

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	)	
Department of Justice	)	
Antitrust Division	)	
1401 H Street, N.W., Suite 3000	)	
Washington, DC 20530,	)	
	)	
Plaintiff,	)	Civil No.:
	)	
v.	)	
	)	Filed:
LOCKHEED MARTIN	)	
CORPORATION,	)	
6801 Rockledge Drive	)	
Bethesda, MD 20817,	)	
	)	
and	)	
	)	
NORTHROP GRUMMAN	)	
CORPORATION,	)	
1840 Century Park East	)	
Los Angeles, CA 90067,	)	
	)	
Defendants.	)	

VERIFIED COMPLAINT

The United States of America, acting under the direction of the Attorney General of the United States, brings this civil action to obtain equitable relief against defendants and alleges as follows:

1. The United States seeks to prevent the proposed acquisition of defendant Northrop Grumman Corporation ("Northrop") by defendant Lockheed Martin Corporation ("Lockheed") pursuant to an Agreement and Plan of Merger entered into by defendants on July 2, 1997. Northrop and Lockheed are two of the leading competitors

and major providers of electronics systems and military aircraft to the U.S. military. The proposed acquisition of Northrop by Lockheed would result in unprecedented vertical and horizontal concentration in the defense industry which would substantially lessen, and in several cases eliminate, competition in major product markets critical to the national defense.

2. Lockheed and Northrop are the only two suppliers of airborne early warning ("AEW") radar, directed infrared countermeasures ("IRCM") systems, and the SQQ-89 antisubmarine warfare ("ASW") combat system to the U.S. military. They are also the only effective competitors for U.S. military electro-optical ("EO") missile warning systems, and the two leading suppliers of remote minehunting systems and stealth technology. Lockheed, and a Raytheon Company ("Raytheon") and Northrop team (with Northrop as the supplier of the critical electronics technology), are the only companies developing fiber-optic towed decoys ("FOTDs"). Lockheed and Northrop are two of only three viable suppliers of on-board radio frequency countermeasures ("RFCM") systems and high performance fixed-wing military aircraft for the U.S. military.
3. If Lockheed acquires Northrop, it will obtain a monopoly in AEW radar, EO missile warning systems, directed IRCM systems, FOTDs, and the SQQ-89 ASW combat system. This monopoly position likely will lead to higher costs, higher prices, and less innovation for systems required by the U.S. military.
4. Lockheed's acquisition of Northrop will also substantially reduce competition in on-board RFCM systems, high performance fixed-wing military aircraft, stealth technology, and remote minehunting systems. The likely effects of the acquisition will

be higher costs, higher prices, and less innovation for U.S. military platforms and systems required by the U.S. military. The acquisition, if consummated, would result in only Lockheed and The Boeing Company ("Boeing") remaining as suppliers of U.S. military high performance fixed-wing military aircraft, with the two companies teamed on virtually every military aircraft currently in production. The increased interdependence between Lockheed and Boeing may lead to reduced competition among aircraft platforms, less price competition, and reduced innovation in the high performance fixed-wing military aircraft market.

5. Northrop's Logicon division provides systems engineering and technical assistance services for many important U.S. military programs, including the Navy's AEGIS program. As part of its systems engineering and technical assistance services, Logicon tests and evaluates products provided by Lockheed and its competitors for U.S. military programs. If Lockheed acquires Logicon, it will be in a position to recommend to the U.S. military that Lockheed's own work is acceptable, test and evaluate Lockheed's products against products of its competitors, and have access to competitively sensitive non-public information concerning Lockheed's competitors, all of which would result in substantial harm to competition.

6. Lockheed is a prime contractor and systems and subsystems provider for U.S. military platforms and major integrated electronics systems such as AEGIS, which is used by the Navy on destroyers and cruisers, and submarine combat systems. Northrop is a prime contractor for U.S. military platforms and integrated electronics systems such as the B-2 avionics system. Northrop is also a leading supplier of critical systems and

subsystems used on U.S. military platforms and integrated electronic systems, including airborne fire control radar, AEW radar, electronic warfare systems, the SQQ-89 ASW combat system, sonar systems, and space-based electronics. The acquisition of Northrop will give Lockheed additional control of military platforms and integrated electronics systems, and increase its control over electronic systems and subsystems for its platforms and integrated electronics systems. The acquisition will give Lockheed strong economic incentives (1) to favor its in-house capability to the detriment or foreclosure of other system and subsystem competitors and (2) to refuse to sell, to sell inferior quality, or to sell at disadvantageous terms, its in-house capability to its platform and integrated electronic system competitors. The acquisition will likely result in less innovation by Lockheed and other platform, system, and subsystem competitors, possible exit by competitors, fewer opportunities for and increased barriers to competitive entry, and lower quality subsystem, system, and platform products at higher costs and higher prices to the U.S. military.

7. The proposed acquisition of Northrop by Lockheed will substantially lessen competition in all identified product markets. For these reasons, the United States Department of Defense ("DoD") has found that the proposed merger presents "an unprecedented combination of horizontal and vertical problems" which raise "significant competitive problems for the Department of Defense," which has led the DoD to conclude that "the Department's interests would be best served if Lockheed Martin and Northrop Grumman do not merge." Letter from Secretary of Defense William S. Cohen to Attorney General Janet Reno (March 23, 1998).

I. JURISDICTION AND VENUE

8. This action is filed by the United States under Section 15 of the Clayton Act, as amended, 15 U.S.C. § 25, to prevent and restrain the defendants from violating Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18.
9. Lockheed and Northrop develop and produce high performance fixed-wing military aircraft and integrated electronics systems for sale to the DoD, an agency of the United States. Lockheed also develops and produces space-based platforms for sale to the DoD. Lockheed and Northrop also develop and produce critical defense systems and subsystems including but not limited to AEW radar, airborne fire control radar, EO missile warning systems, directed IRCM systems, on-board RFCM systems, FOTDs, remote minehunting systems, the SQQ-89 ASW combat system, sonar systems, and space-based electronics for sale to the DoD or to military prime contractors in the United States for use in U.S. military programs. The services provided by Logicon are in the flow of United States interstate commerce. Lockheed and Northrop are engaged in interstate commerce and in activities substantially affecting interstate commerce. The Court has subject matter jurisdiction over this action and jurisdiction over the parties pursuant to Sections 12 and 15 of the Clayton Act, 15 U.S.C. §§ 22 and 25, and 28 U.S.C. §§ 1331 and 1337.
10. The defendants transact business and are found within the District of Columbia. Venue is proper in this District under 15 U.S.C. § 22 and 28 U.S.C. § 1391(c).

