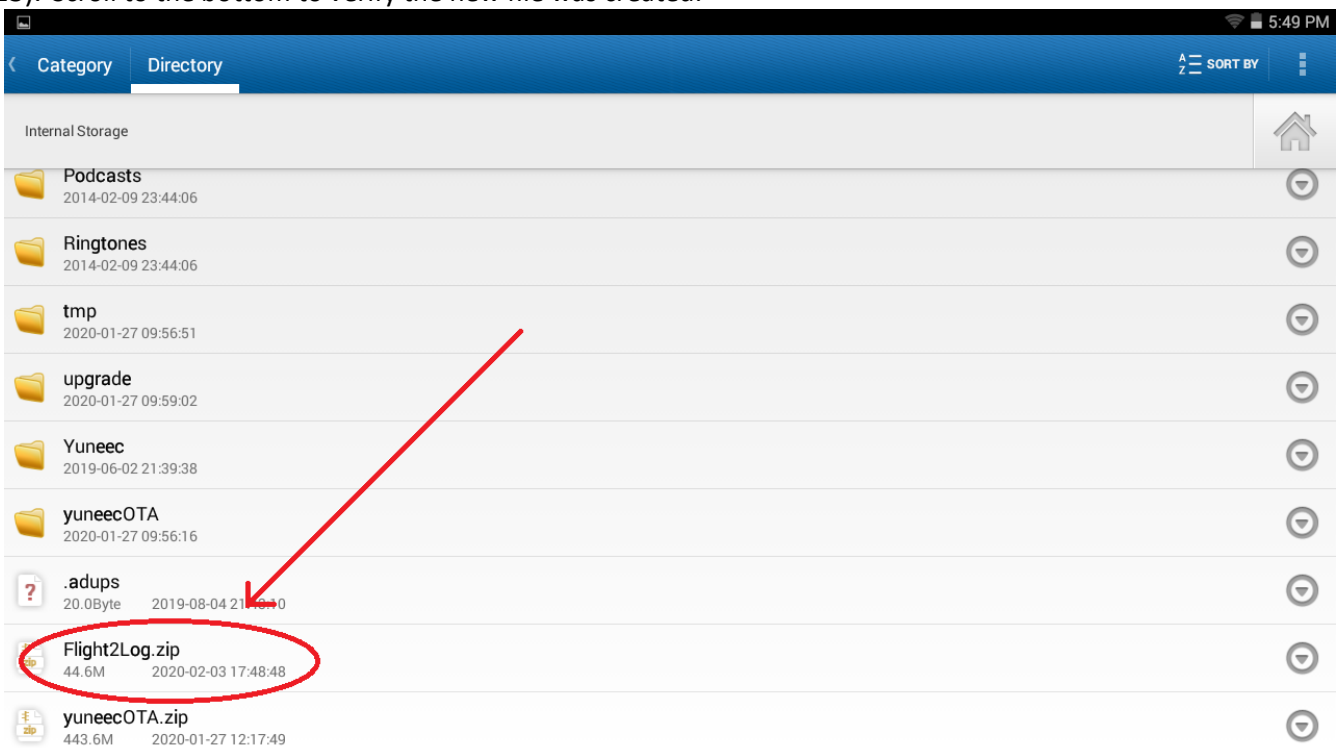
Attachment 56
Typhoon H Plus Flight Log Retrieval

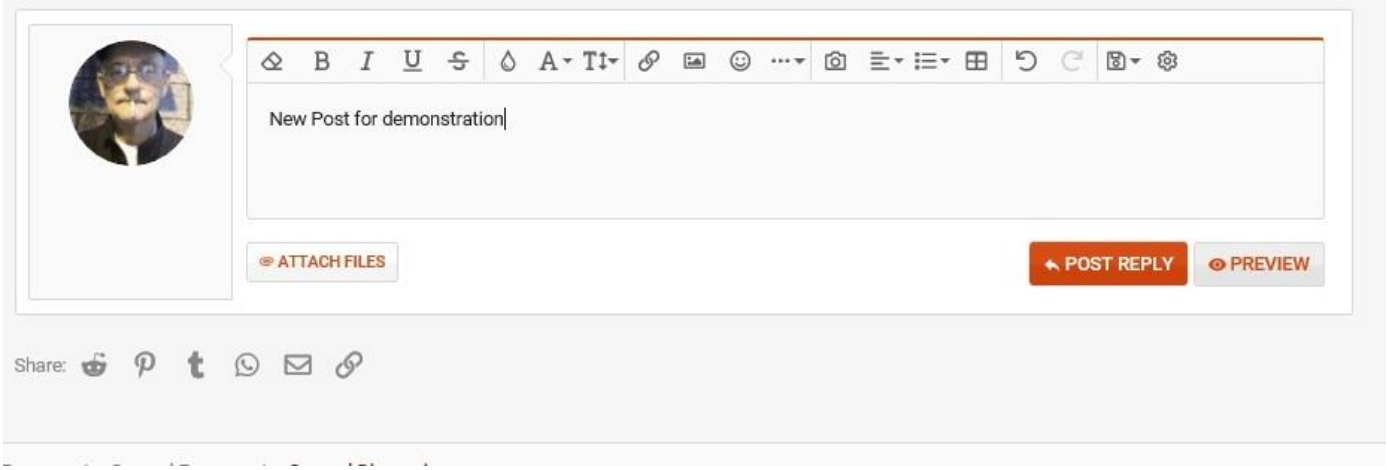
13). Scroll to the bottom to verify the new file was created:



