

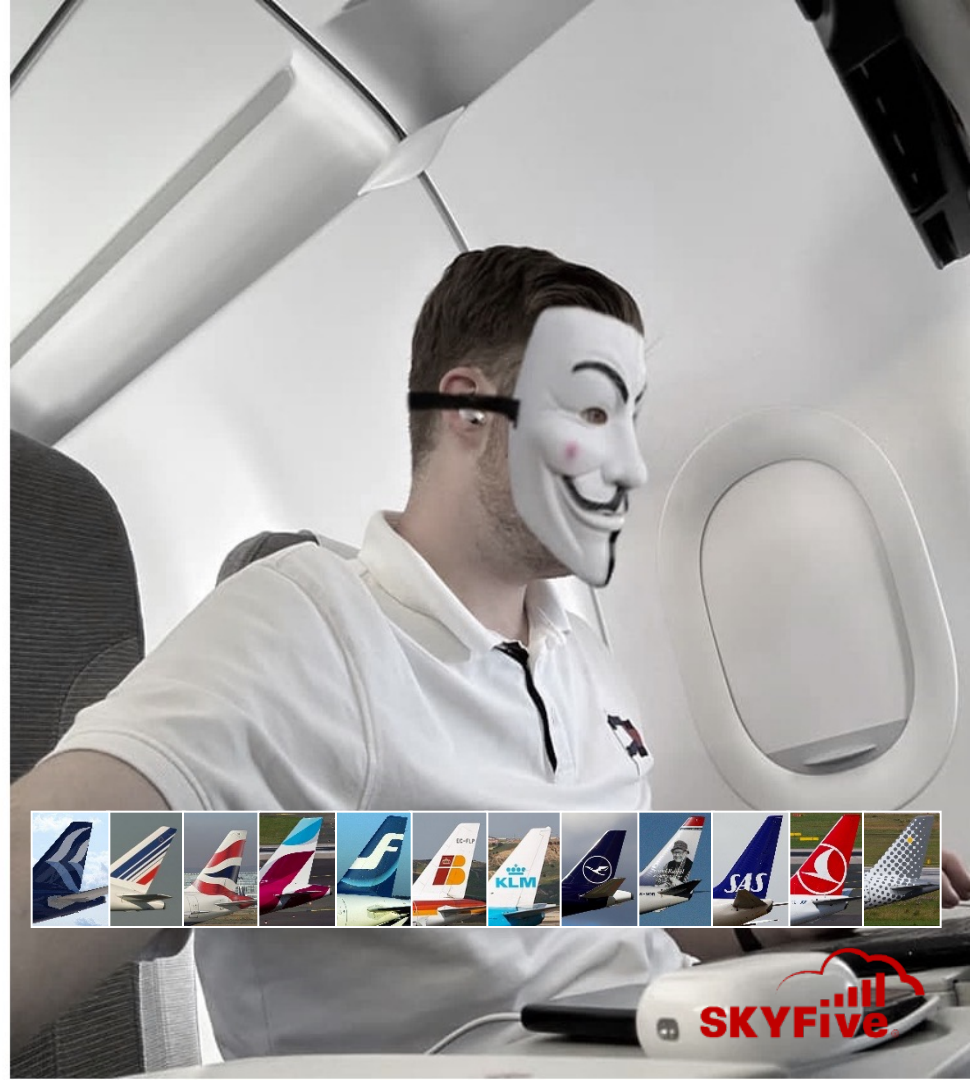
Inflight Wi-Fi benchmarking

European test campaign 2023

What was this test campaign all about?

- Purpose
 - Benchmark inflight Wi-Fi services in Europe
 - Study best practices
 - Develop better methods than Speedtest
- Scope: European airlines
 - IFC penetration <30%
 - Short flights, mostly on single-aisles
 - Mobile ARPU: Portugal \$14, USA \$45
- 12 airlines, 3 technologies
 - Represent 83% of IFC systems on single-aisles
 - 4 Ka-SatCom, 4 A2G (EAN), 4 Ku-SatCom*
- Inflight Connectivity, not wIFE
 - Main purpose: go to Internet
- Automated test procedures
 - Up to 10 GB per flight
 - And no, we did not wear these masks

* Only 2 out of 4 had a working system on the days of testing.

