Errata of “Annual Report on the Activities of the RSMC Tokyo – Typhoon Center 2020” (19 October 2022)

4.1.1 Center Position

p18　Figure 4.4

(Correct)

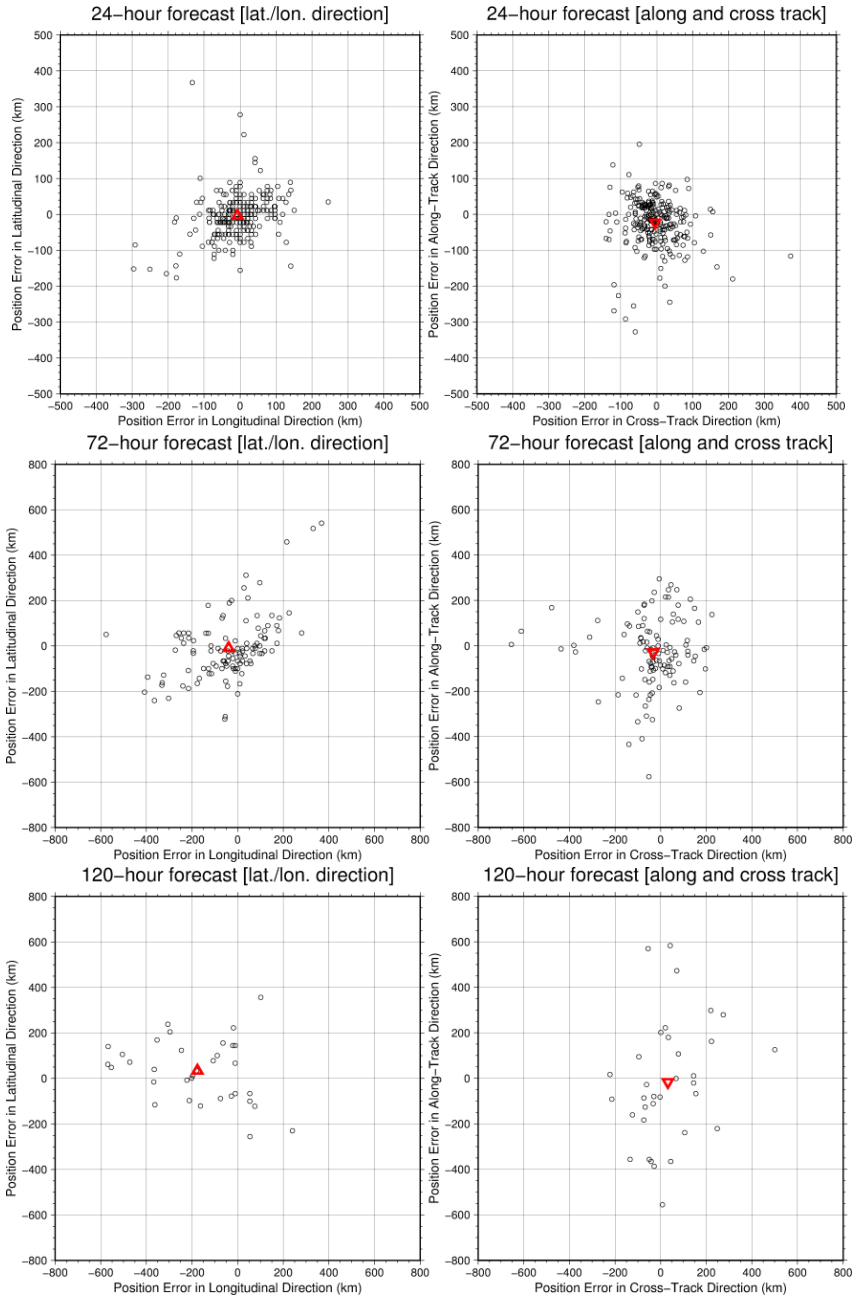


Figure 4.4 Scatter diagrams of 24- (top), 72- (middle) and 120-hour (bottom) forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. (Scatter diagrams of 48-, 96- hour forecasts are available on the Center’s website

(https://www.jma.go.jp/jma/jma-eng/jma-center/rsmc-hp-pub-eg/AnnualReport/2020/index.html)). Direction of TC track is calculated from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.

