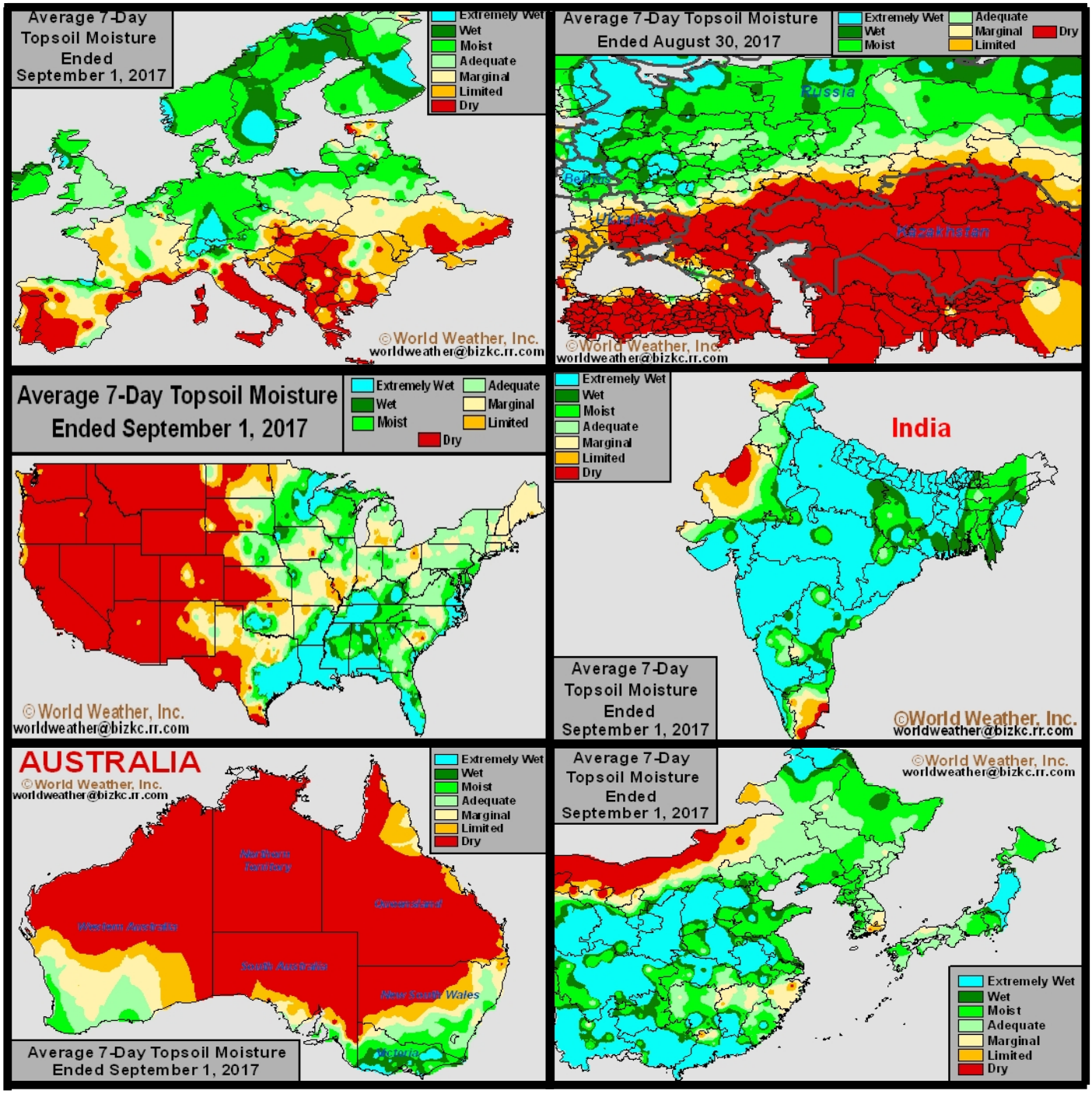
A pattern change is expected during late September and October in which the northwesterly flow pattern that has dominated the summer will be disrupted a little more often. Storm systems coming into the U.S. Pacific Northwest and British Columbia will provide a moisture source into the Prairies a little more often allowing rainfall to occur a little more often and a little more significantly. However, with that said, be very careful to not interpret that as a wet weather pattern that will hold up the harvest in a major way. A little more disruption to fieldwork will evolve and it might be a little more important to check the weather maps a little more often so that crops in the swath are not impacted by unwanted moisture for very long.

The pattern change in late September will not be very problematic and field progress will continue to advance, but with a few more disruptions. The environment will still be mostly good.

The earliest that a more significant boost in precipitation "might" occur across the Prairies would be in October. The change, if it occurs, will be of short duration, but over a couple of weeks we might see more significant disruptions to farming activity. Weather conditions should straighten out relatively soon after that brief bout of disruption evolves and conditions in November will be more favorable (although not ideal) once again. The moisture expected in October will NOT be enough to replenish soil moisture significantly and much more rain will be needed.



