Supplements


Figure S1: Preparations for a flight launch at 8:30 local time on January 6, 2017. RS-11G and RS92 units were hung on the ends of a plastic/cardboard rod.
Figure S2: Profiles of mean temperature differences (RS-11G GDP minus RS-11G MGPS2) for all measurement data. RS-11G MGPS2 is an RS-11G product based on Meisei MGPS2 software.

Figure S2 shows temperature comparison results for RS-11G GDP and RS-11G products from Meisei MGPS2 (RS-11G MGPS2). Raw temperature data are corrected to help clarify the relationship between frequency and resistance for the thermistor, and correction for RS-11G GDP is improved to help clarify the relationship even more accurately than with RS-11G MGPS2 data.
Figure S3: As per Fig. S2, but for RH.

Figure S3 shows RH comparison results for RS-11G GDP and RS-11G MGPS2. In RH calculation, the major difference between RS-11G GDP and RS-11G MGPS2 is the presence and absence of correction using SHC ground check data, respectively, and the contamination removal filter for rain and cloud droplets is improved for RS-11G GDP.