Programmatically Accessing
NANUS, Almanacs and Ops Advisories

It is now possible to programmatically access and download the contents of the various NANU, Almanacs (SEM AND YUMA) and Ops Advisory files without the need to spider the various listings.

The base url for all of the programmatic accesses is : https://www.navcen.uscg.gov/

Items in brackets {} designate optional parameters.

NANUs: To get the contents of a NANU file, use the base url followed by:
>   ?Do=getNanu&nanu=NNN{&year=YYYY}
>> where NNN is the number of the NANU from 1 to 999 and an optional year starting from 1997 to the current year. (Note: 1997 starts with NANU 111.)

>> If a year is not supplied, it will default to the current year.

Almanacs: To get the contents of an Almanac file, use the base url followed by:
>   ?Do=getAlmanac&almanac=NNN{&year=YYYY}{&format=(yuma/sem)}
>> where NNN is the number of the almanac from 1 to 999, an optional year starting from 1998 to the current year. (Note: 1998 starts with almanac 15.) and an optional format which would be either 'sem' or 'yuma'.

>> If a year is not supplied, it will default to the current year.

>> If format is not supplied, it will default to the YUMA format.

Ops Advisories: To get the contents of an Almanac file, use the base url followed by:
>   ?Do=getAdvisory&advisory=NNN{&year=YYYY}
>> where NNN is the number of the Ops Advisory from 1 to 999, an optional year starting from 2000 to the current year. (Note: files from 1997 – 1999 are also available but they have gaps between the numbers. 2000-2002 starts at 003, 2003 starts at 002.

>> If a year is not supplied, it will default to the current year.

If the files that are requested exist, the contents of the file will be returned as non-html text. No file names or dates for the file will be returned.

If a database error occurs, the following message will be returned:
>   ERROR: A database error prevents the display of the page

If the file number is not found, the following message will be returned:
>   ERROR: No such file

General Coding Logic:

For getting almanacs
Set **i** equal to the starting point of the files you wish to download
Set **year** equal to the desired year; i.e. 2010
Set **type** equal to the format type desired; i.e. "sem"

```
for(i;i<1000;i++)
{
        url=https://www.navcen.uscg.gov/?Do=gpsAlmanac&almanac=i&year=year&format=type

        content = getContentFromUrl(url)
        if(!regx("^ERROR:",content))
                writeContentToFile(content)
}
```

The same general logic can be used for both NANUs and Ops Advisories by replacing the gpsAlmanac with the proper command and leaving out the format parameter in the url.