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IN THE UNITED STATES COURT OF FEDERAL CLAIMS

HARBINGER CAPITAL PARTNERS, LLC;
HARBINGER CAPITAL PARTNERS II, LP;
HARBINGER CAPITAL PARTNERS
SPECIAL SITUATIONS GP, LLC;
HARBINGER CAPITAL PARTNERS
MASTER FUND I, LTD.; HARBINGER
CAPITAL PARTNERS SPECIAL
SITUATIONS FUND, LP; CREDIT
DISTRESSED BLUE LINE MASTER FUND,
LTD.; GLOBAL OPPORTUNITIES
BREAKAWAY, LTD.; HGW GP, LTD.;
HGW HOLDING COMPANY, LP; HGW US
GP CORP.; HGW US HOLDING
COMPANY, LP; HARBINGER CAPITAL
PARTNERS SP, INC.; and BLUE LINE DZM
CORP.,

Plaintiffs,

v.

UNITED STATES OF AMERICA,

Defendant.

Civil Action No. _____

COMPLAINT

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PRAYER FOR RELIEF58

On March 26, 2010, Plaintiff Harbinger Capital Partners, LLC and its subsidiary and affiliate funds (collectively “Harbinger”) entered into a contract with Defendant United States, acting through the Federal Communications Commission (“FCC”). After months of detailed bilateral negotiations, the United States agreed to permit Harbinger to acquire a spectrum licensee—LightSquared Subsidiary, LLC (“LightSquared”)—through which to build, deploy, and operate a nationwide mobile broadband network. In exchange, the FCC received Harbinger’s commitment to invest billions of dollars to develop that network according to specifications and conditions demanded by the Government to satisfy its important public policy objectives. After the United States had formalized its agreement with Harbinger, and after Harbinger had expended almost \$1.9 billion of its own funds performing its obligations according to the contract’s terms, the United States reneged on its contractual commitment. Instead, the United States permitted the GPS industry to make unlicensed and wrongful use of the spectrum in which Harbinger had invested and prohibited Harbinger from undertaking further efforts to develop and deploy the agreed-upon network. Harbinger, therefore, brings this action under the Tucker Act, 28 U.S.C. § 1491, and the Fifth Amendment to the United States Constitution, seeking recovery of its losses, expected profits, mitigation costs, and all other appropriate damages and remedies, arising from Defendant’s breach of contract and/or unconstitutional taking without just compensation. In support of this Complaint, Harbinger alleges as follows:

INTRODUCTION AND SUMMARY OF THE ACTION

1. “Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children,

deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.” Federal Communications Commission, *Connecting America: The National Broadband Plan XI* (2010) (hereinafter “National Broadband Plan”). Mobile wireless internet access is, as the FCC has recognized, “the next great challenge and opportunity for the United States.”

2. Mobile broadband operates on electromagnetic spectrum, a small subset of the vast field of electromagnetic energy all around us. As former FCC Chairman Julius Genachowski noted, “spectrum is an essential, limited, and highly valuable resource” that “fuels mobile telephone, mobile broadband and other parts of the telecommunications industry” Only a fraction of spectrum, however, is suitable for mobile broadband use, and by 2009 the portion of that spectrum that the FCC had allocated for commercial use to existing wireless telecommunications providers was quickly approaching the outer reaches of its capacity. As a result of the explosive growth in data consumption triggered by wireless devices like smart phones, tablet computers, and other emerging technologies, the mobile broadband industry faced a looming crisis. Noting that the “explosion in demand for spectrum is putting strain on the limited supply available for mobile broadband, leading to a spectrum crunch,” Chairman Genachowski warned, “the clock is ticking on our mobile future.”

3. The FCC recognized in 2010 that “[i]f the U.S. does not address this situation promptly, scarcity of mobile broadband could mean higher prices, poor service quality, an inability for the U.S. to compete internationally, depressed demand and, ultimately, a drag on innovation.”

4. Equally important, millions of Americans have continued to go without access to broadband and thus face a profound competitive disadvantage. In some rural states, as much as

29 percent of the population lacks mobile broadband coverage. Nationwide, nine percent of rural businesses have no access to mobile broadband.

5. Recognizing these problems, the Government has for more than a decade sought to expand the capacity and coverage of the Nation’s mobile broadband spectrum by removing regulatory barriers to full utilization of the “L-band” spectrum, which had traditionally been reserved for Mobile Satellite Service (“MSS”)—that is, direct satellite-to-receiver communications. Because the L-band was licensed only for MSS uses, it was vastly underutilized and therefore had untapped potential of carrying enormous amounts of additional data, which only official FCC action could unleash. Specifically, since 2001, the FCC has “consistently . . . worked to enable terrestrial use of MSS spectrum.” For example, in 2005 the FCC adopted rules permitting MSS licensees to construct and operate an unlimited number of cellular towers and other terrestrial transmitting stations using the L-band. Pursuant to these rules, LightSquared’s predecessor company, SkyTerra Subsidiary, LLC (“SkyTerra”), received in 2005 explicit FCC authorization to develop a nationwide mobile broadband network requiring deployment of thousands of terrestrial base stations.

6. Likewise, Congress recognized in 2009 that expanding broadband capacity and coverage is critical to America’s global competitiveness. Accordingly, it directed the FCC to develop a comprehensive plan for addressing those and other broadband-related concerns. Following a year-long study, the FCC published in March 2010 a National Broadband Plan. The Plan’s ambitious goals included:

- Providing at least 100 million homes with affordable access to download speeds of at least 100 megabits per second.
- Creating the fastest and most extensive wireless networks of any nation.
- Ensuring every American has affordable access to robust broadband service, including those in rural and underserved areas.

- Ensuring every community has affordable access to at least one gigabit per second broadband service to major institutions such as schools, government buildings, hospitals, and rural health clinics.
- Ensuring every first responder has access to a nationwide, wireless, interoperable broadband public safety network.

7. The FCC’s National Broadband Plan explicitly recognized that realizing these ambitious goals would require enlisting significant amounts of private capital and investment: “Policymakers alone . . . cannot ensure success. Industry, non-profits, and government together with the American people, must now act and rise to our era’s infrastructure challenge.”

8. The Government found in Harbinger the private partner it sought. Harbinger had long owned a partial stake in LightSquared’s predecessor company, SkyTerra, which had been working with the FCC for over a decade to, as the FCC put it, “remove regulatory barriers [to terrestrial broadband service] and align the service rules for the L-band with the rapid evolution of mobile communications technologies and markets.” As a result of that decade-long process, which involved multiple rulemakings and extensive public comment, SkyTerra had assembled the spectrum rights necessary to build a nationwide broadband network of thousands of terrestrial transmitting stations and two state-of-the-art satellites. SkyTerra, however, did not have access to the billions of dollars, both equity and debt, necessary to build out and operate such a network, and it therefore could not bring to fruition the Government’s plan “to ensure that MSS spectrum would be utilized to its maximum potential.”

9. Harbinger did have access to such capital, and in 2008 it proposed to the FCC to acquire full ownership of SkyTerra and to invest billions of dollars to achieve the FCC’s policy goals. Harbinger agreed to build out, deploy, and operate, in accordance with the FCC’s demanding specifications and conditions, a nationwide, high-speed mobile broadband network that would serve at least 260 million users. It also agreed to offer broadband service to millions

of individuals and businesses in underserved, rural areas of the country. The FCC enthusiastically welcomed Harbinger's plan as "a unique proposal that had the prospect of attracting new private investment, increasing competition, bringing additional broadband service to rural and hard-to-reach regions, and creating thousands of jobs."

10. In March 2010, after months of intensive bilateral negotiations, Harbinger and the United States, acting through the FCC, entered into a mutually beneficial contract to build and operate a nationwide high-speed mobile broadband network using SkyTerra's spectrum in the L-band. Harbinger, for its part, agreed to invest billions of dollars to acquire SkyTerra and build the mobile broadband network according to the rigorous specifications and conditions demanded by the FCC to meet the Government's public policy objectives. In particular, the FCC insisted, among other things, that Harbinger "construct a terrestrial network to provide coverage to at least . . . 260 million people in United States by December 31, 2015" and that SkyTerra not "make its spectrum used by its terrestrial network . . . available to . . . the largest or second largest wireless provider [Verizon and AT&T] without receiving prior Commission approval." In return, the FCC agreed to provide its authorization for Harbinger to acquire SkyTerra and to build the agreed-upon mobile broadband network using SkyTerra's L-band spectrum. The parties' agreement was memorialized in extensive written instruments, reflecting what the FCC aptly termed "the written version of our handshake deal."

11. In reaching the agreement with Harbinger, the FCC expressly found that "Harbinger's plans to provide 4G wireless broadband are a significant public interest benefit, both because of the competition it will bring in mobile wireless broadband services and because it will provide mobile wireless broadband service to traditionally underserved areas." And knowing that SkyTerra lacked the financial and technical resources necessary to develop the

network, the FCC concluded that these “potential public benefits are dependent on Harbinger’s acquisition of SkyTerra.”

12. In reliance on the Government’s agreement to allow construction of the agreed-upon broadband network using SkyTerra’s L-band spectrum, Harbinger immediately began to perform its obligations under the contract. It acquired full ownership of SkyTerra (and renamed it LightSquared, which is used henceforth to refer to LightSquared and all its predecessor entities), and caused LightSquared to begin the build out of a nationwide terrestrial network including up to 36,000 cellular towers, launch a new \$1 billion state-of-the-art communications satellite, enter into contracts with vendors such as Sprint and Nokia Siemens Networks, and begin securing a nationwide customer base, chiefly of large companies such as Best Buy, in order to develop an innovative model of wholesale spectrum delivery. To date, Harbinger has spent almost \$1.9 billion in performing its obligations under its contract with the United States.

13. Months after the March 2010 agreement between Harbinger and the United States, commercial manufacturers of GPS receivers first announced opaquely and in an FCC proceeding not specific to LightSquared, that “three decades of evolving GPS receiver design” had “relied” on the FCC not allowing extensive terrestrial use of the L-band. The filing also stated: “From the point of view of a GPS receiver, the introduction of an adjacent-frequency broadband terrestrial service presents a threat of significant harmful interference.” GPS devices are designed to receive signals from government-funded satellites transmitting in the “RNSS-band” of spectrum, which is adjacent to the L-band.

14. As would later become apparent, the GPS industry’s concern was *not* that terrestrial signals transmitted by LightSquared in its L-band spectrum would bleed into the adjacent RNSS-band and interfere with the ability of GPS devices to receive and use GPS signals

in the GPS spectrum. In fact, concerns that terrestrial signals in LightSquared's L-band spectrum would send harmful out-of-band emissions ("OOBE") into the RNSS-band had been raised by the GPS industry in multiple FCC proceedings since 2001, and on each occasion LightSquared had addressed and resolved them at great expense to itself, often making concessions beyond what was legally required in order to move the deployment process along. Rather, the concern belatedly raised by the GPS industry was that LightSquared's terrestrial signals **in its own spectrum in the L-band** would interfere with the ability of GPS devices to receive and use GPS signals crossing into **LightSquared's spectrum in the L-band**.

15. As the GPS industry later acknowledged, millions of GPS devices had been deliberately designed to receive and use GPS signals not only in the RNSS-band but also in LightSquared's spectrum in the adjacent L-band. The GPS industry was therefore, as the FCC describes it, "treat[ing] the GPS spectrum and the L-band as one band," and trespassing onto LightSquared's spectrum to make continuous wrongful and unauthorized commercial use of it. The GPS industry complained that if LightSquared was allowed to transmit terrestrial signals **in its own spectrum, as authorized by the FCC since 2003**, GPS devices would experience what the GPS industry calls "receiver overload." Analogizing the adjacent bands of spectrum to the lanes of a public highway, the Chief of the FCC's International Bureau, Mindel De La Torre, aptly summarized on August 4, 2011 the GPS industry's position as follows: "GPS . . . has not been staying in its lane. It had been driving in the left lane with impunity—**remember this is LightSquared's lane**—but now that it looks like the left hand lane might actually have traffic in it, the GPS community is yelling bloody murder In a nutshell, the GPS community feels that they should be able to drive their double-wide trailer down [both] lanes without regard to **LightSquared's longstanding right to be in the left lane.**"

16. At no point during Harbinger's protracted contract negotiations did the GPS industry or any component of the federal government raise with the FCC the receiver overload concern about Harbinger's planned and long-authorized terrestrial network. Nor did the GPS industry raise the issue in prior rulemakings and other proceedings relating to LightSquared's spectrum in which it had participated.

