



Investor and Analyst Briefing East Aurora, NY



Nasdaq: ATRO

ELEVATING *innovation*

November 14, 2018

astronics.com

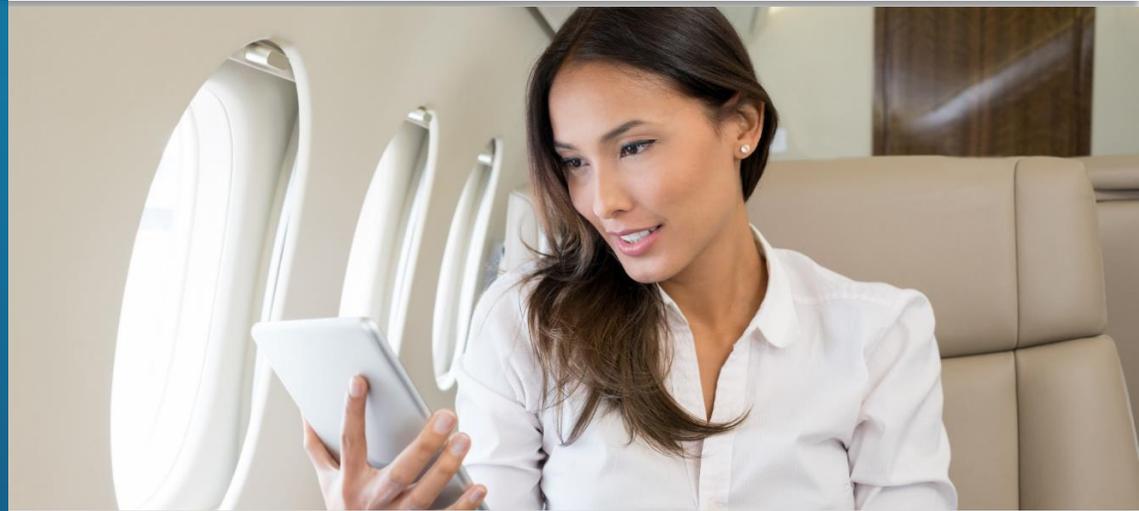
Safe Harbor Statement

These slides (and the accompanying oral discussion) contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements involve known and unknown risks, uncertainties, and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by such statements, including general economic and business conditions, conditions affecting the industries served by the Company and its subsidiaries, conditions affecting the Company’s customers and suppliers, competitor responses to the Company’s products and services, the overall market acceptance of such products and services, the effect of the Company’s strategy, and other factors disclosed in the Company’s periodic reports filed with the Securities and Exchange Commission. Consequently, such forward-looking statements should be regarded as the Company’s current plans, estimates, and beliefs. The Company does not undertake and specifically declines any obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect any future events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

Astronics Corporation (Nasdaq: ATRO)

INNOVATION. COLLABORATION. SUCCESS.

Astronics has become a leader in niche applications through collaboration with customers to integrate its array of power, connectivity, lighting, structure, interior, and test technologies to solve complex challenges.



Market Cap	\$1.0 billion
Recent Price	\$29.73
52-Week Range	\$27.56–\$43.00
Average Daily Volume (3 mos.)	137,450

Shares Out	32.3 million
Institutional ownership	73%
Insider ownership	13%
Index membership	Russell 3000 [®] /2000 [®]
IPO	1972



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ELEVATING *innovation*

Peter J. Gundermann, President & CEO

November 14, 2018

astronics.com

Aerospace 2018 and 2019 Outlook

Affirm 2018 aerospace revenue expectation:

- \$670 million to \$675 million
- Growth over 2017 of 26%

Provide initial 2019 aerospace revenue expectation:

- \$710 million to \$745 million
- Approximately 6% to 11% growth over 2018

Test segment outlook to be provided end of year:

- Pending sale of semiconductor test business
- Backlog of \$72 million at September 30, 2019
- Negotiating \$30 million to \$50 million transportation program

Sale of Semiconductor Test Technology

Selling intellectual property and certain assets of semiconductor system level test technology

Sales price: \$185 million cash

- Additional \$30 million earn-out opportunity based on 2019 revenue

Buyer: Advantest

- Leading global provider of automatic test equipment to the semiconductor industry (TSE: 6857)

Four- year contract manufacturing agreement

Closing subject to HSR and other customary conditions

- Expected to close by year end

Resuming Growth

Aerospace

Test Systems

SALES

(\$ in millions)



*Guidance affirmed November 14, 2018. Segment sales tally may differ due to rounding.

Adding Technology, Building Solutions

Recent Acquisitions for the Astronics Brand

PECO Manufacturing

- » July 2013
- » Aerospace: Manufacturing Services

PGA Avionics

- » December 2013
- » Aerospace: Power, Executive

Armstrong Aerospace

- » January 2015
- » Aerospace: Systems Certification, Power

Telefonix PDT

- » December 2017
- » Aerospace: Connectivity

2013

2014

2015

2016

2017

2018

AeroSat

- » October 2013
- » Aerospace: Connectivity

EADS N.A. Test

- » February 2014
- » Test

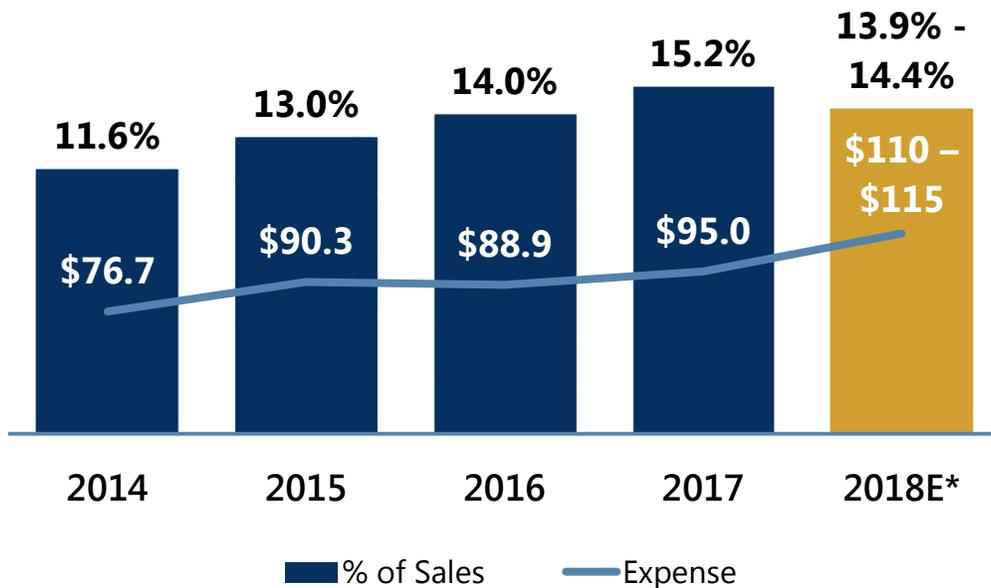
Custom Control Concepts

- » April 2017
- » Aerospace: Executive

Consistent Investment in E&D

(US\$ in millions)

Engineering & Development Expense



- » Innovation is critical to continued success
- » New products typically earn higher margins
- » Majority of spend focused on customer specific projects
 - » Most of increase in 2018 related to acquisition
 - » Added \$10 million to \$15 million in E&D
- » Expect stable/declining investment as % of sales with organic growth

Broad Global Footprint

Worldwide Manufacturing, Sales and Support

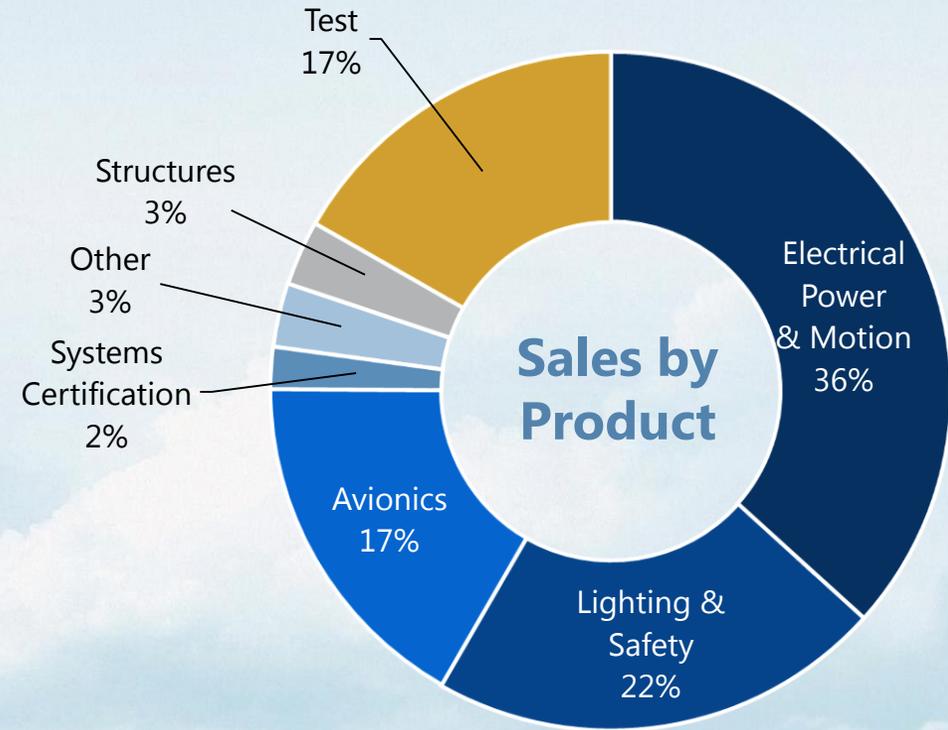
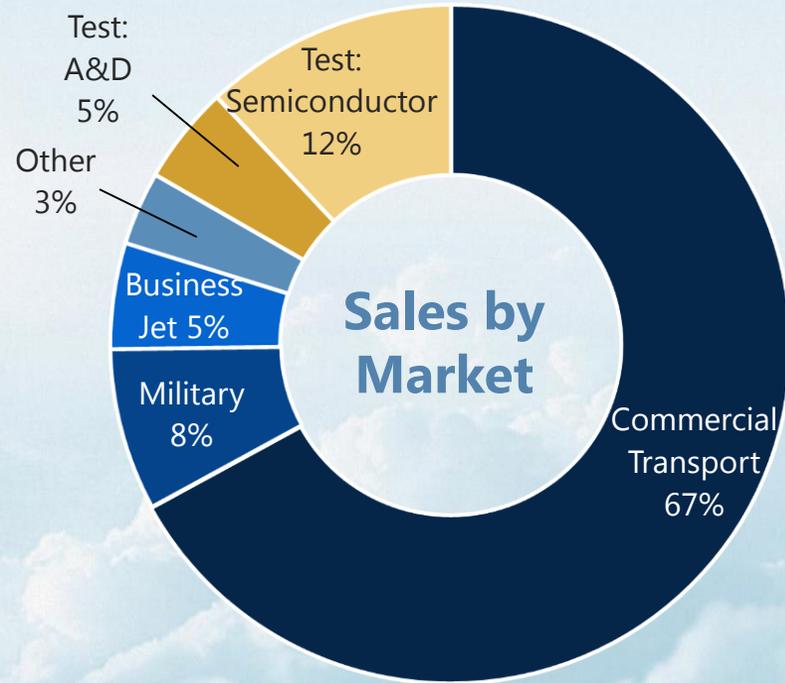


