Paralog Performance Competition – Judge's Guide

Running and judging a wing suit performance competition with Paralog and the Paralog Performance Competition (PPC) web site is not difficult. This document will help you to prepare and successfully run such an event.
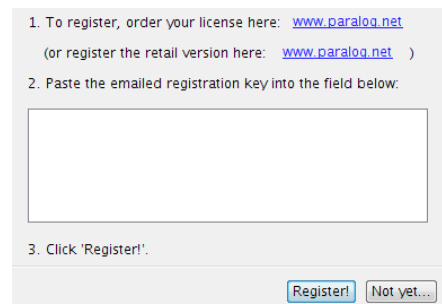
Preparation

You should have one dedicated FlySight logger per competitor to record the jumps[1] and a computer with reliable Internet access for judging. Well before the event you should contact me by email (ppc@paralog.net) to discuss the details of your event.

Although the judging process it straight forward, it helps to have some previous experience with the devices and software. If desired, we can support you remotely or on-site.

Setting Up Paralog

Download and install the latest version of Paralog from www.paralog.net. Paste the license key provided to you either into the registration window which pops up on the first start or by selecting Tools/ Register from the main menu and click 'Register'.

1. To register, order your license here: www.paralog.net
   (or register the retail version here: www.paralog.net)
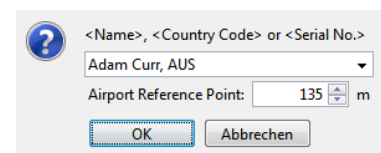2. Paste the emailed registration key into the field below:

3. Click 'Register!'.

Register!   Not yet...

Setting Up the FlySights

Before the event, go through the FlySight startup procedure: Turn the units on, let them get a fix (green light blinking) and leave it outside for 15mins to download Almanach data from the satellite network. Turn the units off after 15mins.

Connect each unit to the computer with Paralog running to personalize them for the competitors.

Paralog will detect a connected FlySight automatically and show a dialog to enter the name and nationality (IOC-Code) of the competitor who will use this unit and the reference altitude for the event location. This information is stored on the unit for later use.

<Name>, <Country Code> or <Serial No.>
Adam Curr, AUS
Airport Reference Point: 135   m
OK   Abbrechen

Enter the information in the format <First Name>[{ |-}<Middle Name>] <Last Name>, <IOC-Code> and select 'Cancel' in the next dialog.

***Note:** If you share FlySights between competitors, enter the SN from the back of the unit instead.*

---

[1] We have a set of 60 loaner units available in the EU and 80 in the rest of the World.

 July 5, 2021

# Judging a Jump

Reading a Track – Automatic Import

After the jump, connect each competitor's FlySight to the judging computer with Paralog running. Paralog will detect a connected FlySight and import the latest track automatically.

To access older tracks, make sure Paralog is the active (selected) application and hold down the Shift-key while connecting the FlySight. Paralog will then show a dialog to 'Read' an arbitrary track in addition to 'Read(ing the) Last (track)'.
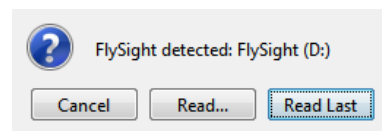

Reading a Track – Manual Import

You can always select 'Read Last' from the menu/toolbar to start the regular 'Read FlySight' procedure when a FlySight is connected - as if you clicked the 'Read FlySight' toolbar button.
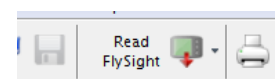
In the dialog which comes up, select 'Append All' as the duplicates handling option. In the next step, select the proper track from the connected FlySight in the file chooser.
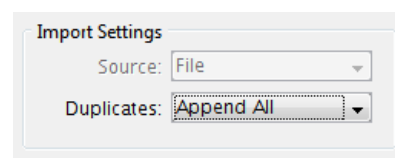
After the track has been read, leave 'Crop Track' and 'Filter Datapoints' set in the next dialog. QNE (Ground Elevation) can automatically be queried from a Web Service or manually be set (preferred) to the Airport Reference Altitude.
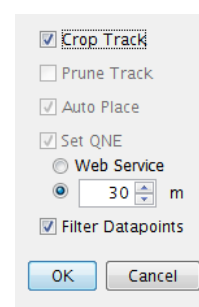
Note: The 'Crop Track', and 'Filter Datapoints' options can be deselected to read a track which can not be read properly otherwise.

