Electronic Supplementary Material to:
Reexamination of the Relationship between Tropical Cyclone Size and Intensity over the Western North Pacific*

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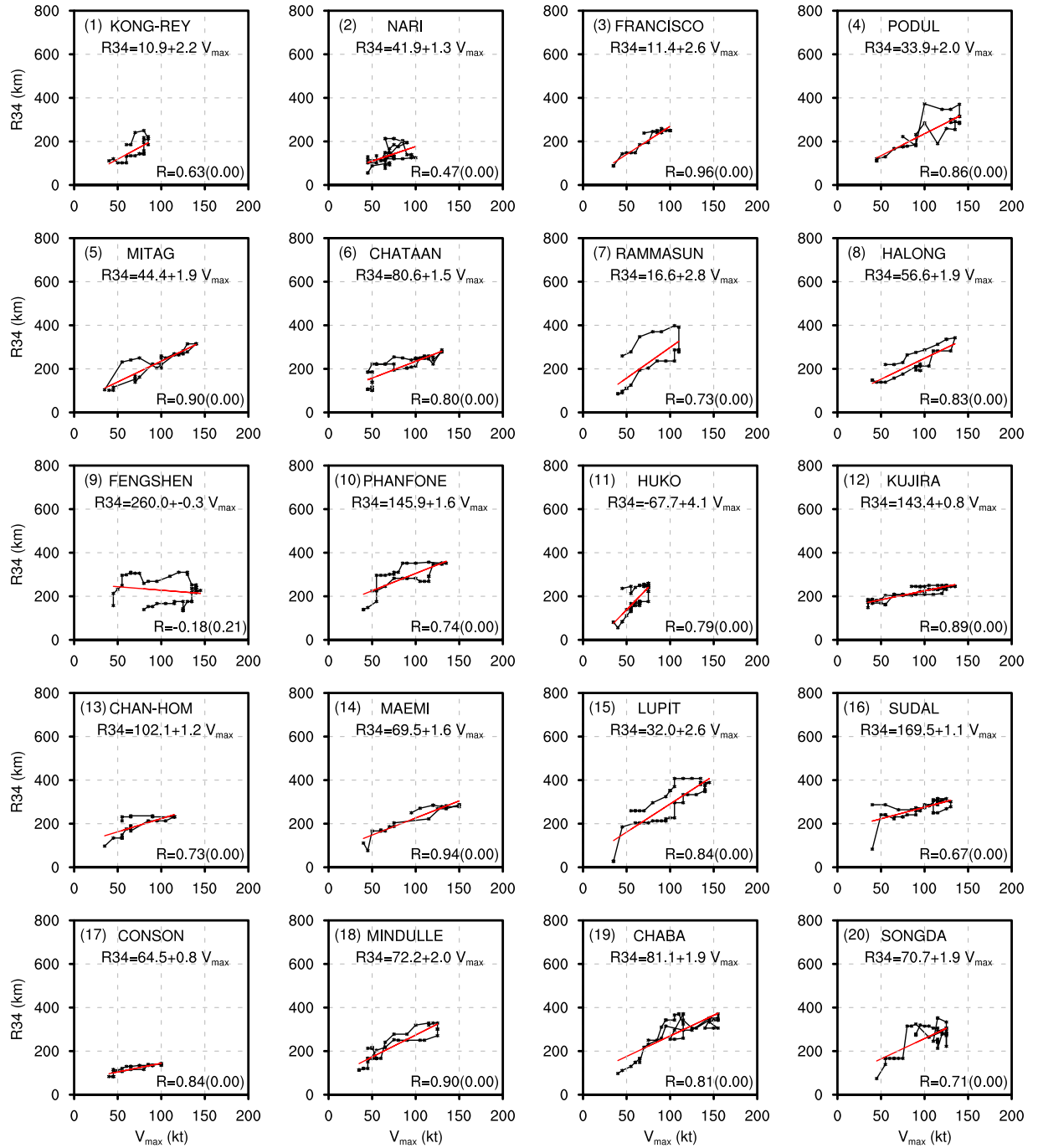

