



# "Joy of Geodetics"



## Part VII

Mark Recovery Status, Processing &  
Naming Photos, Reporting Recoveries,  
and Award Credits

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United States Power Squadrons / America's Boating Club  
Sponsor: USPS Cooperative Charting Committee

Revision 5 - 2020

# Part VII - Topics Outline

1. General Reporting Requirements
2. Mark Status Class
3. Preparing pictures for a Marker Report
4. Where to Submit a Marker Report
5. Preparing a Marker Report
6. Submitting a Marker Report
7. Credits and Awards
8. References, Photo Credits & Revisions

# General Recovery & Reporting Requirements

1. A Geodetic Mark can be reported every **24 months** from the last Power Squadron recovery or every **12 months** from last non-Power Squadron recovery
2. A change in status can be reported at anytime, e.g. from “not recovered/not found” to “found”
3. A mark may not be reported as “Not Found” if the previous report was “Not Found” or “Destroyed”
4. All required fields must be completed on the submittal form, and reports must be submitted within **30 days** of the recovery.
5. Up to 6 individuals and 5 marks can be submitted in a single report – must be **same recovery date** for all marks in the report

<https://www.usps.org/index.php/departments/12000/12000/geodetic-program>

Select: Standard Operating Procedure – Geodetic SOP

# Mark Status Classifications

**GOOD** – mark found in good condition, not moved, not damaged, legible, no serious corrosion/erosion

**POOR** – mark found disturbed, or moved, or damaged, or scuffed, or seriously eroded/corroded, or not legible – needs maintenance

**NOT FOUND** – mark not found or missing from monument base

**DESTROYED** – mark found separated from it's setting or removed from site – or clear evidence of site destruction

# “Damaged” Mark – mark disk missing from setting but could be reset



Disk missing from  
shaft in ground  
but disk possibly  
could be reset

FW0732 (M 261) –  
Duck, NC (GDS)

Classification = POOR

# “Damaged” Mark – disk but could be reset



Disk missing from  
shaft in rock but  
possibly could be  
reset

AE5972 (PRESCOTT) –  
Oriental NC (GDS)

Classification = POOR

## “Damaged” Mark – disk distorted



FW0050 (Y 167) –  
Kitty Hawk, NC (GDS)

Classification = POOR

# “Damaged” Mark – part of disk face removed



EZ3525 (BEN) - near  
Tramway, NC (GDS)

Classification = POOR

“Damaged” Mark – disk face worn (unreadable)



FB4135 (64 RJN) –  
Clingmans Dome, NC  
(GDS)

Classification = POOR

## “Damaged” Mark – disk face severely marred



HW3234 (C 506) –  
Staunton, VA (GDS)

Classification = POOR

“Damaged” Mark – mark face severely corroded



AI8246 (MORARITY) – W of  
Littleton, NC (GDS)

Classification = POOR

# “Damaged” Mark – monuments slightly leaning



EX0097 (C 249) Manteo, NC (GDS)



EZ4251 (JONAR) near Buckhorn Reservoir, NC (GDS)

Classification = POOR

# “Destroyed” Marks – mark disk recovered but removed from setting



AH4783 (7 JMS 1) – Benson, NC (GDS)

Classification = DESTROYED

Note: if the stem is showing in the monument and the monument has not been disturbed, the collective classification would be Damaged / POOR

# “Destroyed” Marks – mark disk recovered but removed from setting



- Mark separated from monument
- Monument appears broken
- No Stem showing in Stem Hole

Stem Hole

FY3984 (BULLOCK  
RM 3 AZIMUTH) –  
Stovall, NC (GDS)

Classification = DESTROYED

# “Destroyed” Marks – monument laying on ground and disk is missing



EU1132 (DANBY MWD AZ  
MK) – Rice, CA (RJS)

Classification = DESTROYED

# “Destroyed” Marks – monuments lying on ground with disks still attached



CH4652 (80 131 6 RM 1) – Gila Bend,  
AZ (RJS)



EZ0856 (CHIMNEY) – Forrest Ridge  
Park, NC (GDS)

Classification = DESTROYED

# “Destroyed” Marks – monument “severely” leaning with disk still attached



FW0072 (R 168) – Nags Head,  
NC (GDS)

Classification = DESTROYED

# “Destroyed” Mark – mark stem and disk missing from setting



AE7398 (HELIPORT) – Garner, NC (GDS)  
Landing Pad at Highway Patrol Training Academy, Helicopter Operations

Classification = DESTROYED

# Photographic Requirement Revisited

Per the Cooperative Charting Geodetic SOP (Rev 01/2020), one requirement for a geodetic marker recovery report is to provide a digital **photograph of marker or the marker location** containing position coordinates as well as a date stamp.

