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Climate Impact Company Early AG Wire

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Highlight: MAY and JUN/JUL/AUG 2018 North America & Europe Climate

Process: The Climate Impact Co. climate forecast for May and JUN/JUL/AUG 2018 for North America and Europe is based on 2 sets of analogs. The first set is the "memory" of the late winter to mid-spring pattern which has been profound especially on the U.S. Corn Belt where historical cold is observed. The memory of this pattern is so strong there are expectations of lingering memory into the core of the warm season ahead. The second set of analogs is a conventional SSTA-based forecast combining ENSO/PDO and AMO outlooks. Climate Impact Company projects an ENSO trend toward weak El Nino, neutral PDO and recovering warm AMO for summertime. The same process is used for Europe. Compared with the constructed analog forecast issued by Climate Impact Company for summertime is the probability outlook issued by the International Research Institute for Climate and Society.

North America: CIC indicates dry summer but not hot in Western Corn Belt

May 2018: The memory of early to middle spring climate across North America continues in May. Specifically, regenerating chilly climate in southern Canada to the northern U.S. is expected. Less consistent that April nevertheless a dominant feature. Snow cover lingers into early May in southern Canada. In the U.S. anomalous warmth is choppy and only the Southwest is warmer than normal. The precipitation outlook is wet on the southeast side of the South Canada cool pool placing the wet anomaly on the Corn Belt. The dry Texas climate continues and extends to the southwest Great Plains drought area. This zone could be substantially hotter than indicated. Operational models into early May indicate the southwest Plains could be wet therefore the May precipitation outlook is made with below average forecast confidence.



Fig. 1-2: The Climate Impact Company constructed analog May 2018 temperature and precipitation anomaly forecast for North America.

JUN/JUL/AUG 2018: Memory of the polar vortex driving spring chill over central North America ligers into summertime. The outlook is cooler than normal across the Great Plains with summertime heat residing in the West. Given the warm global oceans the cool anomaly may be tempered but the idea is suppressed heat for most of summer in the East-Central/Mid-South U.S. The precipitation outlook trends wetter in the southern Plains and up-and-down the East Coast. Marginal dryness is indicated in the central Great Plains.



Fig. 3-4: The Climate Impact Company constructed analog JUN/JUL/AUG 2018 temperature and precipitation anomaly forecast for North America.

IRI JUN/JUL/AUG 2018: The probability models are (more) influenced by the warm global SSTA especially in the northern latitudes therefore temperature anomaly forecasts tend to be much warmer and across larger aerial coverage. The IRI forecast is hot over the Interior West to Texas for summer 2008 and temperate to the east. The precipitation outlook is marginally wet Mid-South and marginally dry Upper Midwest. Dryness is most profound across the Northwest. The IRI forecast is very dry in the Caribbean Sea/Gulf of Mexico region implying no tropical cyclone activity for summer.



Fig. 5-6: The International Research Institute for Climate and Society temperature and precipitation probability forecast for North America valid JUN/JUL/AUG 2018.

Europe: Hot/dry target for summer is East-central Europe

May 2018: Recent warmth across Europe will return and persist in May. Moderate to strong warm anomalies are indicated for late spring across northern and eastern Europe but only reaching far western Russia. Cool climate is expected in Spain/Portugal while lingering cold persists in northwest Russia. The west and central Europe pattern is wetter than normal. Only the Black Sea region is drier than normal although Ukraine is likely normally wet.



Fig. 7-8: The Climate Impact Company constructed analog May 2018 temperature and precipitation anomaly forecast for Europe.

JUN/JUL/AUG 2018: There is remarkable consistency from late spring to summer temperature profile as north and east portions of Europe are hotter than normal this time extending into Western Russia. The precipitation outlook indicates dryness enhancing heat risk in Poland to Western Russia. A showery summer is expected across Western Europe to Germany and south to Italy to Greece. Parts of the Black Sea region are also wetter than normal.



Fig. 9-10: The Climate Impact Company constructed analog JUN/JUL/AUG 2018 temperature and precipitation anomaly forecast for Europe.

IRI JUN/JUL/AUG 2018: The probability models offer a different scenario preferring more widespread heat risk based on the reaction of the climate models to a projected very warm North Atlantic and lack of precipitation across Europe during summertime. The Climate Impact Company forecast is not as warm with North Atlantic SSTA. The IRI forecast indicates strongest risk of anomalous summer heat across Southern Europe to the Black Sea region.



Fig. 11-12: The International Research Institute for Climate and Society temperature and precipitation probability forecast for Europe valid JUN/JUL/AUG 2018.