

AIDS TO NAVIGATION (ATON) VERIFIER (AV)

PROFESSIONAL QUALIFICATION STANDARD (PQS)

Administration

Housekeeping Announcements

- Restroom facilities
- Breaks
- Exits
- Mute Cell Phones
- Ask questions but avoid side-bar discussions
- I will email you these slides

Introduction

- Qualification class for AV
- Follows the PQS item by item
- Introduce and define standard USCG ATON terms
- Primarily discuss Private Aids to Navigation (PATON)
- On the job training

Objective

- Qualify Auxiliarists as AV
 - Support and augment the Coast Guard's navigation systems (NS) program.

Duties

- Visit the PATON in the Area of Responsibility (AOR) and report them as Watching Properly (WP) or discrepant
- Revisit and update as needed
- Report any Federal Aid found discrepant

Season and Assignment to Duty

- The AV mission is not constrained to the Auxiliary operational season
- The AV mission can be conducted year round under certain conditions
- The AV is not authorized to request patrol orders
- The AV is assigned to duty in writing via a letter signed by the Chief of the Waterways Division
 - The assignment is valid for a period of one calendar year

Assignment of Aids

- The DSO-NS will provide to the ADSO (EAST) and ADSO (CENTRAL) a list of PATON to be visited in 2022
 - Based on Class of PATON: I, II, III
 - Primary: Due for visit in 2022 please go out of your way to get them
 - Secondary: Not due, but do them if you pass them don't go out of your way
 - Tertiary: If you're not doing any thing else...
- The ADSO (WEST) will confer with the state to identify aids
- The ADSOs will pass this list down the COLM to the FSOs
- The FSOs will pass the list to AVs

Aids Verifier

Auxiliary Aid to Navigation (ATON) Verifier Performance Qualification Standard

Revision Date: 14 July 2011

MAJOR TASKS To Be COMPLETED

- Task No Major Tasks
- 1.0 Charts and Nautical Publications
- 2.0 US Aids to Navigation System
- 3.0 Private Aids to Navigation (PATON)
- 4.0 Aids to Navigation Discrepancies
- 5.0 Private Aids to Navigation (PATON) Documentation Application Form CG2554; IATONIS
- 6.0 Bridges
- 7.0 Private Aids to Navigation (PATON) Certification and Currency Maintenance

Task 1.0 Charts and Nautical Publications

- Objectives
 - Chart 1
 - Coastal Pilot, Vol 3
 - Light List, Vol II
 - LNM
 - Charts
 - Tide tables/Tide Predictions –
 http://tidesandcurrents.noaa.gov/ or "Tides and Currents"

Chart No. 1

- Purpose is to help you translate a nautical chart.
- Standard conventions for all charts
 - Listed in Chart No. 1
 - On Line

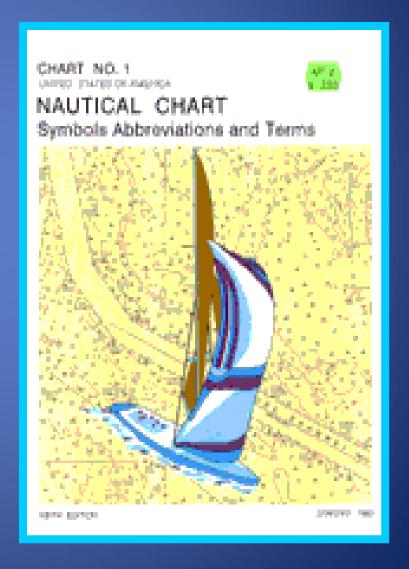


Chart No. 1

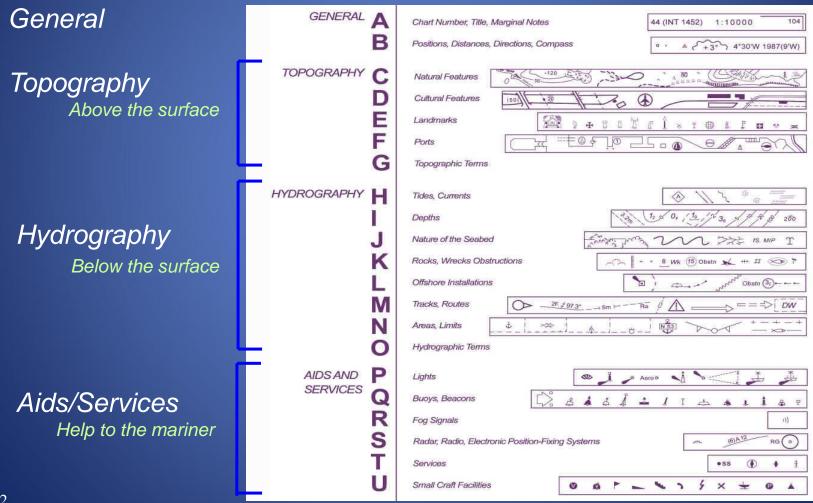


Chart Features

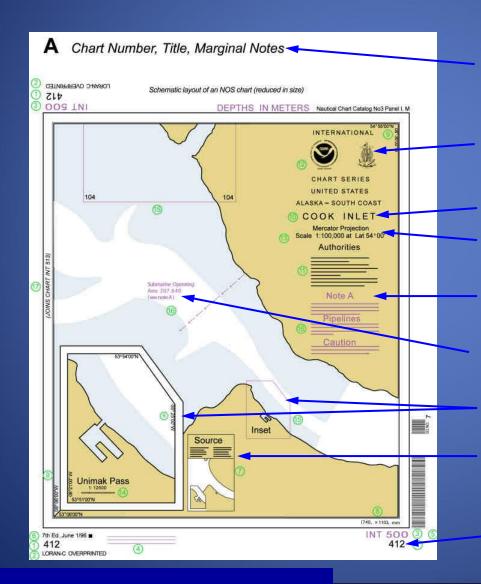


Chart No. 1 – Section & Title

Hydrographic source(s)

Chart title
Projection & scale

Notes

Cautionary notes

Inset

Source data diagram

Chart number in national series

D – Cultural Features

Ruins, Ruined Landmark

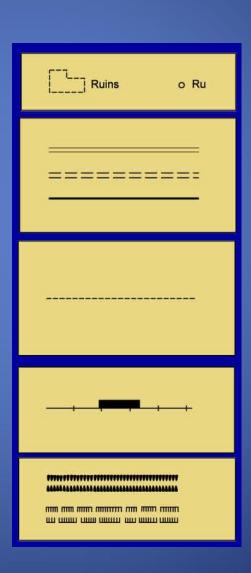
Motorway

Road (hard surfaced)

Track, Path (unsurfaced)

Railway, with station

Cutting



D - Cultural Features

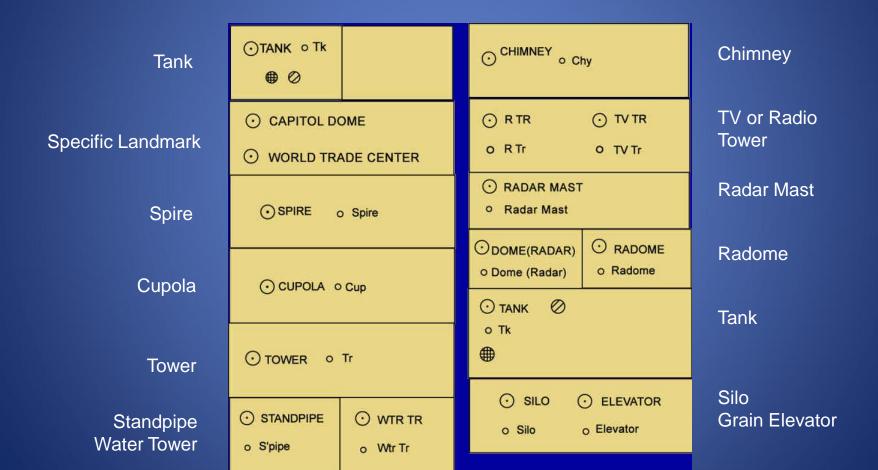
Fixed Bridge Opening Bridge **OVERHEAD POWER CABLE AUTHORIZED CL 140 FT** TOWER TOWER Swing Bridge Lifting Bridge

Draw Bridge

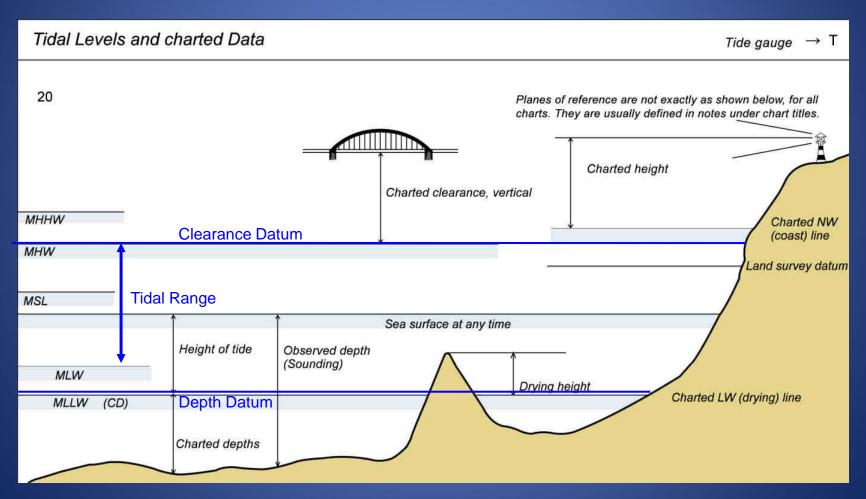
Transporter Bridge

Power Transmission Line

E - Landmarks



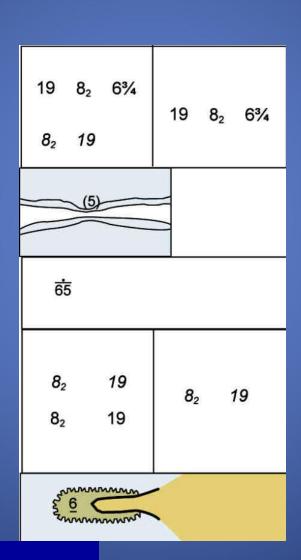
H – Tides, Currents



I - Depths

Depth Soundings at true position [vertical numbers]

