

ensemble member is 20.

3. Results

Figure 2 shows three results of analyzed positions of Typhoon Sinlaku together with the Regional Specialized Meteorological Center Tokyo best track (hereafter the JMA best track). The result indicated that a difference in sea surface temperature between MGDSST (CNTL in Fig. 2) and MOVE did directly affect the analysis of the central position of Sinlaku in particular at an early developing phase (south of 20°N) and a decaying phase (north of 30°N). In addition, there is a clear difference in analyzed central positions between the NHM (MOVE in Fig. 2) the coupled model (MOVECP in Fig. 2) only at an early developing phase (south of 20°N). This result suggests that both the difference in sea surface temperature field and ocean coupling certainly affect the analysis of typhoon position.

Figure 3 exhibited evolutions of analyzed central pressures together with the JMA best-track central pressure. All the three falling rates of analyzed central pressure are moderate compare with the JMA best track one during the intensification phase from 9 to 13 September due to the relatively coarse resolution (~15 km) of the current developing system. However, there is a clear difference in falling rates among the three analyses during the phase. Typhoon – induced sea surface cooling helps suppression of intensification. On the contrary, there is less difference in analyzed central pressures among the three since 14 September when the typhoon underwent the mature or decaying phase.

4. Concluding remarks

Reduction in the falling rate of the analyzed central pressure in MOVECP is a reasonable result in that sea surface cooling induced by a typhoon is calculated by the coupled model and the cooling does affect the intensification of the typhoon as a suppression of the intensification particularly during the intensification phase. If the resolution of the analysis system were finer, the analyses of the central pressure would be improved.

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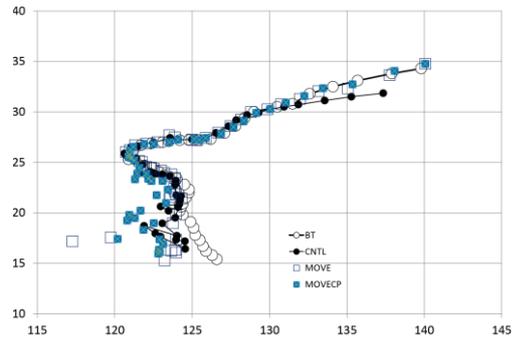


Figure 2 Results of analyzed center positions of Typhoon Sinlaku in CNTL (MGDSST is used), MOVE (Noncoupled system) and MOVECP (Coupled system) together with the JMA best track.

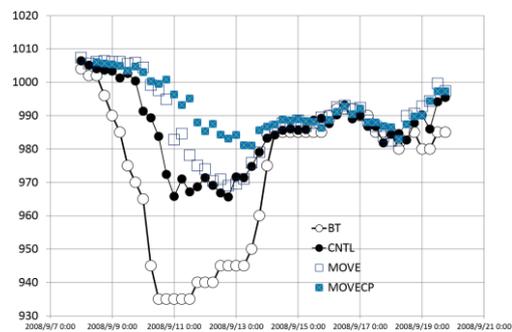


Figure 3 Evolutions of analyzed central pressures of Typhoon Sinlaku in CNTL (MGDSST is used), MOVE (Noncoupled system) and MOVECP (Coupled system) together with the JMA best track central pressure.