UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA
U.S. Department of Justice
Antitrust Division
450 Fifth Street N.W., Suite 8700
Washington, DC 20530,

Plaintiff,

v.

UNITED TECHNOLOGIES CORPORATION,
10 Farm Springs Road
Farmington, CT 06032,

and

RAYTHEON COMPANY,
870 Winter Street
Waltham, MA 02451,

Defendants.

COMPLAINT

The United States of America ("United States"), acting under the direction of the Attorney General of the United States, brings this civil antitrust action against Defendants United Technologies Corporation ("UTC") and Raytheon Company ("Raytheon") to enjoin the proposed merger of UTC and Raytheon. The United States complains and alleges as follows:

I. NATURE OF THE ACTION

1. Pursuant to an agreement and plan of merger dated June 9, 2019, UTC and Raytheon propose to merge in a transaction that would create the nation's second-largest aerospace and defense contractor. UTC is an aerospace company whose core products include

engines, aerostructures, aircraft subsystems, and other aircraft components. Raytheon is a defense company whose core businesses include missiles, air defense systems, radars, sensors, and electronic warfare systems. Although the core businesses of UTC and Raytheon are different, they overlap in the supply of multiple products to the Department of Defense ("DoD") and U.S. intelligence community.

2. UTC and Raytheon are the primary suppliers of radios for use in military aircraft ("military airborne radios") operated by DoD. UTC's AN/ARC-210 is the standard radio for Air Force and Navy aircraft, and Raytheon's AN/ARC-231 is the standard radio for Army helicopters. As the only military airborne radios that have been supplied to DoD customers for years, the parties' products represent the two competitive alternatives to DoD customers, and the sole constraint on either company exercising market power. The proposed merger would eliminate competition between UTC and Raytheon for military airborne radios, likely resulting in higher prices, lower quality, and diminished innovation for these critical defense products.

3. UTC and Raytheon are two of the leading suppliers of military global positioning system ("GPS") receivers and anti-jam products (collectively, "military GPS systems") to DoD. To enhance security, in 2012, DoD began the process of developing a new generation of military GPS systems for aviation/maritime and ground-based applications. UTC and Raytheon are likely to be the only competitors for military GPS systems for aviation/maritime applications, and two of only three competitors for military GPS systems for ground-based applications. The proposed merger would eliminate competition between UTC and Raytheon for military GPS systems for these applications, likely resulting in higher prices, lower quality, and diminished innovation for these critical defense products.

4. The merger also would substantially lessen competition through the vertical integration of the two companies. UTC and Raytheon each have capabilities in critical inputs for electro-optical/infrared ("EO/IR") reconnaissance satellites, which provide images for DoD and U.S. intelligence community customers. Specifically, Raytheon has a dominant position in electronic detectors known as focal plane arrays ("FPAs"), and is one of several builders of EO/IR satellite payloads. The payload is the system that performs the reconnaissance mission of a satellite, and includes components such as FPAs. UTC is one of only two companies with the capability to build large space-based optical systems for EO/IR satellite payloads. Today, Raytheon has no incentive to favor one optical systems provider over the other when it sells its FPAs to EO/IR payload builders, and UTC has no incentive to favor one EO/IR payload builder over another when it sells its optical systems.

5. The combination of UTC and Raytheon will bring these EO/IR reconnaissance satellite components under control of a single company and provide it with the incentive and ability to harm competition in two ways. First, the merger would provide the combined company with the incentive and ability to refuse to supply EO/IR payload builders with FPAs, or supply them only at higher cost, if the payload builders did not also agree to purchase UTC's optical system. Second, the merger would give the combined company the incentive and ability to harm Raytheon's satellite payload builder rivals by raising the prices for UTC's optical systems, or denying them access to these systems altogether. The proposed merger therefore likely would result in higher prices, lower quality, and diminished innovation for large space-based optical systems and EO/IR reconnaissance satellite payloads.

6. As a result, the proposed acquisition likely would substantially lessen competition in the markets for the design, development, production, and sale of military airborne radios,

military GPS systems for aviation/maritime applications, military GPS systems for ground-based applications, large space-based optical systems, and EO/IR reconnaissance satellite payloads in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

II. THE DEFENDANTS

7. UTC is a Delaware corporation with its headquarters in Farmington, Connecticut. UTC produces a wide range of products for the aerospace and defense industries, including military airborne radios, military GPS systems, and large space-based optical systems. UTC had sales of approximately $77 billion in 2019.