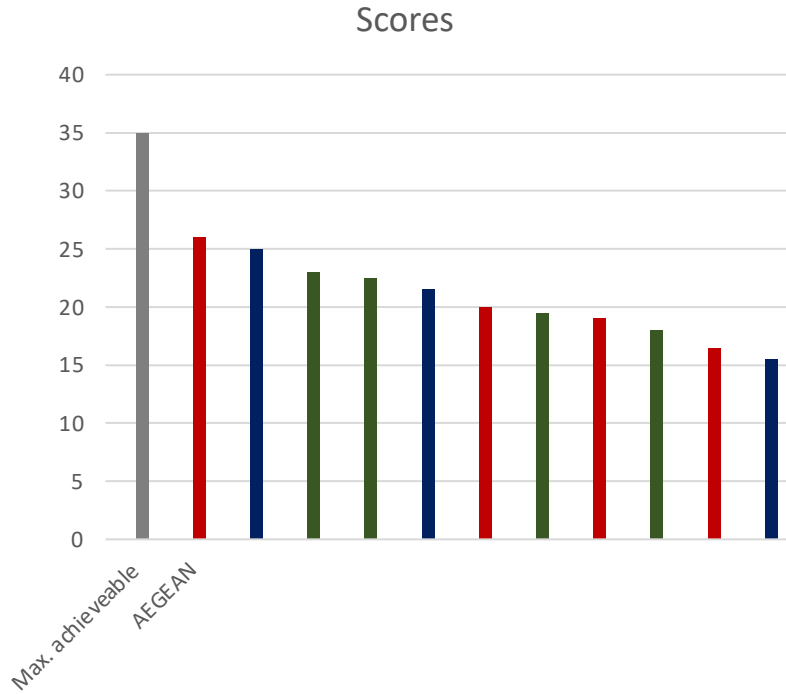


Services were holistically assessed across a range of properties and parameters

Measuring passenger experience requires much more than speedtesting

Experience	Service discoverability during the complete travel process	Purchasing and payment options	Free, freemium, and paid service offerings	Time to get online	Applications usability (messaging, browsing, streaming, conferencing, cellular calling)
Technical performance	Latency (continuous measurements with 3 endpoints)	Downlink and uplink speeds (continuous measurements with 2 methods)	Service availability, gaps, and other flaws	Concurrent users (estimated)	System capacity and service consistency for 50 and 100 connected passengers

Based on a weighted scorecard, AEGEAN came out as the best



Some key findings

- Passengers cannot know what they will get: the best and worst result is typically a factor of 10 apart
- Free Wi-Fi is on the rise: 50% offered it with some restriction on time, speed, application
- This time, technology did not necessarily not determine the winner...
- ... however, a capacity assessment is coming next: what, if not 10 but 100 people availed the service?

Parameter	Lowest	Highest
Time to get online	00:30	03:40
Latency	65 ms	874 ms
Downlink speed	1.1 Mbps	47.4 Mbps
Uplink speed	0.5 Mbps	12.4 Mbps
Concurrent users (estimated)	6	96
Price (normalized per hour)	2,51 €	10 €

AEGEAN Wi-Fi onboard

- Visibly and consistently advertised
- Easy access via a well-structured portal
- Free and freemium options available
- Reasonably priced for all others
- Mobile payment supported
- All applications worked flawlessly
- Excellent throughput and latency
- Scored 74% of achievable points, thus there is always room to improve

Airlines, please see us at stand 1-192 or contact benchmark@skyfive.world for a detailed report.

We salute Wi-Fi onboard!



Wi-Fi
onboard

Internet onboard,
just like at home!

A STAR ALLIANCE MEMBER 

AEGEAN 



Thank you!

**Meet us here in Lisbon at stand 1-192,
or contact us at benchmark@skyfive.world**