

## 6.2 Standard for Digital Tide Tables

### **Objective:**

Define specifications for electronic tide prediction products, either web based or stand alone.

The following is a list of fundamental attributes that digital tide prediction tables should have:

#### A. Station Information

- Station Name

- Body of Water Descriptor (if appropriate)

- Station Number (as appropriate)

- Latitude and Longitude (degrees:min:sec and tenths? or decimal equivalent)

- Location Map with nearby stations

#### B. Earth-Moon-Sun Astronomical Calendar Information (Tabular and/or integrated with graphical data output)

#### C. Sunrise/Sunset Calendar Information (Tabular and/or integrated with graphical data output)

D. Datum reference for all predicted data

Default Reference Datum is the Chart Datum used by the Country.

Ability to reference predictions to LAT if not the default Reference Datum.

Ability to reference predictions to other tidal datums (such as HAT, MHW, MSL) and user identified datum such as a national geodetic datum or other coastal engineering or threshold datums.

E. Data displays and tables in Metric or English units, with default depending upon country

F. Time Zone display with Local Standard Time as default, with user selected option for UTC/GMT , daylight savings time, etc.

G. Source of tidal predictions is provided via links to metadata information:

Harmonic Constants or Time and Range Correction to Reference Station

Dates of Harmonic Analyses time series used to create the set of Harmonic Constants used in the prediction.

Links to list of the Harmonic Constants used in the Prediction

Dates of the observations used to create tabular time and height corrections (for Table 2 or secondary port stations) to a reference Station.

H. Ability to obtain graphical and tabular output for desired time period (historical and into the future) for:

Time series at maximum 1- hour increments.

Times and heights of predicted high and low tides.

Time series plots non-harmonic stations using curve fit to times and heights of high and low waters

I. Ability to obtain output in PDF, TXT, XML, CSV, S-112 formats

J. Readme files for special warning notes explaining areas of anomalous tidal conditions or special datums (dual high or low waters, tidal bores, river flow dependencies and river datums, frequent non-tidal conditions, etc..)

K. Estimates of uncertainty in the predicted times and heights of high and low waters.

L. Ability to have machine to machine generation and transfer of tidal predictions

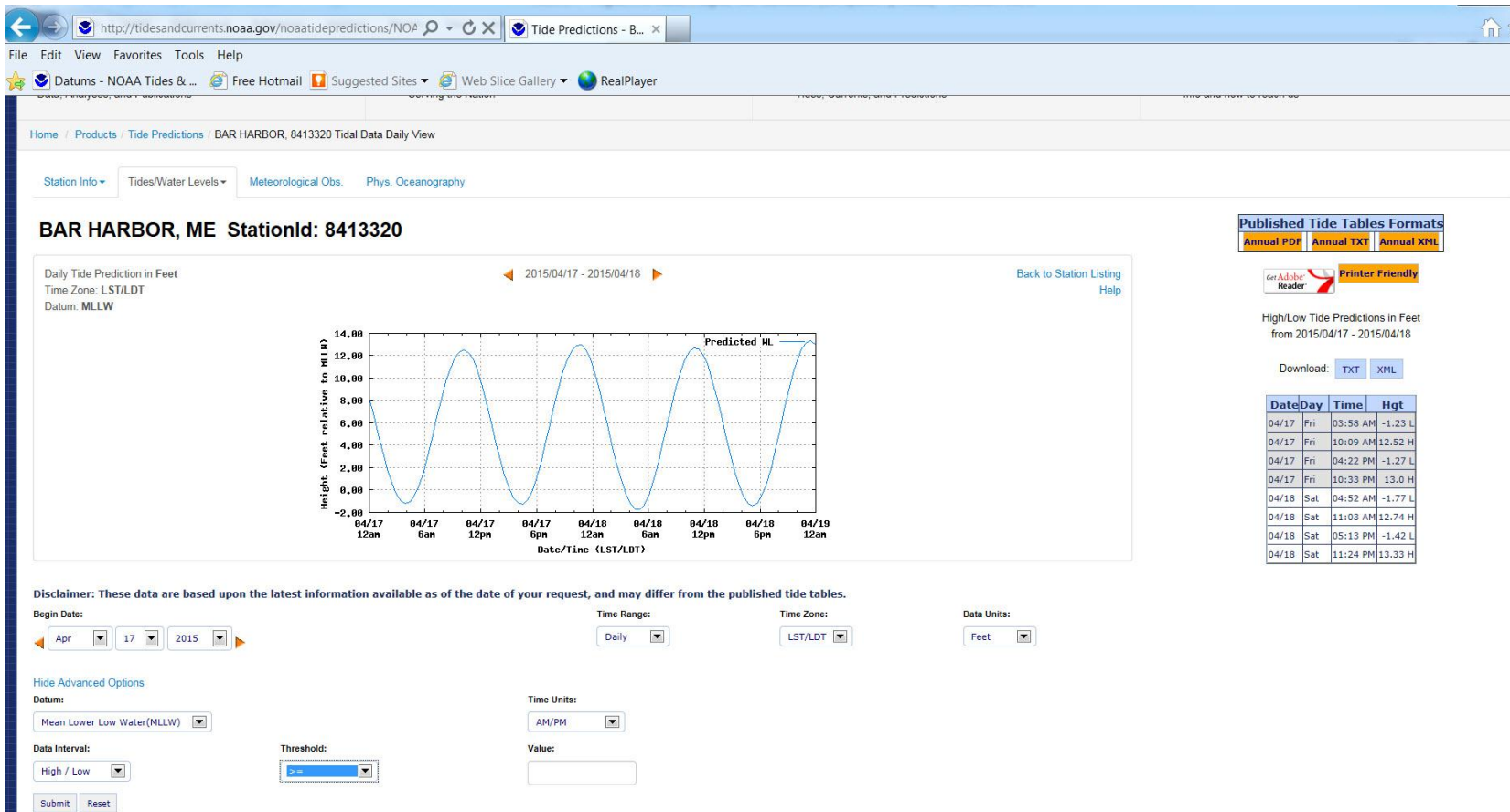
M. Copyright or Notice of Terms of Use information

