

Additional Data & Clarification on UKAC Scoring Proposals

As a part of the discussion around rule changes for 2017, the VHFCC have been asked to provide additional data and clarification for the UKAC scoring proposals.

While reading this data, it's worth remembering that the key objective of this exercise was to generate a scoring system which will be recognised as equitable by the vast majority of entrants across the country. Of necessity, this means that some stations will need to drop a small amount in the tables to allow others to rise in the tables to partially offset their geographic disadvantage. The structure of these proposals, in general, creates a small change in the highly populated areas to support a larger change in the less populated areas. It's also important to look at the overall behaviour in your area, rather than just your own individual results.

Full Rescored Logs

You will find an Excel file with all individual entries up to 11th October [here](#) for the UKACs this year rescored from the adjudicated¹ open logs according to the M7, M8, B2 and 1 pt/km scoring schemes so that you can see the impact on your logs.

Impact by Square

In any change to a scoring system, some people will move up and some will move down the tables according to exactly who was worked in a particular log. What is more important is what the overall impact is on each area of the country. We have carried out further analysis to determine the percentage movement in position for each square in the UK in each section and band. This has been derived from the adjudicated¹ logs of all UKACs for 2016 to 11th October.

The results of this analysis are shown at the end of this note, but in summary, the changes in the bulk of the country are very small – low single digit percentages. This confirms the statement in the scoring review paper that the impact on the general nature of the popular contests will be very small while helping those stations who are most badly disadvantaged by their locations. There are a few instances where the changes are larger. These are typically either stations in the remote areas who are aided by the proposed schemes, or areas where the entry levels are low and so the data can be skewed by individual station take-offs / tactics. Where there are only a handful of entries in a square / section / band combination, the data needs to be treated with caution for these reasons.

¹ Officially adjudicated and published M7 and 1pt/km scores were used. Where other data was required, it underwent a basic automated adjudication process from the Open Logs

As an example, a map showing the average percentage² movement in position between M7 and B2 for all entrants in the Jan – Oct 2016 2m UKACs for each square is shown below in Figure 1.

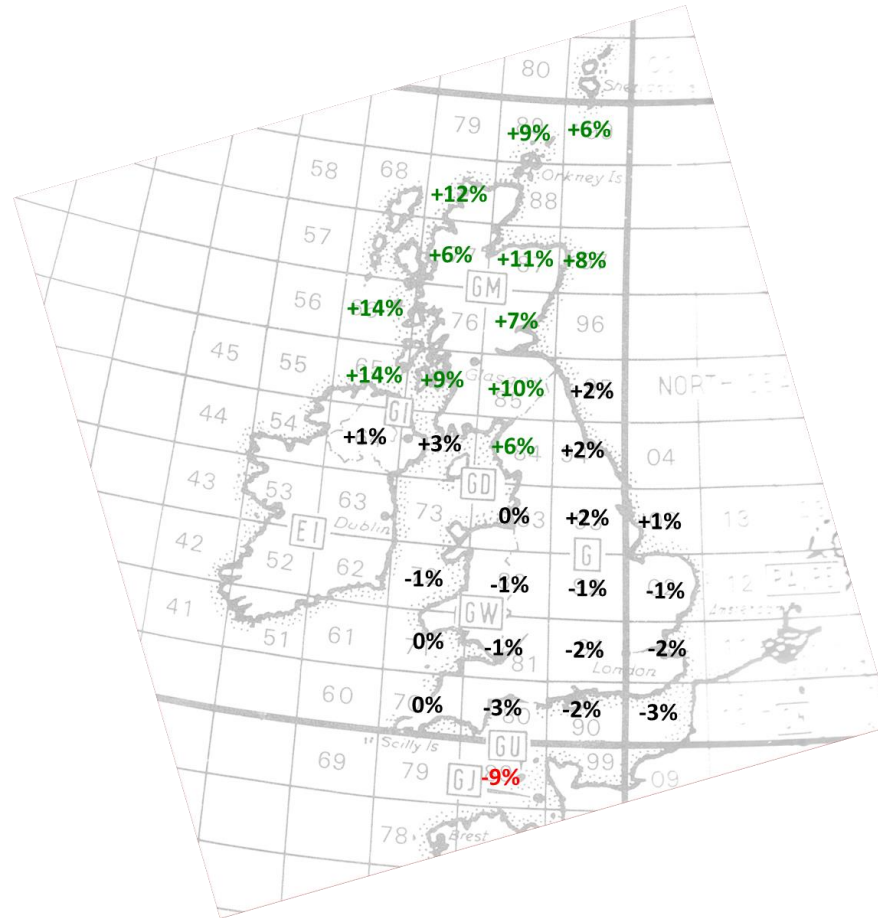


Figure 1 - Average Percentage Movement in Position between M7 and B2 by Square for all 2m UKAC Entries Jan - Oct 2016

