



**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
OFFICE OF INSPECTOR GENERAL**

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**REPORT OF INVESTIGATION INTO ALLEGATIONS THAT  
MEMBERS OF A NASA-SUPERVISED ADVISORY  
COMMITTEE VIOLATED FEDERAL  
CONFLICT OF INTEREST LAWS**

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SPECIAL REPORT

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AUGUST 2, 2012

## I. INTRODUCTION AND SUMMARY OF FINDINGS

This report summarizes the results of an investigation by the National Aeronautics and Space Administration (NASA) Office of Inspector General (OIG) into allegations that members of a NASA-supervised Federal advisory committee known as the National Space-Based Positioning, Navigation, and Timing Advisory Board (Advisory Board) violated Federal conflict of interest laws. The Advisory Board advises the Space-Based Positioning, Navigation, and Timing Executive Committee (EXCOM), a Government panel composed of the Deputy Administrator of NASA and senior officials from eight other Government agencies, on issues relating to the Nation's Global Positioning System (GPS).<sup>1</sup> All Advisory Board members are private citizens selected for their expertise in GPS-related matters and most serve as Special Government Employees who are subject to Federal conflict of interest laws.<sup>2</sup> As such, they agree to put aside their private or business loyalties and act in the Government's interest when considering Advisory Board business. While Board members receive no salary for their services, they are required to submit annual financial disclosure statements to enable NASA to identify potential conflicts between their private holdings and activities and their role as Government advisors.

Although the EXCOM made no formal request that the Advisory Board do so, at a public meeting held on June 9 and 10, 2011, the Board discussed and adopted a resolution regarding an application to the Federal Communications Commission (FCC) from LightSquared Subsidiary LLC (LightSquared), a Virginia company seeking to develop a wireless broadband network. Specifically, LightSquared was seeking authorization from the FCC to augment its existing satellite telephone service with 40,000 ground-based cell towers. The company's proposal was of concern to GPS users and manufacturers – and to members of the Advisory Board – because the bandwidth assigned to LightSquared by the FCC abuts the spectrum reserved for use by GPS devices. The GPS community, including Government agencies such as the Department of Defense, feared that the radio signals from an expanded LightSquared network would interfere with and overwhelm the signals used by GPS devices.

Several Advisory Board members were employed by, owned stock in, or sat on the boards of companies that manufactured GPS devices or whose businesses were otherwise dependent on such devices. For example, Vice Chairman, Bradford Parkinson, had been a member of the Board of Directors of Trimble Navigation Limited (Trimble), a manufacturer of high-precision GPS units used in agriculture, construction, and surveying, since 1984 and owned a substantial amount of Trimble stock. In a December 2010 filing with the Securities and Exchange Commission (SEC), Trimble warned investors that if permitted to go forward, LightSquared's

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<sup>1</sup> GPS is a space-based navigation system that uses a network of satellites in orbit around the Earth to provide precise location information.

<sup>2</sup> A Special Government Employee is defined in Title 18, United States Code (U.S.C.), Section 202(a), as “an officer or employee . . . who is retained, designated, appointed, or employed” by the Government to perform temporary duties, with or without compensation, for not more than 130 days during any period of 365 consecutive days. According to the Office of Government Ethics, this category of employees was created by Congress as a way to apply certain conflict of interest requirements to a group of individuals who provide important but limited services to the Federal Government. During the time period discussed in this report, 19 of the 23 members of the Advisory Board were Special Government Employees. The other four were “representative members” not subject to the same Federal ethics restrictions. We examined only the actions of members who were Special Government Employees.

expanded network could harm Trimble's business. Parkinson, who is referred to by some as the "father of GPS" for the role he played as an architect of the present-day system, had properly disclosed his connection to and financial interest in Trimble on his financial disclosure statement and his connections to Trimble were well known to NASA and LightSquared.

Representatives from LightSquared and various GPS manufacturers, including Trimble, appeared before the Advisory Board on June 9, 2011, and were questioned about test results suggesting that an expanded LightSquared network would interfere with GPS devices. The following day, the Board voted in favor of a resolution that it subsequently provided to the EXCOM stating that LightSquared's proposed system would "jam the GPS signal within the United States" and that there were "no technical solutions to the interference" problem. Parkinson had returned home to California after the June 9 discussions and did not participate in this vote. In early August, Advisory Board Chairman James R. Schlesinger and Parkinson sent a letter to the FCC in their official Board capacities urging the FCC to deny LightSquared's application to expand its wireless broadband network.

Shortly before the Advisory Board was scheduled to hold its second meeting of the year in November 2011, LightSquared began to raise concerns about the propriety of Parkinson and several other Board members weighing in on the company's proposal in light of their outside ties and financial interests to GPS-related businesses. After a series of conversations with individual Board members at the November meeting, attorneys from NASA's Office of the General Counsel (OGC) advised Parkinson and four other members to recuse themselves from future deliberations regarding LightSquared. All five members did so.<sup>3</sup>

In January 2012, the OGC informed the OIG of potential conflict of interest issues involving the Advisory Board. That same month, LightSquared asked the OIG to investigate whether Parkinson or any other Board member had violated Federal conflict of interest laws. Specifically, LightSquared alleged that by participating in the June 2011 meeting and signing the letter to the FCC, Parkinson may have violated Title 18, United States Code (U.S.C.) Section 208, a Federal criminal statute that prohibits "personal and substantial" participation by Government employees in "particular matters" that affect their financial interests. Under the statute and its implementing regulations, a financial interest is disqualifying if an individual's participation in the matter would have "a direct and predictable" effect on their own financial interests or on the financial interests of a corporation with which they are associated. The company noted that while Section 208 does not apply if the employing Federal agency determines that the need for a Special Government Employee's services outweighs the potential for a conflict of interest created by the individual's financial interests, NASA had not granted any waivers to Parkinson or other Advisory Board members.