1.2M Square Feet of Manufacturing Strength

~2,800 Employees

27% Engineering/Technical

Sales by Product and Market



YTD 2018 Sales: \$600.3 Million

Sales by product percentage tally may differ due to rounding

Aerospace

Well Positioned on Wide Range of High Profile Next-Gen Aircraft

CURRENT

Embraer Phenom 100/300

Exterior lighting

UH-60 Blackhawk

Exterior & cockpit lighting

V-22 Osprey

Cabin, cockpit & exterior lighting

Cessna

Exterior & cockpit lighting

Airbus A380

Cabin lighting & cabin electronics

Boeing 787

Passenger power & fuel doors

Boeing 737 NG/BSI

PSU, fuel doors & passenger power available

F-35 JSF

Exterior lighting system & lighting controllers

Airbus A350

Emergency egress lighting & passenger power

NEXT GENERATION

Boeing 777X

PSU & fuel doors

737MAX

Exterior lighting system & PSU

Embraer E2

Interior and exterior emergency lighting system & PSU

Pilatus PC-24

Airframe power & induction starter generator

Cessna Denali

Induction starter generator, electronic circuit breakers & passenger power

Bell 525/V280/505

Airframe power, lighting/safety



Extensive List of Customers

Representative List

240+ Airlines

Airbus

AMAC Aerospace

Bell Helicopter

Boeing

Bombardier

Carson Helicopters

Cirrus Aircraft

Comlux

Dassault Aviation

Embraer

General Dynamics

Gogo

Gulfstream

Hughes

Intel

Jet Aviation

L3 Technologies

Leonardo

Lockheed Martin

NASA

Panasonic Avionics

Raytheon Company

Rockwell Collins

Sikorsky

Textron

Thales

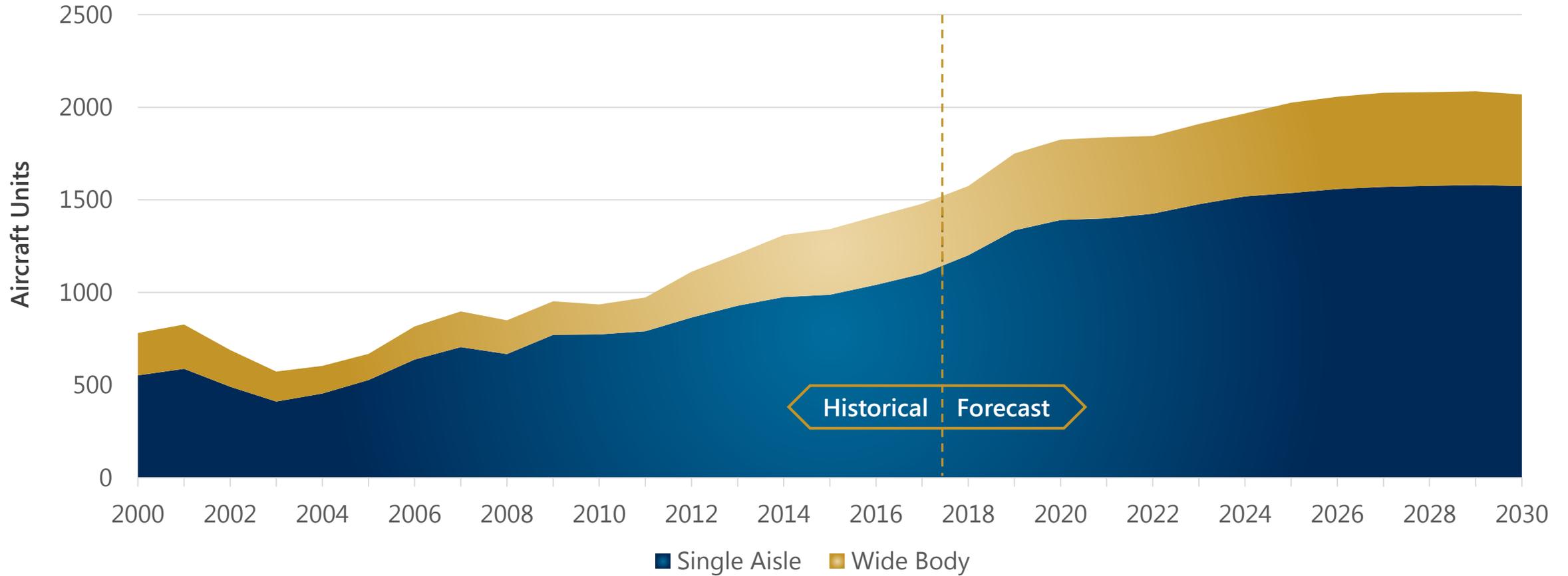
Thompson Aero Seating

U.S. Army/Navy/Air Force/Marines

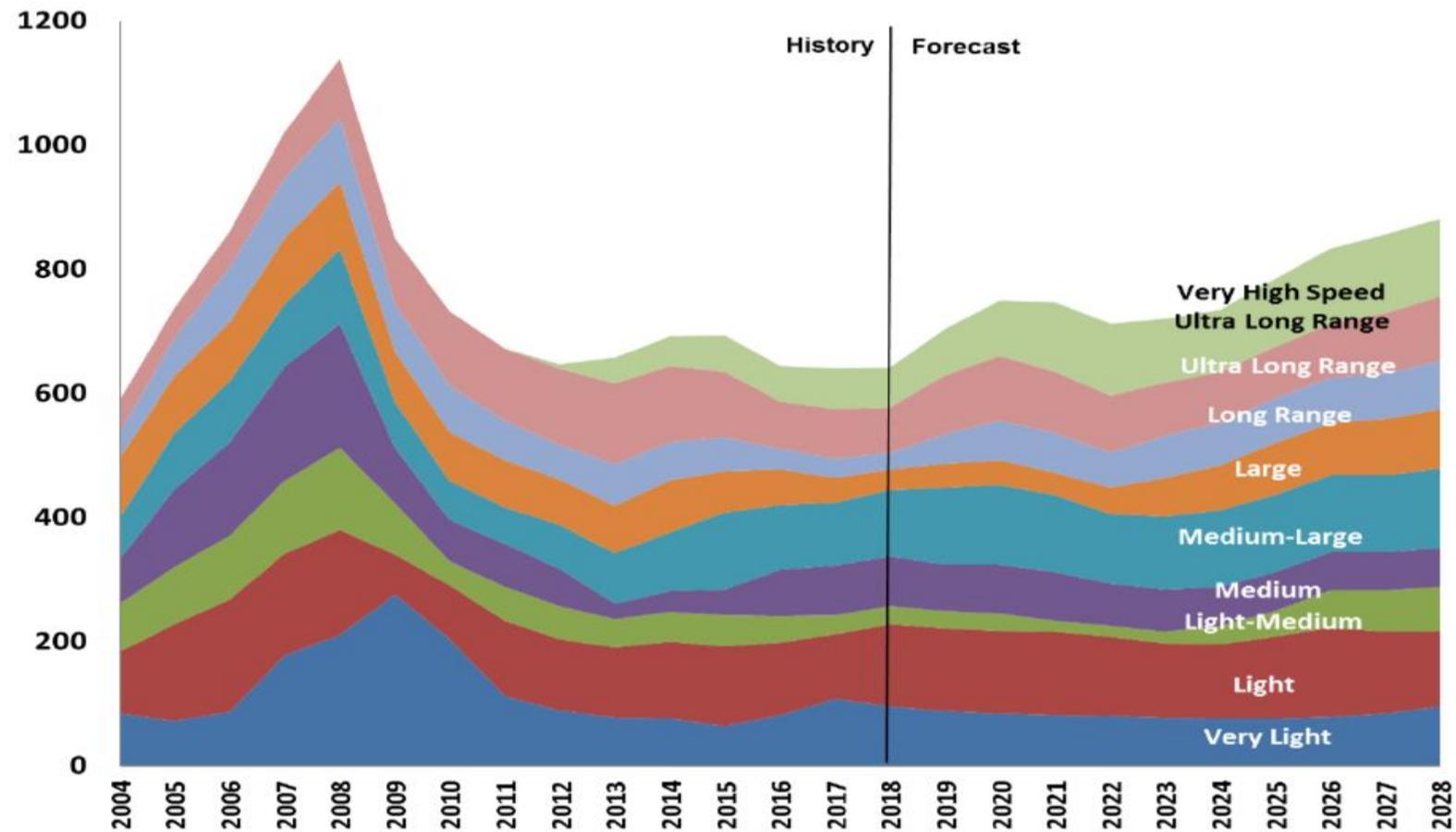
Zodiac Aerospace



Commercial Transport Delivery Forecast



Business Jet Delivery Forecast



~7,700 Aircraft from 2019 - 2028

Astronics Aerospace

Elevating Innovation

PRODUCT LINES

Electrical Power & Motion
Lighting & Safety
Avionics
Systems Certification
Structures
Other

