

# FLIGHTPLAN

## ADDITIVE MANUFACTURING IN AEROSPACE

The aerospace industry pioneered the use of additive manufacturing (AM) for production parts. Realizing the benefits early on, aerospace companies have furthered the adoption of 3D printing to boost efficiency, save money and enable on-demand parts production. Let's explore the ways your company can use AM and the benefits you could realize in your operation.

### BENEFITS OF ADDITIVE MANUFACTURING IN AEROSPACE



**Cost**

- Make supply chain more efficient through streamlining
- Boost fuel economy



**Efficiency**

- Produce spare parts on-demand, eliminating some inventory stocks
- Reduce or eliminate assembly activities



**Parts & Materials**

#### Lightweight

- Employ innovative weight-saving techniques (like part consolidation and lattice structures) to reduce material waste
- Take advantage of thinner walls and conformal features

#### Broad range

Flight-worthy materials include:

ULTEM™ 9085 resin	Antero 800NA
Nylon 12 FR	Nylon 11 FR
Titanium Ti64	Aluminum AlSi10Mg

#### Unique materials

Utilize custom material development and certify to FAA regulations

#### DID YOU KNOW?

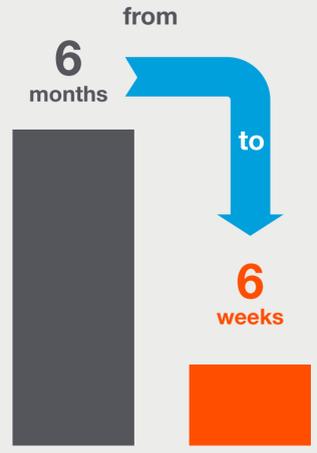


#### SAVES



☒ = 1,000 gallons

#### REDUCE LEAD TIMES

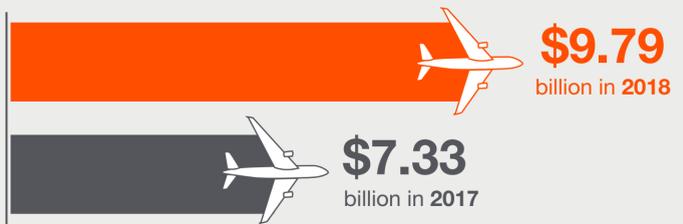


### INTEGRATING 3D PRINTING

The world of 3D printing has evolved rapidly over the past decade, and that evolution has greatly expanded the utility of 3D printing in aerospace. But what could that mean for your company? Let's take a closer look at specific products that can be produced using additive manufacturing.

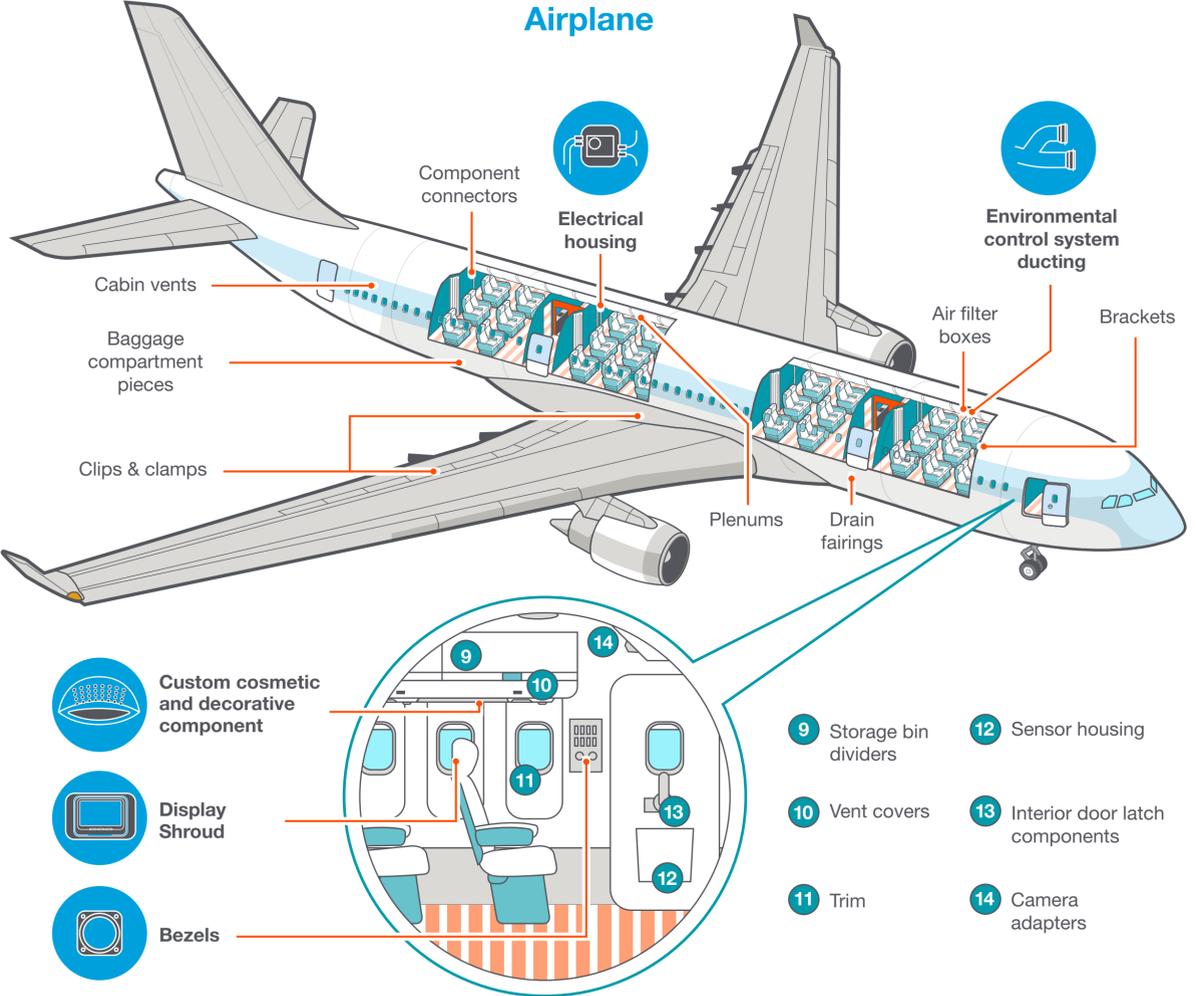
#### DID YOU KNOW?

