

U.S Coast Guard Auxiliary Information Technology Group

Computer Software & Systems Department



Public Education Calendar Database Webkit USER'S GUIDE

Beta Version 0.2

THIS MANUAL DESCRIBES SOFTWARE THAT IS IN A "PRODUCTION" BETA TEST. A PRODUCTION BETA TEST IS ONE WHERE ACTUAL USERS BUILD ACTUAL END USE PRODUCTS WITH THE SOFTWARE, WHILE FEEDING BACK SUGGESTIONS FOR IMPROVEMENT AND BUG REPORTS. THE RESULTS OF THAT FEEDBACK IS USED TO IMPROVE THE PRODUCT DESCRIBED HEREIN, AND THIS MANUAL MAY CHANGE FREQUENTLY. BE SURE TO ALWAYS HAVE THE LATEST REVISION.

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Table of Contents

Overview.....	- 1 -
PE Calendar Engine Features.....	- 1 -
Including a Searchable PE Calendar on Conventional Web Pages	- 1 -
Step 1: Enter CSS “Stylesheet”	- 2 -
Step 2: Invoke the PE Calendar Engine.....	- 2 -
Application Program Interface (API).....	- 3 -
Complete API Invocation	- 3 -
Creating a Flyer Link	- 4 -
Sample Program Using the API.....	- 4 -
Support/Feedback	- 4 -
Table and Figures.....	- 5 -
Table 1: PE Server API Field Definitions.....	- 5 -
Figure 1: Search Panel and Generic Course Listing	- 5 -
Figure 2: Search Results (Course Listing).....	- 2 -
Figure 3: Course Flyer	- 3 -
Appendix I – Entering Data in the Public Education Calendar.....	- 4 -
Public Education Calendar	- 4 -
Entering a PE Course in the Online 7023 Form	- 4 -
Feedback Button.....	- 6 -
Acknowledgements	- 6 -

Overview

The National Public Education Calendar Database provides a single, unified national database to hold and display all public education courses taught by our various flotillas nationwide. In addition, it provides a Zip Code search permitting members of the general public to enter their own Zip Code, and find all public education courses being taught within a selected distance from their Zip Code. *Unit-based searches are also supported.*

Public interface to the Public Education Database is automatically provided by WOW websites, simply by adding a Boating Courses page. All of the capabilities described below for this Webkit are automatically built into WOW, and this Webkit is not needed.

If, however, you unit or department has a conventional (HTML/PHP) website or application, or a WordPress or other content-driven site, and you wish to include the same features automatically available to WOW site designers, then this Webkit is for you. With it, you may include the identical functionality with a *few lines of code* on your HTML or PHP page, or even a page generated by some other platform.

PE Calendar Engine Features

The PE Calendar Engine, used by the WOW platform as well as this Webkit, exposes the following features to the visitor of an Auxiliary website or application:

1. Displays a *generic list of Public Education courses* taught by the Auxiliary (Figure 1, bottom);
2. Provides a *search panel* for search by Zip Code, search by unit, or search by district (Figure 1, top);
3. Displays a list of found courses including *Course Name, Start Date, Location, and Contact* (Figure 2);
4. Generates a one-page, printable flyer for any selected course, with the following information (Figure 3):
 - a. Course overview Description
 - b. Syllabus (topics covered)
 - c. Name and number of flotilla offering the course
 - d. Start and End dates and times
 - e. Course duration
 - f. Course location, including zoomable Google[®] map
 - g. Contact information (registration, etc.)
 - h. Cost
 - i. Additional Comments
5. Separate Google Map

Including a Searchable PE Calendar on Conventional Web Pages

To invoke the PE Calendar Engine on a conventional Web page, there are only two steps:

1. Include a block of CSS style code to control the width and height of your calendar display, and
2. Invoke the calendar engine in the “mainbody” of your web page.

Before you do this, evaluate your unit’s current website. If it is out of date, stale, broken, embarrassing, ancient-looking, or any number of other faults, it is strongly suggested that you formally abandon the site and stand up a new WOW II site. To do so, with a basic site, only takes a few minutes, and the Public Boating Courses page is included for free.

However, if your current site is absolutely up to date (or soon will be), simply gorgeous, and this PE calendar page is only the latest in a series of really cool stuff that you have on your site, then continue.