Uploading a Track

The 'Submit to PPC' dialog will open automatically if you are running a Wingsuit Performance event. Click the 'Submit to PPC' toolbar button to manually open the 'Submit to PPC' dialog.

When running a Wingsuit Performance event, make sure the 'WS Competition' checkbox is checked.
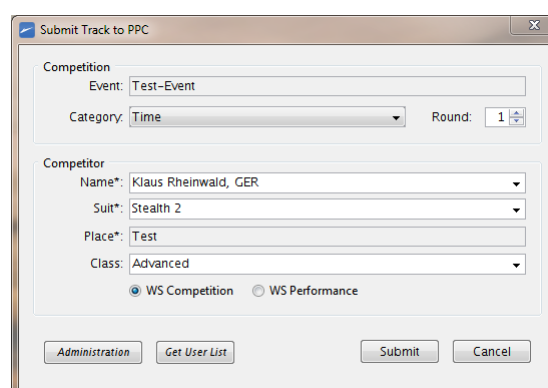
When running Speed event, make sure to check the automatically detected exit point first and correct it, if necessary as described in 'Error Checking' at the end of the document. Enter the correct competition window, if the jump run has been lowered.

The event name and location (place) will be set from the license you received. The competitors name will be prepopulated from the information stored on the FlySight you entered earlier. Make sure 'WS Competition' is selected.

Note: When sharing FlySights between competitors, this information needs to be entered manually.

Select the category and round for this jump from the dropdown list below the event name, as well as the competitor's suit. The competitor's class will be prepopulated with the appropriate class for the suit but can be overwritten manually.

Note: The dropdown lists for the competitor's name and equipment will be initialized on startup from the tracks stored on the PPC web site. This update can also be triggered manually by clicking 'Get User List'). Classes currently available on PPC are: Wingsuit (generic class if you do not want to divide into PPC suit classes), Advanced ('Big Suits'), Intermediate ('Medium Suits'), Rookie ('Small Suits') and Track (generic class for Tracking.

Once this information has been entered, click 'Submit' to upload this jump to the PPC web site, where it will be ranked automatically. The online result updates automatically every minute.

Note: The upload to PPC is performed in the background. A popup will inform you about the result once the upload has finished. In the meantime, you can already import the next jump.

Administration

The 'Administration' button in Paralog takes you to the event administration page on the PPC web site where you can manage event tracks ('Event Tracks'), event details ('Event Admin') and the competitor profiles for the competitors of your event ('User Profiles').

Administration
Event Tracks
Event Admin
User Profiles

Note: We do not recommend using Internet Explorer as it is outdated and slow. We recommend using a Chromium based browser (e.g. Chrome, Edge, Brave).

© Paralog® - No copying or distributing without explicit permission.

Manage and download Tracks for Swiss Wing Roots Events 2017 ✎

Show 25 ▾ entries

Search: [   ]

Class	Category	Round	Name	IOC	Suit	Date/Time	Time [s]	Distance [km]	H. Speed [km/h]	Actions
Advanced	Time	1	Roger Hochstrasser	🇨🇭	Baracuda Power	2017-07-07 08:28:36Z	57.2	2.627	165.2	🔍✏👤✖✔⊘
Advanced	Distance	1	Roger Hochstrasser	🇨🇭	Baracuda Power	2017-07-07 09:58:56Z	44.4	2.706	219.6	🔍✏👤✖⚠⊘
Advanced	HorizontalSpeed	1	Roger Hochstrasser	🇨🇭	Baracuda Power	2017-07-07 12:35:08Z	22.1	1.538	250.9	🔍✏👤✖⚠✔
Intermediate	Time	1	Andreas Schibli	🇨🇭	Havok	2017-07-07 08:29:01Z	36.3	1.390	137.9	🔍✏👤✖⚠⊘
Intermediate	Distance	1	Andreas Schibli	🇨🇭	Havok	2017-07-07 09:59:25Z	45.6	1.847	145.8	🔍✏👤✖⚠⊘
Intermediate	HorizontalSpeed	1	Andreas Schibli	🇨🇭	Havok	2017-07-07 12:35:29Z	43.1	1.624	135.7	🔍✏👤✖⚠⊘

In 'Event Tracks', you can you can view, delete and (un-)penalize tracks for your event or download all tracks of the event in CSV format.

