TIDAL STREAMS AND VARIOUS DATA

THORN CHANNEL, CALSHOT AND DOCK APPROACHES.
Continuous 25 hour observations with sub-surface floats have been embodied in the Table of Tidal Streams (given below) for positions off the West Bramble Buoy, Calshot Spit and Hythe Pier, respectively.

WEST BRAMBLE
TIDAL STREAMS AT 50°47.72'N 1°18.27'W

Hours from LW The Docks		Set True	Rate Knots		Remarks (Governing Thorn Channel)
			Sp	Np	
	6	223°	0.8	0.4	First High Water (The Docks)
	5	231°	2.1	1.0	
Before	4	236°	1.8	0.9	Second High Water (The Docks)
LW	3	231°	1.7	0.8	
	2	230°	1.4	0.6	
	1	226°	0.9	0.4	
LW	0	Turning	0.0	0.0	20 min 'slack;' period before East–going stream
	1	057°	1.1	0.5	
	2	057°	1.0	0.5	
After	3	055°	1.0	0.5	
LW	4	055°	1.3	0.7	Maximum East-going rate
	5	044°	1.0	0.5	
	6	223°	0.2	0.1	5 Min 'slack' period before West-going stream
	6½	223°	0.8	0.4	First High Water (The Docks)

It is noted that off the West Bramble Light Buoy the tidal stream turns to the Westward nearly ½ hour before First High Water at Southampton and attains maximum rate between the times of First and Second High Waters at the Docks. With strong S.E. and S.W. gales the times of the turn of the tide here may vary from prediction by up to half and hour.

CALSHOT SPIT LIGHT FLOAT
TIDAL STREAMS AT 50°48.44'N 1°17.59'W

The values entered in the Neap column have been checked by observations over a limited period only, but should not be in serious error. The Spring values are from observations taken over a continuous period of over twenty five hours.

Hours from LW The Docks		Set True	Rate Knots		Remarks (Governing Thorn Channel)
			Sp	Np	
	6	330°	0.2	0.2	Stream making and turning anti-clockwise to S.W.
	5	225°	1.2	0.6	
Before	4	230°	1.0	0.5	
LW	3	215°	1.3	0.6	Stream *increasing* and turning *anti*-clockwise
	2	195°	2.0	1.0	
	1½	180°	2.4	1.2	Stream at peak of maximum rating setting 180°
	1	170°	0.3	0.3	Stream turning anti-clockwise through East
LW	0	050°	0.4	0.3	Minimum rate – no slack
	1	020°	1.8	0.9	Maximum rate – N.N.E.
	2	040°	0.9	0.5	Young Flood period
After	3	075°	0.3	0.2	Stream turning clockwise through East
LW	4	055°	0.5	0.3	to 095° 3½ hrs after LW
	5	015°	1.4	0.7	Maximum rate between Young Flood and 1st High Water
	6	015°	0.4	0.2	Stream commencing to turn to S.W. through North

OFF HYTHE PIER
TIDAL STREAMS AT 50°52.53'N 1°23.28'W

Hours from LW The Docks		Set True	Rate Knots		Remarks (Governing Thorn Channel)
			Sp	Np	
	6	323°	0.5	0.3	First High Water (The Docks) 5½ hrs before LW
	5	089°	0.1	0.0	
Before	4	Slack	0.1	0.0	Second High Water (The Docks) – 20 min. Slack
LW	3	113°	0.3	0.2	
	2	131°	1.1	0.6	
	1	134°	1.9	0.9	Maximum ebb stream
LW	0	129°	0.3	0.2	
	1	325°	0.7	0.4	
	2	332°	0.6	0.3	
	3	353°	0.3	0.2	
After	4	Slack	0.0	0.0	20 min. 'slack' period
LW	5	323°	1.1	0.6	Maximum flood stream
	6	321°	0.9	0.5	
	7	Slack	0.0	0.0	20 min. after First High Water

In the Middle and Lower Swinging Grounds the rates are ¼ to ½ knot less than those given in the above table, but their directions are sometimes confused and eddying, which fact is of importance in the handling of ships in these areas.

N.B.: Strong N.E. or S.W. winds will modify these rates.