Different views on Performance

Benchmarking EU / US

Inter FAB Communication Workshop

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The view on ATM is a political one.

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I think it is our common obligation to make Europe more competitive as it currently is. The economy always relies on a functioning and efficient air transport system and air traffic management. Unfortunately, we are currently not really very efficient. Following the latest EU-FAA comparison, the airspace users in Europe have to pay about double as much as in the US to have one aircraft controlled for one flight hour. So we have to work on the efficiency.

http://www.eurocontrol.int/sites/default/files/content/documents/media/dg-articles-2013/1302-lps-slovakia.pdf

Currently **the costs of providing air traffic control for one airplane per hour are almost twice as expensive in Europe than in the USA.** We haven't even brought up Asia in the discussion. Costs arising from the provision of air navigation services in Europe run to about EUR 14 billion annually. Of these, 8.3 billion are air navigation services charges. The remainder is costs that the airspace user has to bear due to inefficiencies. **Thus, delays cost about EUR 5.2 billion per year.**

Interview Frank Brenner, Flugrevue, February 2013

airportwatch

The Single European Sky is intended to harmonise air traffic control better, as they are fragmented and inefficient. EU airspace is in 27 national air traffic control systems, providing services from some 60 air traffic centres **while the airspace is divided into more than 650 sectors**. That means airspace is currently structured around national boundaries and so flights are often unable to take direct routes.

With 27 member states, the EU's airspace is highly fragmented. On average, a plane zig-zags 49 extra kilometers (30 miles) per flight. Where the US has 22 en-route air navigation service providers, Europe has more than 60. That wastes fuel, affects the environment and increases prices. The US, at about half the cost, runs a similar-sized airspace.

http://www.dw.de/eus-single-sky-fights-national-delays/a-16682912

Deutsche Welle

…it seems to be the only one,

but…

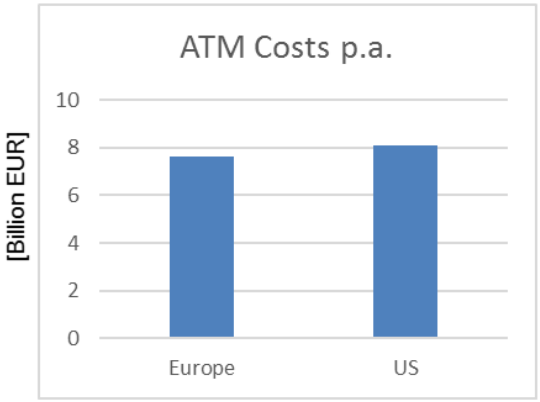
The facts of the EU / US Comparison

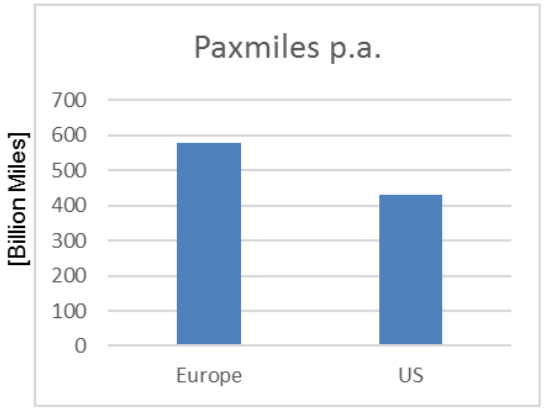
	U.S.A.	Europe
(Continental) airspace	10.4 million km^2	11.5 million km^2
Sectors (max)	955[a]	679[a]
Controlled flights per day	23,911[b]	24,475[b]
Pax per day	2.2 million[c]	2.7 million[c]
Pax miles per day	1.18 billion[d]	1.58 billion[d]
ATCOs	16,793[e]	16,700[e]
Cost of ATM per year	$ 10.95 billion [f]	EUR 7.6 billion [f]
... in EUR used by PRU	EUR 8.1 billion [g]	EUR 7,6 billion [g]
... in EUR 2016	EUR 9.9 billion [h]	EUR 7.6 billion [h]

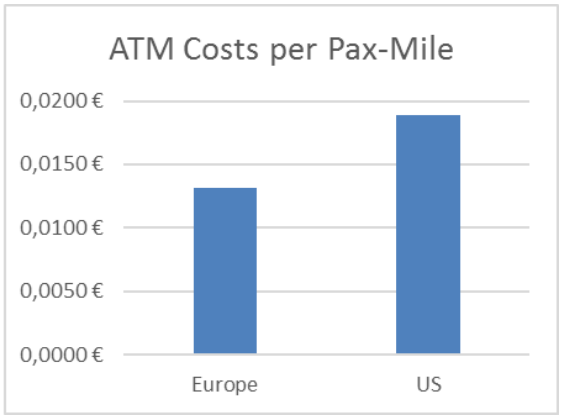
a 2008 U.S./Europe Comparison of ATM-related Operational Performance
b only scheduled IFR Flights; Source: FAA
c Amount of IFR Passenger Flights x average amount of PAX per movement
d Pax x average distance (from 2015 U.S./Europe Comparison of ATM-Related Operational Performance)
e FAA Air Traffic Controller Workforce Plan 2012 – 2021, 2010 U.S./Europe Comparison of ATM-Related Operational Performance (EUROCONTROL)
f 2014 U.S./Europe Continental Comparison of ANS Cost Efficiency Trends
g 2014 U.S./Europe Continental Comparison of ANS Cost Efficiency Trends
h Average exchange rate USD/EUR in 2016 = 0,90372