 July 5, 2021

On the 'Event Administration' page, you can lauch the scoreboard by clicking on the name of the event, edit the event details, set a 'traffic light' event status which will be displayed along with a note on the public scoreboard, switch between combined and sepearate ranking for classes and countries and change the name of the 'Open' class which combines all competitors of an event.

To sign-off a round or the whole event, click on the appropriate seal icon in the 'Event Sign-Off' table. Signed-off rounds and events will be locked from modification and show the signature on print-outs. Do not use your regular signature, as it will be visible on the Internet.

If you want to open the 'Event Administration' page on your smartphone/tablet (e.g. for sign-off), just open and scan the QR code at the bottom of the page.

In 'User Profiles', you can edit the country, the mug-shot, a descriptive text and links to athlete pages.

The links use a specials format:

Each line in this field must consist the URL and a descriptive text for the link, both seperated by the pipe symbol (|) as shown in the example to the right.

© Paralog® - No copying or distributing without explicit permission.

Paralog

Judging Lane Discipline and Distance Violations

After each task is completed and before signing of, you should check for lane and distance violations.

When logged in as the Event Administrator, open the event results page and click on the Column Header of the Task you want to check, e.g. Time, Round 1.

Time			
Round 1		Round 2	
[s]	%	[s]	%
71.6	84.0	84.1	100.0

The jumps for this round will be listed color coded by jump run.

| Name	IOC	Suit	Timestamp	Time [s]	Distance [km]	H. Speed [km/h]	Result [%]	Details		Jumprun
Alexey Galda (O)	🇺🇸	CR+ Squirrel	2017-11-06 19:26:19Z	86.9	3.780	156.6	94.6	🔍	☐	View Jumprun #13
Travis Mickle (O)	🇺🇸	Jedei Nite P Tony Suit	2017-11-06 19:26:34Z (+14.6s)	81.9	3.864	169.9	89.1	🔍	☐	
Chris Geiler (O)	🇺🇸	CR+ Squirrel	2017-11-06 19:26:50Z (+16s)	90.7	4.328	171.7	98.7	🔍	☐	
Rameshwer Jangra (O)	🇮🇳	CR+ Squirrel	2017-11-06 19:24:01Z	75.2	3.867	185.0	81.8	🔍	☐	View Jumprun #12
Espen Fadnes (O)	🇳🇴	CR+ Squirrel	2017-11-06 19:24:14Z (+12.6s)	87.9	4.025	164.9	95.6	🔍	☐	
Luke Rogers (O)	🇳🇿	CR+ Squirrel	2017-11-06 19:24:27Z (+13.6s)	78.5	3.970	181.8	85.4	🔍	☐	
Alessio Spina (O)	🇮🇹	CR+ Squirrel	2017-11-06 19:21:49Z	91.9	3.816	149.4	100.0	🔍	☐	View Jumprun #11
Kristian Szczepitko (O)	🇺🇸	CR+ Squirrel	2017-11-06 19:22:02Z (+13.4s)	91.7	4.249	166.7	99.8	🔍	☐	
Nicholas Yu (O)	🇨🇦	CR+ Squirrel	2017-11-06 19:22:17Z (+15s)	71.2	3.837	194.0	77.5	🔍	☐	
Andrei Iurosh (O)	🇷🇺	CR+ Squirrel	2017-11-06 19:00:31Z	87.1	3.878	160.2	94.8	🔍	☐	View Jumprun #10
Kyle Lobpries (O)	🇺🇸	CR+ Squirrel	2017-11-06 19:00:46Z (+14.4s)	81.9	4.171	183.2	89.1	🔍	☐	
Anthony Zerbonia (O)	🇺🇸	Jedei Nite SG Tony Suit	2017-11-06 19:01:01Z (+14.8s)	79.2	4.161	189.0	86.2	🔍	☐	
Ulf Munkedal (O)	🇩🇰	CR+ Squirrel	2017-11-06 18:58:07Z	82.0	3.991	175.3	89.2	🔍	☐	View Jumprun #9
Udit Thapar (O)	🇮🇳	CR+ Squirrel	2017-11-06 18:58:22Z (+15.6s)	77.3	3.720	173.2	84.1	🔍	☐	
Daniel Darby (O)	🇺🇸	CR+ Squirrel	2017-11-06 18:58:37Z (+14.2s)	80.2	3.627	162.7	87.3	🔍	☐	

Click on 'View Jumprun #X' to view all tracks for a specific jumprun or select several tracks and click the 3D-Symbol to show the selected tracks in 3D. Click the checkbox in the upper right corner to select all tracks.