(Incorrect)

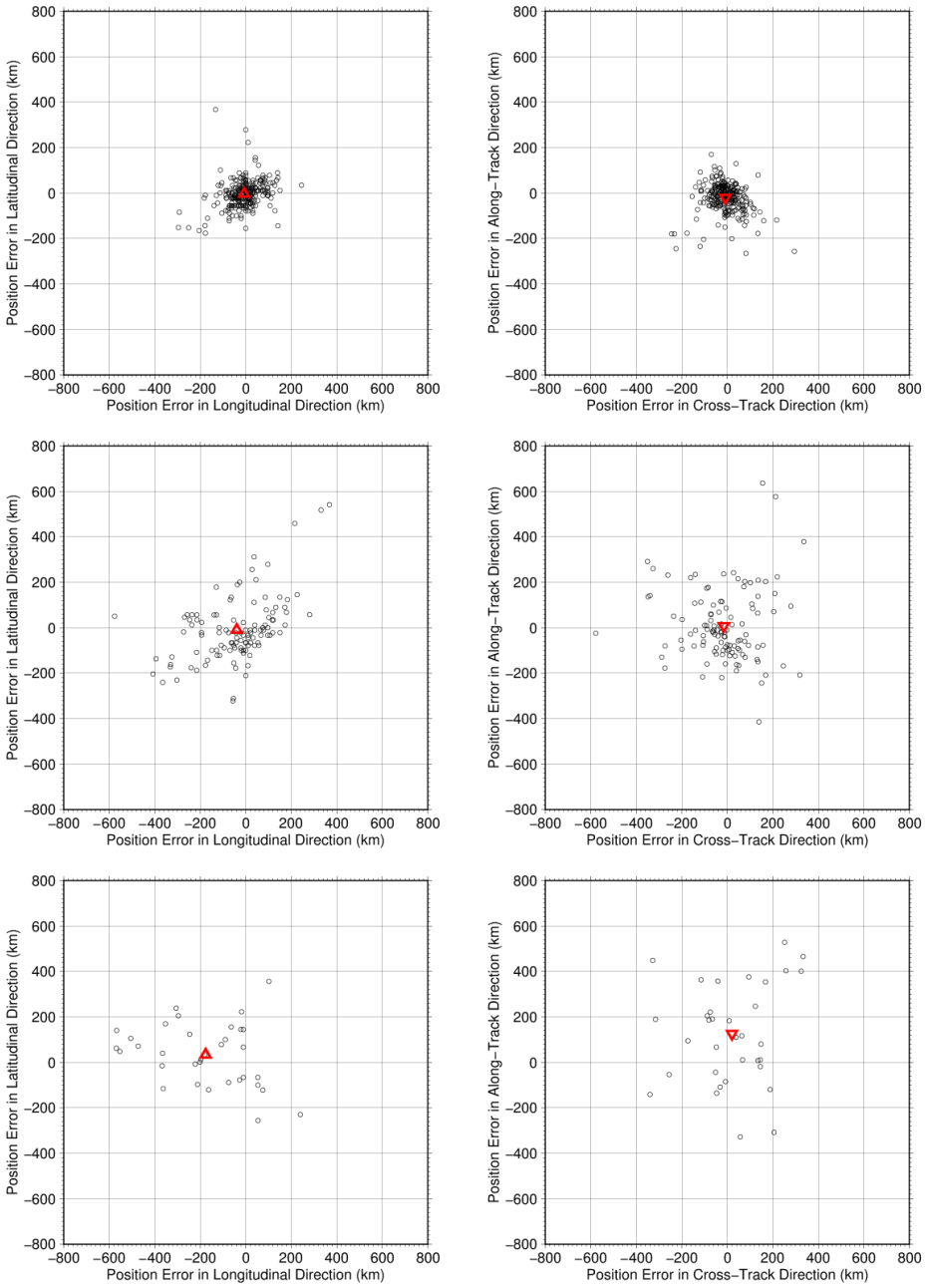


Figure 4.4 Scatter diagrams of 24- (top), 72- (middle) and 120-hour (bottom) forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. (Scatter diagrams of 48-, 96--hour forecasts are available on the Center's

website (https://www.jma.go.jp/jma/jma-eng/jma-center/rsmc-hp-pub-eg/AnnualReport/2020/index.html)). Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.

