

Flysight2 speedMK Mode

Introduction

speedMK Mode is used for wingsuit competition speed flights. It uses chirpControl to give the wingsuiter an indication about their error between current and nominal glide ratio.

How to program Flysight config file

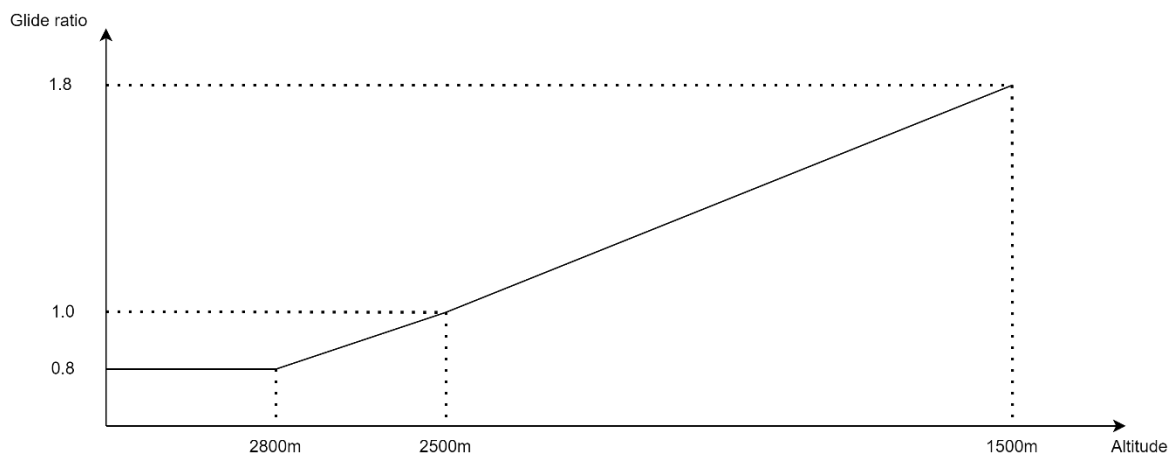
Currently speedMK Mode works purely on hardcoded values. It will be updated in the future so that users can use the config file to program their nominal glide ratio curves.

How it works

In-Flight Experience

After takeoff, there will be no sounds (except for the config file start sound) until the minimum exit altitude is crossed. After crossing this altitude, the sound "Approaching exit altitude" will be played. The code will wait for the vertical speed to exceed the value saved in `WScomp_valwindow_speed`. During this phase, the code will alert the jumper is the minimum or maximum exit altitude is exceeded by playing "too low" or "too high" repeatedly until the altitude is within the allowed range. Once the vertical speed is exceeded, the sound "exit" will play once. The code will then use chirpControl to indicate the current error of the glide ratio. If the chirp is going upwards, the nominal glide ratio is currently above the current glide ratio (the wingsuiter needs to increase the glideratio). If the chirp is going downwards, the wingsuiter needs to decrease the glideratio. When the jumper crosses the upper boundary of the competition window, the sound "bravo" is played once. When the jumper crosses the bottom boundary of the competition window, the sound "charlie" is played once. After this, chirpControl stops to produce any sounds.

Currently, the nominal glide ratio is equal to 0.8 until 300m above the upper limit of the competition window. The nominal glide ratio will then increase linearly to 1.0 until the upper boundary of the competition window. Within the competition window, the glide ratio is linearly increased to 1.8 until the lower boundary of the competition window.



created by Max Krämer

If you have any suggestions on how to improve this code or how to improve this documentation, do not hesitate to send me a message to:

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