For your searchable PE calendar page, it is suggested you create an entire new, empty Web page (with only the standard header and your left menus) that is linked by a left menu item entitled "Public Boating Courses", or simply "Boating Courses". Then, proceed as follows:

Step 1: Enter CSS "Stylesheet"

Immediately above the closing </head> tag in your HTML (shown below), enter the following code:

```
<style type="text/css">
  iframe#pecal {
  border:none;
  width:619px;
  height:800px;
  padding:0;
  margin:0;
  background-color:#FFFFFF;
  overflow-x:hidden;
  }
</style>
</head>
...as before
```

This code sets the *width* of the calendar display to 619 pixels, and the height to 800 pixels. 619 is the correct width for standard AuxWeb HTML templates that feature 180 pixel-wide left menus, and an 800 pixel-wide total web page. You may adjust both the width and height parameters as required.

Note to users of AuxWeb Templates: If you have built your unit website using the so-called "National Template" files, the above CSS may not be necessary, as all templates typically include "uscgaux.css" automatically, which includes the above CSS. Our suggestion is to *omit* the above for your first test, and if the PE Calendar that gets generated looks *exactly* like that in Figure #1, below, then the above stylesheet is not necessary.

However, even if the above stylesheet is *not* necessary, you still might want need tweak the height or width of the PE Calendar presentation. In such a case, include the above CSS in your HTML or PHP file as described, but delete the *border*, *padding*, *margin*, *background-color*, and *overflow-x* rows as redundant.

If you are *not* using the AuxWeb templates, then include the entire block of code above, including the opening and closing *style* tags, and adjust the height and width as you need.

Step 2: Invoke the PE Calendar Engine

In the "mainbody" area of your Web page, between existing <div id="mainbody">...</div> tags, enter the following code (pre-existing code shown in black, new code in **bold blue**):

```
<div id="mainbody">
... as before (if anything)
<iframe id="pecal"
  src="http://wow.uscgaux.info/peclass.php?unit=114-12&frame=TRUE">
iFrames Not Supported</iframe>
... as before (if anything)
</div>
```

Note in this code snippet “unit=114-12”. You would replace “114-12” (Division 12, District 11SR) with the canonical unit number of *your* flotilla (or division or district) (e.g., 014-02-13, or 113-05, etc.). If you are running this on a National site, without a unit number, use “NAT” (without quotes) for the unit number.

That’s it. Be sure to run your new page through W3C Validation at <http://validator.w3.org/>, and tweak the width and height in the stylesheet to fit your circumstances.

A sample “skeleton” HTML file that uses the standard AuxWeb HTML template, entitled “skeleton.HTML”, is available for download as part of the complete Webkit at:

http://wow.uscgaux.info/user_docs/PE_calendar_Webkit.zip

Application Program Interface (API)

The PE Calendar Database Application Program Interface (API) is intended for the *experienced* PHP programmer who wants to *totally control the user experience*, by writing completely custom code to (1) gather the search parameters and (2) display the search results (list of courses) with his/her own code.

The API uses a REST web service call to the Auxiliary’s open “PE Server”, passing it search parameters, and the PE Server returns a list of courses, each in a separate record of an associative (hash) array. One then simply steps through the array and displays whatever fields are desired from each record. A complete list of fields can be found below in Table 1.

To use the API, the calling program must perform two (2) steps:

1. Collect *either* the unit number (e.g., 114-12-04) in canonical format *or* the Zip Code (5-digit) and a distance in miles from the site visitor, using a form, and
2. After validating the input(s) in #1, calling the Web service (API).

The process of collecting the search parameters is left to the programmer. In the code snippet below, the search parameters are assumed to be stored in variables \$distance, \$zipcode, and \$unit. Per the above, *either* \$unit *or* \$distance and \$zipcode (together) would be used. For convenience, all three parameters may be passed to the PE server, but the unused variables must have a value of NULL or the empty string (“”).

