Figure A1. Scatter plots of the MSW versus MSLP taken from the four best-track datasets as shown in Figure 1. (Left) The one-minute MSW from JTWC were converted to ten-minute wind using a factor of 0.88 and superimposed on the plot (black crosses). (Right) The ten-minute MSW from JMA and HKO, and the two-minute MSW from CMA were converted to one-minute MSW using factors as listed by Knapp and Kurk [2010].
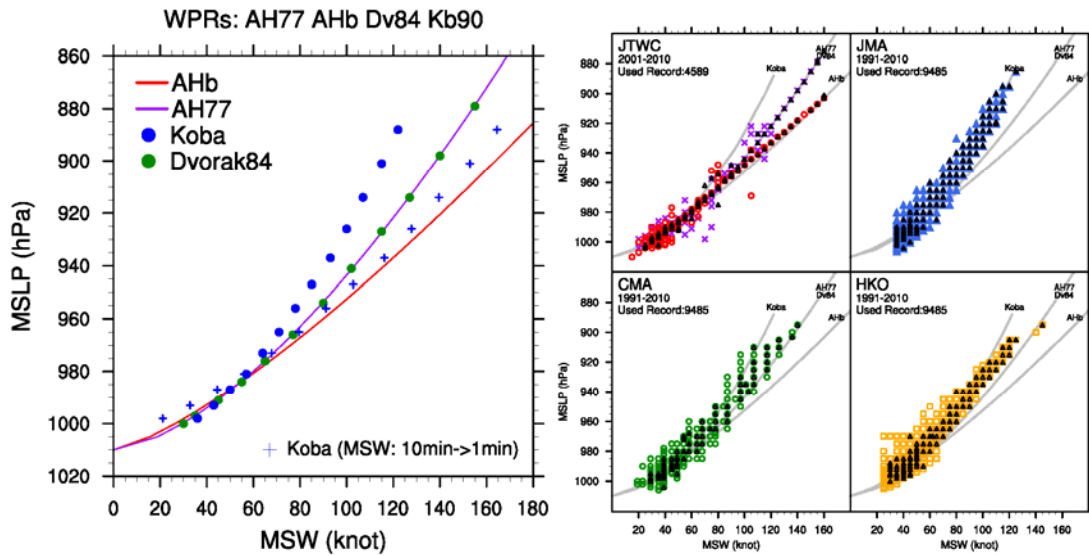
Figure A2.(Left) Wind-pressure relationships used in different tropical cyclone warning agencies: Atkinson and Holliday [1977], binned AH77 as introduced by Knaff and Zehr [2007], Koba et al., [1991], and Dvorak [1984]. A modified Koba curve, for which the MSW were converted to 1-minute averaged values, is also plotted for reference. (Right) Scatter plots of the MSW versus MSLP taken from the four best-track datasets. The maximum MSW and minimum MSLP in each TC lifecycle are superimposed and denoted as black hollow triangles. As for JTWC, the values at TC peak strength in 1991-2000 were taken from the ATCR in this period. Also shown are the reference WPRs derived by Atkinson and Holliday [1977], Dvorak [1984], and Koba [1990, 1991].
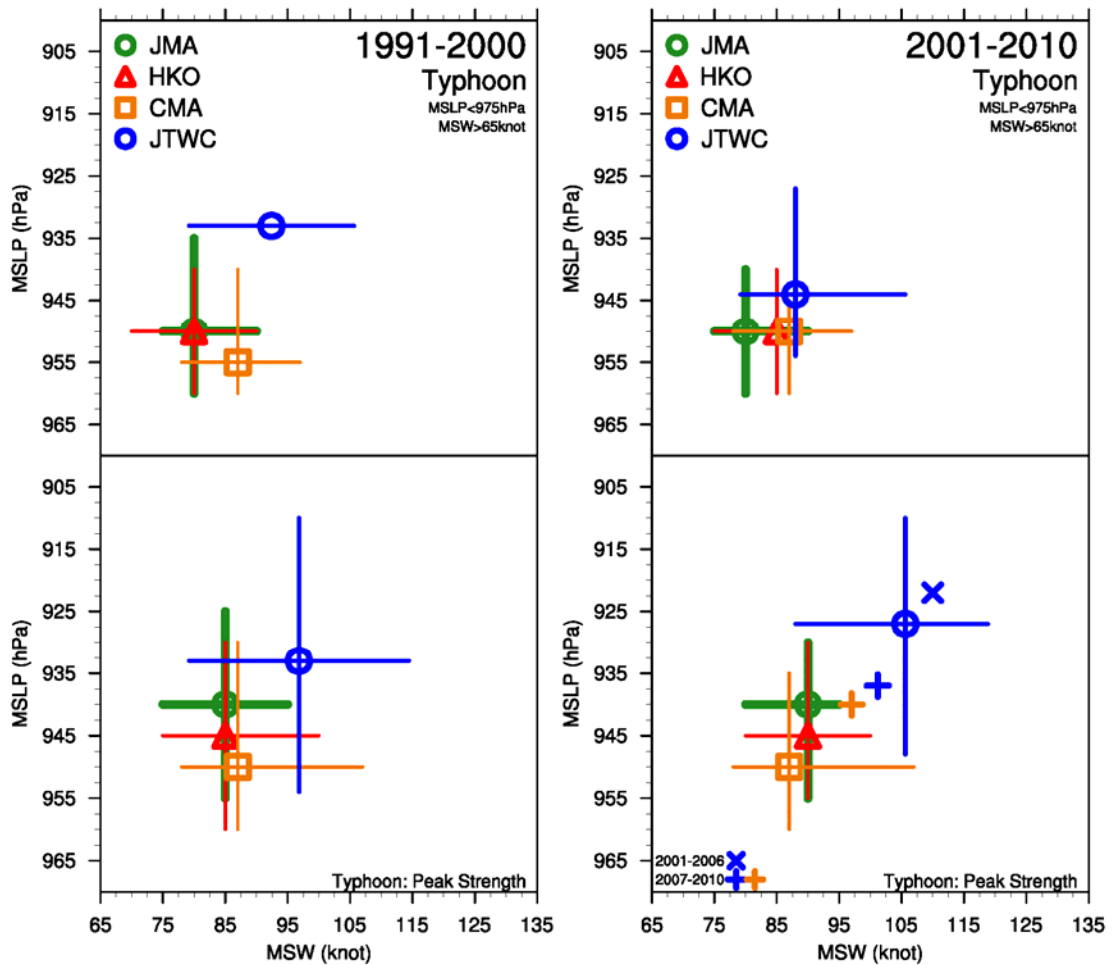
Figure A3. Distributions of MSW plotted against that of MSLP from the four agencies in the first (left) and second (right) decades during the period from 1991 to 2010. The plot shows the median values (symbols) as well as the inter-quartile ranges (lines) both for MSLP and MSW. Vertical and horizontal lines represent the inter-quartile ranges of MSLP and MSW, respectively. The upper panels show the distribution of all the pairing records that reach the typhoon strength whereas the lower panels show the distribution of the peak strength of each individual typhoon event in the 20-year period. This figure is the same as in Figure 3 except that the one-minute MSW from JTWC were converted to ten-minute wind using a factor of 0.88 before the data sorting and matching among the four agencies.