

FlySto Debrief

By a Cirrus SR22 Private Pilot
and FlySto User

FlySto: "Flying Stories you can trust"

The screenshot displays the FlySto flight simulator interface, which is divided into several functional areas:

- Flight Summary (Left Panel):**
 - Flight by F-LNLL
 - Airline: LOWG (Graz) to LOWI (Innsbruck) on 12 Jul 2021.
 - Entire Flight: Departure from LOWG (Airborne 14:12z, Rwy 25) and Landing at LOWI (15:33z, RNP Rwy 11, 92% success).
 - Startup: 13:57z to 15:37z (1:39 duration).
 - Brakes off: 14:07z to 15:36z (1:29 duration).
 - Takeoff: 14:12z to 15:33z (1:21 duration, 6 min manual flying).
 - Start fuel: 196 usg to 104 usg (91.8 usg used).
 - Direct distance: 327 nm; Ground distance: 388 nm (+18.6%); Air distance: ...; Tailwind: ...
- Engine and Fuel Gauges (Middle-Left):**
 - % TRQ: 99
 - NG %: 99
 - ITT °C: 778
 - NP: 1986
 - USG (Left/Right): 125/100/75/50/25/0
 - FFlow GPH: 82.6
 - USG Used: 15.4
 - OIL °C: 77
 - OIL PSI: 122
 - BUS 1: 28.6 V; BUS 2: 28.6 V
 - BUS 1: 2.4 A; BUS 2: 2.5 A
 - FLAPS: UP TO LDG
- 3D Cockpit View (Center):**
 - Altitude: 17000 ft (vertical scale 15000-20000)
 - Heading: 245° (heading scale 210-300)
 - Speed: M.315, TAS 207KT, GS 202KT, 246°T 11KT
 - Navigation: DME 4.1NM SIO NAV1, DME 4.1NM SIO NAV2, CRS 246°
 - Other: ROTVA, IBAGA, LKVV
- Top Right Panel:**
 - SIO DIS 3.9NM BRG 241°
 - COM1 118.275 NAV1
 - COM2 121.500 NAV2

Content

- [What is FlySto](#)
- [Why FlySto](#)
- [Approaches & Landings Debrief](#)
- [Patterns Debrief](#)
- [Maneuvers Debrief](#)
- [Reconstruct what happened after an unexpected behavior](#)
- [Insights over time](#)

What is FlySto

What is FlySto – “Flying Stories you can trust”

- <https://flysto.net> is a website!
- Founded by experienced pilot and software engineer while flying SR22T in 2019.
- Organic growth by word of mouth, many users flying Cirrus, TBM etc..
- Your aircraft is capable of recording a vast array of data and information onto an SD card
- FlySto can process, analyse and present this data with a focus on learning and improving. “Always Learning”

Why FlySto

FlySto for Pilot / Owner

- FlySto functions like a virtual Flight Instructor, overseeing every aspect of your flights for comprehensive monitoring.
- Post-flight analysis, break down and lessons from situations that startled you
- Identify and rectify emerging bad habits before they become ingrained
- Ensure consistent adherence to best practices and be a safer pilot
- Reviewing flight and engine data

FlySto for a Flight Instructor





- Integrate objective data analysis in debriefs to examine actual flight parameters, maneuvers, circuits, and approach techniques
- Track and display improvement of scores and metrics over time, incorporating elements of gamification to enhance the learning experience.
- Cultivate the student's commitment to consistent performance across all flight operations
- Conduct objective debriefings of solo flights to reinforce learnings.
- Engage in a comprehensive review of the flight, highlighting successes, identifying areas for improvement, and cross-referencing outcomes with collected data for a data-driven discussion
- The cockpit is a busy, stressful environment and isn't always a good or easy classroom. FlySto aims to provide a full immersion flight review experience for better conclusions.





Quick Tour of flysto.net





Flight Page

Access to all your uploaded flights

Select information to display

Flights — NS22T  Airports —   

| Date | From — To | Takeoffs Landings | Approaches | Brakes off-on | Block time | Airtime | Manual flying | Fuel used | |
|---|---|-------------------|--|-----------------|------------|---------|---------------|-----------|--|
| October 2023 3 flights, 3:55 block time, 3:09 airtime, 457 nm, 58 usg | | | | | | | | | |
| 28 Oct | ◦ EGTF → EGTF ◦ | 1 | Missed Approach ILS Rwy 19 EGTK ^{x2} Full-Stop Landing Rwy 24 EGTF | 08:03z — 09:36z | 1:33 | 1:14 | 0:10 | 21.5 usg | |
| 15 Oct | ◦ LFAT → EGTF ◦ | 1 | Landing Rwy 06 | 13:50z — 15:02z | 1:11 | 0:56 | 0:06 | 18.1 usg |  ² |
| 15 Oct | ◦ EGTF → LFAT  | 1 | RNP Rwy 31 | 09:06z — 10:16z | 1:10 | 0:59 | 0:15 | 18.4 usg |  ³ |
| September 2023 5 flights, 10:29 block time, 9:31 airtime, 1493 nm, 170 usg | | | | | | | | | |
| 30 Sep | ◦ EGBT → EGTF ◦ | 1 | Landing Rwy 24 | 14:19z — 14:56z | 0:37 | 0:26 | 0:04 | 8.5 usg |  |

Flights  Approaches  Aircraft  Insights 

Insights Page

Explore your flight data over time

+ Upload logs

Flights

Approaches

Aircraft

Insights

Insights

Start Date — End Date

Totals >
Time, approaches, fuel, dista...
163 flights

Averages >
Speed, fuel flow, distance/fuel
Average TAS: 150 kts

Parameters >
Takeoff, flight, approach
Manual flying: 5 min

Trends >
CHT, EGT, TIT
Average CHT: 313°F

Flags > See all >
Most common flags

| | | |
|----------|--|--------|
| High MAP | <div><div style="width: 40%;"></div></div> | 3 / 78 |
| Low CHT | <div><div style="width: 65%;"></div></div> | 50 |
| Low IAS | <div><div style="width: 60%;"></div></div> | 48 |

Map >

Approach limits > See all >
Most common deviations

| | | |
|------------------------------|--|---------|
| High IAS below 500' | <div><div style="width: 70%;"></div></div> | 21 / 29 |
| High descent rate below 500' | <div><div style="width: 85%;"></div></div> | 38 |
| Low final start | <div><div style="width: 15%;"></div></div> | 5 / 31 |

Airplane Page

Explore warnings and cautions for your airplane

The screenshot displays the 'Aircraft' page for NS22T (Cirrus SR22T G5/G6). The 'Flags' tab is selected, showing a list of warnings. The warning 'When Glideslope/glidepath interception from above > 75% scale' is highlighted, indicating it occurred in 2 out of 163 flights. Below the warnings, a table shows flight occurrences for this specific flag.

Explore warning and caution flags




Review occurrence in the flights

| Date | From – To | Takeoffs Landings | Approaches | Brakes off-on | Block time | Airtime | Manual flying | Fuel used | Flags |
|-------------|-------------|-------------------|------------|-----------------|------------|---------|---------------|-----------|-------|
| 22 Oct 2022 | EGTF → LFOP | 1 | ILS Rwy 22 | 07:21z – 08:42z | 1:21 | 1:08 | 0:08 | 21.5 usg | 5 |
| 13 Aug 2021 | LFMD → LFLX | 1 | RNP Rwy 03 | 08:08z – 10:25z | 2:17 | 2:04 | 0:05 | 39.2 usg | 2 |

Uploading Data into FlySto.net

- **Manually** (Complexity: high, Price: free)
 - Bring your card, using a card reader with your iPad or computer, navigate to the log_data directory, select and copy the files you are interested in
- **FlightLogStats or FlySto App** (Complexity: medium, Price: free)
 - With a SD Card reader connected to your iPad, in the cockpit, insert the SD card and let FlightLogStats or FlySto App automatically find, copy and upload the new log files
- **Airsync** (Complexity: very low, Price: high)
 - Connect your plane wirelessly and automatically upload the files without any actions on your part.

Upload in 3 simple steps

- 1 Download logs from your aircraft's electronic system**
See available [avionics list](#)

- 2 Upload to FlySto**
Upload to FlySto via PC or mobile phone.
Supported formats: .CSV, .LOG, .GPX, .KML

- 3 Store, analyze and compare your flights**
Gain valuable insights through our thorough analysis.


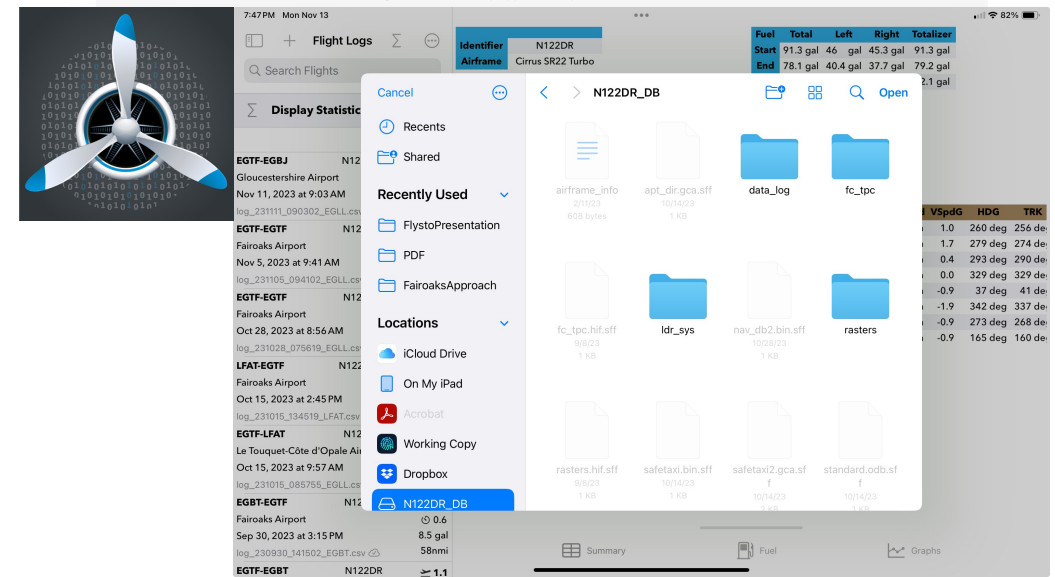
New!

OR

Automatic upload with FlySto+AirSync subscription bundle

AirSync and FlySto teamed up to provide you a capable, turn key ready solution for automatic avionics log upload and analysis. AirSync's plug&play hardware combined with FlySto's innovative software gives you a true connected aircraft experience. Connect your aircraft and have your data uploaded to FlySto automatically in just three steps.

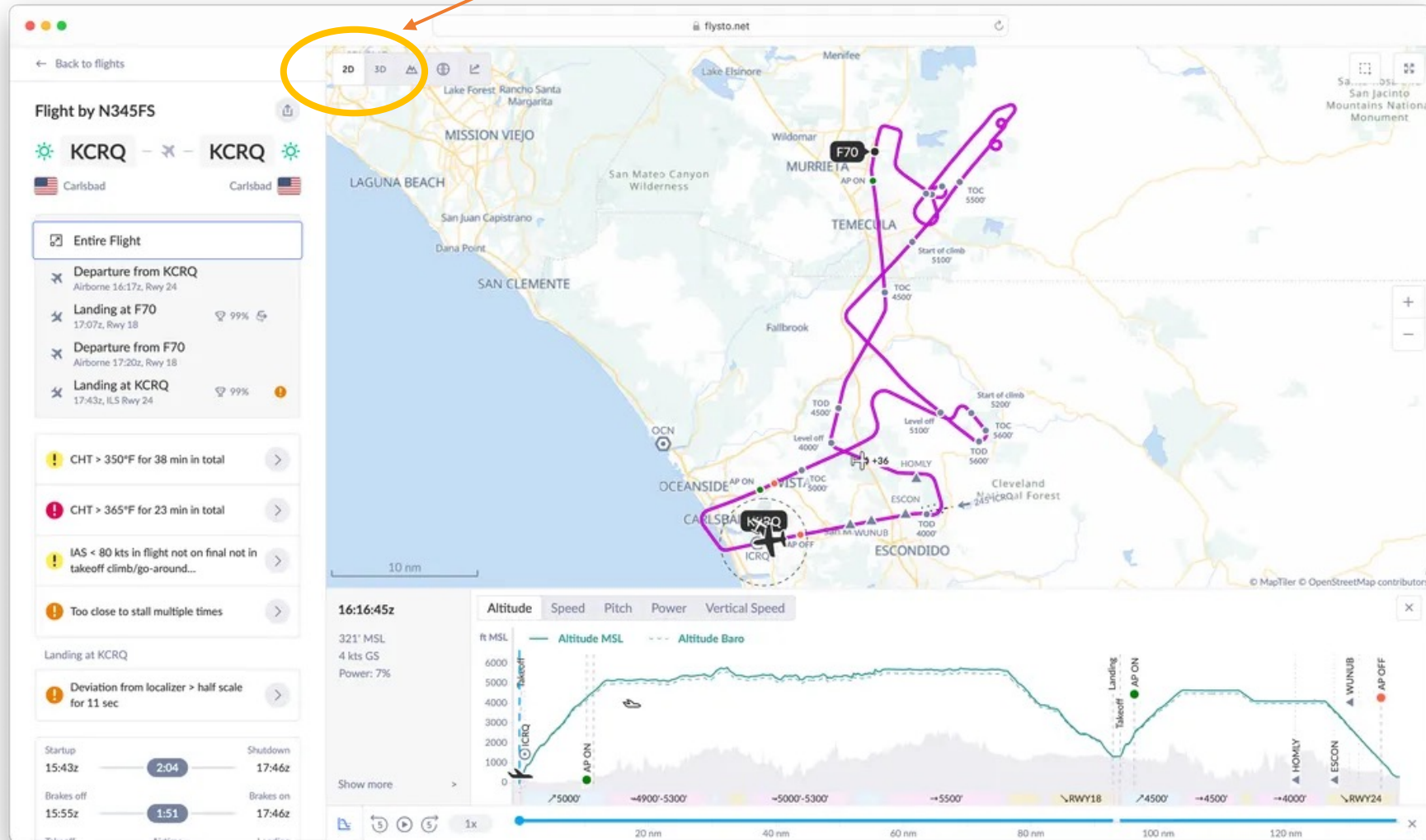
1. Purchase FlySto+AirSync combined subscription bundle.
2. Connect AirSync to an aircraft USB power port and insert Wi-Fi SD card in avionics.
3. Flights automatically appear in FlySto.



