



**CAAIFI 2014
General Meeting
& Expo**

Brad Tilden

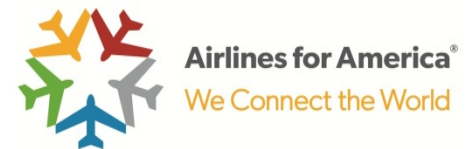
Chairman, President and Chief
Executive Officer, Alaska Airlines

Produced by





2014 General Meeting – Washington, D.C.



Reducing aircraft emissions

What we fly



How we fly



The fuel we use





We fly to beautiful places ... and we want to keep them beautiful.

What we fly

Boeing 737-NG



Bombardier Q400

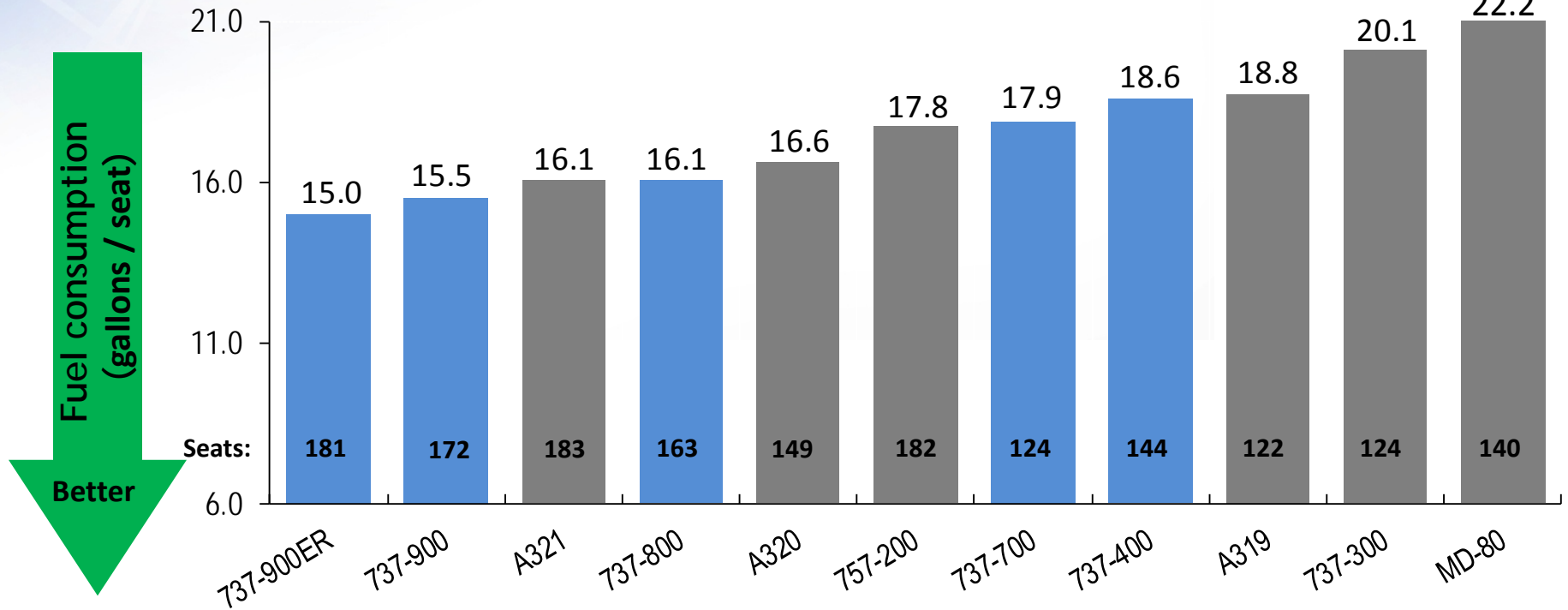


Coming in 2018: Boeing MAX



Alaska among the most efficient

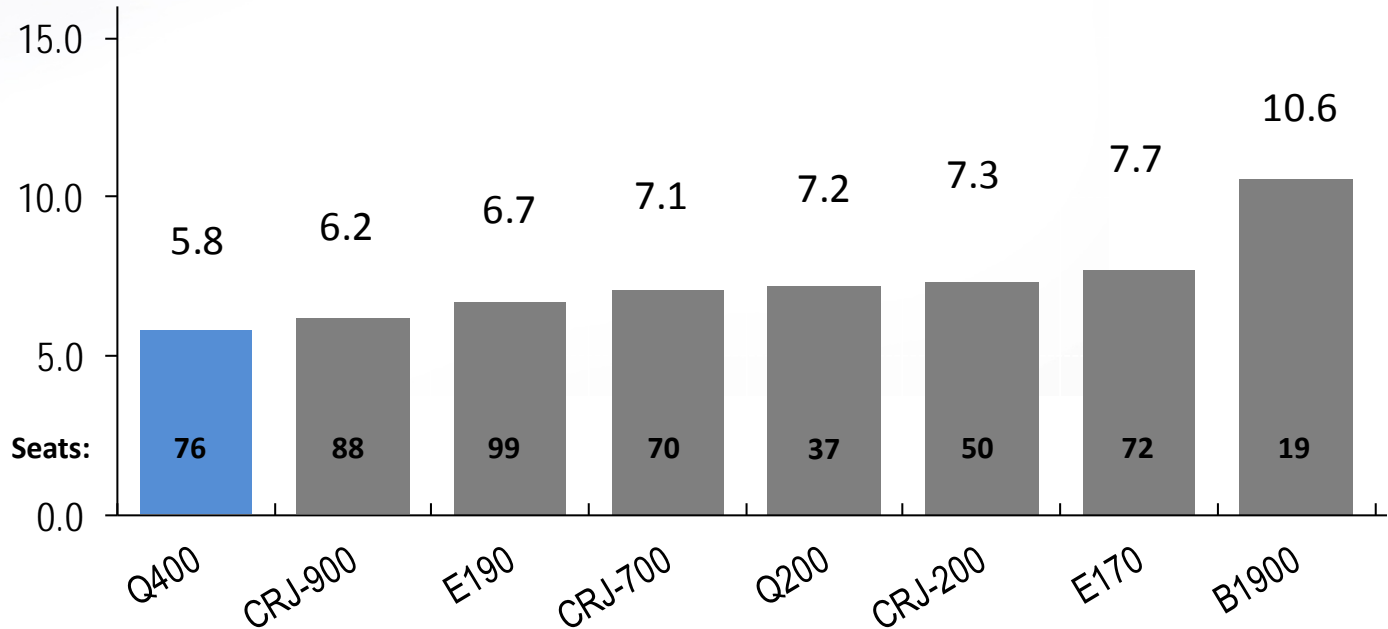
Fuel gallons per seat



- 1,500-mile stage-length
- Nominal fuel burn
- Pax / bag weight = 220 lbs.

Horizon among the most efficient

Fuel gallons per seat

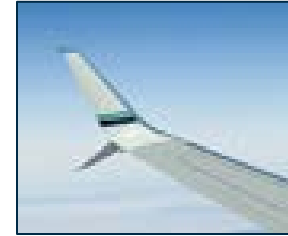


Fuel consumption
(gallons / seat)