Complete API Invocation

Here is the complete code for the call to the API:

```
/* Replace these parameters with values collected via a form, etc */
#$distance = 300;
#$zipcode = 90292;
$unit = "114";

/* This is the URL of the PE Class Server */
$url = "http://wow.uscgaux.info/peserver.php";

/* This is the URL with the parameters added */
$final_url = "$url?distance=$distance&zipcode=$zipcode&unit=$unit";
$course_list = array(); #Initialize an array to hold the results

/* Read the results from the PE Class Server */
$result = file_get_contents($final_url);
```

```
/* Decode the result into an associative array */
$course_list = json_decode($result,TRUE);
```

The resultant associative array `$course_list` contains one record per course. It may be decoded as follows:

```
foreach ($course_list as $class_record) {
    $code = $class_record['class'];
    $name = $class_record['coursename'];
    $flyer_link = $course['flyer']."?unit=".$course['flotilla'].
        "&course=".$course['ID'];
    ... more of the same
}
```

Obviously, in the example above, for each iteration of the foreach loop above, the data for that row would have to be written to the screen. That code is left to the programmer.

Creating a Flyer Link

In order to create a link to the course flyer for a specific course, you need three pieces of information:

1. The URL of the Course Flyer application,
2. The Flotilla number giving the course, and
3. The *record number* of the specific database entry describing the course.

All three of these values are provided in each course record, as demonstrated in `$flyer_link`, above.

Sample Program Using the API

A complete sample program that invokes the PE Server API and presents the results in a table is included in this kit, downloadable from the address above, called "mrtest.php".

Note in the sample program that the search parameters are hard-coded (as in the snippet above). In a real application, the same parameters would be collected from the user in a form.

Support/Feedback

Support for Public Education Calendar Webkit is provided via the "Feedback/Bug Report" button found on the PE Calendar Dashboard. Although you may use the Chain of Leadership for informal support (i.e., an FSO might ask for help from an SO), if that support is not forthcoming, or for normal technical support and/or bug reports, you *must* use the "Feedback/Bug Report" button on the PE Calendar Dashboard. Support via email "up the chain" will not be provided as it is contrary to IT Group policy, and is too slow and ineffective for beta software or in an agile software development environment.

To access the PE Calendar dashboard, browse to:

http://wow.uscgaux.info/PE_signin.php

For more information, see "Feedback Button" below, in Appendix I.

Table and Figures

Table 1: PE Server API Field Definitions

The fields available in each course records returned by the PE Server API are shown here:

['class']	Course Code ("BS&S")	['tpw_number']	
['class_for_lookup']	Same, without HTML entities	['coursetime']	Starting time of course in military time
['course_name']	Course name, written out	['endtime']	Ending time of course, ibid.
['distance']	Distance in course	['courseregistration']	Date of course registration
['coursedate']	Starting date of course	['lessons']	Number of lessons (meetings), an integer
['enddate']	Optional ending date of course	['secondarycontact']	Name of Secondary Contact, optional
['contactemail']	Email address of primary contact	['secondaryphone']	
['course_name']	Full Name of Course	['coursenotes']	Visible course notes for the site visitor
['phone']	Phone number of primary contact	['coursecost']	Cost of course, as a string ("35.00")
['flotilla']	Canonical number of unit giving the course	['regdate']	
['duration']	Duration in plain language: "2 days"	['dateentered']	Date the record was created or updated
['contact']	Name of Primary contact	['ipaddress']	IP address of person creating the record
['organization']	Organization giving the course (optional)	['latitude']	Latitude of the course location
['location1']	Location Name of course (e.g., "Fire Station")	['longitude']	Longitude of the course location
['location2']	Address first line	['notes']	Internal notes
['location3']	Address second line (optional)	['quality']	Address geocode quality. 87 is perfect.
['city']	City	['map']	hyperlink to Google Map
['state']	State	['flyer']	hyperlink to Course Flyer program
['coursezip']	Zip Code of course (5 digit or 9-digit)	['ID']	Record ID, for flyer lookup

Figure 1: Search Panel and Generic Course Listing

Auxiliary Public Boating Courses Nearby

Course Finder by ZIP Code
Click SUBMIT with no data to display courses offered specifically by this unit.