The screenshot shows the FlySto app interface. On the left, there's a list of flight logs with columns for Identifier, Airframe, Fuel, Total, Left, Right, and Totalizer. The selected flight is N122DR, a Cirrus SR22 Turbo, with fuel data: Start 91.3 gal, End 78.1 gal, Total 46 gal, Left 40.4 gal, Right 45.3 gal, Totalizer 91.3 gal. A file selection dialog is open over the app, showing the contents of the N122DR_DB directory. The dialog lists files like airframe_info, apt_dir.gca.sff, data_log, fc_tcp, fc_tcp.hif.sff, ldr_sys, nav_db2.bin.sff, rasters, rasters.hif.sff, safetaxi.bin.sff, safetaxi2.gca.sf, and standard.oddb.sf. The dialog also shows a 'Recently Used' section with options like FlyStoPresentation, PDF, and FairorksApproach, and a 'Locations' section with options like iCloud Drive, On My iPad, Acrobat, Working Copy, and Dropbox.

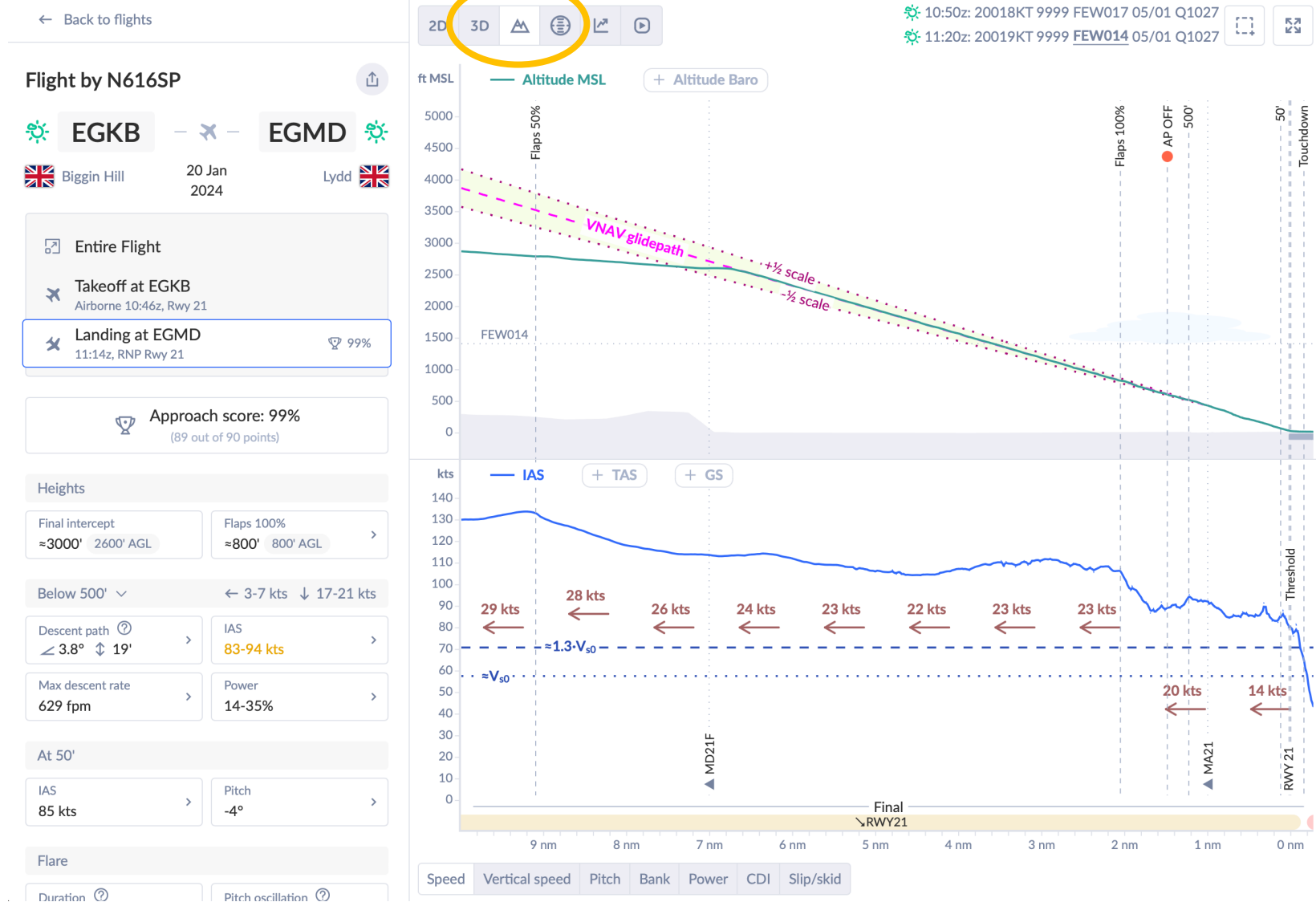
Key features... visual walkthrough

2D View



Key features... visual walkthrough

Timeline View



Key features... visual walkthrough

3D View

The screenshot displays a flight simulation interface. On the left, a sidebar provides flight details for flight N345FS, including departure and landing times, approach score (99%), and various performance metrics like descent path and max descent rate. The main 3D view shows a flight path over a terrain map, with a yellow path leading to a purple path. A small airplane icon is visible on the path. The bottom control bar includes a scale from 35 nm to 5 nm and a time display of 16:58:08z. An orange arrow points to the '3D' view toggle in the top left corner of the 3D view area.

Flight by N345FS

KCRQ - KCRQ

Carlsbad Carlsbad

Entire Flight

- Departure from KCRQ
Airborne 16:17z, Rwy 24
- Landing at F70
17:07z, Rwy 18
- Departure from F70
Airborne 17:20z, Rwy 18
- Landing at KCRQ
17:43z, IL5 Rwy 24

Approach score: 99%
(89 out of 90 points)

Compare with average pattern

Heights

Flaps 100% On Final
=800' 700' AGL > =400' 400' AGL

Below 500' ↓ 13-14 kts

Descent path > IAS
∠ 3.4° ↓ 35' > 79-87 kts

Max descent rate > Power >
707 fpm > 12-49%

At 50'

IAS > Pitch >
78 kts > -4°

Flare

3D View

35 nm 30 nm 25 nm 20 nm 15 nm 10 nm 5 nm 16:58:08z

Cockpit view

flysto.net

← Back to flights

Flight by N345FS

KROC - KSAV

Rochester Savannah

Entire Flight

Departure from KROC
Airborne 14:08z, Rwy 28

Landing at KSAV
16:47z, RNAV Rwy 10 100%

Approach score: 100%
(112 out of 112 points)

Heights

| | | |
|---------------------------------|----------------------------------|--------------------------------|
| On Final +1800' 1900' AGL | Gear DOWN +1800' 1800' AGL | Flaps LDG +800' 800' AGL |
|---------------------------------|----------------------------------|--------------------------------|

Below 500' → 2-4 kts

| | |
|------------------------------|------------------|
| Descent path ↙ 3.9° ↕ 32' | IAS 79-91 kts |
|------------------------------|------------------|

Max descent rate
878 fpm

| |
|---------------|
| TRQ 11-20% |
|---------------|

At 50'

| | |
|---------------|----------------|
| IAS 79 kts | Pitch -1.2° |
|---------------|----------------|

Flare

| | |
|-------------------|----------------------|
| Duration 7 sec | Lateral drift Low |
|-------------------|----------------------|