**Note 1:** This photo provides verification to the report reviewer that the observer was present at the recovery site on that date, that the coordinates displayed are correct for the mark recovered, and that it is the correct mark from the Stamping on the mark

**Note 2:** The coordinates and date stamp can appear either on the photo or within the digital properties of the photo.

**Note 3:** A marker location photo would only be used if the mark is reported “not found” or “destroyed”.

# **Photo Processing Steps for Submission Reports**

- 1. Transfer Photos from Camera to Computer**
- 2. Rename Photos (to NGS standards)**
- 3. Resize Photos (to USPS & NGS Standards)**
- 4. Check Photos in DSWorld (Optional)**
- 5. Upload Photos to a Geodetic Report (Later)**

# Transferring Pictures from Smartphone or Camera to Computer and Filing Them for Renaming

1. Make a new folder on your computer and give it a filename that includes the recovery date - example: Geo 06-12-17
2. Connect your Smartphone to your computer, and copy all marker recovery pictures taken on that date into the new folder
3. Within the new folder, add additional folders - one for each different PID recovered on that date
4. Name each folder with the correct PID number e.g. PX2956
5. Move all pictures for a given PID into the correct PID folder
6. In each PID folder, pick out the best 1) Close-up picture, 2) Eye Level picture, and 3) Horizontal picture for renaming

# Naming Protocol for NGS Photos

- Besides the Verification photo for USPS, optional photos may be taken for NGS and uploaded to a Report
- The Close-UP (1) photo for NGS can also serve as the Verification photo for NGS

## Optional Photos for NGS

Naming protocol for optional NGS photos:

Close-Up: PID-Name-1-YEARMMDD

Vertical Photo: PID-NAME-2-YEARMMDD

Horizontal Photo: PID-NAME-3(compass direction)-YEARMMDD

# Example of a Renamed Picture File

PID-DESIGNATION-TYPE-DATE

Example:

PID = PB3456

DESIGNATION = A 789 1

TYPE = Horizontal looking ENE

DATE = Recovered on June 26, 2018

PB3456-A\_789\_1-3ENE-20180623

# Picture Size Requirements for Report & NGS

1. The maximum **file size** for photos in a submission report to USPS is **4MB** – the Report form will give a warning if that total files size is exceeded
2. Optional pictures for NGS also must not exceed the NGS **pixel size** requirement of **1024 X 768**

Horizontal (**Landscape**)  
Orientation



768

1024 (max)

Vertical (**Portrait**) Orientation



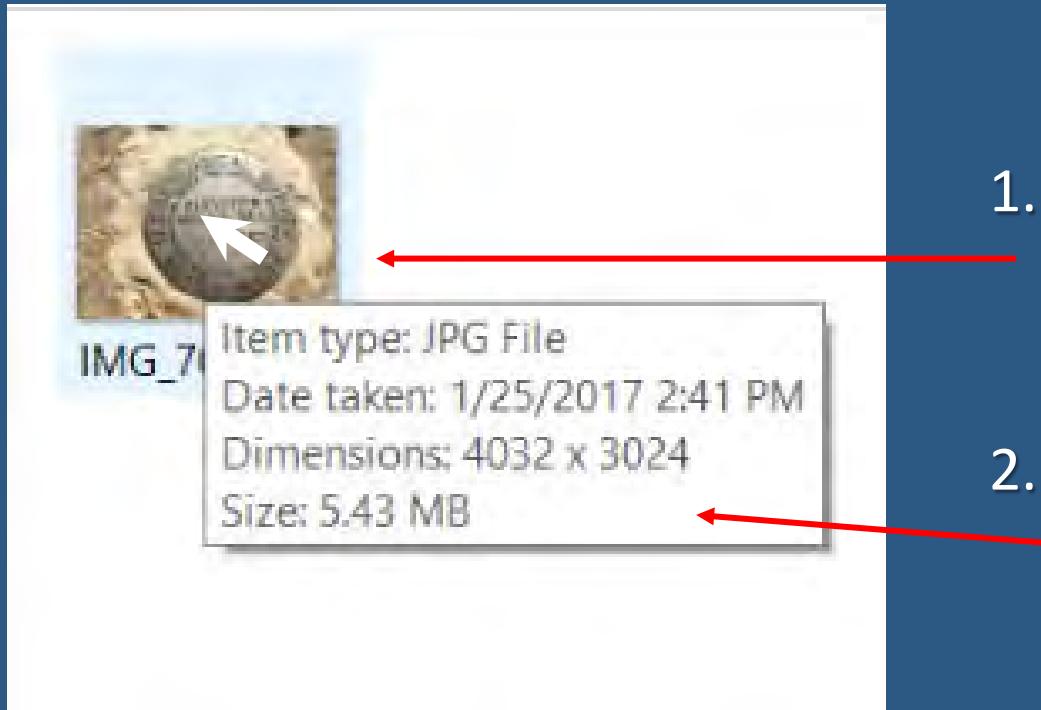
1024 (max)