II. THE DEFENDANTS

11. Lockheed Martin Corporation is a Maryland corporation headquartered in Bethesda, Maryland. This military giant reported net sales of about \$27 billion in 1996, approximately 70 percent or \$19 billion of which were made to the U.S. government. Lockheed develops and/or produces, inter alia, tactical fighter, airlift, antisubmarine warfare, reconnaissance, surveillance, and special mission military aircraft; high performance military and commercial electronics systems for undersea, shipboard, land-based, airborne, and spaced-based applications, including surface ship and submarine combat systems, air defense systems, aircraft systems integration, and radar, electronic warfare, ASW combat, and sonar systems; space-based electronics; undersea vehicles; satellites and spacecraft; defensive and strategic missiles; and complex information systems and services. Lockheed's Aeronautics Sector, comprised of four divisions, generated approximately \$5.3 billion of its total \$5.6 billion in 1996 sales from military aircraft programs. Lockheed's Electronics Sector, comprised of 15 divisions, generated approximately \$6.1 billion of its total \$6.7 billion in 1996 sales from domestic and international military programs.
12. Northrop Grumman Corporation is a Delaware corporation headquartered in Los Angeles, California. In 1996, Northrop reported revenues of about \$8.1 billion, \$6.7 billion or over 80 percent of which was derived from the U.S. government. Northrop is an aircraft and electronics company which develops and/or produces, inter alia, tactical fighter, bomber, early warning, and surveillance/battle management military aircraft and aircraft subassemblies; radar, electronic warfare, ASW combat, and sonar systems;

space-based electronics; electronics system integration; precision guided weapons and munitions; missile launchers; shipboard instrumentation and control systems; mine countermeasures and undersea vehicles; marine machinery and advanced propulsion systems; and computer systems. In 1996, sales to the U.S. government comprised approximately \$3.2 billion of Northrop's total \$4 billion in aircraft revenue, and approximately \$3.5 billion of Northrop's total \$4 billion in electronics revenue.

III. TRADE AND COMMERCE

A. RELEVANT PRODUCT MARKETS

1. Airborne Early Warning Radar

13. Airborne Early Warning ("AEW") radars are aircraft-based radars whose primary role is wide-area detection and tracking of numerous airborne targets within a specified airspace. AEW radars must typically cover a 360-degree over-the-horizon field of view. The U.S. military aircraft AEW radar mission is to provide volume surveillance typically capable of simultaneously tracking between 1000 and 5000 targets at ranges of over 200 nautical miles. AEW radars provide an alert when a target enters the volume of space under surveillance, and relay information to fighter aircraft and/or command and control personnel for an appropriate intercept response.
14. AEW radars operate at low frequency bands, usually S-band and below, because lower frequency bands permit less atmospheric attenuation, lower clutter backscatter returns, and more efficient power generation, which allows longer detection ranges and wider volume surveillance. AEW radars operate in a unique and difficult interference

environment. AEW radars receive clutter (unwanted non-target returns) from multiple sources in the air, land and sea, and must also contend with jamming and electromagnetic interference. Platform motion and antenna scanning motion are other factors that must be compensated for to assure proper performance of an AEW radar.

15. There is no suitable substitute for AEW radar on U.S. military aircraft. Other airborne radars, such as airborne fire control and airborne ground surveillance radar, cannot perform the mission of AEW radar.

- a. Airborne fire control radar cannot perform the wide area surveillance function required of AEW radar. The mission of airborne fire control radar is to provide detailed information rapidly about selected targets in the environment so that countermeasure weapons can be directed and fired. Airborne fire control radars use narrow "pencil" beams to focus on nearby targets, rather than the wide beams used on AEW volume search radars. Most airborne fire control radars operate at high frequency bands, such as X-band, because higher frequency bands provide greater resolution and more precise target location data. Higher frequency bands, such as X-band, are not practical for use in AEW radars.

- b. AEW radars are also distinguishable from air-to-ground surveillance radars. Airborne ground surveillance radars employ advanced ground moving target indicator ("GMTI") and synthetic aperture radar ("SAR") signal processing technology to allow the aircraft to distinguish moving targets or create photograph-like images of objects on the ground. GMTI and SAR are not used in the AEW mission. AEW radars use airborne moving target indicator ("AMTI") signal processing technology specifically

designed to distinguish airborne targets from clutter and to determine the speed of surveilled aircraft. In addition, air-to-ground surveillance radars use higher frequency bands, normally X-band, to meet the greater resolution requirements of the mission. Higher frequency bands, such as X-band, are not suitable for AEW radar.

16. The development, production, and sale of AEW radar for U.S. military aircraft is a line of commerce and a relevant product market within the meaning of the Clayton Act.

2. Electro-Optical Missile Warning Systems

17. Electro-optical ("EO") missile warning systems are electro-optical sensors that search for the ultraviolet ("UV") or infrared ("IR") energy signatures of approaching missiles. EO missile warning systems only receive (and do not transmit) energy.
18. An EO missile warning system consists of two primary components: a sensor head, which contains optics, filters, and a detector; and a processor, which contains the electronics and software that determine whether an IR or UV energy source is an approaching missile or merely a random non-threatening source.
19. There are no substitutes for EO missile warning systems. Radar missile warning systems that search for approaching missiles broadcast their location and reduce the stealthiness of the platform. These systems are therefore not a suitable substitute for EO missile warning systems.
20. The development, production, and sale of EO missile warning systems for U.S. military programs is a line of commerce and a relevant product market within the meaning of the Clayton Act.

3. Directed Infrared Countermeasures Systems

21. Directed infrared countermeasures ("IRCM") systems are designed to jam incoming IR-homing missiles. The major components of a directed IRCM system are an EO missile warning system to detect incoming missiles, a jammer consisting of either an IR lamp, an IR laser, or both, and a fine track sensor to point the jammer. Once the missile warning system declares a threat, the IRCM system cues a response.
22. Directed IRCM systems are currently designated for helicopters and some large aircraft, such as the C-130. In the near future, directed IRCM systems likely will be used on large military transport aircraft, fighter jets, ships, and ground vehicles.
23. Other products are not acceptable substitutes for a directed IRCM system. Flares, which can be ejected from a platform or towed on a cable, can be used to draw an IR-homing missile away from a platform, but they are not effective against "Band 4" IR-homing missiles. Flares may also be ineffective against modern IR-homing missiles, which contain electronic counter-countermeasures that can identify a flare's burn and flight characteristics and direct the missile back to the real target.
24. Omni-directional IRCM systems are not viable substitutes for directed IRCM systems. Omni-directional systems are less effective than directed systems because they broadcast continuously in all directions which leaves less power for jamming. Because they broadcast continuously, omni-directional IRCM systems can also alert an enemy of the presence of the protected aircraft.