² Percentage movement is defined as (Number of Positions Moved / Number of Entrants in that Section)*100%

Impact of proposals on Stations Lower in the Tables

There has been a suggestion that the new proposals place low & medium power stations in the South of England who are towards the lower end of their tables at a significant disadvantage. We repeated the analysis described above for both the complete results tables, and just for approximately the bottom half of the results tables (sorted by M7). There is no evidence that the new scoring proposals have a significant negative effect on for stations in the bottom half of the table.

What about 1 Point / km scoring

In the previously published [FAQ](#) we said this about 1pt / km scoring

1 point / km was looked at in some detail in the study. In terms of fairness, viewed across the whole county, it looks slightly fairer than M5 and M7, but is significantly less fair than M5 and M7 in more active squares. This means that it would cause some disruption and loss of fairness across the most active areas in the contest. But importantly both M8 and particularly B2 are significantly fairer proposals than 1 pt /km so we saw no good reason to offer it as an alternative.

We also believe that the use of multipliers or bonuses adds a piece of strategy and interest to the contest which is popular with entrants. It also promotes people moving their beams around to catch as many bonuses / multipliers as possible making sure that there is good activity heard everywhere.

This analysis shown here confirms that moving to 1 pt/km from the existing M7 scheme makes very little difference to overall results and does nothing to increase overall fairness.

Impact of B2, M7 and 1 pt/km scoring on M7 positions by square

The following tables show the average percentage change in position by square, section and band for all stations entering the 2016 UKAC contests until mid October 2016. The baseline position is against the current M7 system, and this is compared to the position achieved with B2, M8 and 1pt / km systems for each station and entry.

The data is later replicated in this document, but only including stations in approximately the bottom half of the results table (by M7) to determine if there is any significant skew to the way that the alternative scoring systems impact entrants.

Whole Table Results

6m

	Average % Posn Change				Average % Change				Average % Change				Average % Change		
	Open				Restricted				Low				All Sections		
	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	M7->B2	M7->M8	M7->PPK
IO64	9	-1%	-1%	-1%	2	18%	12%	4%	0				2%	1%	0%
IO65	0				0				0						
IO66	0				0				0						
IO67	0				0				0						
IO68	0				0				0						
IO70	0				0				0						
IO71	0				0				0						
IO72	3	2%	2%	0%	0				0				2%	2%	0%
IO73	0				2	1%	1%	5%	0						
IO74	13	9%	3%	-1%	10	3%	2%	2%	1	37%	12%	-5%	8%	3%	0%
IO75	3	4%	2%	0%	4	19%	8%	1%	0				13%	6%	1%
IO76	0				0				0						
IO77	0				1	9%	1%	0%	0				9%	1%	0%
IO78	8	14%	10%	6%	9	23%	14%	6%	0				19%	12%	6%
IN89	0				2	1%	3%	8%	0				1%	3%	8%
IO80	5	-3%	-1%	-2%	37	1%	1%	1%	1	13%	10%	10%	1%	1%	0%
IO81	19	-4%	-1%	0%	66	0%	1%	0%	10	5%	2%	-1%	0%	1%	0%
IO82	0				52	2%	2%	0%	20	1%	1%	0%	1%	1%	0%
IO83	1	-13%	-6%	-6%	168	3%	3%	1%	57	2%	3%	2%	3%	3%	1%
IO84	0				11	4%	3%	1%	0				4%	3%	1%
IO85	5	10%	3%	2%	13	27%	11%	2%	0				22%	9%	2%
IO86	3	12%	0%	-1%	4	9%	6%	4%	0				11%	4%	2%
IO87	0				0				0						
IO88	1	5%	5%	5%	0				0						
IO89	0				0				0						
IO90	0				43	0%	1%	1%	4	-3%	0%	6%	0%	1%	2%
IO91	35	-3%	-2%	-1%	187	-2%	0%	0%	67	1%	2%	3%	-1%	0%	1%
IO92	9	-3%	-1%	1%	60	-1%	0%	0%	64	2%	2%	0%	0%	1%	0%
IO93	6	-2%	-1%	-3%	217	0%	1%	1%	200	1%	2%	3%	1%	1%	2%
IO94	1	6%	6%	6%	25	-1%	1%	7%	1	4%	2%	2%	0%	1%	7%
IO95	0				0				0						
IO97	0				0				0						
IO99	0				0				0						
JO00	0				8	-2%	-1%	0%	0				-2%	-1%	0%
JO01	0				74	-2%	0%	2%	31	0%	2%	4%	-2%	0%	2%
JO02	20	-4%	-1%	1%	39	-2%	0%	2%	7	5%	3%	4%	-2%	0%	2%
JO03	0				10	-2%	0%	0%	8	-1%	0%	0%	-1%	0%	0%

