



ATC Privatization — Good or Bad?

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Many in Congress and the airlines are working towards moving the U.S Air Traffic Control (ATC) system out from under the control of the Federal Aviation Administration (FAA) and turning it into a non-profit corporation, with airlines and other airspace users on the Board of Directors.

As quoted in *USA Today* (June 21, 2017), Congressman Bill Shuster (PA), House Transportation and Infrastructure Committee Chairman, said that *“For too many years, we have put money into the FAA to develop new technologies and gotten very little back. It’s really a waste of the taxpayers’ money - billions of dollars. Maintaining the status quo is unacceptable.”*

Congressman Shuster’s historical summary of past FAA programs is 100 percent correct, as FAA has failed to produce the desired result, even after spending billions of tax dollars. But if you take the time to fully understand the cause of airline delays and airspace/airports inefficiency/congestion/chaos (which is the airlines), it is easy to see that neither ATC privatization, nor NextGen (FAA’s ATC modernization program) will solve the problem.

Besides, before we rush to such a huge undertaking, maybe, just maybe, we should have a well-defined problem statement, clear goals, a solid business/technical plan, and a sound budget.

In other words, airlines, passengers, airports, General Aviation — in fact, all aviation — needs a clear understanding of the costs and benefits, i.e., what will the privatization and NextGen proposals do, and what won’t they do.

Unfortunately, to date none of this is available.

That said, I am not against ATC privatization or NextGen, but the engineer in me screams for a well-thought-out system focused solution to the problem of airline delays and airspace/airports inefficiency/congestion/chaos, something the supporters of privatization and NextGen have yet to provide.

So, instead of actual solutions, with proven benefits, we continue to hear about the broad wonders of ATC privatization and NextGen from those who support these programs. Unfortunately, for passengers and airlines, many of the arguments for privatization and NextGen are based on numerous inaccurate assumptions.

- ▶ Will ATC privatization reduce ATC/government costs — maybe, maybe not (not my area of expertise).
- ▶ Will ATC privatization allow a better internally run ATC system — probably.
- ▶ Will ATC privatization help reduce airline delays, airspace/airport inefficiency/congestion/chaos or passenger mistreatment — *absolutely not* (which is my area of expertise).



Consider These Eight Often-Repeated But Inaccurate Claims

1 U.S. Airlines Support ATC privatization because it will improve operations.

While not said specifically, this is the only reason any airline would support such a wide-ranging change to the ATC system. The funny part is that things will not get better with either privatization or NextGen, since airline delays and airspace/airports inefficiency/congestion/chaos is not a problem ATC can solve.

Airlines could, and airlines should have improved their “day of” operations on their own, decades ago, to reduce delays, which in turn would eliminate most airspace/airports inefficiency/congestion/chaos but they didn’t. The airline business model is simple:

- ▶ Airlines are in the business of delivering the passenger where they were promised, when they were promised.
- ▶ Airlines increase profits by delivering the passenger where they were promised, when they were promised.
- ▶ Airlines improve quality by delivering the passenger where they were promised, when they were promised.
- ▶ Airlines cut costs by delivering the passenger where they were promised, when they were promised.
- ▶ Airlines improve production efficiencies by delivering the passenger where they were promised, when they were promised. Notice a theme here?

Yet, even though independently validated, airline self-help solutions exist, such that airlines could dramatically improve their operation (i.e., Operational Excellence — 85 percent Ao), the ATC system, and more importantly, improve the quality of their product — airlines deliver way too few passengers (65 percent on time zero arrival or AO, a 35 percent daily defect rate) where they were promised, when they were promised.

And airlines blame ATC. Why? Further, privatization is about implementing FAA’s NextGen faster — but as currently planned — NextGen is about the ATC system taking over full control of the movement of the airlines aircraft. In what way is having an outside-government or quasi-government organization controlling the airlines’ primary production process good for passengers or airline production efficiencies?

This is especially true given Congressman Shuster’s claim that FAA has already spent billions with no result. What is going to be different this time? Without a clear goal, somebody else in charge won’t make a difference.

2 The U.S. ATC system is hopelessly antiquated.

This is inaccurate as most of the ATC equipment within the U.S. (STARS, ERAM, etc.) has been updated over the last 10 years. Also, consider that the entire U.S. ATC system is a computer network of 4,000 to 5,000 computers, which is smaller than many large companies.

3 Aircraft still navigate using WW II era ground-based tools.

This is very misleading since both the radar and ground-based navigational beacons have been replaced numerous times. Further, almost all aircraft, especially commercial aircraft, use ground navigation aids as sensors to power sophisticated aircraft computers to navigate in exactly the same way as these Flight Management Systems (FMS) use GPS satellite information.

The only advantage satellites have is oceanic coverage (already in place for 20 years) and a slight increase in accuracy. In fact, except for approaches — as a 35-year commercial pilot — pilots typically don’t care if the FMS is using ground based navaids or satellites. Even for landing approaches, it is almost always ground-based ILS approaches (not satellites).