The global additive manufacturing accounted for **\$9.79 billion** in 2018. That's up from **\$7.33 billion** in 2017. <sup>(2)</sup>

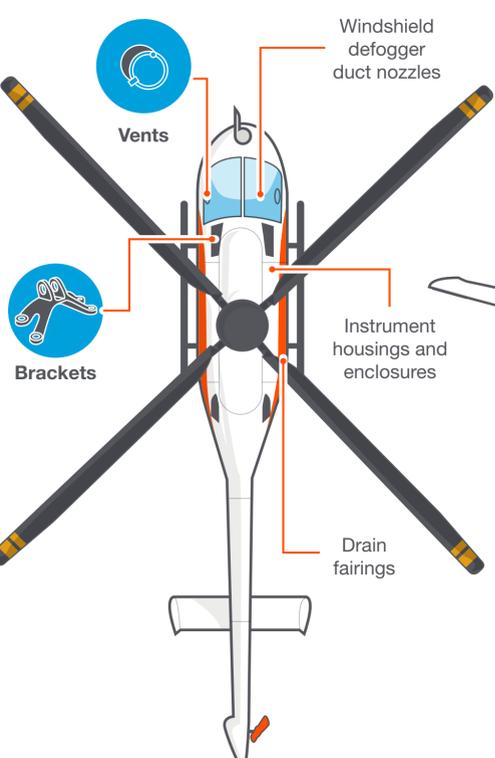


### AEROSPACE APPLICATIONS

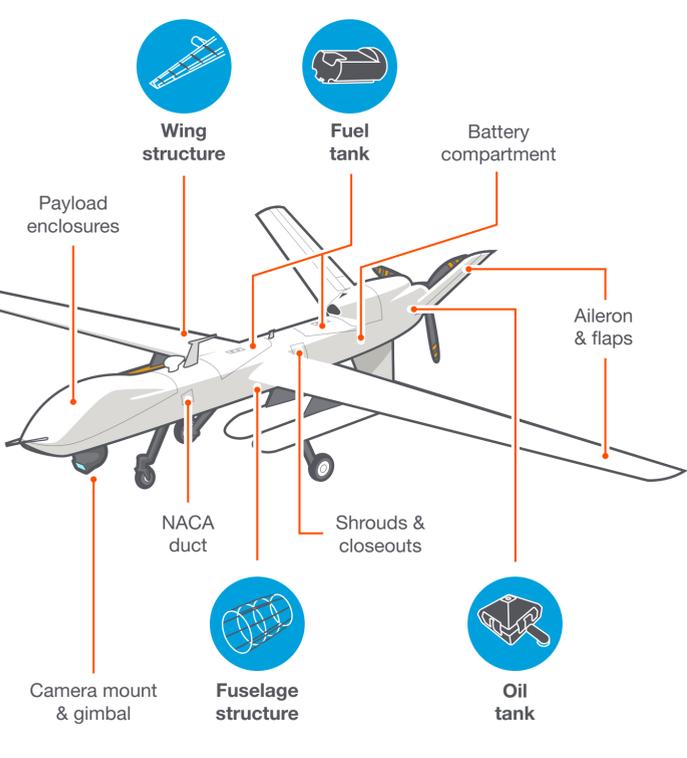
#### Airplane



#### Helicopter



#### UAV



#### SOURCES

1. NBC News | 2. Wohlers Report 2018

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