8. Raytheon is a Delaware corporation with its headquarters in Waltham, Massachusetts. Raytheon is one of the world's largest defense manufacturers, with significant capabilities in radars and missiles. It also produces military airborne radios, military GPS systems, and FPAs and payloads for EO/IR reconnaissance satellites. Raytheon had sales of approximately $29 billion in 2019.

III. JURISDICTION AND VENUE

9. The United States brings this action under Section 15 of the Clayton Act, 15 U.S.C. § 25, as amended, to prevent and restrain Defendants from violating Section 7 of the Clayton Act, 15 U.S.C. § 18.

10. Defendants develop, manufacture, and sell military airborne radios, military GPS systems, large space-based optical systems, and EO/IR reconnaissance satellite payloads throughout the United States, and their activities in these areas substantially affect interstate commerce. This Court therefore has subject matter jurisdiction over this action pursuant to Section 15 of the Clayton Act, 15 U.S.C. § 25, and 28 U.S.C. §§ 1331, 1337(a), and 1345.

11. Defendants have consented to venue and personal jurisdiction in this judicial district. Venue is therefore proper in this district under Section 12 of the Clayton Act, 15 U.S.C. § 22 and under 28 U.S.C. § 1391(c).

IV. MILITARY AIRBORNE RADIOS

A. Background

12. Military airborne radios allow for secure voice, data, and video communication between aircraft and from aircraft to the ground. This communication occurs either through direct communications links or through a satellite uplink system. Military airborne radios have two main components: radios (transmitter and receiver) and waveforms (communication protocols and related hardware/software). Specialized elements in both the radios and waveforms protect military airborne radio transmissions from being intercepted and decrypted.

13. There are multiple military airborne radios on every airplane and helicopter used by DoD today, as well as thousands of spares in military depots throughout the world. DoD regularly purchases new military airborne radios as new aircraft are developed and to replace those currently in the field as military airborne radio suppliers develop improved radios with additional waveforms and other features.

14. UTC's AN/ARC-210 military airborne radio is specified on almost all Air Force and Navy aircraft. Raytheon's AN/ARC-231 military airborne radio is specified on almost all Army helicopters. Military airborne radios from UTC and Raytheon are each the closest substitute for the other, and represent the only competitive alternative for a DoD customer in the event that either UTC or Raytheon increases prices for its military airborne radios or otherwise exercises market power.

B. Relevant Markets

1. Product Market

15. The quality and usefulness of a military airborne radio is defined by several characteristics, the most important of which are reliability, security, and the ability to access numerous communications networks. For instance, DoD requires highly ruggedized radios that can withstand the extreme environments encountered by military aircraft, including the rapid temperature changes and G-forces experienced on fighter jets. To ensure constant contact and to enable the flow of information throughout the battlefield, DoD radios must also communicate with multiple platforms—including aircraft, ships, ground forces, and smart weapons—using various waveforms, and must also keep those communications secure and encrypted to prevent signals from being intercepted by adversaries.

16. Other communications technologies are not substitutes for military airborne radios. Radios developed for other military purposes, including ground and ship-based radios, cannot withstand the high G-forces and extreme temperature fluctuations experienced by military aircraft, particularly fighter jets. Furthermore, military airborne radios are smaller and more power-efficient than those designed for ground and ship-based uses.

17. Airborne radios developed for commercial purposes—including commercial aviation—are also not substitutes for military airborne radios. Commercial airborne radios lack the high level of encryption and jamming resistance required for military airborne radios. In addition, while commercial airborne radios can access numerous civil and governmental communications networks, they do not incorporate the waveforms and software algorithms necessary to access the numerous specialized networks used by purchasers of military airborne radios.

18. For the foregoing reasons, substitution away from military airborne radios in response to a small but significant and non-transitory increase in price will not be sufficient to render such a price increase unprofitable. Accordingly, the design, development, production, and sale of military airborne radios is a relevant product market and line of commerce under Section 7 of the Clayton Act, 15 U.S.C. § 18.

2. Geographic Market

19. For national security reasons, DoD, which is the only purchaser of these products in the United States, strongly prefers domestic suppliers of military airborne radios. DoD is unlikely to turn to any foreign suppliers in the face of a small but significant and non-transitory price increase by domestic suppliers of military airborne radios.

20. The United States is therefore a relevant geographic market within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

C. Anticompetitive Effects of the Proposed Transaction

21. UTC and Raytheon today are the leading suppliers of military airborne radios to DoD. The merger would therefore give the merged firm a dominant share of the market for the design, development, production, and sale of military airborne radios, leaving DoD few competitive alternatives for this critical component of military communications.