Fig. S1. Correlation and regression analysis throughout the whole lifetime for 73 JTWC TCs from 2001 to 2020 over the western North Pacific. In each panel, the number and name of each TC are presented in the top left corner. Records of R34 and V_{max} are denoted by the black asterisks, and the linear regression lines of R34 against V_{max} are shown by the red line. The specific linear regression equation between R34 and V_{max} is presented. The correlation coefficient (R) between R34 and V_{max} is displayed in the bottom right corner of each panel, with the test value (p) of the R given in parentheses.
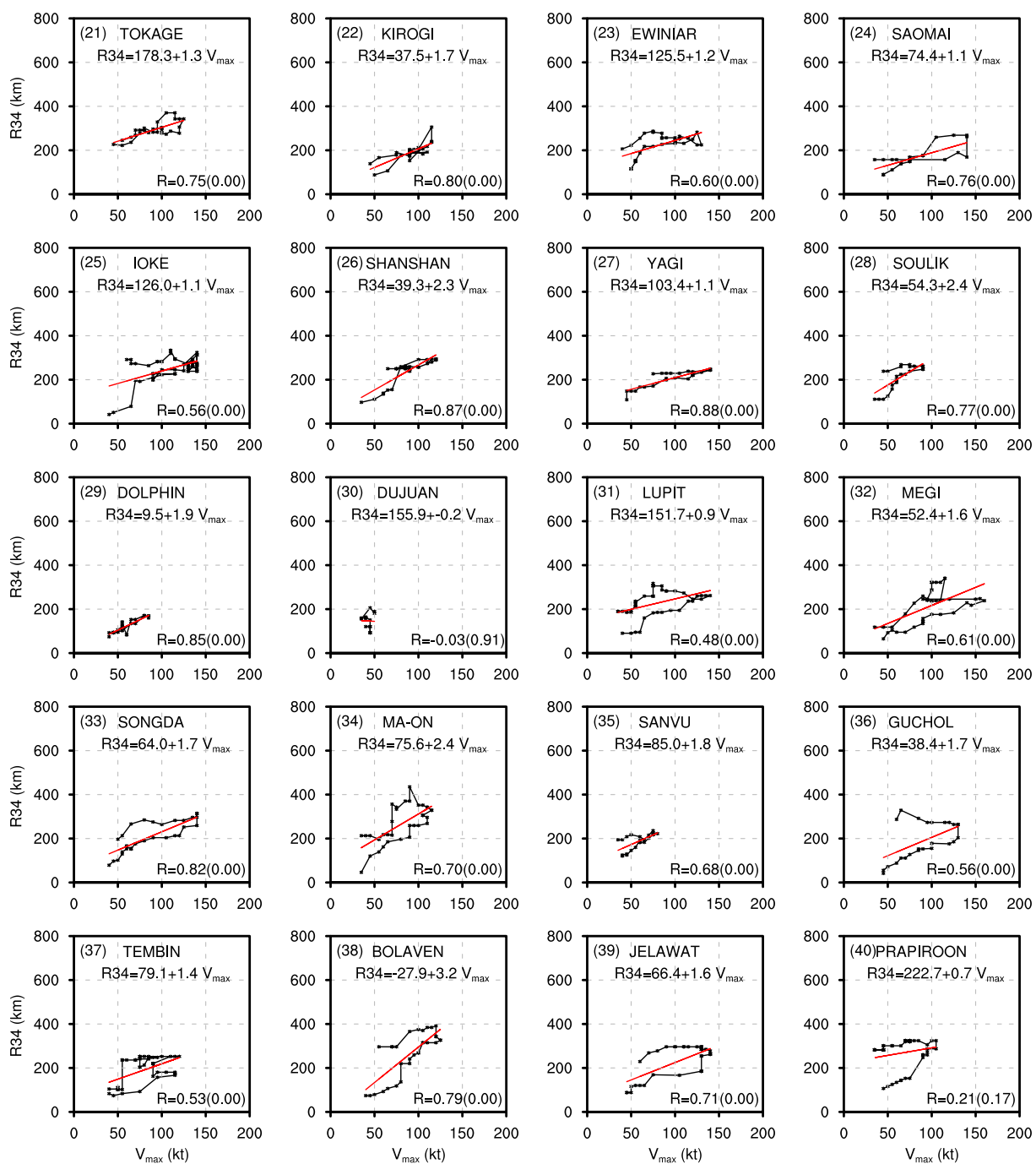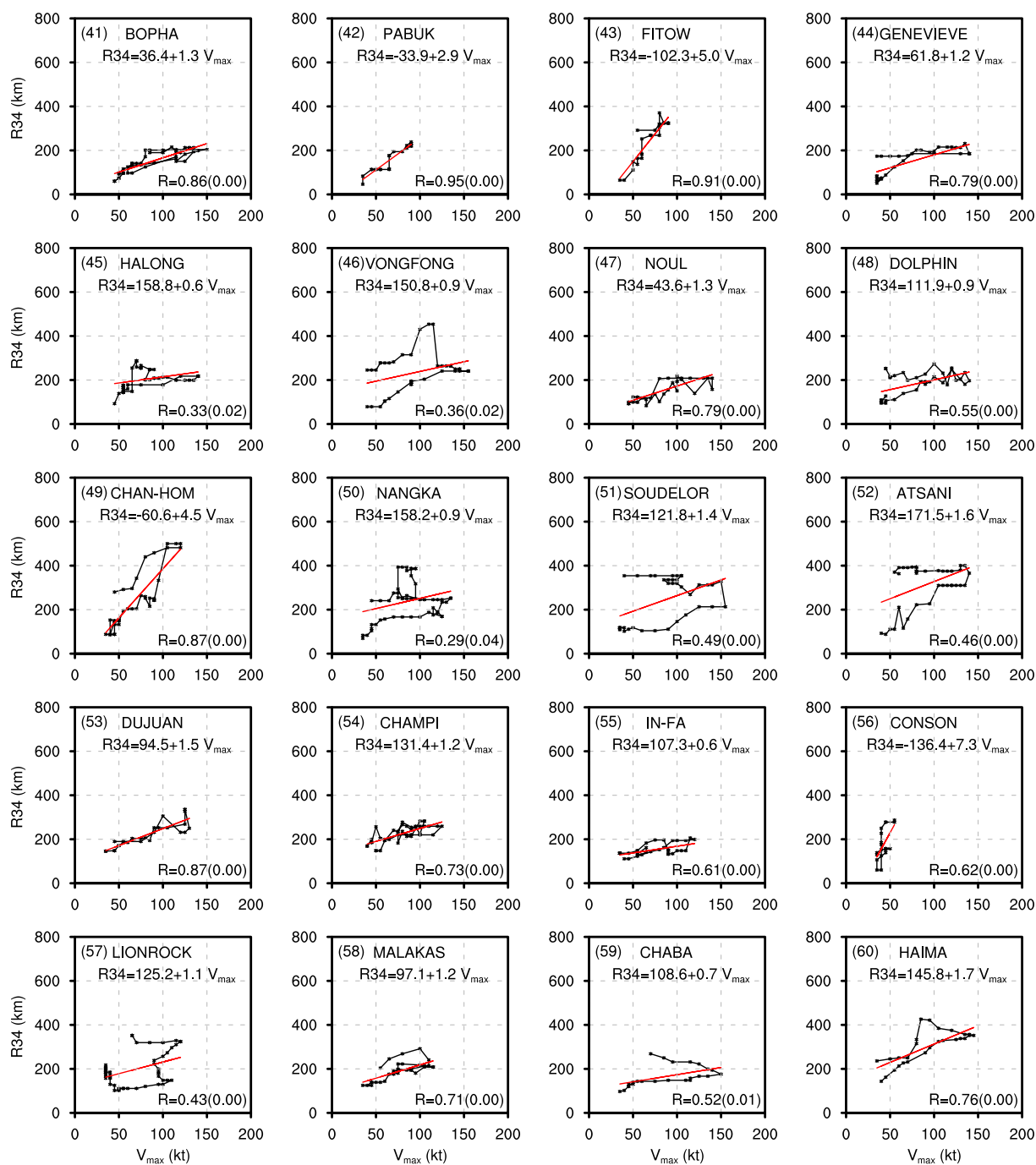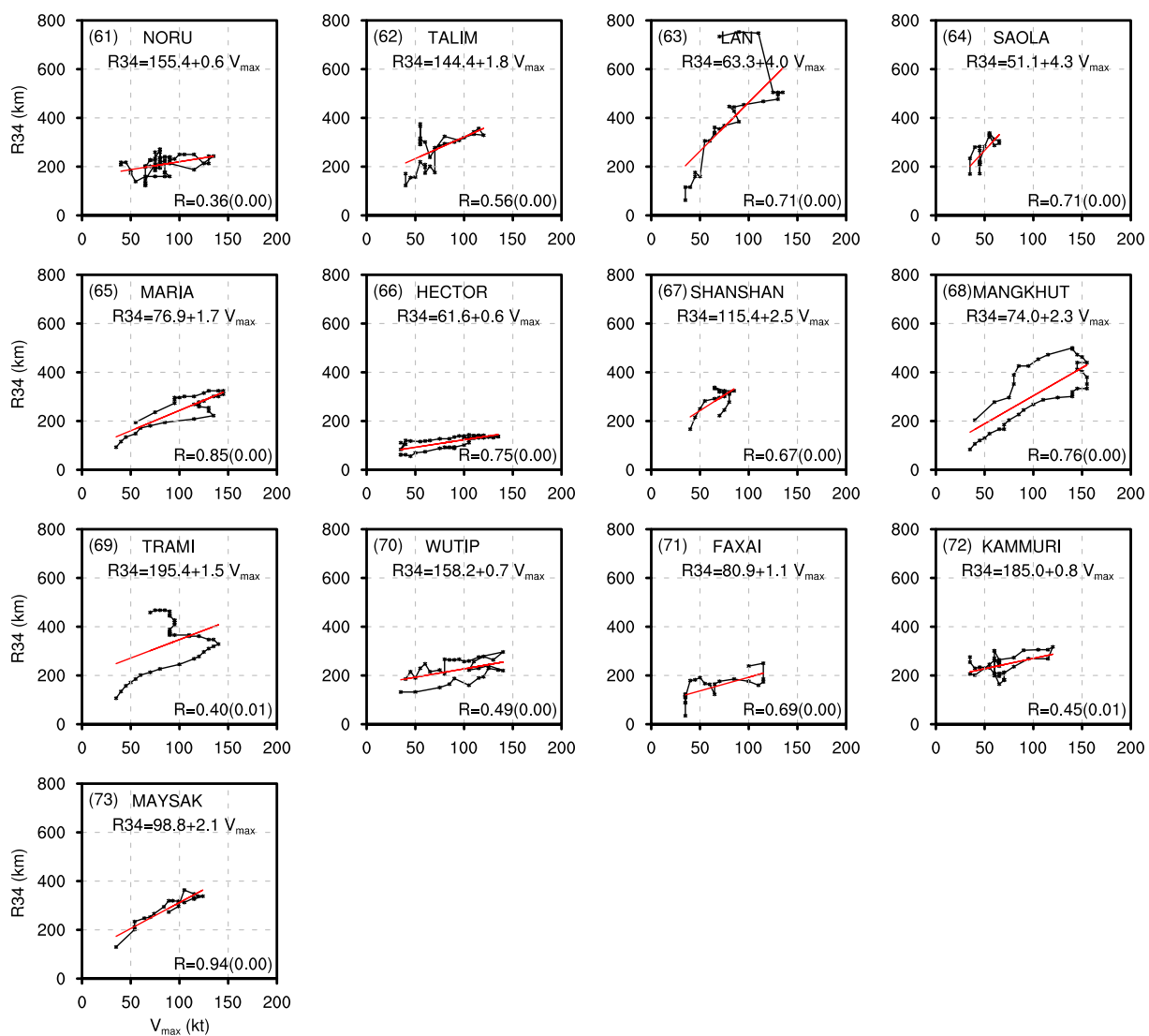
Fig. S1. (Continued).

