



C-Nav<sup>®</sup>

# C-NavX1 Firmware Update Installation Procedure Firmware Update Installation Procedure

---

CNAV-MAN-0062

Revision B

C-Nav<sup>®</sup> Positioning Solutions

[oceanengineering.com/cnav](http://oceanengineering.com/cnav)

## DOCUMENT OWNER

C-Nav

## REVISION HISTORY

Revision	Prepared by	Checked by	Approved by	Date Approved
B	Ben Dean Akanksha Sharma	Ben Dean Jamie Hall	Ben Dean	04-Mar-2025
A	Jamie Hall	Jamie Hall	Ben Dean	28-Jul-22

## REVISION DETAILS

Revision	Change Details
A	Initial Release

## Disclaimers:

*C-Nav, C-Nav3050, C-Tides and C-Monitor are trademarks of Oceaneering International, Inc.*

*"This document is the property of Oceaneering International and may not be used for any purpose unless authorized in writing by Oceaneering and which, upon demand, shall be returned. For any queries, related to Warranty and Limitation of liability, please contact your Accounts Manager for more information."*

## TABLE OF CONTENTS

1	INTRODUCTION .....	4
2	DEFINITIONS .....	4
2.1	Document Conventions.....	4
3	REFERENCES .....	5
3.1	Symbols.....	5
4	PROCEDURE .....	6
4.1	Obtaining the C-NavX1 IP Address.....	6
4.2	The C-NavX1 Firmware Updater.....	7
5	APPENDICES IF APPLICABLE .....	ER
	<b>ROR! BOOKMARK NOT DEFINED.</b>	

## 1 INTRODUCTION

This is a short tutorial explaining the steps necessary to update the firmware in a C-NavX1 GNSS receiver using the Windows updater application software.

This C-NavX1 GNSS receivers firmware update is performed over the receivers LAN connection. The update is sent to the receivers IP address before a restart is performed to finalize the update.

**WARNING:** Use only the latest version of software to perform the outlined procedure(s). The latest software and the firmware are available for download from the C-Nav [Customer Support](#) Webpage.

## 2 DEFINITIONS

Abbreviation	Full Form
GNSS	Global Navigation Satellite System
LAN	Local Area Network
IP	Internet Protocol
PC	Personal Computer
DHCP	Dynamic Host Configuration Protocol
QA/QC	Quality Assurance/Quality Control
USB	Universal Serial Bus

### 2.1 Document Conventions





Font Type	Used for
Arial	Plain Text
<i>Arial Italic</i>	Setting Names
'Arial Quoted '	Setting Values
<b>Arial Bold</b>	Button Names
<b><i>Arial Bold Italic</i></b>	Menu Items
<a href="#">Arial Blue</a>	Cross Reference
<a href="#">Arial Blue Underline</a>	Hyperlinks
<i>Arial Red Italic</i>	Typed Commands
<b>Arial Bold Size 10</b>	Captions
<b>ARIAL BLACK ALL-CAPS</b>	Port Connection Names

### 3 REFERENCES

Document Number	Document Title
WW-SUR-CNAV-MAN-0061	<a href="#">C-NavX1 GNSS Receiver User Manual</a>
WW-SUR-CNAV-RN-0006	<a href="#">C-NavX1 Firmware Release Notice</a>

#### 3.1 Symbols

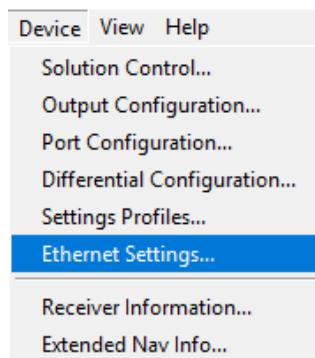
The following words and symbols found throughout this procedure, highlights special messages to alert the operator of specific information concerning **personnel**, **equipment**, **process** or **environmental impact**.