22. UTC and Raytheon compete in the market for the design, development, production, and sale of military airborne radios on the basis of quality, price, and contractual terms such as delivery times. This competition has resulted in higher quality, lower prices, and shorter delivery times for military airborne radios. Competition between UTC and Raytheon has also fostered important industry innovation. The combination of UTC and Raytheon would eliminate this competition and its future benefits to DoD customers. Post-acquisition, the

merged firm likely would have the incentive and ability to increase prices, offer less favorable contractual terms, and diminish investments in research and development efforts that lead to innovative and high-quality products.

23. The proposed acquisition, therefore, likely would substantially lessen competition in the design, development, production, and sale of military airborne radios in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

D. Difficulty of Entry

24. Sufficient timely entry or expansion of additional competitors into the market for the design, development, production, and sale of military airborne radios is unlikely to prevent the harm to competition that is likely to result if the proposed acquisition is consummated. Because UTC's AN/ARC-210 and Raytheon AN/ARC-231 are established designs produced in high volumes for many years, they are well-understood by DoD customers and have significant economies of scale. Any new products manufactured by an alternative supplier would require extensive testing and qualification before they would be acceptable to DoD, and even at the end of that process the new supplier still would not have the reputation of UTC and Raytheon with DoD. Moreover, no potential alternative supplier has the large-scale military airborne radio production facilities of UTC or Raytheon, or the expertise of those firms in developing the complex software algorithms necessary for military airborne radios. Accordingly, entry or expansion would be costly and time-consuming.

25. As result of these barriers, entry or expansion of additional competitors into the market for the design, development, production, and sale of military airborne radios would not be timely, likely, or sufficient to defeat the anticompetitive effects likely to result from UTC's merger with Raytheon.

V. MILITARY GPS SYSTEMS

A. Background

26. Military GPS systems allow ground vehicles, ships, and planes to receive and process information regarding their position, navigation, and timing. Military GPS systems guide missiles and projectiles to their intended targets, locate friendly fighters in theaters of war, and enable remote operators to fly unmanned aerial vehicles thousands of miles away.

27. Military GPS systems contain technology that protects them from two forms of enemy interference: "spoofing," a signal disruption causing a GPS system to calculate a false position, and "jamming," which occurs when a GPS system's satellite signals are overpowered. To ensure that spoofing and jamming do not interfere with U.S. military missions, military GPS systems contain encryption modules and anti-jamming technology.

28. In 2011, the U.S. government announced that "M-Code," a modernized encryption system, would be incorporated into military GPS systems. In September 2012, DoD awarded technology development contracts (and accompanying funds) to UTC, Raytheon, and a third firm to develop M-Code compliant GPS systems that the military could implement quickly. DoD requested two discrete types of GPS systems—one for ground applications and another for aviation/maritime applications. UTC and Raytheon have been working to develop products for both applications—ground and aviation/maritime—while to date the third firm is under contract only for ground applications.

29. While other defense contractors may eventually develop acceptable military GPS systems for these applications, those contractors are years behind, will not be eligible for funding from the U.S. government, and will not enjoy the incumbent's advantage held by the three leading suppliers.

B. Relevant Markets

1. Product Markets

30. Military GPS systems for aviation/maritime applications and military GPS systems for ground applications serve different functions and cannot be substituted for one another. For example, there are different power, performance, and form factor requirements for aviation/maritime GPS systems and ground GPS systems. Customers therefore cannot substitute an aviation/maritime GPS system for a ground GPS system (or vice versa) without sacrificing important functionality.

31. Military GPS systems for both applications are highly customized to suit the needs of military end users. With each competition, DoD specifies the form factor (*i.e.*, the physical size and shape), performance metrics, and encryption standards that must be met. Due to the mission-critical nature of military GPS systems, DoD is far more exacting than commercial customers, and as a result, commercial GPS systems cannot be substituted for military GPS systems for either application. Nor can any alternative technology provide the functionality that a GPS system provides, such as instantaneous position, navigation, and timing information.

32. For the foregoing reasons, customers would not switch to a commercial GPS system or to an alternative technology, nor would they switch between military GPS systems for different applications, in the face of a small but significant and non-transitory increase in the price of a military GPS system for aviation/maritime applications or a military GPS system for ground applications. Accordingly, the design, development, production, and sale of (i) military GPS systems for aviation/maritime applications and (ii) military GPS systems for ground

applications are lines of commerce and relevant product markets within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

2. Geographic Market

33. For national security reasons, DoD, which is the sole purchaser of these products within the United States, prefers domestic suppliers of military GPS systems. DoD is unlikely to turn to any foreign suppliers in the face of a small but significant and non-transitory price increase by domestic suppliers of military GPS systems.