Figure 4.4 on https://www.jma.go.jp/jma/jma-eng/jma-center/rsmc-hp-pub-eg/AnnualReport/2020/Figures/Figure_2020_4.4.pdf

(Correct)

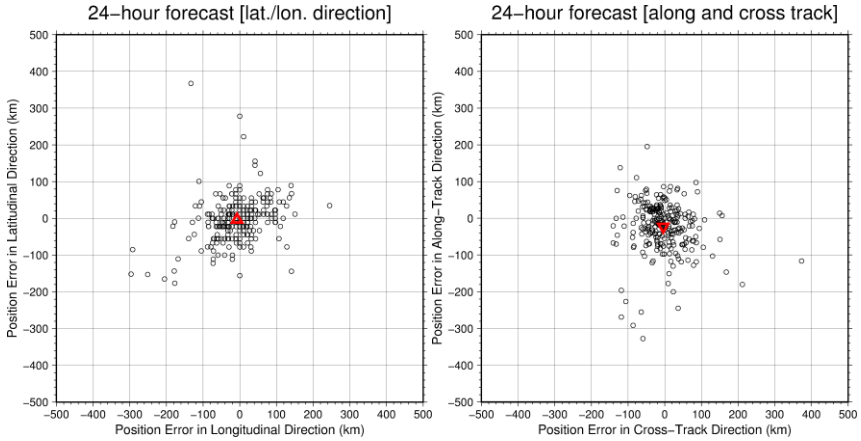
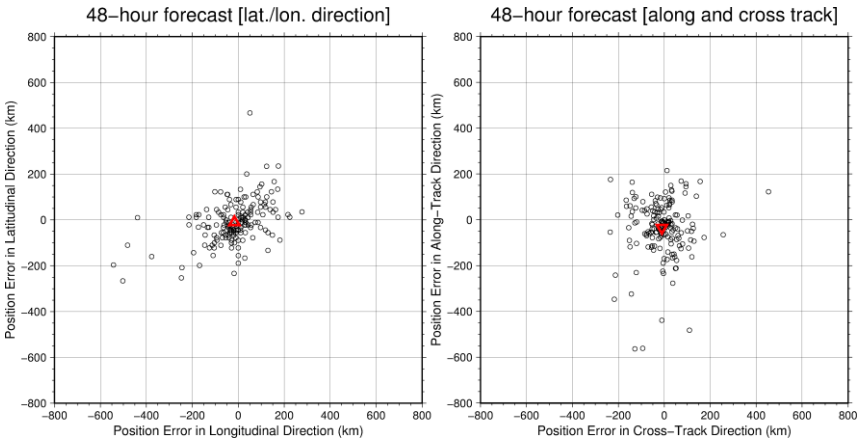
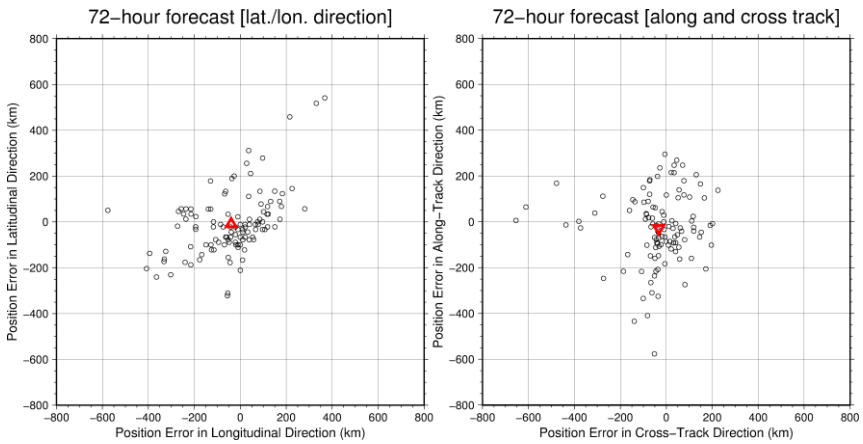


Figure 4.4 Scatter diagrams of 24-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is calculated from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.