Touchdown

TRQ 39%

GEAR ● UP
FLAPS — UP
TO
LDG

Show more >>

→ SOVIE DIS 0.4NM BRG 113° COM1 125.975 NAV1 115.000
GPS AP AT ALT COM2 121.500 NAV2 115.000

200
190
180
175
170
160
150

1800
2100
2000
1900
1800
1780
1700
1600
1500
1400
1019HPA

RA 1800
OAT 20°C
ISA +8°C

TAS 189KT
GS 191KT
→ 032°T 3KT

AOA

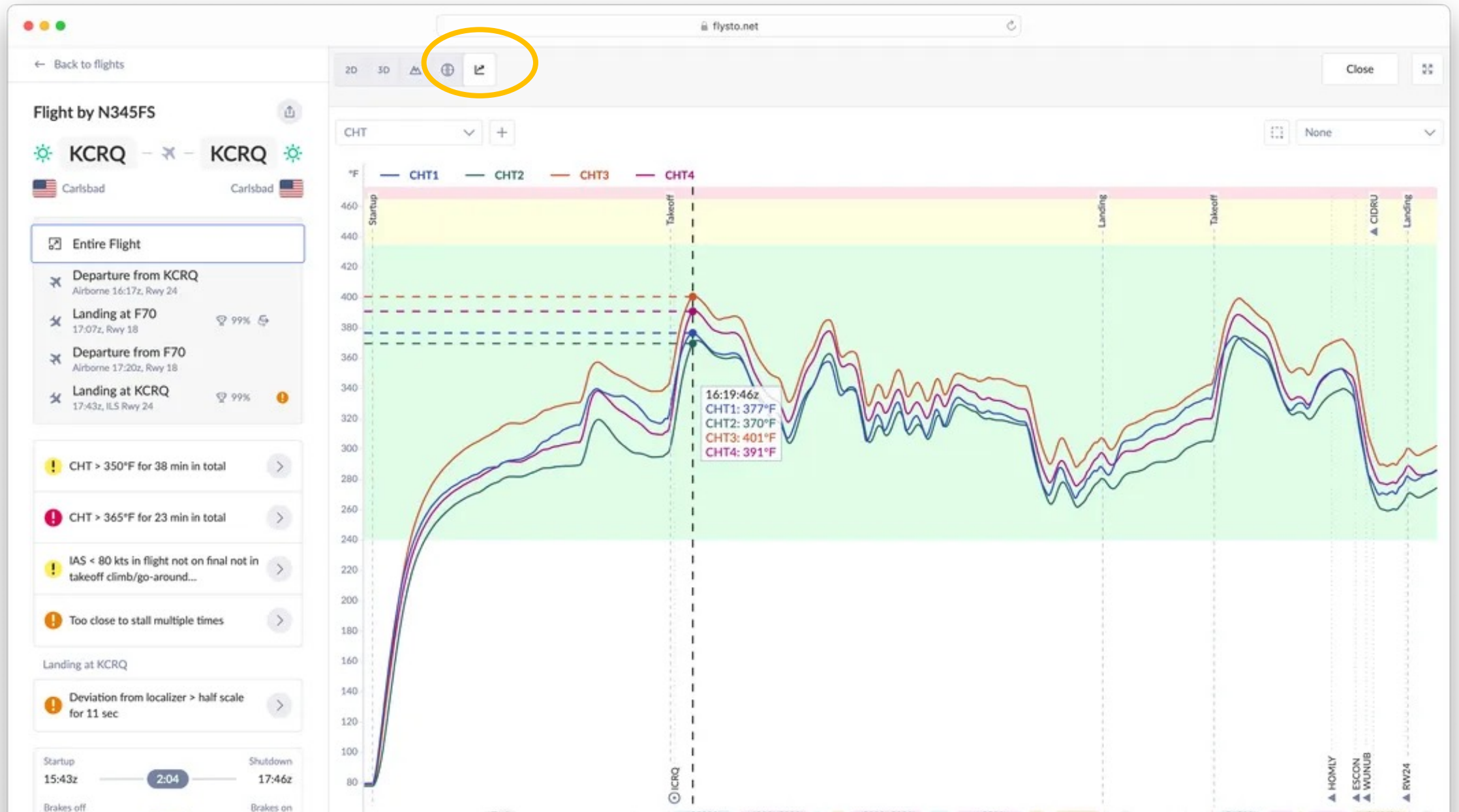
HDG 155°
CRS 098°
GPS
114°

(MAP) RW10
(FAF) SOVIE

1x UTC 16:43:45

Traffic data by ADSBexchange.com CESIUM ION Data attribution

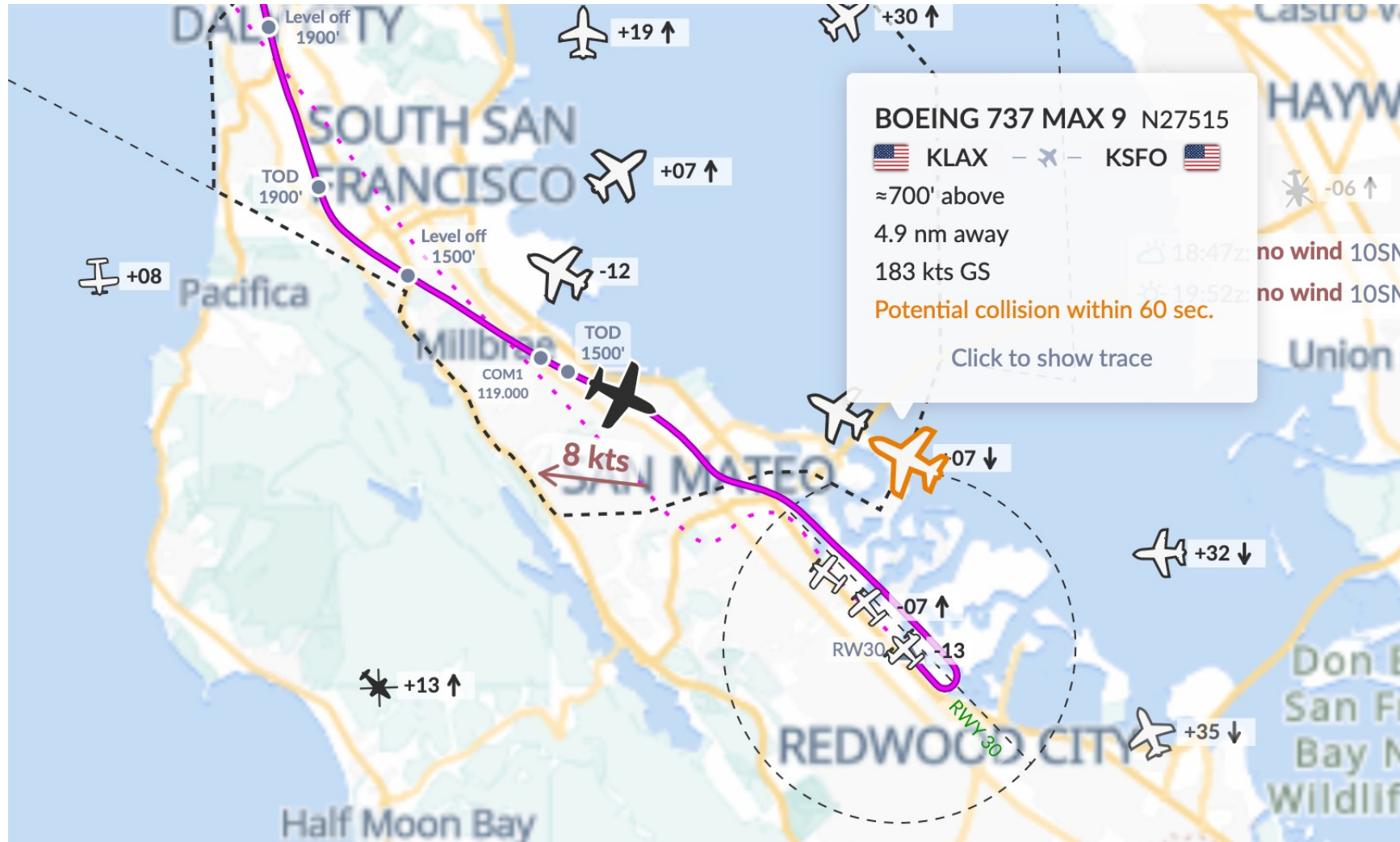
Data Graphs



Video replay with your synchronized flight data



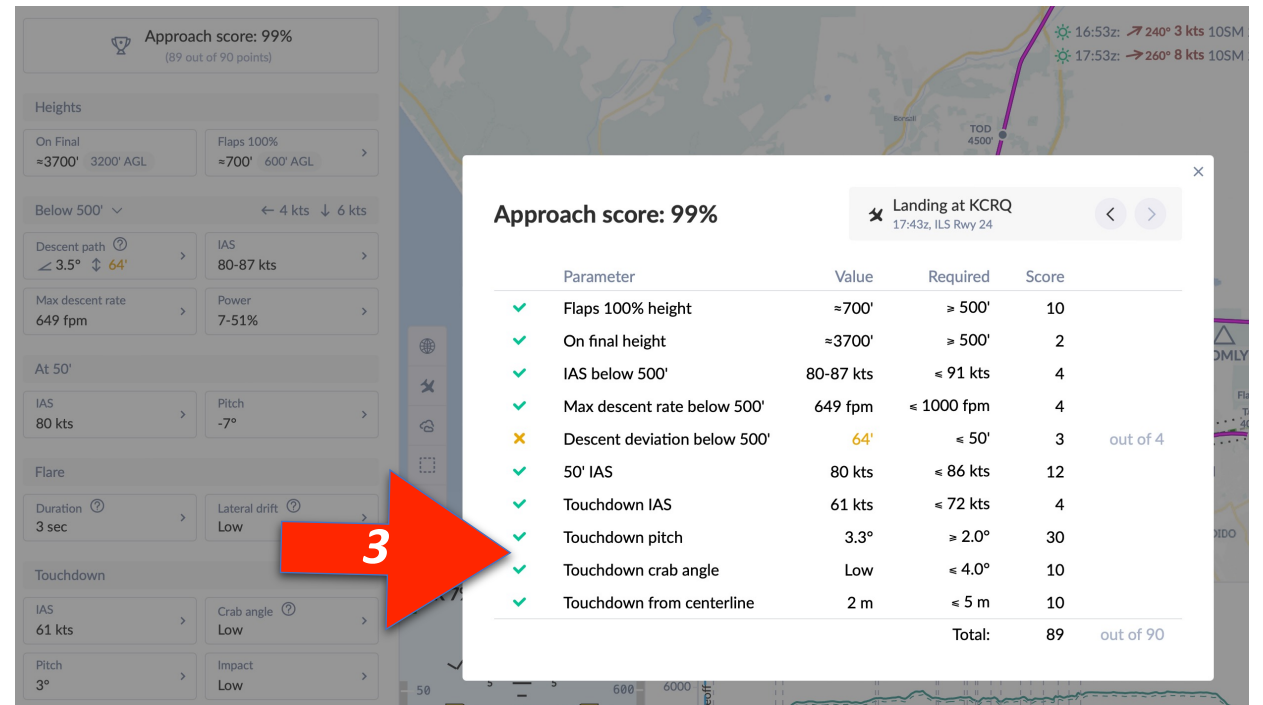
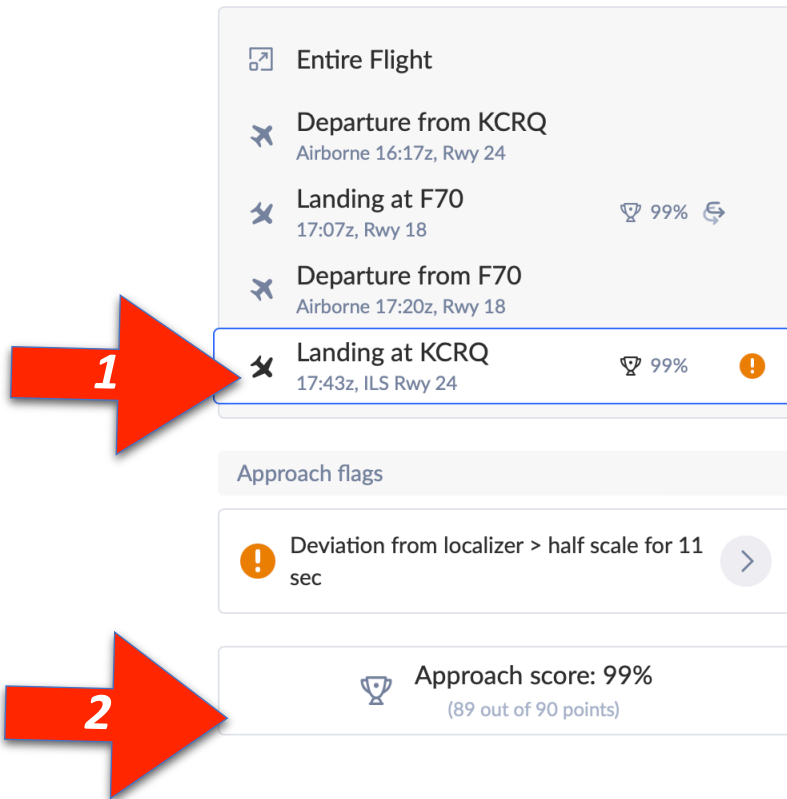
Traffic & Wake Turbulence Awareness



Approaches & Landings Flight Debrief

Approach Scoring

1. Select a landing
2. Click “Approach score” button
3. Score window opens



Landing Score



Approach score: 100%



Go home and Smile!

| Parameter | Value | Required | Score |
|--------------------------------|-----------|------------|--------------|
| ✓ Flaps 100% height | ≈1000' | ≥ 500' | 10 |
| ✓ On final height | ≈2000' | ≥ 500' | 2 |
| ✓ IAS below 500' | 80-93 kts | ≤ 93 kts | 4 |
| ✓ Max descent rate below 500' | 596 fpm | ≤ 1000 fpm | 4 |
| ✓ Descent deviation below 500' | 14' | ≤ 50' | 4 |
| ✓ 50' IAS | 79 kts | ≤ 88 kts | 12 |
| ✓ Touchdown IAS | 63 kts | ≤ 70 kts | 4 |
| ✓ Touchdown pitch | 7.1° | ≥ 3.0° | 30 |
| ✓ Touchdown crab angle | Low | ≤ 4.0° | 10 |
| ✓ Touchdown from centerline | Low | ≤ 15' | 10 |
| Total: | | | 90 out of 90 |

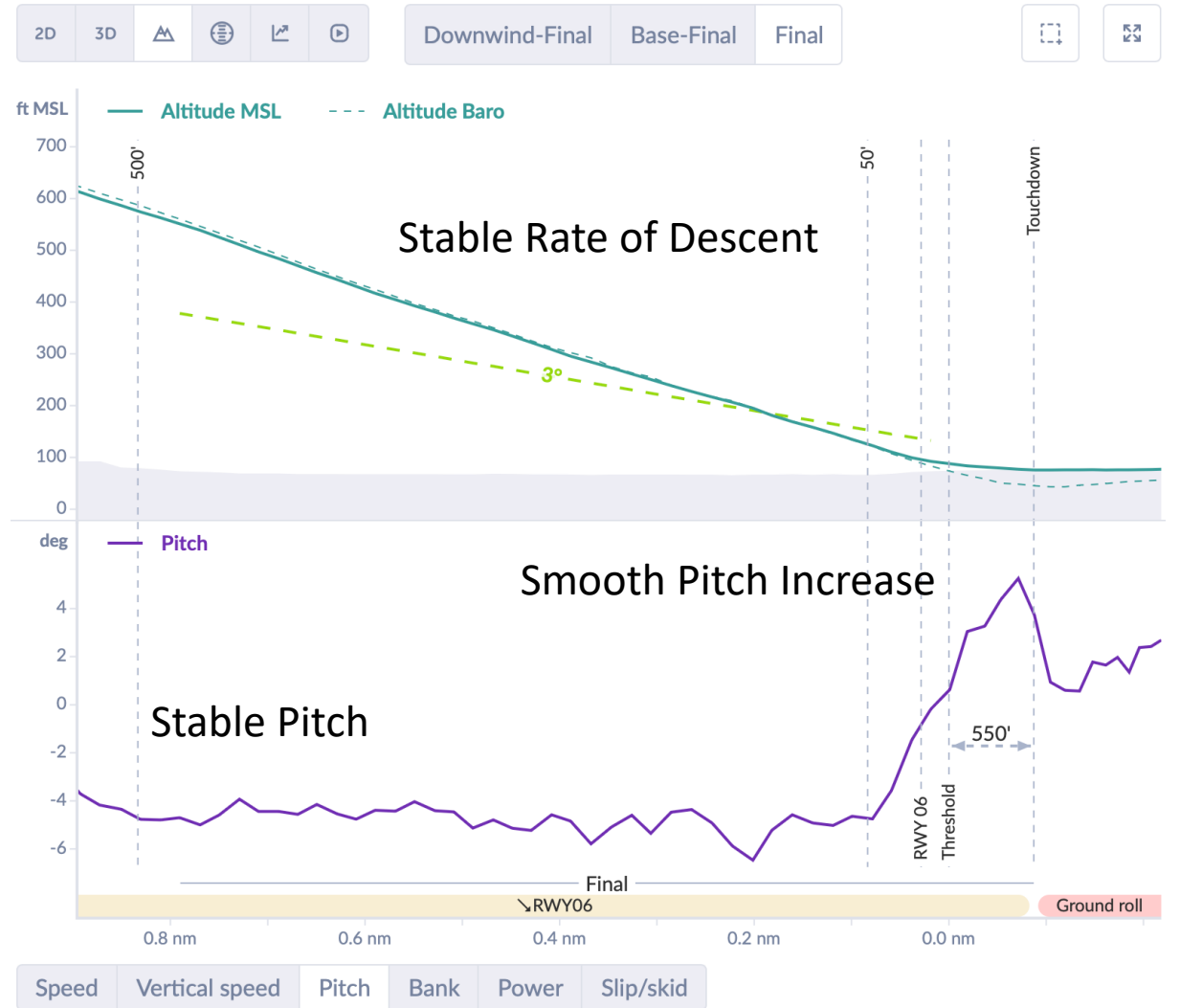
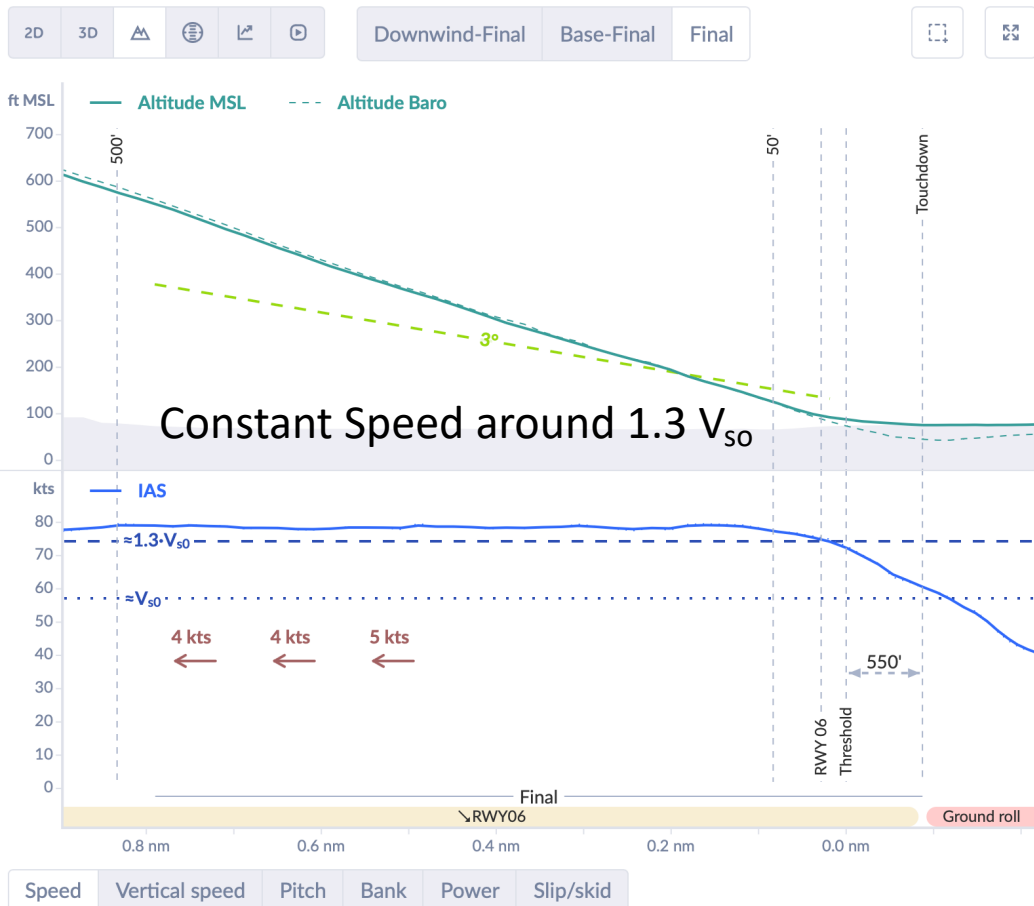
Approach score: 81%