4m

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	0				2	0%	0%	3%	0				0%	0%	3%			
IO65	0				0				0									
IO66	0				0				0									
IO67	0				0				0									
IO68	0				0				0									
IO70	0				1	-5%	0%	6%	0				-5%	0%	6%			
IO71	0				0				0									
IO72	3	-8%	-3%	1%	0				0				-8%	-3%	1%			
IO73	0				0				0									
IO74	3	17%	0%	-2%	0				0				17%	0%	-2%			
IO75	4	11%	5%	-2%	2	13%	6%	2%	0				12%	5%	-1%			
IO76	0				0				0									
IO77	0				0				0									
IO78	3	15%	9%	4%	0				0				15%	9%	4%			
IN89	2	-6%	-1%	5%	0				0				-6%	-1%	5%			
IO80	0				4	-4%	-3%	0%	2	-3%	0%	2%	-4%	-2%	1%			
IO81	11	-2%	0%	-2%	13	-2%	-1%	-1%	3	-3%	-1%	-3%	-2%	-1%	-2%			
IO82	3	-3%	-1%	1%	12	1%	1%	1%	5	-8%	-4%	1%	-2%	-1%	1%			
IO83	7	-1%	1%	0%	33	2%	1%	-1%	10	0%	1%	0%	1%	1%	-1%			
IO84	0				5	2%	2%	1%	0				2%	2%	1%			
IO85	6	13%	3%	-4%	0				0				13%	3%	-4%			
IO86	3	4%	3%	1%	5	21%	9%	4%	1	48%	10%	0%	18%	7%	3%			
IO87	0				0				0									
IO88	0				0				0									
IO89	0				0				0									
IO90	1	-3%	0%	0%	8	-6%	-3%	1%	2	-1%	-6%	-6%	-5%	-4%	0%			
IO91	13	-5%	0%	-1%	48	-5%	-3%	0%	18	-3%	-1%	-1%	-5%	-2%	0%			
IO92	7	-4%	0%	1%	25	-2%	0%	-1%	4	0%	0%	0%	-2%	0%	0%			
IO93	9	1%	-1%	-2%	60	2%	1%	-1%	28	2%	1%	0%	2%	1%	0%			
IO94	6	-1%	-1%	2%	7	11%	2%	1%	0				6%	1%	1%			
IO95	3	3%	0%	4%	0				0				3%	0%	4%			
IO97	0				0				0									
IO99	0				0				0									
JO00	0				2	-1%	-1%	-1%	0				-1%	-1%	-1%			
JO01	3	-8%	-2%	3%	7	-5%	-3%	3%	8	1%	0%	2%	-3%	-2%	3%			
JO02	7	-8%	-4%	3%	3	0%	1%	2%	0				-5%	-2%	2%			
JO03	0				2	-4%	-1%	2%	1	4%	0%	0%	-2%	-1%	2%			