Symbol	Description
	This symbol means Danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical and RF circuitry and be familiar with standard practices for preventing accidents.
	CAUTION: Failure to follow these directions can result in damage to equipment.
	CAUTION: Failure to follow these directions can result in environmental hazard.
<b>IMPORTANT NOTES:</b> Such note boxes display important information that should not be ignored.	
	This symbol means Reader Be Careful. It indicates a caution, care, and/or safety situation. The user might do something that could result in equipment damage or loss of data

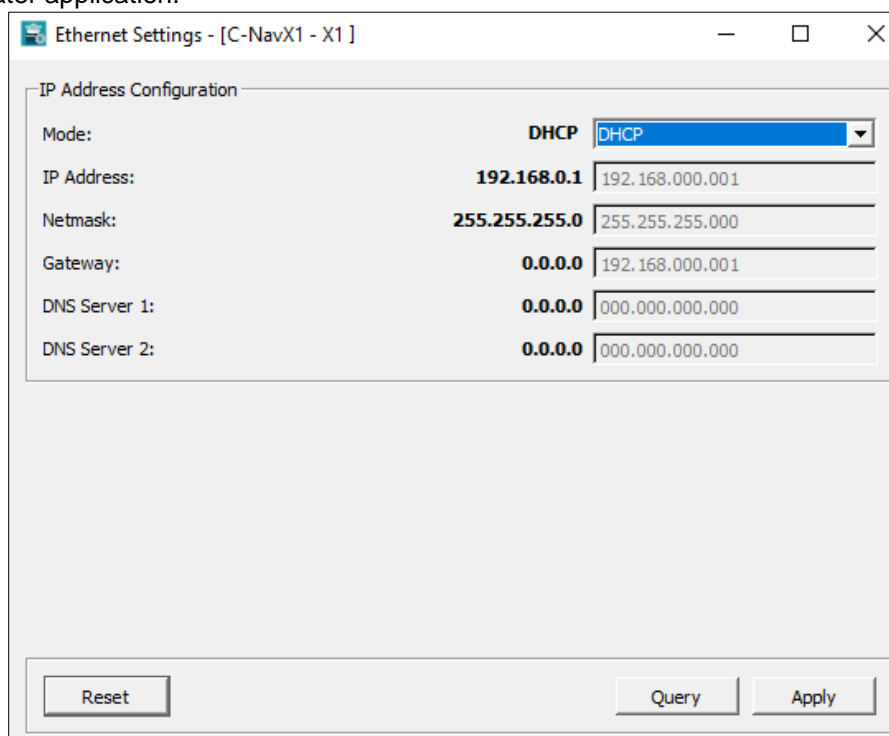
## 4 PROCEDURE

### 4.1 Obtaining the C-NavX1 IP Address

1. Connect the receiver and the PC or laptop being used for the update to the same network switch with DHCP capabilities.
2. Using C-Monitor® QA/QC software, connect to the C-NavX1 using one of the receiver's Serial ports or alternatively USB port.
3. Once the C-Nav® control software establishes communication with the receiver, access the **Ethernet Settings** page from the **Device** menu.