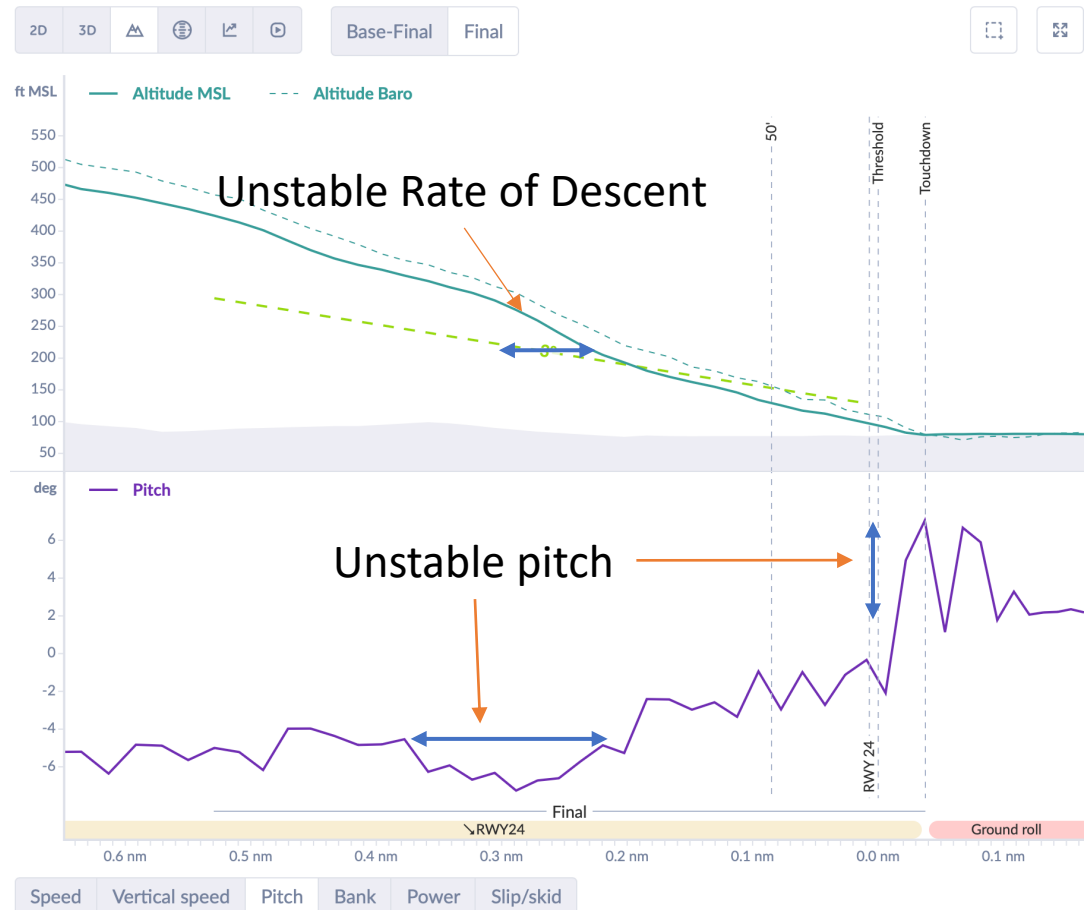
| Parameter | Value | Required | Score |
|--------------------------------|------------|------------|--------------|
| ✓ Flaps 100% height | ≈500' | ≥ 500' | 10 |
| ✗ On final height | ≈400' | ≥ 500' | 1 out of 2 |
| ✗ IAS below 500' | 82-115 kts | ≤ 93 kts | 0 out of 4 |
| ✓ Max descent rate below 500' | 961 fpm | ≤ 1000 fpm | 4 |
| ✗ Descent deviation below 500' | 65' | ≤ 50' | 3 out of 4 |
| ✓ 50' IAS | 84 kts | ≤ 88 kts | 12 |
| ✗ Touchdown IAS | 71 kts | ≤ 70 kts | 3 out of 4 |
| ✓ Touchdown pitch | 3.4° | ≥ 3.0° | 30 |
| ✗ Touchdown crab angle | 7° | ≤ 4.0° | 0 out of 10 |
| ✓ Touchdown from centerline | 6' | ≤ 15' | 10 |
| Total: | | | 73 out of 90 |

Take note to pay attention to speed and crab next time!

The Good



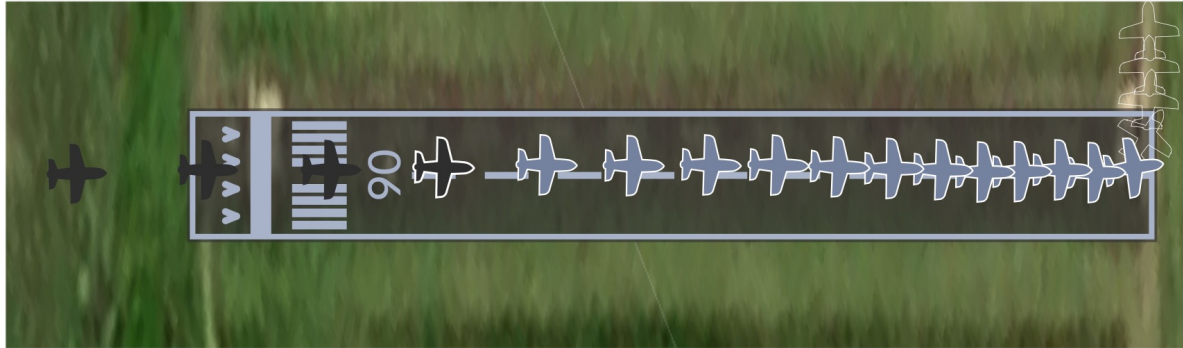
The Bad



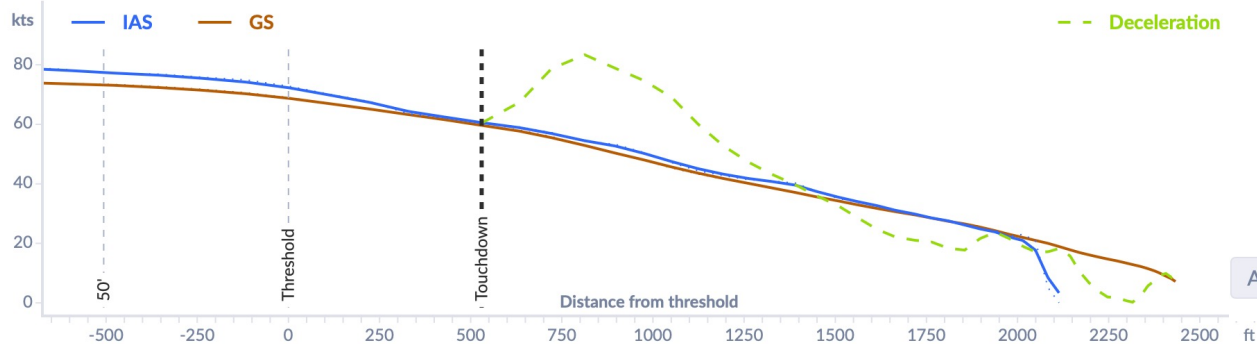
Short or Long landing?

LDA 2487' ?

POH ground roll 1206' ?



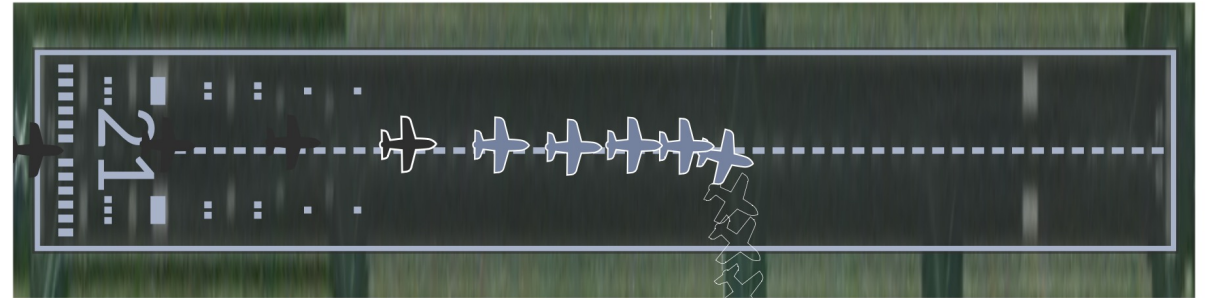
POH landing distance 2601' ?



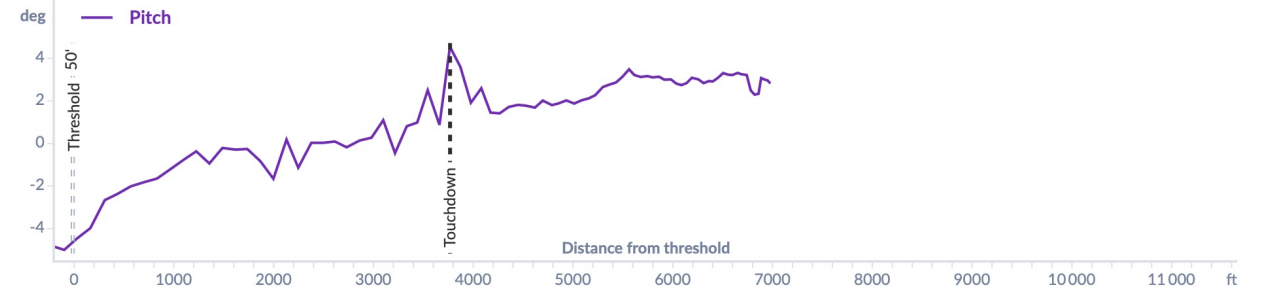
Altitude Height Speed Headwind Pitch Bank Power Vertical Speed Impact

LDA 11 492' ?

POH... ?



POH landing distance...



