- *High water height difference* - once again, the variation is minimal, but we go for the neap figure of - 0.7m. If the two were further apart, we'd interpolate using the range in the same way as we have done with the times.

- *BST* – here's a final reminder that all the time difference figures are worked on the basis of UT and this is the time given in the tables. It is therefore more accurate to work in UT (or Zone Time) throughout, then convert to daylight-saving time at the end. In home waters, add one hour in summer months.

## Heights between high and low water

Because high and low water happen only twice per day, for most of the time the tide is at a height somewhere between the two. Unless you are using a tide computer or the tide information in an electronic chart plotter, by far the best way to deal with this has been contrived by the Hydrographer of the Navy. His work appears in the ATT, but we are waived the expense of buying one of these publications annually by the fact that his method is reproduced in any proper almanac.

Look at the illustrations of Dover tides in Figures 3-4 and 3-5. This is a typical Standard Port. All the others are arranged in the same way. Each Standard Port has a curve to suit its tidal characteristics, and each has a tidal curve superimposed on a lattice of squares. Using these curves will solve tidal height problems with amazing simplicity, as the following examples will make clear.

### The two big questions

The two basic questions to be asked about tide heights are these:

- What time will there be a given height of tide?
- What will the height of tide be at a given time?

The easiest way to answer is to work through an example.

*Example*
## What time?

| **15** | 0404 | 1.2 |
|--------|------|-----|
|        | 0921 | 6.3 |
| SU     | 1631 | 1.1 |
|        | 2138 | 6.6 |

What time (early evening) will the tide in Dover harbour have risen to a height of 5.4 metres (m) on 15 April 2007? The relevant section of the Dover table is illustrated (left), while the curve duly set up with the navigator's pencil is shown opposite.

The method is as follows:

Note down the time and height of low and high water:

      1631 UT 1.2m
      2138 UT 6.6m