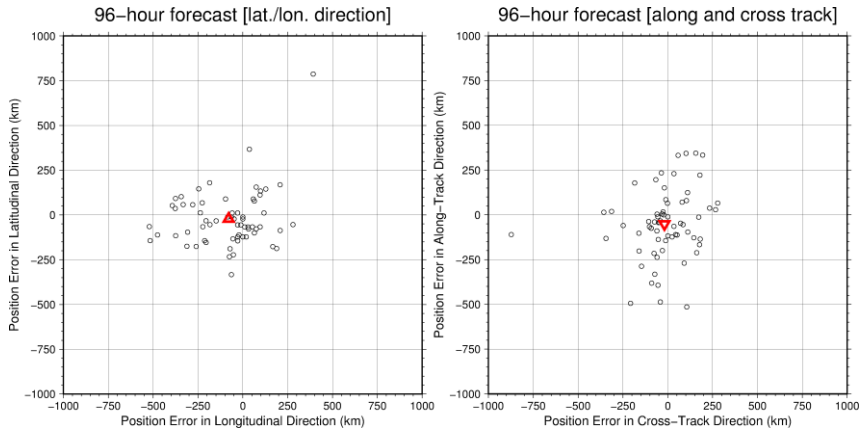


Scatter diagrams of 48-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is calculated

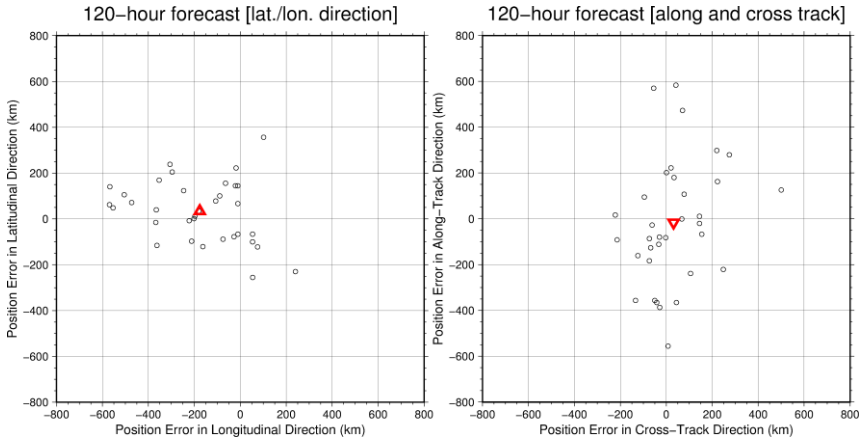
from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.



Scatter diagrams of 72-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is calculated from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.



Scatter diagrams of 96-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is calculated from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.



Scatter diagrams of 120-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is calculated from positions at individual prediction times and those observed six hours prior. Red triangles denote annual means of position forecast errors.

(Incorrect)