POWER & MOTION



CONNECTIVITY & DATA

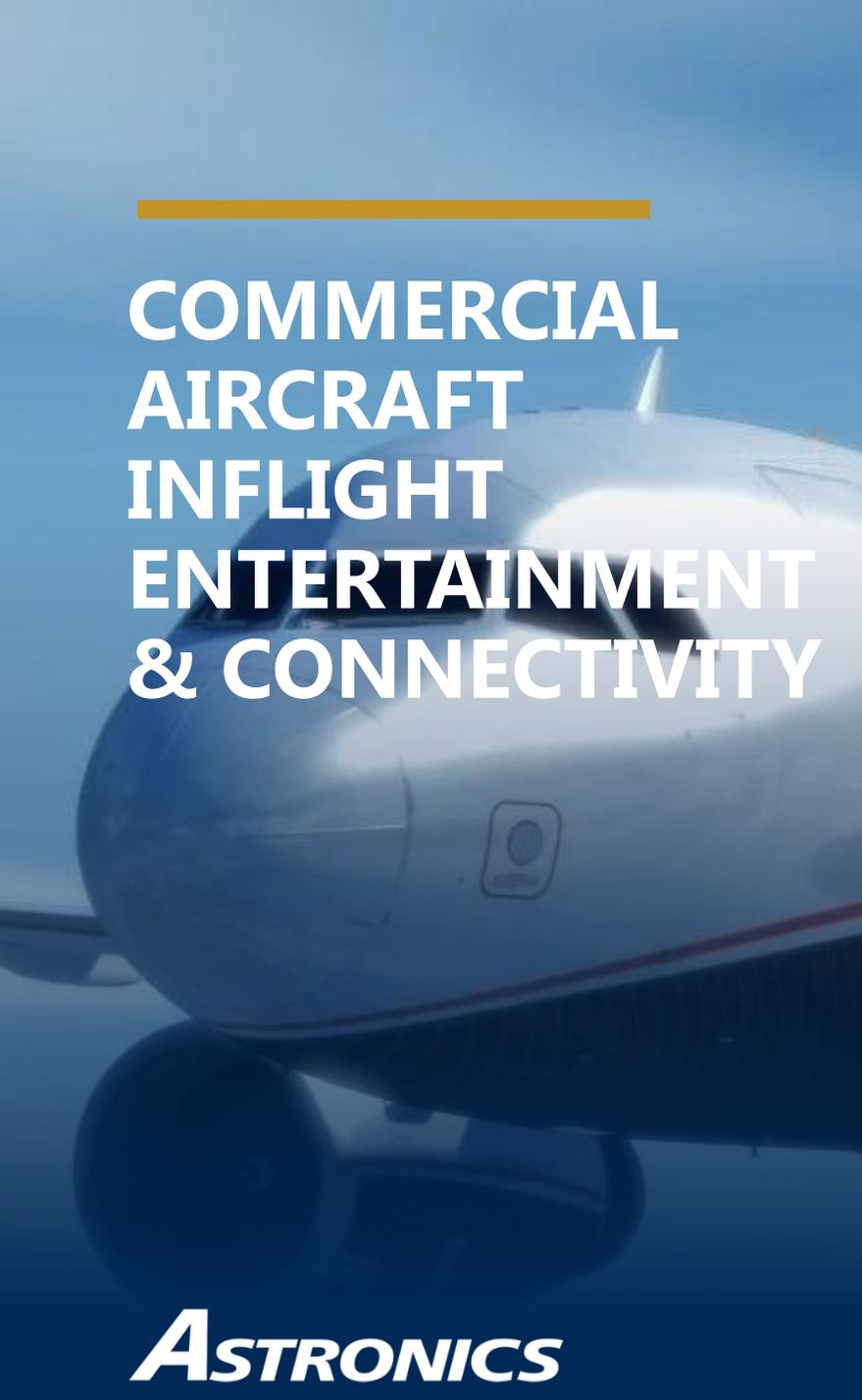


LIGHTING & SAFETY



MAJOR THRUSTS

Commercial Aircraft
Inflight Entertainment &
Connectivity (IFEC)
Bizjet Connectivity
Aircraft Lighting
Flight Critical Power



