## **1. General Description**

This Document contains the log data of a read out logfile. It shows what happened with the specified vbar unit during the latest time

| Version of PC Software | 5.3.4 29.10.2012             |
|------------------------|------------------------------|
| Date                   | Wed Nov 08 17:16:38 PST 2023 |
| Serial                 | 1520002185                   |
| Prod Date              | 2.10.2012 9:2                |
| Firmware               | 5.3                          |
| Patchlevel             | 4                            |

## 2. Chronological List of Events

| × | 0:00 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
|---|------|--|---|
| × | 0:00 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:00 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen separately on each channel. Closely check your wiring for broken wires or connection problems     |
| Þ | 0:01 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
| × | 0:01 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:01 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:01 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:01 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| Þ | 0:02 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
| × | 0:02 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:02 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:02 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:02 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ⊳ | 0:03 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
| × | 0:03 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:03 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:03 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:03 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |

| Þ | 0:04 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
|---|------|--|---|
| × | 0:04 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:04 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:04 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:04 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| Þ | 0:05 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
| × | 0:05 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:05 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:05 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:05 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ⊳ | 0:06 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other<br>connector. In Case of a single reciver connected, one frame was lost.  |
| × | 0:06 | RC Input of Pitch<br>Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| × | 0:06 | RC Input of Aileron<br>Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| × | 0:06 | RC Input of Elevator<br>Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| × | 0:06 | RC Input of Tail<br>Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/sattelite. In case of sattelite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| Þ | 0:06 | Satellite Data out of synchronization  | The connection to the Satellites has to be resynchronized after some packet losses  |
| ⊳ | 0:10 | Antenna Switched                       | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ⊳ | 0:17 | Testmode Started                       | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.  |
| 1 | 0:27 | Good Health Message (10sec)            | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.  |
| ⊳ | 0:33 | Testmode Started                       | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.  |
| Þ | 0:35 | Testmode Started                       | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.  |

| ⊳                | 0:38 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
|------------------|------|--------------------------------|--|
| ⊳                | 0:39 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| 4                | 0:49 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |
| Δ                | 0:56 | The Cyclic Ring is active      | If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fullfill the pilots needs. So this limiter is in action dependant on the flwon actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time. |
| Δ                | 0:57 | The Cyclic Ring is active      | If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fullfill the pilots needs. So this limiter is in action dependant on the flwon actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time. |
| Δ                | 0:58 | The Cyclic Ring is active      | If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fullfill the pilots needs. So this limiter is in action dependant on the flwon actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time. |
| Δ                | 0:59 | The Cyclic Ring is active      | If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fullfill the pilots needs. So this limiter is in action dependant on the flwon actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time. |
| ⊳                | 1:02 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| Þ                | 1:05 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| Þ                | 1:07 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| Þ                | 1:08 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| 1                | 1:18 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |
| 1                | 1:28 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |
| 1                | 1:38 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |
| 1                | 1:48 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |
| 4                | 1:58 | Good Health Message (10sec)    | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| Þ                | 2:01 | Testmode Started               | The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentially. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.   |
| $\triangleright$ | 2:03 | Testmode Ended                 | Testmode has been switched off intentinally. Normal control loop is in action now  |
| 4                | 0:00 | Coldstart                      | A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.  |
| 1                | 0:00 | Reset Reason: Power<br>On      | This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds   |
| Þ                | 0:00 | Bank 0 Loaded                  | Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.  |
| ⊳                | 0:05 | Calibration Finished           | At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration<br>is finished, this message confirms the storage of data into the internal non volatile calibration memory   |
| 4                | 0:15 | Good Health Message<br>(10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 4                | 0:25 | Good Health Message<br>(10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error<br>or Info Message in the last 10 Seconds.   |

| - | 0:00 | Coldstart                   | A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.  |
|---|------|-----------------------------|--|
| 4 | 0:00 | Reset Reason: Power<br>On   | This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds |
| Þ | 0:00 | Bank 0 Loaded               | Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.  |
| 1 | 0:10 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 0:20 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 0:30 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 0:40 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 0:50 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 1:00 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 1:10 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 1 | 1:20 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |
| 4 | 1:30 | Good Health Message (10sec) | This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.  |