768

# Determining File Size & Pixel Size of Photos

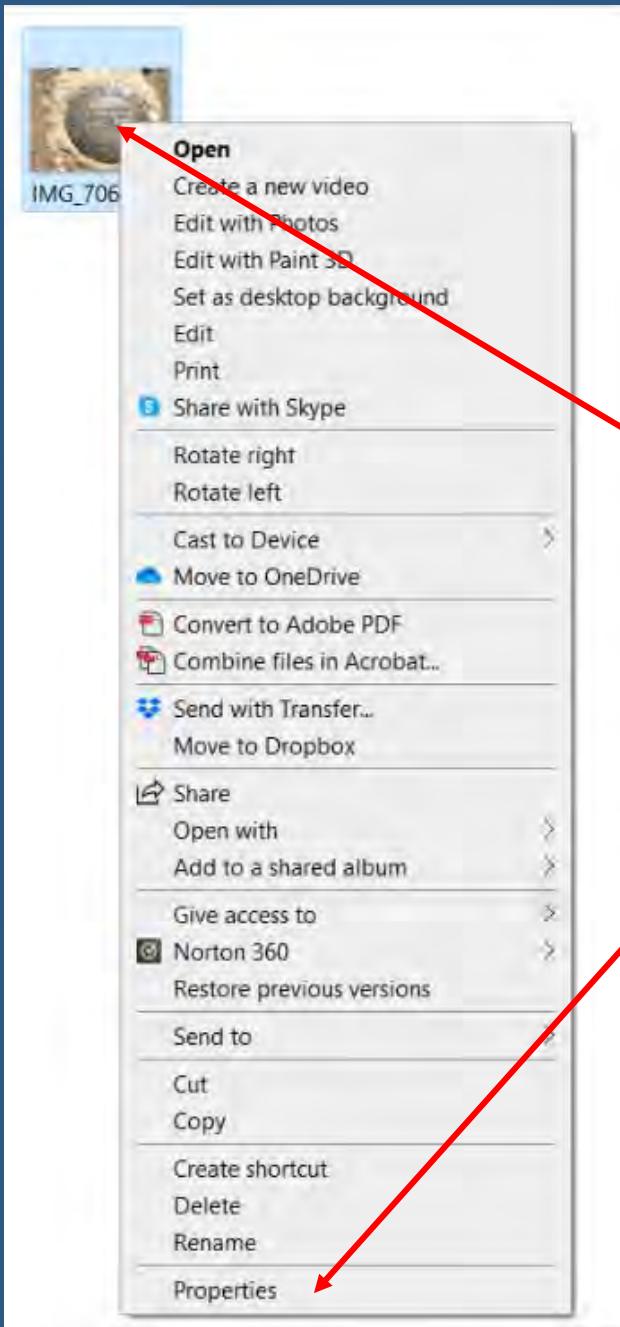
The Easiest Way!

Option 1:



1. Hover mouse cursor over a Photo Thumbnail and a dropdown appears
2. The Photo Pixel Dimensions and File Size are shown

In this Example: Both photo sizes are too large for a submission report or for NGS and must be reduced!

