AIRCRAFT AUTOPILOT/FLIGHT ASSISTANCE EVENTS

The event IDs listed here are all related to the aircraft autopilot and flight assistance systems.

Autopilot

IMPORTANT! The events listed here are **not** applicable and will not work correctly (if at all) when used with a helicopter.

Event Name	Parameters	Description
AP_AIRSPEED_HOLD	N/A	Toggles airspeed hold mode
AP_AIRSPEED_OFF	N/A	Turns airspeed hold off
AP_AIRSPEED_ON	N/A	Turns airspeed hold on
AP_AIRSPEED_SET	[0]: TRUE/FALSE to enable/disable	Sets airspeed hold on/off (1,0)
AP_ALT_VAR_DEC	[0]: New reference altitude [1]: Index	Decrements the reference altitude.
AP_ALT_VAR_INC	[0]: New reference altitude [1]: Index	Increments the reference altitude.
AP_ALT_HOLD	N/A	Toggles altitude hold mode
AP_ALT_HOLD_OFF	N/A	Turns off altitude hold mode

AP_ALT_HOLD_ON	N/A	Turns altitude hold mode on
AP_ALT_RADIO_MODE_OFF	N/A	Deactivate autopilot radio altitude mode.
AP_ALT_RADIO_MODE_ON	N/A	Activate autopilot radio altitude mode.
AP_ALT_RADIO_MODE_SET	[0]: bool	Set autopilot radio altitude mode.
AP_ALT_RADIO_MODE_TOGGLE	N/A	Toggle autopilot radio altitude mode.
AP_ALT_VAR_SET_ENGLISH	[0]: New reference altitude [1]: Index	Sets altitude reference in feet
AP_ALT_VAR_SET_METRIC	[0]: New reference altitude [1]: Index	Sets reference altitude in meters
AP_APR_HOLD	N/A	Toggles approach hold (localizer and glide-slope)
AP_APR_HOLD_OFF	N/A	Turns off approach hold mode
AP_APR_HOLD_ON	N/A	Turns both AP localizer and glide-slope modes on/armed
AP_ATT_HOLD	N/A	Toggle attitude hold mode
AP_ATT_HOLD_OFF	N/A	Turns off attitude hold mode
AP_ATT_HOLD_ON	N/A	Turns on AP wing leveler and pitch hold mode
AP_AVIONICS_MANAGED_OFF	N/A	Turn off the Managed Avionics mode. This is linked to the SimVar AUTOPILOT AVIONICS MANAGED
AP_AVIONICS_MANAGED_ON	N/A	Turn on the Managed Avionics mode. This is linked

		to the SimVar AUTOPILOT AVIONICS MANAGED.
AP_AVIONICS_MANAGED_SET	[0]: TRUE/FALSE to enable/disable	Set the autopilot managed avionics mode (TRUE for on, FALSE for off).
AP_AVIONICS_MANAGED_TOGGLE	N/A	Toggle on/off the avionics managed mode on the autopilot.
AP_BANK_HOLD	N/A	Toggles the autopilot bank hold mode on / off.
AP_BANK_HOLD_OFF	N/A	Turns off the autopilot bank hold mode.
AP_BANK_HOLD_ON	N/A	Turns on the autopilot bank hold mode.
AP_BC_HOLD	N/A	Toggles the backcourse mode for the localizer hold
AP_BC_HOLD_OFF	N/A	Turns off backcourse mode for localizer hold
AP_BC_HOLD_ON	N/A	Turns localizer back course hold mode on/armed
AP_HDG_HOLD	N/A	Toggles heading hold mode
AP_HDG_HOLD_OFF	N/A	Turns off heading hold mode
AP_HDG_HOLD_ON	N/A	Turns heading hold mode on
AP_LOC_HOLD	N/A	Toggles localizer (only) hold mode
AP_LOC_HOLD_OFF	N/A	Turns off localizer hold mode
AP_LOC_HOLD_ON	N/A	Turns AP localizer hold on/armed and glide-slope hold mode off
AP_MACH_VAR_DEC	[0]: the Index of the engine to	Decrements the reference mach by the amount set in