Selected Weather Images From Around The World



Late summer weather did not seem to make many changes around the world. Dryness that was prevailing earlier in the summer in southeastern Europe and from eastern Ukraine into Russia's Southern Region prevailed and may have deepened a little. Relief is expected in parts of southeastern Europe during the next two weeks, but Ukraine and Russia's dryness will likely linger for a while longer. India's weather has been a little unusual this summer. Even though topsoil moisture is abundant in much of the nation there is concern over below average season to date rainfall and that might leave some of the drier areas in the northwest a little too dry this autumn raising some concern about dry season moisture for late summer and early winter crops. China's weather has been the most ideal out of nearly all Northern Hemisphere crop areas this year. Soil moisture has been favorable most of the summer. However, a little frost and light freezes occurred in Inner Mongolia last week causing some damage to immature summer crops. Australia's dryness in the west was eased in late August, but Queensland and northern New South Wales are still dry.

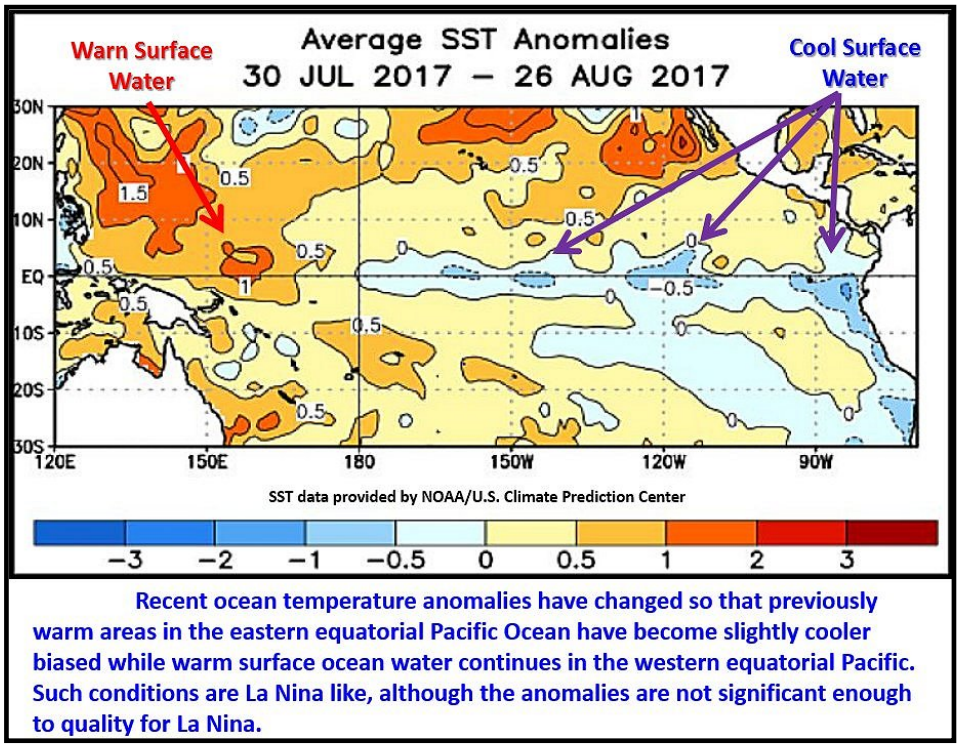
Pacific Ocean Cooling Leads To Some La Nina Tendency

Ocean surface temperatures in the equatorial Pacific Ocean continue to cool. The tendency may lead to some weak La Nina tendencies during the next few weeks, but a full blown La Nina event is not likely. With that said, the U.S. National Oceanic and Atmospheric Administration's CFSv2 forecast model has suggested La Nina conditions could evolve from October through March.

Much caution is advised when viewing the ocean temperature forecast by NOAA's CFSv2 model. The model has not performed well in the past two years. Earlier this year in January the model was predicting a significant El Nino event for the summer because of a notable warming trend that had been occurring in ocean temperatures for a few weeks during the winter of 2016-17. That January forecast was strongly suspect of being in error and World Weather, Inc. cautioned that the model was much too aggressive and unlikely to verify. In retrospect, that was 100% true. Some weak El Nino tendencies evolved briefly in April, May and June, but a full blown El Nino event did not evolve. A similar situation may be occurring now with the model exaggerating cooling conditions in the Pacific forcing the model to predict some seriously cold ocean temperature deviations during the late autumn and winter of 2017-18.

The latest ocean temperature anomalies east of the International Dateline are definitely biased to slightly cooler than usual readings, but the anomalies are not significant enough to qualify for a true La Nina event. The recent trend change in ocean temperature anomalies does raise some concern and it is quite easy to see where the model has picked up the La Nina tendency signal.

The graphic below more clearly shows the rent trend in subsurface ocean temperatures. The big question is, 'has the cooling trend in subsurface ocean temperatures ended or will it continue'?



Recent ocean temperature anomalies have changed so that previously warm areas in the eastern equatorial Pacific Ocean have become slightly cooler biased while warm surface ocean water continues in the western equatorial Pacific. Such conditions are La Nina like, although the anomalies are not significant enough to quality for La Nina.