17. The GPS industry's concern about "receiver overload" was echoed by Government users of GPS devices, particularly the Defense Department and the Federal Aviation Administration. But like the GPS industry, those agencies had not previously raised this concern about LightSquared's proposed terrestrial network. The FCC responded by requiring Harbinger to accommodate the GPS industry's unlicensed and wrongful use of LightSquared's L-band spectrum. As then-Chairman Genachowski put it: "LightSquared will not be permitted to commence commercial operation [in the L-Band] if it would result in harmful interference to GPS systems, including Department of Defense systems" and those operated by federal partners. The FCC's order was subsequently ratified by Congress, which enacted two statutes codifying this restriction. In keeping with these statutes, the FCC ordered an indefinite halt to Harbinger's efforts to deploy its nationwide mobile broadband network using LightSquared's spectrum, which the FCC by agreement had explicitly authorized. As a result of the Government's actions, LightSquared was forced to declare bankruptcy in May 2012, and Harbinger has lost most of its approximately \$1.9 billion investment, despite having made that investment in specific reliance on the Government's agreement to permit it to build, deploy, and operate a nationwide broadband network using LightSquared's spectrum.

18. By requiring Harbinger to accommodate the GPS industry's continued unlawful occupation and use of LightSquared's L-band spectrum in this manner, the United States

effectively reallocated LightSquared's spectrum to the GPS industry. In other words, the United States has taken spectrum from its lawfully authorized and contractually entitled user and has awarded it to the trespasser. The United States has breached its contractual commitment to permit Harbinger to build out, deploy, and operate a nationwide high-speed mobile broadband network using LightSquared's spectrum, and it has taken Harbinger's property without just compensation.

PARTIES

19. Plaintiff Harbinger Capital Partners, LLC is a Delaware limited liability company with its principal place of business in New York, NY.

20. Plaintiff Harbinger Capital Partners II, LP is a Delaware limited partnership with its principal place of business in New York, NY.

21. Plaintiff Harbinger Capital Partners Master Fund I, Ltd. is an exempted company organized under the laws of the Cayman Islands with its principal place of business in New York, NY.

22. Plaintiff Harbinger Capital Partners Special Situations Fund, LP is a Delaware limited partnership with its principal place of business in New York, NY.

23. Plaintiff Harbinger Capital Partners Special Situations GP, LLC is a Delaware limited liability company with its principal place of business in New York, NY.

24. Plaintiff HGW GP, Ltd. is a Cayman Islands exempted company with its principal place of business in New York, NY.

25. Plaintiff HGW Holding Company, LP is a Cayman Islands exempted company with its principal place of business in New York, NY.

26. Plaintiff HGW US GP Corp. is a Delaware corporation with its principal place of business in New York, NY.

27. Plaintiff HGW US Holding Company, LP is a Delaware limited partnership with its principal place of business in New York, NY.

28. Plaintiff Credit Distressed Blue Line Master Fund, Ltd. is a Cayman Islands exempted company with its principal place of business in New York, NY.

29. Plaintiff Global Opportunities Breakaway Ltd. is a Cayman Islands exempted company with its principal place of business in New York, NY.

30. Plaintiff Harbinger Capital Partners SP, Inc. is a Delaware corporation with its principal place of business in New York, NY.

31. Plaintiff Blue Line DZM Corp. is a Delaware corporation with its principal place of business in New York, NY.

32. All of the Plaintiffs are affiliates of Harbinger Capital Partners, LLC.

33. The Defendant is the United States of America. The actions most relevant to this lawsuit were taken by the United States Congress, the FCC, and the National Telecommunication and Information Administration (“NTIA”). The FCC is an agency of the Executive Branch of the Government of the United States. The FCC regulates interstate and international communications by radio, television, wire, satellite and cable throughout the United States. The FCC’s principal place of business is located at 445 12th Street, S.W., Washington, D.C. 20554. The NTIA is a bureau of the Department of Commerce that serves as the Executive Branch’s principal advisory office on domestic and international telecommunications and information policies. NTIA’s principal place of business is located at 1401 Constitution Avenue, N.W., Washington, D.C. 20230.

JURISDICTION

34. This Court has subject matter jurisdiction over this matter pursuant to 28 U.S.C. § 1491(a)(1) because it arises from an express or implied contract with the United States and/or under the United States Constitution.

FACTS

I. BACKGROUND

35. “Wireless broadband is poised to become a key platform for innovation in the United States over the next decade,” as the FCC’s 2010 National Broadband Plan observed. The FCC recognized “the potential of wireless services to reach underserved areas and to provide an alternative to wireline broadband providers in other areas.”

36. The FCC also admitted that its earlier spectrum-allocation policies had contributed to the spectrum scarcity crisis. The FCC’s historical “approach to allocating spectrum . . . on a band-by-band, service-by-service basis . . . has been criticized for being ad hoc, overly prescriptive and unresponsive to changing market needs.” It therefore concluded that its “primary tool for promoting broadband competition should be freeing up spectrum,” and it committed to “making more spectrum available on a flexible basis” going forward.

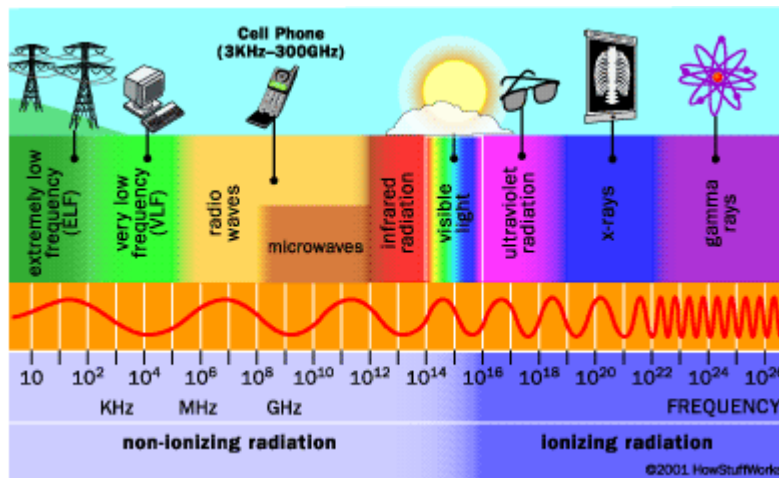
37. The White House likewise supports opening up additional spectrum. In June 2010, “President Obama signed a Presidential Memorandum to commit the Federal government to a sustained effort to make available 500 MHz of Federal and commercial spectrum over the next 10 years to foster investment, economic growth and help create hundreds of thousands of jobs by meeting the burgeoning demand for mobile and fixed broadband, other high-value uses and benefits for other industries.”

A. The Basics of Spectrum and Its Allocation by the Government.

38. The FCC defines “spectrum” as “the range of electromagnetic radio frequencies used to transmit sound, data, and video across the country. It is what carries voice between cell phones, television shows from broadcasters to your TV, and online information from one computer to the next, wirelessly.”

39. This energy occurs in a broad range of frequencies measured by a unit known as the “hertz” (abbreviated “Hz”). A hertz is one cycle of oscillation per second. KiloHertz (kHz) means 1,000 Hertz. MegaHertz (MHz) means 1000 kHz, and gigaHertz (GHz) means 1,000 MHz.

40. Not every portion of the spectrum is suitable for every use. The portion suitable for radio and mobile communications—often referred to as the “radio waves” or “radio spectrum”—is located between approximately 8.3kHz and 275GHz. The following graphic demonstrates how radio waves comprise only a small portion of all electromagnetic spectrum.

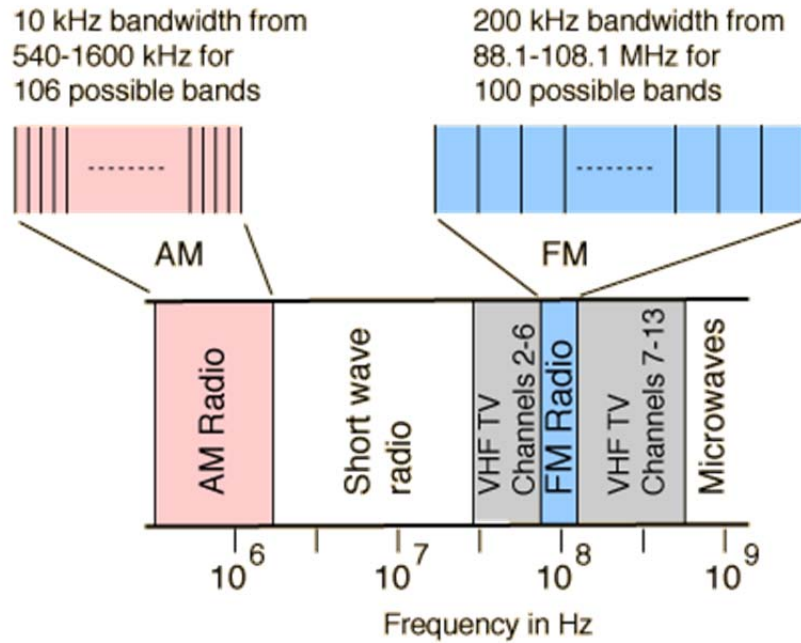


41. While the radio wave spectrum is not large, there is an abundance of uses for it. Because of the resultant scarcity and the ubiquity of electromagnetic waves, governments have had to cooperate to manage the use of spectrum. Internationally, the United States cooperates with other governments through the International Telecommunication Union (“ITU”).

42. Within the United States, the FCC and the NTIA share responsibility for managing the spectrum. The Communications Act of 1934 confers on the FCC the “authority to allocate electromagnetic spectrum” to different kinds of wireless communications services (e.g., television and radio broadcasts, mobile telephone and/or data communications) within the United States and by coordinating with other countries through the ITU. The FCC allocates available spectrum to specific wireless services and then also assigns spectrum within those allocations to specific commercial users and to state and local governments. The NTIA manages spectrum assigned to agencies of the federal government, such as the Department of Defense.

43. The FCC allocates and assigns spectrum in sections of contiguous hertz that are typically referred to as “bands.” The use of the term “band” to describe a range of spectrum allocated to a specific use leads to such terms as “bandwidth” and “broadband.” “Bandwidth” refers to the width of the frequency range in a specified band. A greater bandwidth signifies a greater capacity to transmit information. “Broadband” refers to a wide or “broad” allocation of spectrum, which is thus capable of carrying a comparatively large amount of information.

44. By way of illustration, the FCC has allocated the frequency band between 540-1600 kHz for the broadcast of AM radio, which is used by numerous independent operators, on slightly more than a single megahertz of spectrum. The FCC has allocated the frequency band of 88.1 MHz-108.1 MHz for the broadcast of FM radio. The following band graph shows how these AM and FM radio spectrum bands are abutted by separate bands allocated for use by short wave radio operators and broadcasters of VHF TV channels:



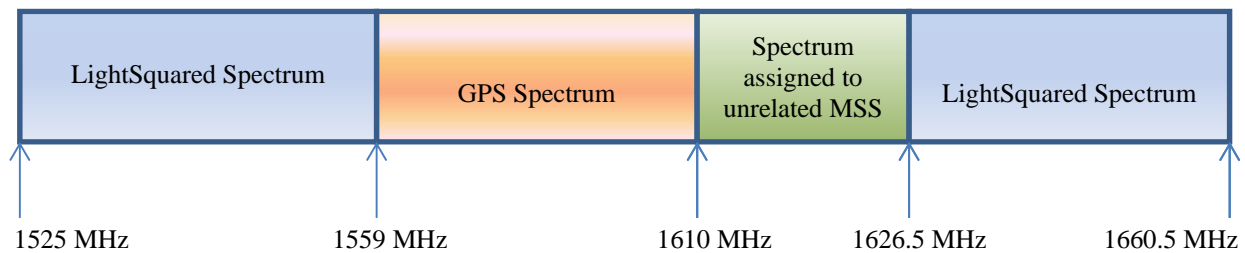
45. Two adjacent bands of spectrum are relevant to this complaint—the “L-band” and the “RNSS-band.” In the 1980s, the FCC allocated the L-band to MSS usage, which was initially restricted to direct signals between satellite transmitters and receivers on the ground, without the assistance of any land-based, or “terrestrial,” transmitters such as cellular phone towers. The bulk of the frequencies in the L-band are now assigned in the United States to LightSquared, which was acquired, as previously noted, by Harbinger in March 2010 as result of, and in reliance on, the agreement between Harbinger and the United States that is the subject of this Complaint.