Better

- 400-mile stage-length
- Nominal fuel burn

Winglets improve efficiency



100,000 gal. / aircraft annually

58,000 gal. / aircraft

2008

2014

737-800s equipped w/standard winglets
Retrofitted -700s, -900s

Retrofitting fleet
w/split-scimitar winglets

Efficiency ↑ 3.0%

Efficiency ↑ 1.7%

Total fleet CO₂ emissions ↓ 79.5k tons

Total emissions ↓ 57k tons

16,600 cars off the road

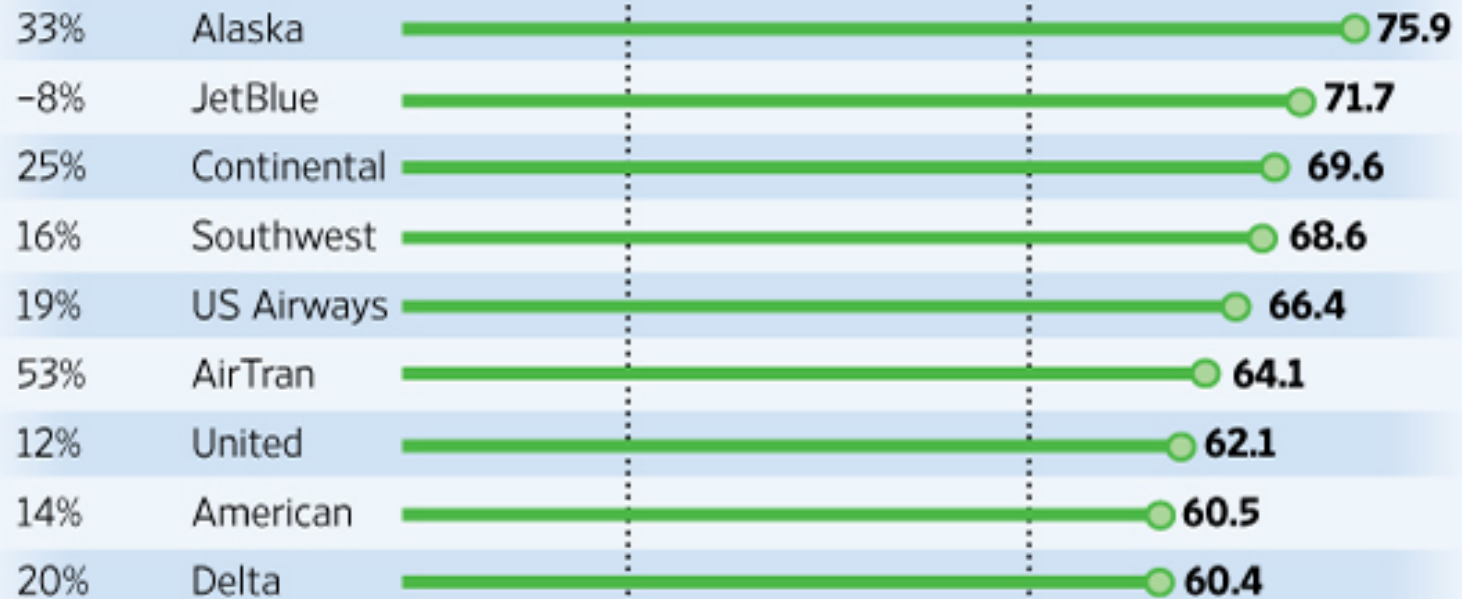
11,900 cars off the road

Total fleet CO₂ emissions ↓ 136.5k tons / 28,500 cars off the road

Green Skies | How airlines compare on fuel efficiency

IMPROVEMENT
SINCE 2000

SEAT MILES PER GALLON OF FUEL IN 2009



Chevy Suburban
18 mpg



Toyota Prius
50 mpg



Note: Mileage for autos is based on full vehicle, not seats.
Mileage for airlines is per seat.

Source: WSJ calculation of
Department of Transportation data

THE WALL STREET JOURNAL
August 2010

How we fly



Single-engine taxi

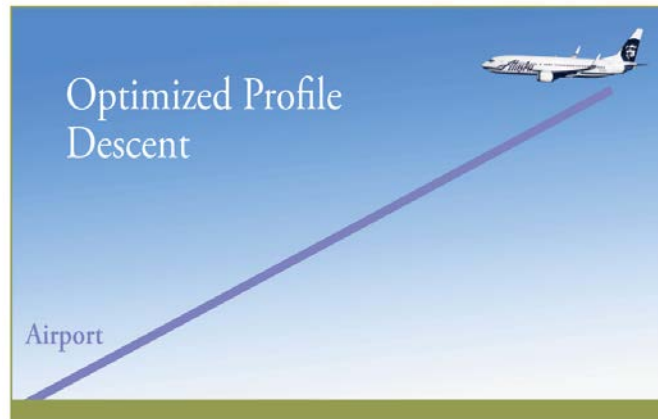
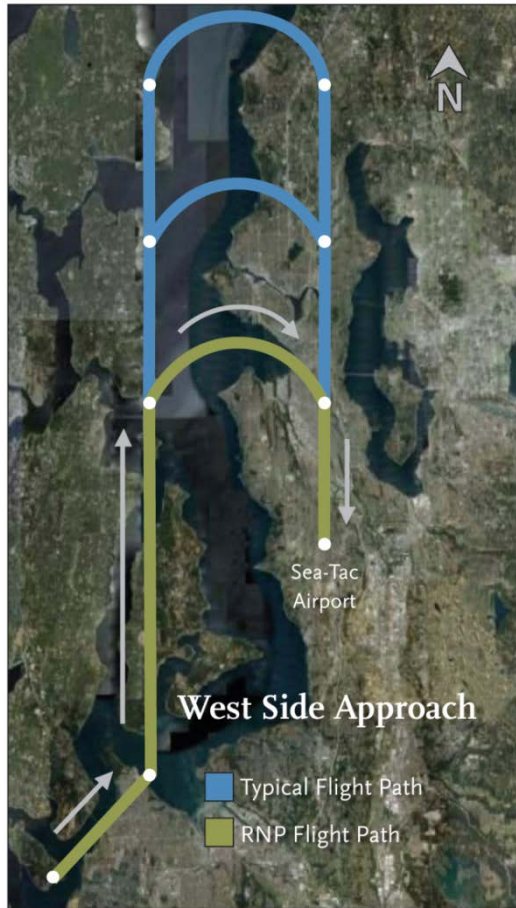
Taxi times in general

APU on demand for Hawaii flights

En route navigation: most favorable

Approaches: idle power

'Greener Skies'