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(61) NORU
R34=155.4+0.6 V_{max}
R=0.36(0.00)

(62) TALIM
R34=144.4+1.8 V_{max}
R=0.56(0.00)

(63) LAN
R34=63.3+4.0 V_{max}
R=0.71(0.00)

(64) SAOLA
R34=51.1+4.3 V_{max}
R=0.71(0.00)

(65) MARIA
R34=76.9+1.7 V_{max}
R=0.85(0.00)

(66) HECTOR
R34=61.6+0.6 V_{max}
R=0.75(0.00)

(67) SHANSHAN
R34=115.4+2.5 V_{max}
R=0.67(0.00)

(68) MANGKHUT
R34=74.0+2.3 V_{max}
R=0.76(0.00)

(69) TRAMI
R34=195.4+1.5 V_{max}
R=0.40(0.01)

(70) WUTIP
R34=158.2+0.7 V_{max}
R=0.49(0.00)

(71) FAXAI
R34=80.9+1.1 V_{max}
R=0.69(0.00)

(72) KAMMURI
R34=185.0+0.8 V_{max}
R=0.45(0.01)

(73) MAYSAK
R34=98.8+2.1 V_{max}
R=0.94(0.00)

V_{max} (kt)
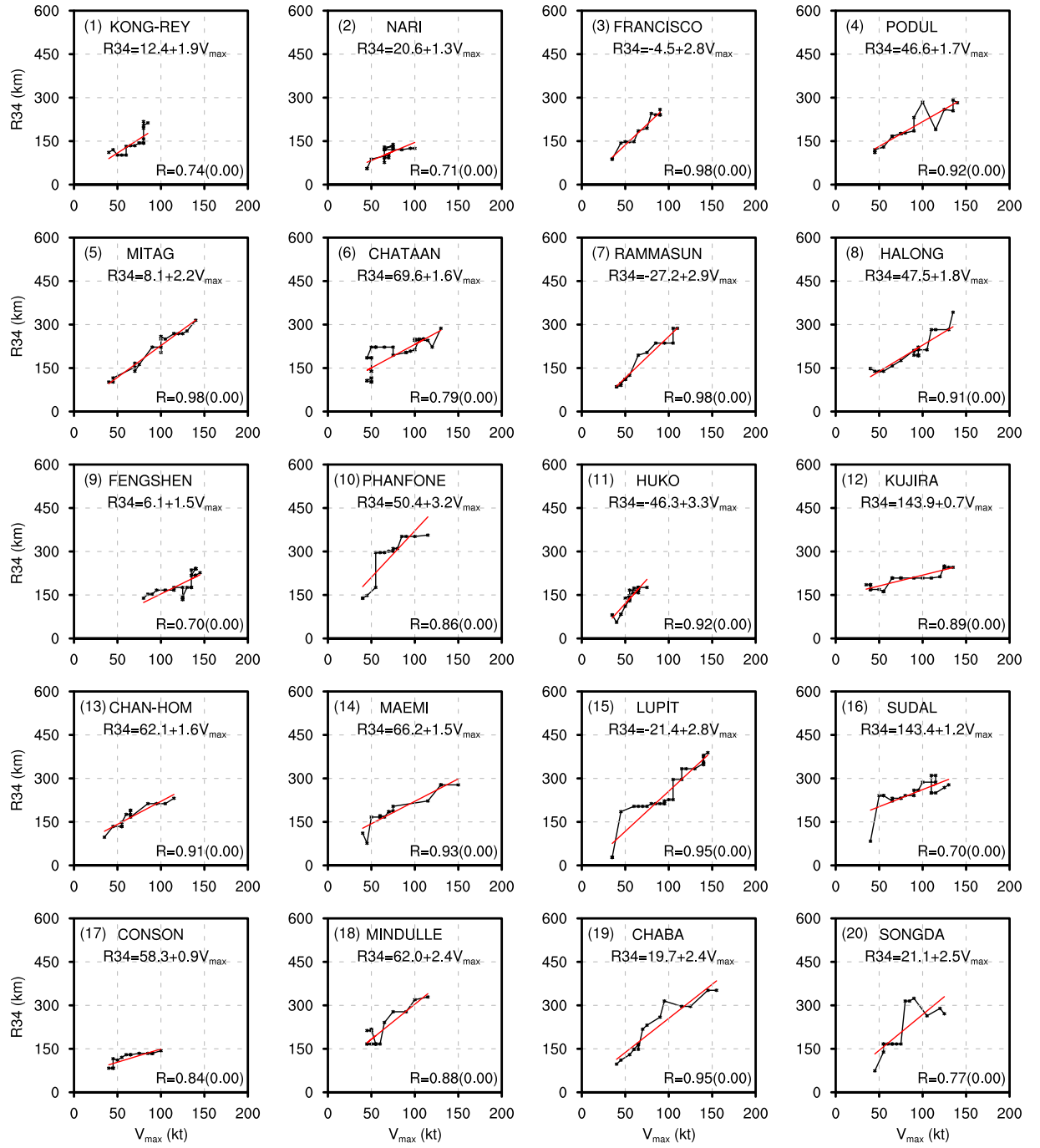
R34 (km)

Fig. S1. (Continued).

