



GO BEYOND

PRATT & WHITNEY UPDATE

SPEEDNEWS COMMERCIAL AVIATION SUPPLIER CONFERENCE
MARCH 2, 2022

**POWERING
SUSTAINABLE
AVIATION™**

SMARTER.
CLEANER.
GREENER.

This document has been publicly released

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PRATT & WHITNEY GTF

11M HOURS OF FLAWLESS GEAR SYSTEM ARCHITECTURE



> 1200 AIRCRAFT DELIVERED OVER 3 PLATFORMS



A320neo



A220



E-Jets E2

16%

Reduction in
Engine Fuel
Consumption

75%

Reduction in
Noise Footprint

50%

Reduction in
Regulated
Emissions

10,000+

Orders and
Commitments

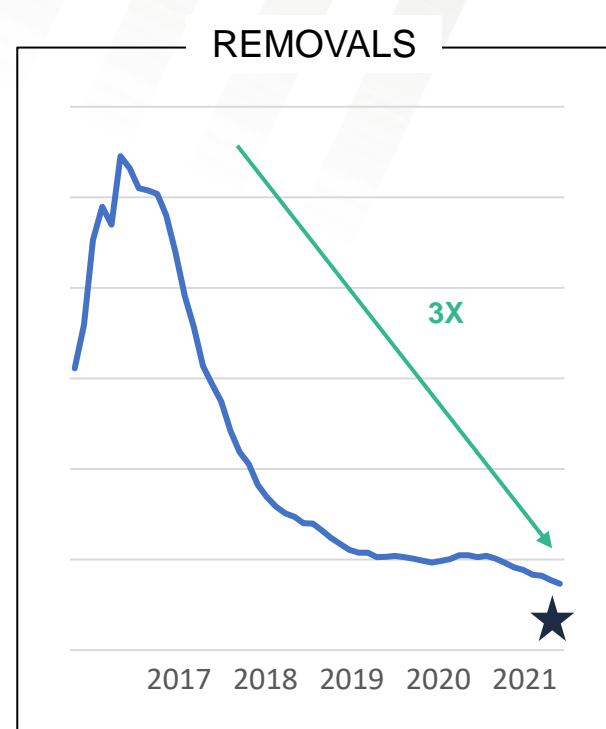
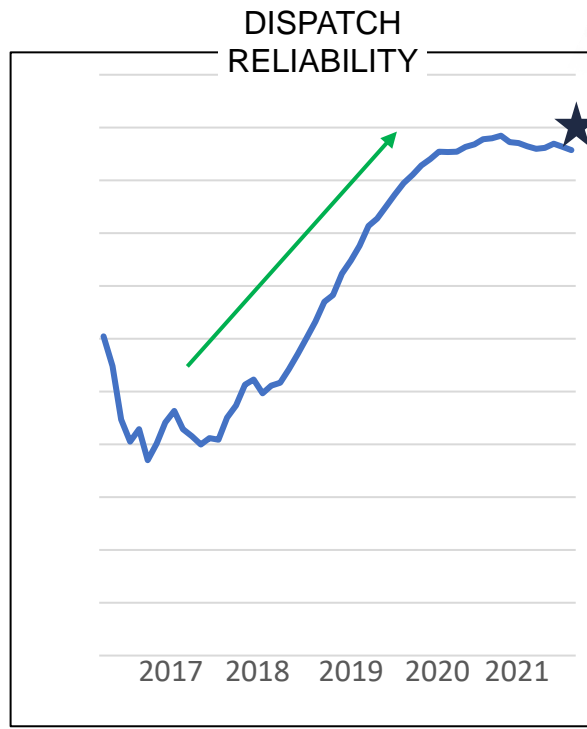
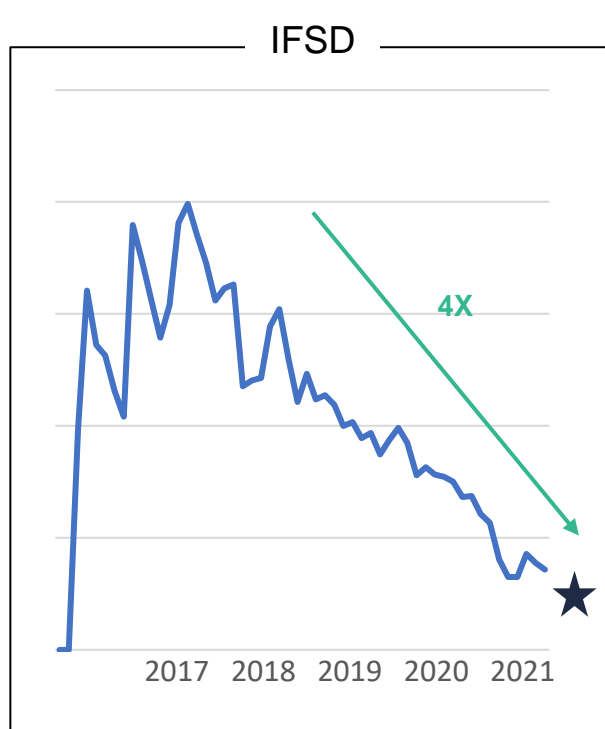
80+