Soundings
which are unreliable
or taken from
smaller-scale chart
[sloping numbers]



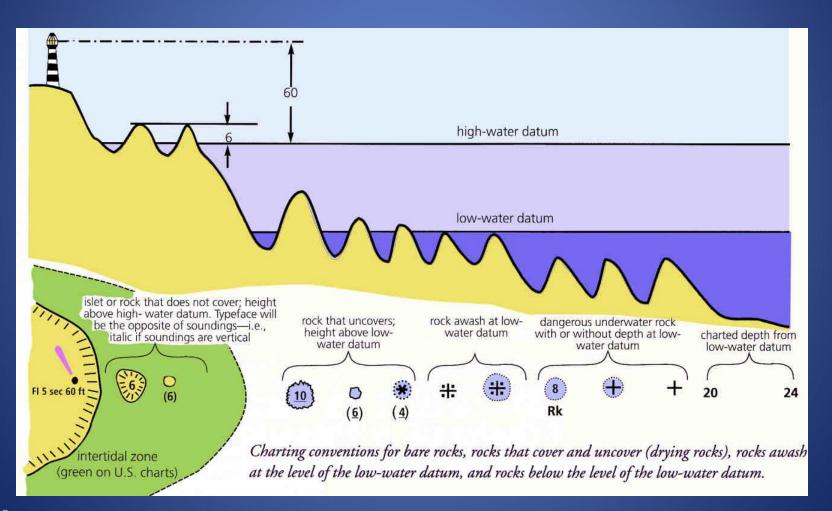
SOUNDINGS

Least depth in Narrow channel [number in parentheses]

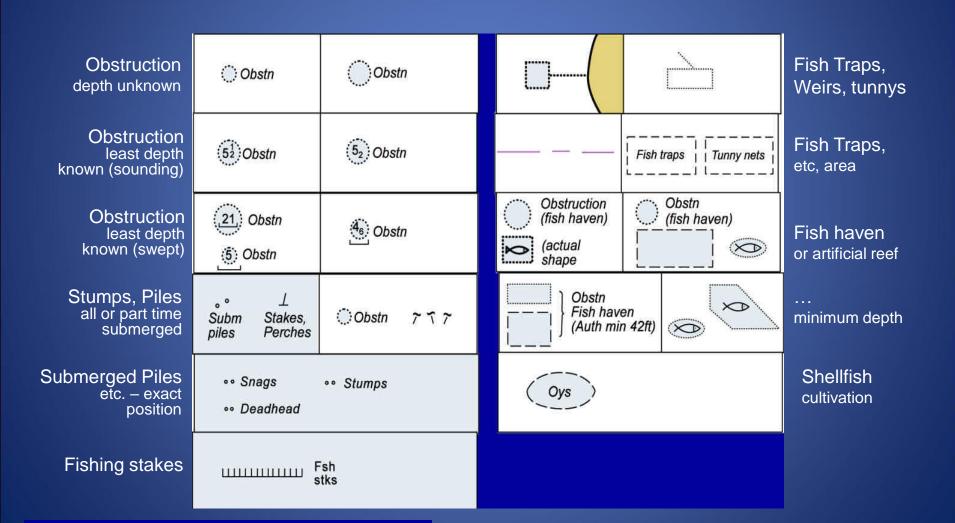
No bottom at depth shown

Drying heights above chart datum (green) [number is underlined]

K - Rocks



K - Obstructions



M – Tracks, Routes

Direction of Flow recommended

Separation Line

Direction of Flow mandatory

Maritime Limit

Restricted Area



Roundabout

Q – Buoys & Beacons

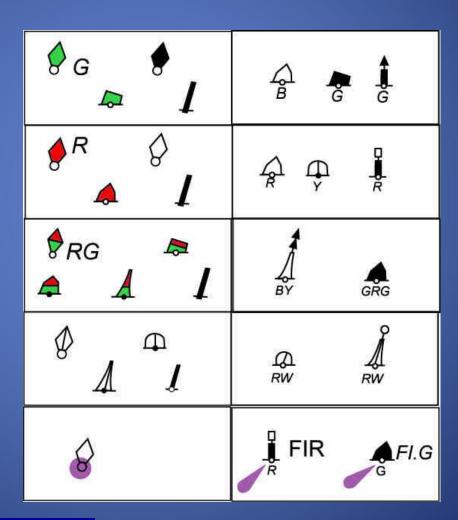
Green & black [unlighted]

Single colors [unlighted]

Multiple colors [horizontal bands]

Multiple colors [vertical stripes]

Lighted marks [on standard charts]

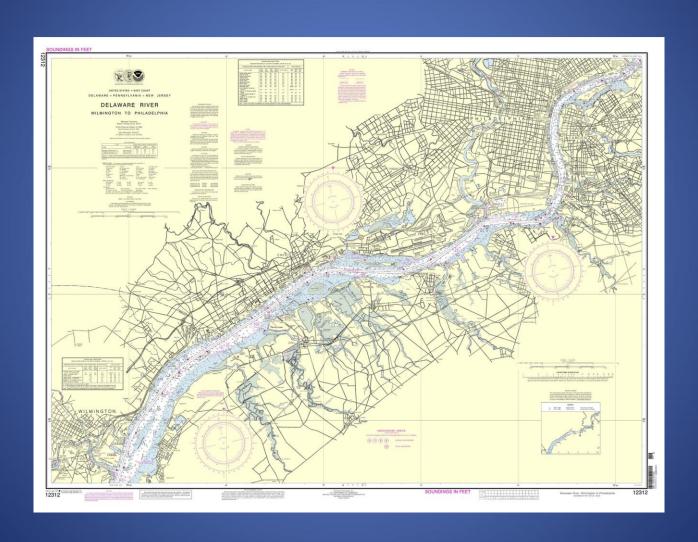


Horizontal Datum

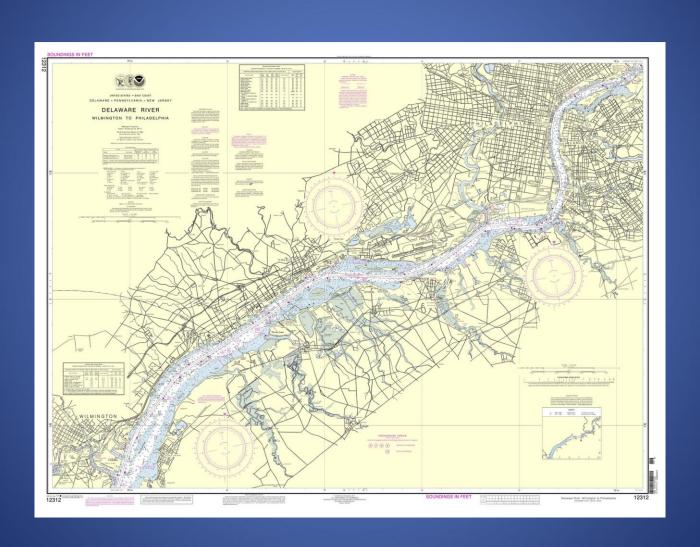
- Base line or plane from which measurements are made.
- World wide Geodetic Survey
- Calculated tides
- Datum for water depth is important.
 - East coast has two tides very similar.
 - West coast has two tides of uneven depth.
 - Standard is mean lower low water (MLLW).
 - Former standard was mean low water (MLW).

