CFM International Media Briefing
October 11th, 2018
New Delhi, India
Today’s speakers

Gaël Méheust
President and CEO
CFM International

Sebastien Imbourg
Executive Vice President and General Manager
CFM International

Philippe Couteaux
Executive Vice President
Sales & Marketing
CFM International
CFM International, a long-standing joint company

SAFRAN AIRCRAFT ENGINES & GE, SUCCESSFUL PARTNERS for over 40 years

50/50 joint company
THE WORK SPLIT TAKES ADVANTAGE OF THE TECHNOLOGICAL EXPERTISE AND CAPABILITIES OF BOTH GE AND SAFRAN AIRCRAFT ENGINES

Nº1 engine supplier worldwide for mainline commercial jets (over 100 seats)

More than 590 customers worldwide

Partnership extended to 2040
A real 50/50 joint company

All activities shared 50/50
Sales, design, development; production, support & service – same work share for both CFM56 and LEAP
CFM56® The world best selling commercial engine

A320ceo  737 NG

CFM56-5B  CFM56-7B

More than 33,000 CFM56 engines delivered worldwide

24,000 CFM56 engines in service
Support of the fleet beyond 2040

Close to 1 billion flight hours

Every 2 sec. a CFM-powered aircraft takes off somewhere in the world

Jet Airways became the First indian CFM56 customer in 1993

99.98 % Dispatch reliability

7 Million travelers use CFM-powered aircraft daily
LEAP 10 years on film
LEAP: the CFM56 successor

Program launched in **2008** to power the new generation of single aisle aircraft.

Selected by Airbus to power the A320neo; by Boeing for the B737 MAX; by Comac for the C919.

**LEAP** represents the combination of CFM’s reliability and unrivaled technologies:

- 3D Woven composite fan blades
- CMCs materials
- Additive Manufacturing

LEAP started commercial operations with A320neo in **2016**
LEAP® The smoothest and most successful EIS in CFM history

**AIRBUS**
- A320neo

**BOEING**
- 737 MAX

**COMAC**
- C919

**LEAP**

- **16,300+** Engines ordered to date (End of August 2018)
- **72+** operators on 5 continents

- **LEAP-1A**
  - Entry into service August 2016
  - ON TIME

- **LEAP-1B**
  - Entry into service May 2017
  - ON TIME

- **LEAP-1C**
  - Engine certification December 2016
  - ON TIME
LEAP is delivering what we promised

PERFORMANCE

15+% better fuel efficiency
Thrust, noise, and emissions

BEST-IN-CLASS ASSET UTILIZATION

Product reliability; no design issues
Predictive maintenance

LIFE CYCLE MAINTENANCE COST

Global team of support engineers
Broad offerings through CFM Services
LEAP fleet in service: 2 million+ flight hours

96% flown days

741,385+ cycles
1,528,497+ hours
32 operators
10+ hours average per day
~268 aircraft in service

LEAP-1A
EIS August 2016

Utilization

275,463+ cycles
753,453+ hours
41 operators
10+ hours average per day
~219 aircraft in service

LEAP-1B
EIS May 2017

96% flown days
PRODUCTION & SUPPORT
Unprecedented ramp-up

BACKLOG:
15,450 LEAP
434 CFM56

• Represents ~7 years of production at current levels
  … uninterrupted LEAP engine deliveries since April 2016

• … 1,000th LEAP engine delivered in July
  … LEAP powering 75% of new single-aisle deliveries

• Planned rate of 1,100 LEAP engines in 2018; 2,000 in 2020

ON WATCH

• ramp rate increasing … dual and multiple source strategy on critical parts
  100% in place

• 8 new facilities built at Safran and GE to support the ramp-up

• 1+ billion USD investments in capacities
CFM Global Support Capability

250+ field service engineers
10 Overhaul shops
8 Component repair shops
15 On-site support locations
5 Customer training facilities
4 Material distribution centers

Training Center
Hyderabad
CFM Training Center in Hyderabad

- This facility dedicated to CFM56 Training was inaugurated in 2010
- It provides advanced hands-on courses in line maintenance and borescope inspection for CFM56-7B and CFM56-5B engines
- In 2018, CFM adds LEAP-1A and LEAP-1B capabilities

REPRESENTS A **15 MILLION** USD INVESTMENT

**500 ENGINEERS** ARE TRAINED ANNUALLY
Maintaining best in-class utilization

30 specifically-trained LEAP experts that can be deployed where they are needed

250+ fields service engineers + 3 call centers

2,200 inquires / month  < Four-hour turn around on critical cases

96% response to customers on-time

8 onsite support locations

< 30-day average turnaround time, wing-to-wing
A strong industry
GLOBAL FLEET WILL ALMOST DOUBLE IN THE NEXT 20 YEARS

1,000 net new aircraft to be added to worldwide fleet in 2018

CONSUMERS WILL SPEND 1% of GDP ON AIR TRAVEL … $870 BILLION

RPKs grew 6% in April vs. 2017
Average load factor is above 80%

ON WATCH …

Fuel costs … now ~24% of average op cost vs 34% for Indian operators

Trebling of passenger traffic in India in the next 20 years

~$34 BILLION*
NET PROFIT PROJECTED FOR 2018

* Source: IATA June 2018 Economic Forecast

Industry is strong
India is a strategic market

INDIAN AVIATION IS GROWING FAST

- The 98 million domestic passenger trips in 2017 equal 7.3% of India’s population.

* Source: IATA forecasts
CFM in India
Jet Airways began operation in with four CFM56-3-powered Boeing 737s

Air India began operating Airbus A320ceo aircraft powered by CFM56-5B engines

CFM Opens New CFM56 Training Center in Hyderabad

SpiceJet finalizes 1st LEAP-1B engine order to power 42 Boeing 737 MAX aircraft

Air India became first LEAP operator in India, shortly followed by Vistara

SpiceJet, signs with CFM engine/services contract supporting 300+ LEAP-1B

Vistara signs LOI for 50 additional A320/321 neo powered by LEAP-1A
CFM56 in India

As of September 30, 2018

- 500 CFM56 engines in service with 11 operators
- CFM56: market share vs competition: 64%
LEAP airlines in India

Our LEAP customers in India on A320 NEO and B737 Max aircraft

4 Airlines operating LEAP-powered Aircraft

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<thead>
<tr>
<th>Airline</th>
<th>Aircraft</th>
<th>Quantity</th>
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<tr>
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<tr>
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LEAP Market share in India: 64%
What’s next?

SpiceJet and Jet Airways entry into service in 2018 with LEAP-1B engines

Support Indian Aviation industry growth

1,000 engines to be delivered in India in the coming years
Thank you!

cfmaeroengines.com/india2018