Customers

ANNUAL OPERATOR SAVINGS >\$1M PER AIRCRAFT

PW1100G-JM FLEET PERFORMANCE – REACHING MATURE RELIABILITY

ALL EVENTS FROM EIS



★ Current Build Std

GTF ADVANTAGE ENGINE

MORE CAPABILITY FOR THE A320NEO FAMILY

up to
34K takeoff thrust
at sea level
most powerful engine

up to
17% less fuel and CO₂
vs. previous generation engines like V2500
most efficient engine, 100% SAF compatible



mature reliability
with high durability at entry into service



full intermix + interchange
maximum customer flexibility

PRATT & WHITNEY
GTF
ADVANTAGE



GTF IS JUST GETTING STARTED

GEARED ARCHITECTURE IS FOUNDATIONAL FOR FUTURE TECHNOLOGIES

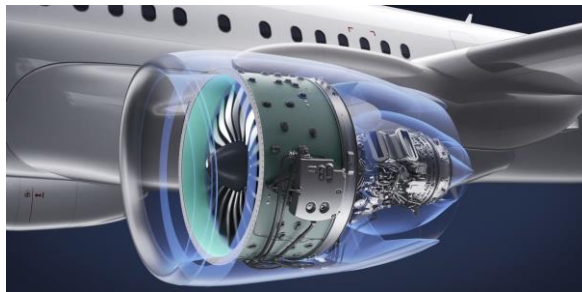
Sustainable Aviation Fuels

- Customer collaborations
- 100% SAF demo flights



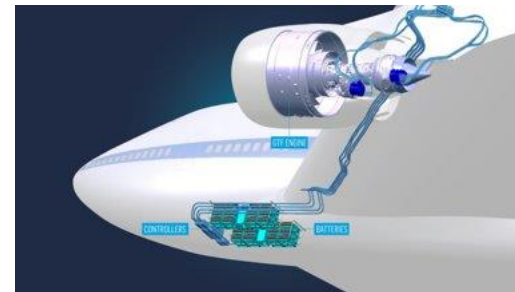
Engine Efficiency

- Advanced materials and cooling
- Higher bypass ratios



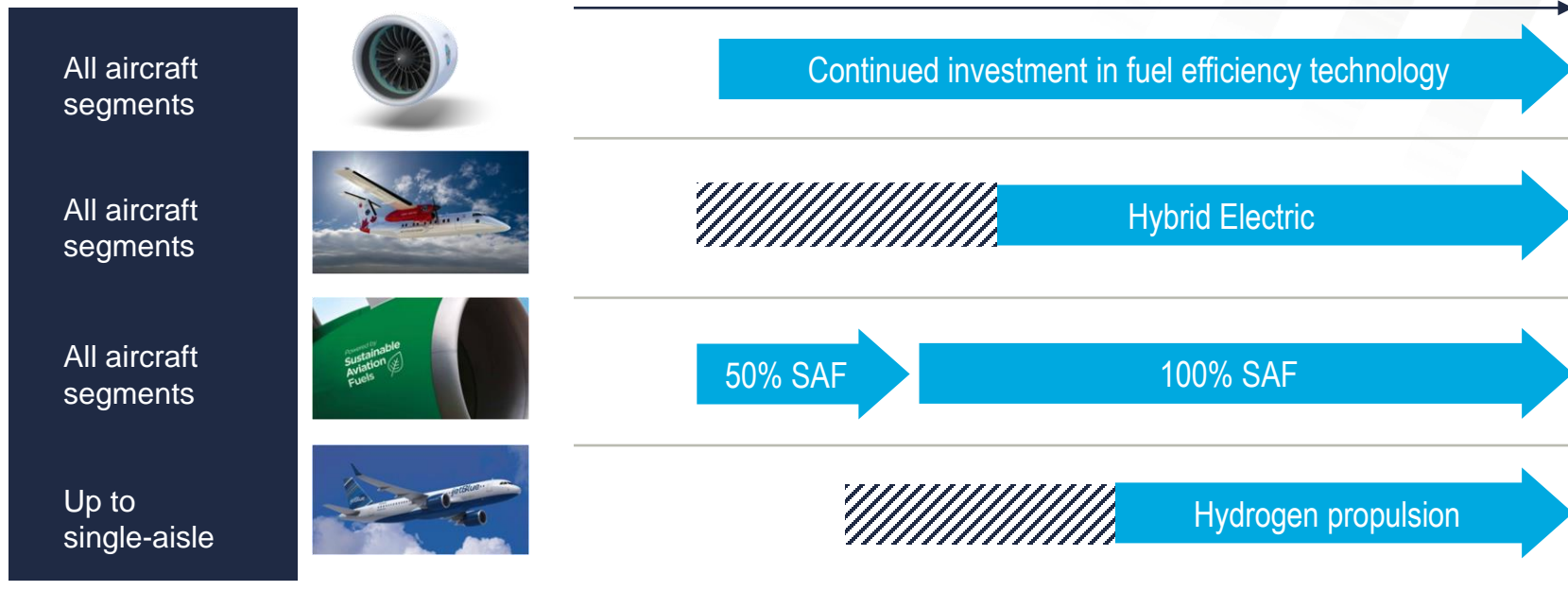
Hybrid Electric



- Investing in GTF hybrid-electric systems
- Demonstrating system and component technologies in Canadian program



PATH TO SUSTAINABLE PROPULSION

DECARBONIZATION OF AVIATION LIKELY THROUGH MULTIPLE PATHWAYS



Demo  In service 

LEADING THE WAY IN NEXT-GENERATION TECHNOLOGIES

HYBRID-ELECTRIC PROPULSION TECHNOLOGY