25. The development, production, and sale of directed IRCM systems for the U.S. military is a line of commerce and a relevant product market within the meaning of the Clayton Act.

4. On-Board Radio Frequency Countermeasures

26. Radio-frequency countermeasures ("RFCM") systems are designed to jam or deceive enemy radars. An on-board RFCM system is located on a ship or aircraft. It detects, analyzes and identifies a radar signal, then selects and generates a "technique" (also referred to as a "jam code") to jam or deceive the radar.
27. There are two categories of techniques used to defeat enemy radars. Early systems simply generated large amounts of radio frequency noise to make the radar screen "go white." Such a "noise jammer" immediately alerts the enemy to its presence; it can then be attacked and destroyed by "home-on-jam" missiles. Noise jammers cannot jam many of the more modern radars.
28. Modern on-board RFCM systems rely mostly on deceptive techniques which lead the radar off the real target. Deception is more complex than noise jamming because it requires an intimate knowledge of enemy radars and operator techniques, but it is also much more successful.
29. There are no substitutes for on-board RFCM systems. Chaff dispensers, which dispense a "cloud" of aluminum foil strips to create false targets, have limited effect against modern radars.

30. The development, production, and sale of on-board RFCM systems for the U.S. military is a line of commerce and a relevant product market within the meaning of the Clayton Act.

5. Fiber-Optic Towed Decoys

31. On-board RFCM systems are of only limited effect against a new class of radar known as "monopulse," which is very difficult to jam or deceive. To deal with this threat, the DoD has funded the development of radio frequency ("RF") towed decoys. RF towed decoys are towed behind an aircraft on a cable and are very effective against monopulse-guided missiles. They are discarded if hit, and a new decoy is deployed.
32. There are two types of RF towed decoys. Early repeater decoys simply received a signal, amplified it, and retransmitted it to lure the missile to hit the decoy instead of the protected aircraft. A radar operator, however, could sometimes separately identify the decoy and the towing aircraft, and hit the aircraft. Advanced decoys rely on techniques generated by the on-board RFCM system, to which they are connected by a fiber-optic line. Such fiber-optic towed decoys ("FOTDs") have higher power and more sophisticated techniques to deceive even a skilled radar operator.
33. There are no substitutes for FOTDs. On-board RFCM systems, particularly those used on smaller aircraft such as fighters, do not provide the same degree of protection from monopulse-guided missiles.
34. The development, production, and sale of FOTDs for the U.S. military is a line of commerce and a relevant product market within the meaning of the Clayton Act.

6. High Performance Fixed-Wing Military Aircraft

35. High performance fixed-wing military aircraft are advanced design military aircraft that can perform specialized functions and unique missions that no other aircraft can perform. These are manned fighters, bombers, attack aircraft, and advanced support, reconnaissance, and surveillance aircraft, as well as unmanned combat air vehicles. Through the application of advanced technologies in design and production, these aircraft have one or more of the following characteristics: low observability; the ability to fly at high speeds; combat maneuverability; weapons delivery; self-defense ability; and/or the ability to take off and land on an aircraft carrier.
36. High performance fixed-wing military aircraft are separate and distinct from other aircraft. Other aircraft do not have the speed or flexibility to perform missions that can be performed by a high performance fixed-wing military aircraft.
37. The development, production, and sale of high performance fixed-wing military aircraft for the U.S. military is a line of commerce and a relevant product market within the meaning of the Clayton Act.

7. Low Observable or "Stealth" Technology

38. Low observable or "stealth" technology refers to technology that reduces the radar cross section and/or the infrared and acoustic "signatures" of a platform so that it is less detectable by radar, infrared or acoustic sensors. Stealth technology is often an essential characteristic of military aircraft, ships, and missiles. Stealth is a highly classified technology for which no substitute exists.

39. The development and application of stealth technology to U.S. military platforms and missiles is a line of commerce and a relevant product market within the meaning of the Clayton Act.

8. Remote Minehunting Systems

40. Remote minehunting systems are relatively small, unmanned vehicles that are deployed from a platform, such as a submarine or surface ship. Their objective is detection and avoidance or mapping of mine fields, frequently in shallow water. Although remote minehunting systems are optimized for different requirements, all require vehicle development, launch and recovery, and the ability to locate mines in areas remote from the platform. Additionally, remote minehunting systems must be equipped with propulsion, control, energy, and communication systems. Remote minehunting systems also contain sophisticated high-frequency sonar and signal processing systems.
41. There is no substitute for remote minehunting systems. The Navy uses other devices for minehunting purposes, including minehunting ships and minehunting sonars that are affixed to submarines or combat ships, dropped from airplanes or helicopters, or towed by helicopters. Remote minehunting systems, however, have distinct characteristics that distinguish them from these other minehunting devices. Remote minehunting systems find mines located significant distances from the host platform. Remote minehunting systems are specialized vehicles that have unique technologically complex capabilities not applicable to other minehunting devices.

42. The development, production, and sale of remote minehunting systems for the U.S. military is a line of commerce and a relevant product market within the meaning of the Clayton Act.

9. SQQ-89 Integrated ASW Combat System

43. The SQQ-89 ASW combat system is the integrated sonar and torpedo fire control system used on Navy destroyers and cruisers. The SQQ-89 has historically included: (1) an active hull-mounted sonar array, a very large ball in the bow of the ship; (2) a passive towed array, a long line of sonar sensors towed behind the ship; (3) the SRQ-4 LAMPS data link, which enables the ship to receive sonar signals obtained by sonobuoys dropped from helicopters; (4) the Mk-116 fire control system for launching torpedoes; (5) the UYQ-25 performance prediction system; (6) display consoles; and (7) on-board trainers. Recently, an acoustic sonar processing subsystem for detecting incoming torpedos was added.
44. There is no substitute for the SQQ-89. Since its inception, the SQQ-89 has been the only integrated ASW combat system installed on Navy destroyers and cruisers. The SQQ-89 permits multiple sonar systems to operate as a unified system in tandem with the fire control system, ensuring that the ship's crew can use effectively the vital information generated by all of the different sonar components to detect enemy submarines and respond to underwater threats. The building and integration of the various components of the system into a properly functioning and integrated system is a process that requires specialized experience and knowledge.

45. The development, production, and sale of the SQQ-89 integrated ASW combat system is a line of commerce and a relevant product market within the meaning of the Clayton Act.

