NOAA's 8th Testbed and Proving Grounds (TBPG) Workshop was held April 25–26, 2017 in Kansas City MO at the NWS Training Center Auditorium. More than 60 registrants participated in person and via webinar, from all 12 NOAA TBPG, across NOAA, and partners in academia and the private sector.

Chris Strager, NWS Central Region Director, welcomed the group. Paula Davidson, TBPG coordinating committee chair, introduced the workshop and summarized TBPG transition activities in 2016. Each of the 12 TBPG then overviewed recent transition tests and current/near-term plans for testing activities. Steve Goodman, GRPG Manager, included footage of the GOESR launch, with experimental GOES-16 products in final stages of checkout that set up a follow-on meeting on GOES 16 first results.

This year’s integrating science theme, New Observing System Capabilities and the Fusion of Observations with Environmental Forecast Models included 14 presentations, selected competitively from abstracts submitted on recent transition tests conducted in the TBPG. Chad Gravelle of the OPG received theme-session best-paper honors for his presentation on transition testing at OPG of GOES-R capabilities for forecast applications, based on these criteria: transition test rigor, impact to NOAA missions should the capability be successfully transitioned, collaboration, and effectiveness of presentation.

Tomi Vukicevic, NWS/Office of Water Prediction, described recent progress and approaches for transition testing in OWP’s National Water Center in Tuscaloosa, followed by dedicated time for posters on other affiliated and emerging capabilities, additional theme-related transition testing, and V-lab demos.

The workshop concluded with a panel discussion for TBPG managers with the entire group, on emerging S&T that merit priority attention for transition testing, and approaches for enhancing effective collaboration/collaborative transition testing. Several key points emerged:

- Data fusion and transition testing of both the underlying data fusion products and forecast tools based on these tools capabilities will be increasingly important.
- Increasing collaborative (and real-time) testing can be facilitated not only with advances in IT infrastructure capabilities, but also with some simple low-tech avenues.
- Nearly all of the TPBG are already engaged in testing aspects of NGGPS and ways to exploit it in a range of forecast improvements, in both component testing and systematic testing toward a unified (NOAA-wide) modeling approach.

With implementation targeted in FY19, related transition testing is a top choice for the 9th annual TBPG workshop’s integrating science theme.