Altitude Height Speed Headwind Pitch Bank Power Vertical Speed Impact

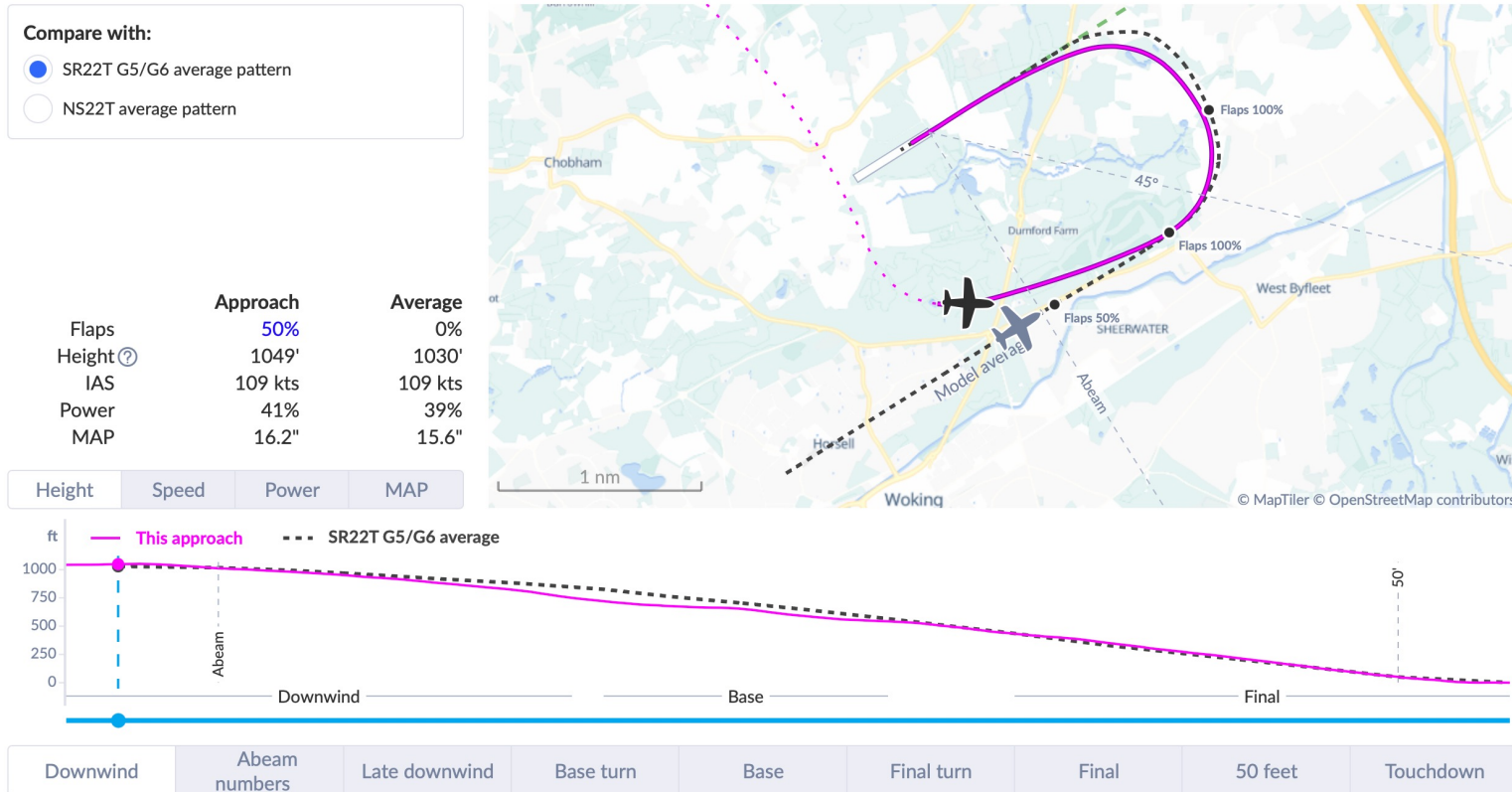
How well did you hand fly this approach?



Traffic Patterns
Flight Debrief

Traffic Pattern and Key numbers

Landing at EGTF 30 Sep 2023 - vs - Average pattern of SR22T G5/G6



Heights

Flaps 100%
≈900' 800' AGL

On Final
≈500' 500' AGL

Below 500' ▾

← 5-8 kts ↓ 3-6 kts

Descent path [?]
↙ 5.6° ↕ 13'

IAS
78-79 kts

Max descent rate
847 fpm

Power
13-24%

At 50'

IAS
77 kts

Pitch
-5°

Flare

Duration [?]
4 sec

Lateral drift [?]
Low

Touchdown

IAS
60 kts

Crab angle [?]
1°

Pitch
4°

Impact
0.3 G

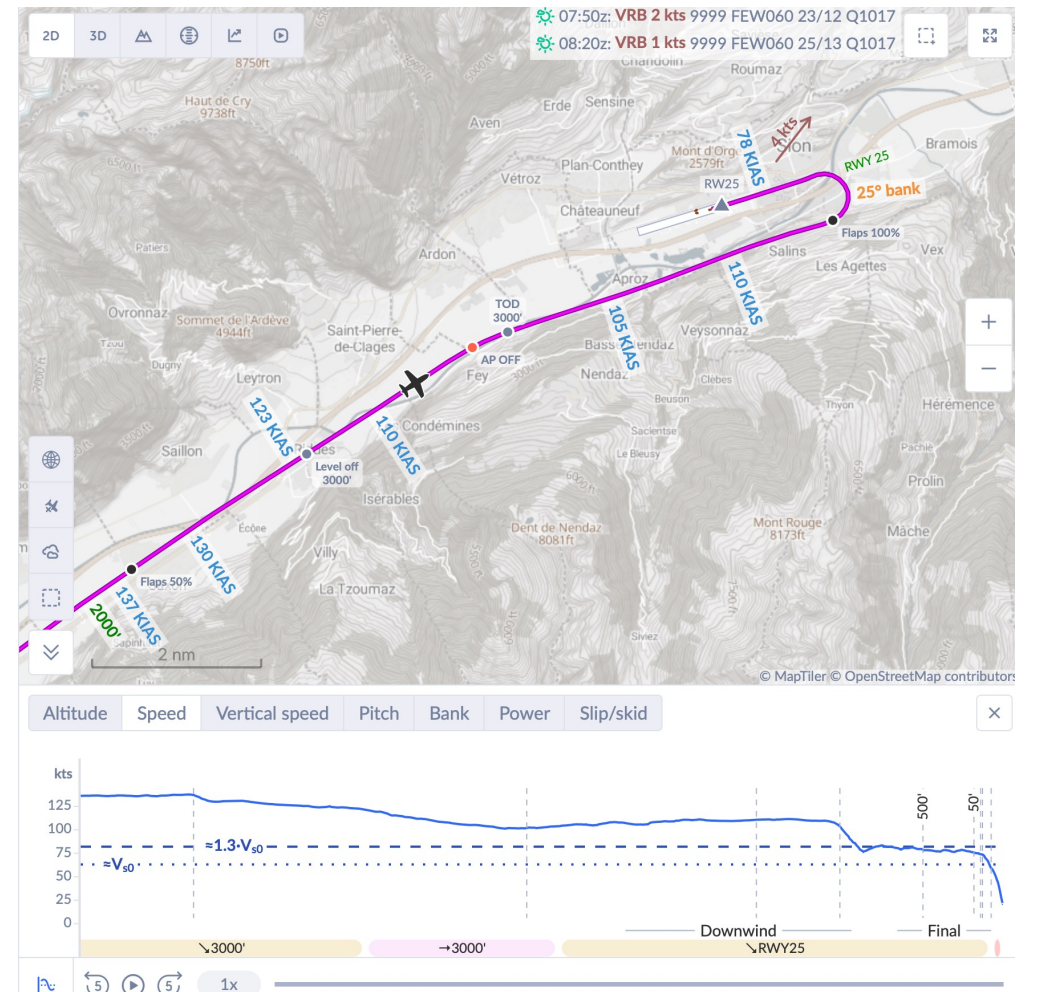
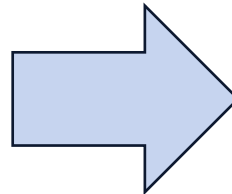
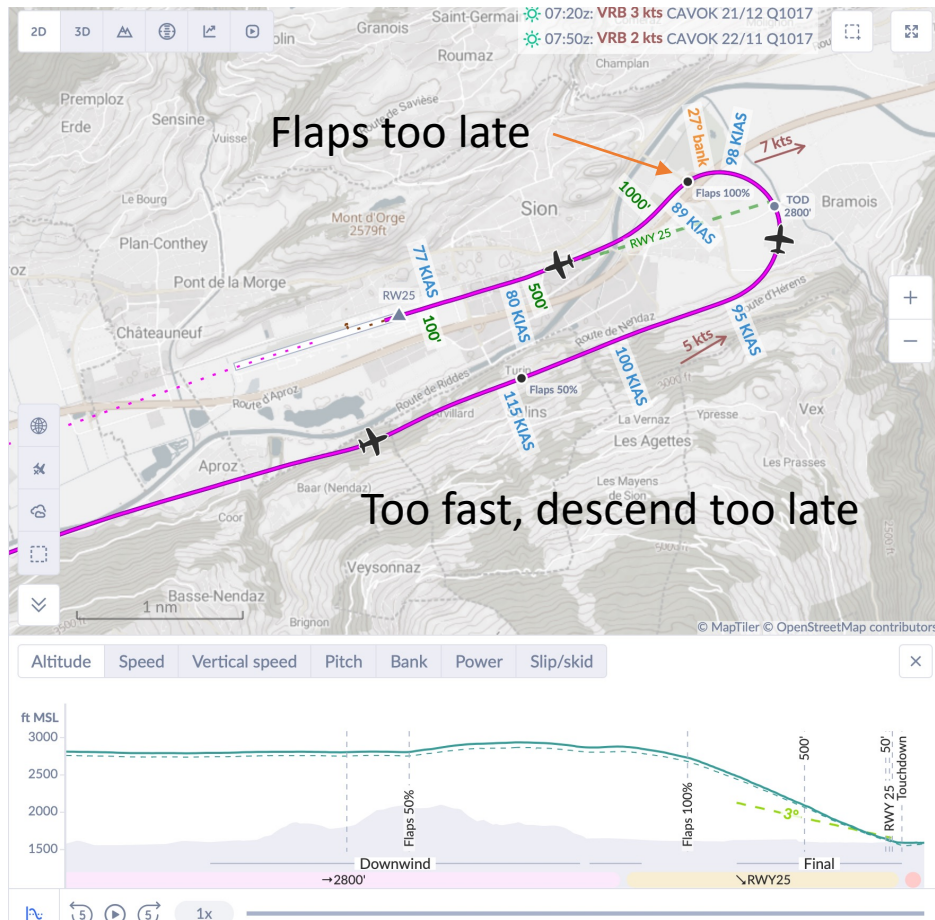
From threshold
550'

From centerline
← 5'

Landing performance

POH landing distance
2601' vs LDA 2487'

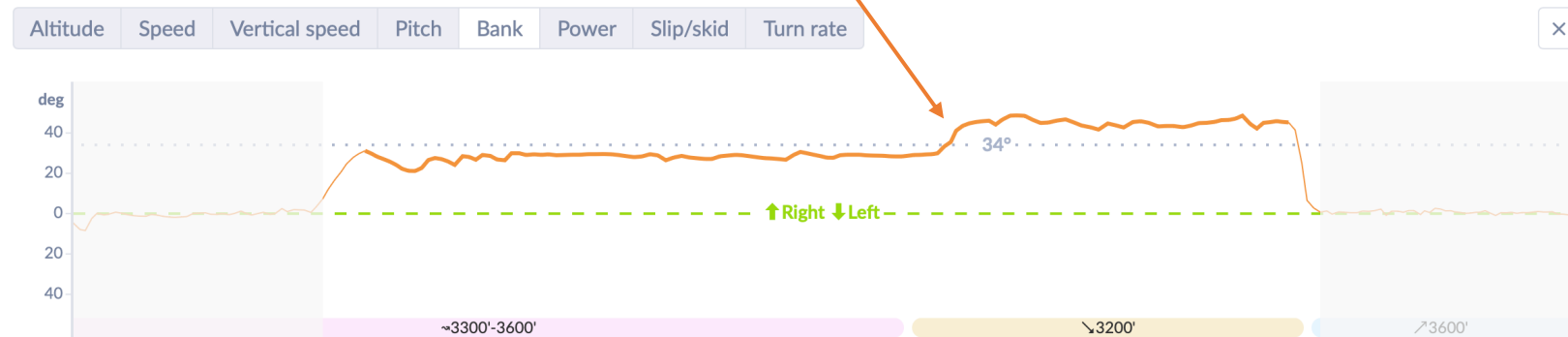
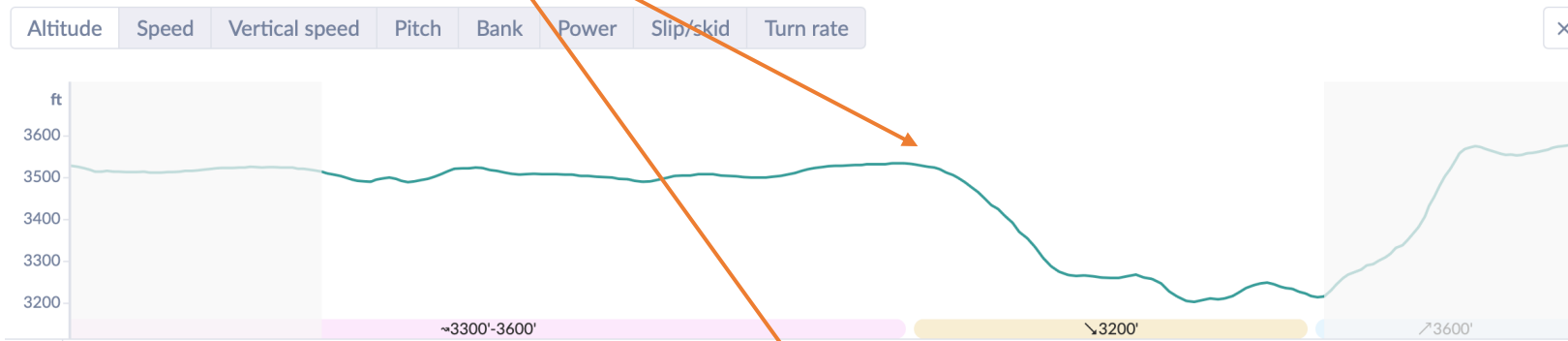
Review and correct what went wrong