The OIG initiated an investigation of this matter during which we reviewed hundreds of documents and conducted interviews with more than 20 individuals, including most members of

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<sup>3</sup> We found it unnecessary to analyze the actions of one of those individuals: Lance Lord of L2 Aerospace, LLC, as he did not attend the Advisory Board's June 2011 meeting and therefore did not participate in the discussion of LightSquared's proposal or vote on the resolution. Another Board member, Ann Ciganer, Vice President of Strategic Policy for Trimble and one of the Board's four "representative members" not subject to the same Federal ethics rules as Parkinson and the others, also decided of her own accord to recuse herself from further consideration of issues relating to LightSquared.

the Advisory Board and key officials from LightSquared and Trimble. We also interviewed NASA employees who oversaw the Advisory Board, NASA attorneys who provided ethics advice to Board members, and NASA Deputy Administrator Lori Garver who serves on the EXCOM. We presented our preliminary findings to the Department of Justice, which declined to open a criminal investigation of the matter. We then completed our review, the results of which are provided in this report.

In summary, we found that by signing the letter to the FCC opposing LightSquared's application, Parkinson improperly participated in a matter that had a direct and predictable effect on Trimble's financial interests. We determined that the FCC proceeding was a "particular matter" under the statute and that Trimble itself had warned investors that LightSquared's plans, if approved, could affect the company's finances. However, we also found that Parkinson's action appeared to be motivated not out of a pecuniary interest but rather from a desire to safeguard the GPS network he had helped create. Parkinson told the OIG that at the time he signed the letter to the FCC it did not occur to him that his association with Trimble might pose a financial conflict of interest. He said his efforts to oppose LightSquared's application were based solely on his belief that the company's expanded broadband system would seriously interfere with GPS applications that were vital to U.S. economic interests. We found no evidence to contradict this statement.

Indeed, Parkinson had properly disclosed his ties to Trimble on his financial disclosure forms and his efforts to warn the EXCOM and the FCC about his view of the impact LightSquared's plans would have on GPS devices were public and widely known. In addition, although attorneys at NASA were fully aware of Parkinson's ties to Trimble and had sent him a letter warning him not to become involved in particular matters involving the company, no one at NASA recognized or warned Parkinson until November 2011 that his participation in reviewing LightSquared's plans posed a conflict for him under Section 208. Similarly, although they were aware of Parkinson's ties to Trimble, the LightSquared representatives who attended the June 2011 Advisory Board meeting did not raise concerns about any potential conflict at the time. Section 208 is a complex statute, and we do not fault Parkinson for not immediately recognizing that what he viewed as a general matter of public policy concerning the efficacy of the country's existing GPS network was a "particular matter" under the statute that he should avoid.

In contrast, we did not find that Parkinson's participation in the Advisory Board's June 9, 2011, discussion about the effect LightSquared's proposed broadband system would have on GPS devices violated Section 208. Simply being part of a public discussion of the technical issues related to LightSquared's FCC application does not constitute "substantial participation" under the statute. Moreover, Parkinson did not vote on the Board's June 10 resolution opposing LightSquared's plans.

With respect to the other Special Government Employees who participated in the Advisory Board's June 2011 meeting and who NASA attorneys later advised to recuse themselves from consideration of matters related to LightSquared – Joseph Burns (United Airlines), Ronald Hatch (John Deere), and Timothy Murphy (Boeing) – we did not find they acted inconsistently with the

statute.<sup>4</sup> Even if the Advisory Board proceedings were a “particular matter” and voting on the Board’s resolution constituted “substantial participation” in that matter, we found that this vote did not have “a direct and predictable effect” on any disqualifying financial interest of these individuals.<sup>5</sup>

Finally, we found that NASA attorneys could have taken steps that likely would have alerted the Agency to the issues raised by the Advisory Board’s consideration of LightSquared’s proposal in time to take curative action. Although OGC attorneys reviewed the Board members’ financial disclosure forms and alerted members that they must avoid participating in “particular matters” involving the private companies they listed, they did not regularly review Board meeting agendas or attend meetings. Rather, they relied on the individual Board members and the NASA official who served as the Board’s Executive Director, who is not an attorney, to raise concerns about potential conflicts of interest. Because neither the Board members nor the Executive Director recognized the potential conflict posed by the Board’s consideration of LightSquared’s proposal, OGC attorneys were not aware that the Board was scheduled to take up the issue at the June meeting and therefore not in a position to identify potential conflicts or provide timely advice to Board members about how to avoid them. We also found that as a full-time employee who was more familiar with Federal ethics laws than the Board members, the Executive Director could have acted more diligently with regard to the LightSquared matter.

Advisory Board members are technical experts who are most often tasked with examining general scientific or technical issues of broad applicability rather than “particular matters” involving one or a small number of parties. Although they receive annual training regarding Federal conflict of interest laws, they may not be in the best position to recognize when their deliberations shift to consideration of “particular matters” that could implicate Section 208. Accordingly, we believe the better practice would be for OGC to ensure that trained ethics officials are in a position to proactively identify and address conflicts by regularly reviewing Board agendas and attending Board meetings. We are therefore recommending specific changes to NASA’s training and procedures relating to advisory committees.