2m

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	10	0%	-1%	1%	8	2%	3%	7%	0				1%	1%	4%			
IO65	1	3%	3%	3%	1	24%	8%	-2%	0				13%	5%	0%			
IO66	0				2	14%	9%	6%	0				14%	9%	6%			
IO67	0				0				0									
IO68	0				0				0									
IO70	2	-6%	0%	0%	10	2%	1%	4%	0				0%	1%	3%			
IO71	0				3	-1%	0%	1%	2	1%	3%	5%	0%	1%	3%			
IO72	1	0%	0%	3%	3	-2%	0%	1%	1	1%	3%	3%	-1%	0%	2%			
IO73	0				0				0									
IO74	28	1%	0%	0%	18	6%	3%	1%	1	11%	7%	4%	3%	1%	1%			
IO75	26	3%	2%	0%	7	21%	5%	-1%	7	19%	6%	0%	9%	3%	0%			
IO76	0				0				0									
IO77	4	6%	4%	5%	0				0				6%	4%	5%			
IO78	20	11%	6%	1%	0				0				11%	6%	1%			
IN89	0				2	-11%	-8%	4%	1	-7%	0%	10%	-9%	-5%	6%			
IO80	2	-2%	-1%	0%	45	-3%	-1%	1%	9	-5%	-2%	2%	-3%	-1%	1%			
IO81	17	-3%	-2%	-1%	103	-1%	-1%	0%	46	0%	0%	1%	-1%	0%	0%			
IO82	10	0%	0%	-2%	68	0%	0%	0%	45	-2%	-1%	0%	-1%	0%	0%			
IO83	14	-2%	-1%	-2%	215	0%	0%	-1%	90	0%	0%	1%	0%	0%	0%			
IO84	2	-1%	3%	0%	9	4%	1%	0%	11	8%	4%	1%	6%	3%	1%			
IO85	12	6%	4%	0%	18	13%	6%	0%	2	6%	4%	1%	10%	5%	0%			
IO86	22	2%	1%	1%	24	11%	4%	0%	2	6%	4%	11%	7%	3%	1%			
IO87	6	12%	4%	1%	1	3%	0%	0%	0				11%	4%	1%			
IO88	0				0				0									
IO89	0				1	7%	3%	2%	0				7%	3%	2%			
IO90	5	-7%	-5%	0%	85	-2%	0%	1%	9	2%	1%	1%	-2%	0%	1%			
IO91	59	-3%	-1%	-1%	245	-2%	-1%	0%	132	-1%	0%	0%	-2%	-1%	0%			
IO92	19	-1%	-1%	-2%	93	-1%	-1%	-1%	107	-1%	0%	0%	-1%	0%	-1%			
IO93	6	-2%	-2%	-1%	271	2%	1%	0%	219	2%	1%	0%	2%	1%	0%			
IO94	13	1%	2%	-2%	39	2%	1%	3%	6	1%	1%	3%	2%	2%	2%			
IO95	0				9	0%	0%	1%	1	19%	5%	1%	2%	0%	1%			
IO97	0				1	8%	1%	-1%	0				8%	1%	-1%			
IO99	0				1	6%	6%	5%	0				6%	6%	5%			
JO00	0				19	-3%	-1%	2%	0				-3%	-1%	2%			
JO01	6	-4%	-1%	-1%	124	-2%	-1%	1%	48	-2%	-1%	2%	-2%	-1%	1%			
JO02	23	-3%	-1%	-3%	86	-1%	0%	1%	15	-1%	0%	0%	-1%	0%	0%			
JO03	9	-2%	-1%	1%	14	4%	2%	-2%	0				1%	1%	-1%			

70cm

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	10	0%	-1%	3%	0				0				0%	-1%	3%			
IO65	0				0				0									
IO66	0				0				0									
IO67	0				0				0									
IO68	0				1	12%	3%	1%	0									
IO70	0				0				0									
IO71	0				0				0									
IO72	0				0				0									
IO73	0				0				1	5%	3%	-2%						
IO74	21	-2%	-3%	6%	15	11%	6%	0%	2	27%	15%	-1%	5%	1%	3%			
IO75	1	0%	0%	-10%	10	10%	5%	0%	0				9%	4%	-1%			
IO76	0				0				0									
IO77	0				1	3%	3%	9%	0				3%	3%	9%			
IO78	11	7%	5%	2%	5	15%	5%	1%	0				9%	5%	2%			
IN89	0				1	-6%	-1%	3%	0				-6%	-1%	3%			
IO80	0				24	-4%	-2%	1%	2	-4%	-3%	3%	-4%	-2%	2%			
IO81	11	-1%	0%	-3%	47	-2%	-1%	-1%	27	-2%	-1%	1%	-2%	-1%	-1%			
IO82	0				64	0%	0%	1%	26	-2%	-1%	0%	0%	0%	1%			
IO83	4	-1%	-1%	-1%	129	0%	0%	0%	107	2%	1%	0%	1%	1%	0%			
IO84	0				18	1%	1%	0%	1	12%	0%	0%	1%	0%	0%			
IO85	0				23	7%	2%	0%	2	13%	7%	0%	7%	3%	0%			
IO86	15	3%	1%	-2%	11	7%	3%	1%	0				5%	2%	-1%			
IO87	0				2	15%	11%	3%	0				15%	11%	3%			
IO88	0				0				0									
IO89	0				0				0									
IO90	1	-10%	-10%	-10%	36	-1%	-1%	-1%	19	-1%	0%	3%	-1%	-1%	0%			
IO91	22	-1%	1%	0%	315	-1%	0%	0%	93	-1%	-1%	0%	-1%	0%	0%			
IO92	35	-2%	-1%	-2%	46	-2%	-1%	-1%	98	0%	-1%	-1%	-1%	-1%	-1%			
IO93	2	0%	0%	0%	174	1%	1%	0%	244	1%	1%	1%	1%	1%	0%			
IO94	14	2%	1%	1%	31	6%	3%	2%	5	1%	2%	1%	5%	2%	1%			
IO95	0				6	2%	1%	2%	0				2%	1%	2%			
IO97	0				1	13%	4%	-2%	0				13%	4%	-2%			
IO99	0				0				0									
JO00	0				9	-2%	-1%	1%	0				-2%	-1%	1%			
JO01	11	0%	2%	-4%	50	-1%	0%	0%	72	-1%	-1%	0%	-1%	-1%	0%			
JO02	22	1%	2%	-6%	38	0%	0%	0%	9	0%	-1%	-2%	0%	0%	-2%			
JO03	0				9	1%	1%	1%	7	1%	2%	1%	1%	1%	1%			