# Questions

- Should some requirements be mandatory and some recommended
- Relationship of Electronic Predictions to Official Tide Tables.

# Examples

## NOAA Tide Predictions



# UKHO – Easy Tide



THE UNITED KINGDOM  
HYDROGRAPHIC OFFICE  
ADMIRALTY EASYTIDE

<a href="#">PREDICT</a>	<a href="#">ABOUT EASYTIDE</a>	<a href="#">PRICING</a>	<a href="#">FAQ</a>	<a href="#">MY ACCOUNT</a>
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## Your EasyTide Prediction (free)

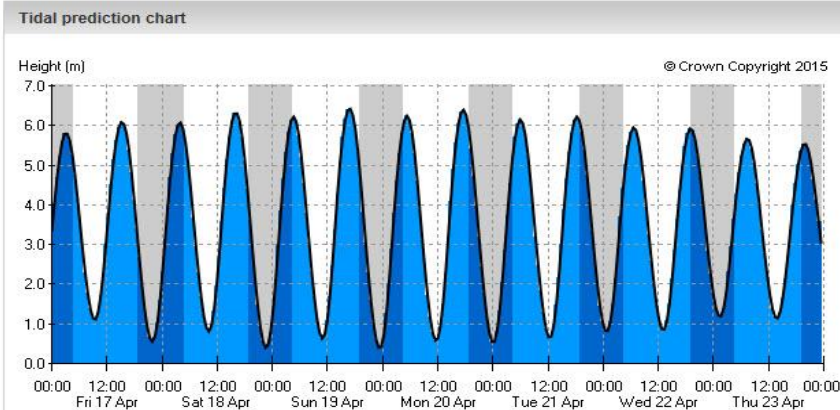
[View printer friendly prediction](#)

Bridlington, England

Port predictions (Standard Local Time) are equal to UTC

Start Date: Today - Friday 17th April 2015 (Standard Local Time)

Duration: 7 days



**Note:** the date shown underneath 12:00 on any given day is applicable to the previous and next periods of 12 hours

Fri 17 Apr				Sat 18 Apr				Sun 19 Apr			
HW	LW	HW	LW	HW	LW	HW	LW	HW	LW	HW	LW
03:05	09:19	15:15	21:49	03:51	10:07	16:01	22:36	04:34	10:53	16:46	23:20
5.8 m	1.1 m	6.1 m	0.6 m	6.1 m	0.8 m	6.3 m	0.4 m	6.2 m	0.6 m	6.4 m	0.4 m

### Adjust chart time axis

Daylight saving: 0 hours

Max graph size: 7 days

Apply

## Daylight Saving Warning

EasyTide predictions are based on the standard time of the country concerned. For the UK this is GMT (which is in force from 02:00 am on the last Sunday in October until 01:00am on the last Sunday in March). The specific dates of the Sundays in October and March for the next three years can be found on the directgov website at <http://www.direct.gov.uk/en/index.htm>.

The "Daylight saving" drop-down box in the top right-hand corner of the screen can be used to convert the predicted times to "Daylight Saving Time". In the UK this is known as British Summer Time (BST) and is one hour later than GMT. Therefore BST applies to dates and times **outside** those mentioned above.