Your ZIP Code:

Distance in Miles:

District (Not Required):


CODE	COURSE NAME	LENGTH	AUDIENCE
ABS	About Boating Safety	8 hours	All boaters
B&F	Boating Fun	1 hour	4-9 year olds
BS&S	Boating Skills & Seamanship	8 to 13 lessons	Power Boaters
HRNC	How To Read a Nautical Chart	3 hours	All Boaters
NAP	NASBLA Approved Course	1 day	All Boaters
GPSFM	Navigating with GPS	3 hours	All boaters
PSA	Paddlesports America	4 hours	All boaters
PWC	Personal Watercraft Course	1 hour	All boaters
SS&S	Sailing Skills & Seamanship	8 to 13 lessons	Sailors
SAP	State Approved Basic Course	1 day	All Boaters
SIC	Suddenly In Command	4 hours	All Boaters
WN	Weekend Navigator	8 to 13 lessons	All Boaters

Figure 2: Search Results (Course Listing)

Courses Offered Within a Radius of 75 Miles

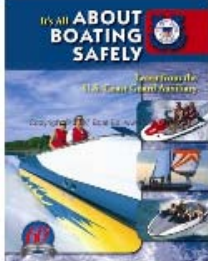
COURSE NAME	START DATE	LOCATION/DIST	CONTACT	DETAILS
Navigating with GPS	Sat, 14 Jan 2012 3.5 Hours	Huntington Beach, CA 29 Miles	Jon Ross auxjonross@aol.com	Flyer Map
Boating Skills & Seamanship	Wed, 21 Sep 2011	Corona Del Mar, CA 41 Miles	Mary Baine sbaine1@hotmail.com	Flyer Map
Boating Skills & Seamanship	Wed, 18 Jan 2012 11 Weeks	Corona Del Mar, CA 41 Miles	Mary Baine sbaine1@hotmail.com	Flyer Map
Boating Skills & Seamanship	Wed, 04 Apr 2012 11 Weeks	Corona Del Mar, CA 41 Miles	Mary Baine sbaine1@hotmail.com	Flyer Map
Boating Skills & Seamanship	Mon, 07 Nov 2011	Lake Elsinore, CA 68 Miles	Pete Dawson petedawson@verizon.net	Flyer Map
About Boating Safety	Sun, 20 Nov 2011	Lake Elsinore, CA 68 Miles	Pete Dawson petedawson@verizon.net	Flyer Map
About Boating Safety	Sun, 18 Dec 2011	Lake Elsinore, CA 68 Miles	Pete Dawson petedawson@verizon.net	Flyer Map

Figure 3: Course Flyer



U.S. Department of Homeland Security
United States Coast Guard Auxiliary

Public Education Course Flyer: About Boating Safety



If you are interested in an exciting, in-depth boating safety course, check out the in classroom (seminar) version of our popular online boating course.

This beginner boating class will give you the knowledge needed to obtain a boat license or safety certification in many states. Many boat insurance companies will offer discounts on boating insurance to boaters who successfully complete *About Boating Safely*.

TOPICS INCLUDE:

Introduction to Boating - Types of power boats; sailboats; outboards; paddle boats; houseboats; different uses of boats; various power boating engines; jet drives; family boating basics.

Boating Law - Boat registration; boating regulation; hull identification number; required boat safety equipment; operating safely and reporting accidents; protecting the marine environment; Federal boat law; state boating laws; personal watercraft requirements.

Boat Safety Equipment - Personal flotation devices ("life jackets"); fire extinguishers; sound-producing devices; visual-distress signals; dock lines and rope; first aid kit; anchors and anchor lines; other boating safety equipment. About Boating Safely

Safe Boating - Bow riding; alcohol and drug abuse; entering, loading, and trimming a boat; fueling portable and permanent tanks; steering with a tiller and a wheel; docking, undocking and mooring; knots; filing a float plan; checking equipment, fuel, weather and tides; using charts; choosing and using an anchor; safe PWC handling; general water safety.

Navigation - The U.S. Aids to Navigation system; types of buoys and beacons; navigation rules (sometimes referred to as right-of-way rules); avoiding collisions; sound signals; PWC "tunnel vision."

Boating Problems - Hypothermia; boating accidents and rescues; man overboard recovery; capsizing; running aground; river hazards; strainers; emergency radio calls; engine problems; equipment failures; carbon monoxide (CO); other boating and PWC problems.