10. Logicon

46. Logicon, owned by Northrop, provides systems engineering and technical assistance ("SETA") services for many important U.S. military programs. SETA services involve the development of draft technical and other specifications for procurements and programs; the assessment of discrete technical aspects of proposals; the evaluation, testing or monitoring of any service, equipment, or product provided by any company; the evaluation of modifications or changes to any performance requirements of any contractor; and/or the development of financial, cost or budgetary plans, procedures or policies.
47. Logicon provides SETA services for the Navy Standard Missile program, the Navy Seawolf, the Army All Source Analysis Systems, and for Navy surface programs, including the AEGIS ship program for which Lockheed is the prime contractor. Logicon has annual revenues of over \$600 million, and its contracts for the AEGIS program are valued at over \$250 million over the life of the various contracts. The SETA services provided by Logicon include the training of AEGIS crews and assistance in introducing AEGIS weapon systems into the fleet. In addition, Logicon helps the Navy's AEGIS program office plan what technology should be incorporated into the ships and how to execute the technology. Logicon makes recommendations to the DoD based on its independent evaluation and verification of designs proposed by Lockheed

for the AEGIS system, and evaluates and makes recommendations to the DoD about the viability of design and development efforts by system contractors.

48. Logicon has developed considerable expertise in providing program-specific SETA services to the DoD for the AEGIS and other military programs. It would be very difficult, time consuming, and costly for the DoD to replace Logicon on these programs.

49. The provision of SETA services to the DoD on programs such as AEGIS constitute lines of commerce and relevant product markets within the meaning of the Clayton Act.

11. Markets Adversely Affected by Vertical Effects

50. The United States hereby incorporates Paragraphs 1 through 49.

51. The U.S. military contracts directly with prime contractors for military aircraft and space-based platforms, as well as for ship and undersea vehicle integrated electronics systems. Under current DoD procurement initiatives, the prime contractor is responsible for sourcing all necessary systems, subsystems, and equipment either internally or from qualified subcontractors. Prime contractors have substantial discretion in selecting suppliers to provide systems, subsystems, and equipment on their platforms and integrated electronics systems with little oversight by the DoD. The DoD relies upon prime contractors to act as neutral brokers in selecting the best system and subsystem solutions to achieve the mission objective of the platform or integrated electronics system for which the prime contractor is responsible. During the competitive stages of a program this selection process is fluid, allowing prime contractors and

system and subsystem suppliers to "mix and match" during progressive stages of competition. This helps to ensure that the best systems and subsystems end up on the best platform. Even after a program is awarded, the DoD relies upon prime contractors to remain vigilant for system and subsystem alternatives which could improve the performance or reduce the costs of the overall platform or integrated electronics system.

52. U.S. military airborne platforms encompass many critical systems and subsystems, including AEW radar, airborne fire control radar, electronic warfare ("EW") suites (including EO missile warning systems, directed IRCM systems, on-board RFCM systems, and/or FOTDs), and even sonar systems on some airborne platforms. Likewise, ship and undersea integrated electronics systems encompass many critical systems and subsystems, including EW suites and the SQQ-89 ASW combat system on ships, and a variety of sonar systems on ships and undersea platforms, including side-look minehunting sonar, mine avoidance sonar, acoustic intercept torpedo detection and defense sonar, wide aperture array hull-mounted sonar, and other sonar systems. U.S. military space-based platforms also encompass many critical electronics systems and subsystems, most of which are highly classified.

53. The development, production, and sale of AEW radar, airborne fire control radar, EO missile warning systems, directed IRCM systems, on-board RFCM systems, FOTDs, side-look minehunting sonar, mine avoidance sonar, acoustic intercept torpedo detection and defense sonar, wide aperture array hull-mounted sonar, the SQQ-89 ASW combat system, and space-based electronics, as well as the U.S. military platforms and integrated electronic systems in which they are used, are lines of commerce and relevant

product markets within the meaning of the Clayton Act. There are no economical substitutes for these military systems and subsystems, and there are no uses for such products other than on the various military aircraft, spaced-based platforms, or ship or undersea integrated electronics systems in which they are used.

B. RELEVANT GEOGRAPHIC MARKET

54. The DoD and U.S. military prime contractors performing on U.S. military programs have not and are unlikely to turn to any foreign producers in the face of a small but significant and non-transitory price increase by domestic suppliers in the following markets: AEW radar, airborne fire control radar, EO missile warning systems, directed IRCM systems, on-board RFCM systems, FOTDs, high performance fixed-wing military aircraft, stealth technology, integrated electronics systems, remote minehunting systems, side-look minehunting sonar, mine avoidance sonar, acoustic intercept torpedo detection and defense sonar, wide aperture array hull-mounted sonar, the SQQ-89 ASW combat system, space-based platforms, space-based electronics, or Logicon SETA services.
55. The United States is a relevant geographic market within the meaning of Section 7 of the Clayton Act.

C. ANTICOMPETITIVE EFFECTS AND ENTRY

1. AEW Radar

56. Northrop and Lockheed produce the only AEW radars in use on U.S. military aircraft. Northrop produces the APY-1 and APY-2 radar, the AEW radars used on the

Air Force all-weather tactical warning and control E-3 Sentry Airborne Warning and Control System ("AWACS") aircraft. Lockheed makes the APS-145 radar, an AEW radar that serves on the E-2C Hawkeye, the Navy's all-weather, carrier-based tactical warning and control system aircraft. Northrop, as prime contractor on the E-2C Hawkeye aircraft, also has the platform integration responsibilities for melding the APS-145 radar into the E-2C aircraft. Lockheed and Northrop together received revenue of over \$90 million in 1996, and over \$100 million in 1997 for U.S. military AEW radar sales and contract research and development for advanced AEW radars. Lockheed's proposed acquisition of Northrop would give it a monopoly in the AEW radar produced for U.S. military aircraft.

57. Internal planning documents of both Lockheed and Northrop identify the other as its primary competitor in the U.S. military AEW radar market. The documents indicate that Northrop is positioning itself to become the supplier of E-2C radar upgrades, and that Lockheed views Northrop as a threat to its current AEW radar position with the U.S. military.
58. Lockheed and Northrop are the two most capable companies in the development and production of advanced AEW radars for U.S. military aircraft. The U.S. military has commenced technology development of advanced AEW radar capabilities for Navy aircraft; and Lockheed and Northrop have both commenced government and internally funded research and development projects to develop technology for AEW radar upgrades and for future U.S. military programs. Lockheed's acquisition of Northrop

would eliminate substantial competition in the development, production, and sale of AEW radars for future U.S. military AEW upgrades and programs.

59. Lockheed and Northrop are the only companies with proven capability in developing, producing, and integrating AEW radars for use on U.S. military aircraft. Successful entry into the production and sale of AEW radars for U.S. military aircraft would be difficult, time consuming, and costly. A new entrant would have to invest substantial engineering and other resources to overcome the substantial domain and mission knowledge advantage of the two incumbents. Entry into this market would take at least five years and cost well in excess of \$100 million for the requisite engineering expertise, product development costs, facilities, and equipment.