 July 5, 2021
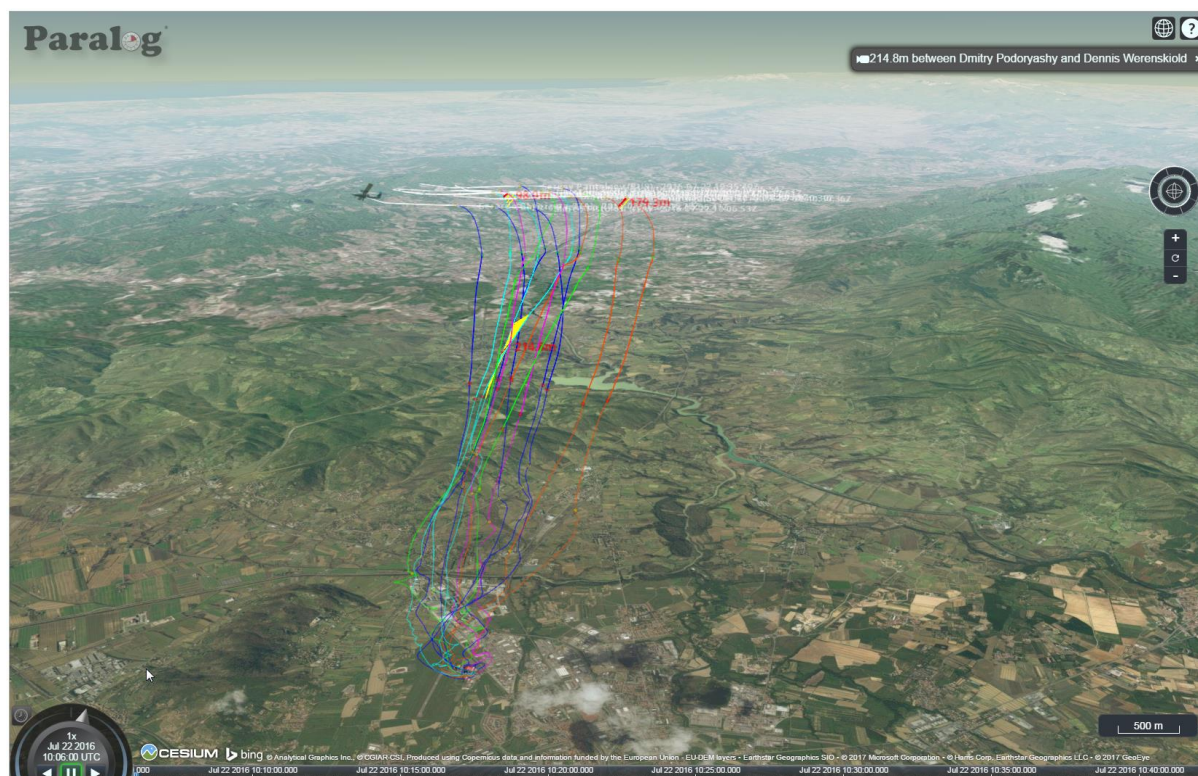
Click any part of a track to show more details for this track; double-click it to highlight it in yellow. Double-click a highlighted track again to remove the highlight.

Distance Violations

Distance Violations will be highlighted lines between the two tracks with the closest approach being highlighte in red. Click on one of the highlights to identify the two competitors involved. It is then up to your judgement to decide who was the offender to warn/penalize.

The playback controls in the lower left corner can be used to play back a round to help you to get a better understanding of the real-time dynamics of a situation.

Lane Discipline

To check for lane discipline, Shift-Left-Click anywhere on a track, hold and Shift-Left-Click on the designated target point for this competitor. The 300, 450 and 600m lanes will be shown. Double-click a guide line to remove it from the scene.