- NOAA
- Available from marine stores or on line
- Full size or booklet
- Paper charts are going away

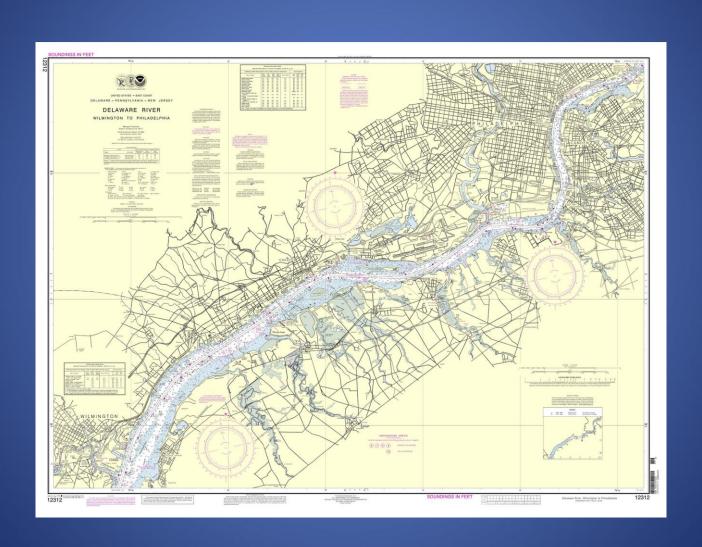
- Longitude
- Latitude
- Nautical mile scale
- Depth curves
- Title block
- Vertical datum
- Compass rose
- Symbols for ATON
- Lighted vs. unlighted
- Nominal range of lights
- Private Aids
- Wreck
- Range



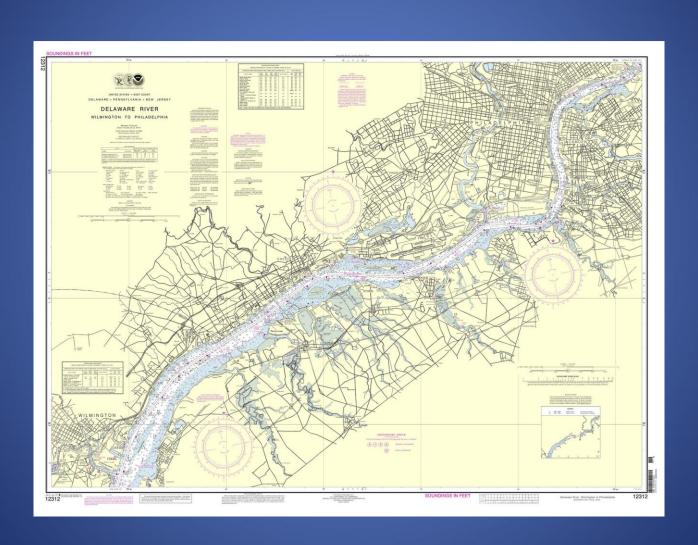
Latitude and Longitude



Nautical Mile Scale



Depth Curves



Title Block



UNITED STATES - EAST COAST

MASSACHUSETTS

SALEM AND LYNN HARBORS

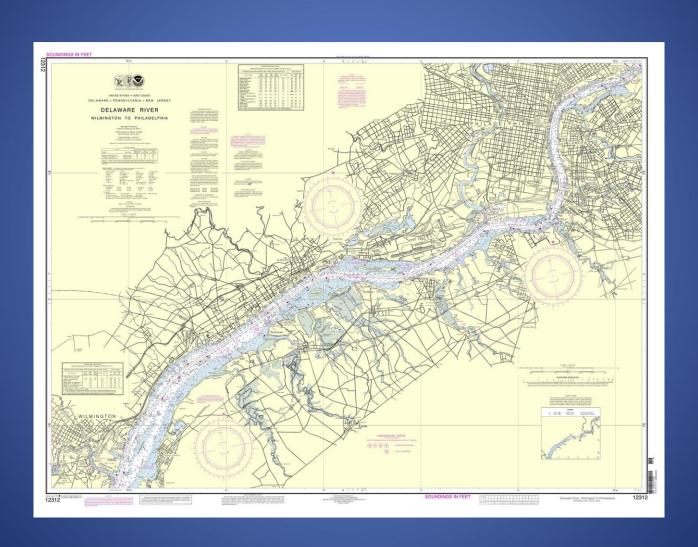
Mercator Projection Scale 1:25,000 at Lat. 42° 29' North American Datum of 1983 (World Geodetic System 1984)

SOUNDINGS IN FEET

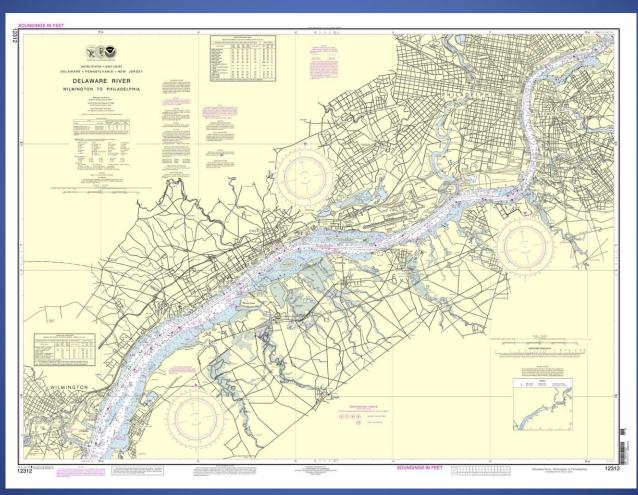
AT MEAN LOWER LOW WATER

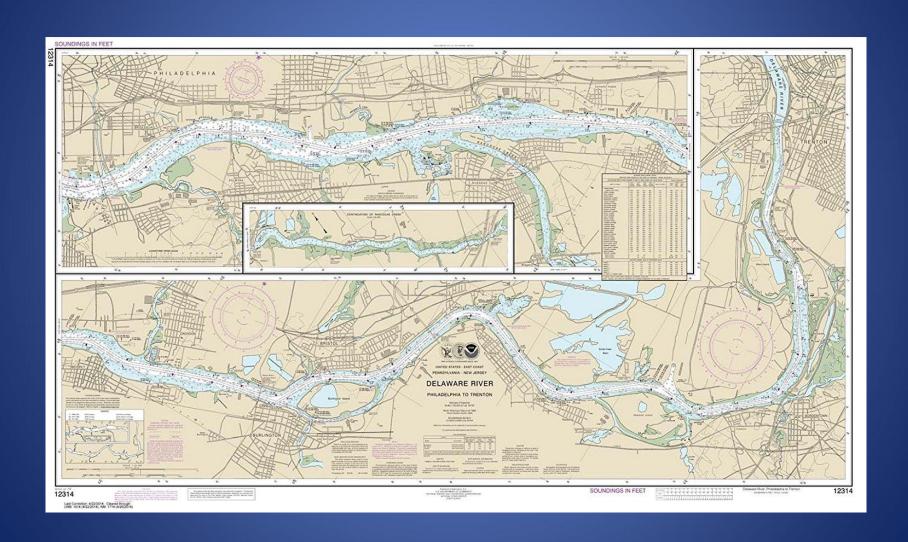
Additional information can be obtained at nauticalcharts.nosa.gov

Compass Rose



Aids, Lighted, Nominal Range, Wrecks, Ranges





Summary

- Charts are your resource for key information
 - Navigable waterways
 - Ports
 - Channels
 - Hazards
 - Depths
 - Bottom conditions
 - Direction and Distance
 - Landmarks for reference
 - Navigation Aids
 - Restrictions & regulations
 - Information

The Four R's for Charts

RECENT

RIGHT SCALE

READILY AVAILABLE

REVIEWED BEFORE SAILING

Light List

- Every aid in the AOR
- Available on line
- Divided into geographic areas
- Print out the section that covers your AOR

LIGHT LIST

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



LIGHT LIST Volume II ATLANTIC COAST

Shrewsbury River, New Jersey to Little River, South Carolina

(1)	Ø:	(5)	H	ıάι	R	(7)	(E)
Eur	the sense I contin	Prod on	(I sus abeldia	Heig	Range	Ared. a	Re-sales
040	AGE PHIA AND COMMENSATES		MigPannaythe ale see	dhao Jara	gi - Milit	Sketco	
	ware River	Milital Service 22	134				
5615	- Grow Light devo 12	38-382,509. 373-38-31289	0.6		4	Green.	Replaced by car often orderiganed to lost.
	мал инктотпиланда на с	2314)					
1446C 366C	er Delaware River UE John HAVAZ e HACA I LEGALI	4) 33 83.5145 3/5 33 1636016	50 9 75	26		On skip elan bawer on musiple of ent.rs.	Lighted they glovel 34 nears. 2001: Whatle II.of letter rade of tangeline N Gett: Visitie 21 accordings according Tub fetter side of tangeline
WE	DE_AR POYSEREAR .IG-1 168 yards, E181 Po 1 Port Rate.		0: G ≤ s	4		Ondodatatawa.	James 1.5' After Side of torque 1.5' After S
S09C	· Donal Sphilips 2	39-59-15 2048. 375-33-/ 5-4230	= 9.5%		1	Proc.	Septembly non-serve endergrand by its
1983 1	. thermal sight a little y 4	39-59-30 3539. 275-33-37 57 16	5.54s		4	Paci	Suptemal by LIS of volumed in area i planta from 15 to V or 15.
onet	· Charriel B. oy b	39-39-42.3048 37-5-73-41.502507				Gerices.	
SGIE	- thank Lyffrderey 6	45-33 85,3545 375-33 23,8226	- 42.60		G	4ex	Registed by List of ordinal means by from Dec. 10 to Vis. 10
SARC	очинациясын, в	40:00:048 3/0:05:00:0216	GH		ť	ter	Applicable by List of traditions under say from Dec. "It to Visit. To
3685	- Chamel 6.ey 5	43-33-38.5039. 271-33-48.32049				G-vanear.	
Sex	- Oharrai Buoy 18	43-33-3+.309). 375-33-44-82009				Tec man.	
ME	· Cherni E ay 186	43-33-45-905A 375-32-18-018/0				the same	
579 C	- Charrel C. cy 11	43-00-53,205A 373-02-22:4196				Grences.	
int	Frank sig Channel Lower Direction : I Light	40:00 19:2188 3/0:05 20:04689	-4	30	14	Un mult pitz shuct.rz.	agree of colors or beauting 24 if (red or existence of extracts, agreed throughout 34 rears.
):U-	MODES FOR CHARLE FORCE S COLORAGE FRANK ORS CHARLE	43-33-19-2105 3:3-33-23-8466	7445	N.		On same six cure es i recitord Chesse Local Great cost up t	
5:10	- Wank Lyttrome, 12	40:00 14:300A 375:01:51001009	38		4	tex	Replaced by munity (2.) contango vidity (cc.
715	FRANKFORD CHANNEL JPPER DIRECTIONAL LIGHT	43-31-13.1509. 275-31-33.06749	*4	50		Ontone or multi- ple division	dge, a wided or bearing 2013 (return matterine of or come), digrated U resigned 24 regre.
5717	FRANKTORE (JIANUT) JPRER DIRECTIONAL RARDING HOUSE	43-31-13 150k 373-31-23:66700	1.464	**	5	Granustica in as Freehist Channe Laper	

LIGHT LIST

- Column (1): Light List number.
- Column (2): Name of the aid to navigation.
- Column (3): Assigned Position (AP) of the aid to navigation in latitude and longitude.
- Column (4): Light characteristic for lighted aid to navigation.
- Column (5): Height above water
- Column (6): Nominal range of lighted aids
- Column (7): The structural characteristic of the aid
- Column (8): Aid remarks, sound signal characteristic including the VHF-FM channel if remotely activated, RACON, light sector arc of visibility, radar reflector, emergency lights, seasonal remarks, and Private AtoN identification.

