A gauge – CMORPH blended analysis (GCB) of daily precipitation has been constructed on a 0.25° lat/lon grid over the global land for an 18-year period from 1998 to the present. The GCB analysis is developed to combine the strength of gauge observations and satellite estimates of precipitation. The gauge data used here is the CPC unified daily gauge analysis which is created by interpolating gauge reports of daily precipitation from ~30000 stations around the world with consideration of orographic effects. The input satellite estimates are from the reprocessed, bias-corrected CMORPH. The CMORPH bias correction is performed through PDF calibration against temporally / spatially co-located gauge data. A processing system is developed to blend the CPC gauge analysis and the bias-corrected CMORPH, implementing the OI-based conceptual model described in Xie and Xiong (2011). The bias-corrected CMORPH is utilized as the first guess, while the gauge data play a role as the observations to refine the first guess over regions with reasonable gauge station coverage. Error structures are defined for the input gauge and CMORPH data to ensure optimal performance of the resulting blended analysis. As a result, over regions of dense gauge networks, the blended analysis is dominated by the gauge analysis while over places of sparse station coverage (e.g. equatorial Africa) the analysis is virtually the same as the first guess, the bias-corrected CMORPH satellite estimates. Over grid boxes where / when the current generation CMORPH does not provide coverage (e.g. beyond 60°S/N parallels) or presents poor detection skills (e.g. regions covered with snowfall), the blended analysis is simply defined as the same as the gauge-based analysis. Validation results showed improved performance of the gauge – CMORPH blended analysis upon individual inputs. Detailed results will be reported at the 8th IPWG Workshop.