© Paralog® - No copying or distributing without explicit permission.
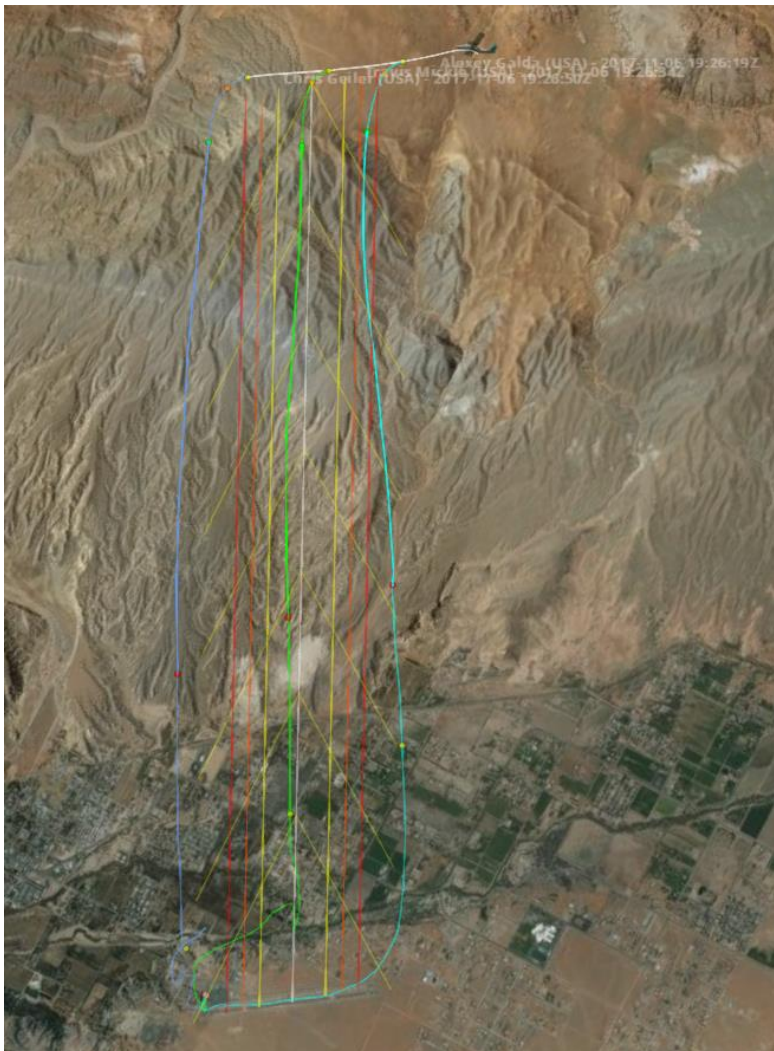
Appendicies

'Performance' Tracks

To upload a track for the Performance category (exit-open), first properly [mark exit and open in the chart](), than follow the steps in 'Uploading a Track' but select 'WS Performance' first.

'Best-Of' Events

PPC also supports 'Best-Of' events, where the best of X jumps for each competitor in a single category is used for ranking.

Important: Recommended GPS startup procedure

With FlySight - like any GPS - it is important to follow proper startup procedures to guarantee quick satellite acquisition and clean tracks:

1. <u>On the first day of the event</u>, let the unit get a fix (green light blinking) and <u>leave it on for 15min</u> to download [Almanach]() data from the satellite network.
2. <u>Before boarding</u>, let the unit get a fix (green light blinking) and leave it on until landing.
3. <u>Turn the unit off</u> when back on the ground.
4. Keep the unit charged.

To expand on these instructions a bit: The initial 15 minutes it the time during which GPS downloads rough orbital data from the satellites. This information is valid for about 2 weeks, and helps the GPS get a faster lock in difficult conditions (for example, when falling from a plane).

Please check the [GPS Testing Notices]() and the [Solar GPS Status]()[?] that may affect GPS receivers. We also experienced cameras or other GPS mounted nearby interfering with GPS receivers.