Coast Pilot

- NOAA
- Available on line
- Everything you need to know about a port that the chart does not tell you

COASTAL PILOT VOL 3

- Much of the content cannot be shown graphically on the charts and is not readily available elsewhere.
 - Environmental factors of weather, climate, ice conditions, tides, water levels and currents
 - Prominent coastal features and landmarks
 - Specific information on vertical clearances
 - Wharf descriptions
 - Small-craft facilities
 - Hazards
 - Dredged channels and depths
 - Navigation services and regulations
 - Pilotage, towing, anchorages
 - Routes and traffic separation schemes
 - Environmental protection and other Federal laws.



NOTICE

Incomplete and otherwise inaccurate reproductions of United States Coast Pilot are being sold on the commercial market

NOAA has recently become aware that incomplete and otherwise inaccurate reproductions of the U.S. Coast Pilot are being offered for sale to consumers. Consumers need to be aware that such reproductions may not meet U.S. Coast Guard carriage requirements.

Local Notice to Mariners



On the web at: www.navcen.uscg.gov/lnm/

- Published by each Coast Guard District on Wednesday.
- Available on line
- Disseminate information important to navigation.
- Include updates to ATONs.
- Indicate temporary changes:
 - Dredging, marine construction, whale migration, bridge construction, buoys, special activities, etc.

LNM

- Special Notices
- Discrepancies
 - Federal Aids
 - Federal Aids Corrected
 - Private Aids
 - Private Aids Corrected
- Temporary Changes
- Chart Corrections
- Advanced Notices
- Light List Corrections
- Shoaling
- Bridge Information
- Dredging and Construction
- Marine Events

Task 2.0 US Federal Aids to Navigation (ATON) System

Objectives

- IALA regions for the United States
- Identify the characteristics including color, shape, number or letters, and light colors of navigation aids:
- State the characteristics of lights (flashing, occulting, etc:
- Demonstrate the ability to use a stopwatch for timing a lighted aid.

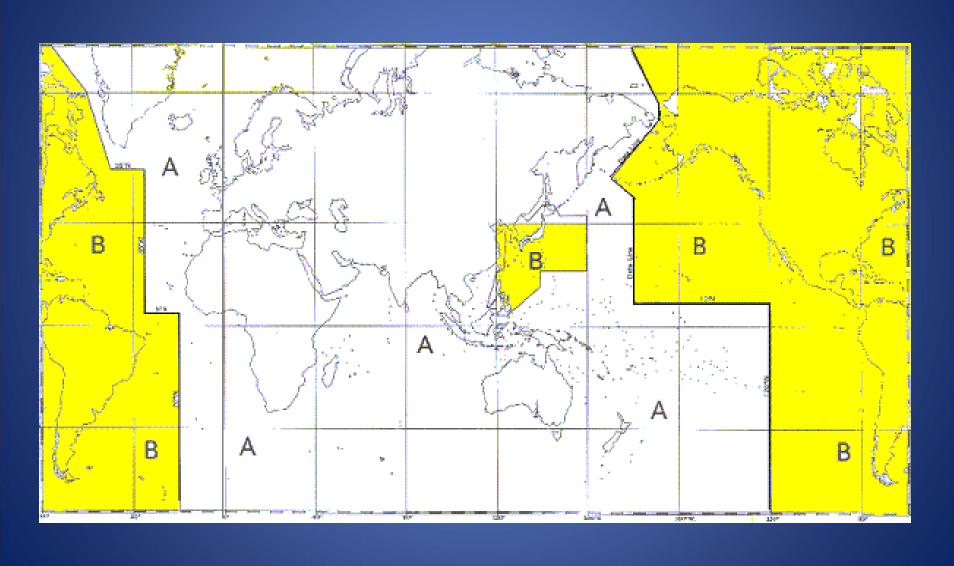
Federal Aids

- Owned and operated by USCG
- Part of the CG operations budget
- Assigned to various USCG ATON units
- Inspected regularly by responsible unit

USCG ATON Units

- Buoy Tenders
 - Ship
 - Classes
 - Ocean Going
 - Coastal
 - Inland
 - Construction
 - Handle buoys
- Aids to Navigation Team (ANT)
 - Shore based
 - Small boats and trucks
 - Ranges and smaller buoys

IALA Regions A and B



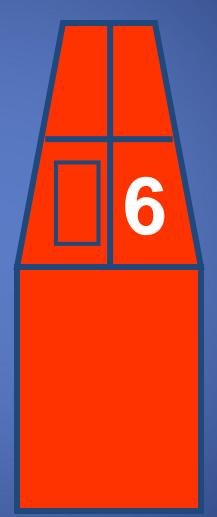
Definition of a Buoy

- Any unmanned, floating aid to navigation that is moored to the seabed.
- May be <u>lighted</u> or <u>unlighted</u>.
- The seabed is owned by the ARMY Corps of Engineers (USACE) and is licensed to the Coast Guard who deploy ATONs and authorize private parties to deploy PATONs.

Unlighted Nun Buoy

Conical shape

Red Retro

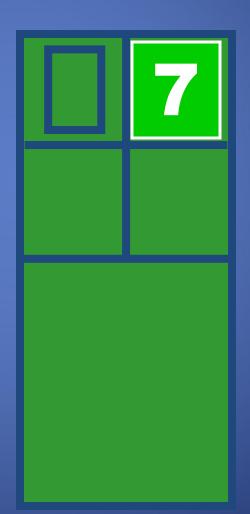


White Number

Unlighted Can Buoy

Can Shape

Green Retro



White Number

Lighted Green Buoy



Lighted Red Buoy



Definition of a Beacon

- Any fixed aid to navigation located on a shore or marine site.
- The pilings the beacon is mounted on is a dolphin
- Lighted beacons are called <u>Lights</u>.
 - Minor
 - Major
- Unlighted beacons are called <u>Daybeacons</u>

Definition of a Daymark

- The daytime identifier of an aid to navigation presenting one of several colors, shapes, numerals or letters.
 - The shape may be a square, triangle, rectangle, diamond or octagon
 - The color may be green, red, white,
 yellow orange, multi-colored

Green and Red Daymarks

Green

Red





Daybeacon Daymark Mounted on a Dolphin



Red Minor Light Lighted Daybeacon



Green Minor Light



Conventional Direction of Buoyage Red Right Returning and Clockwise



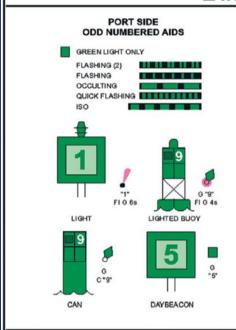
ATON

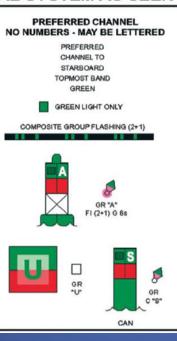


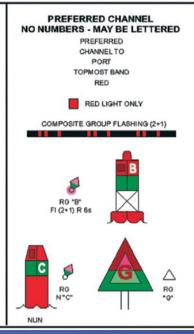
U.S. AIDS TO NAVIGATION SYSTEM

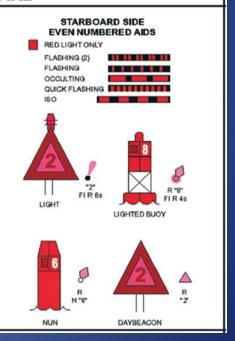
on navigable waters except Western Rivers

LATERAL SYSTEM AS SEEN ENTERING FROM SEAWARD









JUNCTION

Two channels join to form one channel.

Preferred channel buoy is placed upstream.

BIFURCATION

One channel splits to form two channels.