46. The frequency assigned to MSS uses is contained in two separated blocks: 1525 MHz to 1559 MHz and 1610 MHz to 1660.5 MHz. Portions of this spectrum—including 1610 MHz to 1626.5 MHz and a few other small slivers of spectrum—are assigned to MSS uses that are not relevant to this litigation. However, the remainder of the MSS spectrum—most of 1525 MHz to 1559 MHz and most of 1626.5 MHz to 1660.5 MHz—is the L-band spectrum assigned to what the FCC referred to as “Harbinger’s network” (“LightSquared Spectrum”). Users of L-

band spectrum must “coordinate” with other authorized users of L-band spectrum. One such company, Inmarsat, is discussed in further detail below. Otherwise, these additional entities will be ignored as they are not relevant to the facts of this complaint.

47. In between the two halves of the LightSquared Spectrum is the allocation to the RNSS-band, which stands for “Radionavigation Satellite Service.” The RNSS-band is assigned to the GPS satellite system (“GPS Spectrum”). This spectrum is used by Government-owned and -operated satellites that transmit signals directly to GPS receivers. GPS receivers range from simple handheld navigation devices to high-precision GPS devices used in airplanes and military weapons.

48. The relevant points of this complicated allocation and assignment scheme can be simplified by the following graphical illustration:



49. This illustration is not a complete depiction of all entities operating within the L-band and the RNSS-band. The illustration simply shows the main facts regarding the proximity of the LightSquared Spectrum and the GPS Spectrum and it will be referred to throughout the remainder of the Complaint to explain spectrum issues.

B. All Wireless Communications Networks Require a Receiver and a Transmitter; the Transmitter Can Be Either Satellite or Terrestrial.

50. Each signal sent over electromagnetic spectrum goes from a “transmitter” to a “receiver.”

51. The transmitter transmits or “sends” the electromagnetic signal. The transmitter can be physically located on a space-based satellite or on the ground. In the latter case, it is called land-based or “terrestrial.” The receiver receives, or “listens to,” the electromagnetic signal sent by the transmitter. For example, a cell phone tower is both a terrestrial transmitter and a receiver (or “transceiver”) since it both sends and receives signals from the phones with which it communicates. A GPS navigation device only receives signals from satellites and does not send any signal (though it may be incorporated into another device, such as a smart phone, that transmits signals and performs other functions) and is therefore solely a “receiver.”

52. Transmitters can be designed to transmit their primary electromagnetic signal only within the assigned band of spectrum. It is impossible, however, to prevent the remnants, or “harmonics” of a signal from bleeding into adjacent bands; although the power of the signal degrades from its peak at its assigned frequency, it never reduces to zero no matter how far it moves outside the designated frequency. Thus, the signal transmitted by each spectrum user is inevitably emitted into adjacent bands, and such OOB must be managed effectively to prevent them from causing *harmful* interference with reception of signals transmitted in adjacent bands.

53. Likewise, a device designed to receive wireless signals, such as a mobile telephone or a GPS navigation device, can be designed (often with “filters”) to receive signals only in its assigned band of spectrum. A device that can receive signals outside of its assigned band of spectrum—for example, a GPS device receiving GPS or other signals not only in the

assigned RNSS-band but also in the adjacent L-band—is at risk of “receiver overload,” which could render the device inoperable.

54. The GPS industry does not pay anything for the signals its receivers use. Instead, GPS receivers manufactured by the GPS industry receive their signals from satellites launched and funded by the federal government. These receivers range from simple-hand-held devices used by individuals to sophisticated devices installed in airplanes, oceangoing ships, high-precision equipment, and military weapons. The performance needs and the costs vary widely among these receivers, which therefore have many dozens, if not hundreds, of different configurations, as they are embedded in a wide range of operations systems, all of which keep changing as technology progresses.

55. The FCC creates and enforces rules to prevent harmful interference from OOB. Interference issues, both within and between bands, can also be resolved (and often are) by agreements between spectrum licensees. Commercial transmitters and transceivers (insofar as they transmit) therefore must be approved by the FCC. This requires full disclosure of operational parameters. Devices that act solely as receivers, however, are not subject to such FCC regulation or approval (other than incidental disclosures required for equipment certification). The same is true for the receiving component found in a transceiver. Indeed, manufacturers of GPS receivers are not required to disclose the operational parameters of their products, even to the FCC.

56. Because the operational parameters of receivers like GPS devices are typically kept proprietary and confidential, as the law allows, it is incumbent upon receiver manufacturers to determine whether there could be interference issues between their receivers and a given transmitter. And manufacturers of receivers must either design their devices (often with filters)

not to “listen in” to signals transmitted outside of their assigned band, or else accept the risk that the performance of their devices will be compromised by receiver overload. The FCC’s regulations codified this long-established understanding at 47 C.F.R. 15, and Harbinger relied on the existing regulatory framework in entering into the contract.

57. In the case of the Harbinger broadband network, the transmitter is either one of thousands of terrestrial stations (36,000 were planned and approved) or one of LightSquared’s satellites (the SkyTerra 1 satellite was launched in 2010 after receiving nearly a billion dollars of funding from Harbinger).

C. The FCC’s Initial Allocations to Terrestrial Mobile and Satellite Mobile Systems Have Resulted in a Shortage of Terrestrial Mobile Capacity.

58. Before modern mobile consumer devices (e.g., cell phones, iPads) were invented, the FCC allocated spectrum in a way that in future years made it difficult to build sufficient mobile communications capacity. These severe capacity constraints allowed two wireless broadband companies, AT&T and Verizon, to achieve market dominance. This global spectrum allocation problem stems from a combination of two subsidiary problems.

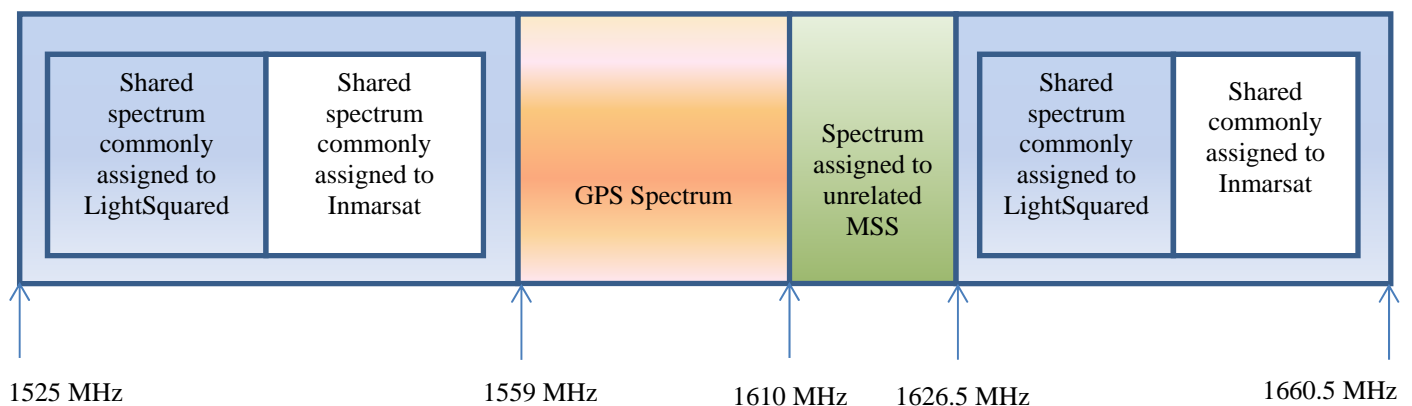
59. First, the FCC’s original allocation of L-band spectrum to MSS uses precluded any terrestrial transmissions within this band. In contrast, when the FCC made its original allocation of spectrum for cell phone service, the bulk of which was acquired by AT&T and Verizon, it specifically allowed the transmission of signals from terrestrial transmitters (such as cell towers).

60. Second, when the FCC made its original assignments within the L-band, it did not grant individual licensees their own distinct blocks of spectrum. Instead, the FCC gave all users within the band the right to use MSS spectrum in common, leaving individual operators the task

of cooperatively resolving any interference issues caused by their common use (often called “coordination”).

61. LightSquared was one of the companies licensed to operate in the L-band. Licensed in 1989, LightSquared began operations in the 1990s. Its business was constructing and operating satellite communications networks.

62. The FCC also licensed Inmarsat to operate in the MSS spectrum. Inmarsat was also in the business of mobile satellite communications and a competitor of LightSquared. As noted above, others were also allowed to operate in the L-band spectrum in common with Inmarsat and LightSquared but for present purposes they need not be discussed. A simplified graphic summary of the spectrum allocation described thus far follows:



63. This arrangement meant that MSS operators using the L-band not only had to adjust their signal transmissions to avoid “out-of-band” interference with their spectrum neighbor (GPS) using the RNSS-band but also had to adjust their transmissions to avoid “in-band” interference with each other. This second constraint further reduced the signal carrying capacity of the MSS spectrum substantially.

64. This allocation of spectrum caused no problems when it was first implemented in the 1980s, when the main uses involved only sending simple signals from satellites. But as

technology advanced, those initial restrictions caused major inefficiencies as modern mobile communications devices demanded vastly more bandwidth (for emails, movies, music, pictures, etc.) than had been anticipated a generation before. Smart phones, tablets, and mobile-enabled laptops consume, respectively, 49, 127, and 227 times the data consumed by a basic standard-feature cell phone and need correspondingly greater bandwidth.

65. Today, the United States is experiencing what the FCC has described as a “spectrum crunch.” Due to the explosion of Internet-enabled mobile-computing devices (such as smartphones and tablet computers), wireless networks in North America have been projected to experience a nearly eight-fold increase in data usage from 2013 to 2018. Current providers simply do not have sufficient usable spectrum to keep pace with the rapid demand for mobile broadband when bound by the initial 1980s constraints. Recent announcements by incumbent wireless carriers make clear that consumers will be forced to pay higher prices given the artificial scarcity created by the older FCC rules. As one financial reporter has noted, “[a]s mobile data usage increases and carriers run out of spectrum to cram data into, they are raising rates and limiting usage on their networks.”