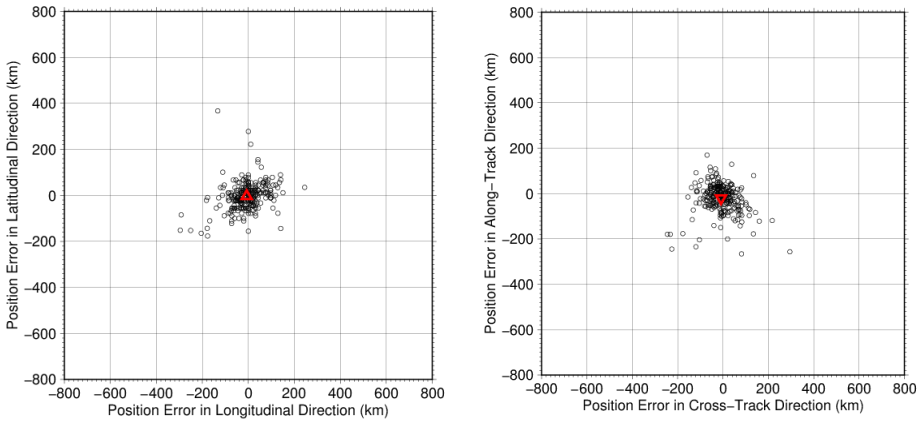
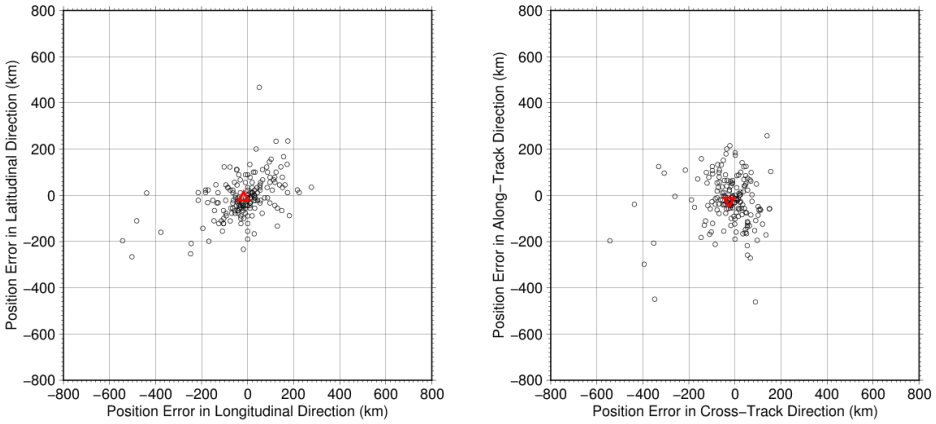
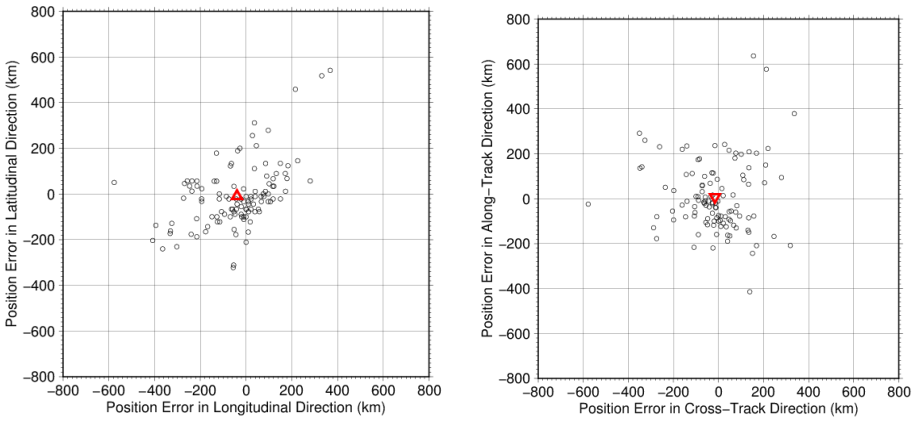


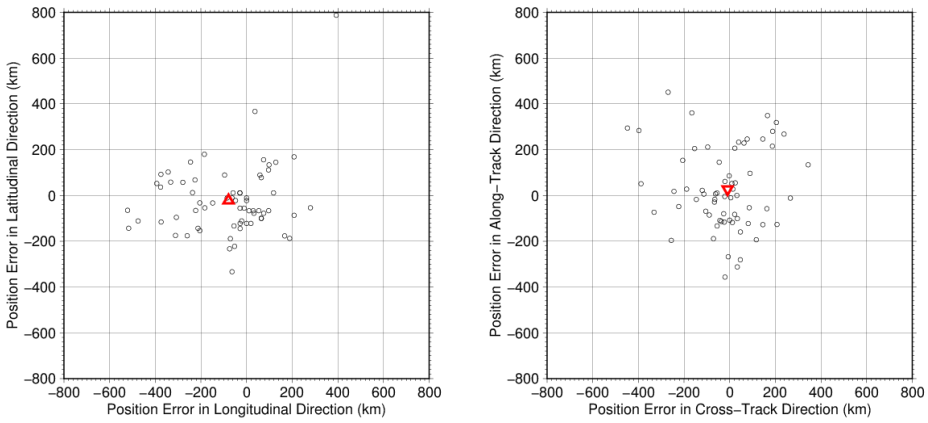
Figure 4.4 Scatter diagrams of 24-hour forecast position errors in longitudinal/latitudinal direction (left) and cross-/along-track direction (right) in 2020. Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.



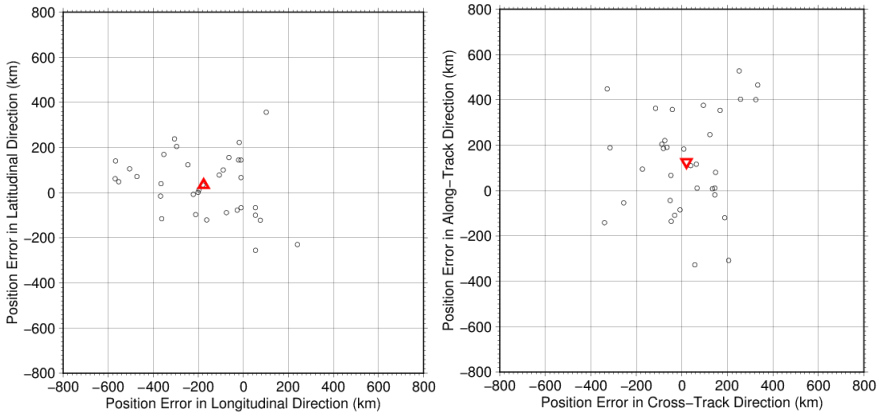
Scatter diagrams of 48-hour forecast position errors in longitudinal/latitudinal direction (left) and cross- /along-track direction (right) in 2020. Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.