**COMMERCIAL
AIRCRAFT
INFLIGHT
ENTERTAINMENT
& CONNECTIVITY**

Michael C. Kuehn
President,
Astronics Connectivity Systems and Certification

Mark A. Peabody
President,
Astronics Advanced Electronic Systems

IFEC Customers

THALES

 **SAFRAN**

HughesNet

ASTRONICS





Viasat

Honeywell
THE POWER OF **CONNECTED**

Global Eagle

ZODIAC
AEROSPACE 

Panasonic

Commercial Aircraft Inflight Entertainment & Connectivity

Aircraft Data Systems



IFC Antennas and Radome Systems



Power for Passengers and Crew

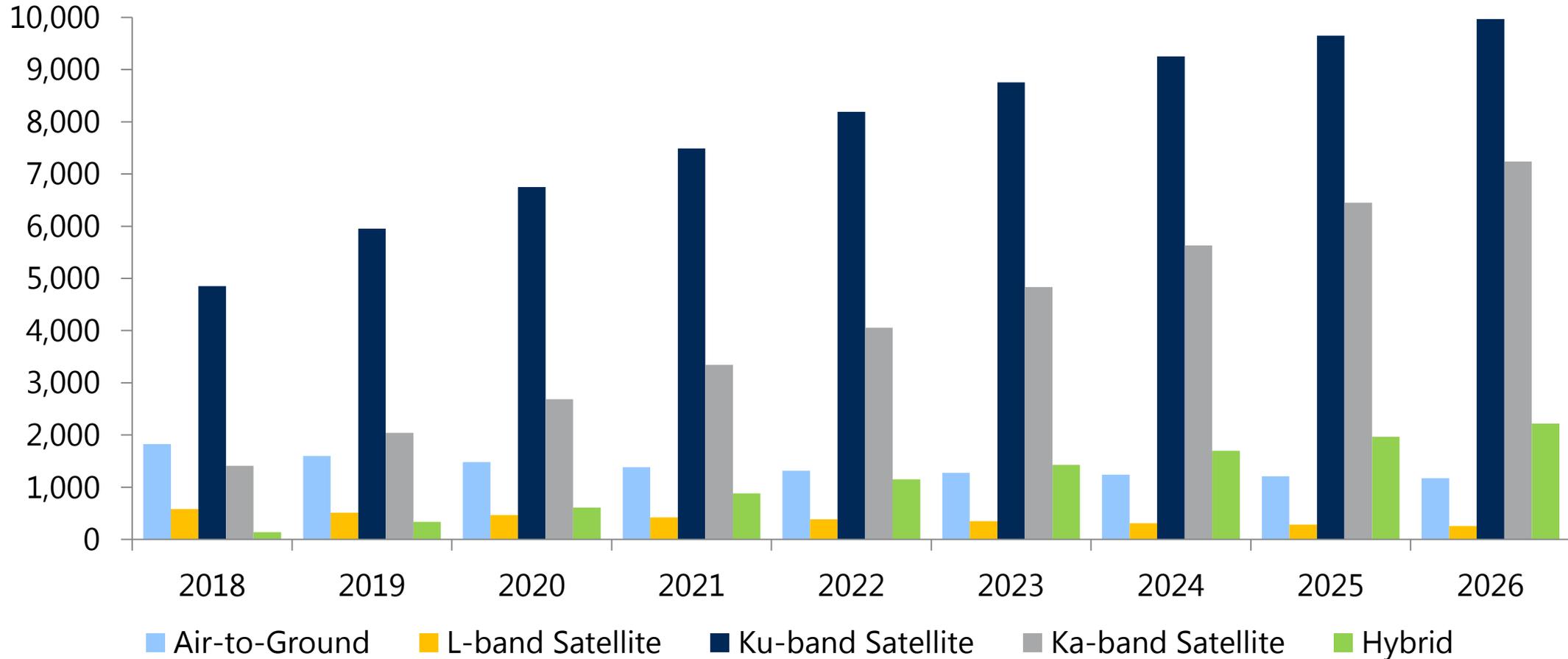


Inflight Entertainment Systems Hardware



Growing Addressable Market

Total Connected Aircraft by Frequency Band



Addressable Market Technology - IFEC

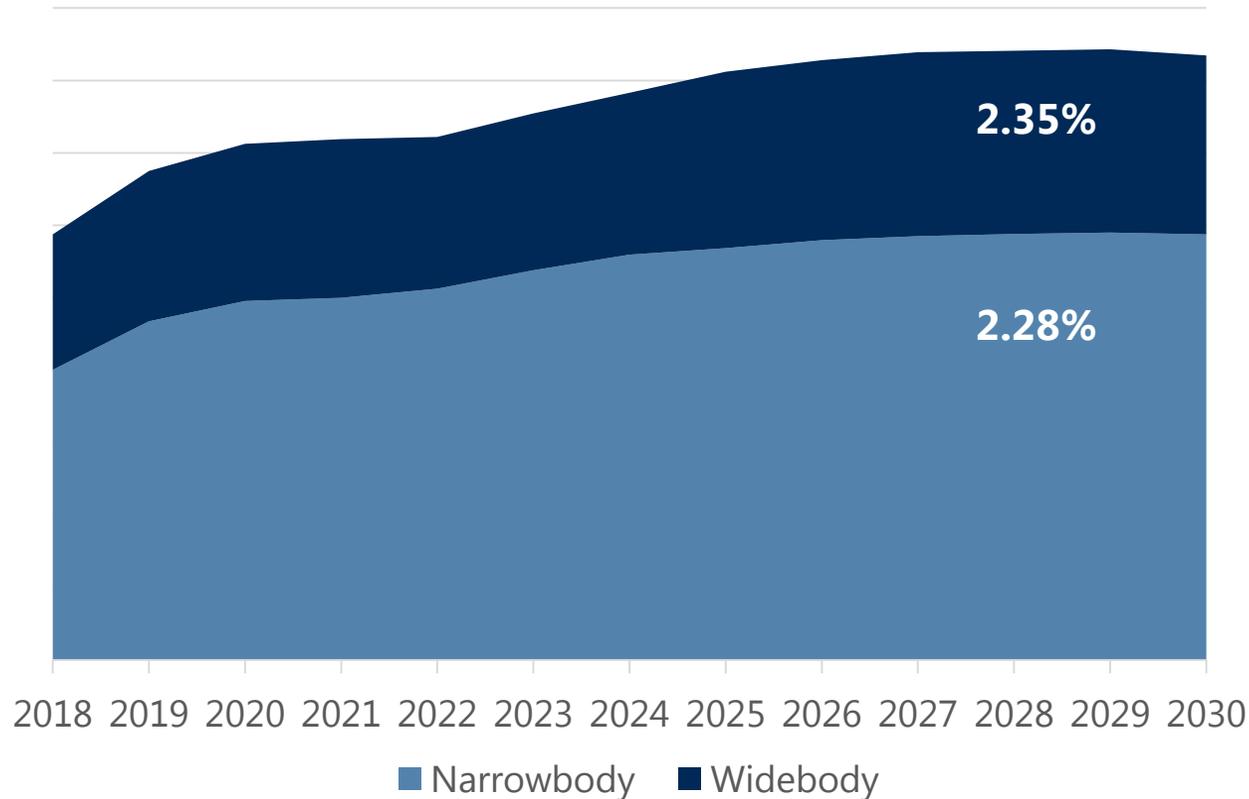
System Components	ATRO	Business	Narrowbody Content	Widebody Content
Hardware Equipment				
Antenna System	✓	Aerosat	\$100k-300k	\$300k
Aircraft Interface Device (AID)	✓	Ballard	\$10k	\$10k
Servers	✓	CSC	\$15k	\$15k
Data Loader	✓	CSC	\$5k	\$5k
Wireless Access Points (WAP)	✓	CSC	\$10k	\$15k
In-seat Power	✓	AES	\$50-\$100k	\$175k - \$300k
Seatback Displays	✓	CCC/PGA		
Passenger Control Units (PCU)	✓	CSC	\$10k	\$20k
Service Delivery				
Content				
Bandwidth				
TOTAL			\$200k - \$450k	\$540k - \$665k

Addressable Market Revenue Opportunity

Increasing production rates

Aircraft Production

12-Year CAGR



Market opportunity next 12 years

Widebody

5,958 aircraft x \$550k = \$3.28 billion

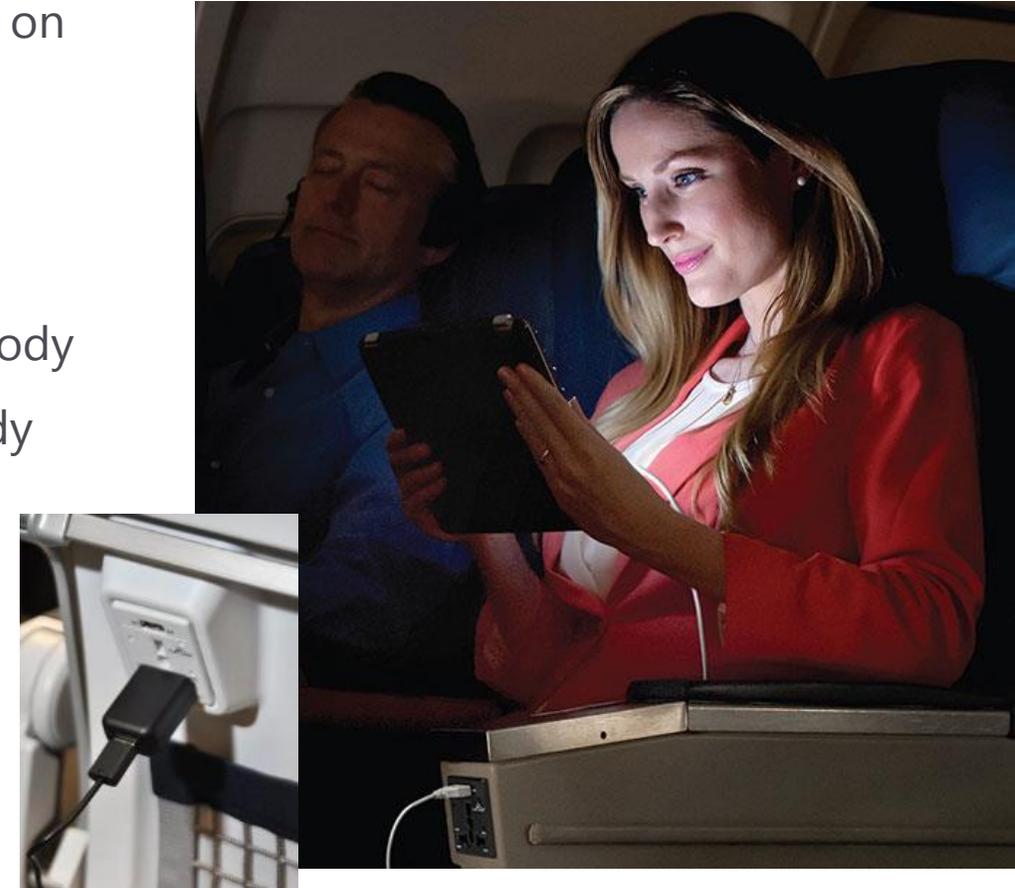
Narrowbody

19,144 aircraft x \$250k = \$4.79 billion

Power and Motion

⚡ In-Seat Power Supply (ISPS)

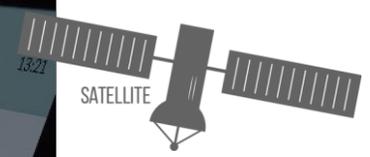
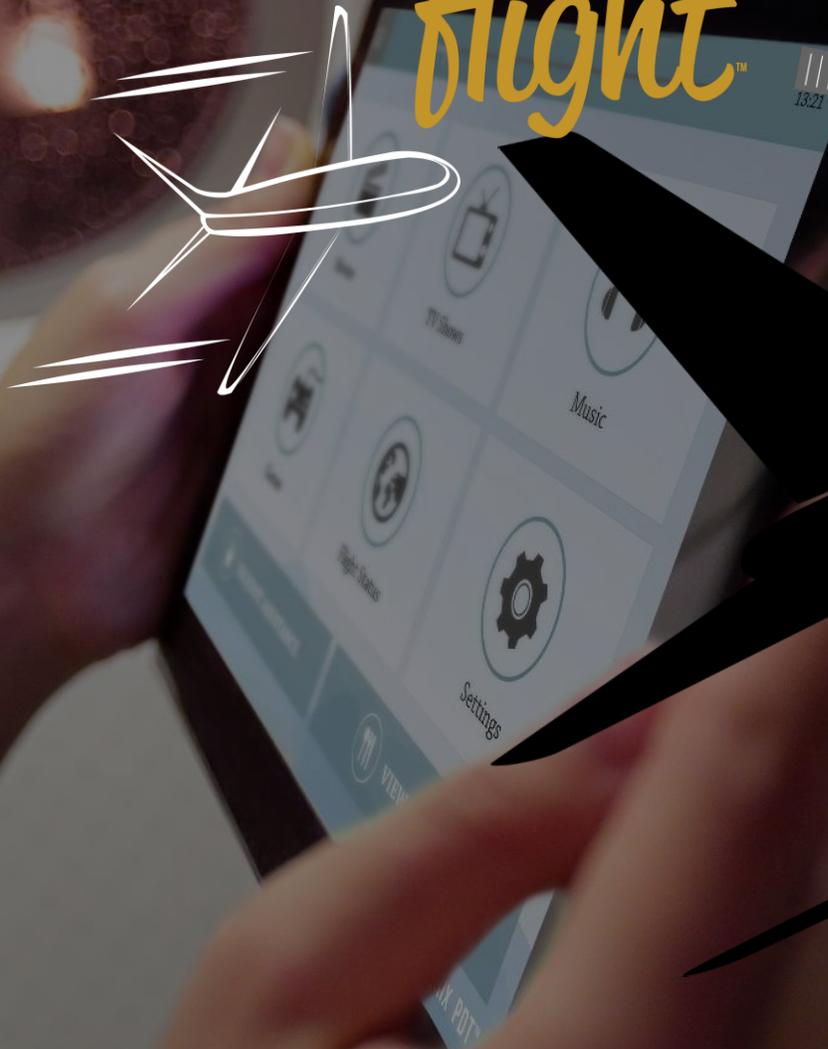
- » In-seat power, line-fit and retrofit, now powering 1 million+ seats on over 240 airlines worldwide
- » High barriers to entry: 90%+ market share
- » ASP: \$350-\$850 per seat
- » Market penetration aircraft: ~80% widebody and ~25% narrowbody
- » Market penetration seats: ~60% widebody and ~20% narrowbody
- » New build adding over 300,000 seats per year
- » Narrow body aftermarket potential: nearly 2 million seats



ADVANCED
TECHNOLOGY
FOR THE
INTERNET OF

flight[™]

The leader and only central source for the hardware needed to provide connectivity.



