

The Factory

An STNI Explainer on The Sustainable Airport Master Plan



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All airports are really **factory assembly lines**, with three main sections:

▶ **Air**

- Air space
- Runways

▶ **Terminal**

- Gates
- Passengers
- Baggage

▶ **Road**

- Cars
- Trucks
- Pedestrians
- Light Rail

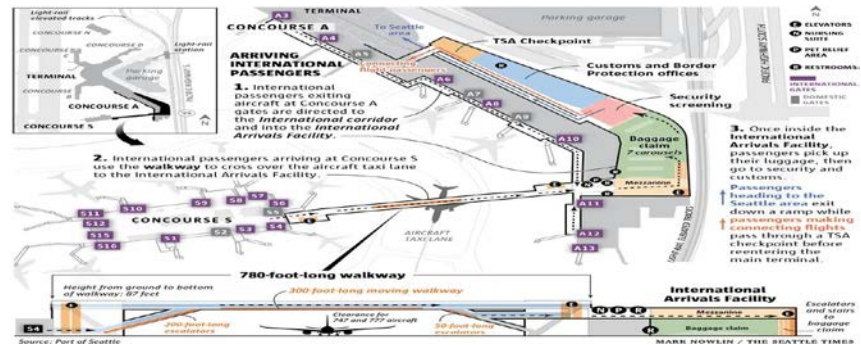


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This assembly line processes **people, cargo, and vehicles.**

- ▶ The job is to move all those people and cargo, from one section to another, 1,230 times a day, and *450,000 times a year. **With no delays.**

- ▶ Like any assembly line, a choke point in any of the three sections, can cause delays everywhere else.



*There will be roughly 450,000 flights in and out of Sea-Tac Airport this year. Over 1,230 a day.



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For understandable reasons, a lot of people will struggle to accept this one fact:

Sea-Tac Airport now has the 'Air' section covered.

PERMANENTLY!



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No matter what anyone tells you, Sea-Tac Airport does not need more land or runways to continue expanding flight operations into the foreseeable future.

You may be skeptical.

So to understand how this came to be, we need to explain why **GPS is more powerful than runways!**



‘GPS, not more runways’

- ▶ Traditional RADAR for air traffic control is *very* imprecise. For safety, that meant spacing aircraft **several minutes apart**, and **no parallel landings** between runways.
- ▶ Thank RADAR for providing a ‘limit’ on operations in previous decades.



‘GPS, not more runways’

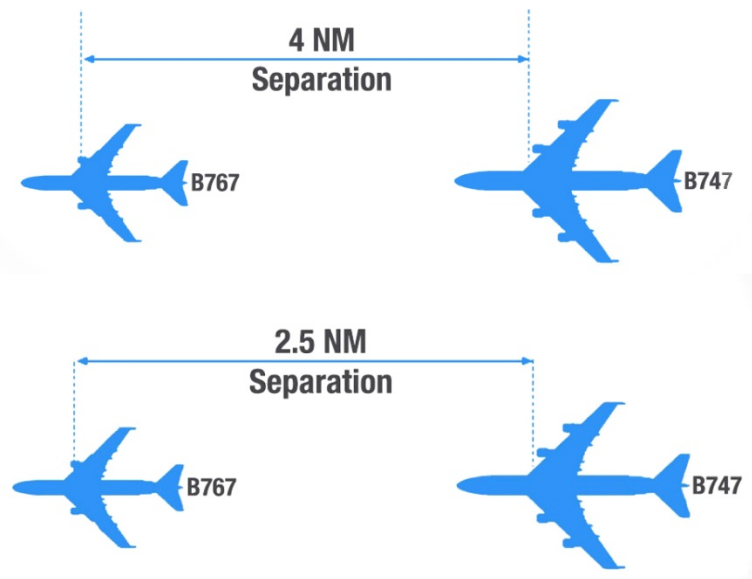
- ▶ Satellite-based navigation, known as ‘**NextGen**’ began replacing RADAR in 2008-- about the same time the Third Runway opened.
- ▶ So it’s easy to think it was that new runway that allowed for all the new flight capacity.
- ▶ Not really.