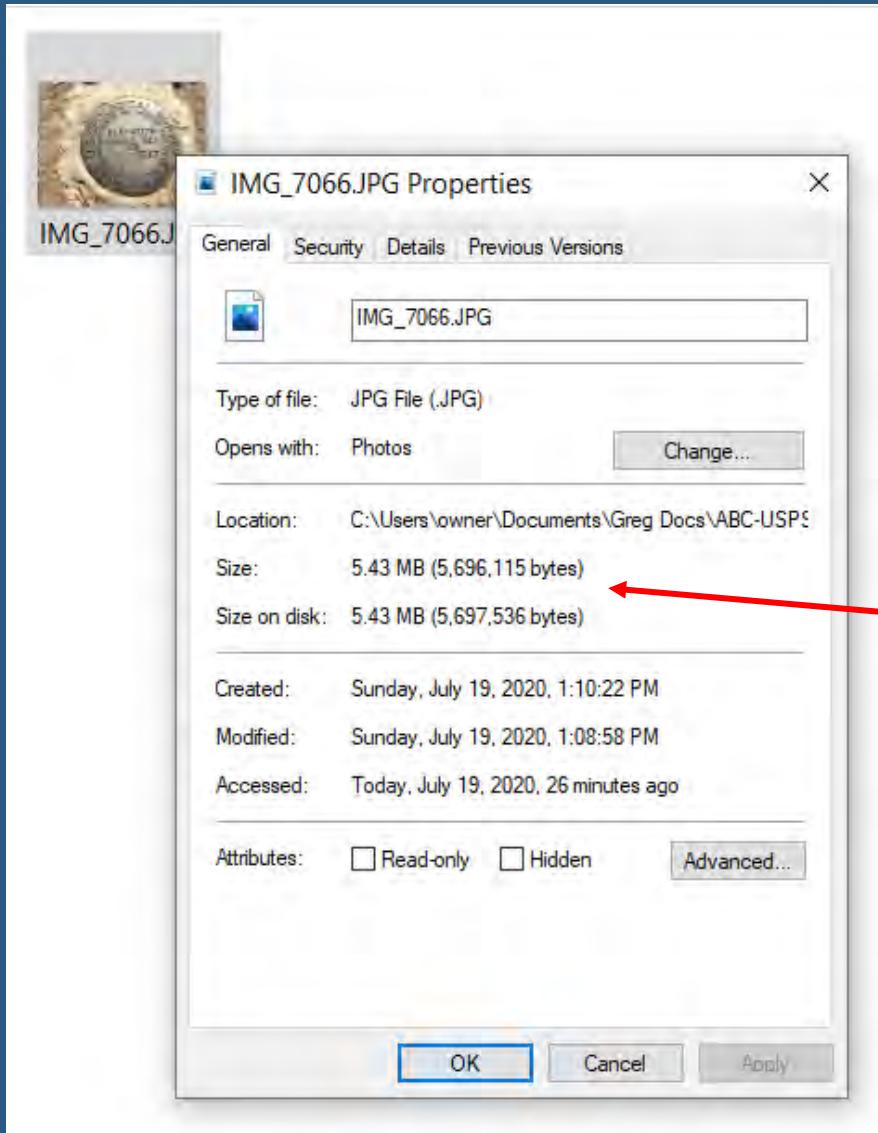


# Determining File Size & Pixel Size of Photos

## Option 2:

1. Right Click on Computer Thumbnail
2. Select **Properties** at bottom of dropdown

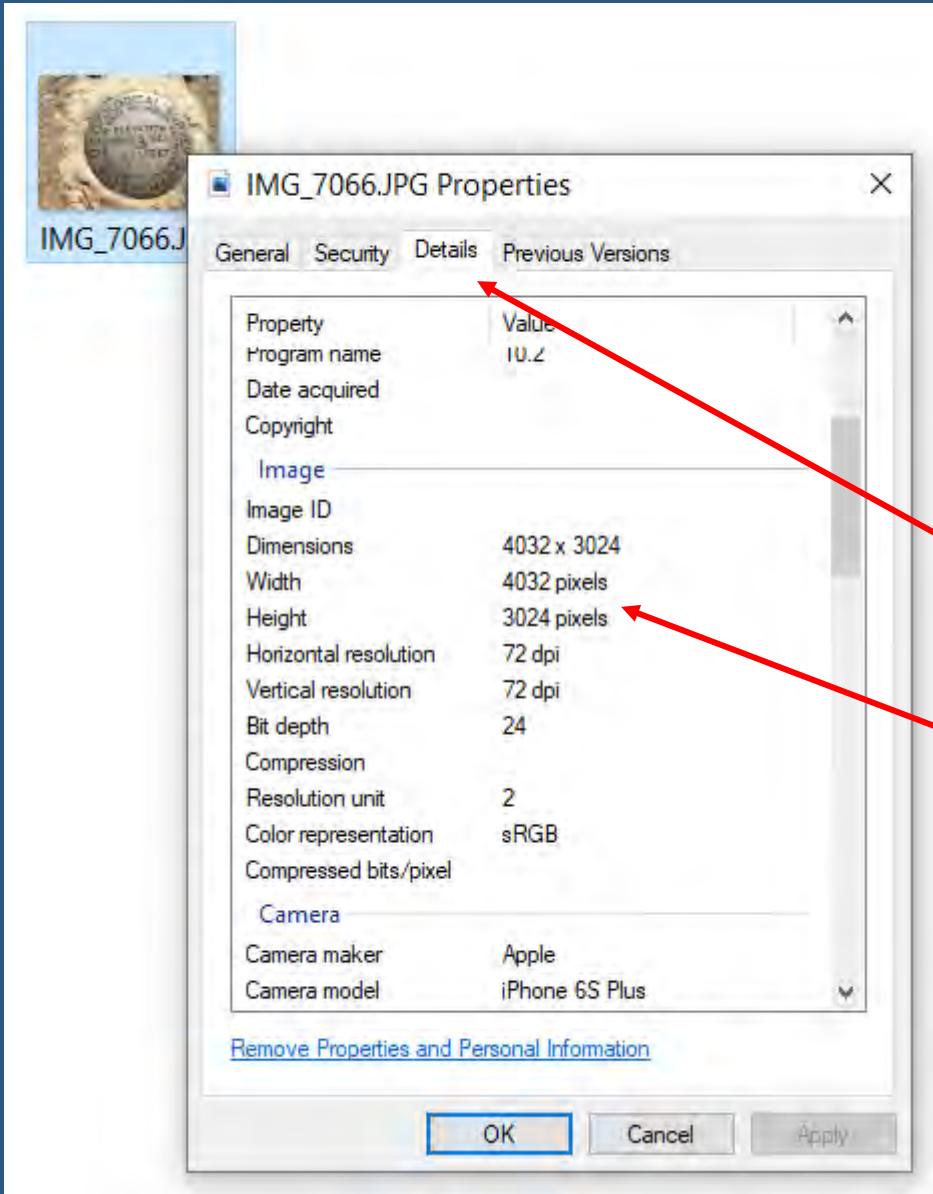
# Determining File Size & Pixel Size of Photos