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<sup>4</sup> As stated on page 13 of this report, Murphy told the OIG that although the official minutes of the Advisory Board meeting do not reflect it, he did not actually vote on the resolution.

<sup>5</sup> LightSquared also asserted that Parkinson and other Advisory Board members may have ran afoul of their obligations under Title 5, Code of Federal Regulations (C.F.R.), § 2635.502, which admonishes Federal employees (including Special Government Employees) to avoid the appearance of a conflict of interest. However, all the regulations require in such circumstances is that the employee notifies the agency of the appearance problem and receives authorization to participate in the matter. As discussed, none of these four Board members recognized the potential conflict posed by their consideration of LightSquared’s proposal and therefore did not notify NASA OGC about the matter.

## II. FACTUAL BACKGROUND

On November 18, 2010, LightSquared filed a petition with the FCC requesting permission to create what it billed as the first-ever, nationwide 4G-LTE wireless broadband network.<sup>6</sup> LightSquared claimed that if the FCC approved its plan to augment its existing satellite mobile phone service with 40,000 ground-based cell towers, American consumers would for the first time have the opportunity to stay connected to the Internet and make telephone calls anywhere in the United States regardless of their proximity to existing towers.

LightSquared's proposal quickly raised concerns with manufacturers of GPS devices and the commercial and industrial users who rely on the devices for construction, aviation, agriculture, and transportation. Their concern centered on the fact that the bandwidth assigned by the FCC to LightSquared's satellite abuts the spectrum reserved for use by GPS devices.<sup>7</sup> Although this arrangement had not caused any disruption to GPS units while LightSquared operated its existing satellite-based phone system, the company's plans to augment that system with thousands of relatively high-powered, ground-based cell transmitters using the same bandwidth was perceived as a major threat to the GPS network. Specifically, GPS manufacturers and users feared that if LightSquared was permitted to use its assigned part of the spectrum to send communications signals from high-powered ground-based transmitters, those signals would interfere with and overwhelm the signals used by GPS devices. In response to these concerns, on January 26, 2011, the FCC issued an order granting LightSquared approval to operate its combined ground- and satellite-based system conditioned on joint testing with GPS manufacturers and commercial users and the submission of definitive proof that an expanded LightSquared system would not disrupt GPS devices.<sup>8</sup>

In the months that followed the FCC's order, LightSquared and those opposed to its plans waged a public relations battle to convince key Federal officials and the public that science was on their side. In March 2011, Trimble recruited a number of companies that make or rely on GPS technology to form the Coalition to Save Our GPS (GPS Coalition).<sup>9</sup> The group described itself as "representatives from a wide variety of industries and companies . . . [that] have joined together to . . . resolve a serious threat to the Global Positioning System" – namely, LightSquared's plan to expand its network with ground-based cell towers.

For its part, LightSquared also sought to mobilize public opinion, arguing that any interference with GPS devices posed by its planned nationwide broadband system would not be caused by LightSquared transmitters sending stray signals beyond the company's allotted spectrum, but

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<sup>6</sup> According to its promotional materials, LightSquared planned to act as a wholesaler and resell access to its network to the major wireless phone companies rather than offer its own phone and broadband service directly to consumers.

<sup>7</sup> LightSquared's satellite transmits its signal on the mobile satellite services MSS/ATC band (1525–1559 MHz spectrum). GPS devices receive signals on the neighboring band (1559–1610 MHz spectrum).

<sup>8</sup> See FCC Document DA 11-133, at <http://www.fcc.gov/document/lightsquared-subsiidiary-llc-0> (accessed July 31, 2012, as were all Internet sources cited in this report).

<sup>9</sup> A news release describing the group's formation can be found at <http://www.prnewswire.com/news-releases/coalition-to-save-our-gps-launched-117737113.html>. The group's website can be found at <http://www.saveourgps.org/>.

rather by GPS devices improperly “listening in” to LightSquared’s portion of the spectrum. LightSquared argued that it should not be prohibited from offering consumers more broadband options because GPS devices had not been engineered to avoid “trespassing” on the company’s part of the spectrum. The GPS community responded by saying that it would be unwise and unfair to allow one company’s plans to disrupt so many different businesses and Federal agencies that rely on GPS location and timing devices.

### **A. The Space-Based Positioning, Navigation, and Timing Advisory Board**

In June 2011, the scientific question underlying this debate came before the Advisory Board.<sup>10</sup> Created in 2004 and composed of experts from private industry, the Advisory Board provides advice to the EXCOM, a Government panel composed of the Deputy Administrator of NASA, the Vice Chairman of the Joint Chiefs of Staff, and the Deputy Secretaries of the Departments of Defense, Transportation, State, Commerce, Homeland Security, Interior, and Agriculture.<sup>11</sup> In turn, the EXCOM advises the National Telecommunications and Information Administration (NTIA), part of the Department of Commerce that is “principally responsible for advising the President on telecommunications and information policy issues.”<sup>12</sup> Among its more important responsibilities, the NTIA, through its Office of Spectrum Management, manages the Federal Government’s use of the broadband spectrum.<sup>13</sup>

At the time of the events in question, the Advisory Board had 23 members, 19 of whom had been appointed as Special Government Employees. Among this group were the Chairman, James R. Schlesinger of the MITRE Corporation; Joseph Burns, senior pilot and Managing Director of Technology and Flight Test for United Airlines; Ronald Hatch, senior research engineer for NavCom Technology, a subsidiary of John Deere; Timothy Murphy, Technical Fellow at Boeing; and Parkinson.<sup>14</sup> Parkinson, a Stanford University professor emeritus of aeronautics, had served on Trimble’s Board of Directors since 1984 and was the Acting Chief Executive Officer and President of the company for 9 months in 1999. As a member of Trimble’s board, Parkinson received regular stock options. Now 77, Parkinson is sometimes called the “father of GPS” because of the role he played as the architect of the present-day GPS network. While serving as a Colonel in the Air Force in 1973, Parkinson led a group of military advisers who hypothesized that a constellation of 24 Earth-orbiting satellites emitting constant signals would

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<sup>10</sup> The Advisory Board’s website can be found at <http://www.pnt.gov>.