'GPS, not more runways'

- ▶ NextGen is allowing for truly dramatic tightening in aircraft spacing; **on all three axes**:

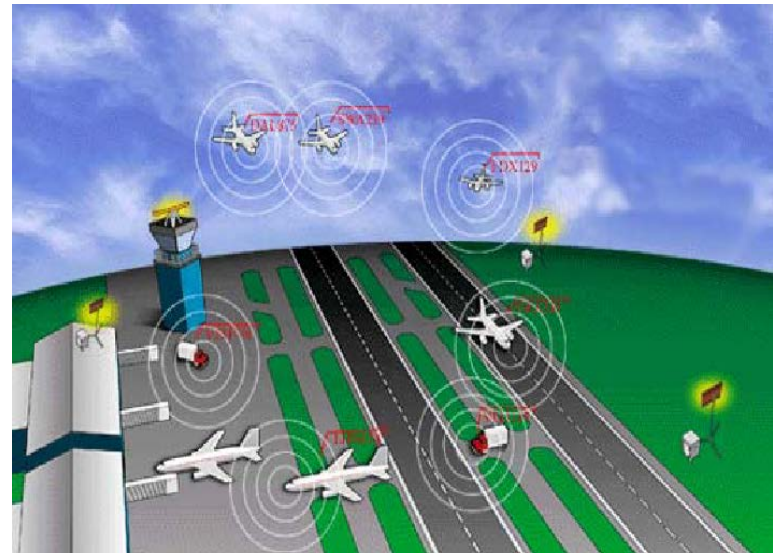
- Front to back
- Side to side
- Up and down



‘GPS, not more runways’

- ▶ Like any technology, and with ongoing FAA funding, it keeps **improving**.

Tighter. Tighter.



Take a Sec...

‘GPS, not more runways’

- ▶ **Soon, every commercial pilot will be able to fly with the precision of the Blue Angels!**



Not even. But you get the idea. 😊



‘GPS, not more runways’

- ▶ NextGen, coupled with the Third Runway, will provide all the airspace capacity Sea-Tac will ever need.



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So, the choke points (the delays) are now caused by those two segments **on the ground**.

Specifically:

- ▶ Getting airplanes on/off the runway and to the gates. ASAP.
- ▶ Getting passengers and cargo through the terminal. ASAP.
- ▶ Getting cars and trucks in and out of the terminal. ASAP.

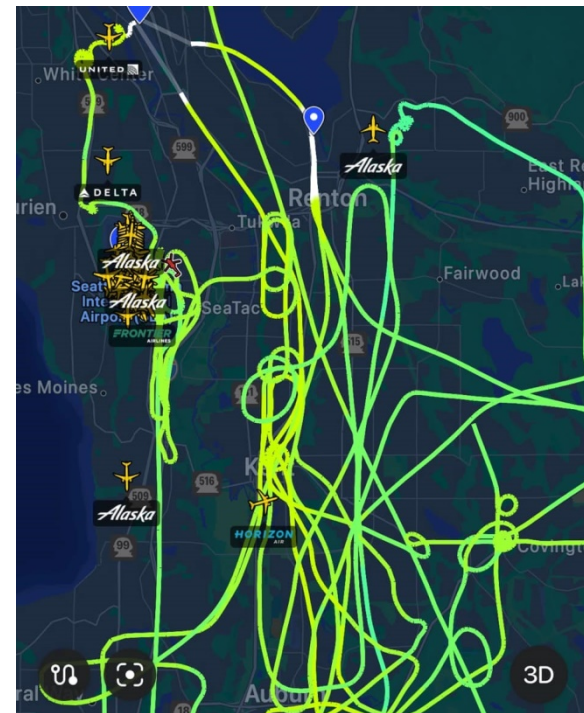


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If there is an aircraft doing a ‘go-around’ in the sky, it’s probably because there is a delay in one of the two sections **on the ground**.

- ▶ It could be a problem with security... or ticketing... or baggage... or fueling... or no available gate... or...
- ▶ But any delay in any part of the factory can cause delays for the every part the factory.

Especially, in the air!