Passenger View

The official PRU/FAA Benchmark shows one specific point of view. The FABEC PMG approach shows that from a passenger point of view (IFR scheduled passenger service only) the EU is approx. a third cheaper than the US.



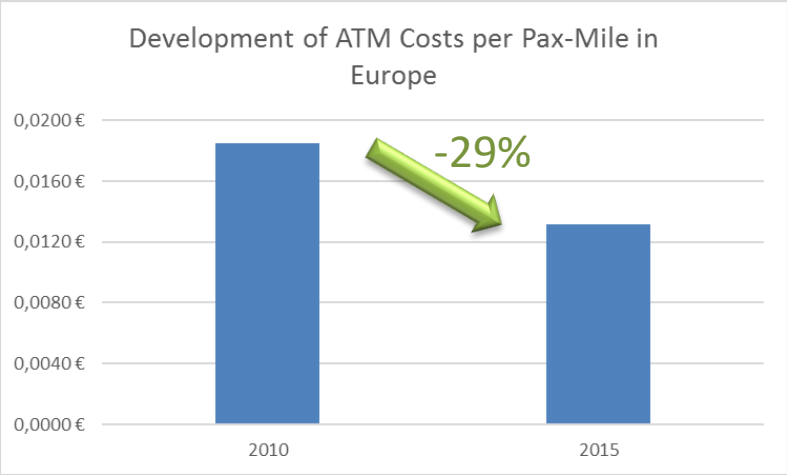




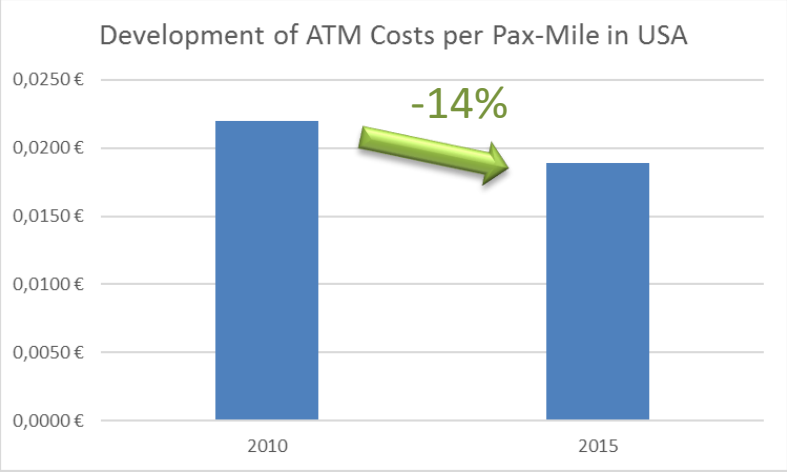
Source: FAA, PRU
Data: 2015 (2014 for ATM costs)

FAA, EUROSTAT, own calculations

Better cost-effectiveness in EU and US



Although EU has already been more efficient per Pax-Mile in 2010, the EU has improved more than the US, reducing the costs per Pax-Mile 29%.



The US was able to reduce the costs per Pax-Mile by 14% from 2010 to 2015.