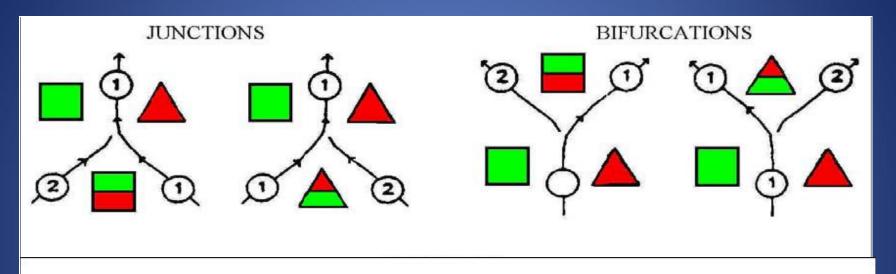
Preferred channel buoy is placed downstream.

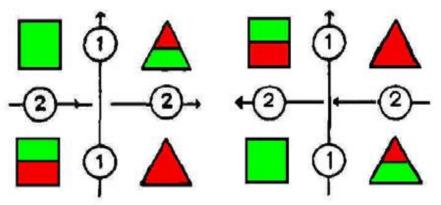
CROSSING

One channel crosses another channel.

No requirement to mark all four corners.

Junctions and Bifurcation Patterns



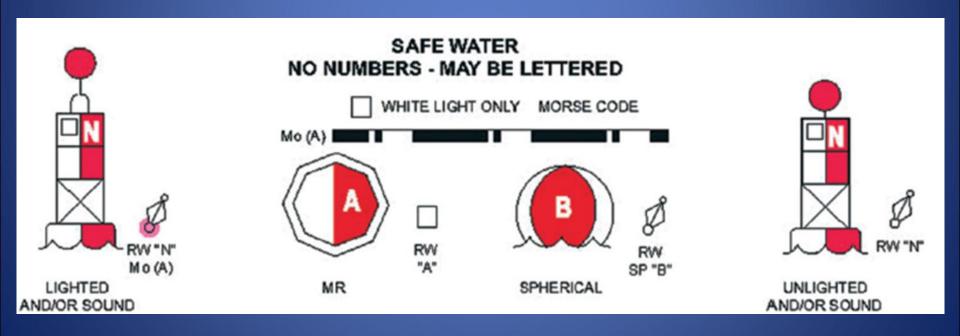


NOTE: There is no requirement to mark all three or four corners of the intersections.



Safe Water Marks

Indicates navigable water all around the mark

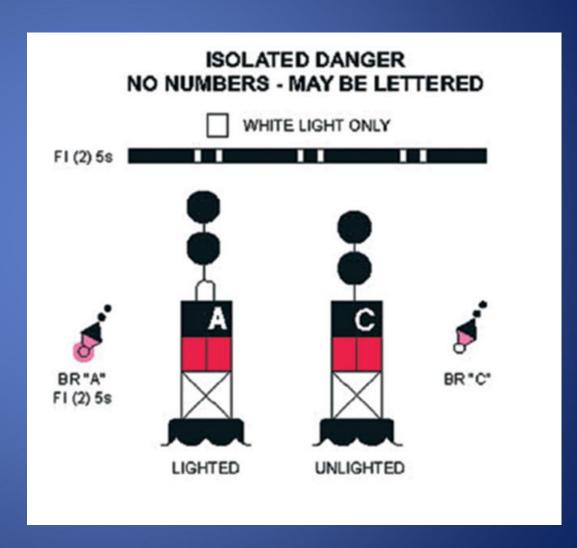


Lighted Safe Water Mark



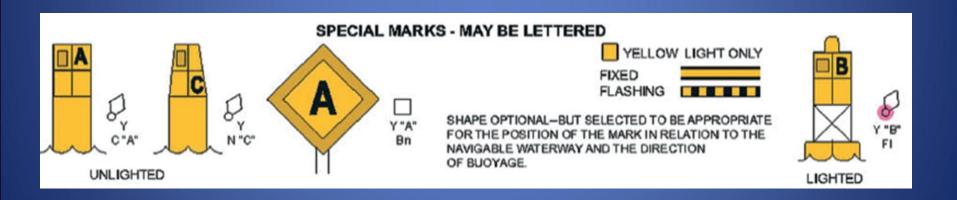
Isolated Danger Mark

 Marks isolated dangers or obstructions that can be passed on all sides



Special Purpose Aids

 Not intended to assist safe navigation but to indicate special areas marked on charts (anchorages, traffic separation schemes, data gathering, etc)

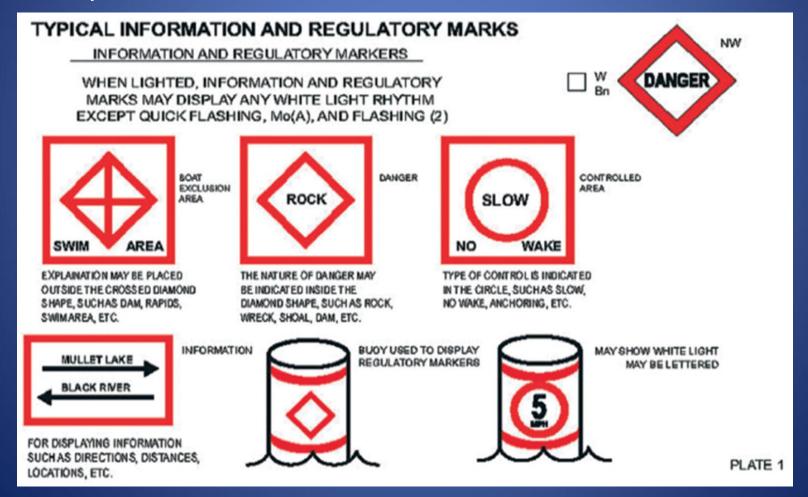






Regulatory and Information Marks

Alert the mariner to such things as submerged pipes, no wake zones, etc.



Restricted Operations Area

These are non-lateral aids.

The accuracy of the location of these aids is usually not a major issue.

The location of these aids in the navigable channel is considered a reportable discrepancy.

These aids are normally "Private."

Restricted Operations - Minimum Wake



Restricted Operations - Manatee Zone





G E

Restricted Operations - No Wake



Restricted Operations - No Wake



Exclusion Area - No Anchoring



Wreck Marks

Purpose: To alert the mariner to wrecks.

Description:

Aid Color: Appropriate to side of channel.

Aid Shape: Appropriate to side of channel.

Character: White lettering "WR", numbered

in sequence with channel (WR2).

Aid Light: Same as buoy color.

Light Characteristic: Quick Flashing

(unless aid is a preferred channel aid)



Location Mark

Some markers will have no lateral significance. They are not designed to indicate the channel but rather, to help you determine where you are.



Definition of a Range

A pair of beacons arranged so that, when they are aligned, they indicate the navigable center line of the channel.

Range Marks

Purpose: Indicate the navigable center line of a channel when they are in line (aligned) as you traverse the channel.



Aid Color: They will have colored panels equal in size with vertical stripes.

Aid Shape: Rectangle with tall side up.

Aid Light - Green, Red, White or Yellow.

Front range light is lower of the two.

Rear range light is higher and further from the mariner.

KGW = Range, Green, with a White Stripe.





Range Marks



FR – Front Range Mark RR - Rear Range Mark

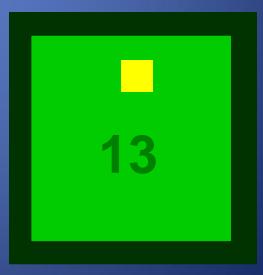
Intracoastal Waterway Marking System

- Runs from <u>Manasquan, NJ</u> to <u>Brownsville, TX</u>
- Differs only from U.S. marking system in that ICW aids show distinctive identifying symbols
- Conventional Direction of Buoyage is the same as the East and Gulf Coasts

Intracoastal Waterway Marking System

- Identifying Marks
 - Starboard Marks:Yellow triangle
 - Port Marks: Yellow square





Intracoastal Waterway Marking System

Non-lateral Mark: 2" yellow strip along bottom

Light Structures

Major Lighthouses

Are named. e.g. Boston Light

Symbol is large exclamation point.

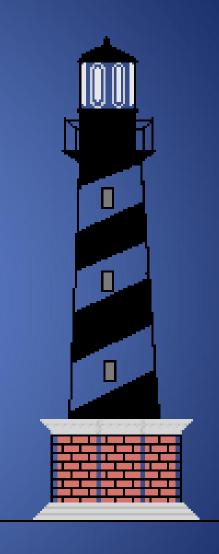
Fixed position

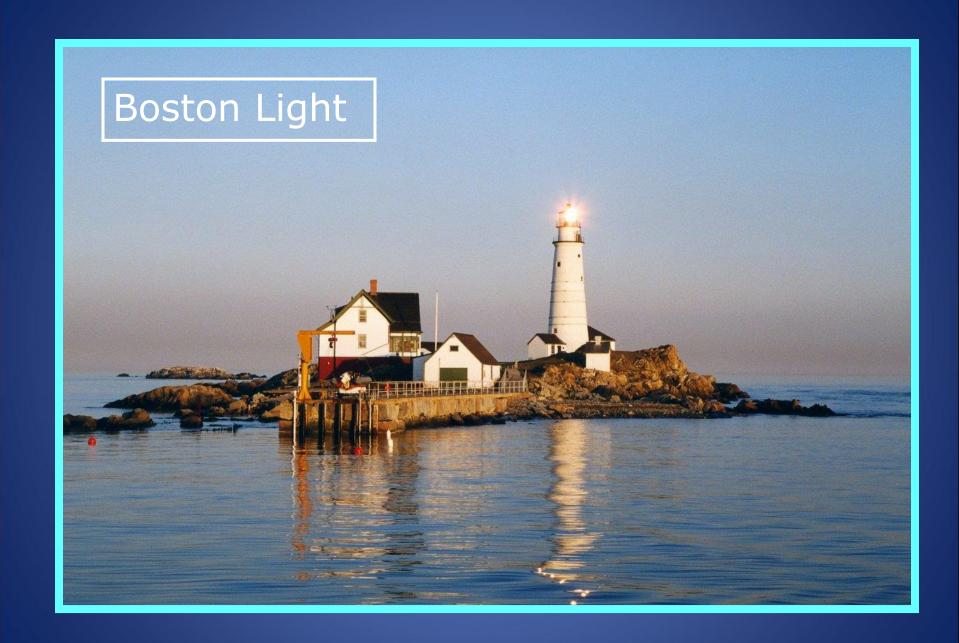
Minor Lights

Not named

Same symbol

Fixed position







Inside the Boston Light tower.