Maneuvers: Flight Debrief

Quick review of steep turns - the bad

Deep dive in what happened



Quick color score

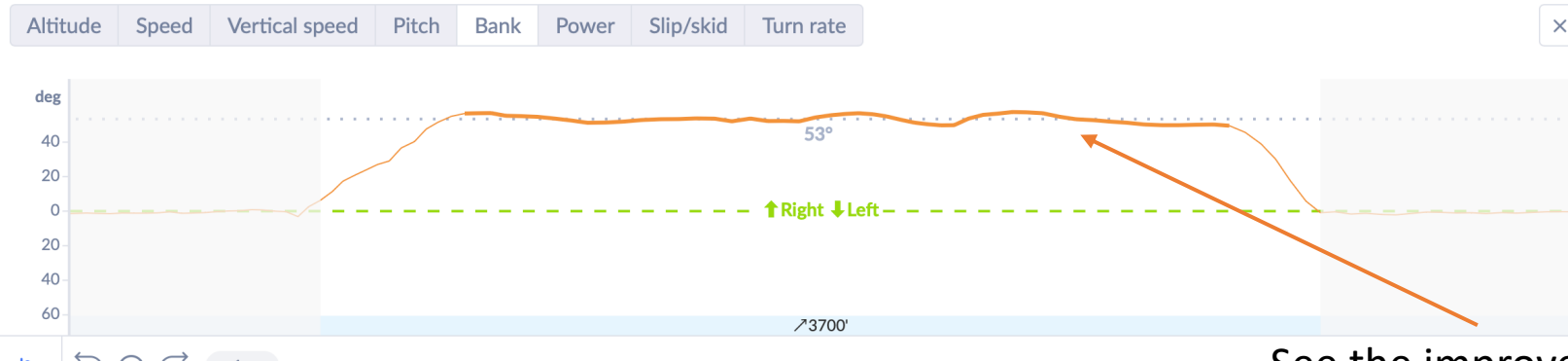
Flight maneuvers

- Climb to 3300'
- Climb to 3500'
- Descent to 3200' **Steep** × 2
- Climb to 3600'
- Level at ~3600' **Steep** × 2
- Descent to 3100'
- Climb to 3600'
- Slow flight **Steep** × 1¾
- Climb to 3700'
- Slow flight **Steep** × 1¾
- Climb to 4300'

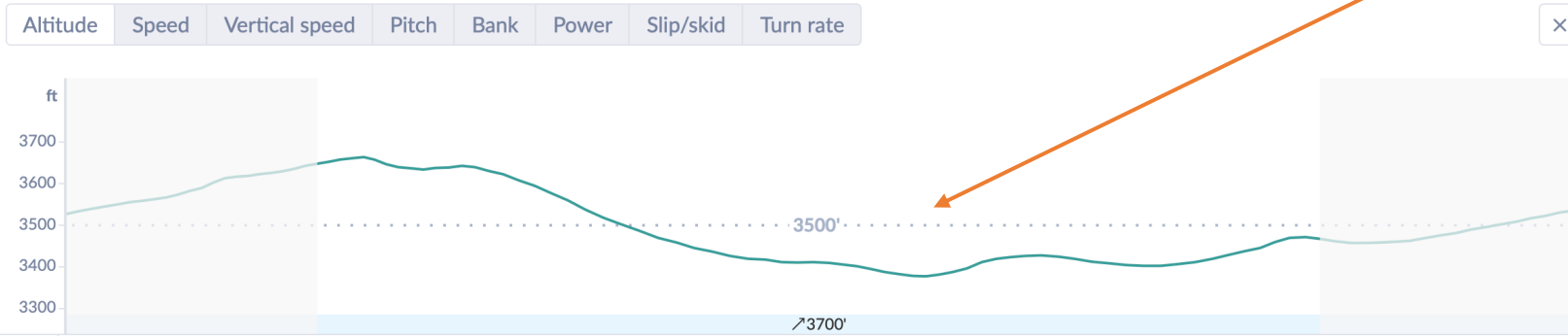
Left turn 360° × 2

| | | | | | |
|-----------|---------|---------|---|---------|---|
| Bank | 34° | ±15° | ● | 49° max | > |
| Altitude | 3500' | ↘ 3200' | ● | | > |
| IAS | 133 kts | ±11 kts | ● | | > |
| Slip/skid | Low | | ● | | > |

Quick review of steep turns - better



See the improvement



Flight maneuvers

- Climb to 3300'
- Climb to 3500'
- Descent to 3200' Steep ↻ × 2 ●
- Climb to 3600'
- Level at ≈3600' Steep ↻ × 2 ●
- Descent to 3100'
- Climb to 3600'
- Slow flight Steep ↻ × 1¼ ●
- Climb to 3700'
- Slow flight Steep ↻ × 1¼ ●
- Climb to 4300'

Left turn 360° × 1¼

| | | | | | |
|-----------|---------|---------|---|---------|---|
| Bank | 53° | ±4° | ● | 57° max | > |
| Altitude | 3500' | ±150' | ● | | |
| IAS | 121 kts | ±10 kts | ● | | > |
| Slip/skid | Low | | ● | | > |

Maneuvers in the pattern

← Back to summary < 162 of 163 flights >

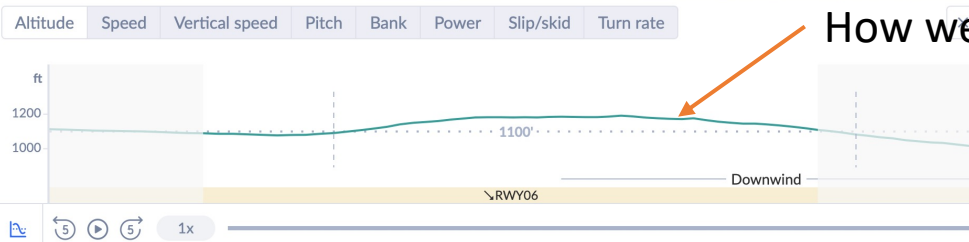
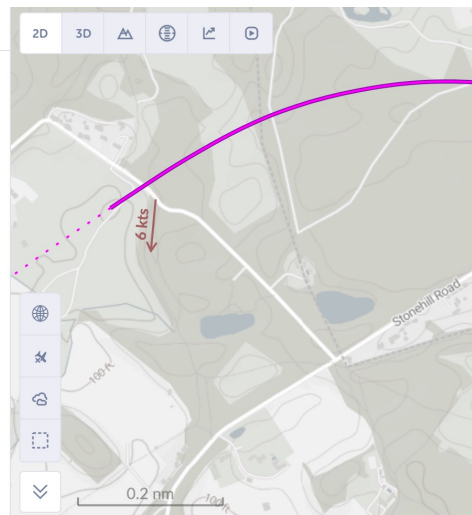
LFAT — EGTF

Le Touquet-Paris-Pl... 15 Oct 2023 Woking

Flight maneuvers

- Descent to 1500'
- Level at 1500'
- Descent to RWY06
- Left turn 115°

Bank 14° ±5° 19° max >
Altitude 1100' ±100' >
IAS 125 kts \ 93 kts >
Slip/skid Low >



← Back to summary < 160 of 163 flights >

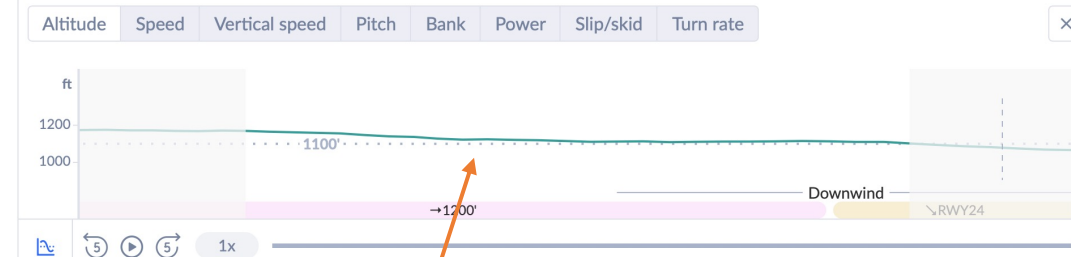
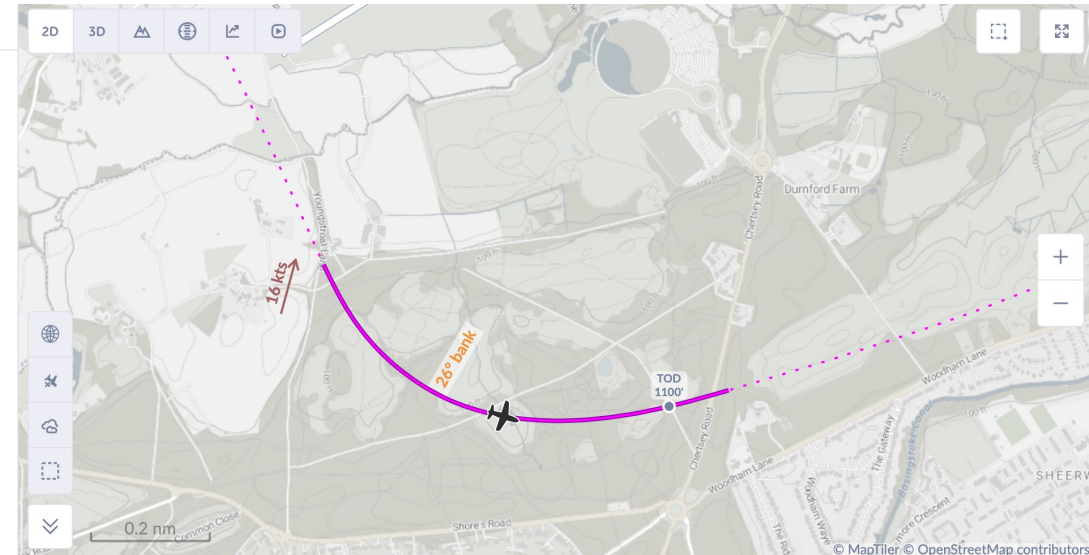
EGBT — EGTF

Turweston 30 Sep 2023 Woking

Flight maneuvers

- Level at ≈1200'
- Descent to RWY24
- Left turn 80°

Bank 21° ±6° 26° max >
Altitude 1100' ±70' >
IAS 110 kts ±4 kts >
Slip/skid Medium >



How well did you maintain altitude in the pattern?

Red dots help find issues in the pattern

Not coordinated in turn to final

← Back to summary

KDVO - KDVO

Novato Novato

Flight maneuvers

- Level at 1300'
- Descent to RWY13
- Climb to 1300'

Right turn 180°

| | | | | |
|-----------|--------|---------|---------|---|
| Bank | 16° | ±7° | 24° max | > |
| Altitude | 1100' | ↘ 500' | | > |
| IAS | 86 kts | ±11 kts | | > |
| Slip/skid | High | | | |

Map showing flight path with speed (90 KIAS, 83 KIAS, 80 KIAS, 85 KIAS, 93 KIAS, 97 KIAS) and altitude (750', 500', 250') markers. A 24° bank is indicated during the turn.

Altitude Speed Vertical speed Pitch Bank Power Slip/skid Turn rate

Graph showing bank angle over time, with a red line indicating a spike during the turn.

Too much bank in the pattern

← Back to summary

KDVO - KDVO

Novato Novato

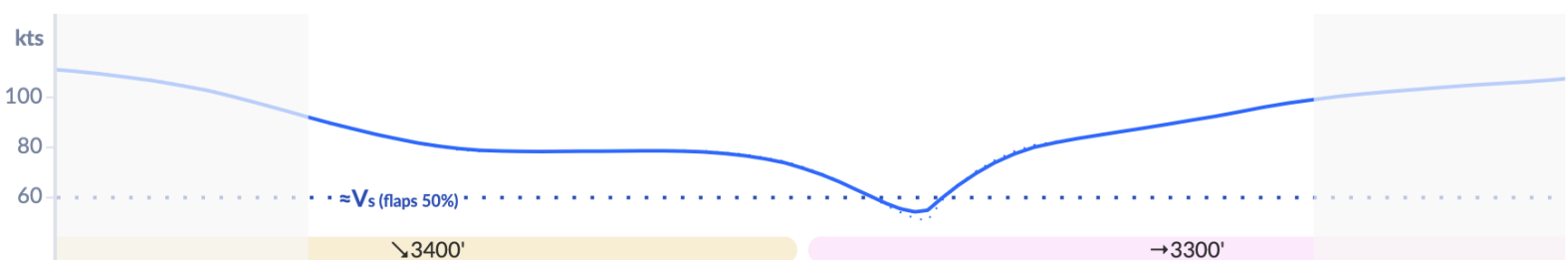
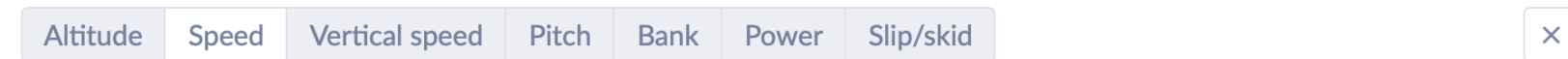
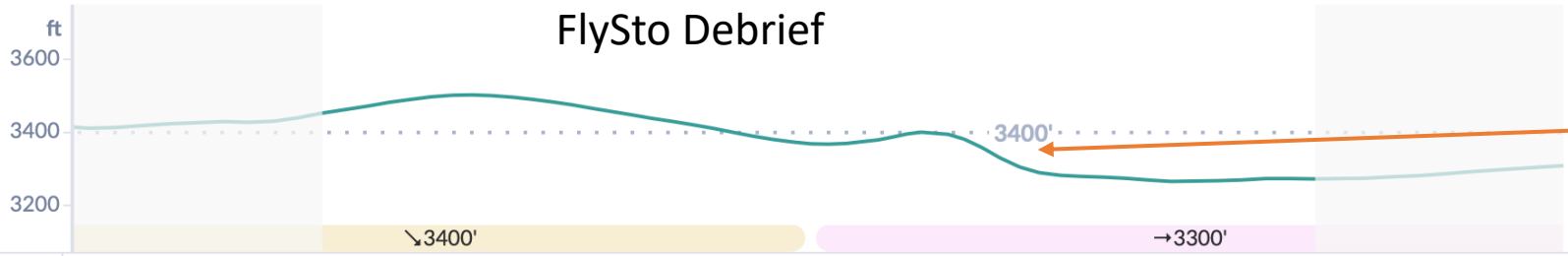
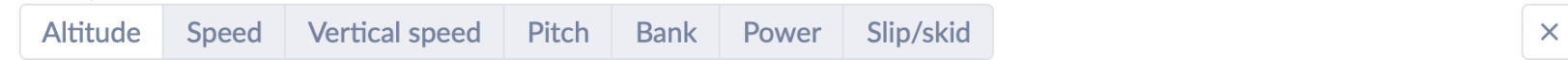
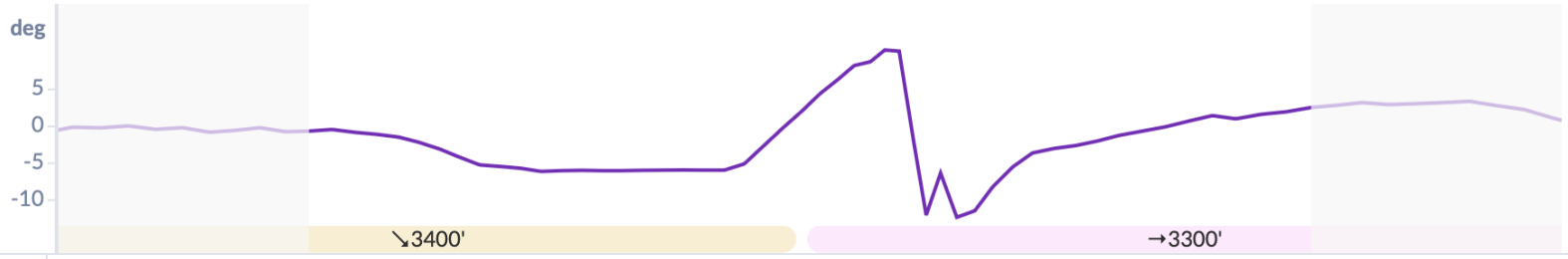
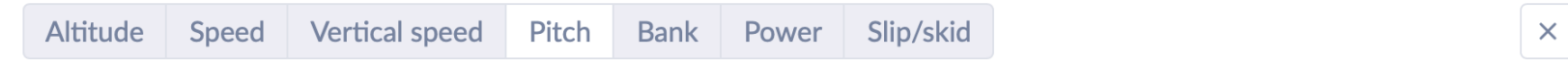
Flight maneuvers