<sup>11</sup> National Security Presidential Directive 39, see <http://www.fas.org/irp/offdocs/nspd/nspd-39.htm>, established a “permanent National Space-Based Positioning, Navigation, and Timing Executive Committee.” According to its charter, the EXCOM is “the senior-level federal government body established . . . to advise and coordinate among member Departments and Agencies responsible for the strategic decisions regarding policies, architectures, requirements, and resource allocation for maintaining and improving U.S. space-based PNT [positioning, navigation, and timing] infrastructure.”

<sup>12</sup> For more on the NTIA, see its website, <http://www.ntia.doc.gov/>.

<sup>13</sup> In contrast, the FCC is responsible for allocating spectrum for private sector use.

<sup>14</sup> Schlesinger, 83, previously served as the Secretary of Defense, and Energy, as well as the Director of the Central Intelligence Agency and Chairman of the U.S. Atomic Energy Commission. The MITRE Corporation is a federally funded, not-for-profit research and development center funded by the Department of Defense and other Federal agencies to provide expertise on systems engineering, information technology, operational concepts, and enterprise modernization.

allow a device receiving some of those signals to determine its exact location anywhere on Earth.<sup>15</sup>

Under its charter, the agenda for the Advisory Board is generally set by the EXCOM, which provides the Board with a list of topics on which it would like the Board's input.<sup>16</sup> The Board holds public meetings in the Washington, D.C., area twice a year, and although the members are reimbursed for their travel expenses, they receive no salary or other financial benefits in exchange for their service. In 2011, the Board met on June 9 and 10 and again on November 9 and 10.

According to Anthony Russo, who coordinates EXCOM meetings as Director of the National Coordination Office for Space-Based Positioning, Navigation, and Timing, the EXCOM did not formally ask the Advisory Board to examine the effect LightSquared's proposal would have on the Nation's GPS network. Russo said that Schlesinger and Parkinson attended the EXCOM's May 2011 meeting where they expressed strong opposition to LightSquared's plan, and based on this presentation the EXCOM understood that the full Advisory Board likely would also oppose the company's plan. Therefore, Russo said EXCOM members saw no need to ask the Board to take further action or provide additional input on the issue.

Like other similar panels, the Advisory Board was created under and is governed by the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2. Pursuant to FACA, each advisory panel operates under the sponsorship of a Federal agency and an employee of that agency is assigned to serve as the executive director for the panel. NASA, which agreed to supervise the Advisory Board when it was created, appointed as the Board's Executive Director James J. Miller, a Senior GPS Technologist in the Space Communications and Navigation Division of NASA's Space Operations Mission Directorate at NASA Headquarters in Washington, D.C. Miller's duties in this part-time role included helping draft agendas for Board meetings and editing and publishing minutes of those meetings.<sup>17</sup>

Advisory Board members appointed as Special Government Employees are bound, with some limited exceptions, to the same Federal conflict of interest laws that apply to full-time Federal Government employees, including 18 U.S.C. § 208, which prohibits them from using their official position for private gain. Specifically, under the statute and its implementing regulations, members are prohibited from "personal and substantial" participation in "particular matters" that would have "a direct and predictable effect" on their financial interests.<sup>18</sup> FACA

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<sup>15</sup> On March 30, 2012, Parkinson was awarded the Dr. Robert H. Goddard Memorial Trophy by the National Space Club for "significant contributions to the development of the Global Positioning System, one of the most innovative space inventions of all time and recently recognized as one of the greatest space contributions to humanity." See <http://www.spaceclub.org/events/dinner.html>.

<sup>16</sup> The Advisory Board's charter is available online at <http://www.pnt.gov/advisory/charter.shtml>.

<sup>17</sup> According to the Advisory Board's charter, the Executive Director's tasks include calling, attending, and adjourning committee meetings; approving meeting agendas; maintaining required records on costs and membership; ensuring efficient operations; maintaining records for availability to the public; and providing copies of committee reports to the NASA Committee Management Officer (CMO) for forwarding to the Library of Congress.

<sup>18</sup> 5 C.F.R. §§ 2635, 2640, et seq.



requires that advisory panel members receive training each year regarding their ethical obligations under Federal law and annually file confidential financial disclosure reports (Office of Government Ethics [OGE] Form 450s) listing their sources of income, investments, debts, outside positions, and other financial arrangements.

Attorneys in NASA's OGC provide the annual ethics training for the Advisory Board. The most recent training session before the June 2011 meeting occurred on October 14, 2010. At that meeting, which Parkinson attended, NASA attorney Adam Greenstone discussed Section 208 with the Advisory Board.<sup>19</sup> One of the PowerPoint slides Greenstone showed the members defined a "particular matter" as "deliberations, decisions, or actions that are focused upon the interests of: (1) Specific persons or entities (EX: contract, grant, agreement.), (2) Identifiable class of persons or entities (EX: industry)." The slide also noted that a "particular matter" is not one focused on "broad policy options or considerations." Greenstone told the OIG that the most important advice he tries to impart during this training is that Board members should contact the OGC if they have any questions about whether they might have a conflict.