Scatter diagrams of 72-hour forecast position errors in longitudinal/latitudinal direction (left) and cross- /along-track direction (right) in 2020. Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.



Scatter diagrams of 96-hour forecast position errors in longitudinal/latitudinal direction (left) and cross- /along-track direction (right) in 2020. Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.

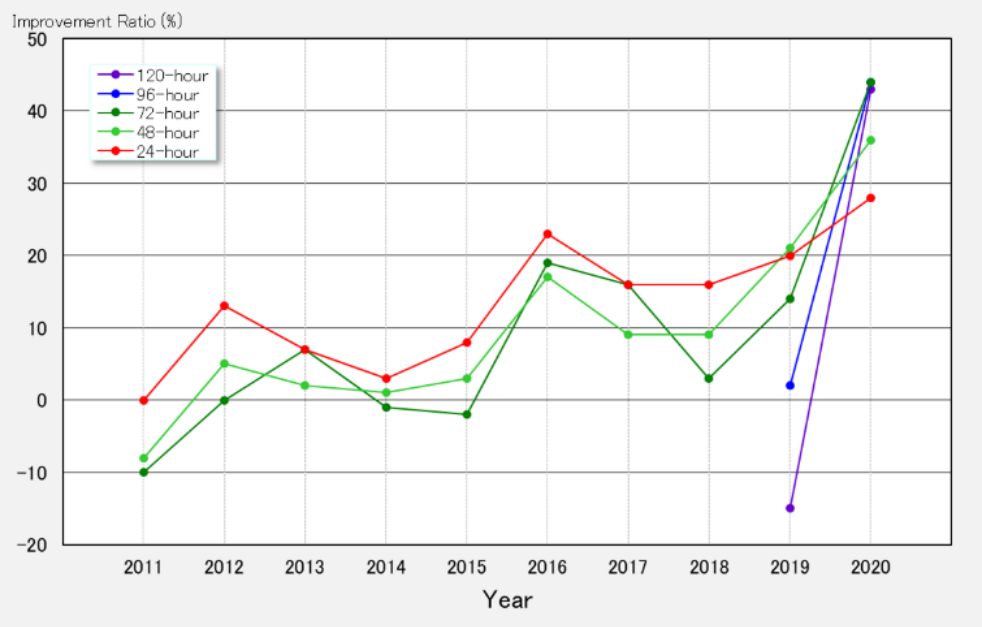


Scatter diagrams of 120-hour forecast position errors in longitudinal/latitudinal direction (left) and cross- /along-track direction (right) in 2020. Direction of TC track is determined from movement in 6 hours prior to the initial time. Red triangles denote annual means of position forecast errors.