Option 2 - Cont.:

3. Note MB File Size

# Determining File Size & Pixel Size of Photos



- Option 2 - Cont.:
5. Select Details and get Dropdown
  6. Note Pixel Photo Size

# Using Microsoft “Paint” to Resize Pictures for a Report

The maximum pixel size for photos to NGS is 1024 x 768. Check your photo size in photo properties. If it is too large, Microsoft Paint can be used to resize to 1024 x 768 (landscape) or 768 x 1024 (portrait):

1. Right click on a photo filename or thumbnail, and in the dropdown select **Open With**
2. In the next dropdown select **Paint**
3. When Paint opens and your photo appears, at upper left select **Resize**
4. Select resize by **Pixels** (Pixels circle)
5. Enter **1024** into the Horizontal or Vertical box that has the largest number in it. The other box will auto-fill to **768** to give the same width:height ratio as the larger picture.
6. The picture size is now NGS compliant - Click **OK**
7. Do **File / Save** and the resized photo is saved. Do **File / Save As** if you want the photo to have a different file name.
8. Go to next photo and repeat steps 1-8

# Where to Submit a Marker Recovery Report

1. go to the **USPS Homepage** at [www.usps.org](http://www.usps.org)
2. at top of page select Member's Log In
3. Log in with **Certificate No.** and **Pin**

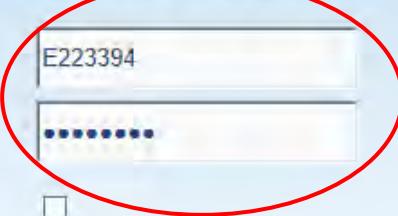
The screenshot shows the homepage of the United States Power Squadrons website. At the top, there is a navigation bar with links for "Home", "Ship's Store", "Member's Log In" (which is highlighted with a yellow oval), and "America's Boating Club". Below the navigation bar is the organization's logo, which features a steering wheel with a flag and the text "United States Power Squadrons". To the right of the logo, the text "United States Power Squadrons®" is displayed in large blue letters, followed by the tagline "Come for the Boating Education...Stay for the Friends™". A red oval highlights the login input fields. The text "USPS Members - Use your Member Certificate as the User Name and your PIN for the Password." is displayed above the login form. The "User Name or USPS Certificate" field contains the value "E223394", and the "Password or USPS PIN" field contains a series of six asterisks. There is also a "Remember me" checkbox and a "Log in" button. At the bottom, there is a link for users who have forgotten their password.

Home | Ship's Store | **Member's Log In** | America's Boating Club

 United States Power Squadrons®  
Come for the Boating Education...Stay for the Friends™

USPS Members - Use your Member Certificate as the User Name and your PIN for the Password.

User Name or  
USPS Certificate: E223394

Password or  
USPS PIN:  

Remember me:

**Log in**

Forgot your password?