	target (1 - 4)	the <u>systems.cfg</u> using the mach_increment parameter. NOTE: along with the AP_MACH_VAR_DEC, AP_MACH_VAR_SET, and AP_MACH_VAR_SET_EX1 keys, this value is clamped to to the values given in the systems.cfg by the parameters min_Mach_ref and max_Mach_ref (or their default values if not set).
AP_MACH_VAR_INC	[0]: Index of the engine to target (1 - 4)	Increments the reference mach by the amount set in the systems.cfg using the mach_increment parameter. NOTE: along with the AP_MACH_VAR_INC, AP_MACH_VAR_SET, and AP_MACH_VAR_SET_EX1 keys, this value is clamped to to the values given in the systems.cfg by the parameters min_Mach_ref and max_Mach_ref (or their default values if not set).
AP_MACH_HOLD	N/A	Toggles mach hold
AP_MACH_OFF	N/A	Turns mach hold off
AP_MACH_ON	N/A	Turns mach hold on

AP_MACH_SET	[0]: TRUE/FALSE to enable/disable	Sets mach hold on/off (1,0)
AP_MACH_VAR_SET	[0]: Integer mach value / 100 (eg: 100 as value results as mach 1) [1]: Index of the engine to target (1 - 4)	NOTE: along with the AP_MACH_VAR_DEC, AP_MACH_VAR_INC, and AP_MACH_VAR_SET_EX1 keys, this value is clamped to to the values given in the systems.cfg by the parameters min_Mach_ref and max_Mach_ref (or their default values if not set).
AP_MACH_VAR_SET_EX1	[0]: Integer mach value \ 1000000 (eg: 1000 as value results as mach 0.001) [1]: Index of the engine to target (1 - 4)	Sets the mach reference using a precise value. NOTE: along with the AP_MACH_VAR_DEC, AP_MACH_VAR_INC, and AP_MACH_VAR_SET keys, this value is clamped to to the values given in the systems.cfg by the parameters min_Mach_ref and max_Mach_ref (or their default values if not set).
AP_MANAGED_SPEED_IN_MACH_OFF	N/A	Turns off the use of the mach value to compute airspeed used by AP.

AP_MANAGED_SPEED_IN_MACH_ON	N/A	Turns on the use of the mach value to compute airspeed used by AP.
AP_MANAGED_SPEED_IN_MACH_SET	[0]: use TRUE/FALSE to enabled/disable	Sets the use of the mach value to compute airspeed used by AP.
AP_MANAGED_SPEED_IN_MACH_TOGGLE	N/A	Toggle the use of the mach value to compute airspeed used by AP.
AP_MASTER	N/A	Toggles AP on/off
AP_MASTER_ALT Deprecated		No longer used in the simulation. Use AP_MASTER instead.
AP_MAX_BANK_ANGLE_SET	[0]: angle	Set the bank angle for the aircraft and override the predefined max bank angle of the aircraft.
AP_MAX_BANK_INC	N/A	Increment the AP max bank angle index. Note that if there is only one index possible then using this event will do nothing. However if there are 2 or more available indices, this event will increase the index by 1, and when the number passes the maximum available indices - 1, it will loop back around again to index 0. For example, if you have 3 indices, the maximum index is 2, and incrementing past that will go to index 0. NOTE: for further information on indices, please see the AP_MAX_BANK_SET event.

Decrement the AP max bank angle index.

Note that if there is only one index possible then using this event will do nothing. However if there are 2 or more available indices, this event will decrease the index by 1, and when the number passes 0, it will loop back around again to the max index - 1 position. For example, if there are 4 indices, and you decrement from 0, the new index will be 3.

NOTE: for further information on indices, please see the AP_MAX_BANK_SET event.

AP_MAX_BANK_SET

AP_MAX_BANK_DEC

[0]: the index to use for max bank angle.

N/A

Sets the autopilot max bank angle index to the parameter [0] value, where the value is clamped between 0 and the number of available indices. The indices correspond to the number of values set for the | max_bank | table, plus index 0 which corresponds to the auto banking system. When auto_max_bank enabled, setting the index to 0 will turn on the AP auto banking.