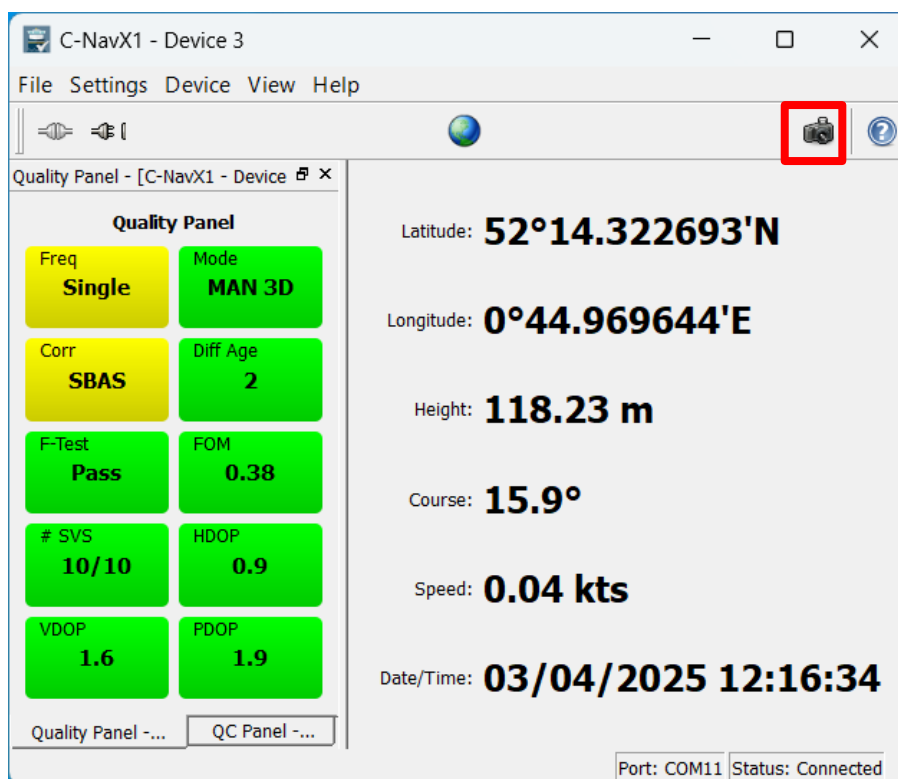


4. If there is no address, set the **mode** to 'DHCP', if it was 'Manual' before after changing to 'DHCP' make sure to press **Apply**.
5. Use the **Query** button to update the items on the menu window, if an IP address isn't shown, give it some time and press **Query** again, else check the network hardware and cabling.
6. Take note of the IP address shown for the receiver, this will be the IP address entered on the C-NavX1 Firmware Updater application.

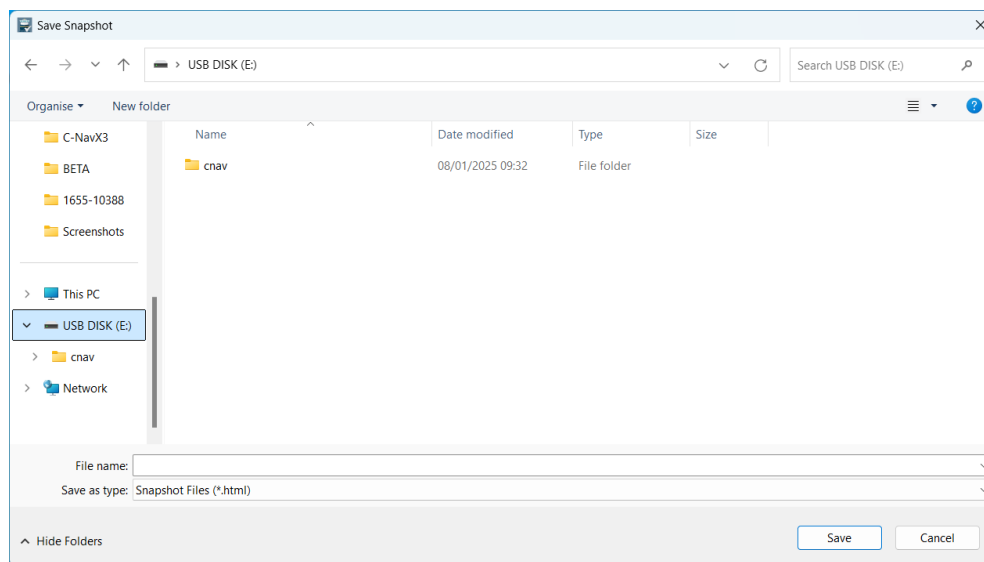


7. Take note of the receiver's current configuration as certain parameters will be reset to default during the

firmware update. The easiest way to do this is to save a .html snapshot of the receiver's settings using the **Snapshot** button (the small camera icon).