34. The United States is therefore a relevant geographic market within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

C. Anticompetitive Effects of the Proposed Transaction

35. UTC and Raytheon are the only suppliers of military GPS systems for aviation/maritime applications in the United States. The merger therefore would give the combined firm a monopoly in the market for this product and leave DoD without any competitive alternatives. The merger also would create a duopoly in the supply of military GPS systems for ground applications, as UTC and Raytheon are two of only three suppliers of those products.

36. UTC and Raytheon compete to design, develop, produce, and sell military GPS systems for aviation/maritime applications and ground applications on the basis of quality, price, technological capabilities, and contractual terms such as delivery times. This competition has resulted in higher quality, lower prices, innovation, and shorter delivery times for military GPS systems for both applications. The combination of UTC and Raytheon would eliminate this competition and its future benefits to DoD customers. Post-acquisition, the merged firm likely would compete less along the dimensions of innovation, quality, price, or contractual terms.

37. The proposed acquisition, therefore, likely would substantially lessen competition in the design, development, production, and sale of military GPS systems for aviation/maritime applications and for ground applications in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18

D. Difficulty of Entry

38. Sufficient, timely entry of additional competitors into the markets for the design, development, production, and sale of military GPS systems for aviation/maritime applications and for ground applications is unlikely to prevent the harm to competition likely to result if the proposed acquisition is consummated. A new entrant would need significant capital to develop prototypes and establish a manufacturing operation. Even with a prototype, an entrant would need a network of government and prime contractor contacts to assist with testing and troubleshooting. Finally, an entrant would need to clear the qualification process to become a supplier to DoD. Together, these steps would take years to complete. Accordingly, entry would be costly and time-consuming.

39. Timely and sufficient expansion of capabilities by a producer of military GPS systems for ground-based applications is also unlikely to prevent the harm to competition in military GPS systems for aviation/maritime applications that is likely to result if the proposed acquisition is consummated. A producer of ground-based military GPS systems would need to ruggedize its product to withstand the high G-forces and temperature extremes experienced by military aircraft. It would also need to match its system to the size, weight, and power restrictions imposed on all aircraft based electronic systems. These modifications would require substantial investments in skilled personnel and modification of production, and the product

would require extensive development and subsequent testing by customers. Accordingly, expansion into this different application would be costly and time-consuming.

40. As result of these barriers, entry into the markets for the design, development, production, and sale of military GPS systems for aviation/maritime applications and military GPS systems for ground applications would not be timely, likely, or sufficient to defeat the anticompetitive effects likely to result from UTC's merger with Raytheon.

VI. EO/IR RECONNAISSANCE SATELLITES

A. Background

41. Space-based reconnaissance systems provide essential information to end-users in DoD and the intelligence community, including communications intelligence, early warning of missile launches, and near real-time imagery to United States armed forces to support the war on terrorism and other operations. They also provide data essential for managing disaster relief, monitoring global warming, and assessing crop production.

42. Space-based reconnaissance systems generally are deployed on satellites, where they constitute the "payload," a term for the system that performs the primary mission of the satellite. Payload suppliers are subcontractors to satellite prime contractors, who combine payloads, structural components, power supply systems, ground communications systems, and other components into a complete satellite for delivery to the DoD or intelligence community end-user customer.

43. One important type of reconnaissance satellite payload is an electro-optical/infrared ("EO/IR") payload, which is a camera-based system that collects visible and infrared light. The components of an EO/IR reconnaissance satellite payload are advanced versions of the components found in consumer digital cameras: an optical system—a lens or

mirror—focuses light onto an electronic detector, known as a focal plane array ("FPA"), which converts light to digital images for transmission via radio signals. Optical systems and FPAs are critical inputs in EO/IR reconnaissance satellite payloads.

44. Raytheon has industry-leading capabilities in the provision of FPAs for EO/IR reconnaissance satellite payloads, having been the beneficiary of decades of large investments by government end-user customers. Specifically, Raytheon is the leading provider of FPAs sensitive to visible light and one of the two leading providers of FPAs sensitive to infrared light. Raytheon is also one of multiple firms that supply EO/IR reconnaissance satellite payloads to the satellite prime contractors who assemble the satellite for the DoD or intelligence community customer.