2. EO Missile Warning Systems

60. Lockheed and Northrop are the only two U.S. companies that are developing EO missile warning systems. Lockheed produces the AAR-47, the AAR-56, and the AAR-57 missile warning systems. Northrop produces the AAR-54 missile warning system. Although Raytheon and Cincinnati Electronics Corporation produced the AAR-44(V) missile warning system, the system uses old low performance scanning IR technology that does not have the same quality as the missile warning systems produced by Lockheed and Northrop. The DoD is unlikely to purchase this system in the future.
61. Lockheed and Northrop are the only viable competitors for current and upcoming EO missile warning system programs for the DoD. Both Lockheed and Northrop are producing and developing the advanced IR and UV missile warning

systems necessary for these programs. No other domestic firm is developing either of these types of systems.

62. Lockheed's acquisition of Northrop would eliminate all competition in development, production, and sale of state of the art EO missile warning systems and effectively give Lockheed a monopoly in EO missile warning systems for the U.S. military. The proposed acquisition will result in a single supplier with the incentive and ability to raise prices and a reduced incentive to minimize costs, perform on schedule, and produce innovative products.

63. Successful entry into the development, production, and sale of EO missile warning systems is difficult, time consuming, and costly. Entry requires advanced technology, skilled engineers, testing facilities, and specialized equipment. A potential entrant would need to engage in difficult, expensive, and time consuming research to develop algorithms and hardware to successfully identify, track, and declare incoming missile threats. It is unrealistic to expect new entry in a timely fashion to protect competition in upcoming EO missile warning system purchases.

3. Directed IRCM Systems

64. Lockheed is producing the Advanced Threat Infrared Countermeasures ("ATIRCM") system. Northrop is producing the Directed Infrared Countermeasures ("DIRCM") system. Both companies are developing smaller, more powerful systems for a major DoD competition ultimately worth over a billion dollars which will be awarded in the next few years. No other company is developing a directed IRCM system for this competition. These are the only directed IRCM systems in development or production

in the United States. Lockheed and Northrop are the only competitors for U.S. military directed IRCM systems.

65. During the next few years, the DoD expects to spend over \$450 million on directed IRCM systems. These purchases will include Lockheed's ATIRCM system and Northrop's DIRCM system. The DoD also expects a competition for engineering, manufacturing, and development of a directed IRCM system for tactical aircraft in 2001. Additional competitions may be held for ground vehicle and shipboard directed IRCM systems.

66. Lockheed's acquisition of Northrop would eliminate competition in development, production, and sale of directed IRCM systems. The proposed acquisition will result in a single supplier with the incentive and ability to raise prices and a reduced incentive to minimize costs, perform on schedule, and produce innovative products.

67. Successful entry into the development, production, and sale of directed IRCM systems is difficult, time consuming, and costly. Entry requires advanced technology, skilled engineers, testing facilities, and specialized equipment. A potential entrant would need to engage in difficult, expensive, and time consuming research to develop jamming techniques and hardware to successfully track and jam incoming missile threats. It is unrealistic to expect new entry in a timely fashion to protect competition in upcoming directed IRCM system purchases.

4. On-Board RFCM Systems

68. Lockheed and Northrop are two of the leading suppliers of advanced on-board RFCM systems to the DoD. In 1997, Lockheed and Northrop received over \$225

million in revenue for development and manufacture of on-board RFCM systems. The only other credible bidder for future on-board RFCM systems is ITT Industries, Inc. ("ITT"). Raytheon, which produced on-board RFCM systems in the past, has not maintained its technical proficiency in RFCM systems and has not developed the technology necessary to counter more modern threats. Raytheon is therefore unlikely to be a credible bidder for future contracts, especially since its systems relied largely on noise jamming rather than sophisticated deceptive techniques.

69. Lockheed and Northrop are involved in the development and production of two of the most advanced on-board RFCM systems. The Integrated Defensive Electronic Countermeasures ("IDECM") system is being developed by a Lockheed/ITT team, and has yet to be produced. Lockheed is the prime on this team. The Airborne Self Protection Jammer ("ASPJ") has been produced by a Northrop/ITT joint venture, and has been fielded on some F/A-18 C/D aircraft. For existing ships and fixed-wing aircraft, many of which are scheduled or expected to receive upgrades to their on-board RFCM systems, the DoD will likely choose between these systems or minor modifications thereof.

70. The combination of Lockheed and Northrop would result in both systems being controlled by cooperative arrangements between Lockheed and ITT. Lockheed and ITT would have the incentive and ability to raise prices and a reduced incentive to minimize costs, perform on schedule, and develop innovative products.

71. Successful entry into the development, production, and sale of on-board RFCM systems is difficult, time consuming, and costly. Entry requires advanced technology,

skilled engineers, testing facilities, and specialized equipment. A potential entrant would need to engage in difficult, expensive, and time consuming research to develop the hardware, algorithms and jamming techniques to successfully jam incoming missile threats. It is unrealistic to expect new entry in a timely fashion to protect competition in upcoming on-board RFCM system purchases.

5. FOTDs

72. Lockheed is developing an FOTD for the DoD. In 1997, Lockheed received \$43.3 million from the DoD to develop this FOTD. Northrop is developing FOTDs with DoD funding and, in conjunction with Raytheon, with funds for the Remote Maritime Patrol Aircraft ("RMPA"), a new United Kingdom aircraft. Under these programs, Northrop is producing the critical FOTD electronics, which produce the high power, wide frequency signals necessary to defeat a monopulse radar. Raytheon is producing the RMPA FOTD shell and fiber-optic converter. Without Northrop's electronics, Raytheon would not be able to produce an FOTD.
73. Raytheon, on its own, only produces the older repeater decoys which the DoD is purchasing as a stopgap measure until FOTDs are available. Because of the improved performance of FOTDs, the DoD is likely to switch from repeater decoys to FOTDs when they are available.
74. Lockheed's acquisition of Northrop would eliminate all competition in development, production, and sale of FOTDs and give Lockheed a monopoly in the U.S. military FOTD market. The proposed acquisition will result in a single supplier with the

incentive and ability to raise prices and reduced incentives to minimize costs, perform on schedule, and develop innovative products.

75. Successful entry into the development, production, and sale of FOTDs is difficult, time consuming, and costly. Entry requires advanced technology, skilled engineers, testing facilities, and specialized equipment. A potential entrant would need to engage in difficult, expensive, and time consuming research to develop the hardware to successfully receive and transmit RF energy at high power and small volume. It is unrealistic to expect new entry in a timely fashion to protect competition in upcoming FOTD purchases.