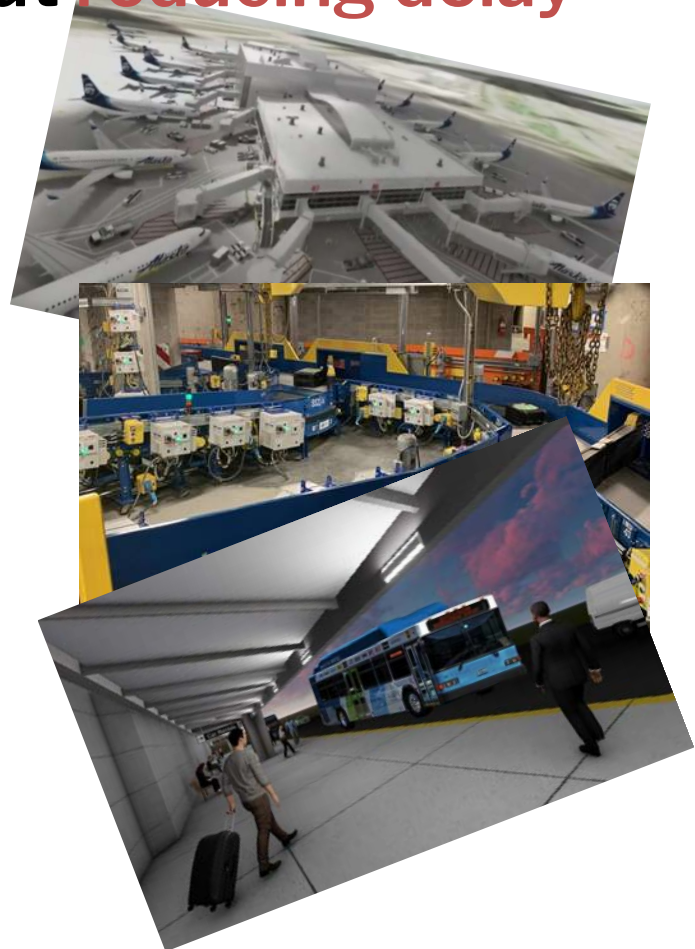


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Anything on the ground that makes life more 'convenient' is actually about **reducing delay** and thus **adding capacity**.

- ▶ Adding more gates, faster baggage handling, automating security, widening the Arrivals Drive.
- ▶ But don't believe us. Believe the FAA. That is why they are willing to pay billions of dollars to fund all these 'convenience' features.

On the ground!



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Congratulations! You're now an expert on The Sustainable Airport Master Plan!



The SAMP is thirty construction projects being built *now*, to increase flights as much as the Third Runway, on the two **ground segments** of an assembly line consisting of airplanes, people, cargo and vehicles...



Without building a new runway!



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Wait. No new runway? More convenience?
Sounds good to me! What's the problem?

▶ The SAMP will add as many flights as the Third Runway. That means:

- As much new noise and pollution as the Third Runway. We now know that the noise and pollution are not merely 'annoying'.

They can lead to early death and many long-term health problems, particularly for seniors and especially for children!

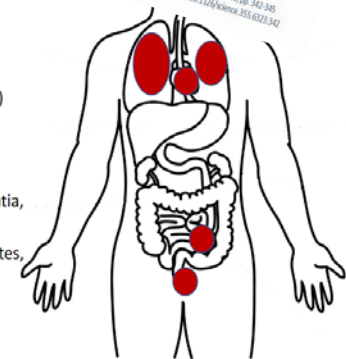
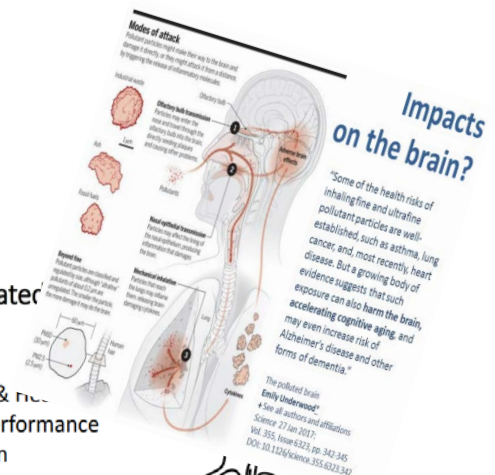
Airport-related

Noise pollution

- Hypertension & more
- Poor school performance among children

Air pollution

- Respiratory problems (asthma, respiratory diseases)
- Cardiovascular issues (Hypertension, heart disease/attack, stroke)
- Nervous system (dementia, oxidative stress)
- Metabolic issues (Diabetes, metabolic syndrome)
- Reproductive health concerns



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**Wait. No new runway? More convenience?
Sounds good to me! What's the problem?**

- ▶ **The SAMP will add as many flights as the Third Runway. That means:**
 - Whenever any airport expands it always creates many other community issues, including decline in property values, education, environment, and public safety.

For everyone under the entire flight path!



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Sounds bad.

▶ It gets worse.

- There is no 'second airport' or any other miracle coming in the next 25 years!
- The SAMP is currently not subject to the same rigorous environmental review as previous expansions like the Third Runway!
- Despite being told about the SAMP in 2012 thus far, none of the airport cities have taken meaningful steps. Port-lead efforts like the StART and tiny grants are window-dressing!



ACE Small Matching Grants

- 42 Recipients
- \$385,000
- 880 trees planted
- 21,567 volunteer hours
- \$2,507,305 total matched!
- (Note several projects are in progress and some figures are projections)



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Sounds hopeless!

▶ **Not at all!**

- We still have tools to fight the SAMP!
- But, it will require you, and your neighbors, to get in the game. Now!
- Demand more action, not excuses!
 - ❑ From your City
 - ❑ From your State
 - ❑ From the Port of Seattle



What can I do to fight the SAMP?

- ▶ Reduce the noise and pollution?
- ▶ Improve public health?
- ▶ Protect our local environment?
- ▶ Obtain compensation for my family, my home, and all the ongoing negative impacts to my community?



Take the first step...

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