

Diagram for interpolating intermediate tide times and heights – Form AH130

Times and heights between HW and LW at standard ports and secondary ports can be interpolated by using a graph provided that the duration of rise or fall is between 5 to 7 hours. If the period of rise or fall is outside this range, the tidal curve is likely to be distorted.

Example 1 - standard port - intermediate tides

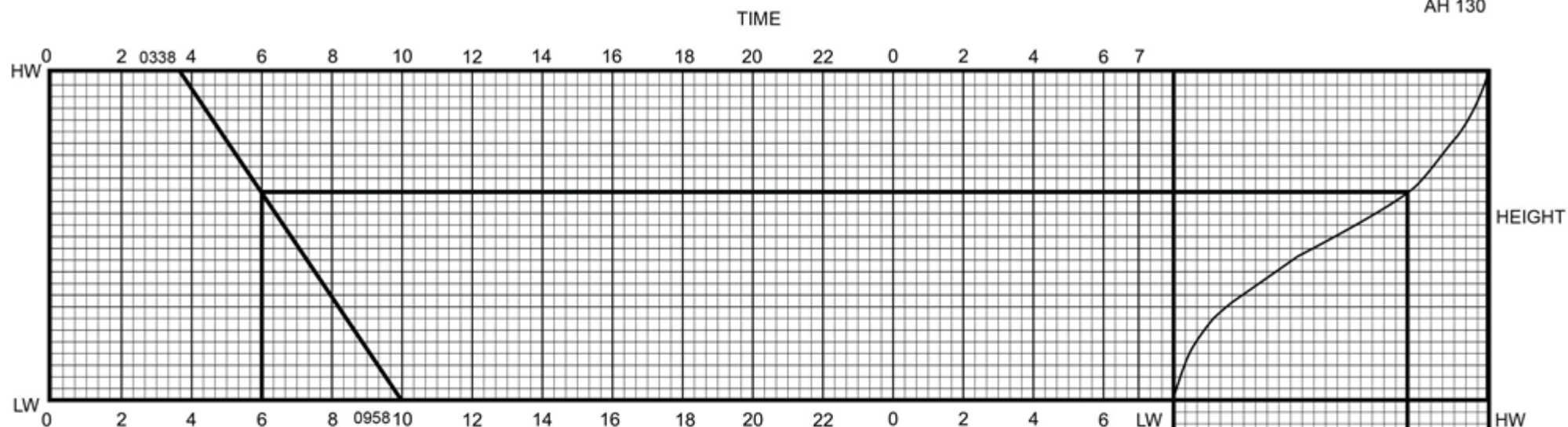
Find the height of tide at 0600 at 'standard port' on 1 February. (Note that the data used for this example does not refer to the year of these tables nor to any particular port).

Extract from standard ports table for required day:

	FEBRUARY	
	Time	m
1	0338	5.8
	0958	3.7
SA	1441	5.2
	2121	0.9

Complete the graphical interpolation form:

Step	Instruction
1	Plot the time of HW on the time axis marked HW. Plot the time of LW on the time axis marked LW. Connect these two points by a straight line called the 'time-line'. Note: Hours from 0000-0700 are repeated on the right-hand side of the scale for use when midnight (0000) falls between HW and LW.
2	Choose an appropriate height scale (0-2.5m, 0-5m or 0-10m). Plot the height of HW on the height axis marked HW. Plot the height of LW on the axis marked LW. Connect these two points by a straight line called the 'height-line'.
3	To find the height of tide for a given intermediate time: Plot the time on the LW time axis. Project it up to the time-line. Across to the cosine curve. Down to the height-line. Across to the LW height axis. Read Height.
4	To find the time at which a given intermediate height occurs: Plot the height on the LW height axis. Project it across to the height-line. Up to the cosine curve. Across to the time-line. Down to the LW time axis. Read Time.



Find the height at 0600 using the information from Example 1

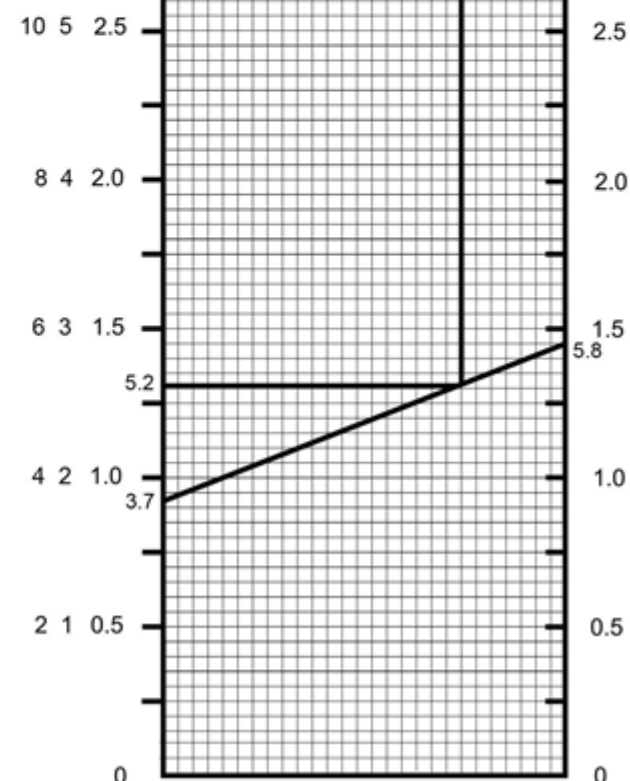
DIAGRAM FOR FINDING TIMES OF HEIGHTS OF THE TIDE

Tidal predictions for (Place) Secondary Port
(Date) 15 September

Time	Height
0338	5.8 m
0958	3.7 m
0600	5.2 m
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INSTRUCTIONS

