III. *An Extraordinary high Tide in the River* Thames *obſerv'd by Capt.* THO. JONES.

MARCH the 8th, 1725-6, The *Tide* in the *River Thames*, at *New Crane* in *Shadwell*, flow'd twenty Foot, five Inches and a half, taken by a Level, from that High-water Mark, to Low-water the next Morning, and was four Inches higher than has been known theſe fourty Years.

IV. *Obſervations upon the Tides in the River* Thames, *by Mr.* Henry de Saumarez.

THAT the Uſe of my Inſtrument call'd the * *Marine Surveyor* may yet farther appear, I ſhall here give ſome Experiments I made with it on the River *Thames*, in order to determine the Strength of the Tides of *Flood* and *Ebb*. Were the ſame to be done in the Channel, and on the Sea Coaſt of *Great Britain*, and mark'd in our Charts, I am humbly of Opinion, it would be of no ſmall advantage to our Commerce, and of conſequence a ſufficient Recommendation of the *Marine Surveyor*, if that alone were the Uſe of it.

I am induced the rather to be of this Opinion, in regard I am not inſenſible of the Dangers on the *Caſquets*, in the *Race* of *Alderney*, &c. where rapid Tides and Currents have occaſioned but too many to mourn the Loſs of Friends and Fortunes: As I dwell in the Neighbourhood of theſe Dangers, I have (in manifeſt hazard of my Life) ſurvey'd and taken correct Draughts not only of them, but of the Iſlands of *Guernſey*, *Sarck*, &c. And as I perſuade my ſelf they are as correct, as any Thing that has hitherto appear'd of this kind, it is my intent to publiſh them for the Good of the Publick.

* *Vid.* Philoſ. Tranſact. No. 391.

III. A TABULAR Account, ſhewing the Strength and gradual Increaſe and Decreaſe of the Tides of Flood and Ebb in the River *Thames*, as obſerv'd in *Lambeth* Reach, off of *Mancheſter* Stairs, and in the Middle of the River, with a new Inſtrument call'd the *Marine Surveyor*, on the *9th* of *June*, 1720; It being then Full Moon, and conſequently a Spring Tide. The Movement of the *Machine* 14 Inches under Water.

FLOOD.

The Time of Flood.		The Depth of the River,		The Run of the Current in every 15 Min.	The whole Run of the Current to the Times expreſs'd in the firſt Column.	The ſame reduced to Statute Miles of 5280 feet, or 528 Revolutions of the *Machine*.			The Reduction into Engliſh maritime Miles of 6000 feet, or 600 Revolutions.		
H.	M.	Ft.	In.	Feet.	Feet.	M.	Pts.	Rev.	M.	Pts.	Rev.
	15	5		110	110			11			11
	30	6		590	700			70			70
	45	6	9	1100	1800		¼	48		¼	30
1		7		1490	3290		½	55		½	29
1	15	8		1870	5160		¾	120		¾	66
	30	9		2230	7390	1	¼	79	1		139
	45	10		2500	9890	1	¾	65	1	½	89
2		11	6	2660	12550	2	¼	67	2		55
2	15	13		2730	15280	2	¾	6	2	½	28
	30	14		2740	18020	3	¼	86	3		2
	45	14	9	2720	20740	3	¾	94	3	¼	124
3		14	9	2570	23310	4	¼	87	3	¾	81
3	15	14	10	2220	25530	4	¾	45	4	¼	3
	30	14	9	1820	27350	5		66	4	½	35
	45	14		990	28340	5	¼	62	4	½ ¼	134
	50	13	9	130	28470	5	¾	75	4	½ ¾	14

E B B.

The time of Ebb.		The depth of the River.		The Run of the Current in every 15 Min.	The whole Run of the Current to the Times expreſſed in the firſt Column.	The ſame reduced to Statute Miles of 5280 feet, or 528 Revolutions of the Machine			The reduction into Engliſh maritime Miles of 6000 feet, or 600 Revolutions.		
H.	M.	Ft.	In.	Feet.	Feet.	M.	Pts.	Rev.	M.	Pts.	Rev.
	15	12	9	280	280			28			28
	30	12	3	1140	1420		1/4	10			142
	45	11	10	1900	3320		1/2	68		1/2	32
1		11	4	2080	5400	1		12		3/4	90
1	15	11	2	2120	7520	1	1/4	92	1	1/4	2
	30	10	9	2120	9640	1	3/4	40	1	1/2	64
	45	10	4	2170	11810	2		125	1	3/4	131
2		10		2130	13940	2	1/2	74	2	1/4	44
2	15	9	6	2060	16000	3		16	2	1/2	100
	30	9	4	2040	18040	3	1/4	88	3		4
	45	9		2020	20060	3	3/4	26	3	1/4	56
3		8	9	1910	21970	4		85	3	1/2	97
3	15	8	6	1900	23870	4	1/2	11	3	3/4	137
	30	8	3	1910	25780	4	3/4	70	4	1/4	28
	45	8		1860	27640	5		124	4	1/2	64
4		7	9	1810	29450	5	1/2	41	4	3/4	95
4	15	7	3	1780	31230	5	3/4	87	5		123
	30	7		1690	32920	6		124	5	1/4	142
	45	6	6	1620	34540	6	1/2	22	5	3/4	4
5		6	3	1570	36110	6	3/4	47	6		11
5	15	6	3	1570	37680	7		72	6	1/4	18
	30	6		1570	39250	7	1/4	97	6	1/2	25
	45	6		1560	40810	7	1/2	121	6	3/4	31
6		5	9	1550	42360	8		12	7		36
6	15	5	6	1560	43860	8	1/4	30	7	1/4	36
	30	5	3	1460	45320	8	1/2	44	7	1/2	32
	45	5		1450	46770	8	3/4	57	7	3/4	27
7		4	9	1430	48200	9		68	8		20
7	15	4	6	1400	49600	9	1/4	76	8	1/4	10
	30	4	3	1380	50980	9	1/2	82	8	1/2	148
	45	4	3	1340	52320	9	3/4	84	8	1/2	232
8		4		1270	53590	10		79	8	3/4	109
8	5	3	10	420	54010	10		121	9		1
	10	3	11	410	54420	10	1/4	30	9		42
	15	4		400	54820	10	1/2	70	9		82
	20	4		380	55200	10	3/4	108	9		120
	25	4	2	300	55500	10	1/2	6	9	1/4	
	30	4	2	270	55770	10	1/2	33	9	1/2	27
	35	4	3	130	55900	10	1/2	46	9	3/4	40
	40			Stagnt.	Stagnant						

