

Cooperative Charting Program
Nautical Charting for D21
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Overview

The goal of the program is to provide information to the US Coast Guard (USCG) concerning the condition of the Aids to Navigation (ATONs) in coastal waters, along waterways and shipping channels. By reporting directly to the USCG any problems, defects or damage to ATONs we provide them with the information they need to repair and maintain the aids.

We use their published Light Lists to identify and describe the discrepancies on a simple form on their web site. A squadron can "adopt" a chart (see the website for details) to insure that other searchers have not already reported on ATONs on the chart... it's common courtesy to contact the squadron holding a chart to get permission to work on it.

After the notification to the USCG, we can also fill out a slightly more involved form to notify our USPS National Cooperative Charting Committee of our survey and reported items to earn credits for individuals, squadrons and districts. The credits are tallied for the calendar year to determine rankings. There are two other activities not involving the simple ATON surveys but as District 21 is just now entering the new program, we will want to start with these ATON surveys. The other more complicated and still not tested (at least in our District) activities involve bridge reports and inland waterways maintained by the US Corps of Engineers. This may come later or be attempted by individuals willing to put in the extra initial effort.

There is also a portion of nautical charting that addresses bridge conditions and a portion that deals with inland waterways overseen by the US Army Corps of Engineers. To find information on these, go to either the National Coop Charting website or the D21 Coop Charting page. Our emphasis at present is on ATON surveys but these other areas are available for anyone willing to do the research and inspections... we just don't cover it in this paper due to the smaller number of members doing these activities

Preparing for the Search

Pick an area on the coast you want to search and get the latest version of the chart and Coast Guard light list that covers that area. ATONs on your adopted chart, if your squadron has one, can be reported on only once in three months. There must also be a report on your chart at least one a year to continue your adopted status on the chart. Make sure the chart is up to date with latest local notice for mariners applied. The Coast Guard's Light List is a compilation of all the marker buoys, dayboards and lighted ATONs in seven volumes. They will be found at: <https://www.navcen.uscg.gov/?pagename=lightlists> All Light Lists on the Texas Coast are in Volume 4 (4 USCG District 8, Gulf Coast – FL to TX). Make a paper copy of the area you will be searching and take the list aboard with you.

All NOAA charts are available as free downloads, updated weekly, at <http://www.charts.noaa.gov> The chart scale should be 40,000:1 or larger (20,000:1 etc) in order to see the detail you will need. Print the portion of the chart you will be searching. Make it a useable size to take with you on the boat – usually 8 ½ x 11 to fit a clipboard. If needed, print several sheets to cover the area to be searched without having to unfold an unwieldy chart in the wind. Also print that portion of the light list that applies to the ATONS you will be searching for.

Make copies of a blank worksheet (we will soon have one on the D21 website) or make your own by forming four columns on a sheet of paper: 1. **Time** each photo is taken (see the next section, "Performing the On-the-water Search") 2. **ATON number** 3. **Condition** (example: OK, missing numbers, missing radar reflector, light damaged, floating off mooring, not found, etc. 4. **The Light List** number of the ATON. You can also take a GPS position but it is time consuming and unless the Coast Guard questions a claim that the marker is missing, your GPS reading will never be used. It is not asked for on either the USPS or Coast Guard report.

Assemble all equipment you might need in the boat (camera or cell phone, binoculars, clipboard, etc).

Plan your route before you leave.

Performing the On-the-water Search:

For maximum efficiency, there should be three persons on board...the captain, the photographer, and the recorder. If a fourth person is available, it would be reasonable to have him/her mark the ATON on the light list as each one is observed... this will take some of the load off the recorder. Someone really ought to be doing this to make an easier, more accurate job of making out the two reports later.

Begin the run from ATON to ATON taking a logical path following the chart. Another method is to use the app "Nearest Light" to navigate from ATON to ATON in the shortest distance possible. This iPhone

app (or Windows laptop program) will save the captain the frustration of trying to locate each ATON in foggy or unfamiliar waters.

The Light List contains all the ATONs. It will show short waterways and remote ATONs off to the sides of the main channels... you may need to pass these up... they are usually in shallow water and of lesser importance. It is easier to list the ATONs as you approach them rather than try to list the ATONs beforehand on the log sheet. Listing them in the order you collect them will allow you to pass up the "impossibles" that result from barge traffic, shoaling, and unknown obstacles.

What's important? First is the log sheet – you have to have one to make out the reports. Next is the chart – you have to know where the ATONs are and what the name/number is. Next is the photo – to get credit for the work you must have a photo of the ATON (or where it should have been). Then you have the Light List – this is mostly to be able to report the correct ATON to the Coast Guard if there is a problem with it – they need to know the Light List number and it is also needed on the USPS report. And finally, the optional Latitude and Longitude – this would be easy to do with a cell phone app such as *Solocator* or *TimeStamp Camera*. It will automatically appear on each photo... the recorder will not have time or patience to put the Lat/Lon on the log sheet.

Take the photo as the boat nears the ATON (30 – 20 feet). The only reason to get closer is if you really want to get a Lat/Lon. Discrepancies include marker posts leaning excessively or missing completely, boards fallen off, unreadable numbers, missing radar reflectors, buoys floating out of place (more than about 100ft), broken lights, etc. Record on the log sheet the time the photo(s) is taken so that later, you can match the photo with the ATON. All digital photos contain a secret file that can be accessed to get the time taken. To see the time of the photo when back at home, see the next section, "Reporting the Results". Some cameras will also name the image file with the date and time! A camera with a view finder (even a cheap digital camera with a "peep hole" is better than an LED screen that can't be seen in bright sunlight). This makes the cell phone a little less desirable on a sunny day, however, the cell phone always has the correct time and maybe even Lat/Lon. It's a trade off! The conventional camera will require you to check or set the time at the beginning of the trip.