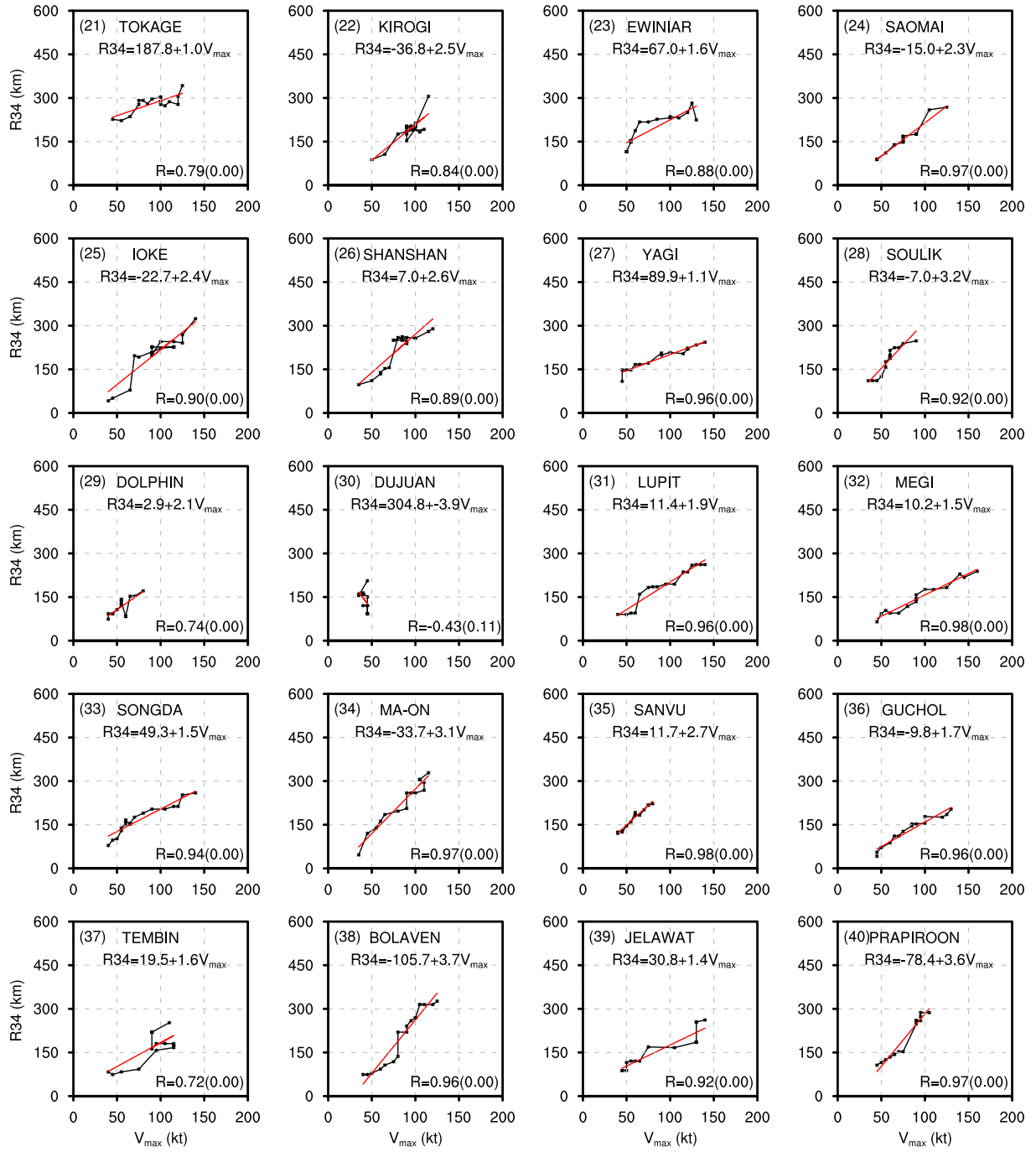**Fig. S2.** As in Fig. S1, but for the development stage.
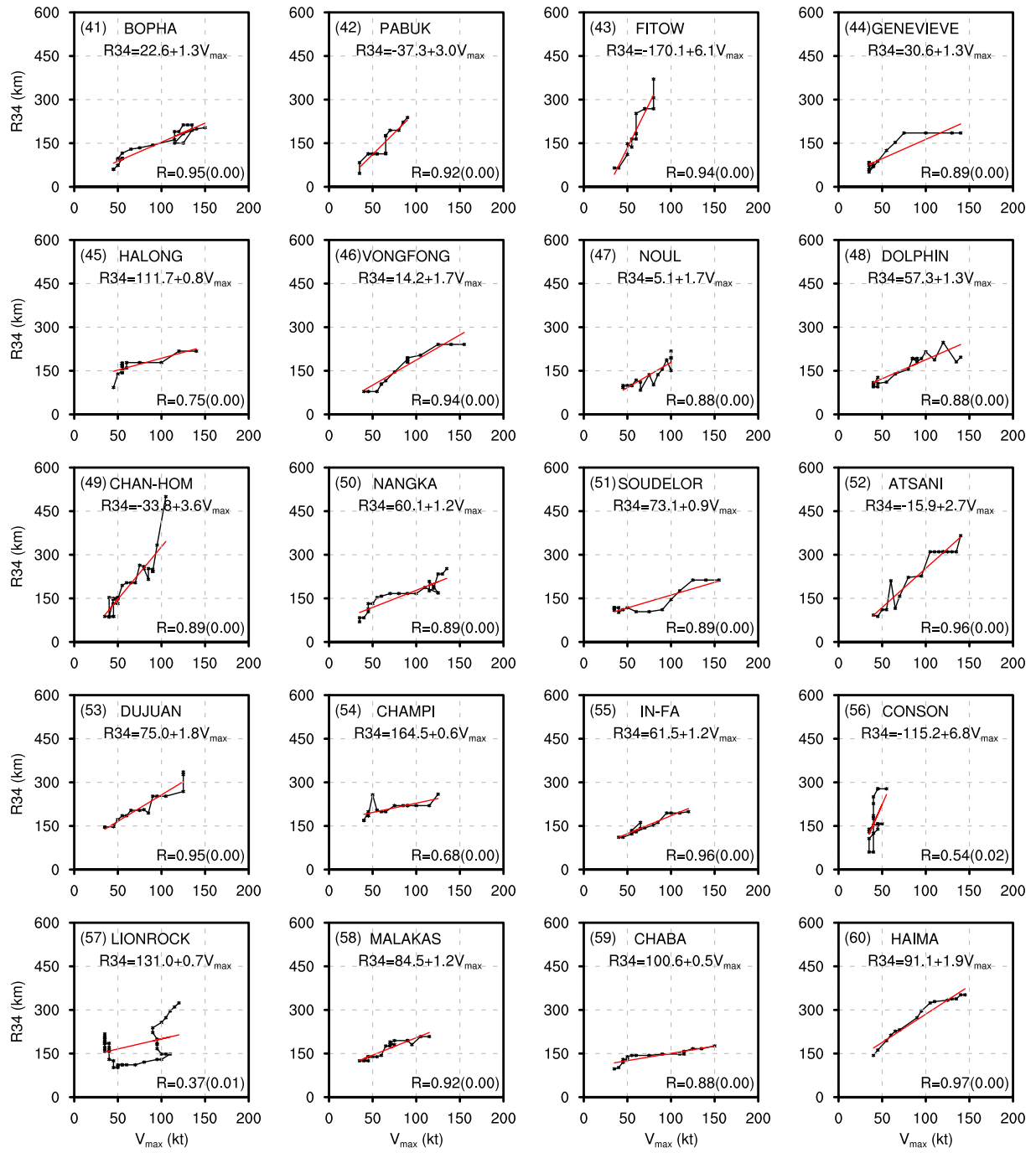
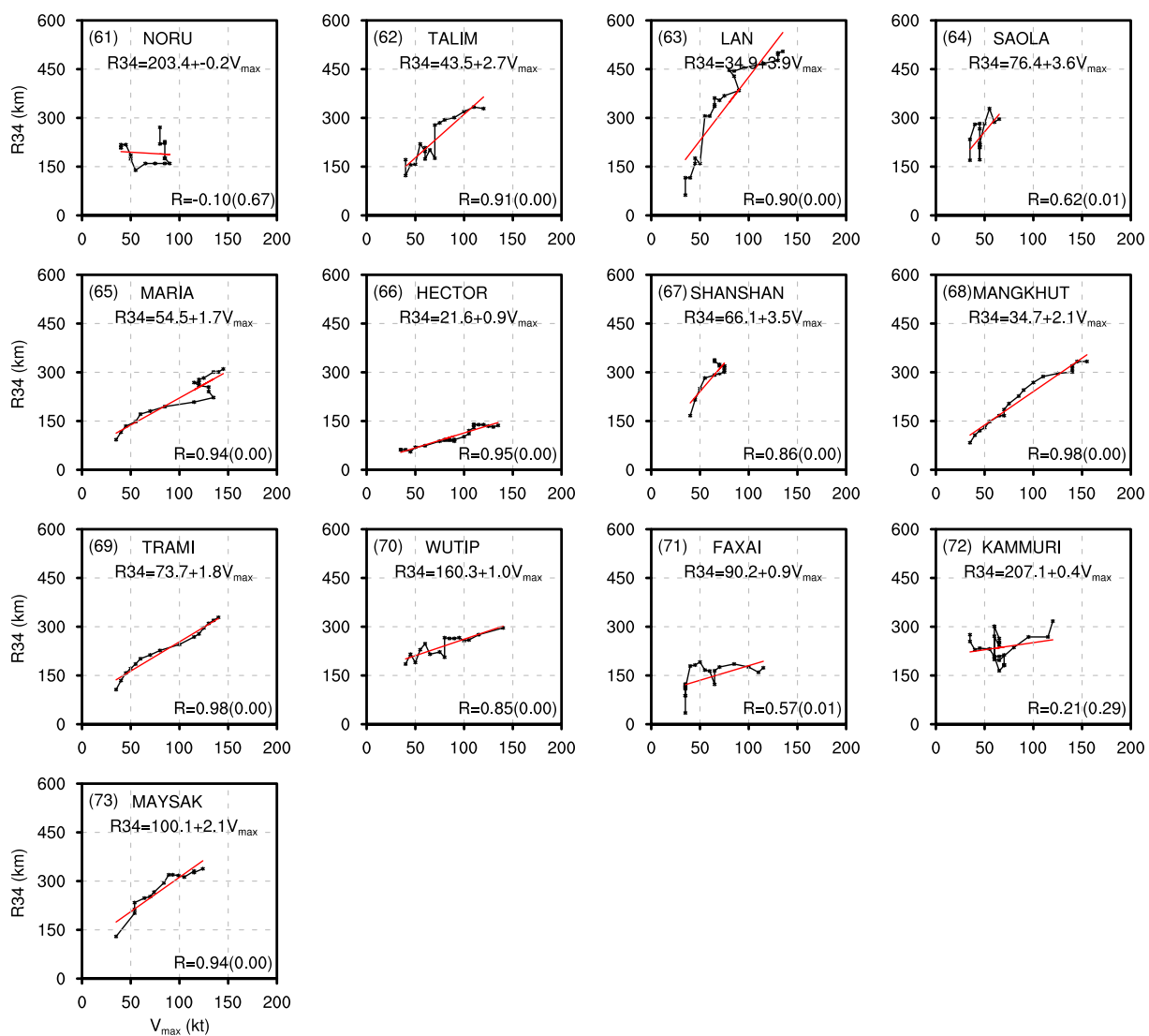**Fig. S2.** (Continued).