AND FLIGHT DEMONSTRATOR PROGRAM

30% improvement
in fuel efficiency and CO₂

Underway in

2021 suppliers selected



Starting in

2022 ground tests



Starting in

2024 flight tests



SAF compatible



PRATT & WHITNEY WILL BE READY FOR 100% SAF

Engines currently approved for 50% SAF

P&W testing engines on alternative aviation fuels since 2005

Approved standard for 100% SAF under development



50/50 Blend



100% SAF



ENGINEWISE® AFTERMARKET SOLUTIONS SUPPORTING V2500 FLEET

TURNKEY SOLUTION TO HELP WITH REDEPLOYMENT

Marketing Material & Support	SV Fixed Price	Thrust Solutions	LLP Solutions	SPE Support	Asset Buyback	EIS Support			
						Product Training	Tech Pubs & Manuals	Customer Support	Customer Setup
Lessor Support						New Operator Support			
Focused on Speed and Ease of Redeployment									

FREIGHTER MARKET OPPORTUNITY

V2500 BEST POSITIONED ON A320/A321

(3) V2500-powered A321F in service, more in conversion

First A320P2F certification nears – V2500 powered

V2500 offers lowest noise, fuel burn and emissions

A321P2F advantages over 737-800

- Containerized cargo in lower hold

- 3.5 tonnes higher cargo capacity



Photo courtesy Qantas



Photo courtesy ST Engineering



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