



The Power of Flight

2017 Paris Air Show

CFM International Media Briefing

17 June 2017

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Industry is strong ...

- Fuel prices are low
 - Oil prices at their lowest in 5 months
 - Jet fuel less than half the price of Jan 2012
- Air travel is booming
 - 7.4% global passenger volume growth
- Utilization is up
 - Average load factor is 80.6%
 - Worldwide fleet grew by 3.8% vs last year



... **\$30*** billion net profit projected for 2017

* Source: IATA June 2017 Economic Forecast

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Industry health reflected continued strong orders



- **1,193** total orders through May
 - 306 CFM56 / 887 LEAP (installed, military, spares)
 - **\$16.5 billion** U.S. value at list price
- **12,500+** total LEAP orders (with spares)
- Total backlog **14,500+** engines
 - Represents **~8 years** of production at current levels



Delivering what we promised ...



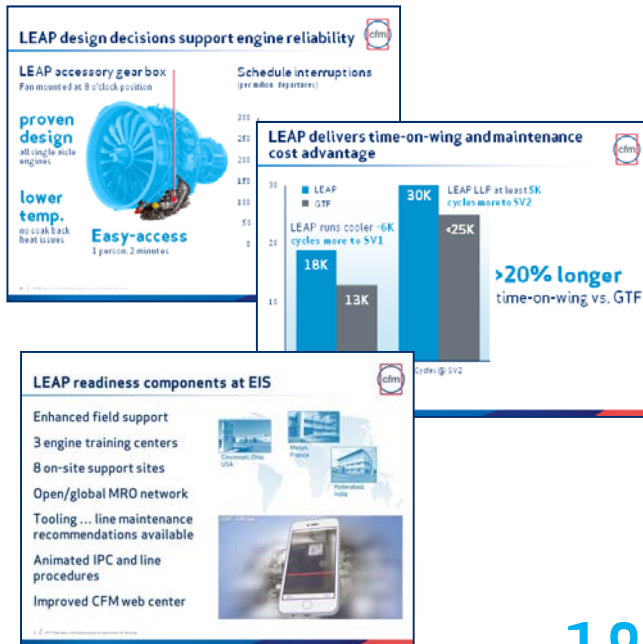
- CFM56
 - Fleet of 24,000 engines
 - Continues to set the reliability standard
- LEAP delivered performance
 - 15% better fuel efficiency
 - Thrust, noise and emissions
- Focused now on utilization
 - Product reliability
 - Predictive maintenance
 - World-class support





Higher utilization = more revenue

Utilization = f (airline operations, and ...)



- 1 reliability,
- 2 maintenance,
- 3 time-on-wing,
- 4 best-in-class customer support

... 1% more utilization = 5% fuel burn

LEAP in service



96% flown days

77,000+ cycles
5M+ passengers*
14 operators
10+ hours average per day
67 aircraft in service

LEAP-1A
EIS August 2016

Fleet statistics are for engines
*Passenger count assumes 85% load factor



LEAP-1B
EIS May 2017

200+ cycles
3,000+ passengers*
1 operator
7+ hours average per day
2 aircraft in service

96% flown days

Development continues ...



LEAP-1A

A319neo first flight March 31, 2017
A321neo EIS with Virgin American May 31, 2017
ETOPS certification June 2017

LEAP-1B

737 MAX 9 first flight April 13, 2017
ETOPS certification June 2017



Boeing



COMAC

LEAP-1C

C919 first flight May 5, 2017



LEAP 180-minute ETOPS certification

- Gruelling two-month test process
- 3,000-cycles ... simulating take-off / landing sequence ... continuous 24-hour testing
- Engine deliberately unbalanced beyond serviceable levels
- Simulating conditions never seen in commercial service



LEAP production in full swing ...



2017 will be another record production year ... **1,900** total engines

- On track to deliver **500 LEAP** engines
- **1,400 CFM56** engines
- **2,000+** per year by 2020



Long-term strategy

- Investment ... **\$1+ billion**
- Dual-source ... most major components
- **Run@Rate** ... exercise system ahead of ramp

... preparation & execution

CFM is delivering ...



Performance

- 15% fuel efficiency, lowest noise

Utilization

- 96% of available days flown

ETOPS

- 180-minute certification

Engines

- 140+ LEAP installed and spares to date
- On track to deliver 500 in 2017

