

## Average NHC Atlantic Intensity Forecast Errors (kt)

### All Tropical Cyclones<sup>1, 2</sup>

Year	0 h		12 h		24 h		36 h		48 h		72 h		96 h <sup>3</sup>		120 h <sup>3</sup>	
	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N
1990	2.9	372	5.6	330	8.9	301	11.9	271	13.6	239	15.0	189				
1991	2.9	131	5.7	112	11.3	89	16.2	68	20.4	55	22.6	38				
1992	3.4	219	6.3	205	11.2	186	15.4	168	19.4	143	25.9	115				
1993	2.7	185	4.9	171	8.2	154	11.1	133	14.8	115	19.3	88				
1994	2.7	177	5.8	160	9.1	140	11.1	119	14.6	97	18.3	80				
1995	3.0	571	5.9	540	9.1	505	11.6	469	14.2	428	17.7	359				
1996	3.6	383	6.5	364	9.9	342	12.2	318	14.4	289	17.3	246				
1997	2.8	127	5.6	111	9.3	95	12.3	82	14.2	71	15.9	59				
1998	3.0	387	6.8	369	10.8	345	14.1	321	16.4	291	21.2	241				
1999	2.5	397	6.6	369	10.7	345	13.4	320	15.7	293	19.1	241				
2000	2.7	333	6.7	301	11.1	267	14.5	237	16.9	209	20.1	165				
2001	1.2	338	6.0	301	9.9	262	12.7	237	15.7	217	18.8	170	20.1	128	19.0	97
2002	1.1	312	5.5	287	9.0	257	11.3	228	14.5	201	20.8	166	22.4	137	23.8	119
2003	1.6	394	5.2	362	7.9	327	9.5	291	11.6	256	14.8	197	17.0	156	20.6	125
2004	2.0	413	7.4	389	10.2	363	12.4	335	13.9	307	17.0	267	19.8	228	22.6	194
2005	1.8	642	6.9	591	10.9	534	13.4	478	15.6	429	20.1	338	20.1	264	21.8	207
2006	2.1	241	6.5	223	10.0	205	12.4	187	14.3	169	18.1	132	19.6	100	19.0	78
2007	2.1	208	8.1	177	11.0	145	14.0	116	17.9	93	23.5	62	28.6	39	30.0	23
2008	1.8	373	7.1	346	10.4	318	12.1	288	13.6	261	14.6	221	13.8	177	17.2	149
2009	1.6	144	6.4	122	11.4	98	14.9	76	17.5	61	20.6	49	19.5	38	16.6	22
2010	2.4	404	7.7	363	12.0	323	13.9	287	15.5	255	16.7	198	18.4	149	18.6	115
2011	2.8	383	6.3	339	9.7	297	12.0	260	14.4	226	16.6	176	16.2	140	16.5	113
2012	2.2	444	5.4	404	8.0	364	10.2	324	12.3	289	13.1	232	11.8	188	12.7	148
2013	1.9	196	5.3	162	7.5	131	9.3	107	10.4	83	8.0	40	9.1	22	12.6	19

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	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N	Error	N
2014	2.0	159	5.2	139	8.2	120	10.0	104	10.4	89	12.5	66	11.3	46	6.6	32
2015	2.2	222	5.0	202	7.4	182	9.9	159	11.4	136	15.6	96	19.6	67	20.4	49
2016	2.2	386	5.4	354	7.6	322	9.4	290	10.5	258	11.7	204	14.7	161	16.1	131
2017	2.1	410	6.1	377	8.7	342	11.0	310	12.6	280	13.3	227	14.0	185	14.4	156
2018	1.6	390	4.9	354	7.8	318	9.2	286	10.2	254	13.4	202	12.8	160	12.2	127
2019	1.7	314	5.2	279	7.9	245	9.0	213	10.1	187	13.0	136	17.3	104	25.6	78
2020	1.7	580	5.7	522	8.7	465	10.2	414	11.6	366	10.9	275	11.9	192	13.1	131
2021	1.5	394	4.8	351	6.7	309	7.5	272	9.4	244	10.3	189	11.3	151	12.1	115
2022	1.4	255	4.8	227	5.8	200	7.2	173	7.9	151	10.0	114	16.4	80	21.2	56
2023	1.0	446	4.4	404	6.4	362	7.5	324	8.4	292	10.4	234	11.4	187	12.7	150
2024	1.4	347	5.4	311	8.0	276	9.9	244	11.4	214	13.1	157	13.7	112	12.8	79
1990-99	3.0	2949	6.1	2731	9.8	2502	12.7	2269	15.3	2021	18.8	1656				
2000-09 <sup>3</sup>	1.8	3398	6.6	3099	10.1	2776	12.5	2473	14.7	2203	18.3	1767	19.2	1267	21.0	1014
2010-19	2.1	3294	5.8	2960	8.6	2633	10.6	2331	12.1	2050	13.8	1574	14.8	1222	15.7	968
2020-24	1.4	2033	5.1	1824	7.3	1619	8.6	1432	10.0	1270	10.9	969	12.4	722	13.6	531

Notes:

1. Verification based on NHC best track database as of 4/29/25.
2. Verification sample is homogeneous with best-track 5-day Decay-SHIFOR, and includes subtropical cyclones.
3. 96- and 120-h forecasts began in 2001, but were not publicly released until 2003.