To give an example, if the max_bank table has 2 values and auto_max_bank is enabled, then the indices for this event would be:

• 0: use auto banking

		 1: use the first value in the max_bank table 2: use the second value in the max_bank table. If auto banking is not enabled, then setting this to 0 will have no effect.
AP_MAX_BANK_VELOCITY_SET	[0]: Velocity	Set the bank velocity of the aircraft and overrides the predifined maximum bank velocity of the aircraft.
AP_N1_HOLD	N/A	Autopilot, hold the N1 percentage at its current level.
AP_N1_REF_DEC	N/A	Decrement the autopilot N1 reference.
AP_N1_REF_INC	N/A	Increment the autopilot N1 reference.
AP_N1_REF_SET	[0]: Integer N1 reference value [1]: Index of the engine to target (1 - 4)	Sets the autopilot N1 reference.
AP_NAV_SELECT_SET	[0]: the NAVindex to use	Sets the NAV (1 or 2) which is used by the Nav hold modes
AP_NAV1_HOLD	N/A	Toggles the nav hold mode
AP_NAV1_HOLD_OFF	N/A	Turns off nav hold mode
AP_NAV1_HOLD_ON	N/A	Turns lateral hold mode on
AP_PANEL_ALTITUDE_HOLD	N/A	Toggles altitude hold mode on/off

AP_PANEL_ALTITUDE_OFF	N/A	Turns altitude hold mode off
AP_PANEL_ALTITUDE_ON	N/A	Turns altitude hold mode on (without capturing current altitude)
AP_PANEL_ALTITUDE_SET	[0]: TRUE/FALSE to enable/disable	Sets altitude hold mode on/off (1,0)
AP_PANEL_HEADING_HOLD	N/A	Toggles heading hold mode on/off
AP_PANEL_HEADING_OFF	N/A	Turns heading mode off
AP_PANEL_HEADING_ON	N/A	Turns heading mode on (without capturing current heading)
AP_PANEL_HEADING_SET	[0]: TRUE/FALSE to enable/disable	Set heading mode on/off (1,0)
AP_PANEL_MACH_HOLD	N/A	Toggles mach hold
AP_PANEL_MACH_OFF	N/A	Turns off mach hold
AP_PANEL_MACH_ON	N/A	Turns on mach hold
AP_PANEL_MACH_SET	[0]: TRUE/FALSE to enable/disable	Sets mach hold on/off (1,0)
AP_PANEL_SPEED_HOLD	N/A	Toggles airspeed hold mode
AP_PANEL_SPEED_OFF	N/A	Turns off speed hold mode
AP_PANEL_SPEED_ON	N/A	Turns on speed hold mode
AP_PANEL_SPEED_SET	[0]: TRUE/FALSE to enable/disable	Set speed hold mode on/off (1,0)
AP_PANEL_VS_OFF	N/A	Turn off the AP mode that maintains a vertical speed.

AP_PANEL_VS_ON	N/A	Turn on the AP mode that maintains a vertical speed.
AP_PANEL_VS_SET	[0]: TRUE/FALSE to enable/disable	Enables or diables the AP mode that maintains a vertical speed.
AP_PANEL_VS_HOLD	N/A	Toggles the AP mode that maintains a vertical speed.
AP_PITCH_LEVELER	N/A	Toggles the AP mode that maintains the pitch and sets the pitch reference to 0°.
AP_PITCH_LEVELER_OFF	N/A	Turns off the AP mode that maintains the pitch and sets the pitch reference to 0°.
AP_PITCH_LEVELER_ON	N/A	Turns on the AP mode that maintains the pitch and sets the pitch reference to 0°.
AP_PITCH_REF_INC_DN	N/A	Decrements the pitch reference for pitch hold mode
AP_PITCH_REF_INC_UP	N/A	Increments the pitch reference for pitch hold mode
AP_PITCH_REF_SELECT		Selects pitch reference for use with +/-
AP_PITCH_REF_SET	[0]: pitch value between -16384 and 16384	Sets the pitch reference value that will be maintained by the AP pitch hold mode. The pitch value supplied as parameter [0] will be divided by 16384 before being multiplied by the max_pitch value.
AP_RPM_SLOT_INDEX_SET	[0]: slot index from 1 to 4	Sets the managed index for the RPM hold mode.

