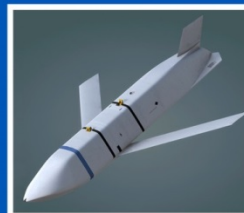
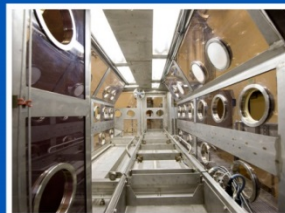


**NASA HBCU/MI
Technology
Infusion Road
Tour
Clark Atlanta
University
March 27 – 28
2018**



TELEDYNE ENGINEERED SYSTEMS

Approved for Public Release

**TELEDYNE
TECHNOLOGIES**
Everywhere you look™

Parent Company Teledyne Technologies

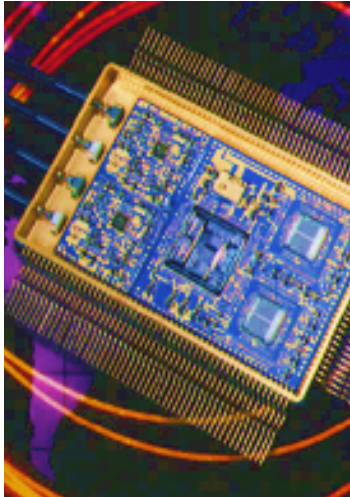


- ▶ Headquartered in Thousand Oaks, California with locations across the globe
- ▶ \$2.6 B in 2017 revenues; over 10,700 employees
- ▶ Teledyne Technologies is a leading provider of sophisticated instrumentation, digital imaging products and software, aerospace and defense electronics, and engineered systems. For more information, visit Teledyne Technologies' website at www.teledyne.com.



Teledyne Technologies

Four Segments - \$2.6B 2017



**Aerospace and
Defense
Electronics**



Instrumentation



Digital Imaging



**Engineered
Systems**



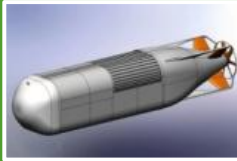
Teledyne Engineered Systems Segment

Full-System/Product Life-Cycle Capabilities

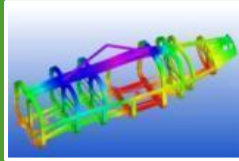
Research
and
Technologies



Systems
Concept
Development



Systems
Design and
Analysis



Manufacturing
and
Assembly



Systems
Integration
and Test



Management
and
Operations



Sustainment
and
Recapitalization



▶ ▶ ▶ Quality Assurance = ▶ Safety Assurance ▶ ▶ ▶

Full-Spectrum Engineering and Advanced Manufacturing

- ▶ Engineered Systems – Concept definition and prototyping through product lifecycle
- ▶ Engineering Services – Support the customer at any phase of the lifecycle
- ▶ Advanced Manufacturing – Design and analysis through fabrication, assembly and test, production, and installation and operations



Teledyne Engineered Systems Business Units

Teledyne Brown Engineering

Mission Systems

- Systems Engineering
- Modeling and Simulation
- Test and Evaluation
- Low Cost Missile Targets



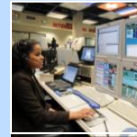
Maritime Systems & Manufacturing

- Army Missile Round Trainer
- Naval Vessel Design and Manufacture
- Mine Seeking Hardware
- LCS Gun Mount



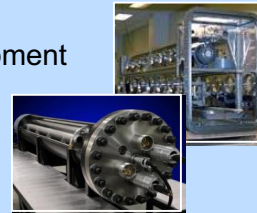
Space Systems

- Mission Planning and Control Center Operations
- Payload/Cargo Integration
- Space Flight Hardware



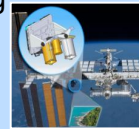
Energy & Environment

- Chemical Processing Equipment
- Facilities M&O
- Radiological/Classified Laboratories
- Nuclear



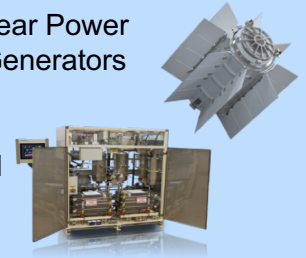
Geospatial Solutions

- Multi-User System for Earth Sensing
- T-Cloud management and archiving
- Imaging
- Space Hardware Qualification



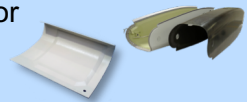
Energy Systems

- Space Nuclear Power
- Hydrogen Generators
- Specialized Batteries
- H₂/O₂ Fuel Cells



CML

- Composite Parts for Commercial and Military Aviation



Turbine Engines

- Small turbine engines
- Propulsion system development to integration



MO&I

Mission Operations and Integration

- ▶ Provides ISS payload operations planning and data management and product development for US payloads and laboratory systems
 - Flight control of payload support systems
 - Payload safety control
 - Astronaut and ground support personnel training
 - 24/7 staffing of POIC performing real-time mission operations