Unless the ATON is in good condition, record the damage, or deficiency in the "Condition" column. If there is anything wrong that creates an immediate safety issue, the Coast Guard should be called from the boat by cell phone or VHF marine radio. In all cases the Coast Guard should be notified of all errant ATONs by one of the following methods:

If "**critical**" call nearest Coast Guard station on VHF (channel 22a or 16)

If "**urgent**" phone nearest C.G. station with the information from the water or as soon as reaching home
If "**routine**" an "ATON Discrepancy Report" form will need to be sent by e-mail at a later time... generally within a few days

In the unlikely finding of a critical or urgent situation (immediate safety of life issue) radio or call the Coast Guard at:

US Coast Guard Eighth District, Houston-Galveston Sector

Immediate emergency 713-671-5113

Important but not emergency 713-671-5100

In what we have experienced so far, only about 10% of all ATONs checked out will require contact with the Coast Guard – routine or otherwise!

Remember that what's important in your work on the water is to:

- 1) Get the photograph
- 2) Identify the mark and time of photo
- 3) Describe the condition.

Don't go on to the next ATON until this is done... and it can usually be done as the boat coasts past the ATON. There is seldom a need to stop or circle around it.

Reporting the Results

The Coast Guard form requires very few blanks to be filled in for the reporting of errant ATONs. It can be accessed on the US Coast Guard website but can be pulled up directly without navigating the site at:

<http://www.navcen.uscg.gov/?pageName=atonOutageReport>

This is the only form we deal with for reporting needed maintenance... incredibly simple. It needs to be filled out for all reportable discrepancies, Critical, Urgent and Routine, regardless of whether you reported it earlier by radio or phone. They don't need photos or anything else. Upon submitting this form (by clicking **Submit** at bottom of form) you immediately get a note that your report has been received. Save a copy of this confirmation for sending in to USPS to get credits for your effort. A screen shot works well. Or there is a MicroSoft tool called the *Snipping Tool* that comes standard on PC's. It creates a .jpg file. Use it to send proof of the "Report Received" note from the Coast Guard.

The second step in the paperwork process is the submission of the USPS Nautical Report Form. The only purpose for this form is to get your credits in the competition between individuals, squadrons and districts. This USPS form is more challenging. It can be found at:

<https://form.jotform.com/83633979904169>

The Principle Observer (the submitter -- you) and the other two or three on the boat can be listed to earn credits for the ATONs reported on one form. Also, up to five items (ATONs) can be included in one report. Be careful to enter the "Date of Observation" as the actual date the ATONs were checked out ... not the date of the report.

All the ATONs you report will fall in the category of either "ATON discrepancy" or "ATON verification". This is what we use. There is another category of items call "ATON inspection" but this will seldom if ever be used in District 21. It involves a search for ATONs that is just a drive-by without a photo or record keeping and then a list or excel spreadsheet turned in to USPS for just a few (very few) credits. It

is reminiscent of the old “inspection report” for the defunct CCWEB when no reportable items were found. The ATON verification is just a confirmation photo showing that the ATON is there and in good condition but the ATON discrepancy, of course, will ask you to describe the problem in the comment box and then attach both the photo and the copy of the Coast Guard’s “report received” you made earlier.

Download the photos (.jpg files) from your camera to your computer for attaching to the USPS report. If you used a cell phone camera, connect the phone to the computer with the charging cable that came with the phone. The phone’s files will be shown on the computer exactly the same as if you had plugged a jump drive into the computer. Save the photo files to the PC. Select the photo of each ATON and attach to the report – you will have to use the time of the photo from the log sheet if there is any confusion or as a check. To get the time of the photo, right click on the image and a small pop-up list shows up... click on “Properties” at the end of the list and you will see everything you want to know about the photo (this is called the EXIF file).

Upon clicking “Submit”, a report number will appear and you can print a copy of the report if you like for your own records. To save paper, you can make a .xps file from your print screen rather than choose a printer. To save paper and effort, don’t do anything... if necessary later, your Area Rep can pull down a copy of the report from the USPS database and will be happy to send it to you (or not).

Notice that the old “chartlet” is no longer needed... the light list number provides the Coast Guard and USPS with all they need to know.

Upon your submittal, the report goes to the national reviewer, it can be returned for corrections again or approved. You will receive a congratulatory e-mail and you will be awarded credits in the USPS devised system of credit tracking. If you have never turned in a report in the past, you will need to be certified to do so. Do this via the national website for coop charting. It should be an immediate approval if there is no problem with your certificate number.

The Credit System

Earning Credits: since most members in District 21 will concentrate on ATONs, the credits are simple... 15 per ATON for verified ATON’s or 25 for any ATON with a discrepancy requiring a report to be sent to the US Coast Guard!!!

The totals nationwide for the calendar year are used for ranking individuals, squadrons and districts. Results are then made available after December 31 which is the end of the reporting year. Interim totals are usually posted on the website every few months.

Awards

Honor roll awarding for individuals will be for those in the top 20% nationwide. Honor roll status is achieved by squadrons and districts when the credits total more than a predetermined value which levels the playing field for various squadrons and districts. This value takes into account the latitude of your squadron or district (to offset winter months) and takes into account the membership numbers of squadron and districts (to offset a large contribution of a single individual).

The Honor Roll certificates will be distributed at the National Convention in the spring following the calendar year's report submissions.