STCs & INSTALLATION KIT



- SUMMIT IFEC COMPONENTS
- CUSTOMER PROPRIETARY SOLUTIONS
- PORTABLE IFE SOLUTION



Aircraft Data Systems

Providing connectivity to valuable data on board the aircraft

Highly reliable data interface products

- » Commercial aircraft interface devices
 - › Provide aircraft data to crew Electronic Flight Bag
 - › Collect and process aircraft data for improved operational performance



Installed on commercial and military fixed wing, rotorcraft and UAV platforms

IFEC Customers

THALES

 **SAFRAN**

HughesNet.

ASTRONICS

 **gogo**

 **inmarsat**

Viasat

Honeywell
THE POWER OF **CONNECTED**

Global EagleTM

ZODIAC
AEROSPACE 

Panasonic

Bizjet Connectivity: Significant Market Potential

Best tail mount antenna in the market



High Throughput Ku Band Connectivity

Tail mount antenna is lighter and better functional fit

Faster than air-to-ground

More reliable and better coverage than Ka band

Partnered with Satcom Direct and IntelSat FlexExec

Bizjet Connectivity: Significant Market Potential

Best tail mount antenna in the market



Large addressable market

Current fleet:

5k aircraft x \$250k = \$1.25 billion

Competition

Honeywell/Inmarsat (Ka)

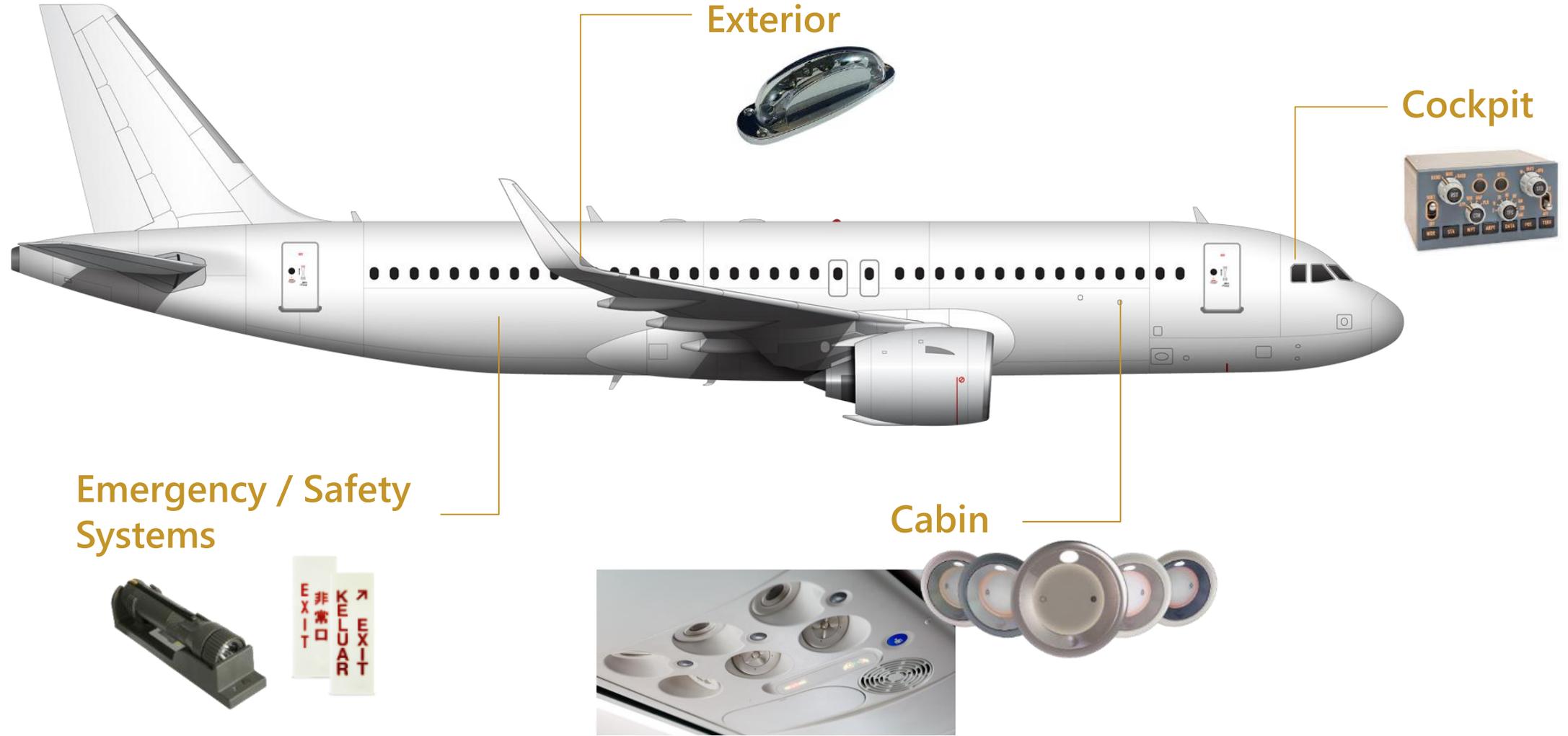
Viasat (Ka)

GoGo (ATG)

AIRCRAFT LIGHTING & SAFETY

James S. Kramer
President,
Astronics Luminescent Systems Inc.

Lighting & Safety Solutions



Aircraft Lighting Systems

💡 Industry Leader in Aircraft Lighting

A complete array of innovative, lightweight, reliable, solid-state lighting systems

Products

- » Exterior lighting systems
- » Cabin lighting systems
- » Cockpit lighting systems

Markets

- » Commercial transport
- » Military
- » Business and general aviation



Currently illuminating commercial, business and military aircraft, including Airbus, Boeing, Embraer, and Textron

Addressable Market Technology - Lighting

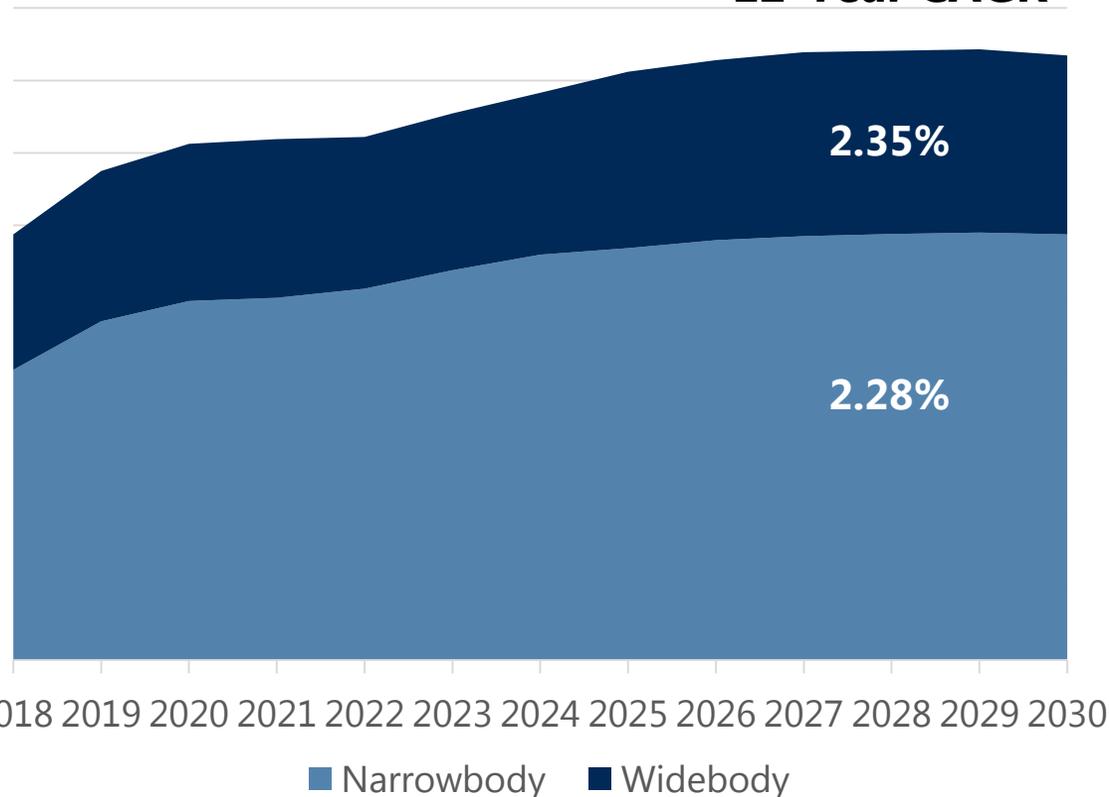
Lighting Solutions	ATRO	Business	Widebody Content	Narrow body Content	Bizjet
Cockpit					
Panels / Keyboards	✓	LSI	\$20k	\$15k	\$10k
Caution / Warning	✓	LSI	\$30k	\$20k	\$10k
Utility			\$10k	\$10k	\$3k
Displays			\$15k	\$15k	\$5k
Exterior	✓	LSI	\$30k	\$20k	\$10k
Cabin					
Emergency / Signage	✓	LSI	\$50k	\$20k	\$5k
Area / Mood			\$175k	\$70k	\$10k - \$30k
Passenger Service Units	✓	PECO	\$250k	\$80k	
Business / First Class Seats	✓	PGA	\$55k	\$3k	
TOTAL			\$635k	\$253k	\$53k - \$73k