4. at top of page select Departments
5. from dropdown list select Executive Department
6. from next dropdown list select Cooperative Charting Committee

The screenshot shows the homepage of the United States Power Squadrons website. At the top, there is a navigation bar with links: Member Home, Public Home, Site Index, How Do I, Resources, Departments (with a dropdown arrow), Committees (with a dropdown arrow), Job Tools, and Logoff. The "Departments" and "Committees" links are highlighted with yellow circles. Below the navigation bar, there is a logo for "United States Power Squadrons" featuring a steering wheel and a flag. The main content area has a banner with the text "United States" and "Come for the Boating E". A large button in the center says "Windows XP and Merit Mar". To the right of the button, there is a list of committees. The "Executive Department" link is highlighted with a yellow circle. The "Cooperative Charting Committee" link is also highlighted with a yellow circle. The list includes: Chief Commander, Executive Department, Educational Department, Administrative Department, Secretary's Department, Treasurer's Department, Environmental Committee, Marketing Committee, National Meetings Committee, Public Affairs Committee, Public Relations, and Safety Committee.

Member Home    Public Home    Site Index    How Do I    Resources ▾    Departments ▾    Committees ▾    Job Tools    Logoff

United States  
Power Squadrons

Chief Commander

Executive Department

Educational Department

Administrative Department

Secretary's Department

Treasurer's Department

Environmental Committee

Marketing Committee

National Meetings Committee

Public Affairs Committee

Public Relations

Safety Committee

Windows XP and Merit Mar

Microsoft no longer supports the Windows XP Operating System. Windows XP Home version is no longer compatible with the MQ software used by DB2000 to communicate with the Headquarters machine. You can no longer use an XP Home system to submit merit marks. Source: Carl Filios,

Access SailAngle.com

216 Kilbreck  
Cary NC 27  
919.387.987

# 7. On Coop Charting Committee webpage page select Geodetic Report

The screenshot shows the America's Boating Club website with the following navigation bar:

- Member Home
- Public Home
- Site Index
- How Do I
- Resources
- Departments
- Committees
- Job Tools

The main content area features the "Executive Department" logo and the "Cooperative Charting Committee" title. A sidebar on the left includes a search bar and links to:

- CoCh Home Page
- How to get involved
- Current List of Adopted Charts
- Nautical Program & Marina Survey Report Program
- Geodetic Program
- Nautical Credits and Awards
- Geodetic Credits and Awards
- National Committee

The main content area contains the following text:

**THE USPS COOPERATIVE CHARTING PROGRAM**

Cooperative Charting Program of the United States Power Squadrons is conducted in close cooperation with United States Army Corps of Engineers, the United States Coast Guard and NOAA's National Geodetic Survey Division (NGSD). The Program continues to be a major public service of USPS. As in the past, members supply important information to the above agencies so updates can be made to nautical charts and the National Survey Marker databases.

The Aid-To-Navigation and Bridge Inspection programs support the USACE and Coast Guard in assuring waterways are properly marked and maintained.

The Cooperative Charting Committee maintains a Geodetic Program where members help to verify the accuracy of reference points established on the surface of the earth by local, state, and national agencies. Maintenance and preservation of these marks is of utmost importance to users of the net and to NGSD. Recognizing that many valuable geodetic marks are destroyed by construction, new roads, erosion, or for other causes, our job is to locate each of these marks and report their condition together with any change in the directions needed to locate them.

We have been complimented by government leadership that the Cooperative Charting Program is recognized as the most effective user-participation program in all of the Federal Services.

**For Data Security Reasons**

1st Time Users need Authorization to Complete a Report  
Click - [Link to Registration Form](#) to Receive Authorization

**Short Cut Links to Create Reports**

Nautical Report  
Geodetic Report  
Marina Survey Report

# Marker Submittal Report

Top of Page 1

- Enter Recovery Date
- If you have not previously registered as a “Principal Observer”, click on the authorization request link to bring up the Co-Op Observer Registration form

**Geodetic Mark Recovery Report 2020**

Revised 8/21/2020

Date of Observation \*

2020 - 02 - 03 

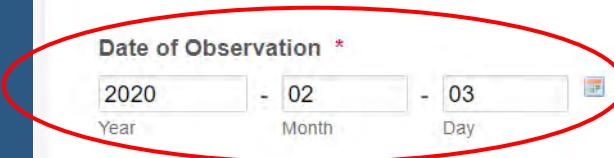
Year            Month            Day

If this is a resubmittal, enter the original report number.

[Click Here to go to the authorization request form.](#)

Original Report

Principal Observer



# Marker Submittal Report

- Fill out the brief Co-Op Observer Registration form to become a “Principal Observer”
- Click Submit
- Note: you will not have to do this again for any future reports.