Fig. S2. (Continued).
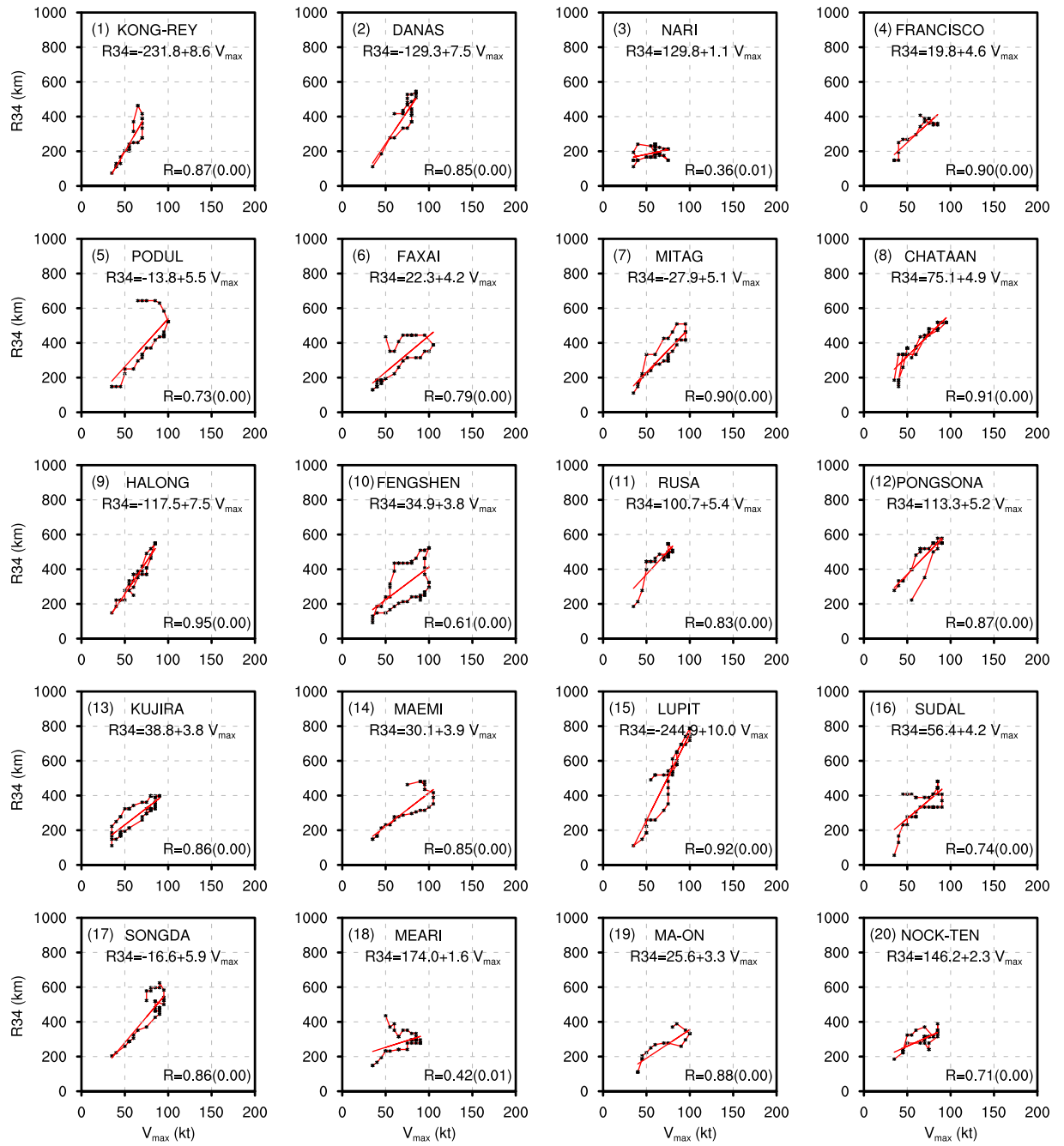
Fig. S2. (Continued).