Subsurface ocean temperatures are expected to hold steady for the next few weeks while some of the cool water is lifted to the surface of the ocean by an upwelling current. The situation certainly lends support to NOAA's CFSv2 forecast model solution suggesting additional cooling of ocean surface temperatures. That will lead to some "La Nina-like" conditions over the next few weeks, but a true La Nina event is not presently anticipated. The odds are good that, just like January, the ocean may become a little anomalously cool for a few months. There may be just enough of it to tilt the autumn and winter in favor of La Nina-like conditions. A full blown La Nina is not likely until the cooler subsurface ocean temperatures get reinforced with more cool water and the anomaly continues to be lifted to the surface.

The situation will be closely monitored over the next few weeks, but for now neutral ENSO conditions will continue to dominate the ocean and atmosphere.

La Nina like conditions this autumn may lead to below average precipitation tendencies across the U.S. Midwest and Great Plains while near to below average precipitation occurs in the southeastern states. A wetter than usual bias could evolve in the Pacific Northwest with some improvement in Canadian Prairies precipitation, although probably not right away. Argentina might trend a littler drier biased if La Nina like conditions evolve while Brazil spring rainfall might be near normal. Remember that these tendencies would only occur if a La Nina actually evolves. La Nina-like conditions will only bring about these trends to a partial degree of significance.

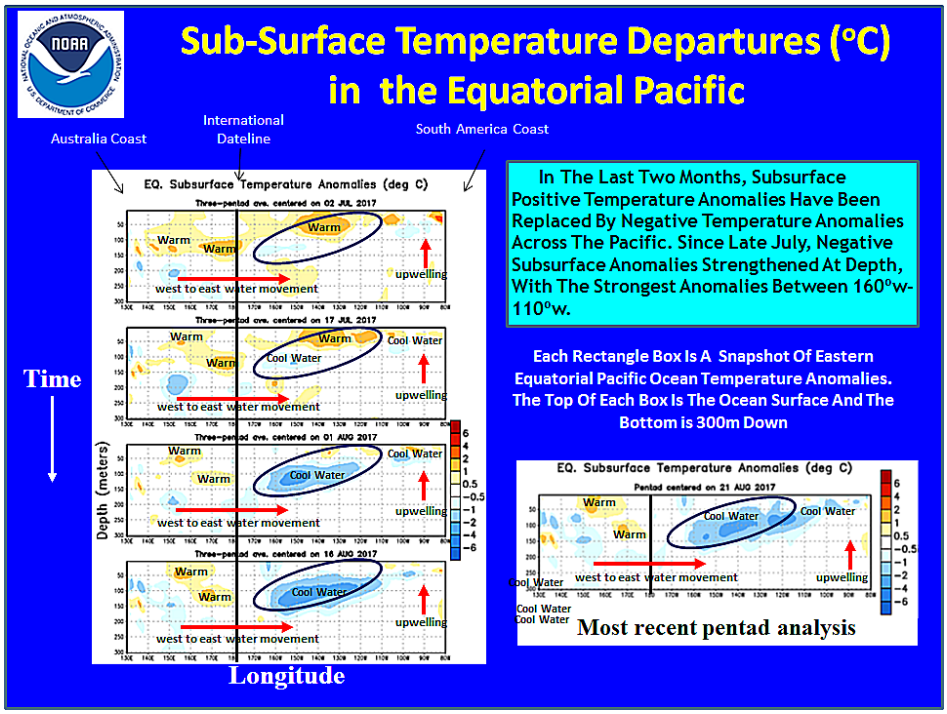
In Europe and Asia there may be a tendency for near to above average precipitation this autumn across areas from Ukraine and western Russia to France while Spain might be a little drier biased. India could trend wetter biased this autumn, but only if a full blown La Nina evolves. Near to

Pacific Cooling Leads To La Nina Tendency (continued from Page5)

slightly wetter biased conditions are more likely in India during October while northwestern India may continue a little drier biased in September.

China weather might trend a little drier in the far south if La Nina like conditions evolve this autumn while the Yangtze River Basin, Yellow River Basin and North China Plain might be a little wetter biased. Australia and much of Southeast Asia might trend a little wetter biased if La Nina like conditions evolve, but again that is not likely to occur right away, but may evolve later in the year if the potential for additional ocean cooling verifies and more La Nina like conditions evolve. South Africa might trend a little wetter later this spring, too.

New Zealand may trend a little wetter biased in October and November if ocean temperatures trend more in favor of La Nina and Mexico would likely see relatively normal weather.



Hurricane Irma May Leave Another Scar On U.S.

Hurricane Irma promises to be the next most serious tropical cyclone to impact North America. The storm was already producing a maximum sustained wind speed of 130 mph Monday evening and was expected intensify further before moving past some of the Greater Antilles. The storm will eventually (late this week) turn toward Florida and impact the southeastern United States. into next week. The impact of this hurricane would be bad enough on its own, but after Hurricane Harvey wrecked havoc in Texas last month this storm and its potential damage is likely to have an even greater impact on the United States.

The storm needs to be closely monitored whether it goes into the United States or across Cuba. Its damage potential is tremendous and the loss of human and animal life will be great along with property losses.