**Co-Op Observer Registration**  
Complete the form below to register as a principal observer.

Original Request  
 Update

Certificate No. *	Name *	Initials *
E223394	Greg Shay	GDS
Email *	greginctown@aol.com	
Squadron Name *	<input type="radio"/> Power Squadron <input checked="" type="radio"/> Sail & Power Squadron	District *
Raleigh	D27 ex. D01	
Home Zip Code *	27511	

**Submit**

# Marker Submittal Report

Bottom of Page 1

- Enter your Certificate No.
- If you are already registered as a Principal Observer, select “Verify” and your information auto-populates
- Manually input Additional Observers
- Make sure Credit %’s total 100%

Principal Observer

Certificate No.	25	Initials
E223394	GDS	
<input type="button" value="Verify"/>		

Valid

Name: Greg Shay      Squadron: Raleigh Sail & Power Squa      District: D27

Additional Observers

	Certificate No.	Name	Squadron	District (Dnn)	% Credit
1	F052389	Connie	Shay	D27	25
2	E224790	Kevin	Lyon	D27	25
3	E224791	Ginny	Esch	D27	25
4					
5					

Total of all credits must equal 100.

# Marker Submittal Report

## 1st PID

- Enter Mark PID
- Enter Type of Mark
- Enter Date of Last Rec
- Enter Previous Cond
- Enter Current Cond

Note: Up to 5 PIDs can be reported in one report, but they must be for marks recovered on the same day and with the same observers

## Top of Page 2

**1st PID**

**Enter PID \***  →

**Type of Mark**  
 Geographic  Horizontal / Vertical →

Enter the following information from the data sheet.

**Date of last recovery**  → 

**Condition at last recovery**  →

Select Condition of Mark (See SOP instructions for criteria.)

**Condition at this recovery.** →

Good  
 Not Recovered / Not Found  
 Poor / Disturbed / Requires Maintenance  
 Destroyed

# Marker Submittal Report

- Enter Comments
- Upload Photos
- Click Next for 2<sup>nd</sup> PID

Note: If there are no other marks to report, select “Jump to last page” and “Next”

Bottom of Page 2 – 1<sup>st</sup> PID

The screenshot shows a web-based form for marker submittal. At the top, there is a section titled "Recovery Notes" containing a text area with the following content: "The mark was recovered as described but the previously referenced building next to it is no longer there and the witness post is gone." A red arrow points from the word "Notes" in the note to the "Next" button at the bottom right of the form. Below the notes is a section titled "Upload Photos" with a "Upload a File" button. Underneath the button, three files are listed: "DF5351-..109.JPG" (0.5MB), "DF5351-..109.JPG" (0.8MB), and "DF5351-..(2).JPG" (0.9MB). Another red arrow points from the "Upload Photos" section to the "Next" button. At the bottom of the form, there is a checkbox labeled "Jump to last page when clicking on Next". Finally, at the very bottom, there are "Back" and "Next" buttons.

# Marker Submittal Report

- Enter data for any additional PIDs

**2nd PID**

Enter PID

Type of Mark  
 Geographic  
 Horizontal / Vertical

Page 3 – 2<sup>nd</sup> PID

**3rd PID**

Enter PID

Type of Mark  
 Geographic  
 Horizontal / Vertical

Page 4 – 3<sup>rd</sup> PID

**4th PID**

Enter PID

Type of Mark  
 Geographic  
 Horizontal / Vertical

Page 5 – 4<sup>th</sup> PID

**5th PID**

Enter PID

Type of Mark  
 Geographic  
 Horizontal / Vertical

Page 6 – 5<sup>th</sup> PID

# Marker Submittal Report

## Report - Page 7

### Submission Page

- Shows name and e-mail of Reviewer
- “Print” optional
- Select “Submit”

**Submit Report**

<b>Reviewer</b>	<b>Reviewer's Email</b>
Fred Eichenlaub	jfeichenlaub@roadrunner.com