Fig. S3. Correlation and regression analysis throughout the whole lifetime for 58 JMA TCs from 2001 to 2019 over the western North Pacific. In each panel, the number and name of each TC are presented in the top left corner. Records of R34 and V_{max} are denoted as the black asterisks, and the linear regression lines of R34 against V_{max} are shown by the red line. The specific linear regression equation between R34 and V_{max} is presented. The correlation coefficient (R) between R34 and V_{max} is displayed in the bottom right corner of each panel, with the test value (p) of the R given in parentheses.
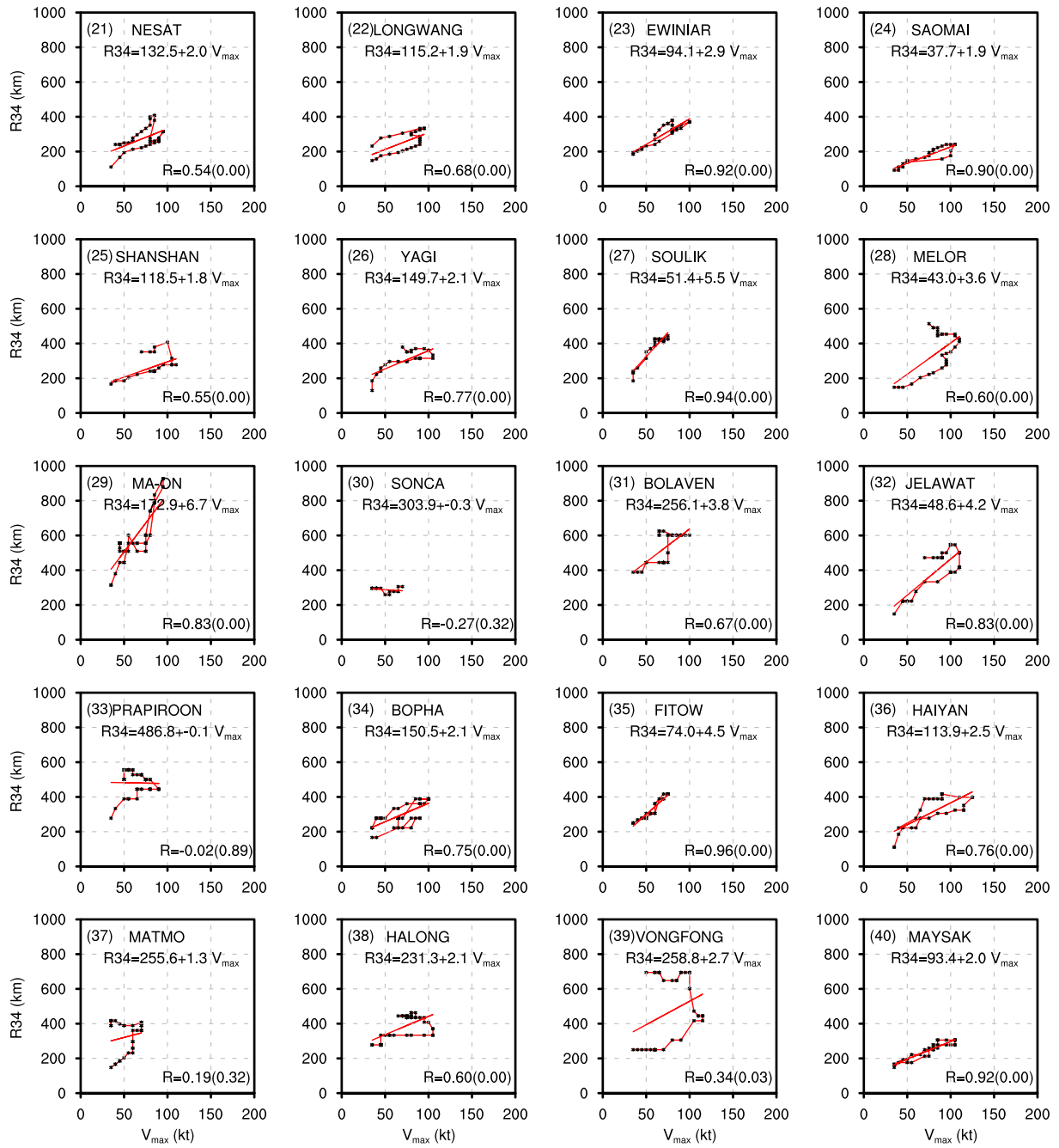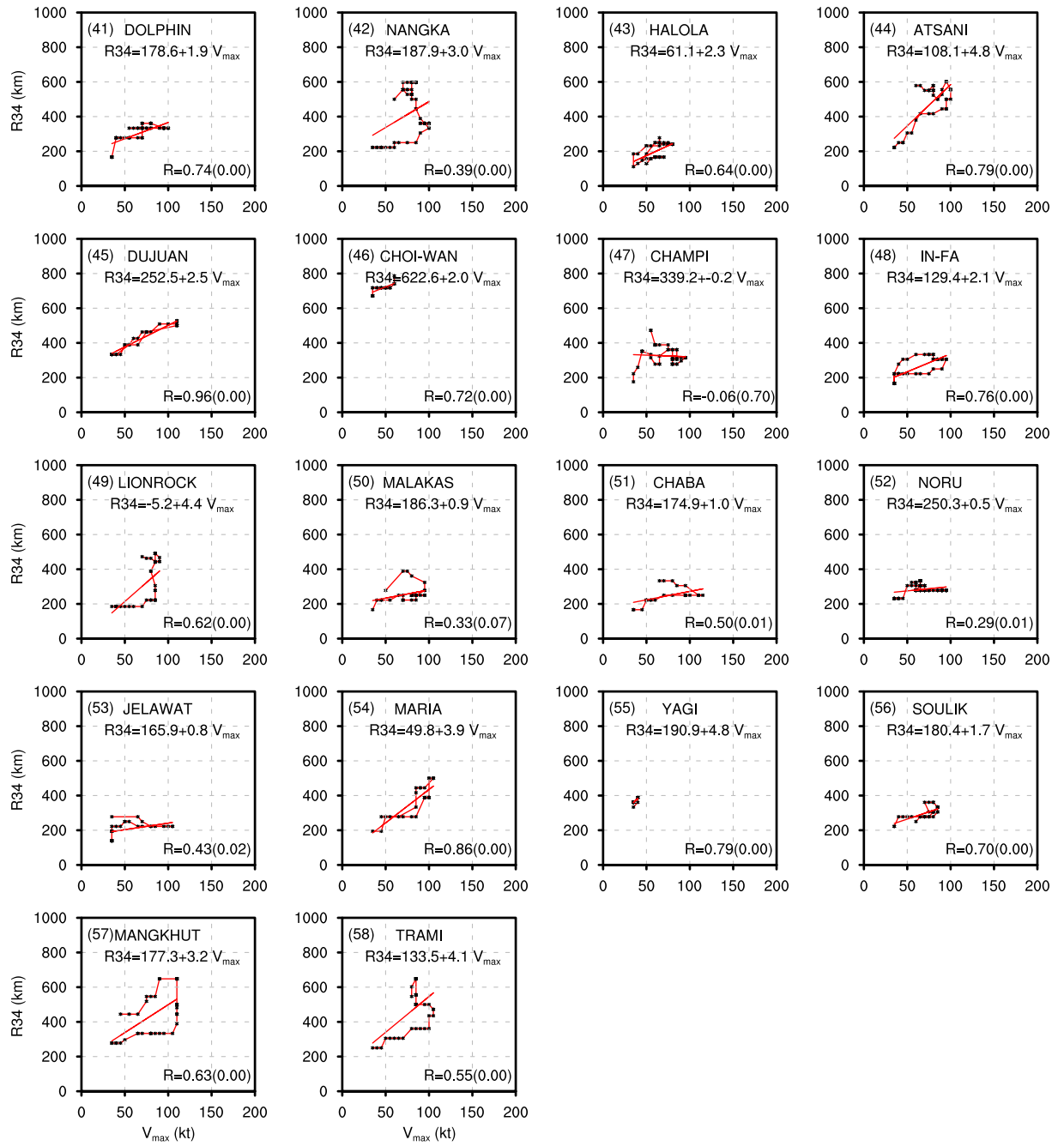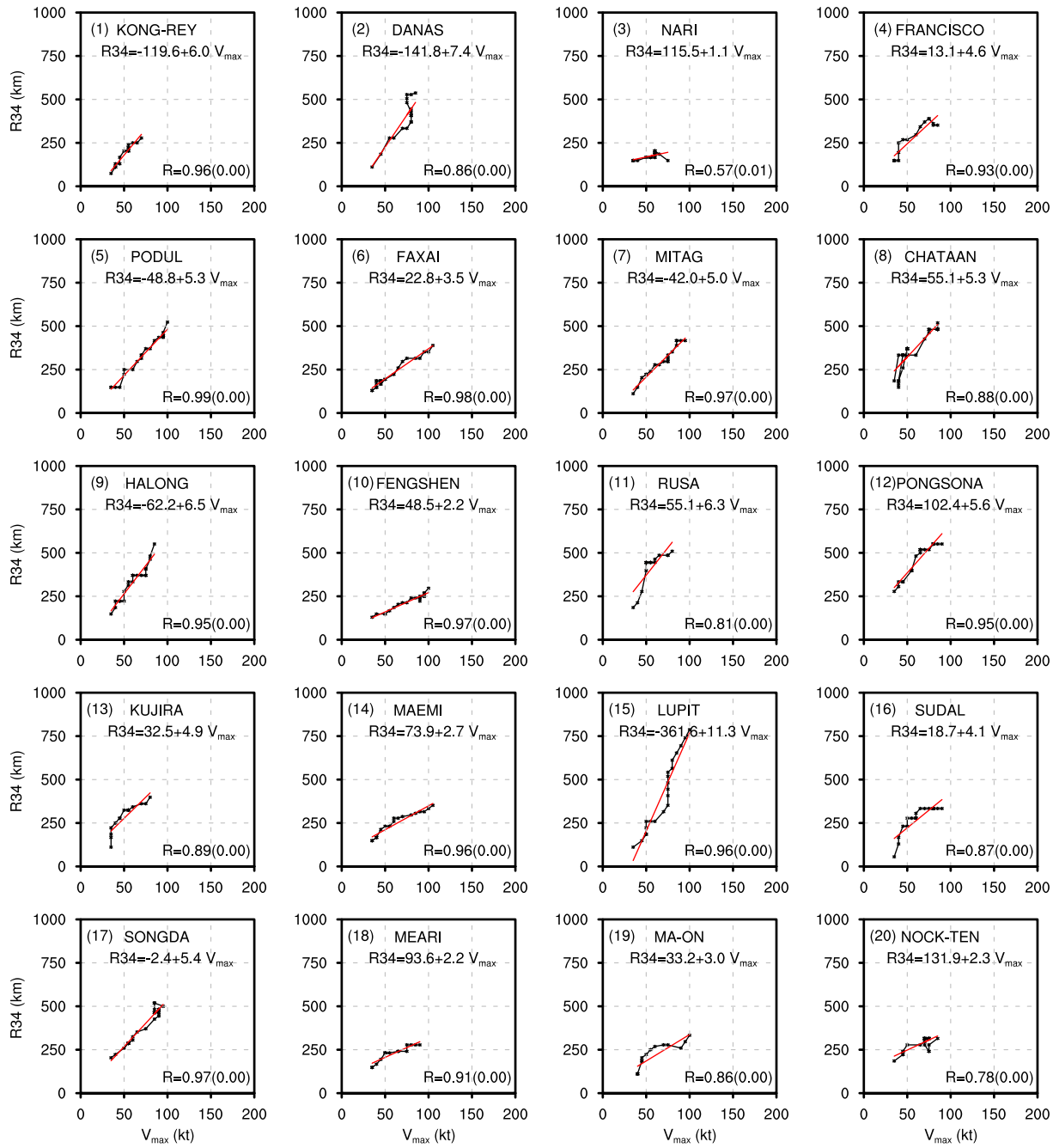
Fig. S3. (Continued).