This will prompt you to save a .html file.



**WARNING:** If you are connected to C-Nav® control software using the USB connection, prior to proceeding with the firmware update the C-Nav® control software will need to be closed, and the USB connection removed from the PC. The USB can be reconnected after the update is finished.

## 4.2 The C-NavX1 Firmware Updater

1. Navigate to the C-Nav [Customer Support](#) webpage to download the latest version of C-NavX1 firmware &

Firmware Updater Application.

2. Unzip the contents of the file to find firmware, release notes and updater application.
3. Unzip the contents of 'C-Nav X1 Firmware Updater.zip' to reveal 3 files.

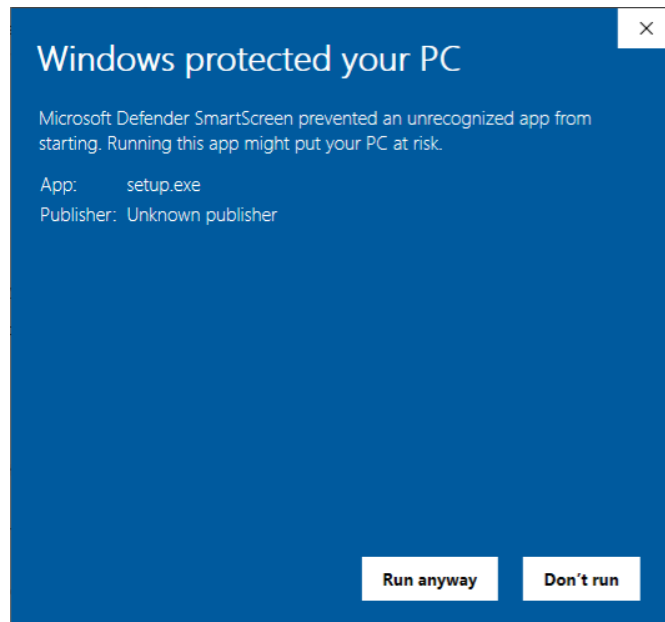
C-Nav X1 Firmware Updater > C-Nav X1 Firmware Updater				
Name	Type	Compressed size	Password ...	Size
Application Files	File folder			
FirmwareUpdaterUI	Application Manifest	3 KB	No	6 KB
setup	Application	234 KB	No	529 KB