NOTE: Most common USB charging cables will not work. The USB cable must be data capable, such as the USB cable originally shipped with the Typhoon H Plus.

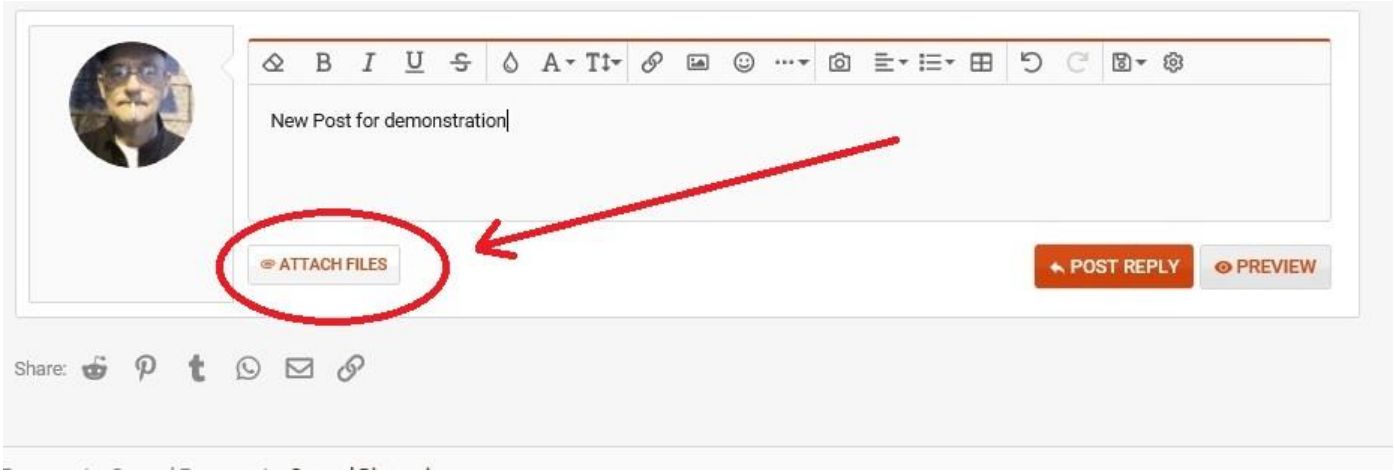
14). Connect ST16S to a computer via data capable USB cable.

15). Return to the Forum and create a new Post:



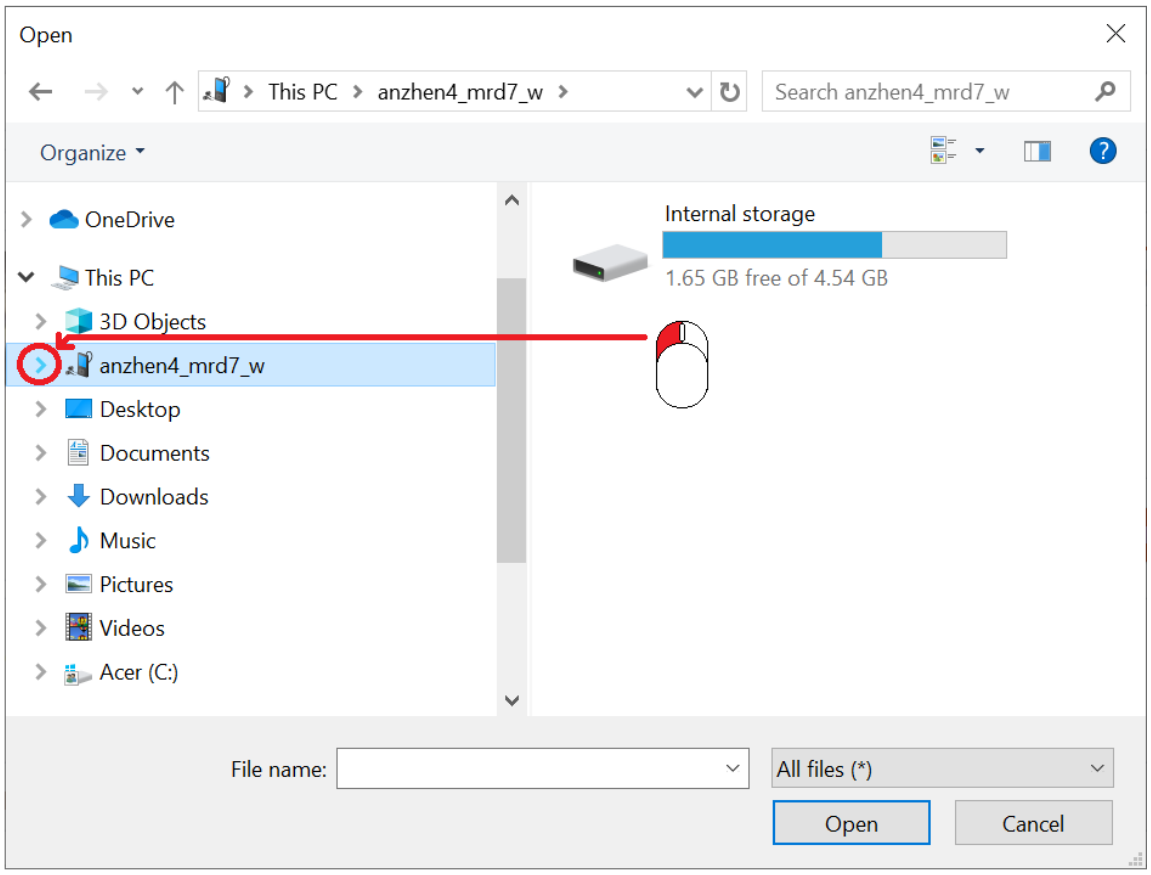
Attachment 56
Typhoon H Plus Flight Log Retrieval

16). Select “ATTACH FILES”:



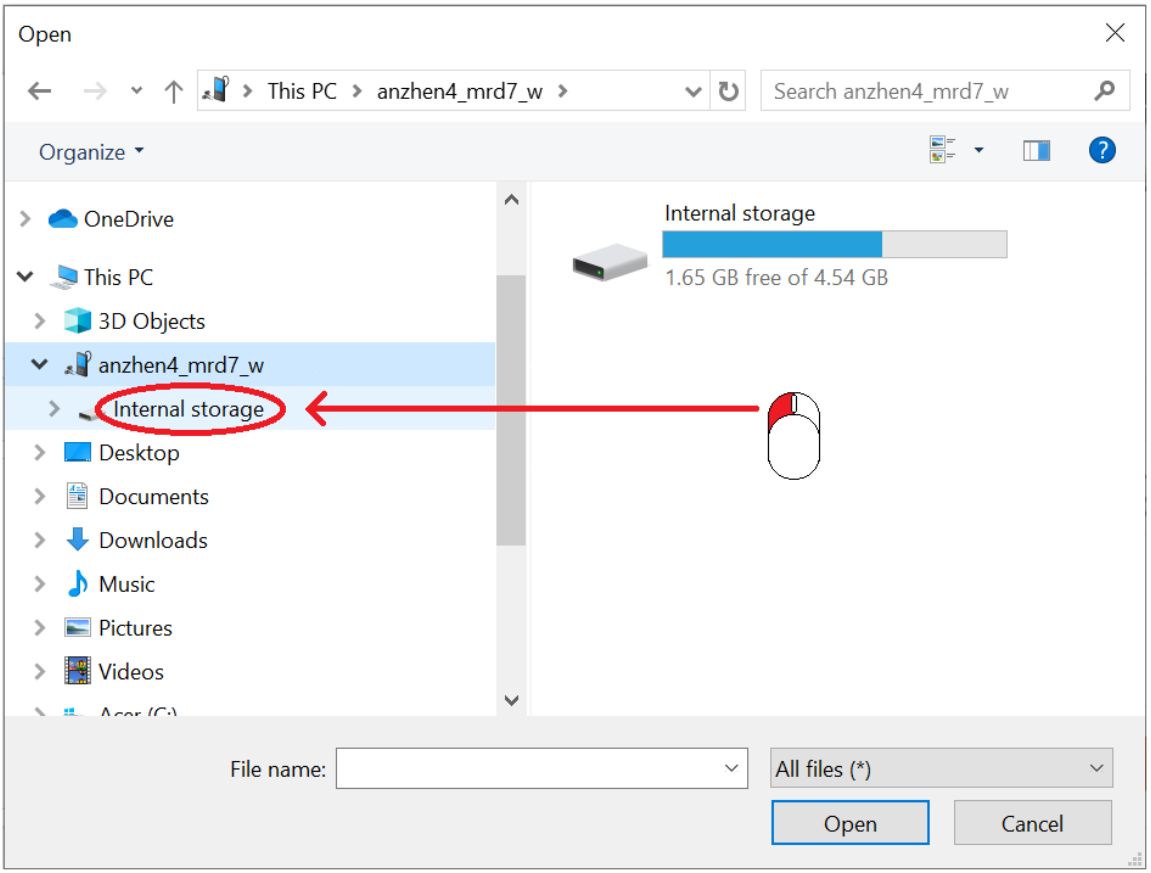
NOTE: The ST16S registers on the computer as “**anzhen4_mrd7_w**” unless it has been renamed.