23cm

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	0				0				3	10%	5%	-1%	10%	5%	-1%			
IO65	0				0				0									
IO66	0				0				0									
IO67	0				0				0									
IO68	0				0				0									
IO70	2	0%	0%	0%	0				0				0%	0%	0%			
IO71	0				0				0									
IO72	0				0				0									
IO73	0				0				0									
IO74	13	-3%	-7%	9%	0				7	8%	1%	-1%	1%	-4%	6%			
IO75	0				0				5	32%	8%	-2%	32%	8%	-2%			
IO76	0				0				0									
IO77	0				0				0									
IO78	5	3%	1%	0%	0				0				3%	1%	0%			
IN89	0				0				4	-4%	-2%	11%	-4%	-2%	11%			
IO80	1	-13%	-7%	0%	2	-9%	-3%	0%	8	-5%	-1%	9%	-7%	-2%	7%			
IO81	9	-2%	0%	0%	8	-5%	-1%	-1%	29	-1%	-1%	-2%	-2%	-1%	-1%			
IO82	0				7	-3%	-1%	-3%	47	-2%	-1%	0%	-2%	-1%	-1%			
IO83	0				35	0%	0%	-1%	79	-1%	0%	0%	-1%	0%	0%			
IO84	0				7	0%	-1%	3%	12	-4%	-2%	5%	-3%	-1%	4%			
IO85	1	0%	0%	0%	8	16%	7%	-1%	9	26%	8%	-2%	20%	7%	-1%			
IO86	2	14%	4%	-4%	9	7%	4%	6%	1	22%	4%	-1%	10%	4%	4%			
IO87	2	4%	0%	0%	0				0				4%	0%	0%			
IO88	0				0				0									
IO89	0				0				0									
IO90	0				3	-2%	-2%	5%	21	-2%	-2%	0%	-2%	-2%	0%			
IO91	36	-2%	-1%	-2%	52	-2%	-1%	-1%	83	-3%	-1%	0%	-2%	-1%	-1%			
IO92	17	0%	1%	-2%	36	-3%	-1%	0%	61	0%	0%	-2%	-1%	-1%	-2%			
IO93	0				41	2%	1%	0%	191	2%	1%	1%	2%	1%	1%			
IO94	5	8%	7%	-2%	3	6%	-1%	-2%	7	2%	4%	5%	5%	4%	1%			
IO95	9	6%	3%	2%	0				0				6%	3%	2%			
IO97	0				0				0									
IO99	0				0				0									
JO00	0				0				5	-1%	0%	4%	-1%	0%	4%			
JO01	8	-4%	1%	3%	1	-4%	0%	4%	14	-4%	-1%	0%	-4%	0%	1%			
JO02	16	3%	4%	-3%	21	0%	0%	0%	0				1%	1%	-1%			
JO03	0				0				12	-2%	0%	2%	-2%	0%	2%			