4. Run setup.exe, if you prompted with a security window select **More info**

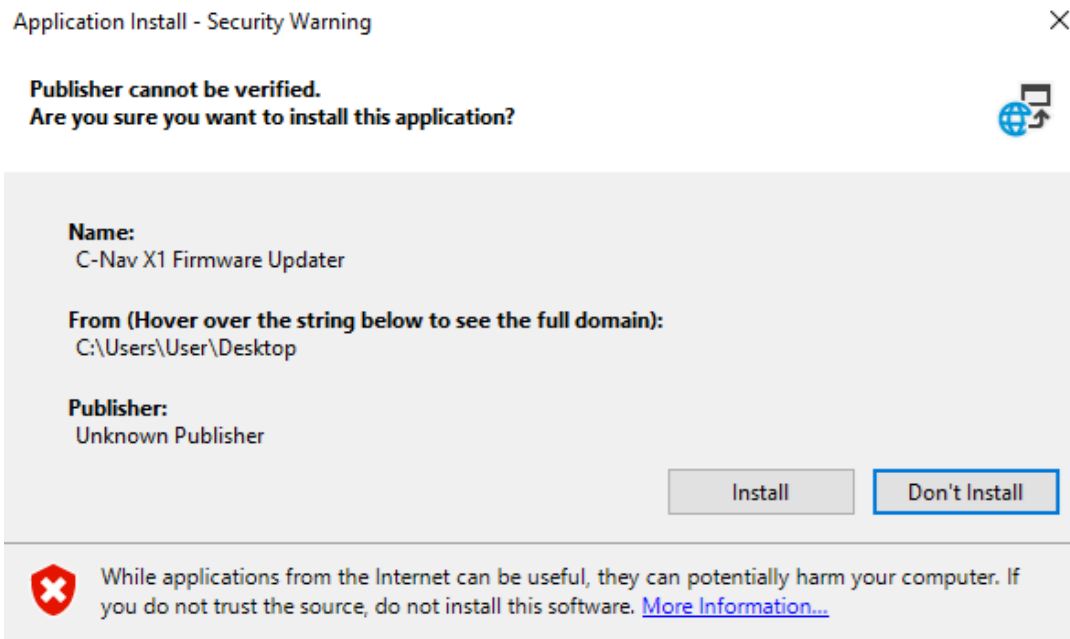




Followed by **Run anyway**.