Addressable Market Revenue Opportunity

Increasing production rates

Commercial Aircraft Production

12-Year CAGR



Market opportunity next 12 years

Widebody

5,958 aircraft x \$635k = \$3.78 billion

Narrowbody

19,144 aircraft x \$253k = \$4.84 billion

Bizjets opportunity next 10 years

7,700 aircraft x \$75k = \$578 million

Major Platforms

Air Transport

- » Boeing 777/777X – PSUs, Exterior Lighting, Emergency Lighting
- » Boeing 737 – PSUs, Exterior Lighting, Cockpit Lighting
- » Airbus A350 – Emergency lighting and Signage
- » Embraer E2 – PSUs, Emergency Lighting, Cockpit Control Panels

Business Jets

- » Embraer Phenoms – Exterior Lighting, Lighting Controllers
- » Cessna Citations – Exterior Lighting, Cockpit Lighting
- » Beechcraft King Air – Cockpit Lighting, Lighting Controllers

Military

- » F-35 – Exterior Lighting, Lighting Controllers
- » V-22 – Cockpit Lighting, Exterior Lighting, Emergency Lighting
- » UH-60 – Cockpit Lighting, Exterior Lighting
- » KC-390 – Cockpit Lighting, Exterior Lighting



Decades of providing
lighting solutions

Lighting Customers



**FLIGHT
CRITICAL
POWER**

Mark A. Peabody
President,
Astronics Advanced Electronic Systems

Modernization of Aircraft

Clean, Streamlined Cockpit



Traditional Cockpit with Circuit Breakers
Learjet 45



Electronic Power Distribution
PC-24

Power and Motion

First Mover Advantage: Establishing leadership in small aircraft airframe power

The technology for the future of small aircraft: Solid-state power distribution systems replace extensive wiring and traditional electromechanical components with modular electronics and software



- » Intelligent systems for power generation, distribution and conversion
- » Increased reliability
- » Reduced weight
- » Automation, flexibility
- » Lower life cycle cost
- » Reduces pilot work load

Wins:

- » Daher TBM 900
- » Bell 505, 525 & V280
- » Pilatus PC-24
- » Cessna Denali
- » Global 7000

COREPOWER®



Airframe Electrical Power: COREPOWER®

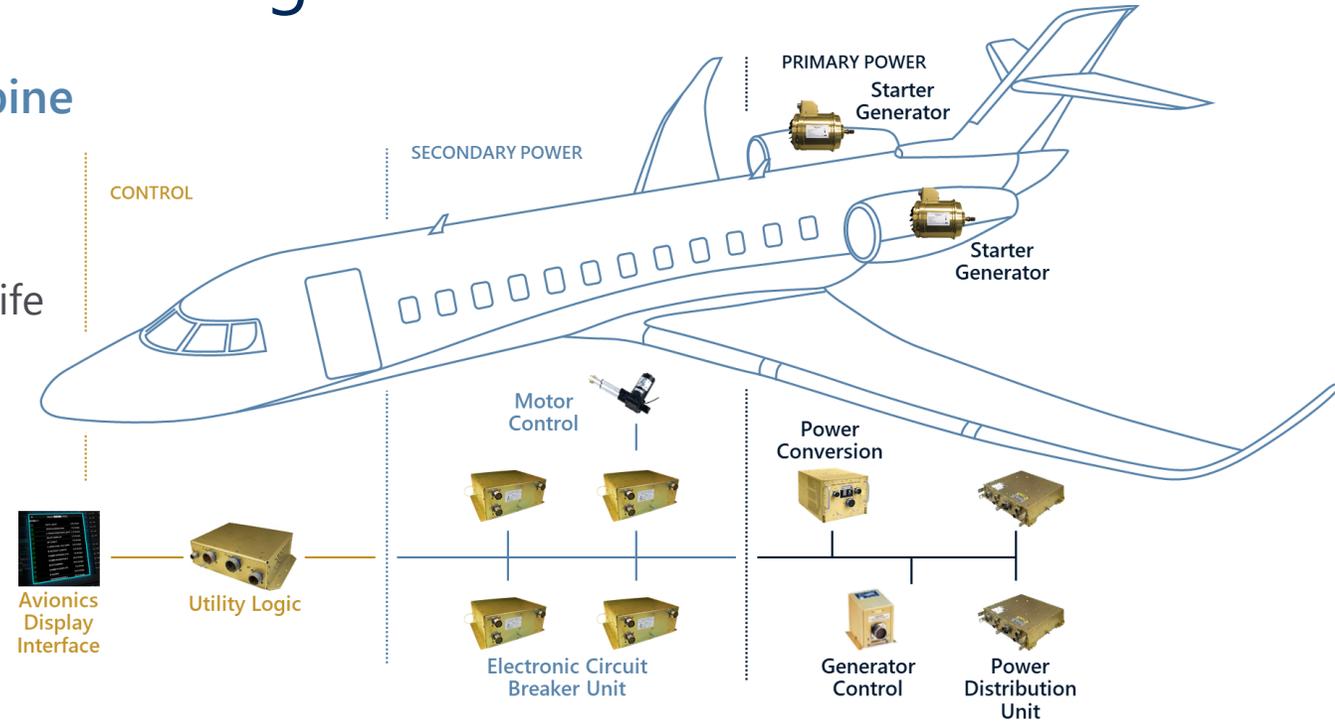
Electronics Circuit Breaker Units and Long-Life Starter Generator

Innovation and Value for Small to Mid-Size Turbine Aircraft

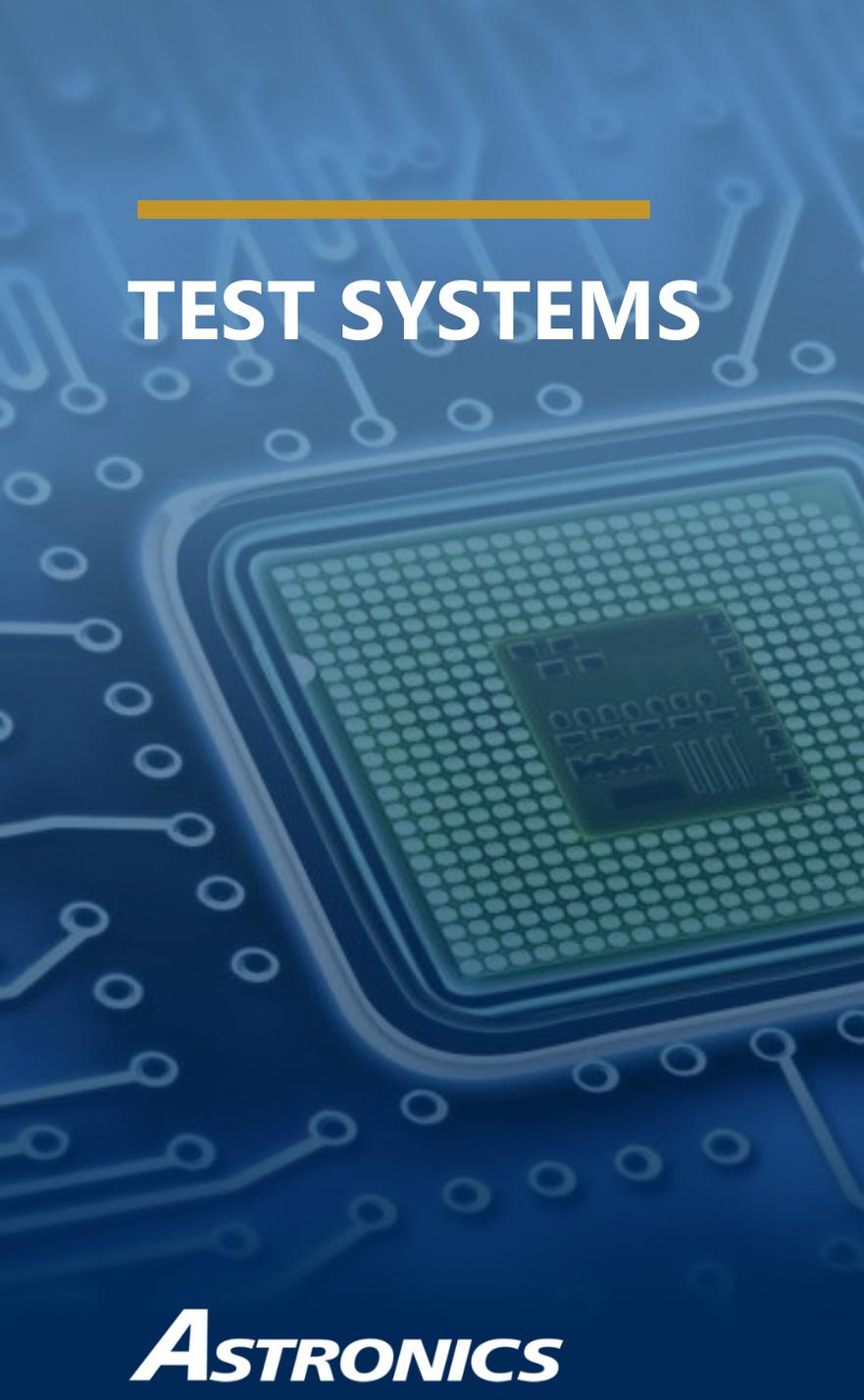
- » Lighter weight, greater flexibility, increased safety
- » Higher reliability - starter generator has almost 10X life