Lower Half of Results Tables

6m

	Average % Posn Change				Average % Change				Average % Change				Average % Change		
	Open				Restricted				Low				All Sections		
	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	M7->B2	M7->M8	M7->PPK
IO64	0				2	18%	12%	4%	0				18%	12%	4%
IO65	0				0				0						
IO66	0				0				0						
IO67	0				0				0						
IO68	0				0				0						
IO70	0				0				0						
IO71	0				0				0						
IO72	3	2%	2%	0%	0				0				2%	2%	0%
IO73	0				0				0						
IO74	9	12%	4%	-2%	3	10%	5%	1%	1	37%	12%	-5%	14%	5%	-2%
IO75	3	4%	2%	0%	4	19%	8%	1%	0				13%	6%	1%
IO76	0				0				0						
IO77	0				1	9%	1%	0%	0				9%	1%	0%
IO78	7	15%	10%	7%	7	28%	17%	7%	0				21%	14%	7%
IN89	0				2	1%	3%	8%	0				1%	3%	8%
IO80	3	-4%	-2%	0%	25	2%	2%	0%	1	13%	10%	10%	1%	2%	1%
IO81	10	-4%	-1%	-1%	63	0%	1%	0%	6	9%	4%	-1%	0%	1%	0%
IO82	0				25	3%	3%	1%	7	2%	1%	-1%	3%	3%	0%
IO83	1	-13%	-6%	-6%	118	3%	3%	1%	32	4%	4%	2%	3%	3%	1%
IO84	0				2	10%	6%	-3%	0				10%	6%	-3%
IO85	4	12%	4%	2%	13	27%	11%	2%	0				23%	10%	2%
IO86	3	12%	0%	-1%	1	8%	1%	0%	0				11%	0%	-1%
IO87	0				0				0						
IO88	0				0				0						
IO89	0				0				0						
IO90	0				35	0%	1%	1%	2	-2%	3%	12%	0%	1%	1%
IO91	24	-4%	-2%	0%	102	-2%	0%	1%	54	2%	3%	4%	-1%	1%	2%
IO92	9	-3%	-1%	1%	28	-2%	0%	0%	51	2%	2%	0%	0%	1%	1%
IO93	2	-3%	-3%	-5%	144	0%	1%	2%	118	2%	3%	4%	1%	2%	3%
IO94	1	6%	6%	6%	20	-1%	1%	8%	1	4%	2%	2%	0%	2%	8%
IO95	0				0				0						
IO97	0				0				0						
IO99	0				0				0						
JO00	0				0				0						
JO01	0				64	-2%	0%	2%	26	1%	2%	3%	-1%	1%	2%
JO02	17	-4%	-2%	1%	27	-1%	1%	2%	7	5%	3%	4%	-1%	0%	2%
JO03	0				7	-2%	0%	1%	1	6%	6%	-2%	-1%	1%	1%

4m

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	0				0				0									
IO65	0				0				0									
IO66	0				0				0									
IO67	0				0				0									
IO68	0				0				0									
IO70	0				0				0									
IO71	0				0				0									
IO72	0				0				0									
IO73	0				0				0									
IO74	3	17%	0%	-2%	0				0				17%	0%	-2%			
IO75	3	13%	4%	-3%	1	10%	1%	1%	0				12%	4%	-2%			
IO76	0				0				0									
IO77	0				0				0									
IO78	3	15%	9%	4%	0				0				15%	9%	4%			
IN89	1	-10%	0%	6%	0				0				-10%	0%	6%			
IO80	0				4	-4%	-3%	0%	1	-6%	0%	0%	-4%	-2%	0%			
IO81	6	-2%	-1%	-2%	8	-2%	-1%	-1%	1	3%	0%	-3%	-2%	-1%	-1%			
IO82	2	-3%	-1%	0%	6	2%	1%	1%	1	-4%	0%	0%	0%	0%	0%			
IO83	5	-3%	0%	1%	17	1%	1%	0%	4	0%	0%	2%	0%	1%	0%			
IO84	0				0				0									
IO85	4	15%	2%	-2%	0				0				15%	2%	-2%			
IO86	1	0%	0%	0%	2	21%	4%	-1%	1	48%	10%	0%	23%	5%	0%			
IO87	0				0				0									
IO88	0				0				0									
IO89	0				0				0									
IO90	1	-3%	0%	0%	5	-3%	-1%	-1%	2	-1%	-6%	-6%	-2%	-2%	-2%			
IO91	5	-8%	-1%	1%	24	-4%	-3%	1%	10	-3%	-2%	-1%	-4%	-2%	0%			
IO92	4	-6%	-1%	2%	6	-2%	-1%	0%	1	0%	0%	0%	-3%	-1%	1%			
IO93	4	1%	-1%	-2%	32	4%	3%	0%	14	3%	2%	1%	3%	2%	0%			
IO94	1	-7%	-3%	7%	3	20%	3%	-2%	0				14%	2%	0%			
IO95	0				0				0									
IO97	0				0				0									
IO99	0				0				0									
JO00	0				2	-1%	-1%	-1%	0				-1%	-1%	-1%			
JO01	2	-6%	-1%	5%	6	-5%	-4%	1%	4	6%	4%	0%	-2%	-1%	1%			
JO02	1	-15%	-9%	3%	3	0%	1%	2%	0				-4%	-2%	2%			
JO03	0				0				1	4%	0%	0%	4%	0%	0%			