AP_SPD_VAR_DEC	N/A	Decrements airspeed hold reference
AP_SPD_VAR_INC	N/A	Increments airspeed hold reference
AP_SPD_VAR_SET	[0]: value in Knots. [1]: the managed index, from 1 to 4, or 0.	Sets airspeed reference in knots
AP_SPD_VAR_SET_EX1	[0]: value in Knots. [1]: the managed index, from 1 to 4, or 0.	Set the airspeed reference, in knots, for the maintain speed AP mode. The speed supplied as parameter [0] will be divided by 100 to give you more precision with the value, for example: giving 55050 will result in an airspeed hold of 550.50 knots. For parameter [1], giving a value of 0 instead of a single index from 1 to 4, then the speed value will be copied to <i>all</i> managed indices.
AP_SPEED_SLOT_INDEX_SET	[0]: slot index from 1 to 4	Sets the managed index for the speed hold mode.
AP_VS_HOLD	N/A	Toggles the AP mode that maintains a vertical speed.
AP_VS_OFF	N/A	Turn off the AP mode that maintains a vertical speed.
AP_VS_ON	N/A	Turn on the AP mode that maintains a vertical speed.
AP_VS_SET	[0]: TRUE/FALSE to enable/disable	Sets the AP mode that maintains a vertical speed.

AP_VS_SLOT_INDEX_SET	[0]: slot index from 1 to 4	Sets the managed index for the vertical speed hold mode.
AP_VS_VAR_DEC	N/A	Decrements vertical speed reference
AP_VS_VAR_INC	N/A	Increments vertical speed reference
AP_VS_VAR_SET_CURRENT		Sets the current managed index vertical speed reference to be the current vertical speed (the current index can be set using AP_VS_SLOT_INDEX_SET). If no vertical speed indicator is on the aircraft, the vertical speed reference will calculated based on the world Y-axis velocity. Note that the resulting value will be clamped between the CFG parameters min_vertical_speed_ref and max_vertical_speed_ref.
AP_VS_VAR_SET_ENGLISH	[0]: New VS reference [1]: Index	Sets reference vertical speed in feet per minute
AP_VS_VAR_SET_METRIC	[0]: New VS reference [1]: Index	Sets vertical speed reference in meters per minute
AP_WING_LEVELER	N/A	Toggles wing leveler mode
AP_WING_LEVELER_OFF	N/A	Turns off wing leveler mode
AP_WING_LEVELER_ON	N/A	Turns wing leveler mode on
AP_PANEL_SPEED_HOLD_TOGGLE	N/A	Turns airspeed hold mode on with current airspeed

AP_PANEL_MACH_HOLD_TOGGLE	N/A	Sets mach hold reference to current mach
AUTOPILOT_AIRSPEED_ACQUIRE Legacy	N/A	Triggers both the AP_SPD_VAR_SET (with value 0) event and the AP_AIRSPEED_ON event. NOTE: This is a legacy event and you should be calling the above mentioned events directly.
AUTOPILOT_DISENGAGE_SET	[0]: boolean value to enable/disable the disengage value	Set if the AP should be disengaged or not.
AUTOPILOT_DISENGAGE_TOGGLE	N/A	Toggle the status of the AP disengage value.
AUTOPILOT_OFF	N/A	Turns AP off
AUTOPILOT_ON	N/A	Turns AP on
AUTOPILOT_PANEL_AIRSPEED_SET	N/A	Not currently used in the simulation.
AUTOPILOT_PANEL_CRUISE_SPEED Deprecated	N/A	No longer used in the simulation. Previously used by the Concorde flight model.
AUTOPILOT_PANEL_MAX_SPEED Deprecated	N/A	No longer used in the simulation. Previously used by the Concorde flight model.
ALTITUDE_SLOT_INDEX_SET		Sets the index for the SimVar AUTOPILOT ALTITUDE LOCK VAR which the altitude

