

### COMMERCIAL AND GOVERNMENT SATELLITES AMOS-17

# DESCRIPTION & PURPOSE

In December 2016, Tel Aviv-based satellite operator Spacecom ordered AMOS-17, which was launched in August 2019 aboard a SpaceX Falcon 9 launch vehicle. AMOS-17 delivers satellite communications and broadcast services to parts of Europe, the Middle East and Africa, offering television, internet and data services. The satellite is stationed above Africa at 17 degrees east.

### **CUSTOMERS**

A leading global fixed-satellite operator and satellite service provider, Spacecom offers tailored end-to-end communication solutions to the media and broadband industries. Operating the AMOS satellite fleet, Spacecom provides broadcast and broadband satellite services with Pan-European, Pan-African, Middle Eastern, Russian and Asian coverage and cross region connectivity.



## **GENERAL CHARACTERISTICS**

Based on the 702 satellite bus, AMOS-17 provides satellite communications and broadcast services in parts of Europe, the Middle East and Africa, offering television, internet and data services. This digitally channelized, wideband payload includes multiple earth steerable beams and fixed beams. The digital channelization allows configurable channel size, channel power, and channel mapping between the beams to connect any uplink beam with any downlink beam. The combination of the inherent flexibility of the digital platform with the mix of fixed and steerable beams ensures fast response to changing customers' needs. AMOS-17 delivers services in C-, Ka- and Ku-bands. The Ka-band payload allows flexible and configurable communications through fixed and steerable spot beams. The satellite's two shaped Ku-band beams serve South Africa and sub-Saharan Africa, and its 12 C-band spot beams covers Africa.

AMOS-17 carries Boeing's first 3D-printed metal antenna as flight hardware. Its 3D-printed aft command antenna's purpose is to receive commands from the ground in Ku-band. This breakthrough will result in greater reliability thanks to the need for fewer parts because the one-piece unit replaces the multi-part assembly used in heritage designs. That change also is expected to yield significant reduction in assembly time as well as reduce spacecraft mass.

# 702 BACKGROUND

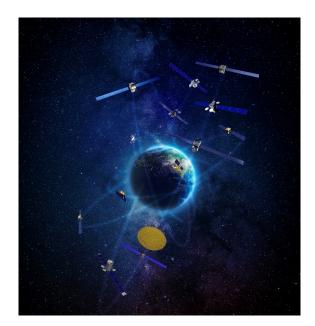
The scalable, flexible 702 product line is an orbit-proven platform that cost-efficiently serves a wide range of commercial and government customers. Boeing introduced the 702 spacecraft family in 1995, and today more than two dozen are on orbit, with almost a dozen more currently in production. The 702 family product line offers flexible designs supporting payload power levels from 3 to 25 kilowatts, meeting the needs of customers seeking satellites in wide power ranges.

## FLEXIBLE SATELLITES FOR GOVERNMENT AND COMMERCIAL OPERATORS

Boeing builds adaptable satellites to meet changing business cases and fulfill even the most demanding missions. We're well into our sixth decade of providing advanced space and communications systems for military, commercial and scientific uses.

Boeing satellites reliably deliver digital communications, mobile communications, broadband internet connectivity, streaming entertainment, and direct-to-home entertainment around the world.

We continue to invest in and create a continuum of products across all orbits to give customers tiered options based on size, weight and power, to deliver the capability they need to their end-users.



Artist rendering of Boeing satellites operating across all orbits

### **MISSION ASSURANCE**

Boeing's satellite systems business is located in El Segundo, Calif. The world's first geosynchronous communications satellite, Syncom, was built there by Boeing and launched in 1963. Since then, Boeing has delivered more than 300 satellites to more than 50 customers in more than 20 countries, and continues to design and build government and commercial satellites in its factory in El Segundo.



Exterior of Boeing Satellite Factory



High Bay



**Thermal Vacuum** 



**Payload Integration & Test** 

### STRONGER TOGETHER

In addition to Boeing's space capabilities, Spectrolab and Millennium are also a part of the Boeing team. Click on the company logos to learn more!

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