- Descent to RWY29
- Left turn 245°
- Right turn 180°
- Final

Left turn 245°

| | | | | |
|-----------|---------|---------|---------|---|
| Bank | 30° | ±28° | 38° max | > |
| Altitude | 1600' | ↘ 1100' | | > |
| IAS | 113 kts | ±6 kts | | > |
| Slip/skid | Low | | | > |

Review stall recovery



Reconstruct what happened after an unexpected behavior

Scenario

Intense single pilot IFR Arrival in busy London TMA.

ATC descends and transitions you outside of controlled airspace

bumpy and windy condition and as you get out of IMC, visual with the field:

the plane starts to pitch up unexpectedly.

During the Flight

no time try to trouble shoot:

disconnect the autopilot, retake control

All is well

On the ground, you want to understand:

What happened?

What did you do wrong?

What do I need to do next time?

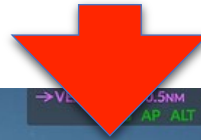
Reconstruct in FlySto step by step

- You can see in FlySto each second the state of the plane as it happened with the leisure of time on the ground



Before Leveling Off at 1900

Level Off at 1900



The pitch up that startled you



Now the mistake is easy to see!

Forgot to put back power!!!

Will remember next time...



Level Off at 1900



The pitch up that startled you



Before Leveling Off at 1900



Insights over time

Review parameters historically

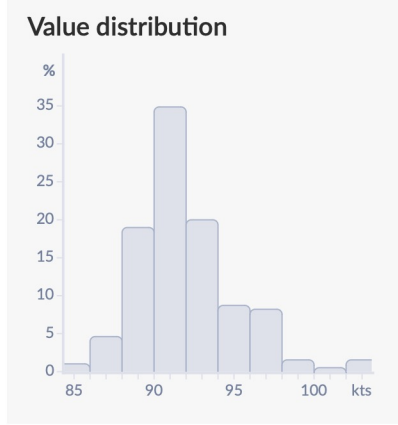
- Expose all parameters to quickly identify outliers or flight to go review in detail

| Date | Time | Airport | Type | Runway Procedure | Score | Below 500' | | | IAS below 1000' | IAS below 200' | 50' IAS | Touchdown | | |
|---|--------|---------|-----------------------|------------------|-------|-------------------------|------------|----------|-----------------|----------------|---------|-----------|--------|-------|
| | | | | | | Wind | IAS | Max fpm | | | | From THR | IAS | Pitch |
| October 2023 Full-Stop: 3, Missed: 2 | | | | | | | | | | | | | | |
| 28 Oct | 09:33z | EGTF | Full-Stop | 24 | 93% | ← 6-15 ↓ 4-12 | 73-97 kts | 708 fpm | 73-110 kts | 73-83 kts | 75 kts | 200' | 58 kts | 8.3° |
| | 09:06z | EGTK | Missed (to ≈300' AGL) | ILS Rwy 19 | | → 2 ↓ 12 | 97-100 kts | 482 fpm | 97-106 kts | | | | | |
| | 08:52z | EGTK | Missed (to ≈150' AGL) | ILS Rwy 19 | | → 0-3 ↓ 7-13 | 73-84 kts | 536 fpm | 73-108 kts | | | | | |
| 15 Oct | 14:56z | EGTF | Full-Stop | 06 | 100% | ← 5-8 ↓ 3-6 | 78-79 kts | 847 fpm | 75-99 kts | 78-79 kts | 77 kts | 550' | 60 kts | 3.7° |
| 15 Oct | 10:14z | LFAT | Full-Stop | RNP Rwy 31 | 100% | → 6 ↓ 4-9 | 80-93 kts | 596 fpm | 80-103 kts | 80-84 kts | 79 kts | 1050' | 63 kts | 7.1° |
| September 2023 Full-Stop: 5, Missed: 2 | | | | | | | | | | | | | | |
| 30 Sep | 14:52z | EGTF | Full-Stop | 24 | 99% | ← 11-14 ↓ 6-11 gusts 20 | 78-89 kts | 765 fpm | 78-109 kts | 78-83 kts | 81 kts | 650' | 63 kts | 6.6° |
| 30 Sep | 11:48z | EGBT | Full-Stop | 09 | 99% | → 6-10 ↑ 2 | 76-82 kts | 722 fpm | 75-110 kts | 76-81 kts | 74 kts | 900' | 67 kts | 3.7° |
| | 11:32z | EGTK | Missed (to ≈200' AGL) | ILS Rwy 19 | | ← 2 ↓ 6 | 87-98 kts | 711 fpm | 87-98 kts | | | | | |
| | 11:18z | EGTK | Missed (to ≈200' AGL) | ILS Rwy 19 | | ↓ 6 | 89-93 kts | 673 fpm | 89-100 kts | | | | | |
| 24 Sep | 11:59z | EGTF | Full-Stop | 24 | 81% | ← 9-16 ↓ 7-15 gusts 22 | 82-115 kts | 961 fpm | 82-122 kts | 82-88 kts | 84 kts | 250' | 71 kts | 3.4° |
| 23 Sep | 10:14z | EGEO | Full-Stop | 19 | 93% | Calm | 82-107 kts | 840 fpm | 82-117 kts | 82-95 kts | 81 kts | 450' | 61 kts | 6.0° |
| 3 Sep | 10:38z | EGTF | Full-Stop | 06 | 99% | ↓ 2 | 77-79 kts | 1094 fpm | 77-96 kts | 77-79 kts | 77 kts | 650' | 58 kts | 4.8° |

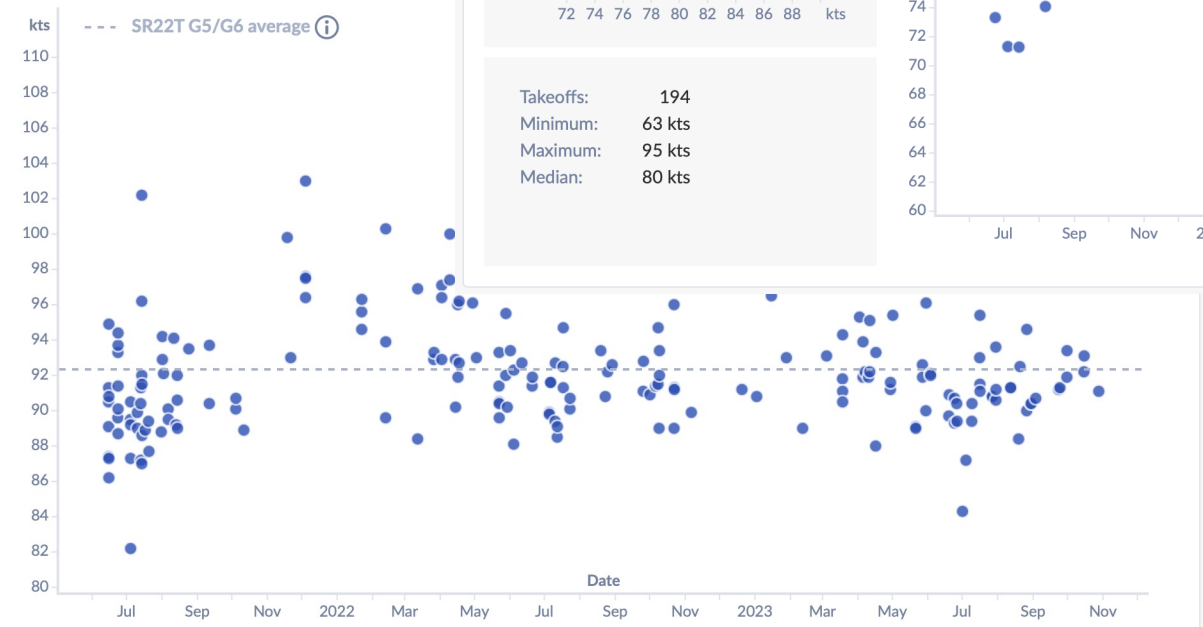
Historical Analysis of takeoff key metrics

Parameter: 50' IAS

Show as: Points Density plot



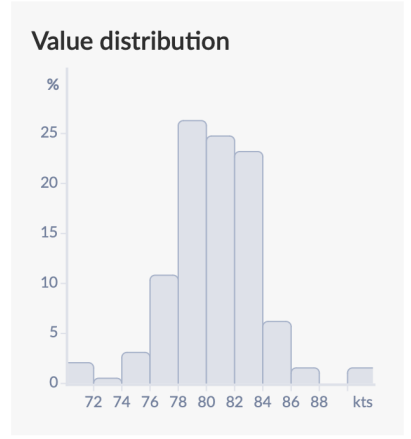
Takeoffs: 195
Minimum: 82 kts
Maximum: 109 kts
Median: 91 kts