Understanding Light Patterns

Learn how to time a light.

- 1. Time ten light cycles.
- 2. Divide the time by ten

Light Patterns

Fixed (F) – continuous, unblinking light

Flashing (FI) – light duration shorter than darkness. Frequency not greater than 30 per minute.

Quick Flashing (Q) – light duration shorter than darkness. Frequency is at least 60 per minute.

Very Quick Flashing (VQ) – light duration shorter than darkness. Frequency is at least 100 per minute.

Interrupted Quick Flashing (IQ) – like quick flashing but having a brief, extended darkness period.

Isophase (Iso) – Light has equal duration between light and darkness. Period consists of both light and dark interval. Also called Equal Interval (E Int).

Light Patterns

Group Flashing (Gp FI (x+x)) – Combination of two patterns in one period, i.e. 2 flashes followed by three flashes.

Occulting Occ) – Opposite of flashing – light is on more than it is off.

Alternating (AL) – Alternating light changes color. Special purpose light for situations requiring significant caution. Example shows AL.WG...alternating white and green light.

Morse (Mo) – Morse code light signal. Example is Morse "U" which is two short flashes followed by one prolonged flash then a period of darkness. Shown as (Mo(U)) on charts. Typically Mo A short flash followed by a prolonged flash.

Long Flashing (LFL) – One long flash in a period with lighted period of at least 2 seconds.

Review the symbols and abbreviations on your NOAA chart for every aid that you see

Check that the charted symbols and abbreviations match your on-scene observations of the aid.

Chart Symbols

CAN - Green Diamond with small watch circle





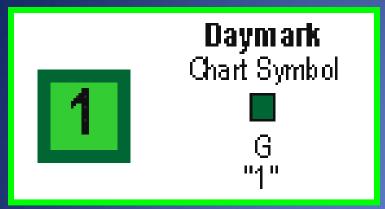
NUN – Red diamond with small watch circle.

Watch circle overprinted with magenta when lighted.

Italics used for buoys and other floating aids.

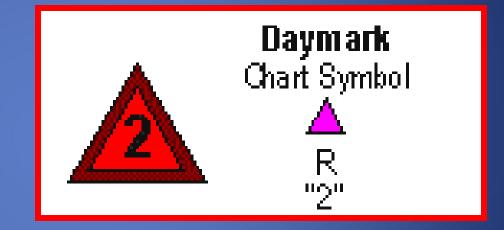


Symbols - Daymarks and Minor Lights



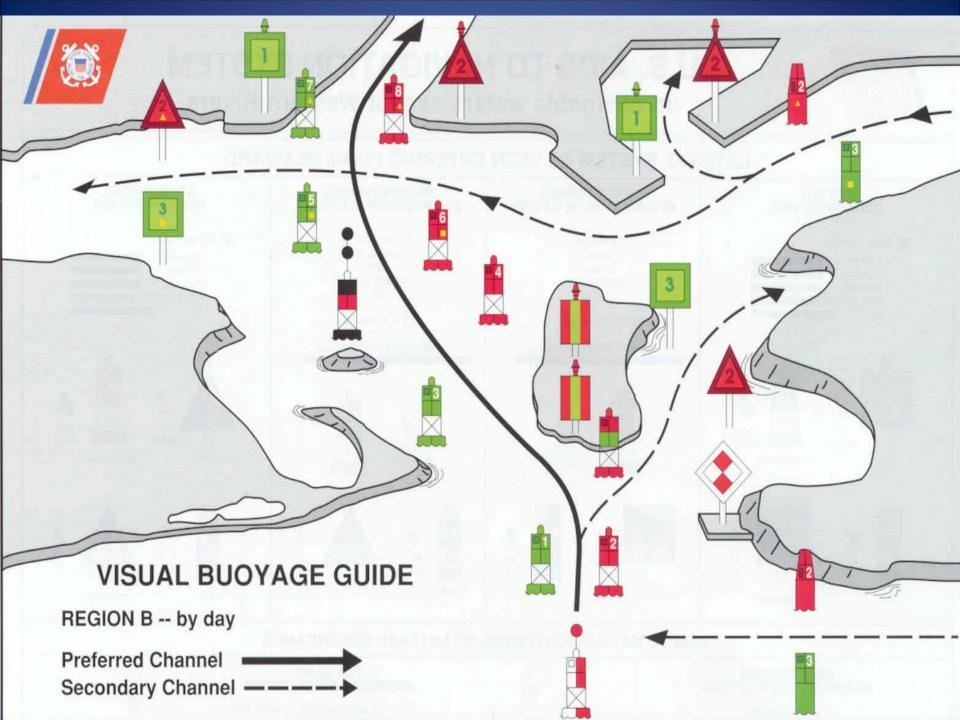
Green Daymark Green square.

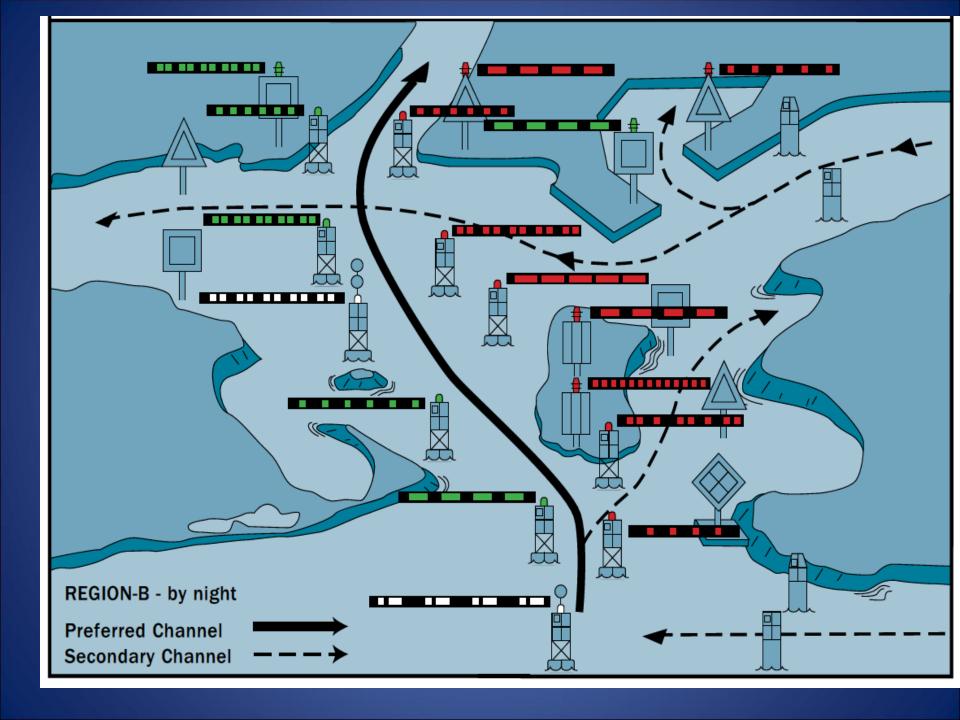
Red Daymark Red triangle

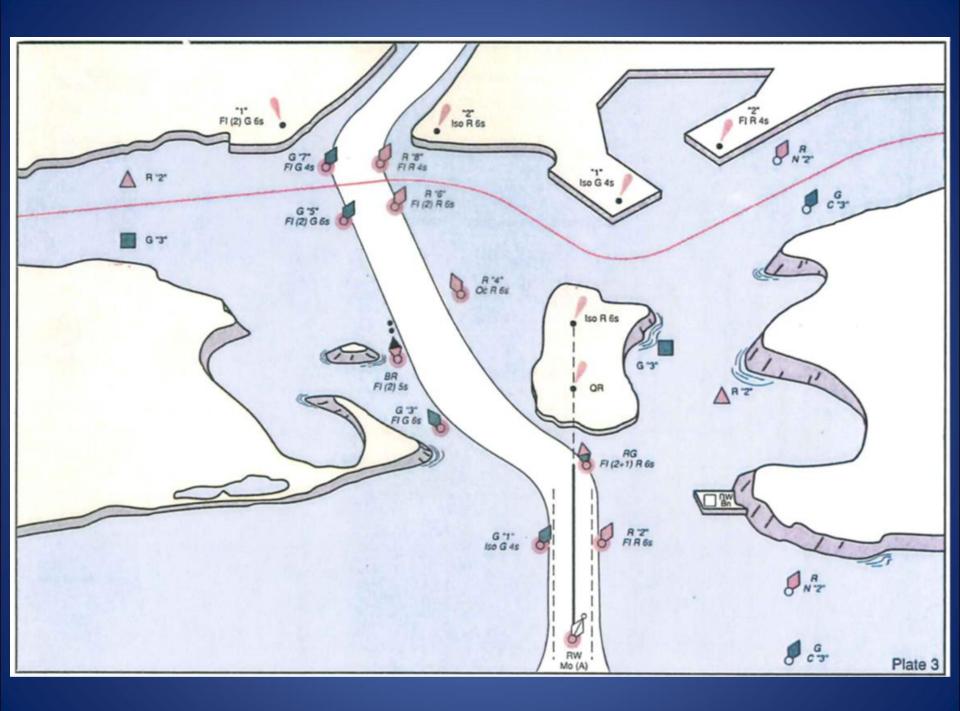




Minor Light - Magenta exclamation mark (teardrop with black dot) Note the vertical letters used for fixed marks







Review

What are the ICW identifiers?