66. The structure of the Nation’s existing wireless communications networks is plagued by three major problems:

- First, not enough of the nation’s spectrum has been allocated for terrestrial-based mobile communications networks, and the necessity for FCC approval has created a physical barrier to entry for new competitors, which predictably thwarts competition in an important new sector of the American economy. As the FCC’s National Broadband Plan acknowledges, “[b]oth mobile network performance and the availability of mobile broadband rely on the availability of spectrum. Carriers and other broadband-related companies agree that more spectrum will be needed to maintain robust, high-performing wireless broadband networks in the near future.” The National Broadband Plan therefore recommends that “[t]he federal government . . . should make more spectrum available”

- Second, the major carriers that dominate the spectrum authorized for terrestrial use have concentrated their capacity in major population centers. According to the National Broadband Plan “most areas without mobile broadband coverage are in rural or remote areas.” Indeed, the National Broadband Plan reports that in some rural states, as much as 29 percent of the population lacks mobile broadband coverage and that, nationwide, nine percent of rural businesses have no access to mobile broadband. Rural areas have been left out for simple economic reasons: terrestrial transmitting stations are very expensive to install and are only capable of broadcasting over a relatively small geographic area. For this reason, AT&T and Verizon had every incentive to build out terrestrial broadband networks in densely populated urban and suburban areas. Their initial costs of build-out may have been high, but in areas with a large customer base there was an opportunity for substantial sales to justify the initial investment. In contrast, the high build-out costs and low density of population meant that these same carriers had little incentive to service rural America. As the FCC has recognized, “[t]hese areas of extremely low population density are some of the most difficult and expensive areas to serve.”
- Third, the major carriers have taken a “walled garden” approach to the use of their allocated spectrum. If a consumer wanted to use AT&T’s spectrum, for example, she had to purchase her phone from AT&T. No outside devices were allowed. Verizon limited access to its spectrum in a similar manner. This “walled garden” dulled the incentive for innovation and price competition in the creation of new mobile devices. AT&T and Verizon had little incentive to create devices or push down prices because they would only be competing with themselves. Similarly, outside manufacturers had little incentive to create new devices when they knew those devices would have no market—even if they were better or cheaper—so long as AT&T and Verizon refused to open the gates.

67. As of 2010, more than 30 percent of American households lacked broadband access, making the United States only 14th worldwide in broadband coverage. As then-FCC Chairman Genachowski summarized the situation: “The costs of this broadband gap are measured in jobs not created, existing job openings not filled, and our nation’s competitiveness not advanced.”

II. DEALINGS BETWEEN THE PARTIES

A. Harbinger’s Proposal: A Decade in the Making.

68. On March 26, 2010, the FCC approved Harbinger’s acquisition of SkyTerra Subsidiary, LLC, which became “LightSquared” following a name change on July 20, 2010.

The FCC approved this acquisition pursuant to a painstakingly negotiated contractual agreement between Harbinger and the United States. Indeed, Harbinger's acquisition of LightSquared was the culmination of a ten-year process in which the Government sought to expand the capacity and coverage of mobile broadband spectrum by enabling terrestrial use in the L-band.

69. In 1995, LightSquared was licensed to provide MSS communications services over spectrum in the L-band. As described above, unlike spectrum used by existing wireless providers like AT&T and Verizon, which are straining their capacity limits, the L-band spectrum has been vastly underutilized. Because direct satellite-to-phone communications are not conducive to hosting large-scale mobile broadband communications, substantial demand for them has not materialized. Three particular limitations loom large in this regard: First, satellite coverage typically is spotty in densely populated, heavily developed urban areas where most of the demand for mobile broadband communications exists. Second, latency, or the time it takes a signal to travel from a transmitter to a receiver in a network, is much higher for satellites than for terrestrial services and may potentially result in users of satellite-only services experiencing noticeable pauses or lags in their communications. Third, the amount of traffic that a satellite, standing alone, can handle is limited to the equivalent of about 20,000 phone calls at a time. Correspondingly, to develop and launch satellite technology is enormously expensive, and few companies have been willing to invest the necessary capital given the limited prospects for tapping consumer demand. As a result, the L-band has been underutilized and was destined to remain—absent a robust, terrestrial network to enhance satellite capabilities—altogether incapable of carrying the huge amounts of additional data transmission capacity required to meet the Government's public policy goals and market demand.

70. In 2001, LightSquared submitted a proposal to the FCC for realizing the potential of its underutilized spectrum. This proposal would allow MSS licensees to provide service in locations where satellite coverage was difficult, such as urban areas, by adding an “Ancillary Terrestrial Component” (“ATC”), which is comprised of a network of ground-based cellular towers that communicate freely with mobile devices.

71. In 2003, the FCC approved rules that allowed MSS licensees to offer ATC services. The FCC’s 2003 rules limited both the quantity and power of cellular towers that could be built, effectively precluding MSS operators from building a nationwide mobile broadband network that could compete effectively with existing networks. Later that year, LightSquared requested approval to offer an integrated satellite-terrestrial service consistent with the FCC’s limitations.

72. In 2004, the FCC approved LightSquared’s request to operate an integrated network comprised of both satellite and terrestrial components on its spectrum in the L-band.

73. In 2005, the FCC revised its 2003 rules to remove limitations on the number of terrestrial towers in ATC networks and to increase the permissible power levels for signals from such towers. As Chairman Genachowski has recognized, the FCC authorized LightSquared to provide “expansive ancillary terrestrial service, including deployment of thousands of terrestrial base stations.” In so doing, the FCC authorized LightSquared to create a national mobile broadband (4G LTE) network that could compete directly with Verizon and AT&T by utilizing its altogether different, far less congested, L-band spectrum. Neither NTIA, the Department of Defense, nor any other federal agency objected.

B. Harbinger Proposes To Acquire LightSquared and To Build a Nationwide Mobile Broadband Network Using LightSquared's Spectrum.

74. Although LightSquared's spectrum rights were clearly an immensely valuable long-term asset, by 2008 its ability to capitalize on those rights was severely compromised by a combination of challenges: the global credit crisis, the significant downturn in the American economy, and the reluctance of potential investors to commit to a new national mobile broadband network opportunity that would require a large up-front capital infusion. LightSquared had been pursuing a major strategic partner for a considerable period of time, but was unsuccessful. It needed a multibillion dollar infusion of capital to continue developing its nationwide broadband network. What is more, LightSquared's financial advisor predicted that it "would have a funding gap in October 2010" and that closing that funding gap would be difficult because "there was no clear buyer for [LightSquared] at valuations in excess of [LightSquared's] then current \$1.3 billion in debt."

75. The Government knew that LightSquared's nationwide mobile broadband network was doomed unless a private investor such as Harbinger was willing and able to provide the necessary capital infusion. The National Broadband Plan acknowledged that no new entrant had been able to establish the "partnerships with wireless providers or other well-capitalized potential entrants" needed to sustain the "substantial costs and obligations" entailed in developing such a network. Indeed, another MSS operator, ICO, filed for bankruptcy in 2009.

76. The Government also knew that its core policy priorities and goals could not be realized unless an entrant such as Harbinger could be enticed to invest the billions of dollars necessary to develop underutilized spectrum. Absent such a new entrant, mobile broadband capacity and coverage would not expand commensurate with America's vital needs, and competition among mobile broadband service providers would continue to be limited to the two

dominant carriers, leaving rural America underserved and at a competitive disadvantage relative to urban populations that enjoy higher-quality broadband coverage. Thus, the Government welcomed Harbinger's plan as "a unique proposal that had the prospect of attracting new private investment, increasing competition, bringing additional broadband service to rural and hard-to-reach regions, and creating thousands of jobs."

77. Harbinger, for its part, recognized that LightSquared's underutilized spectrum afforded an opportunity to develop a profitable nationwide mobile broadband network from which Harbinger might derive a handsome return on its investments. Harbinger contemplated pooling LightSquared's spectrum with that of other L-band licensees and building thousands of cellular towers to support its network. Harbinger planned, unlike AT&T and Verizon, to sell on a wholesale basis to retailers, wireless operators, traditional wire-line carriers, cable operators, device manufacturers, and others. This business plan would allow dozens, even hundreds, of companies to enter the wireless communications market. New electronics manufacturers could develop new phones and other wireless devices to compete with those offered by AT&T and Verizon. New or established retailers could sell wireless products directly to consumers who would then have an alternative to the established carriers when selecting a broadband service provider. Harbinger's new network would also include two new, state-of-the-art satellites that would be available to service all customers and would be particularly focused on providing reliable broadband service to rural populations and first responders.

78. In August 2008, Harbinger, which had long owned a substantial stake in LightSquared applied "for authority to transfer control of [LightSquared] and its respective licenses and authorizations, from the current shareholders of [LightSquared] to Harbinger." In March 2009, Harbinger and LightSquared requested that the application be processed separately

from another Harbinger co-pending application seeking control of Inmarsat, another MSS licensee authorized to operate on the L-band.

79. Approximately one month later, in furtherance of its goal of developing a nationwide mobile broadband network, LightSquared applied to the FCC for a modification of its ATC authority. This modification would enable operation within the L-band pursuant to a groundbreaking cooperation agreement reached between LightSquared and Inmarsat in December 2007. The cooperation agreement required LightSquared and Inmarsat to coordinate their L-band spectrum into contiguous blocks in a manner that would create enough signal carrying capacity to support Harbinger's planned nationwide mobile broadband network.

80. LightSquared sought this modification of its ATC authority because certain operating parameters under the cooperating agreement, including increased transmission power levels of the network's terrestrial transmitters, required FCC approval.

C. Harbinger and the FCC Negotiate the Terms of the Acquisition.

81. Throughout the following year, the FCC and Harbinger engaged in extensive, detailed negotiations over the terms of the parties' agreement. Negotiations were conducted not in public rulemaking proceedings but instead in bilateral discussions that were conducted *ex parte*. The FCC recognized that, while Harbinger and LightSquared were both parties to the application, it was Harbinger that would be required to provide much of the initial capital necessary to meet the FCC's requirements. Harbinger became the sole party with whom the FCC negotiated—a protocol acknowledged and, indeed desired, by the FCC. For example, in a February 2010 email to Harbinger's outside counsel, the FCC's General Counsel asked, "Can we continue to work on the basis that [LightSquared], as the only other party to the application, has declined the opportunity to participate in this discussion?" For its part, Harbinger's attorneys

made clear to the FCC that any terms being negotiated with respect to the transfer of control had to be approved by Harbinger.

82. The FCC insisted upon Harbinger's agreement to a series of specifications and conditions aimed at promoting the Government's public policy goals. These overarching policy goals included the rapid build-out of the new terrestrial network's infrastructure, facilitating entry of new and smaller carriers into the wireless broadband market, and providing mobile broadband service to traditionally underserved rural communities. Harbinger, in turn, insisted, as a condition of its enormous investment, on the Government's agreement that Harbinger, through LightSquared, would be permitted to operate a viable, nationwide mobile broadband network using LightSquared's spectrum on terms attractive to consumers such that it could secure a positive return for its investors. Accordingly, Harbinger conditioned its agreement to build, deploy, and operate a nationwide mobile broadband network, as specified by the FCC, on the FCC's corresponding agreement to approve Harbinger's acquisition of LightSquared and, either prior to or concurrently therewith, to grant LightSquared's modification of its ATC authority allowing LightSquared to operate pursuant to its cooperation agreement with Inmarsat.

83. The terms and conditions that the Government and Harbinger bargained for and ultimately agreed upon were contained in a Conditions Letter sent by Harbinger to the FCC on March 26, 2010, which was incorporated by reference in the FCC order granting transfer of control of LightSquared and its spectrum licenses to Harbinger ("Transfer Order"). Those conditions, in pertinent part, were as follows:

Condition 1. [LightSquared] shall not, directly or indirectly, enter into any agreement to make its spectrum used by its terrestrial network in the 1525-1559 MHz/1626.5-1660.5 MHz band ("L-band") available to an entity that, at the time the agreement is entered into, is the largest or second largest wireless provider without receiving prior Commission approval. . . .

Condition 2. Without regard to satellite service, [LightSquared] shall construct a terrestrial network to provide coverage to at least 100 million people in the United States by December 31, 2012; to at least 145 million people in the United States by December 31, 2013; and to at least 260 million people in the United States by December 31, 2015. For purposes of this Condition 2, “terrestrial network” shall mean the network comprised of . . . [LightSquared’s] L-band spectrum used by its terrestrial network

Condition 3. [LightSquared] shall not . . . directly or indirectly, provide via its terrestrial network, to any combination of the largest and second largest wireless providers (as defined in Condition 1), or any of their respective Affiliates, traffic accounting for more than 25 percent of total bytes of data carried on its terrestrial network, without prior Commission approval. . . .

