



FLEXIPILOT

Command set

The commands specified in this document are entered using HyperTerminal at 912kbps, 8N1 or UAVStation console, when the autopilot is connected to the PC using USB port. If the USB connector has been replaced by wireless modem and baudrate adapter, the same commands can be issued remotely.

Red commands: unsafe use in flight (might block autopilot for several seconds)
Orange commands: moderately safe in close range flight (might block autopilot one second)

During reset operation, the RC receiver always takes total control of the plane. Since using RC override is possible at any time, complete autopilot tuning is possible in flight using long range modem.

#ARxxx is an ID for a special formatted command that is human-readable but also is used by automated UAVStation in order to display the data in graphical form. Some of those special outputs are used by logger download software supplied with FLEXIPILOT.

Fn is a key shortcut in UAVStation

Realtime debug print (lowercase disables, Uppercase Enables):

a, A	Raw ADC	
e, E	Formatted position	(#ARPOS)
f, F	Feedback loops	
g, G	GPS NMEA received	
h, H	Barometric and temperature module	
i, I	Formatted IMU data	(#ARIMU)
j, J	Formatted COMMAND+NAVIGATION data	(#ARCOM)
k, K	Formatted feedback data	(#ARPID)
n, N	Parsed navigation data	
p, P	Logged data	
q, Q	Trigger status	
r, R	RTC clocks report, USART status report	
s, S	Servo capture	
w, W	Waypoint status report	(#ARWPT)
y, Y	Servo output	

TRACE

@@@TRACECLEAR or / , **F8** Trace clear and disable
@@@TRACESTART or T Trace enable
@@@TRACESTOP or t Trace disable
@@@TRACEDUMP Dump formatted trace content (#ART)

LOG

@@@LOGAUTOON Set autostart mode 2 (upon takeoff)
@@@LOGAUTOOFF Set autostart mode 0 (off)
@@@LOGCLEAR or C, **F8** Log clear and disable
@@@LOGSTART or O Start logging
@@@LOGSTOP or o Stop logging
@@@LOGDIR or d, **F3** Log directory listing
@@@LOGDUMP Dump incremental compressed log content (#ARi)

WAYPOINT

@@@WPTSTATUS Waypoint sequencer info
@@@WPTSHOWALL Show all stored waypoints
@@@WPTSHOWLIST Show only selected waypoints
@@@WPTSHOWn Show waypoint n
@@@WPTITERALL Evaluate all waypoints generating the event display (for use with mission simulator), resets waypoint engine (#AREVE)
@@@WPTGOn Select waypoint n, after reaching continue waypoint list
@@@WPTNEXT Advance waypoint engine
@@@WPTHOME Return home
Relative to takeoff, by delta heading, delta distance:
@@@WPTWRITEn:relhdg_deg, reldist_km,agl_m,spd_kmh,11,trigger_flags

TRIGGER

@@@TRIGENABLEn enable trigger n (1 or 2) (#AREVE)
@@@TRIGDISABLEn disable trigger n (1 or 2) (#AREVE)

SYSTEM

@@@RESET, **F12** Reboot
@@@SHIPMENT Deep erase all logs, trace and waypoints list

OSD

@@@OSDGOODGPS Force 'good lock' output for OSD data independent on input GPS status

RC OVERRIDE CONTROL

@@@RXOVRON It is always possible to take RC control
@@@RXOVRAUTO It is possible to take RC control within prescribed ranges
@@@RXOVROFF, **F2** Disable RC control

TUNING AND TESTING

@@@THRENABLE	Re-enable throttle output in autopilot mode
@@@THRDISABLE	Disable throttle output in autopilot mode
@@@FBINIT	Reload all feedback settings
@@@TRIGDISTADVn	advance distance flown in order to fire trigger n (1 or 2)
@@@GYROZAVGSTART	Start yaw gyro value averaging – display value
@@@GYROZAVGSTOP	Stop yaw gyro value averaging
@@@SIMENABLE, F4	THRDISABLE, enable display of ARPOS, ARCOM, ARWPT, start simulation mode
@@@SIMFAIL_HALT	Simulate main uC hang (passing to manual)
@@@SIMFAIL_GPSDISCONN	Simulate GPS connection fail (return home using IMU)

UAVSTATION

F1	@@@ (without CRLF)
F2	@@@RXOVROFF
F3	@@@LOGDIR
F4	@@@SIMENABLE
F8	@@@LOGCLEAR and @@@TRACECLEAR
F12	@@@RESET