- Starboard Mark:

- Port Mark:

- Non-Lateral:

Task 3.0 Private Aids to Navigation (PATON)

- What are private aids
- How does the Coast Guard treat them
- What does the Auxiliary do with them

What is a PATON

- Any ATON not established by the Coast Guard
 - Other Federal agencies
 - DoD
 - States
 - Institutions
 - Schools
 - Industry
 - Marinas

Authority and Penalty

- CG and Auxiliary obtain the authority for Private Aids to Navigation from 33 CFR 66, and 33 CFR 114-118
- CG 2554 application
- The penalty for failure to comply with PATON regulations is \$100/day/offense (14USC 83)
- USCG does NOT maintain or verify PATONs
- That duty falls to the Auxiliary

Classes

- CLASS I Aids to navigation on marine structures, to include bridges or other works that the owners are legally obligated to establish, maintain and operate as prescribed by the Coast Guard.
- CLASS II Aids to navigation exclusive of Class I, located in waters used by general navigation.
- CLASS III Aids to navigation exclusive of Class I and Class II, located in waters not ordinarily used by general navigation.

Inspections and Light List

- Inspections
 - When initially installed
 - When modified
 - Class I: Annually
 - Class II: Every three years
 - Class III: Every five years
- Light List
 - All Class I and Class II
 - Some Class III

Height of Tide at Any Time

- What is the state of tide at this very minute
 - In the old days: tide tables
 - Now: look at your phone
- Read a charted depth look at the number on the chart
- Depth gauge correction where on your boat is it mounted

GPS

Configure to datum

WAAS

True head

Task 4.0 ATON Discrepancies

- State the definition of an aid discrepancy
- Using the Light List, identify the advertised characteristics of aids
- Define the appropriate terms to describe discrepant aids
- Explain the procedure for reporting discrepant aids
- Demonstrate the ability to check an Aid

Definition of a Discrepancy

- THE OBSERVED STRUCTURE
 DOES NOT MATCH THE CHART
 OR THE LIGHT LIST
 DESCRIPTION
- Any member can and should report a discrepancy

Define

- Missing: Not at Assigned Position (AP)
- Adrift: Afloat and unattached in any way to shore or seabed
- Extinguished: A lighted aid that fails to show a light characterisite
- Burning dim: Not visible at prescribed distance
- Improper color: Not showing the correct color
- Improper shape: Not showing the correct shape
- Improper characteristic: Wrong audible of visual character
- Off station: A floating aid not in its assigned location
- Damaged: Repairable
- Destroyed: Not repairable note: do NOT report an aid destroyed
- Left Descending Bank: Left side going downstream GpFl 2 R/W
- Right Descending Bank: Right side going downstream Fl G/W
- Center Span Light: Marks center of channel
- Margin Light: Marks edges of channel

Buoy

- Buoys MUST be visited on a boat to be properly positioned
 - Must be an approved operational facility
 - Must be on approved orders
 - Must have a fully certified coxswain and crew
 - Must be within the operational season
- Any dispatch of the OPFAC by the USCG OIA will override the ATON portion of the mission
- It must be understood that aid verification missions are always at the coxswain's discretion
- The DSO-OP, in conjunction with the Coast Guard, has established safety protocols in place which all coxswains must follow. Nothing in this guidance is in any way intended to negate any operational protocol the coxswain is obligated to follow
- PICTURES

Beacon

- May be on land or visible from land
- May drive private vehicle to the aid
 - Vehicle must be a registered facility
- May be done year round, within reason
- Must notify FC, FSO-NS or Waterways
 - Date of mission
 - Mission start time and expected duration
 - Identification and location of the aids to be verified
 - Proposed transportation
 - AV cell phone number
 - Distance from AV house to aid
 - If distance is over 50 miles, a CG-2070 Travel Request Form will be completed
 - Any situation during the mission that will prolong the mission beyond the anticipated duration
 - When the mission is completed and the AV is safely home
- PICTURES

Assigned Position (AP)

- Should be as close as possible
- CCGD5 standards
 - Class I buoy: 25 ft
 - Class II buoy: 50 ft
 - Class I/II/III beacon: 25 ft
 - Class III lateral buoys: 50 ft
 - Class III regulatory/informational buoys: 500 ft
- Marking best water
 - Many local waterways have shifting channels
 - An aid may be off station, but marking best water
 - The CG7054 will be marked as discrepant but in the comments section it will be noted that the aid is marking best water
 - The aid will NOT be reported to the OIA

Lighted Aids

- Must be visited at night
 - Can position verify a buoy in a boat during day if you can drive to it and verify the light characteristic at night

Unauthorized Aid

- Non-permitted aid
 - Generally PATON
 - Class I or II not on chart or in Light List
 - Get as much info as possible
 - Location (Lat/Long)
 - Color, Shape, Markings
 - Pictures
 - Make PATON report to CCGD5

Additional Federal Aids

- Documentation
 - Area
 - Existing ATON
 - Reason for additional ATON
- Forward recommendation to CCGD5

Discrepancy Reporting

- All MAJOR discrepancies of ATON or Class I/II PATON MUST be reported IMMEDIATELY to nearest CG unit by VHF radio or cell phone.
 - If on orders, your OIA
 - If not on orders, nearest command center
 - Do NOT call operational units
- All other discrepancies should be reported in writing within 24 hours
- Discrepancy reports can be made by any member.
- When reporting Discrepancies, give as much information as possible
 - Name
 - LLNR
 - Discrepancy
 - Your name and contact information
- PICTURES!!!
- All reports, must be followed up with a written report on the CCGD5 7054 Form
- For ATON in Pa State Waters use ATON-1, Pennsylvania ATON Report Available 5 NR Web Site, (downloads) or 5NR Policy Manual

Critical Discrepancies Call and Written in 24 Hours

- Could cause possible loss of life or damage to vessel
 - Light signal Improper characteristics
 - Lights signal Extinguished or obscured for any reason
 - Buoy off station, adrift, sinking, missing, capsized, or stranded
 - Sound signal inoperative
 - Radio beacon not transmitting or timing sequence incorrect
 - Damaged by vessel collision/allision or vandalism
 - Missing day marks
 - Leaning structure more than 15 degrees
 - Aid obscured by foliage / object that should be removed
 - Bridge light outages
 - Collapsed bridge structures, fender system, and obstruction to channel

CCGD5 Major Discrepancy

- Extinguished
- Off station
- Missing
- Improper light or sound characteristic
- Missing dayboards
- Radar transponder

Broadcast Notice to Mariners

- The CG unit you report to will immediately put out a BNM to advise the boating public that the aid is discrepant
- BNM will be broadcast until the aid is included in the next LNM
- Then cancelled

Urgent Discrepancies No Call but Written in 24 Hours

- Will result in no loss of life, but may result in grounding
 - Day marks damaged
 - Light burning dim or reduced intensity
 - Light obscured by dayboard
 - Sound signal failure
 - Bridge light outages

Routine Discrepancies No Call but Written in 24 Hours

- Low likelihood of grounding, but maintenance required
 - Faded day marks
 - De-lamination of dayboards
 - Retro-reflective material peeling, missing or inadequate
 - Numbers obliterated
 - Extensive bird fouling
 - Deterioration of structure
 - Missing or damaged radar reflectors
 - Missing vent valve on lighted buoys
 - Unauthorized PATONs

Written Reports

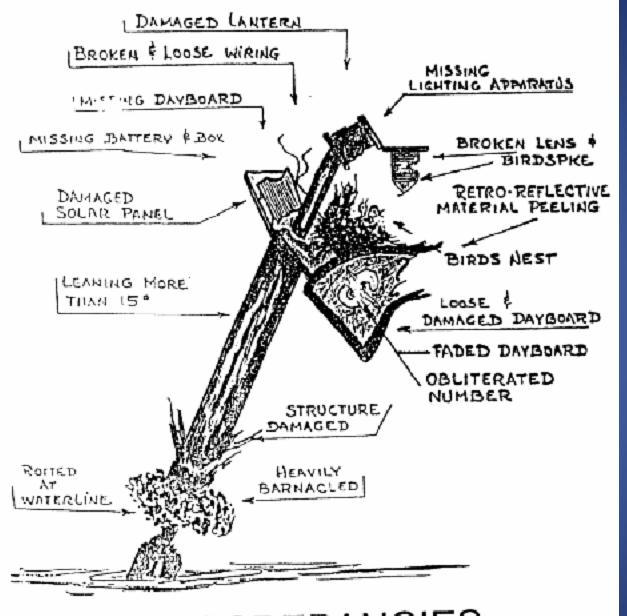
- Discrepant Federal or Private Aid
 - CCGD5 CG-7054 within 24 hours
 - To your FSO-NS
 - NOT to any CG unit unless they request it
- PATON WP
 - CCGD5 CG-7054 within 72 hours of visit
 - In comments section, include the comment "Aid LWP"
- ATON WP