6. High Performance Fixed-Wing Military Aircraft

76. In 1996, Lockheed and Northrop had over \$7 billion in military aircraft sales. Northrop, Lockheed, and Boeing are the only companies with the military aircraft design, development, and manufacturing experience and capability to provide the U.S. military with high performance fixed-wing military aircraft. The DoD, the only relevant customer, cannot turn to any other company to design or produce high performance fixed-wing military aircraft platforms.
77. Lockheed and Northrop (and their predecessor entities) have a long and rich history as competitors for high performance fixed-wing military aircraft programs, including the F-14, F-16, F/A-18, F-117, B-2 bomber, A-12, F-22, and the Joint Strike Fighter ("JSF"). In addition, Lockheed and Northrop have competed on modifications to existing aircraft. The U.S. military has benefited significantly from Lockheed and

Northrop's competition in terms of innovation, price, and performance in the development of new aircraft and in the modification of existing aircraft.

78. Northrop and Lockheed are both currently pursuing and are leading competitors for the most likely new U.S. military high performance fixed-wing aircraft programs, including the Unmanned Combat Air Vehicle ("UCAV"), an unmanned combat vehicle; the Common Support Aircraft ("CSA"), a next generation replacement for four current but aging carrier-based Navy surveillance and support aircraft; and another future aircraft program. In addition, Northrop, Lockheed, and Boeing all pursue new ideas and designs for future high performance fixed-wing military aircraft to meet specific combat needs, and these are the only companies that have the capabilities to compete for combined electronics system integration and military airframe upgrades.

79. The loss of Northrop as an independent entity will reduce the number of companies to which the DoD can turn to design, develop, and produce high performance fixed-wing military aircraft from three to two. The DoD relies on a competitive process to develop and produce aircraft for our nation's military defenses. Throughout this competitive process, the DoD purchases a variety of services ranging from innovative design studies to full production of aircraft. Competition is vital to maximize both the innovative ideas associated with each military aircraft program, as well as the quality of the processes used to turn innovative ideas into cost-effective, technically sound, and efficiently produced aircraft. The acquisition will lessen competition at all phases of the process that DoD employs to procure military aircraft, including the early phases where many innovative ideas are born.

80. Post-merger, Lockheed and Boeing would share virtually every military aircraft in production and operation and be highly dependent on each other. For example, on the F-22 Lockheed controls approximately 67 percent of the platform, and the remaining 33 percent is controlled by Boeing. On the F/A-18, Boeing controls approximately 60 percent of the platform, and the remaining 40 percent will be controlled by Lockheed upon its acquisition of Northrop. In any future production of the B-2, Lockheed will control approximately 60 percent of the platform post-merger, and the remaining 40 percent will be controlled by Boeing. This interdependence may substantially reduce competition between aircraft platforms.
81. The barriers to entry into the high performance fixed-wing military aircraft market are extremely high. The need for capital, design and development engineering expertise, low observable or stealth capability, and facilities to test and build high performance fixed-wing military aircraft is too great for any company not currently involved in the market to enter.

7. Low Observable or Stealth Technology

82. Lockheed and Northrop are the recognized leaders in low observable or stealth technology. Lockheed and Northrop each have over two decades of experience applying stealth technology to aircraft, ships, and missiles. Boeing is the only other company with substantial stealth technology. No other company has demonstrated comparable stealth experience, and only Lockheed and Northrop have actually produced stealth aircraft. In the words of J.S. Gordon of Lockheed's famed Skunk Works division, through the Northrop acquisition "Lockheed Martin would consolidate its dominance of

stealth-related technology." (Memorandum from J.S. Gordon to J.A. Blackwell (January 24, 1997), at LHSR 000000292)

83. Low observability is often an essential characteristic of military aircraft, ships, and missiles. No other technology can substitute for stealth. The proposed merger will have substantial anticompetitive effects in military programs that require the application of stealth technology. The merged entity will dominate this critical technology.

84. Entry into this market is extremely difficult. Although some other companies have a basic understanding of stealth, the time and cost to develop the expertise to rival Northrop or Lockheed's experience is substantial and prohibitive.

8. Remote Minehunting Systems

85. Lockheed, with its Remote Minehunting System ("RMS"), launched from a surface ship, and Northrop, with its Near Term Mine Reconnaissance System ("NMRS"), launched from a submarine, are the only companies that have won contracts to produce remote minehunting systems. The only other competitor for remote minehunting systems is Boeing. Northrop and Boeing are currently competing for the Long Term Mine Reconnaissance System ("LMRS"), which will also be launched from a submarine. Revenues from remote minehunting systems were over \$25 million in 1997, and may exceed \$100 million over the next few years.

86. Lockheed, Northrop, and Boeing are the most likely companies to compete for remote minehunting programs. If Lockheed acquires Northrop, the combined company will be the only competitor to have won a production contract for total design and production of remote minehunting systems. The proposed acquisition of Northrop by

Lockheed will eliminate competition between these two companies for future remote minehunting systems.

87. Successful entry into the development, production, and sale of remote minehunting systems is difficult, time consuming, and costly. A potential entrant would need to invest considerable capital to develop the wide range of capabilities needed to produce these complex systems. Absent some prospect of capturing business in the market, such investment would not be warranted. Other companies who may have demonstrated capabilities for some, but not all, of the subsystems contained on these vehicles would see little prospect in competing against a company with such entrenched capabilities.

9. SQQ-89 Integrated ASW Combat System

88. The building and integration of the various parts of the SQQ-89 ASW combat system into a properly-functioning and integrated system is a process that requires specialized experience and knowledge. In the history of the SQQ-89 program, dating back to the mid-1980s, only two companies have ever served as the contractors for that system -- Lockheed (and its predecessor entities) and Northrop (and its predecessor entities). General Electric Company (the relevant part of which is now owned by Lockheed) was the original designer and integrator of the system. In the late 1980s, Westinghouse Electric Company (the relevant part of which is now owned by Northrop) took three years to become qualified as a second supplier of the SQQ-89 at a cost of approximately \$80 million. Since 1990, when the SQQ-89 was first competed, Lockheed and Northrop have alternated in winning the contract, with Lockheed winning

the last award for the period 1996-2000. This contract is worth a total of approximately \$400-\$500 million.