Trailing, Storing and Protecting Your Boat - Types of trailers; trailer brakes, lights, hitches, tires, and bearings; loading, balancing, and towing a trailer; towing (and backing) a trailer; boat launching and retrieving; boat storage and theft protection; launching, retrieving and storing a PWC.

Hunting and Fishing, Water-skiing and River Boating - Carrying hunting gear and weapons in a boat; fishing from a boat; water-skiing safety guidelines and hand signals; water-skiing with a PWC; navigating rivers, and other boating tips.

**Presented by Flotilla 114-11-05
Tri Lakes, CA**

Course:	About Boating Safety
Start Date:	Sun, 20 Nov 2011
End Date:	Sun, 20 Nov 2011
Start Time:	8:00 AM
Location:	Lake Elsinore Marine 18010 Grand Avenue Lake Elsinore, CA 92530
Contact:	Pete Dawson petedawson@verizon.net (951) 202-1584
Course Cost:	\$75.00
Comments:	Breakfast & Lunch provided

Posted: Wed, 30 Nov -0001



Marker location may be approximate; verify location before travel.

Appendix I – Entering Data in the Public Education Calendar

Public Education Calendar

WOW will display entries in the National Public Calendar for upcoming courses being offered by your unit, and/or courses offered by nearby units, when the Zip Code course finder is used on the built-in Public Boating Courses Page in WOW II websites, or in invocations of the Calendar using this Webkit.

In order for your unit's courses to show up, your PE officer, or any elected officer, must log into your unit's WOW website (if it exists) and navigate to the Public Boating Courses page, or to the master PE Calendar Website and click to add the course to the database. Upon completing the entry, an electronic 7023 "Notice of Intent to Teach a Public Education Course" is automatically sent to the DSO-PE in your district, thus satisfying Auxiliary Manual requirements.

The URL to log in to make all Public Education Calendar entries (i.e., the online 7023 Form, is

http://wow.uscgaux.info/PE_signin.php

Entering a PE Course in the Online 7023 Form

To bring up the Online 7023, navigate to the address shown above, enter your Member Zone credentials, and the unit for which you wish to enter one or more PE courses, and Log In. You must have credentials for that unit.

Add/Edit Public Boating Courses
114-12

EDIT DETAILS	CODE	UNIT	DESCRIPTION	CITY	START DATE	CONTACT/EMAIL	PREVIEW FLYER
<input type="button" value="EDIT"/>	ABS	114-12-42	About Boating Safety	Marina Del Rey	Tue, 11 Oct 2011	Maurizio Vecchione	Preview Flyer
<input type="button" value="EDIT"/>	BS&S	114-12-04	Boating Skills & Seamanship	Marina Del Rey	Tue, 06 Sep 2011	Jonathan B Smaby	Preview Flyer
<input type="button" value="EDIT"/>	HRNC	114-12-04	How To Read a Nautical Chart	Marina Del Rey	Tue, 08 Nov 2011	Jonathan B Smaby	Preview Flyer
<input type="button" value="EDIT"/>	SS&S	114-12-05	Sailing Skills & Seamanship	Redondo Beach	Wed, 14 Sep 2011	Frank Coll	Preview Flyer
<input type="button" value="EDIT"/>	WN	114-12-07	Weekend Navigator	Marina Del Rey	Thu, 08 Sep 2011	Ron Miller	Preview Flyer

WARNING: If you have difficulty entering a specific address, submit a Feedback/Bug Report and include the entire exact address you were attempting.

Figure A-1: PE Calendar Database Dashboard

The PE Dashboard will appear, listing all courses currently being offered (or were offered in the past), by the unit you logged on from, *and all units below*. (I.E., if you logged on at the division level, your dashboard will list all courses taught by your *division* (unlikely), as well as courses being taught by the flotillas in your division.) Figure A-1 shows this dashboard.

To add a new course, simply click the ADD NEW COURSE button, and the form at the right will appear.

If you are a flotilla, your unit number will automatically be entered in "Choose Unit". If, however, you are editing from a higher unit (division or district), then you must select the unit offering the course from the Choose Unit pulldown menu. *Only courses that are in your "chain" will be shown.*

Simply complete all required items, and click the SAVE button. If you make any errors, you will be so informed. Hints about coding of each of the fields show on the form.