45. UTC is one of only two firms capable of producing large space-based optical systems such as those used in EO/IR reconnaissance satellite payloads. While other suppliers have the capability to produce smaller optical systems for use in space, none can produce optical systems in sizes comparable to those produced by UTC and the other industry leader.

46. The FPAs and large space-based optical system used in a particular EO/IR reconnaissance satellite payload usually are selected by the payload supplier. In some cases, however, the DoD or intelligence community customer will specify the FPA or large space-based optical system supplier. As explained below, the combination of UTC's market-leading position in large-space based optical systems and Raytheon's market-leading position in FPAs will provide the merged firm with the ability and incentive to foreclose or otherwise harm its rivals in large space-based optical systems and EO/IR reconnaissance satellite payloads.

B. Relevant Markets

1. Product Markets

a. Large Space-Based Optical Systems

47. Large space-based optical systems have specific requirements that distinguish them from other optical systems. Smaller space-based optical systems have insufficient light-gathering and resolving power. Optical systems designed for use on the ground do not possess the high strength, rigidity, low weight, temperature stability, and radiation-hardening that large space-based optical systems require to be safely and cost-effectively launched into orbit and used in space.

48. Customers would not switch to smaller optical systems or optical systems designed for use on the ground in the face of a small but significant and non-transitory increase in the price of large space-based optical systems. Accordingly, the design, development, production, and sale of large space-based optical systems is a line of commerce and relevant product market within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

b. EO/IR Reconnaissance Satellite Payloads

49. EO/IR reconnaissance satellite payloads have specific capabilities that distinguish them from other reconnaissance satellite payloads. Other types of payloads such as radar and electronic intelligence payloads do not provide the same type of information as imagery.

50. Aerial reconnaissance imagery cannot substitute for the imagery produced by EO/IR reconnaissance satellite payloads. Many parts of the globe that are of critical interest to DoD and the intelligence community are effectively closed to reconnaissance aircraft operated by the United States. Even for areas open to overflight, satellite surveys are quicker and more efficient than aerial reconnaissance.

51. Consequently, customers will not switch to other types of payloads or to aerial reconnaissance imagery in the event of a small but significant and non-transitory price increase for EO/IR reconnaissance satellite payloads. The design, development, production, and sale of EO/IR reconnaissance satellite payloads therefore is a line of commerce and product market within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

2. Geographic Market

52. Much of the information regarding EO/IR reconnaissance satellites is highly sensitive, and data concerning the capabilities required in such satellites is released only to a select group of U.S.-based manufacturers that possess the necessary security clearances and are subject to close government oversight. For this reason, DoD and intelligence community customers, who are the only customers for these products in the United States, are unlikely to purchase large space-based optical systems or EO/IR reconnaissance satellite payloads from sources located outside the United States in the event of small but significant and non-transitory price increases by domestic producers of those products.

53. The United States is therefore a relevant geographic market within the meaning of Section 7 of the Clayton Act, 15 U.S.C. § 18.

C. Anticompetitive Effects of the Proposed Transaction

54. As discussed below, the vertical integration of Raytheon and UTC will change the merged firm's incentives to sell FPAs and large space-based optical systems and enable the merged firm to use its significant market position in these products to harm its large space-based optical systems and EO/IR satellite payload competitors.

1. Large Space-Based Optical Systems

55. First, by combining UTC's capabilities in large space-based optical systems with Raytheon's dominant position in FPAs, the merger would give the combined company the incentive and ability to reduce competition from UTC's only large space-based optical systems competitor. Because Raytheon does not build large space-based optical systems today, it has no incentive to demand that a particular optical system supplier be selected by the payload builder. Following the merger, this incentive would change. The combined company likely would refuse to supply payload builders with FPAs, or supply them only at higher cost, if the payload builders do not also agree to purchase UTC's optical system. With visible-light FPAs, and in situations where the DoD or intelligence community end-user directed payload providers to use Raytheon's infrared FPAs, the payload provider would have no alternative but to accept UTC's large space-based optical system, even if it was of lower quality or higher priced than large space-based optical systems available from the other source. As a result, the merged company would be able to charge higher prices for its optical system, or provide a system of lower quality, than would have been possible before the merger.

56. UTC competes to design, develop, produce, and sell large space-based optical systems on the basis of quality, price, and innovation, as well as contractual terms such as delivery times. This competition leads to more innovation, higher quality, lower prices, and shorter delivery times. The combination of UTC and Raytheon would give the merged firm the incentive and ability to weaken this competition and its future benefits to DoD and intelligence community end-users, likely resulting in less innovative, more expensive products with lower quality and longer delivery times.