Programs to date

- » Eclipse 500, Lear 85
- » Bell 505/525, Socata TBM, Cessna Denali, Pilatus PC 24



	Small Turbine	Medium Turbine	Large Turbine
Shipset value	\$80k – \$120k	\$100k – \$200k	\$200 – \$600k
Number of aircraft/year	310	230	280
TOTAL	~\$30 million	~\$35 million	~\$110 million

A blue-tinted image of a microchip on a circuit board, with a glowing orange horizontal line above the text.

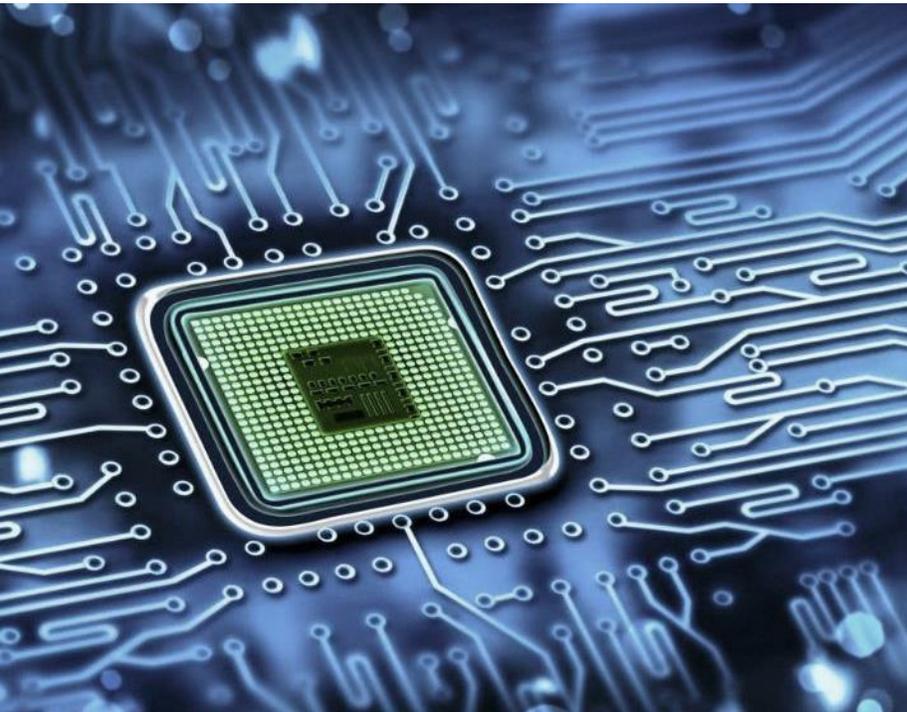
TEST SYSTEMS

James F. Mulato
President,
Astronics Test Systems

Semiconductor Test Solutions

How Semiconductor Testing is Done...Right

Designed and engineered semiconductor test solutions that improve yields and reduce costs



- » Automated test solutions, test strategies, custom system development
- » Specialize in critical reliability, complex semiconductor testing that requires system-level test
- » Supported the largest smart device ramps in history



Chances are your smart phone, tablet, and laptop contain semiconductors tested by Astronics equipment

Military Test Solutions

Preferred Provider for All U.S. Military Branches

Improve system reliability, reduce costs, streamline TPS development, and preserve vital legacy investments with test solutions

- » Instruments, ATE, and switching systems
- » Commissioning, logistics, support, obsolescence management
- » Experience includes:
 - › Military aircraft, avionics, and vehicles systems
 - › Weapons systems
 - › Communications and radar systems
 - › Engine systems
 - › Military satellites
 - › Shipboard systems



Supporting every U.S. military branch through test



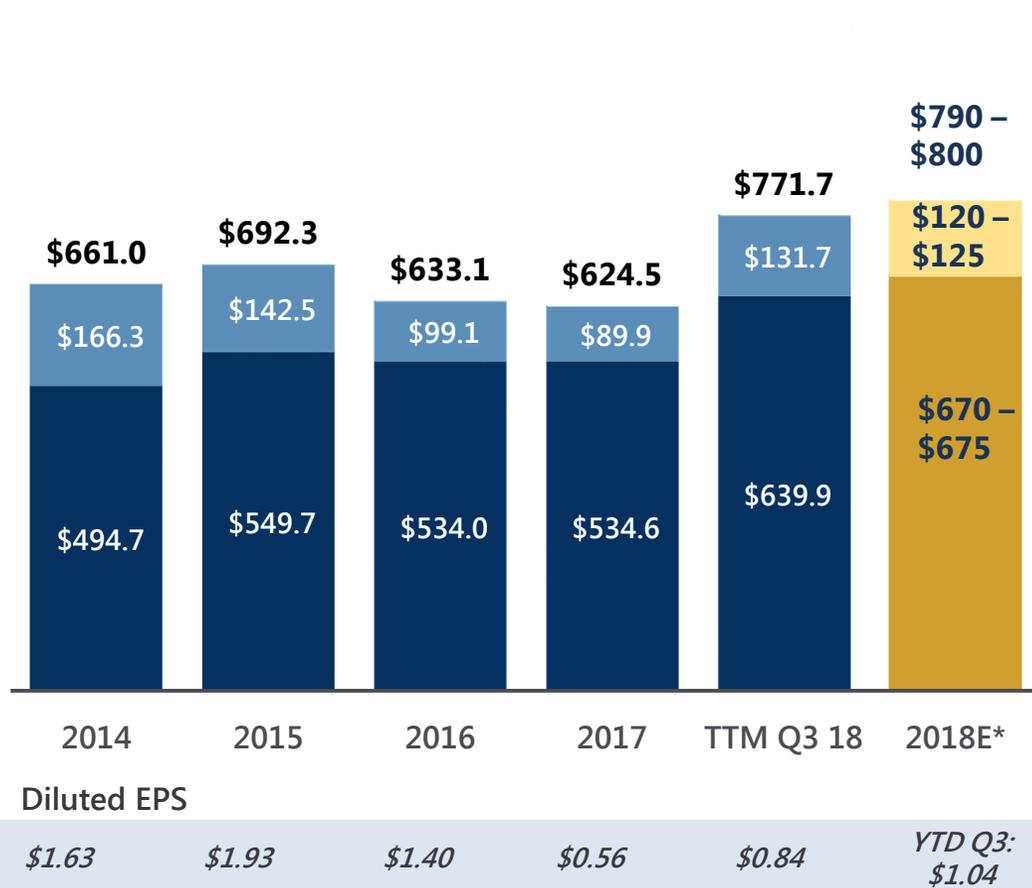
FINANCIAL STRATEGY

David C. Burney
Executive Vice President and
Chief Financial Officer

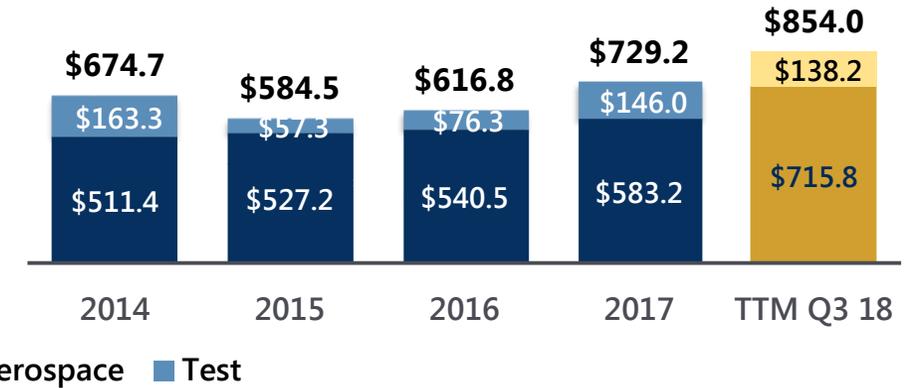
Sales & Bookings

(US\$ in millions; except EPS)

