The BAA Solar Section White Light & Hydrogen Alpha Databases
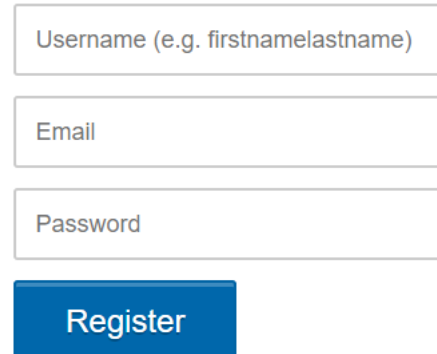
Peter Meadows, March 2018

Introduction

- Two web based databases have been developed for the submission of white light and hydrogen alpha observations to the Solar Section.

- The purpose of the database is to ease the collation of solar observations from over 50 observers that appear in the monthly newsletter and the News and Notes part of the Journal.

- The web interfaces have been designed to enable a variety of data to be input. For example, all or a sub-set of hemispherical group/sunspots, whole disk groups/sunspots, sunspot number and quality number can be submitted.

- It is possible for an observer to retrieve their current or previous month's inputs.
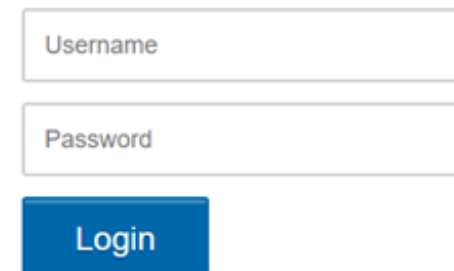
Register/Login

- Using the databases for the first time, the observer needs to create a username and password and add an email address.
- Your password is encrypted.
- Suggest a username of the form 'firstnamelastname'.
- An email is sent upon successful registration.
- Login requires the username and password.
- **Registration is only required once (for either or both databases).**

BAA Solar Section Database

Username (e.g. firstnamelastname)

Email

Password

Register

BAA Solar Section Database

Username

Password

Login

Not registered yet? Register Here

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White Light Database
https://britastro.org/solarwl

Daily Inputs

- Input using a web form (defaults to current month):

Month 02 Year 2018 Select

Day	UT	Seeing	g north	f north	g south	f south	g	f	R	Q	Notes	
01	1230	1	0	0	0	0	0	0	0	0		Clear
02												Clear
03												Clear
04	1040	2	0	0	0	0	0	0	0			Clear
05	1230	1	0	0	1	2	1	2	12	2		Clear
06	1230	2	0	0	1	4	1	4	14	4		Clear
07	1225	2	0	0	1	9	1	9	19	4		Clear
08	1220	1	0	0	1	13	1	13	23	4		Clear
09												Clear
10												Clear
11	1000	2	0	0	1	17	1	17	27	4		Clear
12	1235	2	0	0	1	11	1	11	21	4		Clear

Daily Inputs

- Click on a cell to input a value
- Tab can be used to move to successive cells.
- If gn, fs, gs & fs are input then g, f and R are automatically calculated
- Similarly if g & f are input then R is automatically calculated
- The clear button remove entries for that day
- Changing the month retrieves previously inputted entries (by pressing the Select button)
- Clicking on g north total and using tab calculates the totals:

29											Clear
30											Clear
31											Clear
	Totals	2	12	1	5	3	17	47	10	Clear	

Daily Inputs

- The format of the white light daily inputs are:
  - UT (time of observation): HHMM only
  - Seeing: any format but BAA format preferred (1 = Excellent; 2 = Good; 3 = Fair; 4= Poor; 5 = Bad)
  - g north (number of groups/active areas in the northern hemisphere): integer
  - f north: (number of sunspots in the northern hemisphere): integer
  - g south, f south: as for g north and f north but for the southern hemisphere
  - g total, f total: as for g north and f north but for the whole disk
  - R (sunspot number = 10*g total + f total): integer
  - Q (quality number): integer
  - Notes: any format
  - Totals: all integers

MDF Inputs

- With the daily values input, the mean daily frequency and days observed are calculated.