All of the Advisory Board members had OGE Form 450s on file with NASA at the time of the June 2011 meeting. On his form, Parkinson had disclosed both his Trimble board membership and stock holdings.<sup>20</sup>

## **B. Financial Disclosure Reports and Warning Letters**

OGC attorneys review the OGE Form 450s filed by Advisory Board members, and during the relevant time period this responsibility fell primarily to OGC attorney Rebecca Gilchrist. Gilchrist told the OIG she reviewed each form closely looking for income, stock holdings, or other ties to corporations that might have interests in GPS-related issues that could come before the Board. In cases where it appeared a member's investments or employment might involve such matters, Gilchrist would issue a "warning letter" advising the member that he or she needed to exercise caution and not participate in any Board discussions involving that entity. The warning letters also advised members to keep Miller informed of any "financial interests you currently have or plan to enter into in the future involving or potentially involving the subject matter of the [Board]." Copies of the warning letters were sent to both the individual member and to Miller.

As Executive Director for the Advisory Board, Miller reviewed the OGE Form 450s and helped Gilchrist craft the warning letters. NASA attorneys said they advised Miller to contact them with any questions or concerns about possible conflicts and relied heavily on him to bring such matters to their attention. Miller told the OIG that he understood he had responsibility for helping Board members identify and avoid conflicts.

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<sup>19</sup> At least five Advisory Board members, including Hatch, joined after the date of this training and therefore had not received in-person ethics training prior to the June 2011 meeting. However, they were required to complete online training prior to their first meeting.

<sup>20</sup> Parkinson's Trimble board membership also was noted in his biography posted on the Advisory Board website (<http://www.pnt.gov/advisory/members/parkinson.shtml>).

### C. Parkinson Received Warning Letters

On April 27, 2011, Gilchrist e-mailed a warning letter to Parkinson noting that because of his position with and financial interests in Trimble he may have to disqualify himself from any Advisory Board business relating to the company that might cause a conflict of interest. Gilchrist had sent a similar cautionary letter to Parkinson in March 2007, shortly after he joined the Advisory Board.<sup>21</sup>

In the 2007 letter, Gilchrist wrote:

Therefore, you may need to disqualify yourself from [Board] activities relating to these organizations. This simply means that in the course of carrying out your [Board] functions, you must not participate in any particular matter which you have reason to believe could have a direct and predictable financial effect on these non-Governmental organizations.

Another part of the 2007 warning letter noted:

NASA advisory committee members will normally be exposed only to general, as opposed to particular matters. However, in the unexpected event such a particular matter should come before your panel for consideration, you should advise your Executive Director of the need to be excused from participation.

And the 2011 warning letter concluded with the following:

Please keep your Executive Director, James Miller, advised of any employment, contracts, grants, consulting arrangements, agreements, partnerships, new business ventures, board memberships, stock, or other similar financial interests you currently have or plan to enter into in the future involving or potentially involving the subject matter of the [Board] or other matters under consideration by the [Board].

Gilchrist also provided Parkinson with the telephone numbers and e-mail addresses for herself, Greenstone, and Miller and encouraged Parkinson to contact OGC attorneys “if any potential issues arise during your service on the [Board].”<sup>22</sup>

Similar warning letters were sent to 13 other Advisory Board members in March and April 2011, including those NASA OGC later advised to recuse themselves from matters relating to LightSquared.

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<sup>21</sup> In the 2011 letter, Gilchrist also called Parkinson’s attention to his employment as a consultant for the Aerospace Corporation, an El Segundo, California, firm that operates a federally funded research and development center for the Air Force that examines national security and space issues. Similarly, in the 2007 letter she noted his financial interests in Stanford University, from which he drew a salary as an emeritus professor, and two other companies: EMS Technologies, a company based in Norcross, Georgia, specializing in wireless, defense, and space communications systems in which he held stock and served as Director, and the Institute for Defense Analysis, based in Alexandria, Virginia, a non-profit that provides federally funded research to assist the Government in addressing national security issues.

<sup>22</sup> Gilchrist told us that she believed Parkinson had received similar letters each year he served on the Advisory Board, but she was not able to locate copies of these letters in OGC files.

#### **D. Trimble's SEC Filings and Stock Sales by Parkinson**

Shortly after it learned of LightSquared's filing with the FCC, Trimble, a publicly traded company, alerted investors that regulatory approval of LightSquared's plans could have a negative effect on its finances. Specifically, in a December 2010 filing with the SEC Trimble stated that

reallocation of radio frequency bands, including frequency band segmentation and sharing of spectrum, or other modifications of the permitted uses of relevant frequency bands, may materially and adversely affect the utility and reliability of our products and have significant negative impacts on our customers. For example, the FCC has been considering a proposal by a private party, LightSquared, to repurpose spectrum adjacent to the GPS bands for terrestrial broadband wireless operations throughout the United States. If the FCC were to permit implementation of LightSquared's proposal, or similar proposals, terrestrial broadband wireless operations could create harmful interference to GPS receivers within range of such operations and impose costs to retrofit or replace affected receivers.