Fig. S3. (Continued).
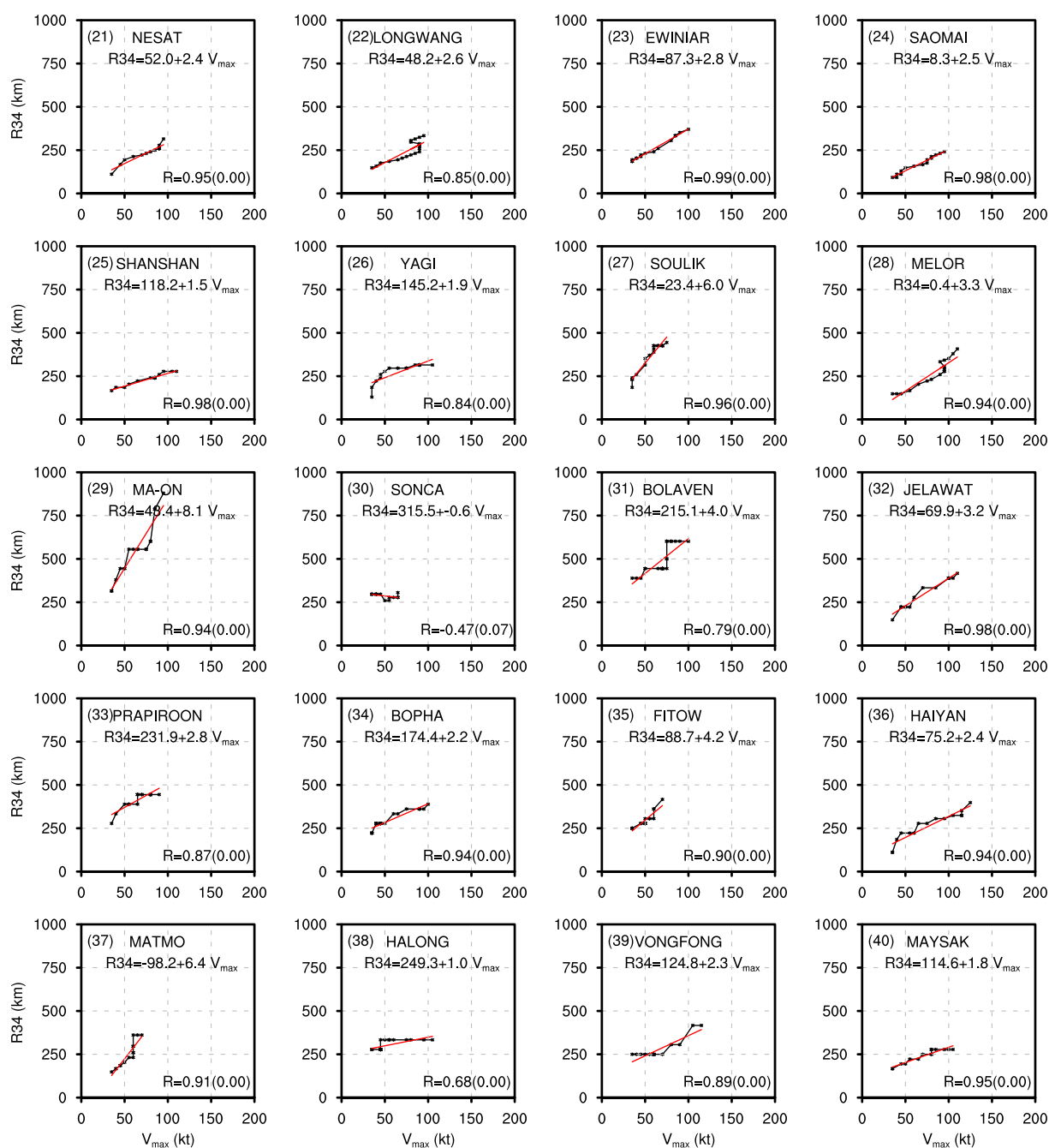
Fig. S4. As in Fig. S3, but for the development stage.