89. The Navy will award another two contracts for the SQQ-89, one in 2001 and another in 2006, to provide the SQQ-89 ASW combat systems for the remaining destroyers to be built between the years 2001 and 2005, as well as to provide upgraded systems for destroyers and cruisers that are already in service. These two contracts together may be worth over \$500 million.
90. The proposed acquisition will eliminate competition between Lockheed and Northrop for the next two SQQ-89 contracts in the years 2001 and 2006, and will result in there being only one company that has ever provided the SQQ-89.
91. The Navy is also planning to build a new family of surface combat ships, called the SC-21 (Surface Combatant for the 21st Century) family. The first of this family of ships will be the destroyer version, currently designated the DD-21. Issuance of the Request for Proposal ("RFP") for the first design stage of this program is expected in the second quarter of 1998. It is anticipated that the DD-21 program will be worth about \$30 billion.
92. The DD-21 will require an integrated ASW combat system. The ASW combat system that will be used on the DD-21 may not replicate the SQQ-89 exactly, but will in all likelihood be based on the technologies used in the SQQ-89. The SQQ-89 has been the only integrated ASW combat system used by U.S. surface combat ships, and any future ASW combat system for surface combat ships will necessarily have characteristics in common with the SQQ-89.

93. Lockheed and Northrop are in a unique position to serve as the ASW combat system providers for the DD-21, as they are the only companies that have been the contractors for a demonstrated integrated ASW combat system for U.S. surface combat vessels. The proposed acquisition of Northrop by Lockheed will eliminate any competition between these two companies as members of teams competing for the DD-21 contract. Further, the proposed acquisition will seriously disadvantage any team competing against a team with Lockheed as a member, thus substantially lessening competition for the DD-21 program.
94. Successful entry into the production and sale of the SQQ-89 integrated ASW combat system is difficult, time consuming, and costly. Although other companies produce other types of sonar systems, none of them are integrated ASW combat systems for U.S. surface combat ships. In any future competition for the SQQ-89, these other companies, if they bid at all, would be at a significant disadvantage to Lockheed and Northrop.

10. Logicon

95. Lockheed's acquisition of Northrop, and thereby Logicon, may substantially lessen competition. To the extent that Logicon provides SETA services on programs performed by Lockheed's competitors, Lockheed may gain access to competitively sensitive non-public information concerning those competitors. Lockheed would also be in a position to make recommendations which could disadvantage its competitors.
96. By acquiring Logicon, Lockheed would be in a position to develop recommended specifications for procurements and programs which disadvantage its

competitors while favoring its own capabilities. Lockheed could, similarly, disadvantage competitors through its assistance in the evaluation of their bids and other proposals, or by obtaining access to competitor's sensitive information.

97. Lockheed, through the acquisition, would be engaged in the research, development, manufacturing, and sale of AEGIS combat systems, as well as the provision of SETA services to the Navy on the AEGIS program. Where Logicon's SETA services consist of evaluating Lockheed's own technologies or products in programs like AEGIS, Lockheed's control of Logicon would conflict with the U.S. military's interest in obtaining an independent assessment of its purchases.

11. Vertical Effects

98. The United States hereby incorporates paragraphs 1-97.
99. Lockheed is one of two prime contractors competing for the JSF, and it is developing the F-22 fighter and producing the C-130 aircraft. It produced the F-117, U-2, F-16, S-3B, and ES-3A, which are all still in service. Lockheed is also the electronics systems integrator for many U.S. military ground, air, ship, space and undersea platforms, including Navy submarines, AEGIS class surface combatant vessels, the RMS, and the Space-Based Infrared Systems ("SBIRS").
100. Through the acquisition, Lockheed would obtain control over all Northrop prime platforms (including the B-2, E-2C, F-14, EA-6B, F-5 (T-38), A-10, and C-2A) in addition to the prime contracts it already holds.
101. Through the acquisition, Lockheed would also acquire all of Northrop's capability in critical systems and subsystems such as AEW radar, airborne fire control

radar, EO missile warning systems, directed IRCM systems, on-board RFCM systems, FOTDs, the SQQ-89 ASW combat system, sonar systems, and space-based electronics required for U.S. military platforms and integrated electronics systems.

102. The markets for U.S. military platforms and integrated electronics systems are already highly concentrated. Lockheed and Northrop are two of only three prime contractors for high performance fixed-wing military aircraft platforms; post-merger there will be only two remaining competitors. For ship and undersea integrated electronics systems, Lockheed is currently the only systems integrator for combat systems on surface combat vessels and submarines. In space-based platforms, Lockheed is the prime contractor on SBIRS as well as other DoD space-based communication/data relay, remote sensing/early warning, weather, and scientific platforms, and is slated to receive nearly 50% of the prime contractor funding already allocated by the DoD for space-based platforms between 1997 and 2003. New entry into aircraft platforms, space-based platforms, and ship and undersea integrated electronics systems is extremely difficult, costly, and time consuming.

103. The markets for many critical systems and subsystems required in military platforms and ship and undersea integrated electronics systems are already highly concentrated. Lockheed and Northrop are the only suppliers of AEW radar on U.S. military aircraft, directed IRCM systems, and the SQQ-89 ASW combat system, and the only effective competitors for EO missile warning systems required on U.S. military air, ship, and undersea platforms. Lockheed and the Raytheon/Northrop team are the only suppliers of FOTDs. Northrop is currently the only supplier of acoustic intercept

torpedo detection and defense sonar systems for use on undersea platforms. New entry into these systems and subsystems is difficult, time-consuming, and costly. If Lockheed acquires Northrop, it will hold a monopoly in and control access to all of these systems and subsystems, which are required for several current and future DoD programs.

Lockheed will have an incentive to refuse to sell, sell inferior quality, or sell on disadvantageous terms, these in-house systems and subsystems to its platform and integrated electronics system competitors or potential competitors. Without access to these critical systems and subsystems, platform and integrated electronics system competitors (and potential competitors) would be seriously disadvantaged in competing for upcoming military programs requiring these systems and subsystems. As a result, the acquisition likely will result in a lessening of competition in the markets for military platforms and integrated electronics systems requiring these systems and subsystems.

104. The markets for airborne fire control radar, on-board RFCM systems, side-look minehunting sonar, wide aperture array hull-mounted sonar systems, are also already highly concentrated. Raytheon, through its acquisition of Hughes Aircraft Company, and Northrop are the only two suppliers of airborne fire control radar on U.S. military aircraft. Lockheed, Northrop, and ITT are the only competitors for on-board RFCM systems for the U.S. military; the merger would reduce competition in on-board RFCM systems to only two competitors. Northrop, Raytheon, and AlliedSignal are the only current competitors for U.S. military side-look minehunting sonar systems. Lockheed and Northrop, with Northrop serving as Lockheed's major subsystem provider, are currently the only providers of wide aperture array hull-mounted sonar on U.S. military

platforms, although Litton Industries, Inc. is developing a new technology alternative for lightweight wide aperture array hull-mounted sonar. New entry in the development, production, and sale of each of these products is difficult, time consuming, and expensive.