Any regulatory changes in spectrum allocation or in allowable operating conditions could have a material adverse effect on our business, results of operations, and financial condition.<sup>23</sup>

Less than a month later in January 2011, the FCC granted LightSquared conditional approval pending resolution of concerns that the company's proposed broadband system would disrupt GPS devices.

In February 2011, Parkinson sold more than \$1 million in shares of Trimble stock.<sup>24</sup> Parkinson told the OIG the sale was not motivated by any concerns that LightSquared's plan would jeopardize the value of his stock. Instead, he said he exercised his stock options during a narrow trading window open to Trimble board members because he needed cash to assist a family member with a home purchase.

#### **E. Experts Test LightSquared's Plan**

As discussed above, in its January 2011 order the FCC ruled that LightSquared could proceed with its plans to expand its network with ground-based cell towers only if it could prove that the expanded system would not interfere with GPS devices. To examine this issue, LightSquared and the United States Global Positioning System Industry Council formed a working group of technical experts to study the impact of LightSquared's proposal on the following GPS-dependent applications: "public safety; aviation (commercial, business, and general); electric power and utilities; engineering and construction; environmental protection; law enforcement and legal services; maritime and waterways; transportation (most modes); agriculture; surveying, mapping, and land management; weather, scientific, and space; precision timing, consumer

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<sup>23</sup> Trimble Form 10-K for fiscal year ending December 31, 2010, at 21-22.

<sup>24</sup> SEC records show that on February 8, 2011, Parkinson exercised stock options and sold 38,333 shares of Trimble stock worth \$1,005,417. Two weeks later on February 22, Parkinson sold an additional 10,000 shares of Trimble stock for \$197,677. According to Trimble's website, as of May 15, 2012, Parkinson owned 5,002 shares of Trimble stock which, as of June 1, were trading at \$44.90 per share.

devices, and cellular handsets.”<sup>25</sup> Of the 123 members listed on the working group’s roster, 16 were LightSquared employees and the remainder represented a wide range of private sector companies and Government agencies including NASA, the Federal Aviation Administration (FAA), Garmin, United Airlines, Lockheed Martin, Novatel, T-Mobile, Motorola, AT&T, TomTom, and Trimble. Two members of the Advisory Board other than Parkinson served on the working group.

On June 30, 2011, the working group released the results of its testing in a 318-page report which concluded that if permitted to operate on LightSquared’s existing bandwidth, the company’s proposed system would negatively impact a wide range of GPS-dependent devices. The report contained separate findings by each of five subgroups on aviation; cellular, general location, and navigation; high precision; timing and networks; and space-based receivers. For some subgroups, the report included different analyses of the test results by the GPS industry and LightSquared.

Russo told the OIG that in forming its position on the LightSquared matter the EXCOM relied on the working group’s findings as well as on testing conducted by the FCC and the National Space-Based Positioning, Navigation and Timing Systems Engineering Forum (NPEF), which also found an expanded LightSquared network would adversely affect GPS devices.<sup>26</sup>

#### **F. June 2011 Meeting of the Advisory Board**

Although the working group’s final report had not been publicly released by the time of the Advisory Board’s June meeting, the results of tests conducted by the NPEF showing significant interference problems from an expanded LightSquared system were available and were presented to the Board on the first day of its meeting.<sup>27</sup> This was followed by a series of presentations debating the test results’ meaning and discussing possible mitigation strategies and the regulatory history behind LightSquared’s case before the FCC. Among those making presentations, two were particularly important for the matter under review in this report.

Speaking first on behalf of the GPS Coalition and his employer was James Kirkland, Vice President and General Counsel for Trimble. A recording of the meeting reflects that Kirkland said the test results “show overwhelming evidence” that LightSquared’s proposal would interfere with GPS, described the scale of the interference as “devastating,” and argued that “no workable accommodation exists.”<sup>28</sup> According to Kirkland, the problem was one of physics: it was impossible to operate a high-powered, ground-based system adjacent to the GPS band without

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<sup>25</sup> Introduction of the Working Group’s Final Report, at 6. A copy of the report, dated June 30, 2011, can be found at <http://apps.fcc.gov/ecfs/document/view?id=7021690471>.

<sup>26</sup> According to information posted on the EXCOM’s website, the NPEF is a group of “engineers and other experts from across the interagency community” that “conducts assessments and makes recommendations on technical issues as tasked by the” EXCOM. For more information on NPEF, see <http://www.pnt.gov/groups/> and <http://www.pnt.gov/groups/NPEF-charter.shtml>.

<sup>27</sup> A summary of an unclassified portion of these test results can be found at <http://www.pnt.gov/advisory/2011/06/bunce.pdf>.

<sup>28</sup> Meeting Minutes, Advisory Board, June 9–10, 2011, at 17-18.

interfering with GPS devices, and the only solution was for the FCC to find another part of the spectrum for LightSquared's operation. In response to questions from Board Chairman Schlesinger, Kirkland was critical of the FCC for its "hastily and ill-considered" approval of LightSquared's plans and said the uncertainty caused by the conditional approval would slow the development of the use of GPS in precision agriculture, construction, and other fields. Kirkland also said it was the position of the GPS Coalition that if a technical solution to the interference problem could be found, that LightSquared and not the GPS community should pay for any related mitigation costs.

Defending LightSquared's plans and offering a more positive interpretation of the test results was Jeff Carlisle, the company's Executive Vice President for Regulatory Affairs and Public Policy. Carlisle argued that LightSquared could co-exist with GPS and said his company was committed to working with the GPS community to find technological solutions to the potential interference problems.<sup>29</sup> He noted that LightSquared had already invested \$1 billion on two satellites and anticipated spending another \$14 billion over 8 years to build the ground-based portion of the system.