2m

	Average % Posn Change					Average % Change					Average % Change					Average % Change		
	Open					Restricted					Low					All Sections		
	Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		Entries	M7->B2	M7->M8	M7->PPK		M7->B2	M7->M8	M7->PPK
IO64	0				2	2%	4%	9%	0				2%	4%	9%			
IO65	1	3%	3%	3%	1	24%	8%	-2%	0				13%	5%	0%			
IO66	0				1	12%	8%	5%	0				12%	8%	5%			
IO67	0				0				0									
IO68	0				0				0									
IO70	0				5	3%	2%	3%	0				3%	2%	3%			
IO71	0				2	-2%	0%	1%	0				-2%	0%	1%			
IO72	1	0%	0%	3%	3	-2%	0%	1%	1	1%	3%	3%	-1%	0%	2%			
IO73	0				0				0									
IO74	5	7%	3%	-2%	14	4%	2%	1%	0				5%	2%	1%			
IO75	17	4%	3%	0%	7	21%	5%	-1%	7	19%	6%	0%	11%	4%	0%			
IO76	0				0				0									
IO77	2	8%	4%	6%	0				0				8%	4%	6%			
IO78	20	11%	6%	1%	0				0				11%	6%	1%			
IN89	0				0				1	-7%	0%	10%	-7%	0%	10%			
IO80	1	-3%	0%	0%	24	-1%	0%	0%	4	-4%	-2%	1%	-1%	0%	0%			
IO81	4	-1%	-1%	-3%	59	-1%	0%	0%	20	1%	1%	1%	0%	0%	0%			
IO82	6	-2%	-2%	-1%	17	0%	0%	0%	9	1%	0%	0%	0%	-1%	0%			
IO83	14	-2%	-1%	-2%	110	0%	0%	0%	39	0%	0%	1%	0%	0%	0%			
IO84	2	-1%	3%	0%	3	13%	4%	-1%	8	10%	4%	1%	9%	4%	1%			
IO85	5	14%	7%	-1%	13	15%	7%	0%	0				15%	7%	-1%			
IO86	13	2%	1%	1%	12	18%	6%	0%	0				10%	4%	0%			
IO87	5	13%	5%	2%	1	3%	0%	0%	0				11%	4%	1%			
IO88	0				0				0									
IO89	0				1	7%	3%	2%	0				7%	3%	2%			
IO90	4	-4%	-3%	0%	47	-1%	0%	1%	6	3%	1%	-2%	-1%	0%	0%			
IO91	34	-5%	-2%	-1%	117	-2%	-1%	0%	89	0%	0%	1%	-2%	-1%	0%			
IO92	7	-5%	-2%	0%	50	-2%	-2%	-1%	59	-1%	-1%	1%	-2%	-1%	0%			
IO93	4	-3%	-3%	-1%	119	2%	1%	0%	97	3%	2%	1%	2%	2%	1%			
IO94	3	6%	3%	3%	33	3%	2%	3%	3	2%	3%	4%	3%	2%	3%			
IO95	0				1	4%	1%	1%	1	19%	5%	1%	11%	3%	1%			
IO97	0				1	8%	1%	-1%	0				8%	1%	-1%			
IO99	0				0				0									
JO00	0				6	-2%	1%	4%	0				-2%	1%	4%			
JO01	3	-6%	-3%	2%	76	-3%	-1%	1%	22	-1%	0%	1%	-2%	-1%	1%			
JO02	8	-6%	-3%	-1%	53	-1%	0%	1%	13	-1%	-1%	-1%	-1%	0%	1%			
JO03	1	-3%	0%	0%	5	2%	1%	-1%	0				1%	1%	-1%			