Error Checking

Paralog and PPC do a lot of error checking to make sure no invalid tracks are uploaded:

- The competition window must not lie outside the free fall portion of the jump. As flaring in big suits is sometimes mistaken for canopy deployment, this error message may come up occasionally. In this case, 'Cancel' the upload dialog, open the jump profile chart and right click at the proper location to 'Set Here…' Exit or Open and retry.
- Fields with an asterisk must be filled.
- Jumps cannot be uploaded twice. If needed, click

 July 5, 2021
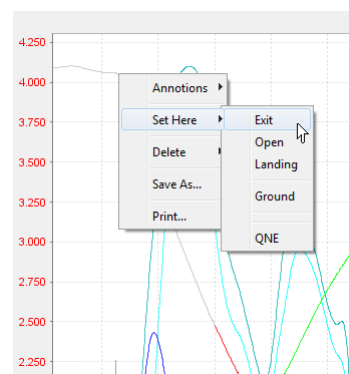
'Administration' to go to the PPC administration page for your event where you can delete jumps and resubmit.

Referencing Result

To reference results, just use the link for the results page as displayed in the browser, e.g.:

https://ppc.paralog.net/showevent_compact.php?event=1%3Csup%3Est%3C%2Fsup%3E+FAI+World +Cup+of+Wingsuit+Performance+Flying

You can also embed a results page into another page, e.g. your event page, through an iframe. To hide the event logo and other decoration, append '&embedded' to the link for the results page as displayed in the browser, e.g.:

<iframe src="https://ppc.paralog.net/showevent_compact.php?event=1%3Csup%3Est%3C%2Fsup%3 E+FAI+World+Cup+of+Wingsuit+Performance+Flying&embedded"></iframe>

Printing Results (to PDF)

Just use your browsers 'Print' function to print the results page (to PDF). The page will be reformatted to hide the event logo and other decoration and include the final sign-off.

Exit Timing

This table should help you with the proper exit separation for competitors (600m exit spacing is required by the FAI rules).

Ground Speed [kn]	600m [s]	450m [s]	300m [s]	150m [s]
50	23,3	17,5	11,7	5,8
55	21,2	15,9	10,6	5,3
60	19,4	14,6	9,7	4,9
65	17,9	13,5	9,0	4,5
70	16,7	12,5	8,3	4,2
75	15,6	11,7	7,8	3,9
80	14,6	10,9	7,3	3,6
85	13,7	10,3	6,9	3,4
90	13,0	9,7	6,5	3,2
95	12,3	9,2	6,1	3,1
100	11,7	8,7	5,8	2,9
105	11,1	8,3	5,6	2,8
110	10,6	8,0	5,3	2,7
115	10,1	7,6	5,1	2,5
120	9,7	7,3	4,9	2,4
125	9,3	7,0	4,7	2,3

 July 5, 2021

Lessons learned

- Using competitors' FlySights gave us a lot of headaches as some have custom/modified firmware on them. If you want to use competitors' FlySights, reflash them before the event with an official version of the latest FlySight firmware.
- For Speed events, it is recommended to use newer units (SN 4472+), as they use the u-blox M8 chipset and track GPS + GLONASS, whereas older units track GPS only.
- Paralog depends on two special files in the root directory to identify a FlySight: CONFIG.TXT and FLYSIGHT.TXT. Some older FlySight versions may be missing the later – in that case, just copy the file CONFIG.TXT to FLYSIGHT.TXT and unplug/re-plug the FlySight for it to be atuo-detected.
- Get reliable Internet access! The usual open DZ WiFi does not work reliable in most cases due to network congestion. Try to get access to the DZ's office network.
- Although running the competition over a mobile 3G network is possible, we realized that some mobile operators truncate images and error messages from PPC - if possible, use DSL.
- All FlySights should be fully charged, configured and go through a cold-start before the competition.
- Prepare a list of competitors with names and suits used during registration; it will help during uploading the jumps!
- With a lot of competitors, save the tracks of each round into a separate log to keep the logs small and quick to save/load.
- Set up a dedicated charging area and make sure the charging cable does not put pressure on the USB port when the helmet is put on the table.
- Brief the pilot(s) on jumprun and exit procedures. Make sure they are aware of the exit altitude limits (12000-12500ft AGL **GPS-Altitude**!)
- In low-tail aircraft (Caravan, PAC), mount a camera in the plane facing the tail to prevent/catch unsafe exits to lower the risk of tail-strikes.
- If possible, mount a timer near the door to aid the competitors with the proper exit spacing.
- If possible, put all competitors on a single load. If this is not possible, split the loads by classes. This makes it easier if a task has to be interrupted due to e.g. weather.

Link to the results page.

 July 5, 2021