

nexgen 60m HighMast -BS5950/BS8100 - Different anchor radius comparison

1. Anchors @ 35m and 42m radius - BS5950/BS8100 analysis. Glaze ice

Maximum allowed

Radial Ice thickness mm	Wind speed @ 10m m/s	Wind speed @ 60m m/s	Inner Anchor * load kgf	Inner anchor load angle to horizontal degrees	Outer Anchor * load kgf	Outer anchor load angle to horizontal degrees	Upwind Guy #1 * Load kgf	Upwind Guy #2 * Load kgf	Upwind Guy #3 * Load kgf	Upwind Guy #4 * Load kgf	Upwind Guy #5 * Load kgf	Upwind Guy #6 * Load kgf	Upwind Guy #7 * Load kgf	Base plate * vertical load kgf
0	57.50	74.27	1915	28	4495	46	461	629	848	935	1133	1251	1190	10356
5	38.00	49.08	1523	27	4357	46	375	482	683	806	1042	1248	1274	11119
6.35	35.50	45.86	1426	26	4257	46	363	445	635	767	1005	1226	1272	11195
10	30.50	39.40	1291	25	3991	45	370	406	530	664	919	1173	1250	11414
12.70	26.00	33.58	1161	23	3284	45	386	395	393	493	743	992	1069	10704
15	23.00	29.71	1192	22	2779	44	385	425	395	421	582	836	951	10437
20	20.50	26.48	1428	22	2614	42	437	488	520	522	541	705	858	11659
25	19.00	24.54	1626	20	2798	40	559	536	551	681	729	705	690	13603
30	2.00	2.58	1508	19	2081	40	530	509	490	545	528	513	503	15423

2. Single anchor @ 40m radius - BS5950/BS8100 analysis. Glaze ice

Maximum allowed

Radial Ice thickness mm	Wind speed @ 10m m/s	Wind speed @ 60m m/s	Anchor * load kgf	Anchor load angle to horizontal degrees	Upwind Guy #1 * Load kgf	Upwind Guy #2 * Load kgf	Upwind Guy #3 * Load kgf	Upwind Guy #4 * Load kgf	Upwind Guy #5 * Load kgf	Upwind Guy #6 * Load kgf	Upwind Guy #7 * Load kgf	Base plate * vertical load kgf
0	56.50	72.98	6158	41	466	600	782	909	1118	1239	1180	10139
5	37.00	47.79	5570	41	387	455	613	769	1010	1213	1242	10786
6.35	34.50	44.56	5374	41	379	426	566	726	972	1189	1235	10848
10	29.50	38.11	4976	40	402	409	459	613	886	1129	1199	11037
12.70	25.50	32.94	4351	39	411	420	398	477	725	979	1059	10614
15	22.50	29.06	3898	37	407	456	420	407	560	820	942	10351
20	20.00	25.83	3990	34	470	529	547	494	517	693	855	11581
25	18.00	23.25	4274	32	589	582	586	635	675	666	657	13392
30	0.01	0.01	3491	29	568	549	530	512	495	480	470	15058