84. These contractual conditions make clear that the Government understood—indeed, insisted—that Harbinger would develop a nationwide network of terrestrial transmitters. Condition 1, for example, reflects the Government’s desire that Harbinger’s network compete with AT&T and Verizon, which would have been impossible without extensive use of terrestrial transmitters providing service over the network. Indeed, the amount of traffic that a satellite, standing alone, can handle is limited to the equivalent of about 20,000 phone calls at a time. And Condition 2, by its terms, requires a vast and extensive terrestrial network: “[w]ithout regard to satellite service,” Harbinger was to “construct a **terrestrial network** to provide coverage to at least . . . **260 million people** in the United States by December 31, 2015.” As the FCC’s Transfer Order emphasized:

[U]sing its **terrestrial network**, Harbinger proposes to provide service to at least 100 million people in the United States by the end of 2012 with an increase to at least 260 million people in the United States by the end of 2015. The 4G mobile voice and data services available **through Harbinger’s broadband network** would enable it to provide a service that complements and enhances competition in the provision of **terrestrial** wireless services provided by **terrestrial** carriers such as AT&T, Verizon Wireless, Sprint, T-Mobile, Clearwire, and others, particularly in the area of mobile broadband services.

Likewise, then-FCC Chairman Genachowski explained in May 2011:

It should be no surprise to anyone involved in the LightSquared matter that the company was planning for some time to deploy a major terrestrial

network in the spectrum adjacent to GPS. For example, the March 2010 Commission Order transferring control from SkyTerra to Harbinger . . . explained that Harbinger planned to construct a hybrid satellite-terrestrial network and noted that the terrestrial component of that network would cover *90% of the U.S.*

As Genachowski emphasized, “[t]o achieve such a scale would necessarily require tens of thousands of towers.”

85. The FCC accurately characterized its negotiations with Harbinger regarding the terms of the agreement as a series of *ex parte* meetings between the parties. Even apart from the in-person meetings recorded by the FCC, the parties exchanged numerous emails and participated in many conferences. A few examples of these negotiations include:

- a. On September 22, 2009, Phil Falcone and other Harbinger representatives met with representatives of the FCC to discuss each party’s objectives regarding the potential transfer of LightSquared’s license to Harbinger.
- b. On October 6, 2009, Harbinger representatives met with representatives of the FCC, in particular Paul de Sa, Chief of the FCC Office of Strategic Planning and Policy Analysis, to go over in-depth the details of Harbinger’s business plan.
- c. On November 5, 2009, Mr. de Sa expressed the FCC’s concern to Henry Goldberg, outside counsel for Harbinger, that Harbinger might “flip the spectrum” to the dominant wireless carriers and that the FCC wanted to discuss some “mutually acceptable” conditions it could put on the grant of the transfer of control application.
- d. On November 9, 2009, Harbinger’s attorneys met with numerous representatives from the FCC. Mr. de Sa was identified as the FCC’s “single point of contact” regarding the negotiations, and Mr. Goldberg was identified as the same for Harbinger. During that meeting, the FCC suggested conditions that it sought to attach to the transfer of control of LightSquared’s spectrum. First, the FCC desired that the conditions include an aggressive build-out schedule ensuring the prompt delivery of service of mobile broadband to a large majority of Americans. Second, the FCC sought Harbinger’s agreement to restrict the companies to which it would lease spectrum, thereby preventing Verizon and AT&T from further concentrating their duopoly and promoting greater competition in the market.
- e. At the request of the FCC, Harbinger penned the first draft of the conditions being negotiated, and over the course of the next several months, numerous iterations of the conditions were exchanged between Harbinger and the FCC as they worked out the mutually agreeable terms of their deal.

- f. On November 20, 2009, the FCC sought Harbinger's input on the terms of the build-out schedule that Harbinger would be willing to agree to.
- g. In a conference between Mr. Goldberg and Mr. de Sa on January 27, 2010, the FCC proposed the 25% cap on use of the network by AT&T and Verizon that ultimately gets included in Condition 3.
- h. On January 28, 2010, representatives from Harbinger and the FCC met and discussed the FCC's proposed conditions, including how to calculate the 25% capacity limit in Condition 3.
- i. On February 10, 2010, Mr. de Sa sent an email to Mr. Goldberg, stating "as promised, here is the written version of our *handshake deal*" (emphasis added). The email further notes that one remaining "non-trivial thing is the framing of the lease condition in terms of % of traffic not capacity" The email also discussed the status of LightSquared's application to modify the terms (specifically as to such matters as location and power levels) enabling the terrestrial component of its proposed network: "i did check on the atc mod issue—IB [International Bureau] is moving it along, and am pretty sure what we discussed (some language saying all conditions are subject to mod being approved) will be fine." The email closes with Mr. de Sa expressing "hope we can close this out soon!" Throughout February, Harbinger and the FCC continued to refine the language of the agreement even as the substance remained largely unchanged.
- j. In an email dated February 12, 2010, Mr. de Sa told Mr. Goldberg "we need to get *agreed* fast otherwise may not happen given internal dynamics" (emphasis added).
- k. In an email dated February 15, 2010, Harbinger's outside counsel told the FCC's General Counsel, "We agreed that we would use the automatically null and void language for Condition 2, and would use the same language for Condition 1 on the theory that the requirements of Condition 1 go hand in hand with the milestones."
- l. In that same email chain, the FCC confirmed with counsel for Harbinger that LightSquared "has declined the opportunity to participate in this discussion," allowing the FCC to communicate with Harbinger on an *ex parte* basis.
- m. In an email dated February 16, 2010, Mr. de Sa asked Mr. Goldberg: "cld u pls send a sentence or two defining 'spectrum hosted on [LightSquared's] network' per your edit to condition 2 that we can incorporate into the defns?"
- n. On February 17, 2010, Mr. de Sa sent to Mr. Goldberg draft conditions "on the basis we discussed," inviting Harbinger's counsel to redline proposed changes and promising that "I will get resolved." Harbinger's counsel responds with an "objection to a substantive change. My comments in the attached explain all."

- o. In an email dated February 18, 2010, counsel for Harbinger proposed revised language regarding Harbinger's limitations on leasing spectrum to the nation's two largest wireless providers. That same day, Mr. de Sa responded "[w]ill check looks ok to me."
- p. On February 19, 2010, the FCC's General Counsel proposed revisions to Harbinger's proposed language, commenting "I believe, if these edits are OK with you, we're done."
- q. After Harbinger and the FCC had finalized their negotiations and agreed on the language to be included in the contract documents, on March 26, 2010 Mr. Goldberg submitted an *Ex Parte* letter to the FCC—the Conditions Letter, which had been preapproved by the FCC—containing the terms of the agreement as negotiated and agreed to by both Harbinger and the FCC. The FCC in turn provided Harbinger with a draft of the order granting its transfer of control application before the order was filed. Notably, that draft order changed the agreed-upon conditions by removing the qualification on Condition 3 that it did not apply to agreements with service providers that later merge with or are acquired by a Tier 1 wireless provider. Mr. Goldberg immediately objected, and the FCC's General Counsel agreed to reinstate that qualification in the order.

86. In addition to all of the above, throughout this period the FCC attempted to coordinate with Harbinger the timing of the order granting Harbinger's applications to coincide with the release of FCC's National Broadband Plan, of which, as noted above, Harbinger's nationwide mobile broadband network was a key component.

87. Throughout the discussions about approving the transfer of control, the Government and Harbinger repeatedly discussed the necessity, which to Harbinger was a *sine qua non* of any agreement, of ensuring that approval of the transfer of control of LightSquared to Harbinger happen concurrently or immediately following approval of LightSquared's ATC modification request. For example:

- a. When representatives from Harbinger met with the FCC the first week of December 2009, FCC staff agreed to move the ATC modification application to the top of the "to do list."
- b. On December 22, 2009, Sanjiv Ahuja, the future Chairman and CEO of LightSquared, Mr. Goldberg, and other representatives of Harbinger met with Mr. de Sa and other FCC staff and emphasized that FCC approval of LightSquared's ATC modification application was essential to Harbinger's business plan.

- c. On January 21, 2010, Phil Falcone met with numerous individuals at the FCC, including International Bureau Chief Mindel De La Torre, Deputy Bureau Chief John Leibovitz, and Mr. de Sa. Mr. Falcone stressed that Harbinger's business plan depended on the FCC approving LightSquared's ATC modification application and that FCC rules needed to be brought into line with the coordination agreement between LightSquared and Inmarsat.

88. At all times during the negotiations, the Government knew that Harbinger would not consummate its acquisition of LightSquared unless it had full and final authorization to build, deploy, and operate the agreed-upon nationwide mobile broadband network. By late November 2009, Harbinger concluded that the FCC was likely to approve the transfer of control of LightSquared and its spectrum licenses. Both parties understood that meeting the FCC's extremely ambitious objectives would require an enormous capital investment by Harbinger. In order to ensure that it could meet the stringent build-out requirements specified in its agreement with the Government, Harbinger incurred expenses in preparation for and in reliance upon the contract and its negotiations with the FCC before the time that the contract was finalized.

D. The United States Achieved Important Government Policy Goals Through Its Agreement with Harbinger.

89. The FCC negotiated the terms of the Government's agreement with Harbinger to achieve public policy objectives well transcending its normal regulatory charge in authorizing a commercial transaction. The FCC, in essence, undertook a public-private partnership with Harbinger whereby it bargained for the investment of private resources to achieve the Government's objectives of (i) increasing nationwide mobile broadband capacity, (ii) spurring competition in the mobile broadband market by facilitating entry of new providers, and (iii) providing wireless broadband access to previously underserved areas in the United States. Indeed, in January 2010, the FCC acknowledged that the Government and Harbinger would become "public interest partners" once the FCC's approval was completed.

90. The Government had a compelling interest in Harbinger acquiring and expanding LightSquared because it sought to “encourage exactly this kind of investment in new technology and innovative business plans” as part of the National Broadband Plan. In order to encourage Harbinger’s investment, the FCC asked LightSquared “for a list of regulatory actions that would expedite deployment of a next generation Mobile Satellite Services (MSS) system with an Ancillary Terrestrial Component (ATC) capable of providing broadband services.”

91. As the negotiations between Harbinger and the Government progressed toward a final, binding agreement, the FCC arranged to coordinate the timing of its approval of Harbinger’s acquisition of LightSquared to coincide with its release of the National Broadband Plan. Indeed, the FCC delayed publication of the National Broadband Plan until March 2010 to ensure that release of the publication would coincide with approval of Harbinger’s application.

92. The FCC requested that Harbinger express public support for the National Broadband Plan and link its investment to the FCC’s policies. The FCC, in return, offered to publicly tout Harbinger’s investment in LightSquared once the approval was finalized.

E. The United States and Harbinger Reach Final Agreement on the Negotiated Terms.

93. On March 26, 2010, Harbinger and the United States entered an agreement in which Harbinger made a series of binding commitments. As required by the United States, Harbinger agreed not to provide network access to the Nation’s two largest wireless providers without the FCC’s prior consent, and it agreed to an aggressive build-out schedule that would provide network coverage to at least 260 million people by December 31, 2015—a schedule that would and did require Harbinger to spend enormous sums. Harbinger insisted, as the United States’ *quid pro quo*, that Harbinger’s “commitments will not be effective unless and until the

FCC has granted the requests made by [LightSquared] in the ATC Modification Applications”

94. For the United States’ part, the FCC found, as agreed, that Harbinger’s business plan was in the public interest and approved Harbinger’s acquisition of LightSquared (“Transfer Order”). The FCC expressly conditioned its approval on Harbinger “actually moving forward with its plan to use [LightSquared] to provide 4G mobile wireless service, and especially on Harbinger’s plan to build a terrestrial network using [LightSquared’s] ATC authority to facilitate broadband service to most of the U.S. population.”

95. In approving the transfer of control of LightSquared and its spectrum licenses to Harbinger, the FCC explicitly acknowledged Harbinger’s key role in accomplishing the Government’s public-policy goals. The FCC’s order stated that Harbinger’s plan to develop a nationwide mobile broadband network using LightSquared’s spectrum “represents a significant public benefit, one that is likely to be achieved only if the transaction is approved.”