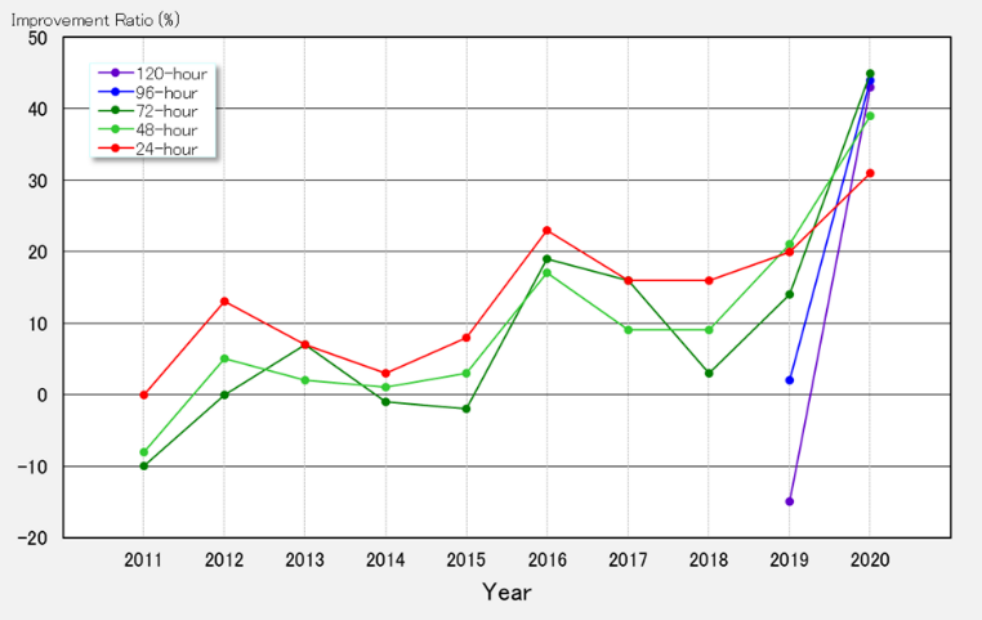
4.1.2 Central Pressure and Maximum Wind Speed

p22　Figure 4.6 for central pressure forecasts

(Correct)



(Incorrect)



p23　Table 4.3 for central pressure forecasts

(Correct)

Tropical Cyclone			24-hour Forecast				48-hour Forecast				72-hour Forecast				96-hour Forecast				120-hour Forecast			
			Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)
TY	Vongfong	(2001)	-2.8	18.2	12	16	-14.4	23.1	8	35	-12.5	14.6	4	62	-	-	0	-	-	-	0	-
TS	Nuri	(2002)	-6.0	6.0	2	50	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TS	Sinlaku	(2003)	5.0	5.8	3	7	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Hagupit	(2004)	2.9	7.7	13	44	2.9	3.8	8	78	-5.2	7.2	4	70	-	-	0	-	-	-	0	-
TS	Jangmi	(2005)	-3.3	4.6	6	35	-1.0	1.4	2	93	-	-	0	-	-	-	0	-	-	-	0	-
STS	Mekkhala	(2006)	2.0	2.0	1	73	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
STS	Higos	(2007)	-2.0	3.5	3	65	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Bavi	(2008)	-4.0	12.4	17	-8	-2.3	9.6	13	56	-3.3	8.2	9	71	-5.0	9.7	5	61	0.0	0.0	1	100
TY	Maysak	(2009)	-5.0	9.2	20	5	-11.6	15.7	16	-22	-8.8	11.1	12	28	-2.5	10.3	8	43	-7.5	11.2	4	4
TY	Haishen	(2010)	6.4	14.4	25	0	2.7	16.7	19	34	-5.4	18.9	13	40	-6.7	16.5	9	38	5.0	8.7	5	44
TS	Noul	(2011)	-2.8	4.7	8	60	-13.0	14.1	4	43	-	-	0	-	-	-	0	-	-	-	0	-
STS	Dolphin	(2012)	1.7	8.7	9	22	1.4	10.4	5	-71	8.0	8.0	1	30	-	-	0	-	-	-	0	-
STS	Kujira	(2013)	3.3	5.1	10	-9	-0.5	5.5	6	45	-12.5	12.7	2	52	-	-	0	-	-	-	0	-
TY	Chan-hom	(2014)	-4.8	6.8	23	19	-7.8	9.7	19	-40	-10.7	12.0	15	-70	-10.1	12.1	11	-44	-8.7	10.0	7	17
TS	Linfa	(2015)	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TS	Nangka	(2016)	-1.2	3.5	5	62	-6.0	6.0	1	70	-	-	0	-	-	-	0	-	-	-	0	-
TY	Saudel	(2017)	-2.2	6.5	18	24	1.5	5.6	14	64	-0.7	3.8	10	78	-6.8	7.2	6	64	-1.0	1.4	2	95
TY	Molave	(2018)	9.4	11.7	14	46	19.4	21.3	10	-29	19.2	23.2	6	-9	-8.5	12.0	2	46	-	-	0	-
TY	Goni	(2019)	6.6	20.9	27	33	4.2	24.1	23	46	-8.5	20.3	19	51	-13.1	19.1	15	49	-10.0	19.2	11	41
STS	Atsani	(2020)	-5.6	8.0	14	-31	-11.1	12.8	10	18	-14.7	14.9	6	27	-19.5	19.5	2	12	-	-	0	-
TS	Etau	(2021)	-6.0	6.2	3	63	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Vamco	(2022)	1.3	10.3	20	47	2.4	9.0	16	45	4.9	9.3	12	29	6.0	8.3	8	52	-4.2	5.7	4	74
TS	Krovanh	(2023)	-3.0	3.5	4	64	-2.0	2.0	1	91	-	-	0	-	-	-	0	-	-	-	0	-
Annual Mean (total)			0.3	11.6	257	28	-1.3	15.0	175	36	-4.8	14.6	113	44	-7.0	13.9	66	44	-5.7	13.0	34	43