- Suggest start by clicking on the g north MDF cell and then press tab a few times.

- The Submit button submits the daily and MDF values into the database.

	g north	f north	g south	f south	g	f	R	Q		
M.D.F.	0.00		0.53		0.53		9.40	1.80	Clear	
Days Observed	15		15		15		15	15	Clear	

Observer	Peter Meadows
Telescope	80mm Refractor
Location	Chelmsford, Essex

Submit

Observer, Telescope & Location Inputs

- Below the MDF part of the form, the Observers name, telescope and location can be input.

- These only need to be input once (unless they change):

| Observer	Peter Meadows
Telescope	80mm Refractor
Location	Chelmsford, Essex

Submit

- The location should be brief such as city/town, county, country

- This information is added to your observations when submitted to the Director each month.
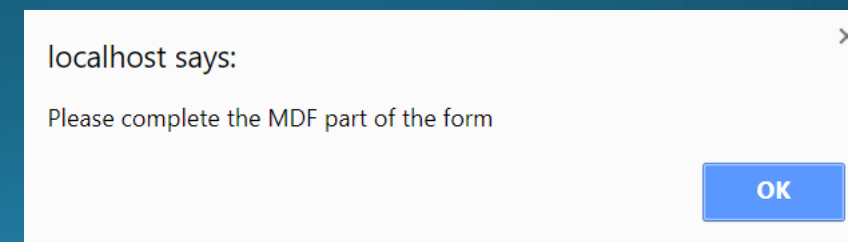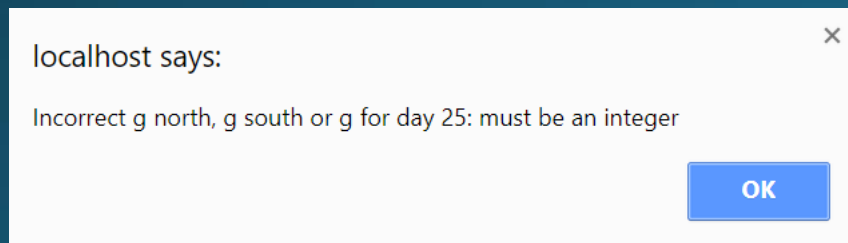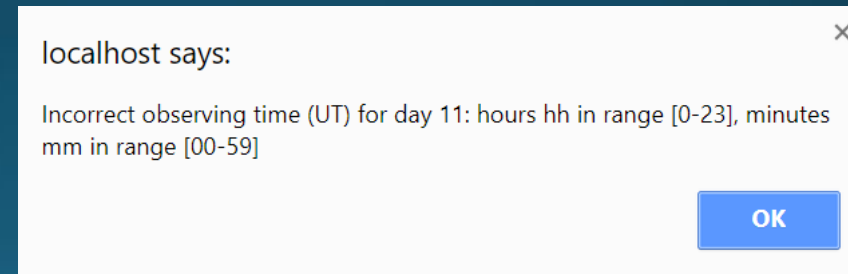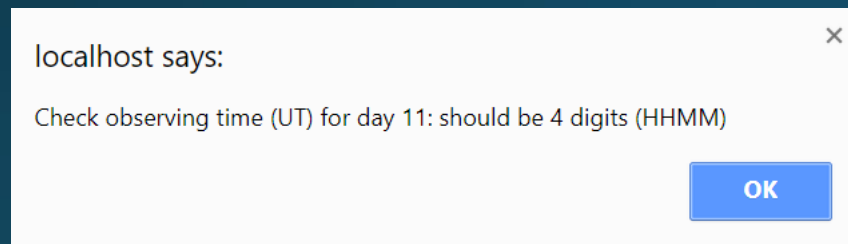
Logging Out

- After pressing the submit button, the logout page appears.
- If you would like an email of your submitted observations press the 'email' button.
- Press the 'logout' button to return to the login page.