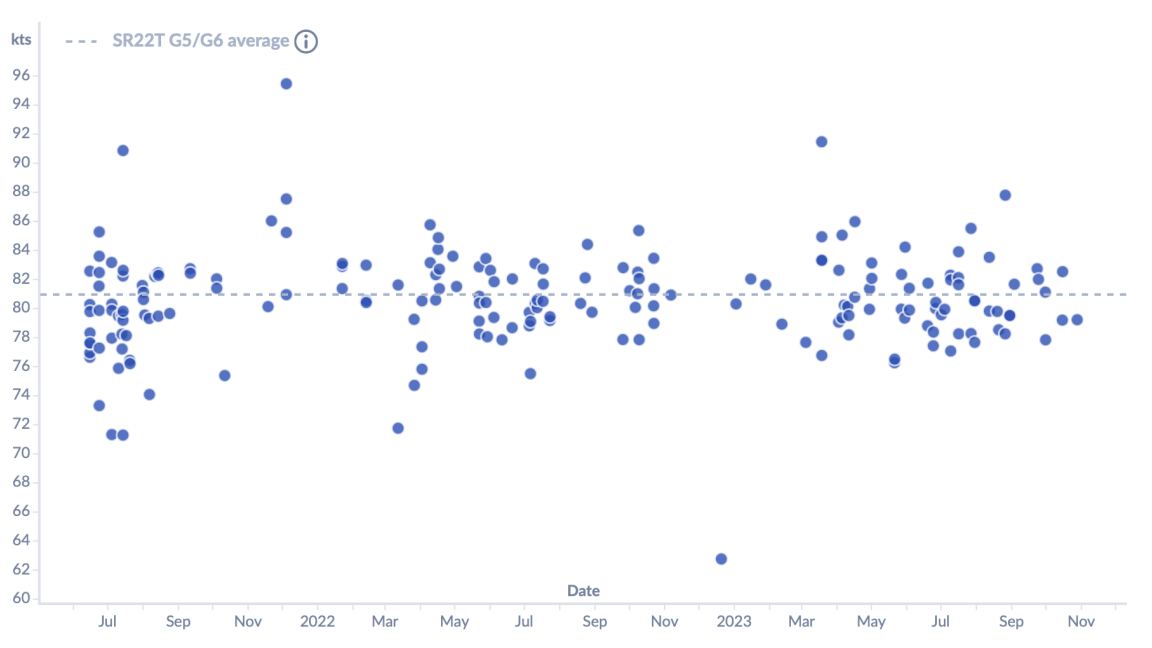
Takeoff Flight Approach

Parameter: Liftoff IAS

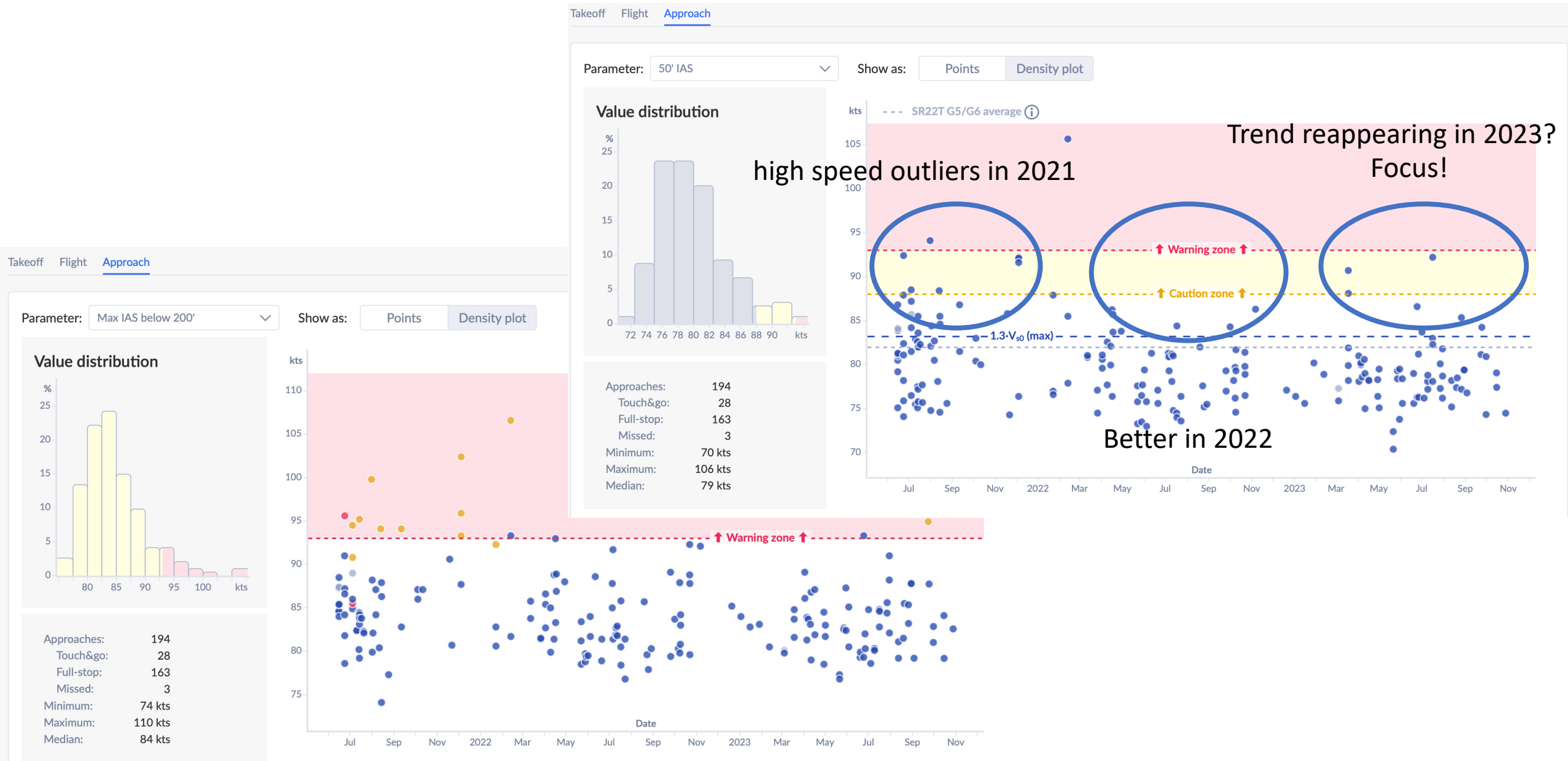
Show as: Points Density plot



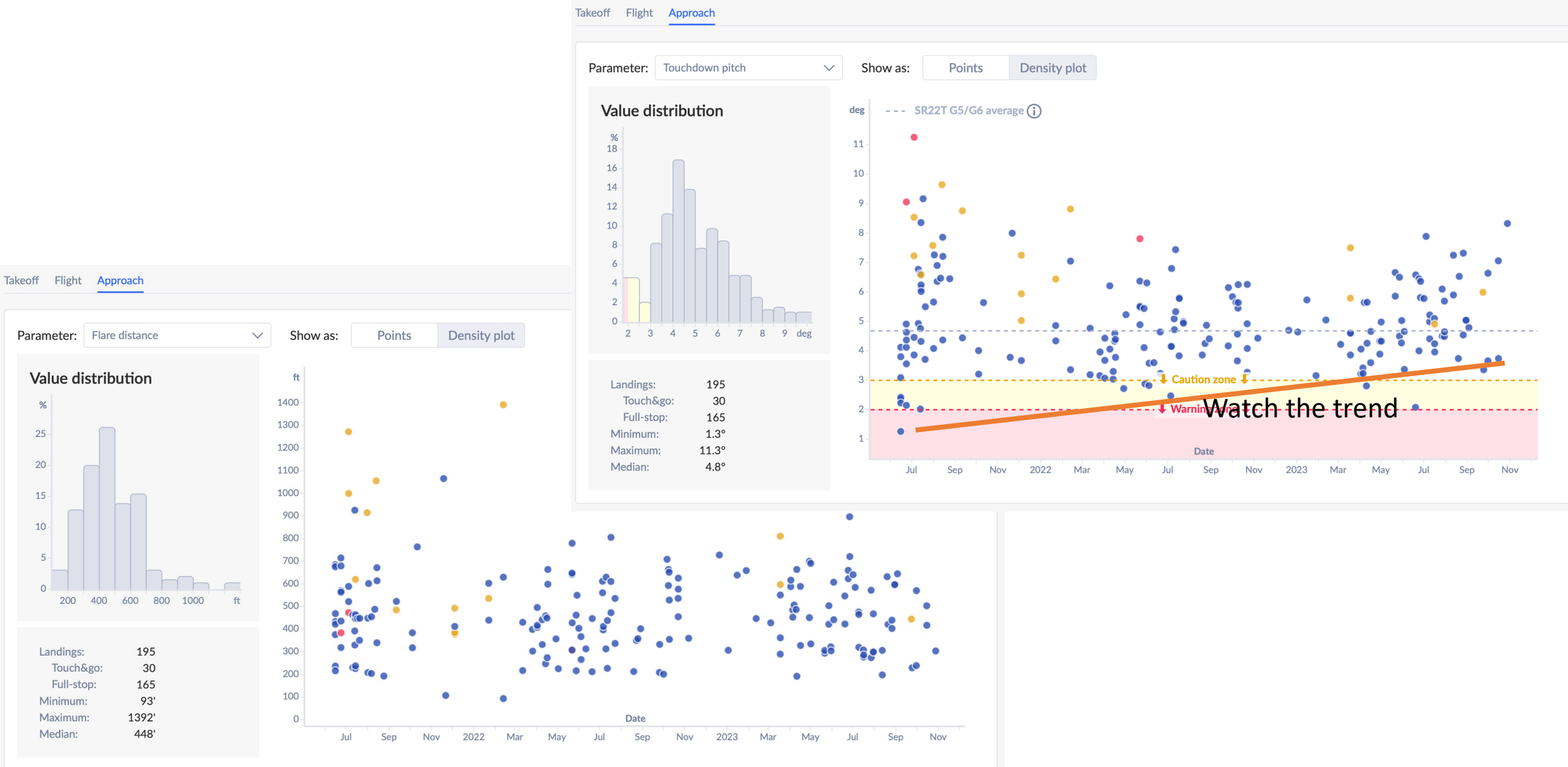
Takeoffs: 194
Minimum: 63 kts
Maximum: 95 kts
Median: 80 kts




Is speed control on landing improving?



How is flare and pitch on touch down over time?








In which flights did your flying trigger an alert?


NS22T  Cirrus SR22T G5/G6








Start Date — End Date New rule Reset to defaults


Approach Autopilot BARO Bank Angle CHT Descent Rate EGT Fuel Imbalance Height AGL IAS MAP Oil Pressure Oil Temperature Power RPM Startup TIT Taxi

Volts

- When Autopilot is ON AND Height AGL < 200' AND In flight for at least 2 sec  In 7 flights out of 163 
- When Autopilot is ON AND Height AGL < 400' AND In takeoff climb  for at least 5 sec  In 6 flights out of 163 

7 flights with selected flag  disable filter

| Date | From — To | Takeoffs Landings | Approaches |
|-------------|---|-------------------|---|
| 22 Oct 2022 |  LFOP → LFPN  | 1 | ILS Rwy 25R |
| 22 Oct 2022 | ◦ EGTF → LFOP  | 1 | ILS Rwy 22 |
| 6 Jul 2022 |  LFQA → LFLY  | 1 | RNP Rwy 34 |
| 16 Apr 2022 | ◦ LFOZ → LFQA  | 1 | RNP Rwy 07 |
| 16 Apr 2022 |  LFQA → LFOZ ◦ | 1 | RNP Rwy 05 |
| 12 Feb 2022 | ◦ EGTF → EGSU ◦ | 1 | Missed Approach ILS Rwy 23 EGMC Full-Stop Landing Rwy 24L EGSU |


NS22T  Cirrus SR22T G5/G6








Start Date — End Date New rule Reset to defaults

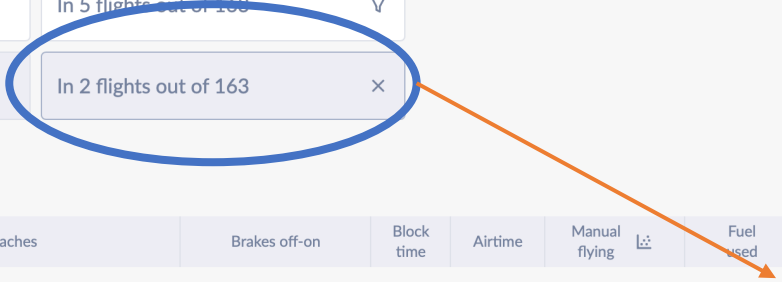
Approach Autopilot BARO Bank Angle CHT Descent Rate EGT Fuel Imbalance Height AGL IAS MAP Oil Pressure Oil Temperature Power RPM Startup TIT Taxi

Volts


- When Deviation below > 50% scale for at least 5 sec  No flights 
- When Lateral deviation > 50% scale for at least 5 sec  No flights 
- When Deviation above > 50% scale for at least 5 sec  In 5 flights out of 163 
- When Glideslope/glidepath interception from above > 75% scale  In 2 flights out of 163 

2 flights with selected flag  disable filter

| Date | From — To | Takeoffs Landings | Approaches | Brakes off-on | Block time | Airtime | Manual flying  | Fuel used |  |
|-------------|---|-------------------|------------|-----------------|------------|---------|---|--|---|
| 22 Oct 2022 | ◦ EGTF → LFOP  | 1 | ILS Rwy 22 | 07:21z — 08:42z | 1:21 | 1:08 | 0:08 | 21.5 usg  | |
| 13 Aug 2021 |  LFMD → LFLX  | 1 | RNP Rwy 03 | 08:08z — 10:25z | 2:17 | 2:04 | 0:05 | 39.2 usg  | |






Engine monitoring - “flags” that show deviations

NS22T  Cirrus SR22T G5/G6

Start Date — End Date New rule Reset to defaults


Approach Autopilot BARO Bank Angle CHT Descent Rate EGT Fuel Imbalance Height AGL IAS MAP Oil Pressure Oil Temperature Power RPM Startup TIT Taxi

Volts

 When TIT > 1750°F for at least 5 sec  No flights 










No flights with selected flag





Start Date — End Date New rule Reset to defaults [Click here to see all flights](#)

NS22T  Cirrus SR22T G5/G6

Approach Autopilot BARO Bank Angle CHT Descent Rate EGT Fuel Imbalance Height AGL IAS MAP Oil Pressure Oil Temperature Power RPM Startup TIT Taxi

Volts

| | |
|--|--|
|  When CHT > 460°F for at least 5 sec  | No flights  |
|  When CHT > 420°F for at least 30 sec  | No flights  |
|  When CHT < 240°F AND In flight for at least 30 sec  | In 50 flights out of 163  |
|  When one cylinder CHT is higher than average by more than 100°F for at least 60 sec  | No flights  |
|  When one cylinder CHT is lower than average by more than 100°F for at least 60 sec  | No flights  |

| Date | From — To | Takeoffs Landings | Approaches | Brakes off-on | Block time | Airtime | Manual flying  | Fuel used |  |
|--|-----------------|-------------------|---|-----------------|------------|---------|---|-----------|---|
| October 2023 3 flights, 3:55 block time, 3:09 airtime, 457 nm, 58 usg | | | | | | | | | |
| 28 Oct | ◦ EGTF → EGTF ◦ | 1 | Missed Approach ILS Rwy 19 EGTK  Full-Stop Landing Rwy 24 EGTF | 08:03z — 09:36z | 1:33 | 1:14 | 0:10 | 21.5 usg | |
| 15 Oct | ◦ LFAT → EGTF ◦ | 1 | Landing Rwy 06 | 13:50z — 15:02z | 1:11 | 0:56 | 0:06 | 18.1 usg |  2 |

Thanks

Rick Beach for his support, feedback and ideas

Patrick Lienhart for his feedback and additions to this presentation

The whole FlySto.net team for creating such a great product!



<https://flysto.net>