1. Plot the times and (using the appropriate scale) heights of high and low water.
2. Join these points to obtain a time-line and height-line.
3. To obtain an intermediate height for a given time, plot the time on the time axis, project up to the time-line, across to the curve, down to the height-line and across to the height axis to read off the result. To find the time for a given height simply use the reverse procedure.



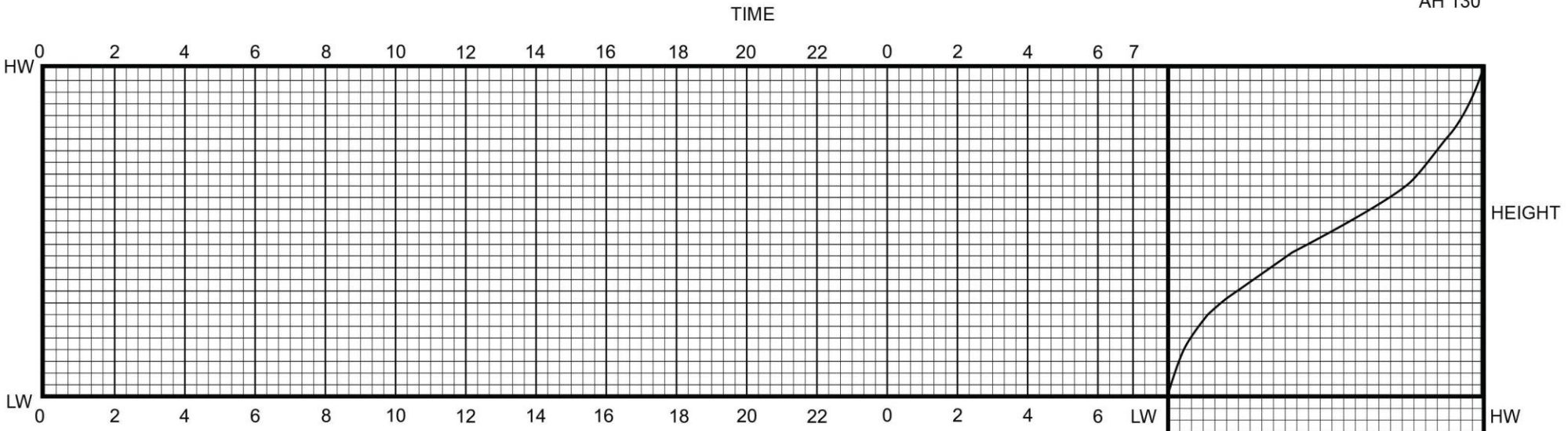
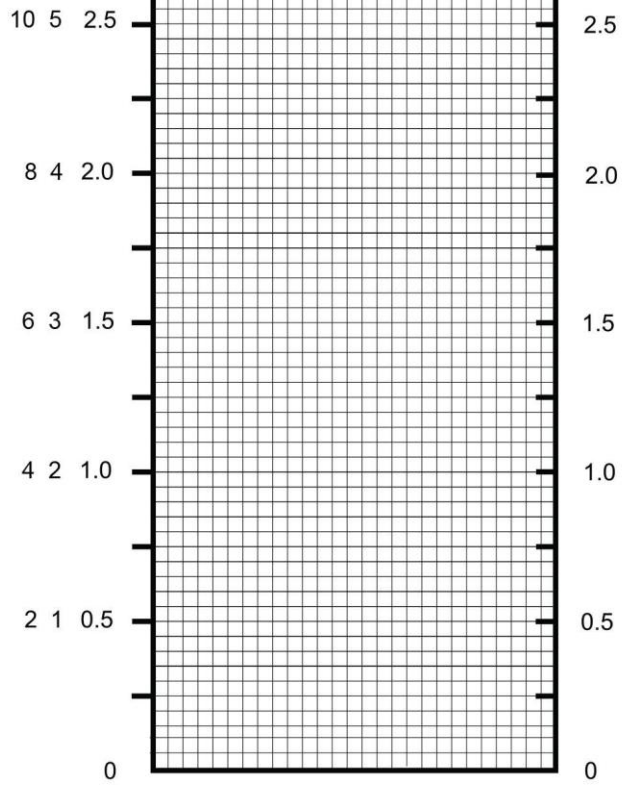


DIAGRAM FOR FINDING TIMES OF HEIGHTS OF THE TIDE

Tidal predictions for (Place) _____
(Date) _____

<u>Time</u>	<u>Height</u>
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