70cm

	Average % Posn Change				Average % Change				Average % Change				Average % Change		
	Open				Restricted				Low				All Sections		
	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	M7->B2	M7->M8	M7->PPK
IO64	0				0				0						
IO65	0				0				0						
IO66	0				0				0						
IO67	0				0				0						
IO68	0				1	12%	3%	1%	0						
IO70	0				0				0						
IO71	0				0				0						
IO72	0				0				0						
IO73	0				0				0						
IO74	3	-7%	-5%	-4%	13	12%	5%	-1%	2	27%	15%	-1%	10%	5%	-1%
IO75	1	0%	0%	-10%	4	14%	5%	0%	0				11%	4%	-2%
IO76	0				0				0						
IO77	0				1	3%	3%	9%	0				3%	3%	9%
IO78	11	7%	5%	2%	5	15%	5%	1%	0				9%	5%	2%
IN89	0				1	-6%	-1%	3%	0				-6%	-1%	3%
IO80	0				17	-3%	-1%	1%	1	-2%	-2%	0%	-3%	-1%	1%
IO81	1	0%	0%	0%	39	-2%	-1%	-1%	17	0%	0%	-1%	-1%	-1%	-1%
IO82	0				29	1%	1%	1%	6	2%	1%	1%	2%	1%	1%
IO83	4	-1%	-1%	-1%	47	0%	1%	0%	59	3%	2%	0%	2%	1%	0%
IO84	0				0				0						
IO85	0				10	11%	4%	0%	0				11%	4%	0%
IO86	14	3%	1%	-2%	4	18%	7%	-1%	0				6%	2%	-2%
IO87	0				2	15%	11%	3%	0				15%	11%	3%
IO88	0				0				0						
IO89	0				0				0						
IO90	0				28	-1%	-1%	-1%	3	1%	1%	2%	-1%	-1%	-1%
IO91	20	0%	1%	0%	183	-1%	0%	0%	61	0%	0%	0%	-1%	0%	0%
IO92	23	-2%	-2%	-1%	23	-2%	-1%	0%	47	0%	-1%	-1%	-1%	-1%	-1%
IO93	2	0%	0%	0%	87	1%	1%	2%	120	0%	0%	2%	0%	1%	2%
IO94	14	2%	1%	1%	29	7%	3%	2%	1	1%	1%	6%	5%	3%	2%
IO95	0				0				0						
IO97	0				1	13%	4%	-2%	0				13%	4%	-2%
IO99	0				0				0						
JO00	0				1	2%	3%	-2%	0				2%	3%	-2%
JO01	3	3%	5%	-3%	30	-1%	-1%	-1%	59	-1%	-1%	0%	-1%	0%	-1%
JO02	10	-2%	0%	-2%	34	0%	0%	0%	9	0%	-1%	-2%	0%	0%	-1%
JO03	0				1	0%	0%	0%	1	5%	4%	-2%	2%	2%	-1%

23cm

	Average % Posn Change				Average % Change				Average % Change				Average % Change		
	Open				Restricted				Low				All Sections		
	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	Entries	M7->B2	M7->M8	M7->PPK	M7->B2	M7->M8	M7->PPK
IO64															
IO65															
IO66															
IO67															
IO68															
IO70	2	0%	0%	0%	0				0				0%	0%	0%
IO71	0				0				0						
IO72	0				0				0						
IO73	0				0				0						
IO74	2	11%	3%	0%	0				7	8%	1%	-1%	8%	2%	0%
IO75	0				0				5	32%	8%	-2%	32%	8%	-2%
IO76	0				0				0						
IO77	0				0				0						
IO78	5	3%	1%	0%	0				0				3%	1%	0%
IN89	0				0				0						
IO80	0				1	-14%	-7%	0%	8	-5%	-1%	9%	-6%	-1%	8%
IO81	9	-2%	0%	0%	0				20	0%	-1%	-1%	-1%	-1%	-1%
IO82	0				7	-3%	-1%	-3%	12	-2%	-1%	-1%	-2%	-1%	-2%
IO83	0				30	0%	0%	0%	23	-2%	-1%	0%	-1%	0%	0%
IO84	0				0				2	-4%	-1%	6%	-4%	-1%	6%
IO85	1	0%	0%	0%	7	17%	7%	1%	8	28%	8%	-3%	22%	7%	-1%
IO86	1	13%	0%	0%	2	11%	2%	4%	1	22%	4%	-1%	15%	2%	1%
IO87	2	4%	0%	0%	0				0				4%	0%	0%
IO88	0				0				0						
IO89	0				0				0						
IO90	0				3	-2%	-2%	5%	12	-1%	-1%	-1%	-2%	-1%	0%
IO91	16	-1%	-1%	-1%	23	-2%	-1%	0%	56	-3%	-1%	0%	-2%	-1%	0%
IO92	9	0%	0%	0%	26	-3%	-2%	0%	23	-2%	-1%	-1%	-2%	-1%	0%
IO93	0				25	3%	3%	1%	99	2%	2%	2%	2%	2%	2%
IO94	1	8%	8%	8%	3	6%	-1%	-2%	1	-7%	0%	7%	4%	1%	2%
IO95	4	4%	4%	0%	0				0				4%	4%	0%
IO97	0				0				0						
IO99															
JO00	0				0				4	0%	1%	2%	0%	1%	2%
JO01	2	3%	10%	10%	1	-4%	0%	4%	14	-4%	-1%	0%	-3%	0%	2%
JO02	1	15%	15%	0%	15	0%	0%	1%	0				1%	1%	1%
JO03	0				0				6	-4%	0%	2%	-4%	0%	2%