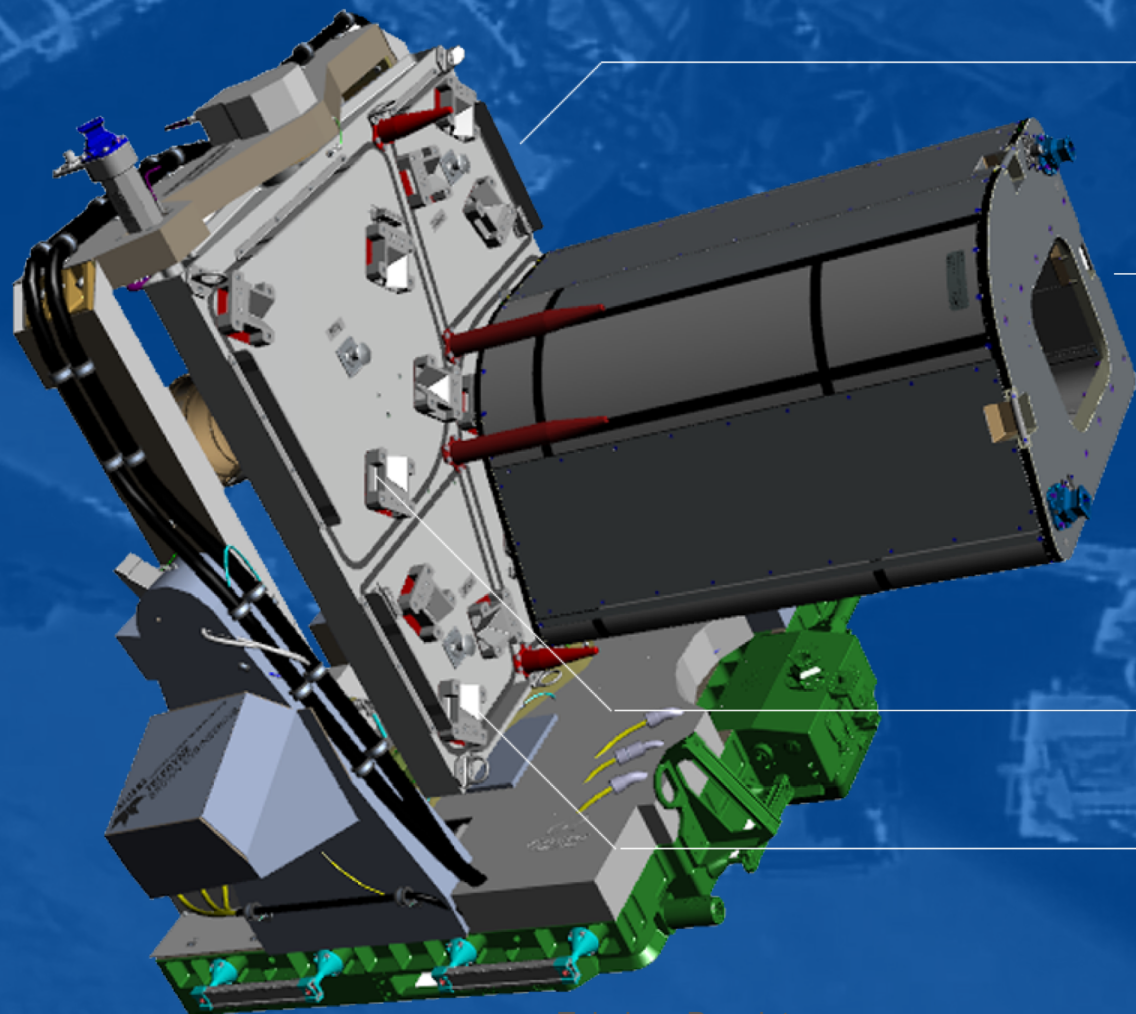
LVSA

Launch Vehicle Stage Adaptor

- ▶ **Structural Test Article has been qualified for flight by NASA. HUGE accomplishment by the TBE team and cost savings for NASA – TBE team flight qualified a first article without manufacturing an engineering design model first**
- ▶ **First Flight Unit is on track to be delivered in Q1 2018**

MUSES

MULTI-USER SYSTEM FOR EARTH SENSING



SMALL PAYLOAD 1

DESI

LARGE PAYLOAD 2

SMALL PAYLOAD 2

MUSES

Multi-User System for Earth Sensing

- ▶ Successfully launched June 3, 2017 from Kennedy Space Center
- ▶ Full operating capability in September 2017
- ▶ First company to partner with NASA on commercialization of the International Space Station (ISS)
- ▶ Designed, developed, deployed and operated aboard the ISS
- ▶ Example of full product lifecycle from research to manufacturing and operations

Debbie Batson

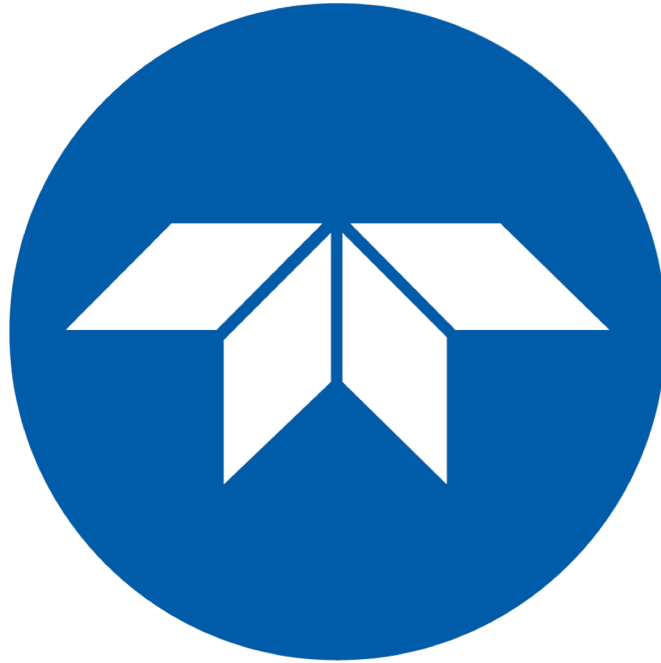
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www.teledyne.com