105. By acquiring Northrop, Lockheed would have much greater incentive and ability to deny access, provide inferior quality, or grant access only on disadvantageous terms, to competing or potentially competing prime contractors to its in-house systems and subsystems such as its airborne fire control radar, on-board RFCM systems, side-look minehunting sonar, and wide aperture array hull-mounted sonar systems. Without access to Lockheed or Northrop systems and subsystems, U.S. military platform and integrated electronics system competitors or potential competitors will often be seriously disadvantaged in competing for upcoming military programs. Preventing such conduct on the part of Lockheed is necessary to maintain effective competition in military platforms and integrated electronics systems and to ensure competitive access to critical systems and subsystems by platform and integrated electronics system providers.

106. Lockheed's acquisition of Northrop gives Lockheed a much greater ability and economic incentive to discriminate in favor of its in-house system and subsystem capability and against competing or potentially competing providers of critical systems and subsystems such as airborne fire control radar, on-board RFCM systems, side-look minehunting sonar, mine avoidance sonar, wide aperture array hull-mounted sonar, other ship and submarine sonar systems, and space-based electronics. Lockheed would be in a position to favor its in-house capability and foreclose all competitive access, or grant

access only on disadvantageous terms, to its integrated electronics systems on surface combat vessels and submarines, and the many space-based and the aircraft platforms it controls. Preventing such conduct is necessary to maintain effective competition in the innovation, price, and performance of these critical systems and subsystems and to ensure the competitive placement of the best systems and subsystems on prime platforms.

107. To the extent Lockheed granted its prime contractor competitors access to its in-house systems and subsystems or granted its system and subsystem competitors access to its platforms and integrated electronics systems, Lockheed may gain access to competitively sensitive non-public information about its competitors' platforms, integrated electronic systems, systems, or subsystems. Preventing such conduct is necessary to maintain effective competition in the innovation, price, and performance of U.S. military platforms, integrated electronics systems, systems, and subsystems.

108. Successful entry into the development, production, and sale of military airborne platforms, space platforms, and integrated electronics systems, as well as their required systems and subsystems, is already difficult, time consuming, and costly. Potential entrants into U.S. military platforms and integrated electronics systems would be even less likely to invest the time and resources to enter post-merger, because of possible foreclosure from access to Lockheed/Northrop systems and subsystems and the reduction in system and subsystem supplier alternatives. Likewise, potential entrants into military systems and subsystems would be even less likely to invest the time and

resources required to enter post-merger with fewer potential prime contract customers and possible foreclosure from Lockheed platforms and integrated electronics systems.

109. The increase in vertical integration which would result from Lockheed's acquisition of Northrop may substantially lessen competition in many critical military systems and subsystems and in the aircraft and space platforms and integrated electronics systems requiring these systems and subsystems. The acquisition will likely result in less innovation by Lockheed and other system, subsystem and prime contract competitors, possible exit by competitors, fewer opportunities for and increased barriers to competitive entry, and lower quality subsystem and platform products at higher costs and higher prices.

D. HARM TO COMPETITION

110. The DoD relies on the ongoing, vigorous competition between Northrop and Lockheed for the development and production of electronics systems and military aircraft. In AEW radar, EO missile warning systems, directed IRCM systems, FOTDs, and the SQQ-89 integrated ASW combat system, competition will be eliminated by the merger, leading to higher costs, less innovation, and higher prices. Competition will be substantially lessened in on-board RFCM systems, high performance fixed-wing military aircraft, stealth technology, and remote minehunting systems, where Lockheed and Northrop are either the leading and/or two of only three competitors. The likely result of the diminished competition will be higher costs, higher prices, and less innovation on U.S. military products.

111. The DoD relies on its prime contractors to conduct vigorous competition at the system and subsystem level to obtain the benefits of competition in price and innovation. Competition will be harmed by Lockheed's ability, as a vertically integrated company, to use its position as both a leading prime contractor and a leading system and subsystem supplier to discriminate in favor of its in-house systems and subsystems and against other system and subsystem competitors, and to refuse to sell, or sell at disadvantageous terms, its in-house capability to its platform and integrated electronics system competitors. With decreased competition, there will likely be less innovation by Lockheed and other system, subsystem and prime contractor competitors, possible exit by competitors, fewer opportunities for competitive entry, and lower quality subsystem, system, platform, and integrated electronic system products at higher costs and higher prices.

IV. VIOLATION ALLEGED

112. The effect of Lockheed's proposed acquisition of Northrop is to lessen competition substantially and tend to create a monopoly in interstate trade and commerce in violation of Section 7 of the Clayton Act.
113. The transaction likely will have the following effects among others:
- a. competition in the development, production, and sale of products in each of the relevant markets will be eliminated or substantially lessened;
 - b. actual and future competition between Lockheed and Northrop in development, production, and sale of products in each of the relevant markets will be eliminated;

- c. costs and/or prices for products in each relevant product market will likely increase;
- d. innovation in each relevant product market will likely decrease;
- e. competition in critical defense system and subsystem markets and military platform and integrated electronics system markets will be lessened; and
- f. barriers to entering markets for military platforms, integrated electronics systems, and defense systems and subsystems will be increased.

V. REQUESTED RELIEF

Plaintiff requests:

1. That the proposed acquisition by Lockheed of Northrop be adjudged to violate Section 7 of the Clayton Act, as amended 15 U.S.C. § 18;
2. That the defendants be permanently enjoined and restrained from carrying out the Agreement and Plan of Merger, dated July 2, 1997, or from entering into or carrying out any agreement, understanding or plan, the effect of which would be to combine the business or assets of Lockheed and Northrop;
3. That plaintiff be awarded its costs of this action; and
4. That plaintiff have such other relief as the Court may deem just and proper.

Respectfully submitted,

FOR PLAINTIFF UNITED STATES:

Joel I. Klein
Assistant Attorney General

J. Robert Kramer II (Pa. Bar #23963)
Chief, Litigation II Section

Donna E. Patterson
Deputy Assistant Attorney General

Constance K. Robinson
Director of Operations and
Merger Enforcement

Charles E. Biggio
Senior Counsel to the
Assistant Attorney General

Willie L. Hudgins (D.C. Bar # 37127)
Assistant Chief, Litigation II Section

Robert W. Wilder
P. Terry Lubeck
Janet Adams Nash
Kevin C. Quin
Charles R. Schwidde
David R. Bickel
Justin M. Dempsey
Molly L. DeBusschere
John P. Wunderli
Nancy Olson
Tara M. Higgins
Viqar M. Shariff

Trial Attorneys
Department of Justice
Antitrust Division
Litigation II Section
1401 H Street, N.W.
Washington, D.C. 20530
(202) 307-0924

Dated: March _____, 1998.