96. The FCC’s Transfer Order further detailed the benefit of the bargain struck with Harbinger:

We find that Harbinger’s proposal to construct an integrated satellite/terrestrial 4G mobile broadband network, if realized, promises the possibility of providing several public interest benefits. Its network will provide additional broadband capacity at a time when—as the National Broadband Plan noted—the nation is increasing its use of such services exponentially. It will help enhance competition among current mobile wireless providers. Through Harbinger’s role as a wholesale provider, it may be a catalyst for market-changing developments in the use and sale of innovative new mass-market consumer devices. It will provide mobile wireless broadband service to those areas that are currently unable to receive it. And it will provide wireless broadband service during those times, such as natural disasters, when it would otherwise be unavailable.

97. This Order further found that LightSquared is highly unlikely to provide this service if Harbinger does not acquire it. Although [LightSquared] already has plans to launch its next generation satellite,

it does not have plans to build out a terrestrial network to the significant extent that Harbinger is planning. Nor is it apparent that it could obtain the resources to do so. We therefore conclude that the potential public benefits are dependent on Harbinger's acquisition of [LightSquared].

98. On the same day it approved the transfer of control of LightSquared and its spectrum licenses to Harbinger, the FCC also approved, as agreed, LightSquared's ATC modification application. This approval was necessary before the bargained-for conditions in the Transfer Order became binding on Harbinger.

99. The FCC has broad authority to fulfill its obligations under the Communications Act. Among the FCC's powers is the ability to enter into contracts. *See* 47 U.S.C. § 154(i). This power may be delegated to the staff of the FCC. *See* 47 U.S.C. § 155(c).

100. The Transfer Order was signed by the Chiefs of the FCC's International Bureau, Office of Engineering and Technology, and Wireless Telecommunications Bureau. These individuals have broad authority within their respective areas of expertise, pursuant to 47 C.F.R. §§ 0.31, 0.51, 0.131, 0.241, 0.261, and 0.331. These broad delegations of authority include the power to commit the Government to a contractual relationship.

F. Harbinger Performs All Its Obligations Under the Agreement with the United States.

101. Harbinger acquired LightSquared and its spectrum licenses on March 29, 2010. Harbinger expended funds to build its network in accordance with the contractual conditions.

102. Harbinger took prompt steps to build out its network consistent with the agreed-upon specifications and conditions, including causing LightSquared to begin the build out of a nationwide terrestrial network using up to 36,000 cellular towers, launch a new \$1 billion state-of-the-art telecommunications satellite, enter into contracts with Sprint and Nokia Siemens Networks, and recruit a large base of potential customers. Indeed, between 2010 and 2012 dozens of partners, retailers, and regional service providers signed agreements to utilize the

LightSquared network on a wholesale basis, including Qualcomm International, Inc., ClearTalk Wireless, and Best Buy. These steps were capital-intensive and would not have proceeded absent Harbinger's agreement with the United States.

103. In reliance on its agreement with the United States, Harbinger invested almost \$1.9 billion in building out its network. Harbinger's acquisition of LightSquared prevented LightSquared from becoming insolvent in the fall of 2010. In September 2010, Credit Suisse Group AG telecom analyst Jonathan Chaplin valued LightSquared's spectrum licenses at \$9 billion.

G. The GPS Industry Belatedly Raises Concerns that GPS Receivers, Operating on LightSquared's Assigned Frequencies, Would Be Unable to Function if LightSquared Activated Its Mobile Broadband Network Under Its Agreement with the FCC.

104. As explained above, in March 2010 Harbinger and the United States consummated their agreement authorizing and requiring Harbinger to build out, deploy, and operate a nationwide mobile broadband network using LightSquared's spectrum. AT&T and Verizon, as the dominant, incumbent broadband providers, had challenged the FCC's March orders on the ground, *inter alia*, that AT&T and Verizon had not been given an opportunity to comment on certain aspects of the contract—most notably, the provision that limited their ability to purchase broadband capacity from Harbinger. But, as then-FCC Chairman Genachowski emphasized, “No one, including the GPS industry, raised any issue during the multi-year proceeding or immediately following [the March orders] regarding GPS receiver overload problems . . . , even though, throughout this period, it was clear that LightSquared planned to deploy a significant terrestrial network in the spectrum adjacent to GPS.” Genachowski made clear that the GPS industry and other interested parties (such as federal users of GPS) were obligated to raise any interference issues during the transfer proceedings: “It is important to note

that the GPS industry actively participated in the 2010 transfer proceedings. . . . Those who manufacture such receivers are best positioned to know of their limitations and specifications and have a responsibility to notify the Commission of any known problems.”

105. In November 2010, LightSquared sought permission to allow its wholesale customers to use terrestrial-only handsets—a waiver request that was unrelated to the number of its terrestrial base stations, the power level of those base stations, or any other aspect of operating a terrestrial network that would increase or cause new potential for interference to GPS devices. The requested modification was in no way essential for LightSquared’s success. The GPS industry subsequently complained, for the first time, that the planned terrestrial network would overload GPS receivers that receive signals on LightSquared’s frequencies—outside the GPS Spectrum. As the FCC has noted, the newly raised “out-of-band receptions” (“OOBR”) concerns were “associated with LightSquared’s planned terrestrial base stations”—base stations that LightSquared **had been authorized to operate since 2005, at the latest**—“rather than the mobile handsets at issue in” LightSquared’s waiver application. And in its 2005 order lifting limits on the number of ATC base stations that could be used by a terrestrial network operating in the L-band, the FCC indicated that it had rejected “proposals from commenters [sic] to require that MSS traffic be quantitatively ‘primary’ or ‘predominant’ in MSS/ATC systems” The 2005 order had also rejected any requirement that handsets “only call through the ATC if the satellite signal is unavailable or unreliable.” As the FCC acknowledged, “requiring satellite-first routing would defeat most of the benefits of authorizing ATC in the first instance.”

106. As noted previously, the GPS industry’s concern was not that terrestrial signals transmitted by LightSquared in its L-band spectrum would cause harmful interference from “out-of-band emissions” (OOBE)—that is, would bleed into the adjacent RNSS-band and interfere

with the ability of GPS devices to receive and use GPS signals transmitted in the GPS Spectrum. Instead, the concern belatedly raised by the GPS industry related to OOB. Interference from OOB results when the receiver of the signal is not limiting its reception to signals in its assigned band. In other words, OOB interference arises when one party's receiver "listens in" to a signal in another party's spectrum in a neighboring band and the receiver is "overloaded" by the authorized signal in that band.

107. Thus, the GPS industry's objection to LightSquared's ATC network was based on a concern that LightSquared's terrestrial signals **in its own spectrum** would interfere with the ability of GPS devices to receive and use GPS signals that bleed from the RNSS band over into **LightSquared's own spectrum in the L-band.**

108. As the GPS industry later admitted, GPS devices had been deliberately designed to receive and use GPS signals not only in the RNSS-band but also in LightSquared's spectrum in the adjacent L-band. For example, in an August 18, 2011 presentation, Deere & Company stated that receiver overload had been a problem "from the beginning." The reason for the problem, Deere now admitted, was that its receivers had been deliberately manufactured to operate on what Deere euphemistically called "wideband" reception. That is, Deere's GPS devices were designed to receive and use GPS signals outside the GPS Spectrum in the RNSS-band and within LightSquared's spectrum in the L-band. Thus, the GPS industry complaints were directed at LightSquared's terrestrial transmissions in **LightSquared's own spectrum, as authorized by the FCC since 2003, none of which negatively impacted GPS operations within GPS's assigned frequencies.**

109. This receiver overload is not inevitable. It can be avoided by filters and other technical fixes. Indeed, since at least 1965 the FCC has recognized that receivers can and should

be constructed in a manner that does not rely on operations outside their authorized bandwidth unless those receivers are designed not to be overwhelmed by authorized in-band use. In other words, the FCC has recognized OOB as a “receiver design problem” and allows receivers to “listen into” signals in neighboring bands only if they can accept all interference within those bands that could result from authorized use by the licensees of the neighboring bands. Indeed, in 2005 the FCC explained to another user in close proximity to the LightSquared Spectrum that the FCC generally “do[es] not limit one party’s ability to use the spectrum based on another party’s choice regarding receiver susceptibility” and indeed relies on other users (like the GPS industry) to “deploy receivers . . . less susceptible to interference from transmissions on nearby frequencies.” Moreover, with respect to GPS in particular, the FCC has emphasized that the “responsibility for protecting services rests not only on new entrants but also on incumbent users themselves, who must use receivers that reasonably discriminate against reception of signals outside their allocated spectrum.” Noting “the extent to which certain legacy GPS receivers pick up signals far into the neighboring frequency bands,” then-FCC Chairman Genachowski explained that FCC

licensees are expected to operate within their own bands and to manufacture equipment that filters reception of services operating outside their own bands. If any one spectrum user could demand that neighboring bands remain vacant to improve the performance of their systems, then the spectrum would be used inefficiently and the revenue-raising auction process necessary to offset the national debt could be undermined, as well as meaningful private investment and job creation.

110. Bureau Chief De La Torre used a plain-language analogy to explain the GPS industry’s objection, writing the following:

Let me explain the situation in the most elementary and visual way that I can without a picture. The FCC authorizes various operators to provide service by using spectrum or radiowaves. In order to make sure that there is no interference, we assign specific frequencies to particular licensees. In this case,

think of it as a three lane highway. The FCC has authorized LightSquared—a satellite system that also has a terrestrial component—to use the left lane. The middle lane is where GPS is authorized to operate, and the right hand lane is where another satellite operator (Globalstar) has its services. Notice that I say that GPS is authorized to operate in the middle lane—however, it has not been staying in its lane. It has been driving in the left lane with impunity—remember this is LightSquared’s lane—but now that it looks like the left hand lane might actually have traffic in it, the GPS community is yelling bloody murder (literally). The GPS community is not worried about LightSquared driving in the GPS middle lane, but that LightSquared will interfere with the GPS signals that are leaking into LightSquared’s left lane.

The GPS community has been on notice since 2003 that the predecessor to LightSquared was planning on providing terrestrial service in the left traffic lane—which would mean there would be more traffic in the lane. However, the GPS community continued to build receivers that they knew were susceptible to interference (remember that they are driving in the wrong lane) because it was cheaper to do so and they decided to accept the business risk of doing so. In a nutshell, the GPS community feels that they should be able to drive their double wide trailer down the middle and left lanes without regard to LightSquared’s longstanding right to be in the left lane.

111. Notably, on information and belief, the GPS industry could have prevented receiver overload in the vast majority of devices by simply by installing proper filters on GPS devices in the first instance. Still, the GPS industry seized on the receiver overload issue to attack the entirety of Harbinger’s planned and long-authorized mobile broadband network.

112. Despite multiple FCC rulemakings and other proceedings since 2001 relating to ATC authority of licensees in the L-band, the GPS industry had sat silent about this receiver overload concern. As the FCC has emphasized:

During the decade preceding the November 2010 waiver request, the GPS industry had numerous opportunities [] to inform the Commission of the receiver overload interference issue ultimately raised in 2010.

Despite participating in multiple proceedings, and raising *other* interference issues that were ultimately resolved to the GPS industry’s satisfaction, it did not do so.

After recounting the GPS industry’s ten-year failure to raise its concerns, Julius Knapp, the Chief of the FCC’s Office of Engineering and Technology and a 38-year veteran of the FCC, has

testified that GPS industry's actions in this instance were "unlike any other that I can recall in my decades at the FCC."

113. Indeed, any issue of GPS receiver overload was implicated and should have been raised by the GPS industry as early as 2001 when LightSquared first proposed that the FCC authorize development of an ATC network to enable MSS operators to enhance service coverage particularly for urban areas where populations are centered. If GPS receiver overload is a concern, that concern is at its peak in precisely those urban areas where GPS devices and usage are correspondingly concentrated. Still, the GPS industry never raised the prospect of overload from LightSquared's long-authorized terrestrial operation within the L-band spectrum. In the absence of any objection from the GPS industry, the FCC bound the Government contractually to allow Harbinger to build out and deploy its nationwide mobile broadband network.