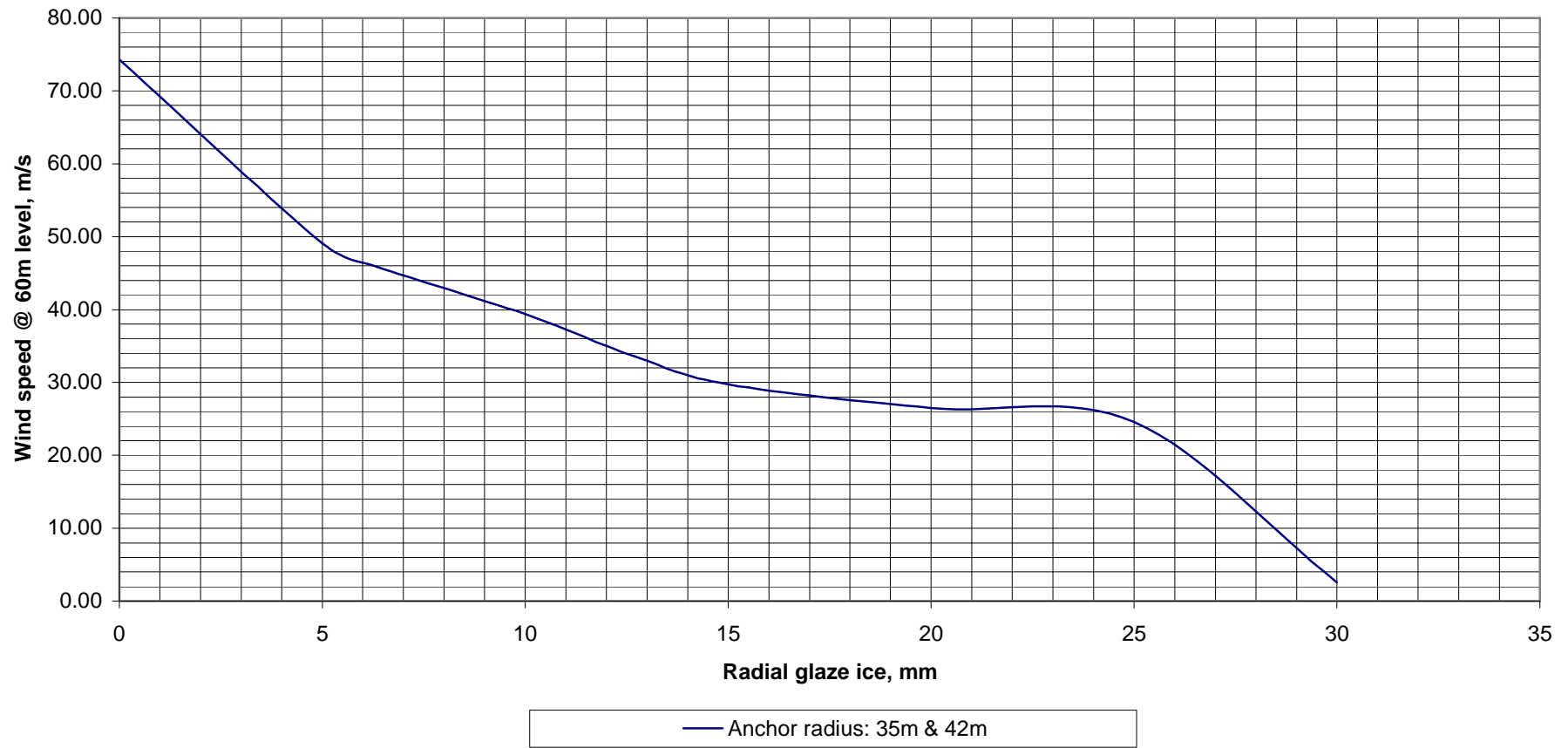
3. Single anchor @ 35m radius - BS5950/BS8100 analysis. Glaze ice