BAA Solar Section Database

Peter Meadows your observations have been sucessfully added

email   logout
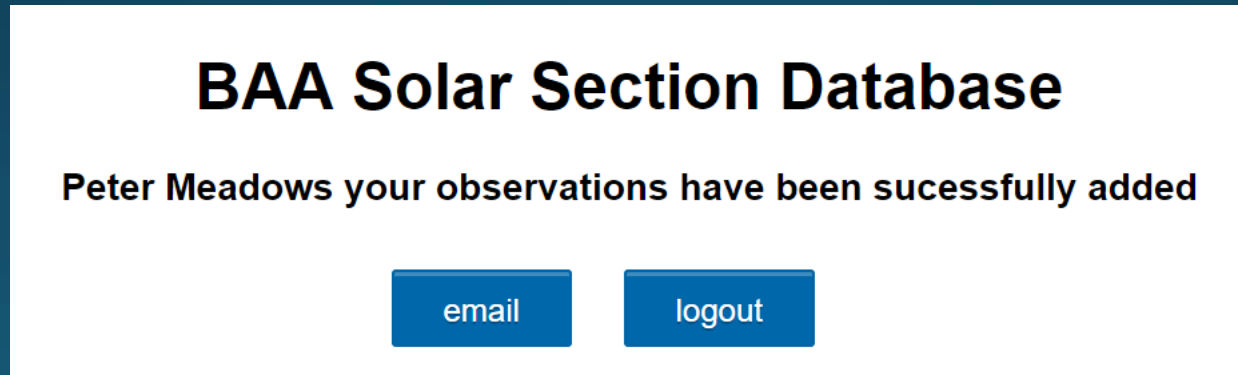
Error Checking

- Various checks are performed:
  - ➤ The selected month cannot be in the future
  - ➤ The time must be in the form HHMM and between 0000 and 2400
  - ➤ The g, f, R and Q values must be integers
  - ➤ The MDF part of the form must be completed before submitting

localhost says:

Check observing time (UT) for day 11: should be 4 digits (HHMM)

OK

localhost says:

Incorrect observing time (UT) for day 11: hours hh in range [0-23], minutes mm in range [00-59]

OK

localhost says:

Incorrect g north, g south or g for day 25: must be an integer

OK

localhost says:

Please complete the MDF part of the form

OK

Hydrogen Alpha Database
https://britastro.org/solarha

Inputs

- The Hα database is used in the same way as that for white light via a daily and MDF form:

Month 02 Year 2018 **Select**

Day	Time	Seeing	Prominences			Plages	Filaments	Flares	Notes	
			Active	Quiet	Total					
01										Clear
02										Clear
03										Clear
04	1050				0		0			Clear
05										Clear

	Prominences			Plages	Filaments	Flares		
M.D.F.			2.50		1.67		Clear	
Days Observed			6		6		Clear	

Inputs

- The format of the Hα daily inputs are:
  - ➢ UT (time of observation): HHMM only
  - ➢ Seeing: any format but BAA format preferred (1 = Excellent; 2 = Good; 3 = Fair; 4= Poor; 5 = Bad)
  - ➢ Prominences (number of active and quiet prominences and total): integer
  - ➢ Plage (number of plage on disk): integer
  - ➢ Filaments (number of filaments on disk): integer
  - ➢ Flares (number of flares on disk): integer
  - ➢ Notes: any format
  - ➢ Observer: your name (same as for white light observations)
  - ➢ Telescope: your telescope (different from your white light telescope)
  - ➢ Location: your brief location (e.g. town/city, county, country) (same as for WL)

Summary

- We hope you found the database easy to use and that you will use it to submit your observations to the BAA solar section.

- Any questions about using the database or problems please contact Peter Meadows (peter@petermeadows.com) or Lyn Smith (solar@britastro.org).