114. Even in 2005, when the FCC removed limitations on the numbers of terrestrial towers in the networks and increased the permissible power levels for terrestrial transmissions, the GPS industry did not oppose this decision or raise any overload-related concerns. The same is true with respect to Harbinger's 2008 transfer of control application and LightSquared's 2009 ATC modification application.

115. The GPS industry maintained its silence despite the FCC's well-established rules and practices making receiver manufacturers responsible for the consequences of designing receivers to receive and use signals in neighboring bands of spectrum. Under Part 15 of the FCC's rules, 47 C.F.R. 15, GPS receivers are defined as "unintentional radiators," making them subject to Section 15.5, which states that, if receivers receive signals outside their authorized band, they must do so "subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station

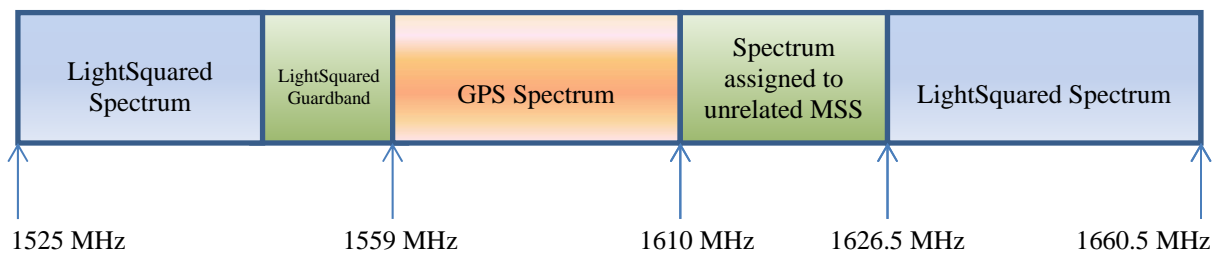
[i.e., a transmitter]” In fact, GPS manufacturers such as Garmin, Deere, and Trimble have stated in user manuals predating Harbinger’s contract with the United States that their receivers “compl[y] with Part 15 of the FCC rules” and “must accept any interference received, including interference that may cause undesired operation.” Moreover, the GPS industry is well aware of the FCC’s well-established practice relying “on receiver manufacturers . . . to report potential interference issues because they are in the best position to understand the parameters and limitations of their own equipment.”

116. Furthermore, in 2008, the Defense Department—one of the GPS industry’s biggest customers—established performance standards for GPS receivers that put GPS manufacturers on notice that they were responsible to use sharp-cutoff filters in their devices to block reception of transmissions from adjacent bands, including adjacent L-band frequencies used by LightSquared, to ensure that the devices function properly in the presence of transmissions in the L-Band. In particular, the Defense Department made clear that the receiver standards set forth in its GPS Standard Positioning Service Performance Standard (“SPS”) comprise “Minimum Usage Assumptions” that “are necessary attributes to achieve the SPS performance described” therein; essentially, GPS performance is “conditioned upon . . . [these] assumptions.” Following these standards was made the responsibility of the GPS industry.

117. The ITU has also cautioned GPS manufacturers since 2000 that “a more stringent pre-correlator filter may be needed to protect [GPS] receiver operations from adjacent band RF emissions.” The ITU’s statements are consistent with the Defense Department’s sharp-cutoff filter performance specification for GPS receivers.

118. The GPS industry’s decade-long silence regarding receiver overload that would arise from its devices operating outside of their assigned spectrum was, on information and

belief, premeditated. The GPS industry at various times had raised different interference concerns related to LightSquared’s authority to operate a nationwide terrestrial network in LightSquared’s spectrum in the L-band, and all such concerns were resolved by LightSquared to the GPS industry’s satisfaction. For example, the GPS industry objected in 2009 to LightSquared’s request that the FCC allow it to use terrestrial transmitters in the L-band, asserting that LightSquared’s ATC network would produce OOB causing harmful interference in the GPS Spectrum. But the GPS industry reversed its position when LightSquared agreed to filter its terrestrial transmissions, at great cost to itself. The practical result of the out-of-band emissions limits to which LightSquared agreed was that LightSquared had to develop new transmit filters for its base stations and user devices. Additionally, to meet the out-of-band emissions limits in its agreement with the GPS industry, LightSquared had to refrain from conducting terrestrial operations in the 4MHz closest to the GPS Spectrum. By foregoing the terrestrial use of that 4MHz of spectrum, LightSquared essentially agreed to create a 4-MHz buffer zone, or “guardband,” between the lower portion of the LightSquared Spectrum and the GPS Spectrum. An approximation of the relevant spectrum, including the guardband, is depicted below:



119. The cost of LightSquared’s concession was substantial: the filters alone cost millions of dollars. And the decision to limit the terrestrial use of a full 4-MHz of spectrum cost

LightSquared an enormous amount—each MHz of frequency in this portion of the spectrum is worth hundreds of millions of dollars.

120. Thus, when LightSquared in 2003 requested the FCC’s authorization to deploy more than 1725 terrestrial transmitters in its L-band spectrum, the GPS industry in March 2004 supported the request, “urg[ing] the Commission to grant the . . . applications of [LightSquared] and to do so as soon as possible.” Indeed, the GPS industry praised LightSquared’s interband cooperation:

In its applications, and as subsequently amended on February 27, 2004, [LightSquared] proposes to operate at OOBE levels that are even more stringent than those set out in its agreement with the Council. We believe that [LightSquared] is to be commended for its proposal to use its spectrum in a responsible manner that ensures the continued utility of GPS receivers operating in the vicinity of [LightSquared] ATC stations.

121. Similarly, in July 2009, in connection with the ATC modification request that formed an essential term of Harbinger’s agreement with the United States, the GPS industry raised concerns with the FCC about potential interference to GPS receivers relating to OOBE from certain small, indoor transmitters (called “femtocells”). LightSquared worked with the GPS industry to address these issues. LightSquared voluntarily agreed to restrict the out-of-band emissions of its femtocells, and in August 2009 the GPS industry filed a letter with the FCC withdrawing its concerns.

122. Yet during this entire time period, the GPS industry deliberately designed GPS receivers so that their filters extended into significant portions of the LightSquared spectrum in the L-band.

123. In other words, the GPS industry has ignored standard practices and has for many years manufactured GPS receivers capable of receiving GPS signals not only from frequencies in the RNSS-band (i.e., the only frequencies actually allocated to GPS operations), but also from

frequencies outside the GPS Spectrum, including frequencies in the LightSquared Spectrum that the FCC specifically assigned to LightSquared.

124. Even worse, over the past decade, the GPS industry has flooded the market with millions of GPS products that it knew suffered from this crippling design flaw. This includes GPS products designed and manufactured well after the technical parameters of LightSquared's network were made known to the GPS industry.

H. The United States Breaches the Agreement and Deprives Harbinger of Its Property Interest in LightSquared by Requiring It To Accommodate the GPS Industry's Improper Use of the LightSquared Spectrum.

125. After the United States and Harbinger reached their agreement authorizing and requiring Harbinger to build out, deploy, and operate a nationwide mobile broadband network using LightSquared's spectrum, LightSquared sought permission in November 2010 to allow its wholesale customers to use terrestrial-only handsets, as discussed above. Although the FCC conditionally approved LightSquared's technical waiver application relating to terrestrial-only handsets in an order on January 26, 2011, it nonetheless halted deployment of Harbinger's nationwide mobile broadband network by requiring LightSquared for the first time to address and resolve the GPS industry's belatedly raised receiver overload concern "to the Commission's satisfaction before LightSquared commences offering commercial service pursuant to this waiver on its L-Band . . . frequencies." This process would be deemed complete "once the Commission, after consultation with NTIA, concludes that the harmful interference concerns have been resolved and sends a letter to LightSquared stating that the process is complete."

126. The FCC took this action even though it recognized that the interference concern that it required Harbinger to address was entirely "associated with LightSquared's planned terrestrial base stations rather than the mobile handsets at issue" in the conditional waiver

request. The FCC further acknowledged that these concerns “appear to apply to the full LightSquared ATC service authorized in 2004 and 2010.” The FCC fully understood that the GPS receiver overload problem was, therefore, an inexorable consequence of the very thing the United States had made a contractual condition in its negotiations with Harbinger—a national, mobile broadband network operating using LightSquared’s spectrum.

127. Although the FCC’s January 26, 2011 order was thus improper when issued, it was subsequently ratified by Congress. On December 23, 2011, Congress enacted a statute mandating that “[t]he Federal Communications Commission shall not lift the conditions imposed on commercial terrestrial operations in the Order and Authorization adopted on January 26, 2011 (DA 11-333), or otherwise permit such operations, until the Commission has resolved concerns of widespread harmful interference by such commercial terrestrial operations to [Global Positioning System devices of the Department of Defense].” National Defense Authorization Act for Fiscal Year 2012, Pub. L. 112-81, § 911(a)(1); 125 Stat. 1298, 1534. And on December 31, 2011, Congress enacted another law providing that “[n]one of the funds made available in this Act may be used by the Federal Communications Commission to remove the conditions imposed on commercial terrestrial operations in the Order and Authorization adopted by the Commission on January 26, 2011 (DA 11-133), or otherwise permit such operations, until the Commission has resolved concerns of potential widespread harmful interference by such commercial terrestrial operations to commercially available Global Positioning System devices.” Consolidated Appropriations Act, 2012, Pub. L. 112-74, § 628, 125 Stat. 786, 927-28.

128. These statutes eliminated any possibility that a nationwide mobile broadband network could be deployed and operated using LightSquared’s spectrum pursuant to Harbinger’s agreement with the United States without accommodating the GPS industry’s trespass upon and

use of the same spectrum. These statutes thus contravened the terms of the United States' contract with Harbinger and effectively reallocated the L-band spectrum to the GPS industry. The Government in essence conferred upon the GPS industry an easement or property interest in the spectrum that Harbinger was contractually entitled to use through its acquisition of LightSquared.

129. As the chief architect of the FCC's National Broadband Plan, Blair Levin, lamented, the Government effectively "came to the unstated but clear conclusion that the GPS industry has a primary right to use the spectrum in the band owned by LightSquared." As he elaborated: "Something extraordinary happened last week. Our country reallocated 40 MHz of commercial spectrum. No Notice of Proposed Rulemaking from the FCC. No notice and comment period. No economic analysis. Not even a legal decision stating that that is what we are doing." Thus, Congress reversed, for Harbinger alone, the FCC's longstanding regulation making clear that receiver manufacturers are obliged either to design their devices not to receive signals transmitted outside of their assigned band or to accept the risk that the performance of their devices will be compromised by receiver overload. On February 14, 2012, the NTIA advised the FCC that

LightSquared's proposed mobile broadband network will impact GPS services and . . . there is no practical way to mitigate the potential interference at this time. Furthermore, while GPS equipment developers may be able to mitigate these issues via new technology in the future, the time and money required for . . . users to replace technology in the field and the marketplace . . . cannot support the scheduled deployment of terrestrial services proposed by LightSquared.

The NTIA also concluded that "there are no mitigation strategies that both solve the interference issues and provide LightSquared with an adequate commercial network deployment."

130. The next day, the FCC issued a public notice proposing not only to vacate its conditional approval of terrestrial-only handsets but also to "suspend indefinitely LightSquared's

underlying ATC authorization, first granted in 2004.” Harbinger was thus prohibited from developing the very network that the United States explicitly bargained for and Harbinger agreed to build.

131. As a result of the Government’s actions, LightSquared was not able to renew financing, lost contracting partners, and eventually was rendered unable to continue operating. It declared bankruptcy in May 2012. Likewise, the Government’s breach prevented Harbinger from mitigating the effects of the breach. Harbinger had acquired control of LightSquared and its spectrum licenses for the express purpose of developing a nationwide mobile broadband network operating in LightSquared’s spectrum. Harbinger’s investment was made in specific reliance on the United States’ agreement to permit Harbinger to build, deploy, and operate such a network, as reflected in the Government’s contract with Harbinger. The Government’s actions have breached the parties’ contractual agreement, have deprived Harbinger of the entire value of its interest in LightSquared, and have destroyed Harbinger’s reasonable investment-backed expectations.

