

What is it ?

Firstly, are there any members of the flat earth society here, if there are you may want to listen to what I am about to speak with a pinch of salt.

This a brief background to what I am about to demonstrate, to put it into context.

The quality of much of outdoor photography is governed by the quality of the light and the transit of both the sun and the moon.

Landscape shots are often at their best in the golden hour, when the sun rises and sets the light comes through the atmosphere at a low angle, and under these circumstances the light takes on a golden hue which seems to produce the optimal images to our eye as an outdoor photographer.

The sun and moon in their transit do follow predictable paths with the earth's orbit around the sun and the moon around the earth. However they do not always fit in with traditional Gregorian calendars used by the industrialised world. Sun and moon do not always rise and set at the same day in the month.

As the earth's axis oscillates in its transit around the sun, and the moon, follows an ellipsoid orbit around the earth, we need a tool to predict where these light sources will be. Early man stuck up standing stones and cairns to indicate where the sun rose and fell, during their farming calendar, we have moved on a little to a set of tables that tell us where and when the sun will rise and set.

Our position on the globe has a huge effect on these times. The nearer we get to the equator, the length of day and the sunset and sunrise times become more equal and more predictable. However at our northern latitudes we are all aware that the day length changes considerably seasonally, and this is directly related to where the sun appears over the horizon. The nearer to the poles that we get the more seasonally variable the day length becomes, to the point that above approximately 66 degrees north from the equator, we reach a zone where we see permanent dark and light in the winter and summer respectively. This line we know is the Arctic Circle.

We as photographers need to be able to predict where the sun will be for a given time and location or in reverse be able to see where the optimal light will be to get the picture we envisage.

There are however three variables that can impact the production of the pictures outdoors.

- Sunrise and sunset times and the transit of the sun and the moon
- The weather conditions
- On the coast the tidal conditions

There are several tools that help us predict the sunrise and sunset time. The analogue device is the sun calendar which works well if you can figure out how to use it. In the hands of an expert they are highly effective, just like the logarithmic tables. Just like those, the

world has moved on and we now have applications that make the approach easier and simpler to use. I am going to look at one example of each.

There are other tools available.....

The photographers Ephemeris TPE comes in a number of different offerings all found through

<http://photoephemeris.com/>

Originally a UK developed product, but is now broadened to a joint effort UK & US , marketed through the US . Three manifestations:

1. Free browser version which needs a free app downloading – this I will show you tonight
2. Android, for phone or tablet , and as of this morning, it was priced at £4.08 (\$) version 2.2 needed
3. Apple IOS version, £6.99 version 8 needed

The paid versions have considerably more functionality, including being able to see the position of the stars and milky way highly effectively

All have huge amounts of help text and forums and for the real solar and lunar geeks you can disappear into untold masses of discussion which seem a little like the pages of the unseen university in discworld.

Set-up, go to the site and install the APP , simple straightforward and quick

Now lets look at the solution and how it works

It seems to work on most current browsers these days. Its been tested on

- Safari 7.0.5, 7.0.6
- Firefox 30.0, 31.0, 32.01
- Chrome 36.0.1985.125, 37.0.2062.122
- Internet Explorer 11
- Opera 22.0

There is a quick start guide to download which makes life very simple

Tutorials

Wry observation – Mobile and tablet versions are superb, but there seems to be an inverse law relating to phone coverage, the better the location, the worse the phone / wifi coverage. Don't get there and rely on your phone to align your position, Write them down, time and direction and take compass or screen shot them and take them with you. I draw a short line on the map that I am using in pencil.

Weather Conditions

The quality of light is also governed by the weather and is certainly less predictable. There are a number of tools available.

- Met office
- BBC.co.uk /Weather
- Metcheck.com

All use the same base data, but then forecast in subtly different ways.

Finally tide times.

Yellow jacket / health and safety

Only forecast 5 days ahead are for free, “British Hydrographic Institute has to stand on its own feet “

Tide times and scales are governed by the moon and its distance and location in relation to the earth. In effect the moon sucks.....

The nearer to the earth the larger the effect, the higher the tide (Spring & Autumn tides are bigger)

Tide is predictable for average weather conditions only . One other critical factor, is storm conditions in over the seas and oceans. Tidal lag and surge , varies with the weather – North Sea surge Jan 1953

Bigger the tide (Height) the quicker it advances and recedes

Tides is only measured at certain key stations around the coast. Nearly always harbours but not always

BST Warning

Options

http://www.bbc.co.uk/weather/coast_and_sea

<https://www.tidetimes.co.uk/>

Buy a subscription or buy a printed tide table locally, renewed every year for full details.