57. The proposed acquisition, therefore, likely would substantially lessen competition in the design, development, production, and sale of large space-based optical systems in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

2. EO/IR Reconnaissance Satellite Payloads

58. Second, by combining Raytheon's position as a producer of EO/IR reconnaissance satellite payloads with UTC's position as one of only two companies with the capability to build large space-based optical systems, the merger would give the combined company the incentive and ability to harm its payload rivals. Because UTC does not produce payloads today, it has a strong incentive to make its optical systems available to all payload builders. Following the merger, this incentive would change, and, particularly in situations where the DoD or intelligence community end-user directed payload providers to use UTC's large space-based optical systems, the combined company likely would raise prices for UTC's optical systems to rival payload builders, or simply refuse to provide UTC's optical systems at any price. As a result, the merged company would be able to charge higher prices for its payload, or provide a payload of lower quality, than would have been possible before the merger.

59. Raytheon competes with other EO/IR reconnaissance satellite payload suppliers on the basis of quality, price, and innovation, as well as contractual terms such as delivery times. This competition leads to innovation, higher quality, lower prices, and shorter delivery times. The combination of UTC and Raytheon would give the merged firm the incentive and ability to weaken this competition and its future benefits to DoD and intelligence community end-users, likely resulting in less innovative, more expensive products with lower quality and longer delivery times.

60. The proposed acquisition, therefore, likely would substantially lessen competition in the design, development, production, and sale of EO/IR reconnaissance satellite payloads in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

D. Difficulty of Entry

61. Sufficient, timely entry of additional competitors into the markets for the design, development, production, and sale of visible-light or infrared FPAs for EO/IR reconnaissance satellite payloads is unlikely. Production facilities for these FPAs require a substantial investment in both capital equipment and human resources, and a new entrant would largely need to re-create the investment made in Raytheon by the United States government over the course of several decades. A new entrant would need to set up a foundry to produce electronic components, establish production lines capable of manufacturing read-out integrated circuits and other electronic components, and build assembly lines and testing facilities. Engineering and research personnel would need to be assigned to develop, test, and troubleshoot the detailed manufacturing processes, involving hundreds of steps, that are necessary to produce these FPAs. Any new products would require extensive testing and qualification before they could be used in payloads. These steps would require years to complete.

62. Sufficient, timely entry of additional competitors into the market for the design, development, production, and sale of large space-based optical systems is also unlikely. A new entrant would require significant investment in the facilities and skilled personnel required to grind and polish the complex curved surfaces required for large-space based optical systems, and then test these optics in an environment that replicates conditions in space. In addition, because spaceflight is an exceptionally demanding and high-risk endeavor, payload builders, satellite prime contractors, and end-user customers have a strong preference to purchase from established

suppliers. Years of dedicated and costly effort would be required for a new entrant to demonstrate expertise comparable to UTC.

63. As result of these barriers, entry into the markets for the design, development, production, and sale of visible-light and infrared FPAs for EO/IR reconnaissance satellite payloads and large space-based optical systems would not be timely, likely, or sufficient to defeat the anticompetitive effects in the markets for the design, development, production, and sale of large space-based optical systems and EO/IR reconnaissance satellite payloads likely to result from UTC's merger with Raytheon.

VII. VIOLATIONS ALLEGED

64. The merger of UTC and Raytheon likely would substantially lessen competition in the relevant markets alleged above in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

65. Unless enjoined, the acquisition likely would have the following anticompetitive effects, among others, in the relevant markets:

(a) actual and potential competition between UTC and Raytheon would be eliminated;

(b) competition generally likely would be substantially lessened; and

(c) prices likely would increase, quality and innovation likely would decrease, and contractual terms likely would be less favorable to customers.

VIII. REQUEST FOR RELIEF

66. The United States requests that this Court:

(a) adjudge and decree that the proposed merger of UTC and Raytheon would be unlawful and violate Section 7 of the Clayton Act, 15 U.S.C. § 18;

(b) preliminarily and permanently enjoin and restrain Defendants and all persons acting on their behalf from consummating the proposed merger of UTC and Raytheon, or from entering into or carrying out any other contract, agreement, plan, or understanding, the effect of which would be to combine UTC with Raytheon;

(c) award the United States its costs for this action; and

(d) award the United States such other and further relief as the Court deems just and proper.

Dated: March 26, 2020

Respectfully submitted,

FOR PLAINTIFF UNITED STATES:

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