IV. A TABULAR Account, Shewing the Strength and gradual Increaſe of the Tides of Flood and Ebb in the River *Thames*, as obſerv'd in *Lambeth* Reach, off of *Mancheſter* Stairs, and in the Middle of the River, with a New Inſtrument call'd the *Marine Surveyor*, on the 18*th* of *June* 1720; It being then the laſt Quarter of the Moon and conſequently a Neap Tide. The Movement of the *Machine* 14 Inches under Water.

FLOOD.

The Time of Flood.		The Deph of the River.		The Run of the Current in every 15 Min.	The whole Run of the Current to the Times expreſs'd in the firſt Column.	The ſame reduced to Statute Miles of 5280feet, or 528 Revolutions of the *Machine*.			The Reduction into Engliſh maritime Miles of 6000 feet, or 600 Revolutions.		
H.	M.	Ft.	In.	Feet.	Feet.	M.	Pts	Rev.	M.	Pts.	Rev.
	15	4		220	220			22			22
	30	4	3	520	740			74			74
	45	4	9	900	1640		¼	32		¼	14
1		5	3	1030	2670		½	3		¼	117
1	15	5	9	1020	3690		½	105		½	69
	30	6	1	1160	4850		¾	89		¾	35
	45	7		1450	6300	1		102	1		30
2		7	9	1640	7940	1	½	2	1		44
2	15	8	1	1830	9770	1	¾	53	1	½	77
	30	9		1920	11690	2		113	1	¾	119
	45	9	6	2070	13760	2	½	56	2	¼	26
3		10		2170	15930	3		9	2	½	
3	15	10	4	2070	18000	3	¼	84	3		
	30	11	3	1960	19960	3	¾	16	3	¼	46
	45	11	4	1890	21850	4		73	3	½	85
4		11	9	1700	23550	4	¼	111	3	¾	105
4	15	11	6	1300	24850	4	½	109	4		85
	30	11		730	25580	4	¾	50	4	¼	8
	35	11		70	25650	4	¾	57	4	¾	15
	40			Stagnt.	Stagnant.						
	45	10	10	dit.	dit,						
	50	10	9	dit.	dit.						

EBB.

The Time of Ebb. H.	M.	The Depth of the River. Ft.	In.	The Run of the Current in every 15 Min. Feet.	The whole Run of the Current to the Times expreſs'd in the firſt Column. Feet.	The ſame reduced to Statute Miles of 5280 feet, or 528 Revolutions of the *Machine*. M.	Pts	Rev.	The Reduction into Engliſh maritime Miles of 6000 feet, or 600 Revolutions. M.	Pts.	Rev
	15	10	6	610	610			61			61
	30	10		1340	1950		¼	63		¼	45
	45	9	9	1520	3470		½	83		½	47
1		9	3	1650	5120		¾	116		¾	62
1	15	9		1750	6870	1	¼	27	1		87
	30	8	6	1730	8600	1	½	68	1	¼	110
	45	8		1700	10300	1	¾	106	1	½	130
2		7	9	1710	12010	2	¼	13	2		1
2	15	7	3	1710	13720	2	½	52	2	¼	22
	30	7	1	1710	15430	2	¾	91	2	½	45
	45	6	9	1710	17140	3		130	2	¾	64
3		6	7	1680	18820	3	½	34	3		82
3	15	6	4	1670	20490	3	¾	69	3	¼	99
	30	6		1570	22060	4		94	3	½	106
	45	5	9	1500	23560	4	¼	112	3	¾	106
4		5	8	1480	25040	4	½	128	4		104
4	15	5	3	1440	26480	5		8	4	¼	98
	30	5	2	1430	27910	5	¼	19	4	½	91
	45	5		1420	29330	5	½	29	4	¾	83
5		5		1430	30760	5	¾	40	5		76
5	15	4	10	1420	32180	6		50	5	¼	68
	30	4	6	1430	33610	6	¼	61	5	½	61
	45	4	4	1420	35030	6	½	71	5	¾	53
6		4	1	1380	35410	6	¾	77	6		41
6	15	3	11	1360	37770	7		81	6	¼	27
	30	3	11	1340	39110	7	¼	83	6	½	11
	45	3	10	1230	40340	7	½	74	6	¾	134
7		3	10	1070	41410	7	¾	49	6		91
7	15	3	11	530	41940	7	¾	102	6	¾	144
	20	4		20	41960	7	¾	104	6	¾	145
	25			Stagnt.	Stagnant.						
	35	4	3	dit.							