Eliminates noise for 750k people

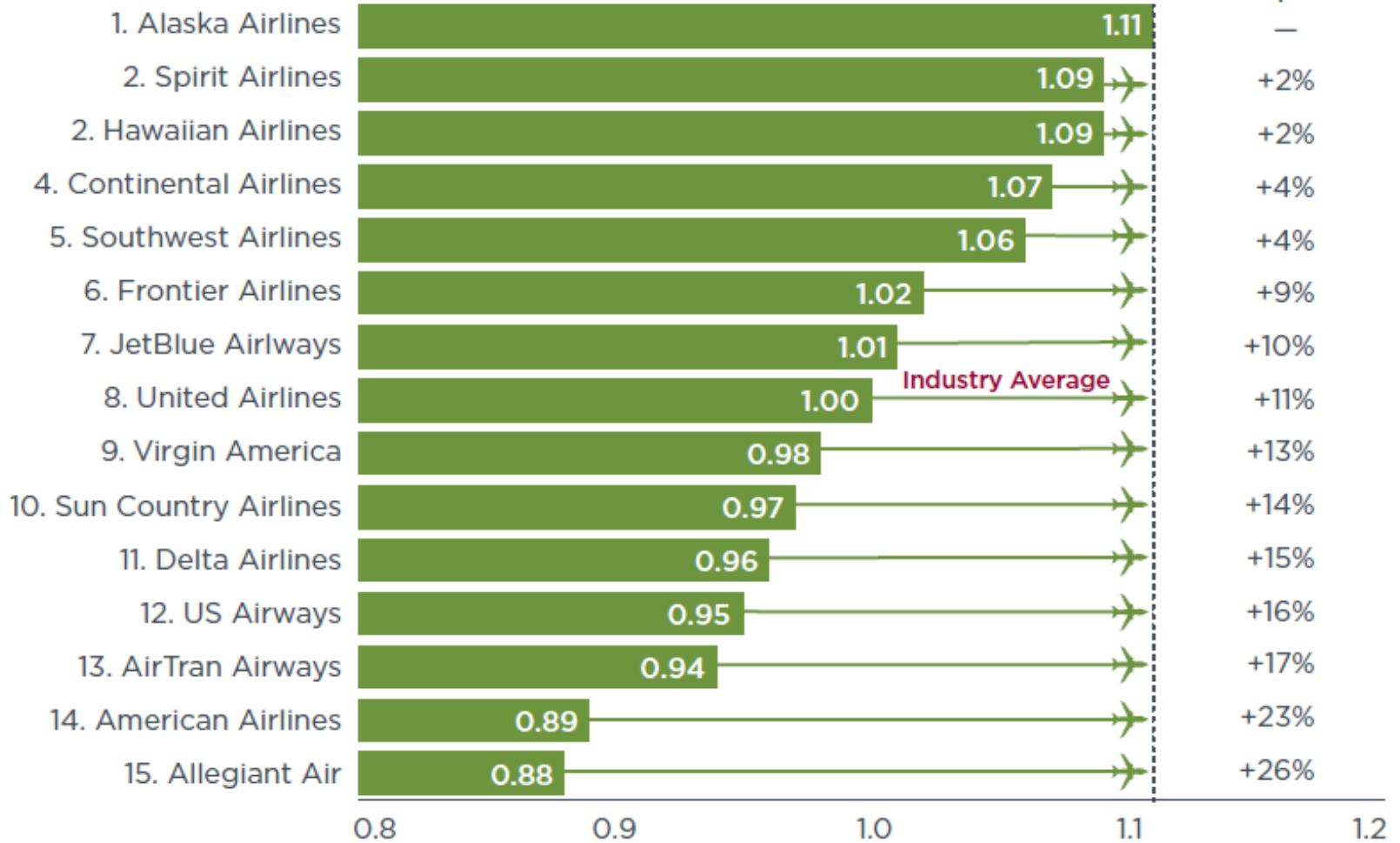
Saves airlines 2 million gallons of fuel annually

Cuts pilot-air traffic controller workload in half

Shows potential of FAA's NextGen ATC system



Excess Fuel Per Unit Transport Service



In-Use Fuel Efficiency Score (longer bars = more efficient)

The fuel we use



Alaska burns about 1 million gals. / day

Spent \$1.4 billion on fuel in 2013

Our largest expense – 35%

3.2m tons of emissions / 676k cars

U.S. airlines burn 18 billion gals. / year

Cost: \$50 billion

160m tons of emissions / 33.3m cars

The fuel we use



75 flights powered
by 20% biofuel blend

SEA-DCA on 737s
SEA-PDX on Q400s

Fuel cost: \$17 / gal.

Showed industry:
If you build it,
we will buy it.

Biofuel challenges



- Scaling up to a sustainable supply
- Pricing biofuel competitively
- Drop-in distribution

Questions