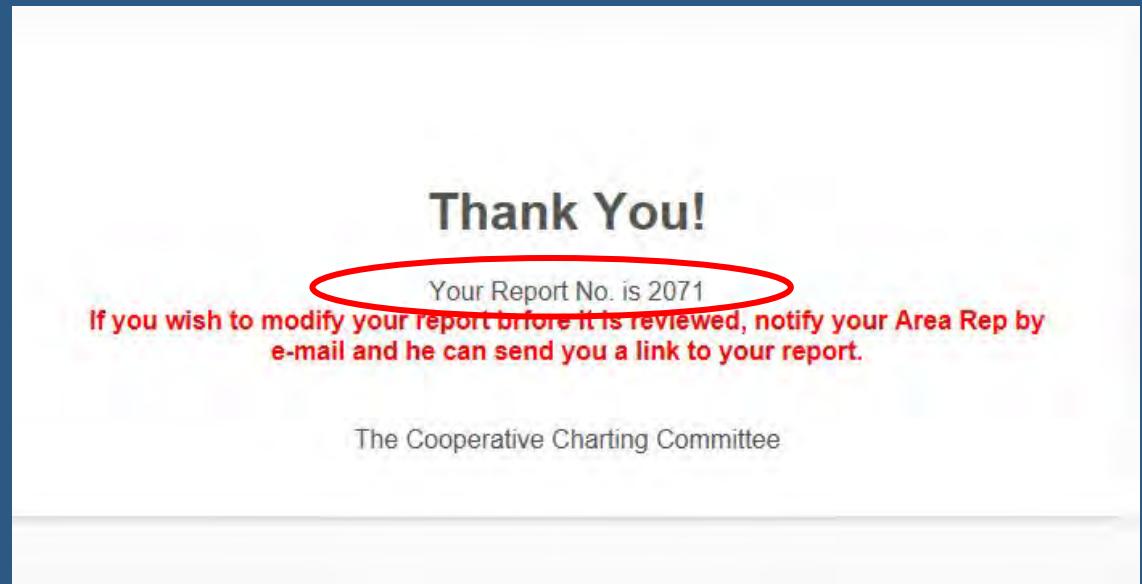
**Note:**  
Once the report has been reviewed, you will receive a confirming email from your reviewer giving you the status.

Page 7

# Marker Submittal Report

It is recommended that you keep a data record of each mark submitted and the Report No., as there is no way to save the report other than to print it.

After you click the Submit button, you will get a **Thank You** notice with the Report No.



# Geographic Mark Submission

## 1<sup>st</sup> PID

- Enter Mark PID
- Enter Type of Mark
- Enter Date of Last Rec
- Enter Previous Cond
- Enter Current Cond

Note: Up to 5 PIDs can be reported in one report, but they must be for marks recovered on the same day and with the same observers

## Top of Page 2

1<sup>st</sup> PID

Enter PID \*  →

Type of Mark  
 Geographic  Horizontal / Vertical →

Enter the following information from the data sheet.

Date of last recovery  → Condition at last recovery  →

Select Condition of Mark (See SOP instructions for criteria.)

Condition at this recovery.  
 Good →  
 Not Recovered / Not Found  
 Poor / Disturbed / Requires Maintenance  
 Destroyed

# Geographic Mark Submissions

- Geographic Marks are Towers, Tanks, Spires, Smokestacks and the like with a PID
- Geographic Marks may be submitted in a report if
  - 1) the condition at Date Last Recovered was either Monumented or Good, and
  - 2) 2) the Mark is now no longer there
- Select “Geographic” on Page 2 of the Submission Report and report the mark “Destroyed”
- Credit will only be awarded for Geographic Marks meeting the above requirements

# Mark Recovery Credits

- Mark found that has no PID (not in NGS database) – 0 credits
- Geographical Mark found in place – 0 credits
- Geographical Mark found “destroyed” – 10 credits
- Horizontal (H) or Vertical Mark (V) found – 10 credits
- H or V Mark found “destroyed”\* - 10 credits
- H or V Mark “Not recovered, not Found” - 2 credits
- Bonus for found Mark not reported in past 5 years. – 4 credits
- Bonus for found Mark not reported in last 25 years – 25 credits
- Bonus for found Mark where last report was "Not recovered, not found" – 25 credits

Geographical Marks = tower, tank, cupola, or spire

\* Must provide irrefutable proof – pictures and/or documentation

<https://www.usps.org/index.php/departments/12000/12000/geodetic-program>

Select: Standard Operating Procedure – Geodetic SOP

# Mark Recovery USPS National Awards

- Reporting Period - January 1 to December 31 of each calendar year.
- Credits - Calculated by the Cooperative Charting Committee and periodically posted on the USPS website
- Honor Roll Certificates - Awarded to Individuals in top 25% of credits
- 1<sup>st</sup> , 2<sup>nd</sup> , and 3<sup>rd</sup> Place - Awarded to top three Individuals, Squadrons, and Districts

Note: Some Districts also have Geodetic Awards

# Honor Roll Requirements & Calculations

## Individual Minimum Requirement for Honor Roll

Individual Min Credit Req =  $220 - (3 * \text{Latitude of Squadron})$

## Squadron Minimum Requirements for Honor Roll

Squadron Min Credit Req = Individual Min Credit Req +  
(Prior YE Squadron Membership / 5)

Also - minimum number of Squadron participants are required based on size of the Squadron (table not shown)

## District Minimum Requirements for Honor Roll

District Min Credit Req =  $0.75 * \text{Total Credit Req for all Squadrons in District}$

Also - 75% of Squadrons in the District must participate