2025, 22:28	Aircraft Autopilot/Flight A	hold mode will track when captured. See alt_mode_slot_index for more information.
FLIGHT_LEVEL_CHANGE	N/A	Toggles the autopilot <i>FLC</i> mode on or off. When on, the AP will adjust the engine power to try and fly the aircraft at a pitch attitude corresponding to the desired flight profile (climb or descent), while maintaining the airspeed reference.
FLIGHT_LEVEL_CHANGE_OFF	N/A	Turns off the autopilot <i>FLC</i> mode.
FLIGHT_LEVEL_CHANGE_ON	N/A	Turn on the autopilot <i>FLC</i> mode. This mode adjusts engine power to fly the aircraft at a pitch attitude corresponding to the desired flight profile (climb or descent), while maintaining the airspeed reference.
HEADING_SLOT_INDEX_SET		Set autopilot heading slot index.
RPM_SLOT_INDEX_SET		Set autopilot RPM slot index.
SPEED_SLOT_INDEX_SET		Set autopilot speed slot index.
VS_SLOT_INDEX_SET		Set autopilot vertical speed slot index.

Flight Assistance

Event Name	Parameters	Description
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AIRSPEED_BUG_SELECT	[0]: the reference value	Selects the airspeed reference for use with +/-
ALTITUDE_BUG_SELECT	[0]: the reference value	Selects the altitude reference for use with +/-
AUTO_THROTTLE_ARM	N/A	Toggles autothrottle arming mode
AUTO_THROTTLE_DISCONNECT	[0]: The engine to target. Use 0 to target all engines, or 1 to 4 to target a specific engine.	Disconnect the AutoThrottle of the AP for one engine or all engines.
AUTO_THROTTLE_TO_GA	N/A	Toggles Takeoff/Go Around mode
AUTOBRAKE_DISARM	N/A	Sets the autobrake switch to either: • the off position (position 1) when the auto_brakes parameter is greater than 0. • the RTO position (position 0) when the auto_brakes parameter is 0.
AUTOBRAKE_HI_SET	N/A	Sets the autobrake switch to the maximum position (ie: the auto_brakes number, so that the maximum braking force will be applied).
AUTOBRAKE_LO_SET	N/A	Sets the autobrake switch to the minimum position (position 2, the first position after the off position).

AUTOBRAKE_MED_SET	N/A	Sets the autobrake switch to a medium position (the exact position will depend on the number of autobreaks defined by the auto_brakes parameter).
DECREASE_AUTOBRAKE_CONTROL	N/A	Decrements the autobrake level by 1. When the level reaches 0, autobreaks will be off, and the event will no longer decrement further.
FLY_BY_WIRE_ELAC_TOGGLE	N/A	Turn on or off the fly by wire Elevators and Ailerons computer.
FLY_BY_WIRE_FAC_TOGGLE	N/A	Turn on or off the fly by wire Flight Augmentation computer.
FLY_BY_WIRE_SEC_TOGGLE	N/A	Turn on or off the fly by wire Spoilers and Elevators computer.
GPWS_SWITCH_TOGGLE	N/A	Turn the ground proximity warning system (GPWS) on or off.
HEADING_BUG_DEC	N/A	Decrements heading hold reference bug
HEADING_BUG_INC	N/A	Increments heading hold reference bug
HEADING_BUG_SELECT	[0]: heading bug index	Selects the heading bug for use with +/-
HEADING_BUG_SET	[0]: Value in degrees [1]: Index	Set the heading hold reference bug in degrees. The event takes integer values only, from 0° to 360°.
AP_HEADING_BUG_SET_EX1	[0]: Value between 0 and 16384	Set the heading hold reference bug. This is the

	[1]: Index	same as the HEADING_BUG_SET event only it permits a much greater degree of precision by permitting the input of a larger integer value that is then transformed by the simulation into a floating point heading. The way this works is that the integer value you supply is multiplied by (360/16384) to give the correct higher precision value, for example if you supply the value 477, you're heading would be calculated like this: input value: 477 process: 477 * (360/16384) actual value: 10.5049
INCREASE_AUTOBRAKE_CONTROL	N/A	Increases the autobrake level by 1. When the level reaches the auto_brakes value, the event will no longer increment further.
SET_AUTOBRAKE_CONTROL	[0]: autobreak level	Uses the input parameter [0] to set the autobreak level from 0 (off) to the value set for the auto_brakes parameter (maximum breaking). If a value greater than that specified for auto_brakes is given as input, it will be clamped to the auto_brakes value.