17). Navigate the computer file system to the ST16S (anzhen4_mrd7_w) and open it:

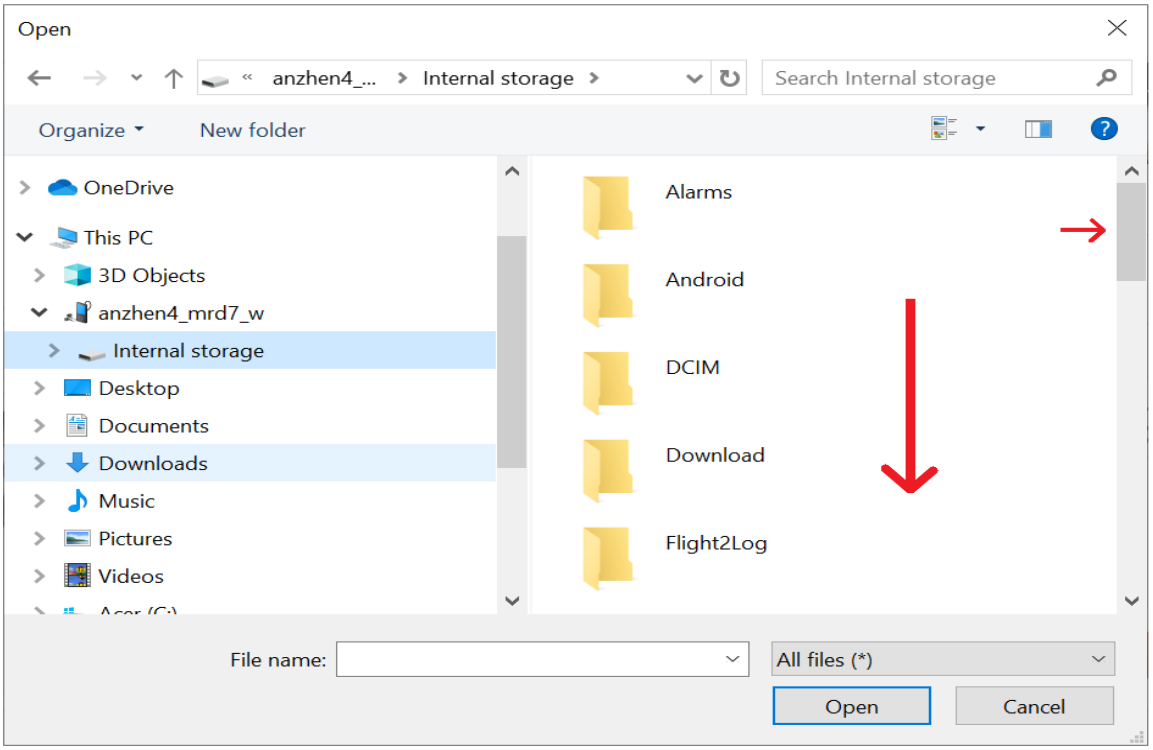


Attachment 56
Typhoon H Plus Flight Log Retrieval

18). Select “Internal Storage”:

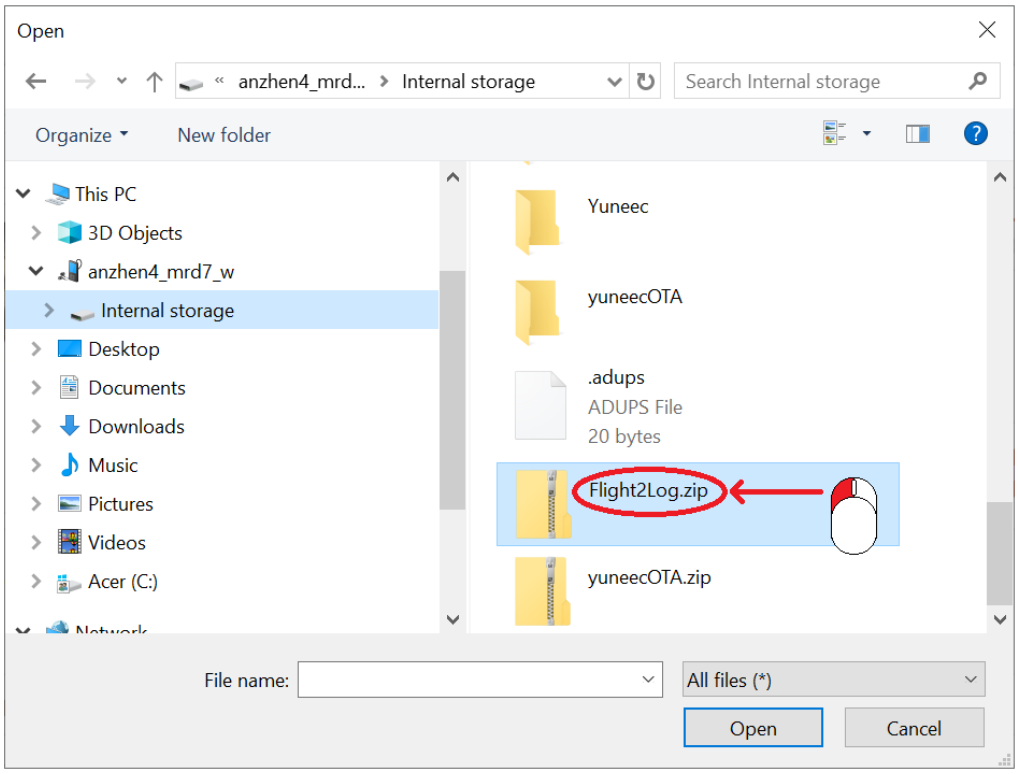


19). Scroll to the bottom of “Internal Storage” as required:

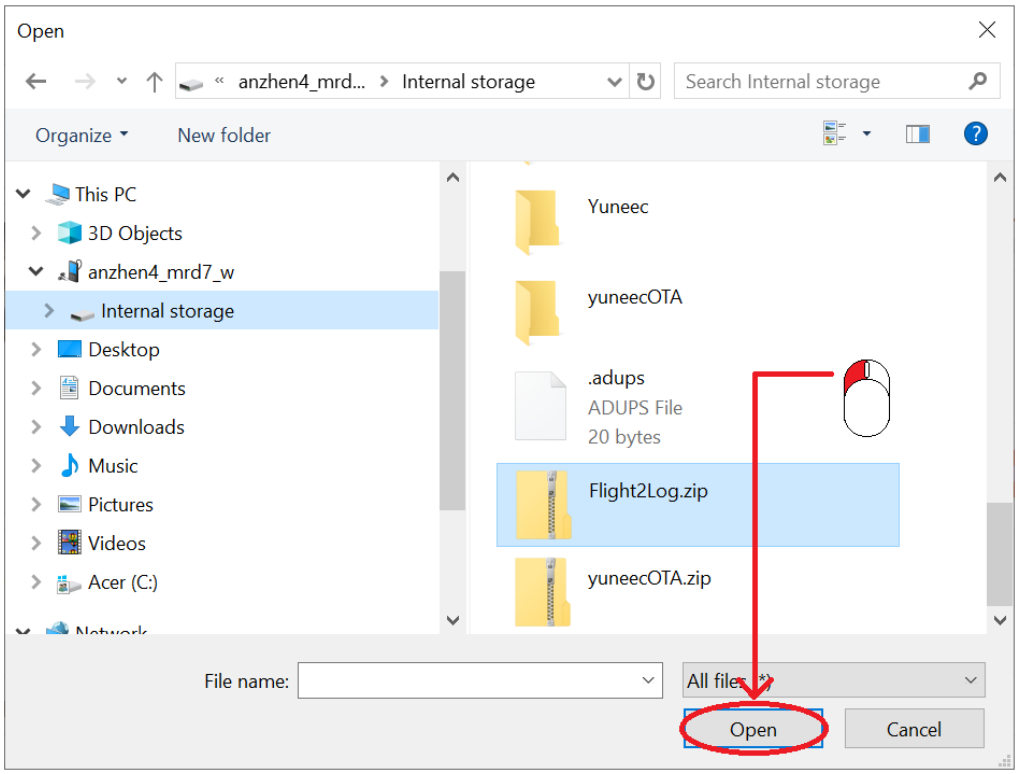


Attachment 56
Typhoon H Plus Flight Log Retrieval

20). Select “Flight2Log.zip” (or as you renamed it) to highlight the filename:

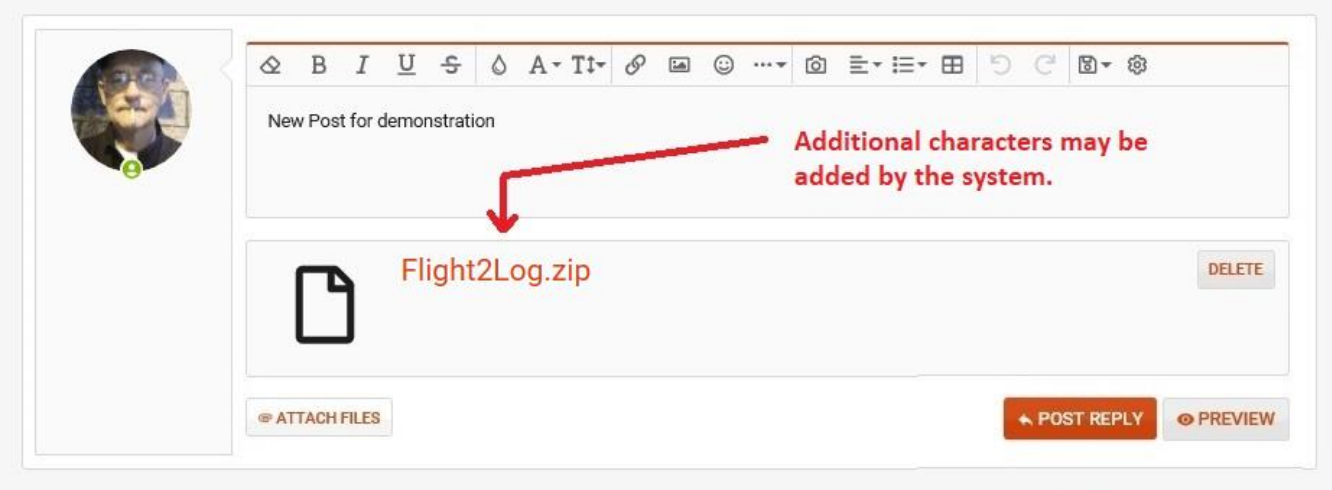


21). Select “Open”:

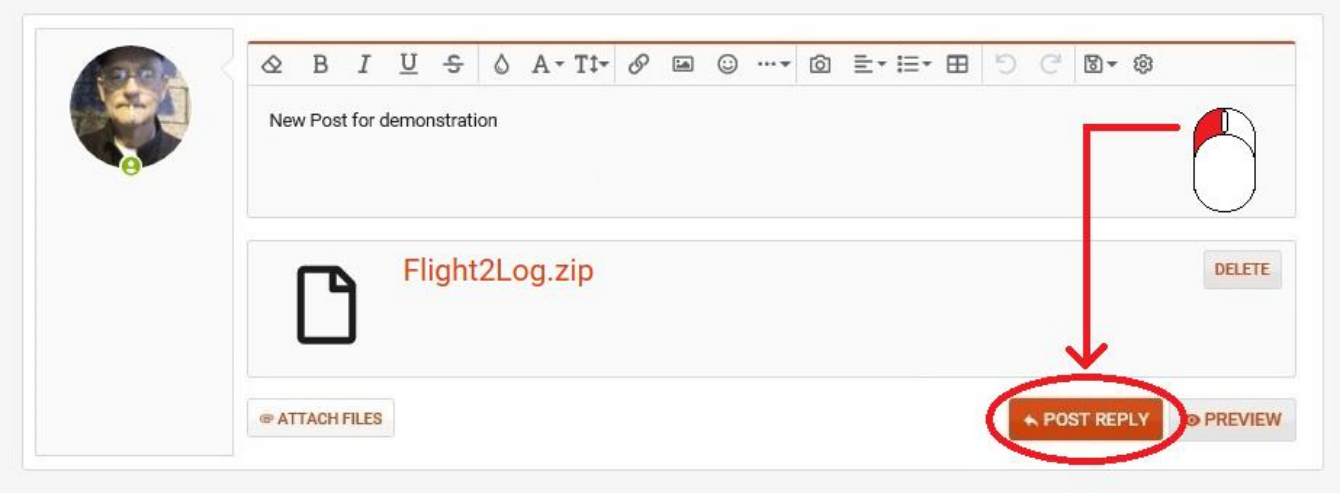


Attachment 56
Typhoon H Plus Flight Log Retrieval

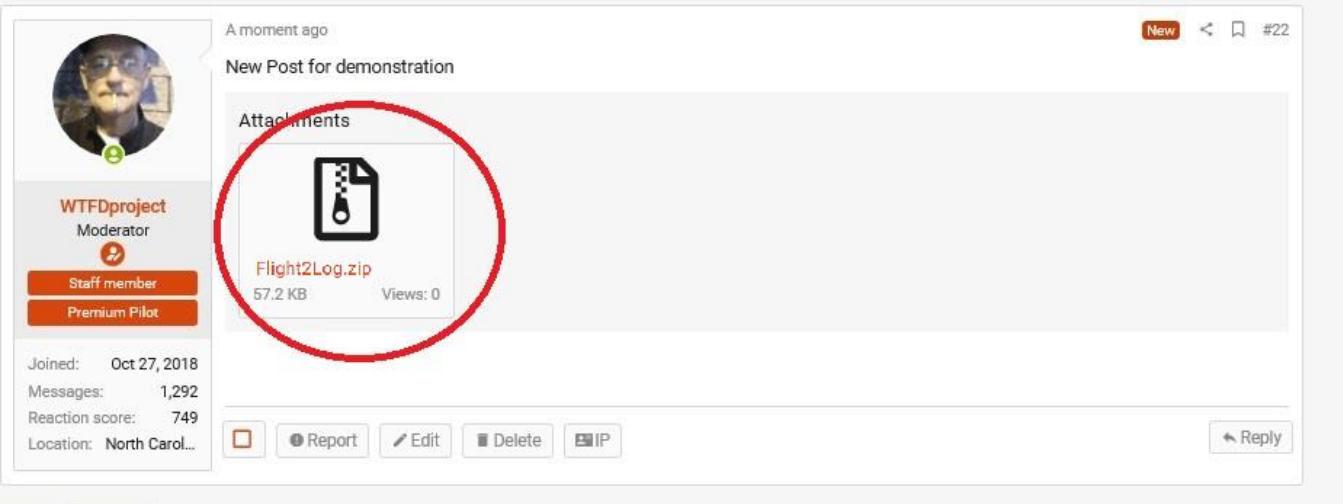
22). Verify file registers on Forum upload screen:



23). Select “POST REPLY”:



24). Verify file uploaded:



Attachment 57
Pitch, Roll and Yaw Discussion

Introduction: **Gimbal Stabilization is related to anomalies of drone orientation related to only horizon and compass heading. Gimbal stabilization does not respond to vertical changes in elevation.**

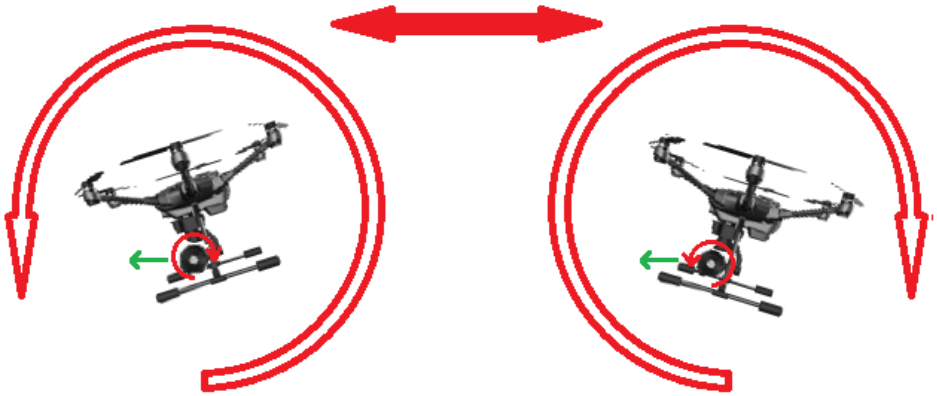
Vertical Elevation Changes:

When the drone elevation changes with no change in compass heading and with no horizontal travel in any direction, there is no change in orientation related to either the horizon or to compass heading. Gimbal Stabilization plays NO ROLE in this maneuver.

Attachment 57
Pitch, Roll and Yaw Discussion

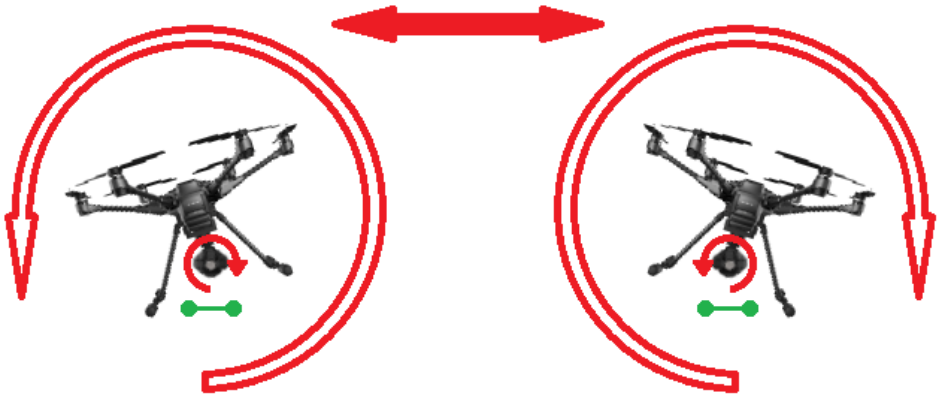
Forward/Reverse Travel (Pitch):

When the drone is traveling forward or reverse, the DRONE is tilted either up or down in relation to the horizon. In response to this tilt, the gimbal stabilization system adjusts the camera PITCH in the opposite direction to maintain the original camera angle in relation to the horizon. The goal is to maintain the original camera angle during and after the maneuver. Automatic Camera Pitch is from gimbal stabilization. Camera pitch is also manually controllable from the ground station.