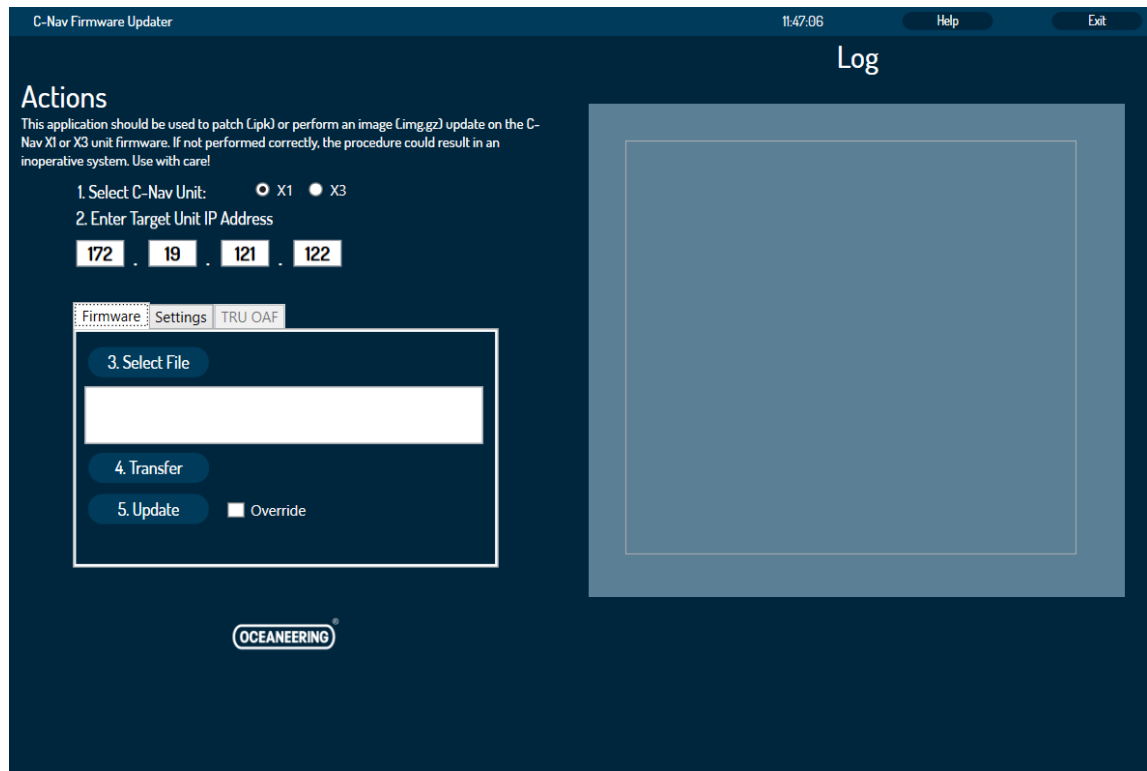


5. On the final prompt select **Install**.

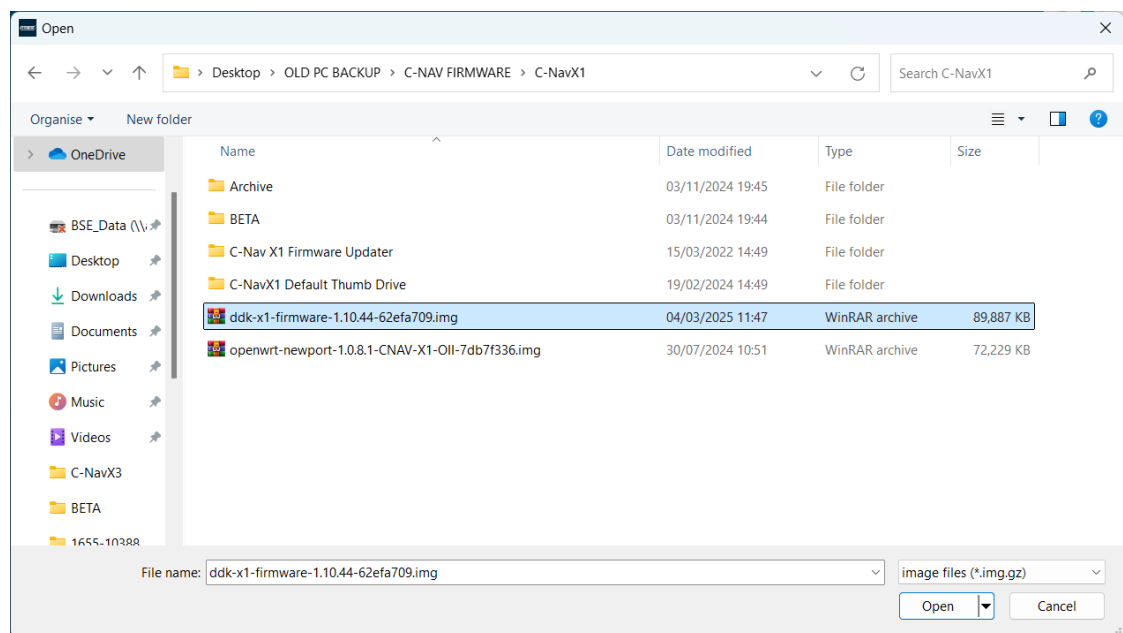


6. The C-Nav X1 Firmware Updater window will open, there is a **Help** button in the top right which provides an in-application option for instructions.

7. Toggle the C-Nav Unit to “X1”. Populate the Target Unit IP Address box, with the IP address noted from Section 2 – Obtaining the C-NavX1 IP Address (Page 8).