Maximum allowed

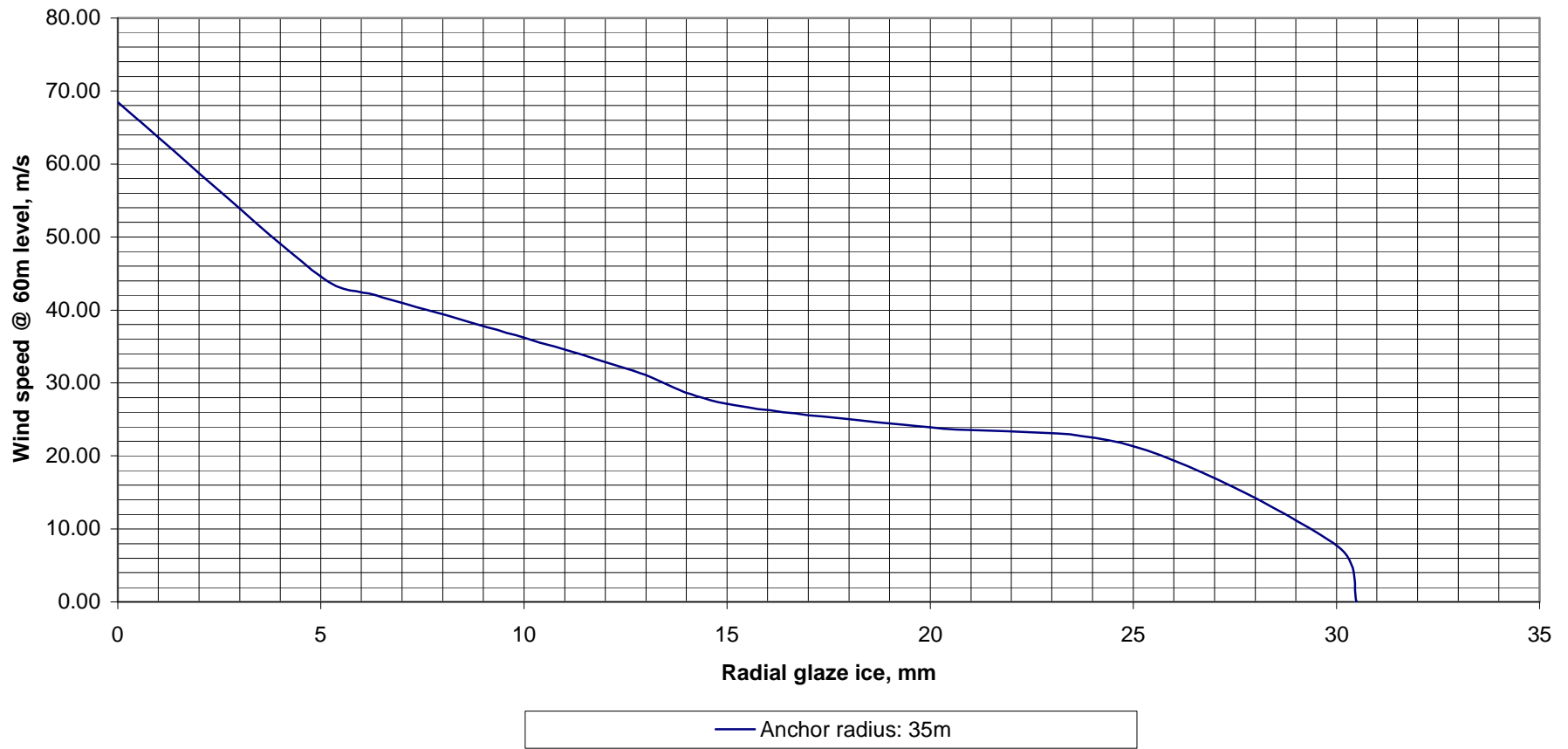
Radial Ice thickness mm	Wind speed @ 10m m/s	Wind speed @ 60m m/s	Anchor * load kgf	Anchor load angle to horizontal degrees	Upwind Guy #1 * Load kgf	Upwind Guy #2 * Load kgf	Upwind Guy #3 * Load kgf	Upwind Guy #4 * Load kgf	Upwind Guy #5 * Load kgf	Upwind Guy #6 * Load kgf	Upwind Guy #7 * Load kgf	Base plate * vertical load kgf
0	53.00	68.46	5696	45	396	529	712	840	1050	1173	1126	9838
5	34.50	44.56	5086	45	322	391	551	699	930	1134	1172	10357
6.35	32.50	41.98	5000	45	320	370	519	671	910	1133	1189	10554
10	28.00	36.17	4692	44	344	356	429	574	838	1093	1175	10837
12.70	24.50	31.65	4174	43	374	360	348	455	720	977	1058	10543
15	21.00	27.13	3558	41	358	394	368	371	517	767	892	9988
20	18.50	23.90	3615	38	415	469	481	432	464	649	818	11184
25	16.50	21.31	3788	35	514	515	524	564	598	596	591	12854
30	6.00	7.75	3398	33	542	523	507	496	490	482	475	14936
31	0.01	0.01	3257	33	538	517	497	478	460	445	435	15217