COUNT I
(Breach of Contract)

132. Plaintiff repeats and incorporates each and every allegation set forth in paragraphs 1 through 131 as if set forth in full herein.

133. In the course of their negotiations over the transfer of control of LightSquared, the United States, acting through the FCC, and Harbinger entered into a mutually binding, contractual relationship with each other. That contract was memorialized in written instruments dated March 26, 2010.

134. In exchange for its approval of the LightSquared transfer of control and its commitment to permit the build out, deployment, and operation of Harbinger’s nationwide

mobile broadband network, the United States obtained a “public interest partner” invested in achieving the Government’s important policy objective of increasing broadband capacity and coverage across the country and enhancing competition in the mobile broadband market.

135. The United States expressly recognized that Harbinger’s national wireless broadband network would profoundly benefit the public and that these benefits could likely be achieved only through approval of Harbinger’s investment in LightSquared and deployment of the agreed-upon mobile broadband network.

136. The United States’ actions in requiring Harbinger to accommodate the GPS industry’s improper use of the LightSquared spectrum prevented Harbinger from deploying the agreed-upon mobile broadband network, caused LightSquared to declare bankruptcy, and led to Harbinger losing its investment in LightSquared.

137. The United States’ actions breached its contractual obligations to Harbinger, without any legitimate justification in fact or law.

138. As a consequence of the United States’ breach, Harbinger has been severely injured, for which it is entitled to money damages and interest in such an amount as the proof at trial may warrant. Harbinger is entitled to the greater of expectancy damages (measured as lost profits plus costs already incurred), reliance damages, and restitution.

COUNT II

(Unconstitutional Taking of Private Property Without Just Compensation)

139. Plaintiff repeats and incorporates each and every allegation set forth in paragraphs 1 through 138 as if set forth in full herein.

140. Harbinger had reasonable investment-backed expectations based upon the interest it acquired in LightSquared, coupled with its contractual agreement with the United States for developing, deploying, and operating a nationwide mobile broadband network, as specified by

the FCC, and the FCC's established rules and practices relating to the allocation and utilization of spectrum.

141. In specific reliance on these reasonable expectations, Harbinger invested almost \$1.9 billion in performing its obligations under the contract. Indeed, Harbinger would not have acquired full ownership of LightSquared, and it would not have expended vast sums to develop and deploy a nationwide mobile broadband network, as specified by the FCC, but for the United States' commitment to permit it to do so and but for the FCC's longstanding rules on receiver overload issues.

142. By requiring Harbinger to accommodate the GPS industry's trespass upon and use of the LightSquared spectrum, the United States effectively conferred upon the GPS Industry an easement or other property interest in this spectrum, which Harbinger was entitled to use based upon its acquisition of LightSquared.

143. The Government's actions required Harbinger alone to bear public burdens that, in all fairness and justice, should be borne by the public as a whole.

144. The Government's actions deprived Harbinger of its reasonable, investment-backed property interests.

145. The Government's actions effectively prevented Harbinger from deploying the agreed-upon nationwide mobile broadband network, caused LightSquared to declare bankruptcy, and led Harbinger to lose its investment in LightSquared, as well as its fair and just returns from development of the agreed-upon network.

146. The Government's actions constitute a taking for public use within the meaning of the Fifth Amendment of the United States Constitution, and Harbinger is entitled to just compensation as required by and interest in such an amount as the proof at trial may warrant.

COUNT III

(Breach of Implied Covenant of Good Faith and Fair Dealing)

147. Plaintiff repeats and incorporates each and every allegation set forth in paragraphs 1 through 146 as if set forth in full herein.

148. The FCC's January 26, 2011, order halting Harbinger's deployment of the agreed-upon nationwide mobile broadband network directed LightSquared to organize and participate in a technical working group in which all interested parties would work directly with LightSquared to resolve the GPS industry's receiver overload concerns. The working group was co-chaired by LightSquared and by Charles Trimble, the chairman of the GPS Industry Council, and was comprised of more than 120 participants, including representatives from the Defense Department and other federal agencies, the GPS community, and various telecommunications companies.

149. After the working group had performed extensive testing of GPS devices, Harbinger attempted to resolve the GPS industry's receiver overload problem—a problem of the GPS industry's own making—and to mitigate Harbinger's damage from potential impairment of its spectrum rights.

150. First, Harbinger offered to launch its wireless broadband network base stations using only a portion of the LightSquared Spectrum that is farthest away from the GPS Spectrum. Extensive testing conducted by the GPS Technical Working Group between February and June 2011 showed conclusively that LightSquared's base station operations in those frequencies would have no adverse impact on over 99 percent of GPS devices (including 100 percent of GPS-enabled mobile phones and general location and navigation devices.).

151. Second, to further minimize potential overload, Harbinger offered to reduce the power of its terrestrial base station transmissions in the LightSquared Spectrum below the level the FCC had already authorized.

152. Third, Harbinger offered to underwrite a workable technological fix for the remaining one percent of high-precision GPS receivers that could still experience overload from LightSquared's operations in the frequencies farthest away from the GPS Spectrum. For example, Harbinger offered to facilitate the incorporation of new filters and hardware into those receivers.

153. Harbinger even partnered with JAVAD GNSS, a manufacturer of high-precision GPS devices, to develop a technological fix. JAVAD's founder stated that "[t]his interference problem is not a difficult one to solve, once you decide to solve it."

154. In a matter of weeks, JAVAD developed a simple, effective filter utilizing commercially available, low-cost components that would resolve the GPS industry's overload concerns for high-precision receivers.

155. JAVAD's solution used existing technology and off-the-shelf materials, and JAVAD manufactured prototypes to ensure the filter could be produced. JAVAD was prepared to begin production of the filter as soon as the GPS industry agreed, and the GPS industry could have begun implementing the filter immediately to resolve its overload concerns.

156. The working group on GPS overload submitted its final report to the FCC on June 30, 2011. Afterward, the NTIA supervised a second round of testing on the issue of receiver overload by the Defense Department and other federal agencies.

157. The Government's testing, on information and belief, was systematically designed and manipulated to skew the results to show that LightSquared's terrestrial signals would cause harmful receiver interference in the L-band to millions of GPS devices for general and personal uses. The Government's testing, for example, suffered from at least the following defects:

- a. NTIA and the Government agencies performing the testing (hereinafter, "Government agencies") did not establish any protocol for selecting the GPS

devices used in the Government's testing. Instead, the Government agencies exercised little to no oversight over the selection process and permitted GPS manufacturers and competing cellular providers who were actively opposing Harbinger's ATC network to cherry-pick those devices most likely to suffer overload.

- b. The industry members selected technologically outmoded devices that had been discontinued over a dozen years earlier and devices that had not been sold for years.
- c. Critical variables, such as antenna orientation and spacing, were also left largely to the control of the GPS industry.
- d. In its analysis of the testing data, NTIA and the Government agencies assumed the power level of LightSquared's base stations to be substantially higher than their actual proposed power levels.
- e. The standard set by NTIA for determining harmful overload was a loss of one decibel (1 dB) in a GPS device's signal-to-noise ratio. This standard sets a threshold far lower than any accepted or established standard on signal interference. Thus, NTIA and the Government agencies used an unreasonably stringent standard for identifying *harmful* overload that is divorced from established practice. Further, on information and belief, the tests employed a power level that was 32 times higher than the level proposed by LightSquared for its terrestrial transmitters.
- f. Certain devices were altered prior to testing for the purpose of making them more susceptible to harmful overload. On at least one device, the filter that ordinarily prevented the device from receiving emissions outside of the GPS band was removed. On another device, an encryption key that would have prevented overload issues if active was similarly disabled.
- g. Some of the devices were GPS modules and evaluation kits intended as components to be inserted in completed devices.

158. On information and belief, certain agencies of the federal government had an interest in preventing Harbinger from deploying its network of terrestrial transmitters and thus in magnifying and exaggerating the receiver overload problem. The Defense Department, for example, was at risk of being required to spend large sums of money to replace or retrofit thousands of off-the-shelf GPS devices that it had purchased that were not consistent with the military's specifications on limiting the reception of signals from outside the GPS Spectrum.

159. The NTIA relied heavily on the Interagency National Executive Committee for Spaced-Based Positioning, Navigation, and Timing (“PNT EXCOM”) to develop its testing plan. The advisory board to the PNT EXCOM operated under a significant, conspicuous conflict of interest.

160. Before the NTIA conducted its round of testing, the PNT’s advisory board publicly opposed deployment of Harbinger’s mobile broadband network. In a letter to the FCC, the advisory board recommended “that the Commission rescind its conditional waiver [sic] and not allow a change in the structure of the [L-band spectrum] that abuts GPS to allow transmissions that interfere with GPS.” Thus, the advisory board to the very institution responsible for developing the Government’s testing protocol had publicly committed itself to “not allow[ing]” LightSquared’s network to operate.

161. The PNT Advisory Board’s Vice Chairman, Brad Parkinson, was also a director of Trimble—one of the major GPS companies publicly opposed to deployment of Harbinger’s nationwide mobile broadband network. Parkinson also held investments in Trimble that, on information and belief, at all relevant times measured in millions of dollars.

162. The Inspector General’s Office of the National Aeronautics and Space Administration investigated Mr. Parkinson’s participation and, in an August 2012 report, “conclude[d] that by signing the August letter to the FCC, Parkinson improperly participated in a matter affecting Trimble’s financial interests, which is imputed to him both because of his membership on the board of directors and his ownership of more than \$25,000 in Trimble stock.”

163. After concluding its testing, the NTIA advised the FCC on February 14, 2012, that

LightSquared’s proposed mobile broadband network will impact GPS services and . . . there is no practical way to mitigate the potential interference at this time.

Furthermore, while GPS equipment developers may be able to mitigate these issues via new technology in the future, the time and money required for . . . users to replace technology in the field and the marketplace . . . cannot support the scheduled deployment of terrestrial services proposed by LightSquared.

The NTIA also concluded that “there are no mitigation strategies that both solve the interference issues and provide LightSquared with an adequate commercial network deployment.”

164. The next day, the FCC issued its public notice proposing to vacate its conditional approval of terrestrial-only handsets and to “suspend indefinitely LightSquared’s underlying ATC authorization, first granted in 2004.”

165. The February 15, 2012 public notice entrenching the Government’s halt to Harbinger’s efforts to deploy the agreed-upon nationwide mobile broadband network was based on testing of the GPS overload problem conducted by Government agencies with the supervision of the NTIA.

166. The testing and analysis was designed and manipulated in bad faith to unfairly exaggerate and maximize findings of GPS receiver overload.

167. By deliberately designing and employing biased testing procedures and standards, the Government breached the implied covenant of good faith and fair dealing inherent in every contract.

168. As a consequence of the Government’s actions, Harbinger is entitled to recover its reasonable and entire losses arising from this breach, including, but not limited to, its cost of performance and subsequent costs incurred as a result of the breach, and is entitled to such other remedies as the facts and law may warrant.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Harbinger requests the following relief:

- a. entry of a judgment in favor of Harbinger and against Defendant on all of Harbinger's claims;
- b. entry of a judgment that Defendant has breached its contract with Harbinger, taken its property within the meaning of the Fifth Amendment to the United States Constitution, and breached its implied covenant of good faith and fair dealing;
- c. entry of a judgment awarding Harbinger its full and reasonable damages, in an amount to be proven at trial, for Defendant's breach;
- e. entry of judgment awarding Harbinger its full and just compensation, in an amount to be proven at trial, for Defendant's unconstitutional taking of Harbinger's property;
- f. an accounting for damages suffered by Harbinger, including lost profits caused by the infringing activities, and judgment requiring Defendant to compensate Harbinger for such damage;
- g. an award of any interest, costs, expenses, and attorneys' fees to which Harbinger may be entitled;
- h. such other and further relief as the Court may deem just and proper.

Dated: July 11, 2014

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*Application for admission forthcoming