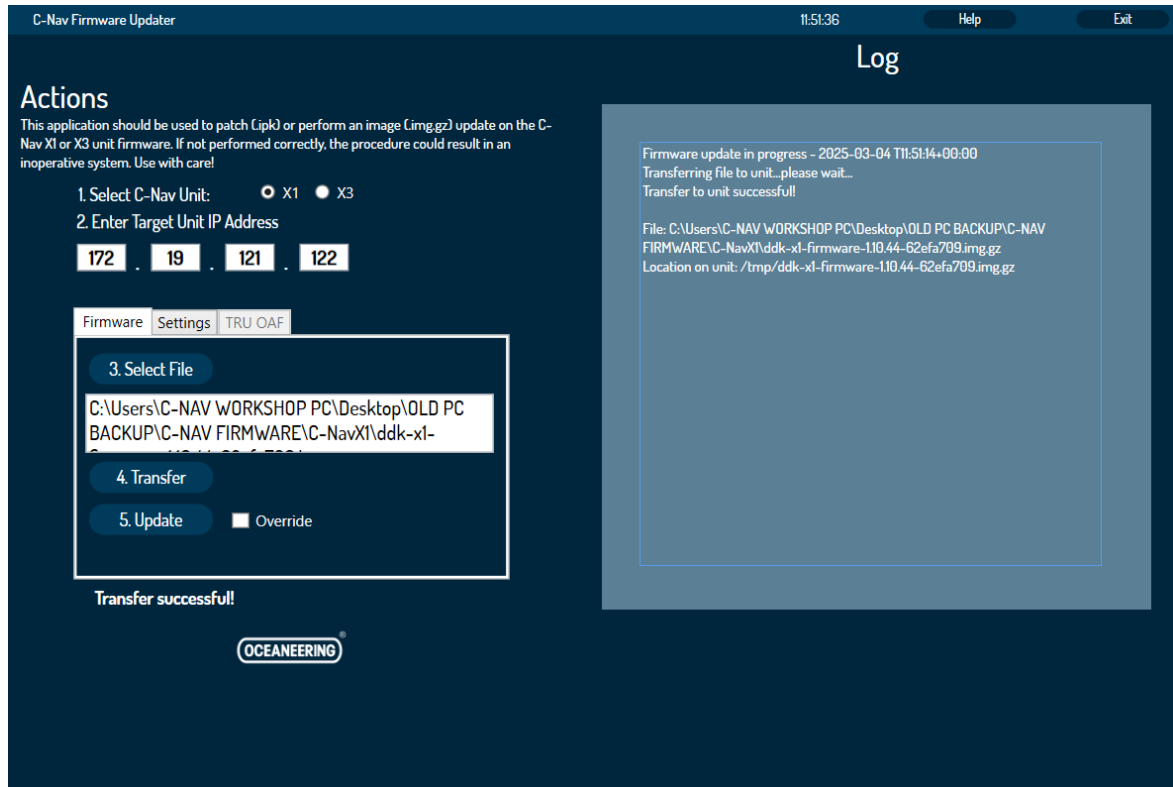


8. Press **Select File** to browse to the location of the C-NavX1 firmware. The file can either be double clicked or selected and Press **Open**.