Carlisle faced sharp questioning by Parkinson and other members of the Advisory Board. Parkinson pointed out that the aviation industry had invested between \$18 and \$23 billion for precision GPS and other related technologies to help make airplanes more fuel efficient, innovations he said could save the industry and the public \$10-\$30 billion a year. Another Board member noted that the precision GPS units used in agriculture were providing a \$20-\$30 billion annual benefit to the economy.

### **G. Debate on What Action the Advisory Board Should Take**

On the second day of its June meeting, the Advisory Board debated what kind of formal advice it should provide on the LightSquared matter and to which agency that advice should be communicated. Parkinson, who had to fly home to California for another commitment, did not attend this session.

Board member James Geringer, a former Governor of Wyoming, drafted a resolution addressed to the EXCOM stating that tests showed LightSquared's signal would "jam the GPS signal within the United States" and noting that the "Board believes there are no technical solutions to

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<sup>29</sup> *Id.* at 18-21.

the interference produced by LightSquared's terrestrial segment.”<sup>30</sup> The resolution urged the EXCOM to “file formal comments with the FCC” regarding this problem.<sup>31</sup> The Board passed the resolution unanimously on a voice vote with one recorded abstention. Dean Brenner, Vice President of Government Affairs for Qualcomm Inc., recused himself from the vote because his company's chips are used in LightSquared's satellite phones. In addition, although not reflected in the official minutes of the meeting, Board member Timothy Murphy, a Technical Fellow with

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<sup>30</sup> The full text of the resolution as passed by the Advisory Board is as follows:

Recommendations to the Positioning, Navigation, and Timing Executive Committee Regarding LightSquared

Background:

At the June 9, 2011, meeting of the Positioning, Navigation, and Timing (PNT) Advisory Board briefings were received regarding the LightSquared broadband initiative.

These briefings, from the U.S. Government, independent researchers, and LightSquared, described interference issues between the proposed LightSquared terrestrial broadband system and the Global Positioning System (GPS).

Recommendation:

The PNT Advisory Board recommends the EXCOM should file formal comments with the FCC regarding the interference issues.

Based upon information and test results provided to the PNT Advisory Board at the meeting of June 8-10, 2011, the provision of GPS services cannot be assured if the LightSquared proposal for satellite and terrestrial broadband provision using the MSS L-Band receives final approval.

The only reasonable and viable option to continue ubiquitous availability of GPS and the provision of a new 4G wireless broadband capability would be for the FCC to assign an alternate frequency spectrum to LightSquared that has little or no probability of affecting the delivery or utilization of GPS services.

Rationale:

The PNT Advisory Board believes there are no technical solutions to the interference produced by LightSquared's terrestrial segment.

LightSquared's system will jam the GPS signal within the United States. This will affect all users of GPS including these critical sectors: aviation, the financial infrastructure, emergency services, precision agriculture, construction, railroads, general navigation (automobiles and watercraft), the power grid, and some satellites.

The negative economic, national security and foreign policy impacts of this deliberate signal fratricide significantly outweigh any possible benefit derived from the operation of LightSquared in the MSS L-Band frequencies.

The Advisory Board believes that the expansion of broadband services within the United States is in the national interest. The Advisory Board does not believe that broadband services should come at the detriment of an established piece of global critical infrastructure.

The Advisory Board believes that the FCC, the Executive Branch, and Congress have been presented with a false choice between LightSquared and GPS. The Advisory Board believes that both systems can peacefully coexist with LightSquared moved to a different portion of the spectrum – away from the MSS L-Band.

<sup>31</sup> As discussed on page 17, in January 2012 the EXCOM weighed in with the FCC against the LightSquared proposal.

the Boeing Commercial Airplane Group, told the OIG that he did not vote because Boeing was conflicted on the LightSquared question, but failed to vocalize his decision to abstain.<sup>32</sup>

In addition to passing the resolution, the Advisory Board also discussed whether it was appropriate for the Board to issue a public statement on its decision. Dr. Robert Hermann, of Global Technology Partners, suggested the issuance of a public statement; Chairman Schlesinger argued that the Board was “enjoined not to engage in public lobbying” and therefore should limit its communications to the EXCOM. Ultimately, the Board decided not to issue a public statement at that time.

## H. Advisory Board Letter to FCC

On August 3, 2011, Schlesinger sent the FCC a two-page letter on Advisory Board letterhead co-signed by Parkinson.<sup>33</sup> In pertinent part, the letter stated:

[The Advisory] Board reaffirms its stated position that GPS would suffer great harm from the proposed LightSquared terrestrial operation as indicated in the conditional waiver approved by the Federal Communications Commission (FCC) in January. . . . [I]f this proposal were allowed to proceed, it would have the unavoidable consequence of adversely impacting current and planned Federal and private sector infrastructure. The costs would be tens of billions of dollars per year. Such a loss would impact our nation’s national security, international standing and have a notable economic impact. It is not an acceptable alternative to impose this burden on behalf of a single company. For that reason, the National PNT [Positioning, Navigation, and Timing] Advisory Board formally requests that the Federal Communications Commission rescind the conditional waiver approving LightSquared terrestrial operations in the MSS radio band from 1525-1559 MHz, and instead select an appropriate band that would avoid the substantial collateral damage in its understandable quest to bring broadband to the American public.