CG 7054

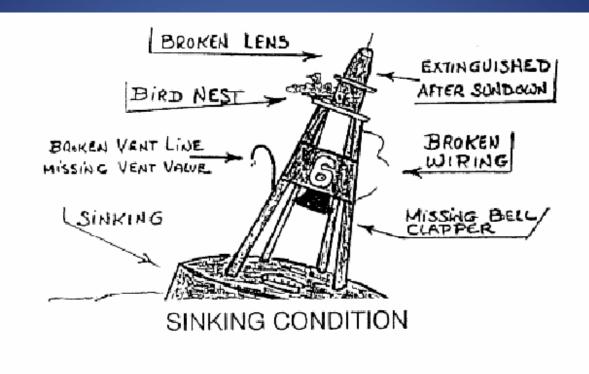
COAST GUARD AUXILIARY	U. S. CC	DAST GUARD	AUXIL	JARY	Check the report	type: v Reno	rt	Aids Checked	
PREVENTION DEPT	7054	Aid to Naviga	tion De		Verification	Report			
Form NS-7054 SECTION 1 - MEMBER INFORMATION	7034 - 1	Alu to Naviga	ILIOH KE	port	Report as	s a Miss	ion 30 or 31 to	AUXDATA	
SECTION 1 - MEMBER INFORMATION REPORTER'S LAST NAME. FIRST NAME. MIDDLE INITIAL AV QUAL TELEPHONE NUMBER UNIT (DIST-DIV-FLOT)									
	,						,		
DATE OBSERVED TIME OBSERVED	OPCON NUMBER O	R CG UNIT NAME			E-MAIL ADDRE	SS			
SECTION 2 - COAST GUARD NOTIFICATION PRIVATE AIDS ARE NORMALLY REPORTED AS ROUTINE.									
COAST GUARD UNIT NOTIFIED		DMMUNICATION METHOD USED FOR REPORTING TO CG UNIT							
SECTION 3 - AD IDENTIFICATION AD OWNERSHIP - salect one:									
LLNR P/ATON'S NA	ME (Aid Name in the Light List or M	ATONIS)	AID NUMBER	MILE M	CHART NO.	ED	LNM DATE	+	
SECTION 4 - HORIZONTAL AND VERTICAL LOCAT	TIONS							J	
	ONGITUDE [DDDMMSS.SSS] E/	W GPS DATUM METHOD	USED TO TAKE	FIX QC CHECK	QC READING	U/M	TIME V	VHEN TAKEN	
						Ft.			
OFFICIAL NAME OF LOCATION	GPS MANUF	ACTURER AND MODEL NUM	BER	GPS OPERATION	ON CH. DEPTH	U/M Ft	DEPTH D	DIFFERENCE	
METHOD USED for DEPTH MANUFACTURER	and MODEL NUMBER	OBSERVED DEPTH TE	RNSDCR, CORR	. HEIGHT of	IDE CORR. DI			DBSERVATION	
		Ft.		Ft.	Ft. 0.0				
SECTION 5 - AID TO NAVIGATION CHARACTERIST		HECK OFF EACH CHARACTE							
	xed Structure Ligh		d capability	Electronic			adar reflecto	r	
TYPE OF BUOY Wood Me					lain in Commen				
STRUCTURE TYPE Wood M	etal Sinç	ple Pile	ole Pile	☐ Dolphin		□ O	her (Explain)	
COLOR OF AID Red G	reen Whi	te Yello	w	Other, exp	lain in Commen	ts.			
SOUNDING DEVICE Bell G	ong Horn	n Whis	tle	Electronic		_ O	her (Explain)	
ELECTRONIC DEWI RACON Fog Detector Wind Generator Transformer Station Meteorological Station Wind Measuring Mast									
SECTION 6 - DISCREPANCIES OBSERVED ON AID TO NAVIGATION CHECK OFF EACH DISCREPANCY THAT YOU OBSERVE ON THE AID.									
LOCATION DISCREPANCIES LIGHTING DISCREPANCIES LIGHTING DISCREPANCIES LIGHTING DISCREPANCIES LIGHTING DISCREPANCIES LIGHTING DISCREPANCIES				DAYBOARD DISCREPANCIES 1 Dayboard(s) is missing. (Photo)					
2 Aid is adrift. (Explain) 2 Light is obscured or extinguished.				2 Dayboard(s) is damaged (Photo)					
Aid is missing. (Explain method used.) 3 Light is burning dim.				3 Dayboard(s) is faded so color is compromised. (Photo)					
4 Aid is not marking the best water.	dayboard. (Photo)		4 Dayboard is delaminating. (Photo)						
CONDITION DISCREPANCIES 5 Lantern is damaged. (Photo)					5 Dayboard is obscured by foliage or brush.				
					6 Improper dayboard displayed per aid specification.				
2 Aid is stranded. (Photo)									
3 Aid is capsized. (Photo)	8 Solar Panel is oriented	oriented incorrectly. (Explain)			1 Sound signal discrepancies.				
4 Aid is damaged by vessel collision.	9 Missing or damaged ve		2 RACON is not operating.						
5 Extensive bird fouling on aid. (Photo)		10 Lamp is the wrong color. (Explain)							
6 Peeling or rust is obscuring color. 11 Lantern is missing. (Photo and Explanation)									
7 Numbers are missing on a lateral aid.	OCCUMENTATION AND SPECIFICATION CHECKS								
8 Number or letters damaged on aid.	Check your observations against the Light List and, if charted, against the abbreviations and symbols on the NOAA chart.								
Retro-reflective material problem. Fixed aid is leaning more than 15°.	 Coserved aid does not match the entry for this aid in the Light List. (Explain) Doserved aid does not match the symbols and abbreviations for this aid appearing on the NOAA chart. (Explain) 								
11 Extensive deterioration/rotting. (Photo) 13 Observed all does not comply with the IALA Aid to Navigation System for region. (Photo and Explanation)									
Exercisive deterioration/rotting, (Printing) Exercisive deterioration/rotting, (Printing)									
SECTION 7 - NON-PERMITTED AIDS TO NAVIGAT									
OWNER'S NAME		R'S TELEPHONE NUMBER			WNER'S E-MAIL A	DDRES	S		
QUALIFOID	20500	om/			001515		000500		
OWNER'S STREET ADDRESS		CITY ST	ZIP CODE		CONTACT E	-MAIL A	DURESS		
LOCAL WATERWAY ADMINISTRATOR / HARBORMASTER		ELEPHONE NUMBER		WATERWAY ADMINISTRATOR'S E-MAIL ADDRESS					
SECTION 8 - COMMENTS		Always add an accuracy s	tatement with y	our report for cre	dibility. Us	e Alt+E	nter for addi	tional lines	

AVA Software

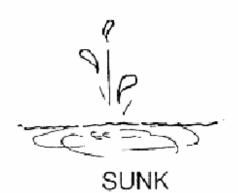
- Phone-based app to assist in verifications
- Will advise you if the aid is reported as discrepant in the LNM
- With proper input of CCGD5 standards and boat standoff distance, will calculate if aid is at AP or if it is off station
- Will automatically populate the CG7054
- Will email the CG7054 to yourself so you can verify it before you submit it
- Makes visiting aids very easy
- Training is scheduled in immediate future

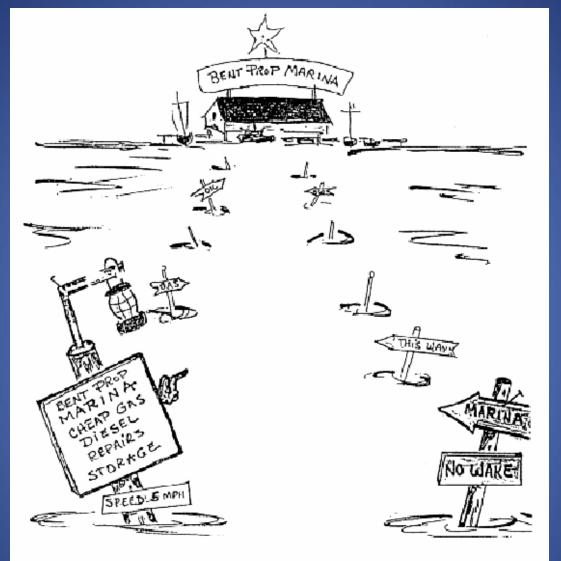


DISCREPANCIES









UNAUTHORIZED ESTABLISHMENTS



Task 5.0 PATON Documentation

- Objectives
 - Verify a PATON
 - Methods to accomplish the program objectives
 - Document a verification of a PATON
 - Reporting requirements
 - Staff Officer duties, assignments, and expectations

Reporting Hours

- All AV hours are reported on the 7030 form
 - 7031: Federal discrepancies
 - 7032: Private discrepancies and verifications
- What are AV hours
 - Time researching PATON in light list and NTM
 - Time in transit to and from the aid in private conveyance
 - Time actually verifying the aid on site
 - Time filling out and submitting the 7054
- What are NOT AV hours
 - Time underway under orders in an Auxiliary facility