Left/Right Travel (Roll):

When the drone is traveling left or right, the DRONE is tilted either left or right in relation to the horizon. In response to this tilt, the gimbal stabilization system ROLLS the camera in the opposite direction to maintain a level view in relation to the horizon. The goal is to maintain the original camera angle during and after the maneuver. Camera Roll is from automatic gimbal stabilization only. Unlike Camera Pitch, there is no manual control of Camera Roll.

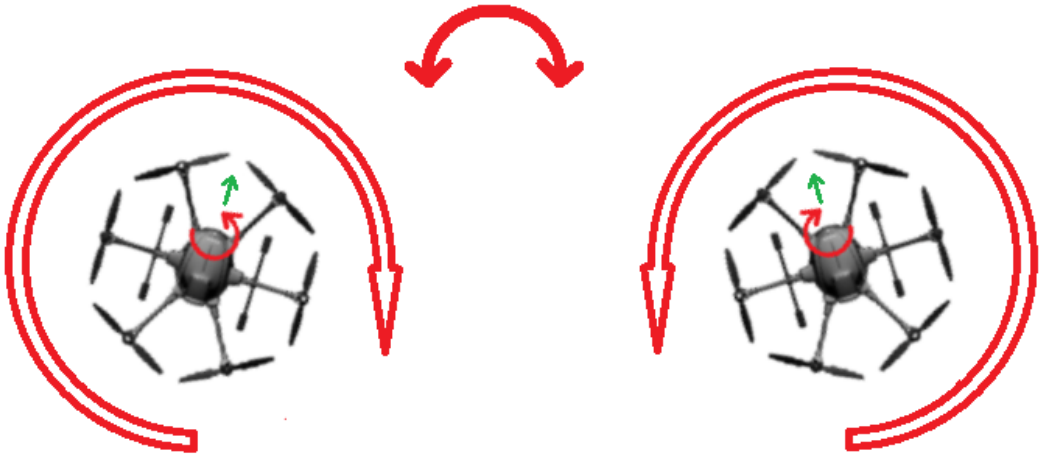


Attachment 57
Pitch, Roll and Yaw Discussion

Left/Right Yaw:

When the drone is yawed left or right, with no horizontal travel in any direction, the DRONE alignment is altered in relation to **COMPASS HEADING**. In response to this, the gimbal stabilization system adjusts the camera **YAW** to minimize the visible effect of the movement. Unlike Pitch and Roll, the system DOES NOT MAINTAIN THE ORIGINAL COMPASS HEADING. Instead, the change in heading is initially DAMPENED by the YAW stabilization, and then smoothly re-aligned to the NEW drone compass heading. The goal is to minimize the effects of sharp heading changes on the final video product.

Normal automatic camera YAW is from gimbal stabilization. For cameras designed for the ST10 series controllers, there is NO manual Yaw control. For cameras designed for ST12, ST16, ST16S and ST24, YAW can also be controlled manually from the ground station. Some of these are also capable of advanced camera functions, such as “panorama” that are manually initiated, but carried out by computer automated changes to both pitch and yaw.



Addendum 1
Links for Software Experts

Use of this information is at your own risk.

For Software Experts:

NOTE: This link does not support Internet Explorer.

- **The latest Flight Mode firmware for ST10/ST12:**
  https://github.com/azvampyre/st10-v01b31c

NOTE: This link does not support Internet Explorer.

- **The source for the Android CGO3 app:**
  https://github.com/unfaix/yuneecFly

NOTE: This link does not support Internet Explorer.

- **PX4 flight control :**
  https://github.com/kyChuGit/YuneecDroneCode

NOTE: This link does not support Internet Explorer.

- **Thunderbird Firmware (A fork of PX4 Autopilot Software for Yuneec Typhoon H):**
  https://github.com/tonirosendahl/Thunderbird

  Note: A discussion of the Thunderbird firmware is in this thread:
  https://yuneecpilots.com/threads/typhoon-h-480-px4-v1-10-stability-issues.18205/#post-204392

Addendum 2
Video Links

- **Yuneec Typhoon Repair Tutorials:**
  https://www.youtube.com/playlist?list=PLFbieNfMBg1bGjmp5lxlkmXsAL9Y_RJ8G

Addendum 3
Contributing Members

WTFDproject

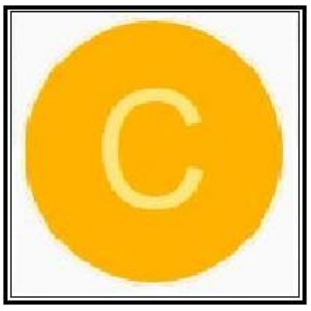
Steve Carr

h-elsner

Sureshot

Haydn

georgero



Cmendemen