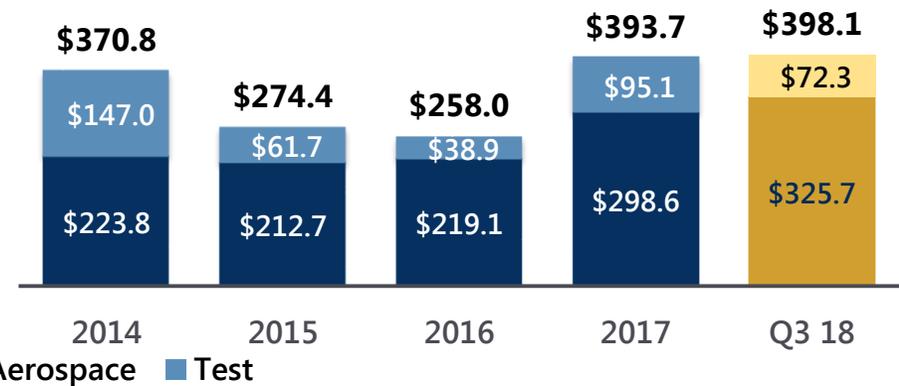
Sales



Annual Bookings



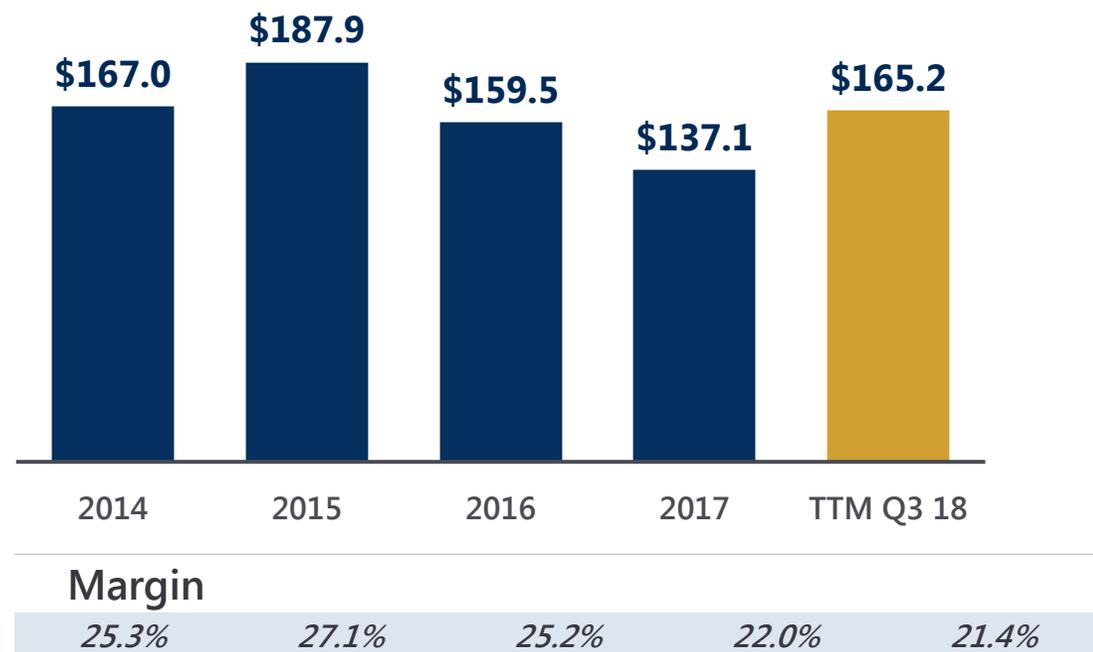
Backlog



Profit and Margins

(US\$ in millions)

Gross Profit and Margin



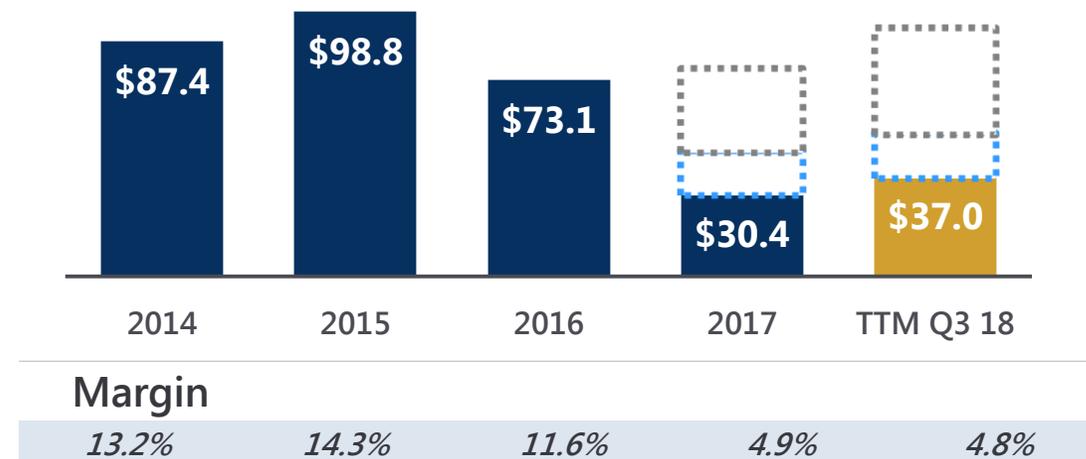
Operating Profit and Margin*



Losses of \$30.9 million and \$39.3 million from three aerospace businesses in 2017 and TTM Q3 2018, respectively



Impairment charge of \$16.2 million associated with Armstrong Aerospace in Q4 2017

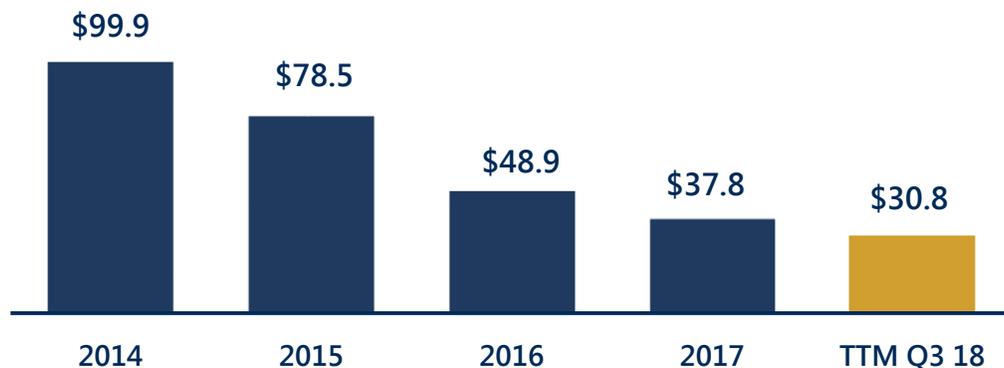


*As reported

Balance Sheet and Cash Flow

(US\$ in millions)

Cash from Operations



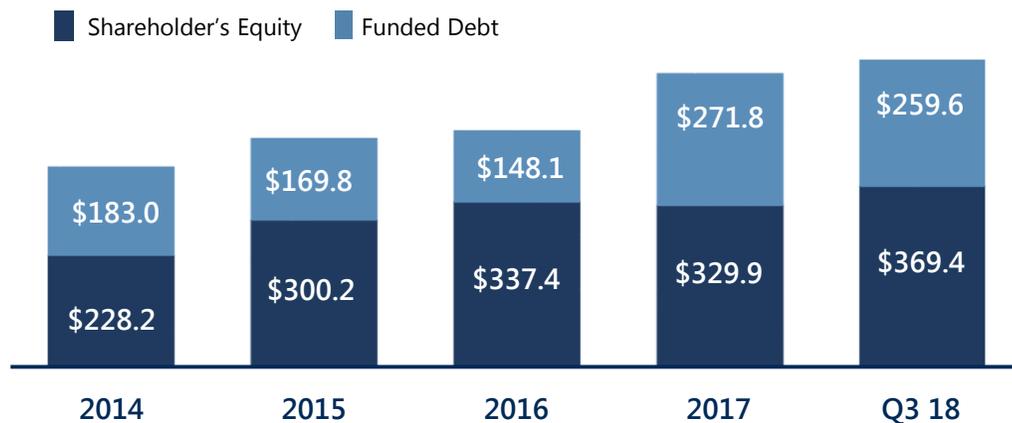
Capital allocation priorities:

1. Pay down debt
2. Acquisitions
3. Organic growth
4. Opportunistic stock repurchases

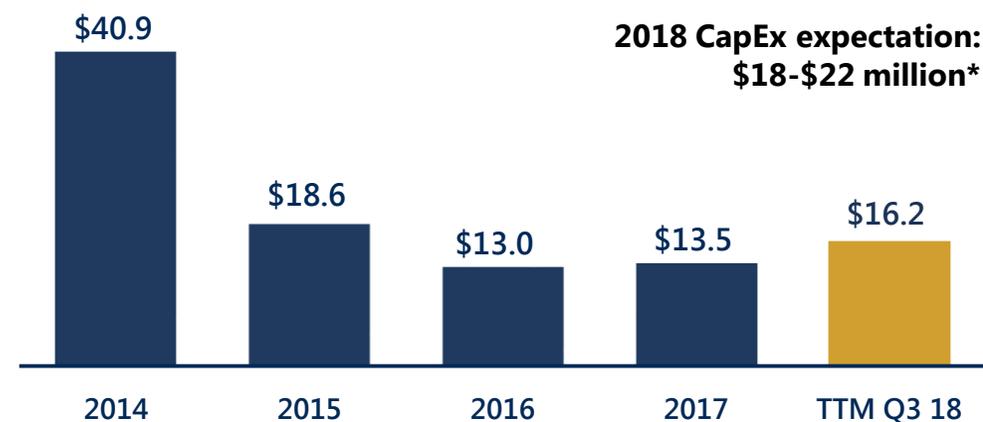
Tolerance for debt:

- » 2x - 3x
- » Willing to flex up

Funded Debt & Shareholders' Equity



Capital Expenditures





STRATEGIC OUTLOOK

Peter J. Gundermann
Chief Executive Officer



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