(Incorrect)

Tropical Cyclone			24-hour Forecast				48-hour Forecast				72-hour Forecast				96-hour Forecast				120-hour Forecast			
			Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)	Error (hPa)	RMSE (hPa)	Num.	Impr. (%)
TY	Vongfong	(2001)	-2.8	18.2	12	11	-14.4	23.1	8	32	-12.5	14.6	4	62	-	-	0	-	-	-	0	-
TS	Nuri	(2002)	-6.0	6.0	2	47	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TS	Sinlaku	(2003)	5.0	5.8	3	-19	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Hagupit	(2004)	2.9	7.7	13	41	2.9	3.8	8	78	-5.2	7.2	4	70	-	-	0	-	-	-	0	-
TS	Jangmi	(2005)	-3.3	4.6	6	12	-1.0	1.4	2	92	-	-	0	-	-	-	0	-	-	-	0	-
STS	Mekkhala	(2006)	2.0	2.0	1	78	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
STS	Higos	(2007)	-2.0	3.5	3	59	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Bavi	(2008)	-4.0	12.4	17	4	-2.3	9.6	13	56	-3.3	8.2	9	71	-5.0	9.7	5	61	0.0	0.0	1	100
TY	Maysak	(2009)	-5.0	9.2	20	4	-11.6	15.7	16	-15	-8.8	11.1	12	29	-2.5	10.3	8	43	-7.5	11.2	4	5
TY	Haishen	(2010)	6.4	14.4	25	27	2.7	16.7	19	49	-5.4	18.9	13	44	-6.7	16.5	9	39	5.0	8.7	5	43
TS	Noul	(2011)	-2.8	4.7	8	60	-13.0	14.1	4	43	-	-	0	-	-	-	0	-	-	-	0	-
STS	Dolphin	(2012)	1.7	8.7	9	17	1.4	10.4	5	-44	8.0	8.0	1	8	-	-	0	-	-	-	0	-
STS	Kujira	(2013)	3.3	5.1	10	20	-0.5	5.5	6	40	-12.5	12.7	2	52	-	-	0	-	-	-	0	-
TY	Chan-hom	(2014)	-4.8	6.8	23	19	-7.8	9.7	19	-42	-10.7	12.0	15	-70	-10.1	12.1	11	-42	-8.7	10.0	7	17
TS	Linfa	(2015)	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TS	Nangka	(2016)	-1.2	3.5	5	62	-6.0	6.0	1	70	-	-	0	-	-	-	0	-	-	-	0	-
TY	Saudel	(2017)	-2.2	6.5	18	47	1.5	5.6	14	69	-0.7	3.8	10	79	-6.8	7.2	6	64	-1.0	1.4	2	95
TY	Molave	(2018)	9.4	11.7	14	39	19.4	21.3	10	-23	19.2	23.2	6	-7	-8.5	12.0	2	43	-	-	0	-
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STS	Atsani	(2020)	-5.6	8.0	14	-40	-11.1	12.8	10	14	-14.7	14.9	6	24	-19.5	19.5	2	10	-	-	0	-
TS	Etau	(2021)	-6.0	6.2	3	64	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-
TY	Vamco	(2022)	1.3	10.3	20	53	2.4	9.0	16	43	4.9	9.3	12	28	6.0	8.3	8	52	-4.2	5.7	4	75
TS	Krovanh	(2023)	-3.0	3.5	4	65	-2.0	2.0	1	90	-	-	0	-	-	-	0	-	-	-	0	-
Annual Mean (total)			0.3	11.6	257	31	-1.3	15.0	175	39	-4.8	14.6	113	45	-7.0	13.9	66	44	-5.7	13.0	34	43