* Note - all these loads have a 25% added safety factor applied

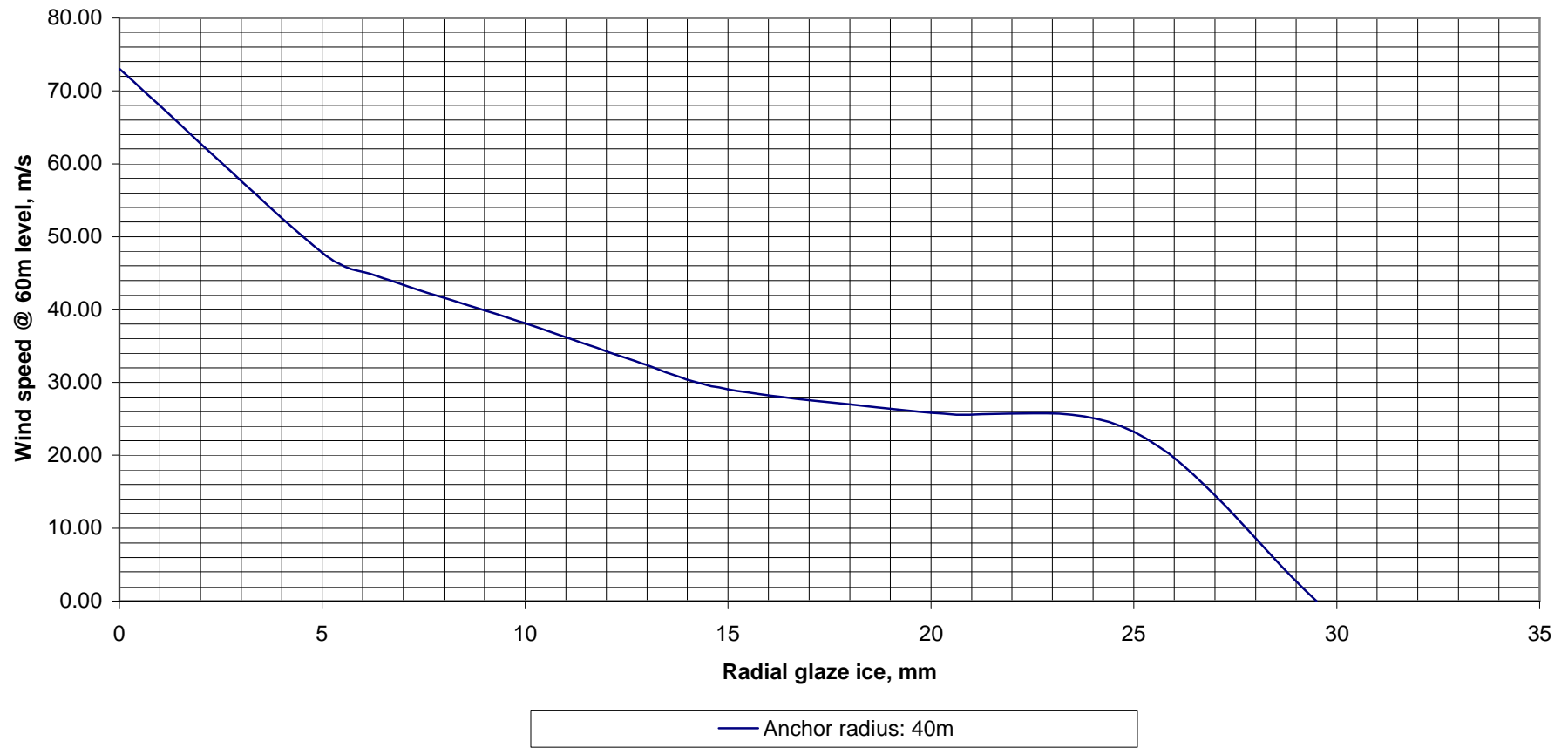
nexgen 60m HighMast
Anchor radius: 35m & 42m
Maximum allowable wind speed @ 60m level versus Radial glaze ice
November 2006



nexgen 60m HighMast
Single anchor radius: 35m
Maximum allowable wind speed @ 60m level versus Radial glaze ice
November 2006



nexgen 60m HighMast
Single anchor radius: 40m
Maximum allowable wind speed @ 60m level versus Radial glaze ice
November 2006



nexgen 60m HighMast
Comparisons of different anchor radii
Maximum allowable wind speed @ 60m level versus Radial glaze ice
November 2006