(21) NESAT
R34=52.0+2.4 V_{max}
R=0.95(0.00)

(22)LONGWANG
R34=48.2+2.6 V_{max}
R=0.85(0.00)

(23) EWINIAR
R34=87.3+2.8 V_{max}
R=0.99(0.00)

(24) SAOMAI
R34=8.3+2.5 V_{max}
R=0.98(0.00)

(25) SHANSHAN
R34=118.2+1.5 V_{max}
R=0.98(0.00)

(26) YAGI
R34=145.2+1.9 V_{max}
R=0.84(0.00)

(27) SOULIK
R34=23.4+6.0 V_{max}
R=0.96(0.00)

(28) MELOR
R34=0.4+3.3 V_{max}
R=0.94(0.00)

(29) MA-ON
R34=48.4+8.1 V_{max}
R=0.94(0.00)

(30) SONCA
R34=315.5+-0.6 V_{max}
R=-0.47(0.07)

(31) BOLAVEN
R34=215.1+4.0 V_{max}
R=0.79(0.00)

(32) JELAWAT
R34=69.9+3.2 V_{max}
R=0.98(0.00)

(33)PRAPIROON
R34=231.9+2.8 V_{max}
R=0.87(0.00)

(34) BOPHA
R34=174.4+2.2 V_{max}
R=0.94(0.00)

(35) FITOW
R34=88.7+4.2 V_{max}
R=0.90(0.00)

(36) HAIYAN
R34=75.2+2.4 V_{max}
R=0.94(0.00)

(37) MATMO
R34=-98.2+6.4 V_{max}
R=0.91(0.00)

(38) HALONG
R34=249.3+1.0 V_{max}
R=0.68(0.00)

(39)VONGFONG
R34=124.8+2.3 V_{max}
R=0.89(0.00)

(40) MAYSAK
R34=114.6+1.8 V_{max}
R=0.95(0.00)

R34 (km)

V_{max} (kt)

Fig. S4. (Continued).

Fig. S4. (Continued).