In 40 years of flying Air Force and commercial aircraft (retired 2014-11), I never once flew an actual GPS satellite approach (only in the simulator). That said, aviation isn’t using the accuracy of the current ground based navigational aids we have had in place for over 30 years. How is more accuracy going to help?

4 The ATC system hurts everyone: passengers, taxpayers, and businesses.

Actually, it is the airline’s “operational dismality” that hurts everyone. ATC has little to do with this.

5 FAA has tried to upgrade the ATC for four decades — failing because of funding, staffing, and capabilities for implementing software/solutions.

Yes, FAA has failed, but it is because airline delays and airspace/airports inefficiency/congestion/chaos are simply not problems that are the ATC systems to solve. FAA’s failure to “fix” this has nothing to do with the ATC staff, capabilities, or funding. Only airlines can fix this problem, since airline delays are just that — airline delays! Unfortunately, to date, airlines aren’t interested.

6 The U.S. airline industry has campaigned since the 1980s to privatize ATC to gain greater control over the system and reduce their costs.

With almost 40 years of expertise in airline operations and ATC issues, I can say unequivocally that neither privatization nor FAA's NextGen programs will have any significant impact on airline costs, airline delays, airline inefficiency, passenger mistreatment, airport/airspace throughput/complexity/congestion/chaos.

In fact, until airlines get off their duffs and into the real time, "day of" game (i.e., self-help) by tracking and managing their aircraft, instead of abdicating control to the ATC system once the aircraft is off the gate, and stop dumping the problem, and blame on the ATC system (i.e., FAA), ATC is *not relevant in the discussion of fixing airline costs/delays*.

Sitting on the operational "day of" sidelines by the airlines ignoring the movement of their aircraft, is no way to run a dynamic, interdependent production process. And yes, the airline real time "day of" operation is nothing more than a curb-to-curb production process that takes in raw materials at the departure point (people, bags, fuel, food, etc.), applies numerous processes to those materials and delivers the passenger/bag to the destination curb as a finished product. The airline problem is that they deliver way too much low quality, defective product.

7 FAA is poised to switch from ground-based radar to GPS surveillance.

This assumes that all aircraft are equipped with the avionics to receive the GPS positioning signal and then transmit it to the ATC system, which is simply not the case. Additionally, given that the GPS signal is easily jammed, radar will be a significant part of the U.S. aircraft surveillance system for decades.

For example, even when all aircraft are GPS equipped, the U.S. military will require radar for security reasons to prevent the loss of the aircraft position in case of GPS failure, or something more nefarious, like someone turning off the GPS equipment. So, it will be a wash as FAA's radar costs may go down, but Department of Defense radar costs will go up.

8 The FAA's existing flight-tracking system is "broken, antiquated, horrible."

This is completely inaccurate. The structure within the ATC system is inefficient, not broken, antiquated, or horrible. But this inefficiency is a function of the highly random/variant aircraft flows. Instead of tracking and managing their "day of" aircraft flows, something possible for the last 20 years, airlines simply throw aircraft at the ATC system and tell them to deal with it — work harder, do better.

The only solution ATC has had for decades is a highly restrictive linear, nose-to-tail sequencing structure, starting hundreds of miles from landing. But if airlines did their job and time managed their aircraft and coordinated with ATC (think logistics and supply chain), all done in real time, the variance and randomness in the aircraft flow is dramatically reduced, thus airspace/airport inefficiency/congestion/chaos, as well as the need for the ATC sequencing structure, also would be greatly reduced.

In actuality, the solution to airline delays and airport/airspace congestion/chaos is logistics and process, not technology. In fact, *the hard part of fixing airline delays and airspace/airport inefficiency/congestion/chaos is not actually the doing, but simply acceptance by the airlines and by ATC that it can be done*.

My recent Forbes.com article, "Air Traffic Control is Not the Real Cause of Airline Delays," outlines why Operational Excellence is that path forward to dramatically improve airline on-time performance, airline profitability, and the ATC system.

Until airlines get off their butts, operationally speaking, and ATC truly understands the root cause of airline delays and inefficiency/airport/airspace congestion/chaos (the airlines), privatization is a distraction — a false hope that a new entity is going to fix the airline delay problem.

As long as airlines have this false hope plus a willing scapegoat (i.e., the ATC system to blame, privatized or not), and ATC willingly accepts the blame, little will change, regardless of who is in charge.

Finally, an airline needs to take the bull by the horns (not government or ATC), with the vision and leadership required to move their airline out of their current 1950s, policy-driven, silo-over-system operational mentality and into the 21st century, big data, supply chain logistics world.

Until this happens, airline delays will continue, passengers will suffer, and airline profits will never reach their full potential. All it takes is one airline to lead the way to Operational Excellence. Which airline CEO is ready to step up? ■