Be accurate; the interactive map and the flyer will only be as accurate as the address you specify. *Do not guess!* Make sure you have the exact legal address of the location of your course, and that you spell it correctly. The PE Calendar Engine uses web services from Google and Yahoo! to “geocode” the address that you enter, and if you enter “Bakker St.” when the address is “Baker Ave.” (two errors) the geocoding may indicate a location on the map far from your venue (WOW defaults to the center of the Zip Code

with a bad address). Fortunately, as soon as you have successfully entered your course, you can “Preview Flyer”, directly from the dashboard (see the extreme right of each course record in Figure 23).

If the map shows the course in the wrong location then you have likely made a typo of some sort. (If you entered the address perfectly, both Google and Yahoo have online services to correct the location of a geocoded address. That is beyond the scope of this User’s Guide.)

Edit a Course/Delete a Course

To make corrections to a course, or to reuse the same information for a future course by editing the dates, simply locate the course in the PE Dashboard, and click EDIT. The same form as shown in Figure A-2, only re-titled “Edit Public Education Course”, will appear. Make the appropriate changes, and click “SAVE”. A notice of a “Change to a 7023 Form” will be emailed to the DSO-PE.

To *delete* a course from the database, use the same procedure, except click “Delete This Course”, a button at the bottom of the form. The DSO-PE will be notified of the deletion.

NOTE: courses that have come and gone remain visible in the dashboard, but do *not* display in the Zip Code course finder, once their end date has passed.

Non-Participation is Costly

Although participation is voluntary, if your unit *does not* enter its PE courses in the National Database, *you will lose student to nearby flotillas that do*. This is because when prospective students do a course search by Zip Code in your area, *your courses will not show up, but theirs will!* Even if you do not have a WOW site, it is potentially devastating to the financial health of your flotilla to not at least complete all your 7023s *online*, and thus be automatically entered in the database.

Add Public Education Course
Choose Unit: 014-02-01

Course Name* Weekend Navigator
Course Start Date* December 1, 2011 (Day must match date; may be omitted)
Course End Date December 1, 2011 (Optional; enter only for multi-day courses)
Location* City Hall (e.g., "City Hall, 2nd Floor")
Address* 13999 Marquesas Way
Address 2 Room 15
City* Marina del Rey
State* CA (AL, CA, etc.)
Zip Code* 90292
Start Time* 0900
End Time* 1700
Number of Sessions* 1 (1,2,3... etc.)
Course Duration* 1 Day (e.g., "2 Hours" or "1 Day" or "8 weeks")
Days Each Week (Enter only if multiple days each week, e.g. "Tuesday, Thursday")
Cost* \$35 (e.g., "\$35")
Registration Deadline
Contact Name* Dobinston Cumskaves
Contact Phone Number* 888-888-8888 (888-888-8888)
Contact Email Address* co-op@basin-c.net
Secondary Contact Tom Thumb
Secondary Phone Number 123-345-4567 (888-888-8888)
Course Notes Here are some additional details (Additional details as required)
State Instructor Number
Internal Notes (Reminders, follow-up, etc.)
*Required

SAVE Return to Previous Page

Figure A-2: Online Form 7023 Notice of Intent to Teach a Public Education Course

Feedback Button

The PE Calendar Dashboard includes a “Feedback/Bug Report” button at the bottom (see Figure A-1). If you experience difficulty entering data, or other problems with the program, click the Feedback button, and submit as complete a report as possible. For example, if the system would not take a particular address (a geocoding problem), in your feedback provide the *exact address* you were trying to enter.

Do *not* send feedback like “I tried to enter an address 10 times and it did not work”. That is worse than useless; it wastes our time, because we have no data to reproduce the problem, and must chase you down to obtain it.

Also, do not report problems “up the chain”; now you are wasting *everybody’s* time. When a bug report is received via the Feedback button, work to solve it begins almost immediately. If it is solved at once, nobody else needs to have their time wasted when it is a moot point. If the solution will take some time, an announcement will be posted in WOW What’s New describing the bug, and *everyone* will know, without being interrupted.

Acknowledgements

The National Public Education Database and Calendar were conceived and programmed by IT Senior Fellow Bill Prichard. WOW II realization, the Webkit, and the REST API were written by Steve Johnson.

####