U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Opening Statement

Chairwoman Kendra Horn (D-OK)
of the Subcommittee on Space and Aeronautics

Space and Aeronautics Subcommittee Hearing:
Space Situational Awareness: Key Issues in an Evolving Landscape

Tuesday, February 11, 2020

Good afternoon, and welcome to our witnesses. Thank you for being here today. In today's hearing we will begin to address one of the most pressing and rapidly evolving issues facing our ability to operate in space, Space Situational Awareness.

At present, the Department of Defense's public catalogue reports over 20,000 space objects. With the advent of mega constellations and an increasing amount of players, space is only going to get more crowded. In fact, a June 2019 assessment predicted that more than 20,000 satellites would be launched into orbit by 2030 based on announcements of new planned commercial constellations.

Space situational awareness allows us to track and monitor the number and location of space objects, how to characterize the space environment, and identify any potential collisions so they can be avoided.

A good example of the need for space situational awareness occurred just a few weeks ago, when officials were closely monitoring two dead satellites with interest and concern. The two satellites, one a NASA satellite and one a U.S. Air Force experimental spacecraft launched in 1967, were expected to pass extremely close to each other at speeds of over 32,000 miles per hour. If these satellites were closer than estimated, it could have led to a collision creating thousands of pieces of space debris that could potentially have devastating impacts on other operating spacecraft.

Satellite and spacecraft operators need reliable space situational awareness to respond to collision threats. Because moving a satellite or spacecraft involves time, money, and resources such as spacecraft fuel, the accuracy of the situational awareness data and the reliability of collision warnings need to be considered.

The bottom line is that space situational awareness and ensuring the safety and sustainability of the space environment is an issue that affects our civil space program, our commercial space

sector, and our national security space activities. And it is a problem we need to understand and address now.

Space is part of our infrastructure. It enables our nation's commerce, agricultural productivity, banking, and many other aspects of our day-to-day lives. Imagery and data from orbiting weather satellites and precision navigational and location data from the Global Positioning System (GPS) are essential to countless aspects of our national systems and commerce. Threats to the safety and sustainability of the space environment would have far-reaching implications for U.S. government, commercial, and non-U.S. operations in space and our nation's reliance on those space activities.

Today's hearing and the testimony of our witnesses is a critical start to exploring this topic. Because while the problem of space situational awareness is ever more pressing, how we manage it is equally important.

This start must include a clear and thorough examination of the rapidly evolving nature of this issue, the broad range of stakeholders involved, and the international and legal aspects of the changing landscape for space situational awareness. To that end, provisions in the bipartisan H.R. 5666, the NASA Authorization Act of 2020, begin to scratch the surface on improving space situational awareness. Some of these provisions include:

- authorize NASA to carry out research and development activities on space situational awareness and orbital debris mitigation;

- direct NASA to conduct an SSA research and technology strategy; and

- direct the Administrator, along with other relevant Federal agencies, to carry out international discussions and capacity-building on orbital debris removal.

The provisions in H.R. 5666 and today's hearing are what I anticipate will be the first steps in a series of Subcommittee and Committee activities on space situational awareness. Future Subcommittee activities will need to consider the technical capabilities, authorities, and roles and responsibilities for effective, ongoing space situational awareness data and information services.

In closing, space situational awareness is not a U.S. issue; space knows no national boundaries and the solutions for ensuring sustainability in space must be international. However, leadership in this effort should come from the United States. We, in collaboration with our international partners, must shape the practices and behaviors of space operators we expect others to follow in ensuring the safety and sustainability of the space environment.

Thank you.