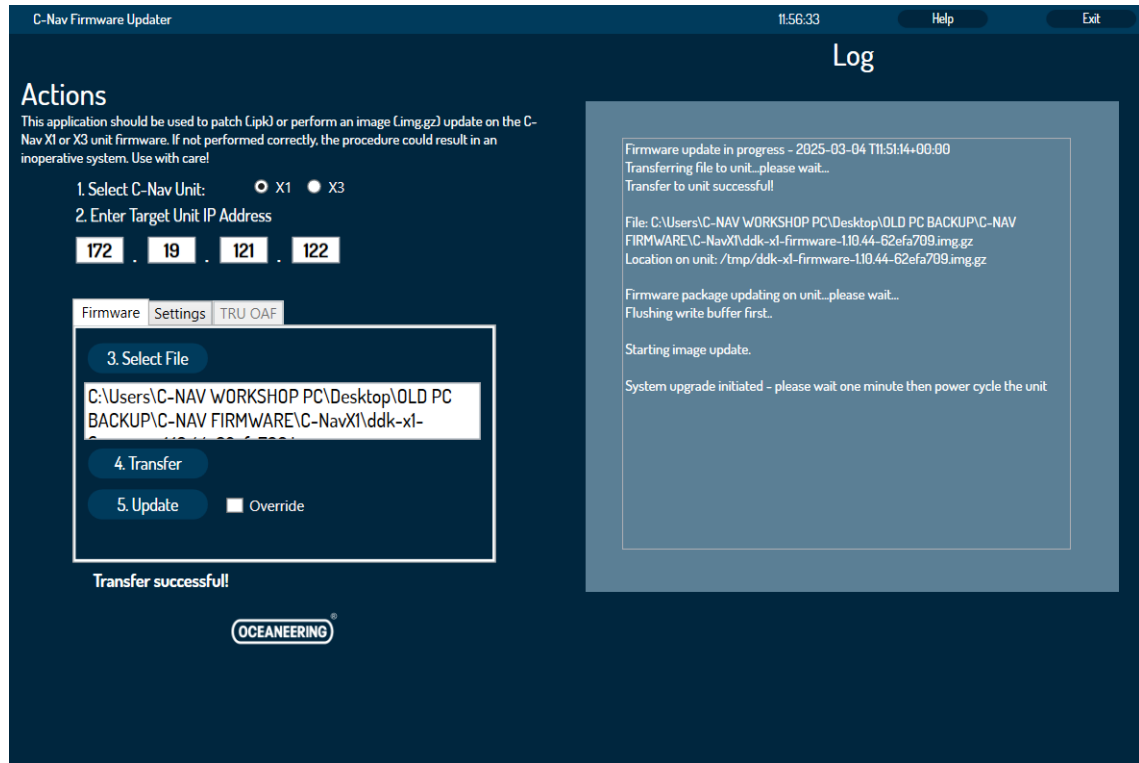


9. With the *Target Unit IP address* populated and the **Select File** completed use the **Transfer** button to send

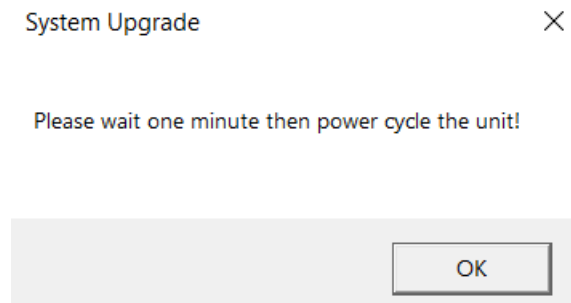
the update to C-NavX1 unit. The progress will update in the Log portion of the application.



10. Following a “Transfer successful!” message, press **Update**.

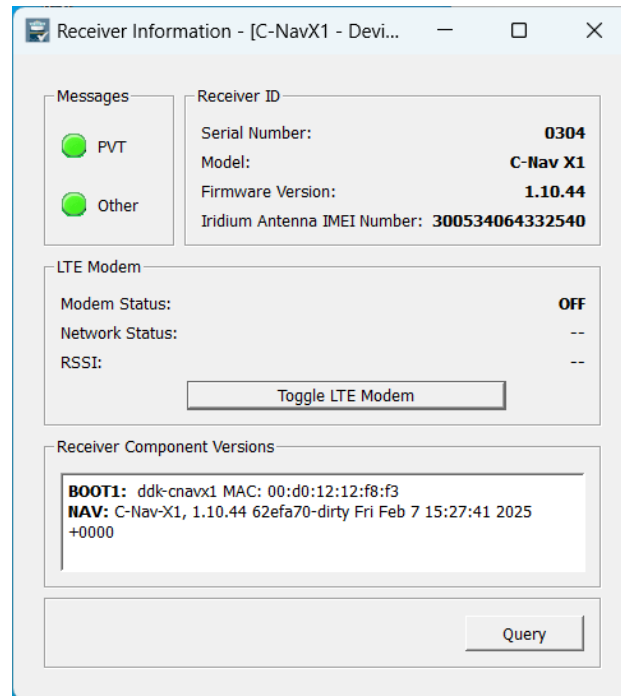


11. After initiating the Update, a pop-up dialogue will appear asking to wait one minute prior to cycling power on the unit. Select **OK**.



**WARNING:** The unit does not require a manual power cycle. The unit will automatically perform the cycle. Note that during the initial firmware update process, only the central STATUS LED will be illuminated. The firmware update will be completed once the remaining LED's return to normal operational status.

12. Confirm the receiver has updated correctly via the control software, also checking any auxiliary feeds.



13. Reconfigure the C-NavX1 receivers setting using the previously saved Snapshot as guidance.