SYNC_FLIGHT_DIRECTOR_PITCH	N/A	Synchronizes flight director pitch with current aircraft pitch
TOGGLE_FLIGHT_DIRECTOR	N/A	Toggles flight director on/off
YAW_DAMPER_TOGGLE	N/A	Toggles yaw damper on/off
YAW_DAMPER_ON	N/A	Turns yaw damper on
YAW_DAMPER_OFF	N/A	Turns yaw damper off
YAW_DAMPER_SET	[0]: enable/disable yaw damper (TRUE, FALSE)	Sets yaw damper on/off (1,0)
VSI_BUG_SELECT	[0]: reference value	Selects the vertical speed reference for use with +/-

G1000 (Multi-Function Display)

Event Name	Parameters	Description
G1000_MFD_CLEAR_BUTTON	N/A	Clears the current input.
G1000_MFD_CURSOR_BUTTON	N/A	Toggles on or off a screen cursor.
G1000_MFD_DIRECTTO_BUTTON	N/A	Turn to the Direct To page.
G1000_MFD_ENTER_BUTTON	N/A	Enters the current input.
G1000_MFD_FLIGHTPLAN_BUTTON	N/A	The multi-function display (MFD) should display its current flight plan.
G1000_MFD_GROUP_KNOB_DEC	N/A	Step down through the page groups.

G1000_MFD_GROUP_KNOB_INC	N/A	Step up through the page groups.
G1000_MFD_MENU_BUTTON	N/A	If a segmented flight plan is highlighted, activates the associated menu.
G1000_MFD_PAGE_KNOB_DEC	N/A	Step down through the individual pages.
G1000_MFD_PAGE_KNOB_INC	N/A	Step up through the individual pages.
G1000_MFD_PROCEDURE_BUTTON	N/A	Turn to the Procedure page.
G1000_MFD_SOFTKEY1 G1000_MFD_SOFTKEY2 G1000_MFD_SOFTKEY3 G1000_MFD_SOFTKEY4 G1000_MFD_SOFTKEY5 G1000_MFD_SOFTKEY6 G1000_MFD_SOFTKEY7 G1000_MFD_SOFTKEY8 G1000_MFD_SOFTKEY9 G1000_MFD_SOFTKEY10 G1000_MFD_SOFTKEY11 G1000_MFD_SOFTKEY12	N/A	Initiate the action for the icon displayed in the softkey position.
G1000_MFD_ZOOMIN_BUTTON	N/A	Zoom in on the current map.
G1000_MFD_ZOOMOUT_BUTTON	N/A	Zoom out on the current map.
G1000_PFD_CLEAR_BUTTON	N/A	Clears the current input.
G1000_PFD_CURSOR_BUTTON	N/A	Turns on or off a screen cursor.
G1000_PFD_DIRECTTO_BUTTON	N/A	Turn to the Direct To page.
G1000_PFD_ENTER_BUTTON	N/A	Enters the current input.

G1000_PFD_FLIGHTPLAN_BUTTON	N/A	The primary flight display (PFD) should display its current flight plan.
G1000_PFD_GROUP_KNOB_INC	N/A	Step up through the page groups.
G1000_PFD_GROUP_KNOB_DEC	N/A	Step down through the page groups.
G1000_PFD_MENU_BUTTON	N/A	If a segmented flight plan is highlighted, activates the associated menu.
G1000_PFD_PAGE_KNOB_INC	N/A	Step up through the individual pages.
G1000_PFD_PAGE_KNOB_DEC	N/A	Step down through the individual pages.
G1000_PFD_PROCEDURE_BUTTON	N/A	Turn to the Procedure page.
G1000_PFD_SOFTKEY1 G1000_PFD_SOFTKEY2 G1000_PFD_SOFTKEY3 G1000_PFD_SOFTKEY4 G1000_PFD_SOFTKEY5 G1000_PFD_SOFTKEY6 G1000_PFD_SOFTKEY7 G1000_PFD_SOFTKEY8 G1000_PFD_SOFTKEY9 G1000_PFD_SOFTKEY10 G1000_PFD_SOFTKEY10	N/A	Initiate the action for the icon displayed in the softkey position.
G1000_PFD_ZOOMIN_BUTTON	N/A	Zoom in on the current map.
G1000_PFD_ZOOMOUT_BUTTON	N/A	Zoom out on the current map.