

## Using Validate During Preflight

### 1 Introduction

This document provides background information on how to validate the current Piccolo parameters against an existing file of known correct parameters; i.e. the master file of settings for that particular vehicle type, model and or configuration. This step should be done during each preflight and allows the operator to confirm that all pertinent parameters are correct before flying. This ensures that all users of a similar platform are operating with the same qualified set of parameters and settings.

### 2 Master File Creation

From the Piccolo Command Center (PCC) main window, go to **Window » Preflight Windows » Preflight**. Click the **Save All** button in the **Preflight** window of the Piccolo Command Center when communicating with an autopilot that is configured with known good settings. (See the *Aircraft* section in the *Piccolo Users Guide* for more information.) This button saves all the required settings for a proper validation.



**Figure 1 - Preflight**

### 3 Validation

To validate your settings during Preflight click the **validate** button. You will be prompted to select a file to validate from. Select your master parameter file that was created during your qualification process. Clicking the validate button prompts the PCC to downlink parameters from the aircraft and compare them against a file of parameters. The file name is based upon the description field (a string field stored on the avionics and requested by the user interface). If the file does not exist, the PCC prompts the user to supply it. If the parameters are correct, the PCC displays a successful validation. If any parameter does not match, the problematic parameter is displayed to the user.

This feature is intended to allow operators to ensure that the avionics is configured correctly for the aircraft that they are operating. If you wish to control which parameters are compared then you may edit the parameter file to remove the sections that you do not want compared, for example the control surface calibrations, or the mission limits.

***Note:** The process is simple and should be used during every preflight, especially if a new autopilot was installed or a new air vehicle is being flown for the first time, i.e. anytime the settings in the AP are unknown or unverified. If you cannot reach a successful validation you should contact the appropriate technical support person in your company before you attempt to fly. Flying with invalid settings without understanding the impacts of the differences can lead to the loss of control and or loss of the vehicle once the AP is turned on.*

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*The Piccolo Autopilot avionics system and all of its versions (such as Piccolo, Piccolo Plus, Piccolo II, Piccolo LT, and Piccolo SL) were designed for use **only** on un-manned aircraft. **USE OF THESE PICCOLO AUTOPILOT PRODUCTS IN AIRCRAFT WITH HUMAN OCCUPANTS IS PROHIBITED BY THE FEDERAL AVIATION ADMINISTRATION.** Cloud Cap Technology, Inc. is not permitted to sell the Piccolo Autopilot to any customer that intends to use the product on aircraft with human occupants.*