Different working conditions or apples and pears…

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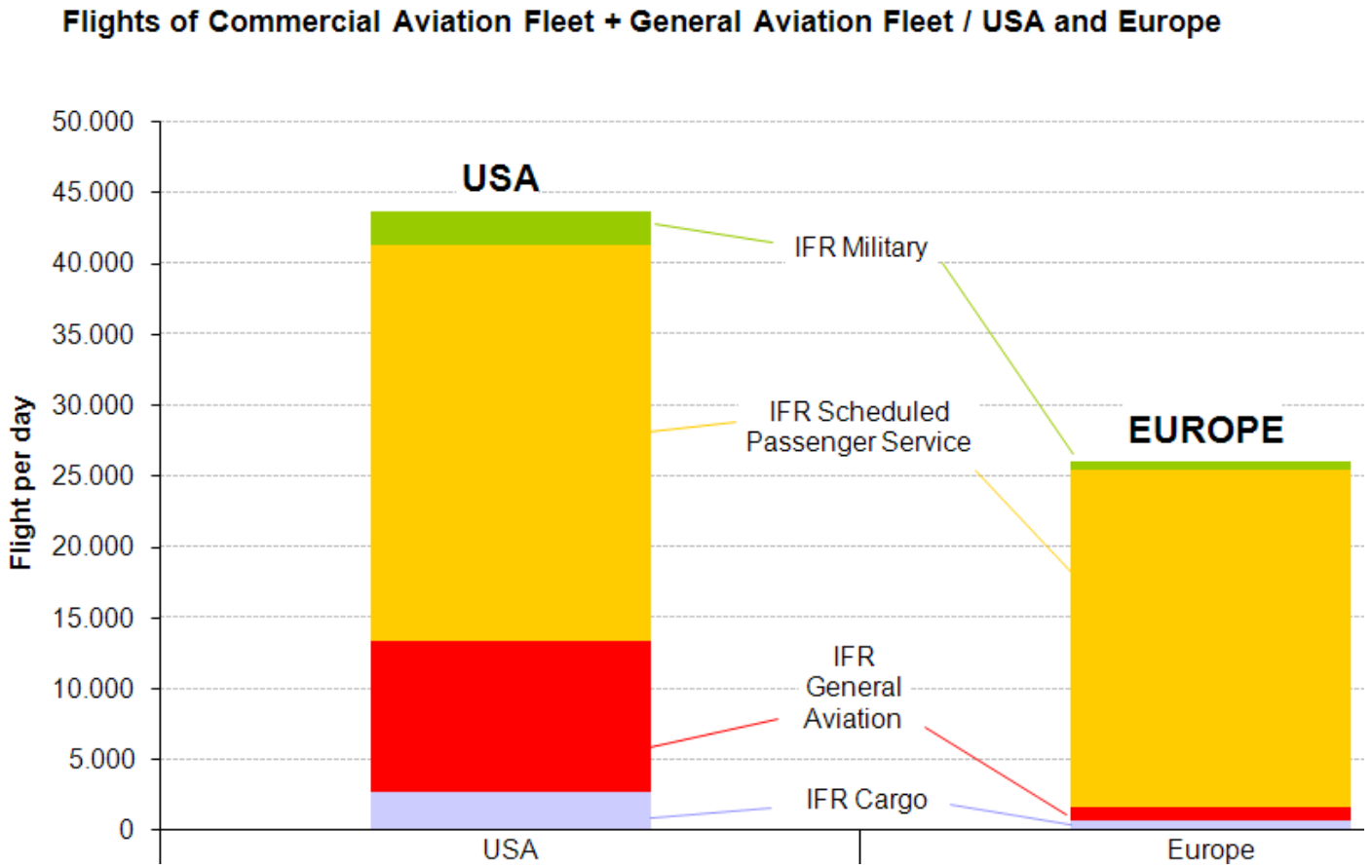
Statistics relating to controllers	USA / FAA	Germany / DFS	France / DSNA
Annual leave	13 - 26 days	32 - 37 days	25 - 27 days
Working hours per week	40 hrs	31 – 37 hrs (including breaks)	35 hrs (including breaks)
Maternity leave	Not standard practice	70 days per child	108 - 182 days per child
Paid sick days	Up to 13 days p.a. (cumulates, if not taken)	6 weeks to unlimited (depending on contract)	3 months 100% paid sick leave, then 9 months at 50%
Educational leave	Not standard practice	5 days p.a.	6 days p.a.
Recuperation cures	Not standard practice	3 – 7 days p.a.	Not standard practice

The higher traffic numbers per controller in the USA are connected with the working conditions and other work methods:

- Higher percentage of single sector operations (the concept that four eyes see more than two is not standard practice)
- Temporarily/Totally unmanned FAA towers

Source for FAA data: U.S. Bureau of Labor Statistics
Source of DFS data: DFS
Source of DSNA Data: DSNA

Comparison between types of flights in USA and Europe



The most apparent difference is the large number of IFR general aviation flights in the USA.

Source for FAA data: Bureau of Transportation Statistics, FAA ETMS, OPSNET, 2009
Source for European data: EUROCONTROL 2009 with deductions for IFR Cargo and GA IFR

making the difference

A comparison of air navigation charges

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The assertion that ATM per passenger and flight is cheaper in the USA is not necessarily so. The charges systems are, however, very difficult to compare.

	USA	Europe / DFS
Kind of charges	Passenger-oriented charges per flight (ticket tax or overflight tax)	Aircraft-oriented charges per distance flown and aircraft mass
Charges are used for	FAA (ATO budget share approx. 67%)	ANSPs
A passenger pays for a domestic flight over 560 km … *	1) Air transportation excise tax: 7.5% of ticket price 2) $3.70 segment fee	EUR 4.59 (EUR 3.15 en-route charge + EUR 1.44 approach fee)***
… if the one-way ticket costs $130 / EUR 100 **	$13.45 Ticket Tax + $ 5.47 General Tax = $18.92 → equals **$12,68 or EUR 11.46** for FAA/ATO (67% budget share)	**EUR 4.59**

In this calculation, the passenger pays **more than twice** in the USA.

Currency exchange rate average 2016: 0,90372 €/$

* Such as Munich-Hamburg
** Without additional fees for baggage etc.
*** DFS 2012, Airbus A320, 165 pax

making the difference