Schlesinger told the OIG that it was his idea to send the letter to the FCC and that he decided to do so only after the FCC announced on June 30, 2011, that it was inviting interested parties to submit comments between July 30 and August 15, 2011, regarding LightSquared’s plan.<sup>34</sup> Schlesinger said he approved a draft of the letter and circulated it to Parkinson and a few other Advisory Board members for comment. He also said he sent the letter without consulting with any members of the EXCOM and without a formal vote from the Advisory Board.<sup>35</sup> He told the

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<sup>32</sup> Murphy told the OIG he regretted not having announced his decision to abstain from voting at the meeting. Murphy said Boeing did not want to take a public position on LightSquared’s plans because Boeing built the rockets that launched LightSquared’s satellites but also manufactures commercial airliners that depend on precision GPS as part of their advanced navigation systems.

<sup>33</sup> Schlesinger and Parkinson, Advisory Board Chairman and Vice Chairman, letter to FCC Chairman Julius Genachowski, August 3, 2011, available online at [http://licensing.fcc.gov/myibfs/download.do?attachment\\_key=910302](http://licensing.fcc.gov/myibfs/download.do?attachment_key=910302). Parkinson said he did not actually sign the letter, but rather authorized an electronic copy of his signature to be placed on the document.

<sup>34</sup> According to FCC records, the Commission received 11,301 comments on the LightSquared application – 2,468 during the initial comment period and another 639 during the August 1 through August 15, 2011, reply comment period. The docket can be viewed at <http://apps.fcc.gov/ecfs/proceeding/view?z=kvt24&name=11-109>.

<sup>35</sup> None of the Advisory Board members interviewed by the OIG expressed any concern that the letter had been forwarded to the FCC without a Board vote, although several suggested it would have been better if it had been left to the EXCOM to decide whether to file the Board’s position with the FCC.

OIG that given that the Board's position on LightSquared was unanimous, he believed it was appropriate to make that position part of the FCC's public record.<sup>36</sup>

When asked about the letter, Parkinson told the OIG that "in retrospect I probably should have said, no, no, no, let somebody else sign this," but also said he stands by the letter's accuracy. He stated that at the time Schlesinger sent the letter it did not occur to him that he might have a conflicting financial interest that disqualified him from weighing in with the FCC regarding LightSquared's plans. He insisted his opposition to LightSquared's application was based solely on his belief that the company's expanded broadband system would seriously interfere with GPS applications that were vital to U.S. economic and governmental interests.

Parkinson, Miller, and all of the Advisory Board members we interviewed said they viewed the Board's consideration of LightSquared's proposal not as a "particular matter" involving a small number of parties but rather, as Miller put it, "a broad policy question" concerning the impact LightSquared's proposal would have on the large group of individuals, Government agencies, and industries that rely on GPS devices every day. In addition, both Parkinson and Miller noted that LightSquared's representatives were aware of Parkinson's connection with Trimble and attended the June 9 Board meeting, yet did not raise the issue at that time.

For his part, LightSquared's Carlisle acknowledged that he was aware prior to the June meeting that Parkinson served on the Trimble board and likely owned Trimble stock, but told the OIG "to tell you the truth, [it] didn't even cross my mind to raise the issue, I guess, because I assumed it was going to be more of a cooperative exercise . . . more of a let's work together to solve the problem." Similarly, Curtis Lu, General Counsel for LightSquared, said it was not until after Schlesinger and Parkinson sent the letter to the FCC and Parkinson made negative public statements about LightSquared that the company decided to raise the issue of Parkinson's potential conflict of interest.<sup>37</sup> Lu explained, "We saw a course of activity . . . by Dr. Parkinson in connection with our GPS issues . . . that gave us concern about the extent [he] was using his position as a Special Government Employee to advance the interests of one particular company."

## **I. November 2011 Advisory Board Meeting**

Miller said he first became aware in late October 2011 as a result of a press report that LightSquared officials might raise questions about whether Parkinson and other Advisory Board members should recuse themselves because of real or perceived conflicts of interest. Miller said

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<sup>36</sup> In a letter to the FCC dated 5 days after the Schlesinger-Parkinson letter, LightSquared questioned the Advisory Board's authority to weigh in with the Commission: "The positions of Federal Advisory Committees are not the same as actual policy adopted by an agency of the Federal government. Agencies are free to reject or ignore positions taken by Federal Advisory Committees. . . . The Board should have explained the limits of its charter and its authority to send a letter expressing a position in a contested Commission proceeding, particularly given that several companies represented on the Board are separately participating in the proceeding. Absent such an explanation, the Commission should not give the letter any weight." (Available online at [http://licensing.fcc.gov/myibfs/download.do?attachment\\_key=910680](http://licensing.fcc.gov/myibfs/download.do?attachment_key=910680).)

<sup>37</sup> Lu said he was particularly troubled by a statement attributed to Parkinson in the media referring to LightSquared as "a bunch of greedy guys that are like the worst of the people in real estate." See Eliza Krigman, "LightSquared foe bias on GPS?" *Politico*, October 20, 2011, <http://www.politico.com/news/stories/1011/66459.html>.



this was the first time it had occurred to him that consideration of LightSquared's proposal might raise a conflict for some members of the Board.<sup>38</sup>

On November 3, 2011, just days prior to the Advisory Board's second meeting of the year, Lu sent a six-page letter to Schlesinger and Parkinson questioning whether by weighing in on the issue with the FCC the Board had unnecessarily adopted "one side in this debate" and abandoned its role as an "impartial advisor on this matter." Lu was particularly critical that the Board's August 3 letter to the FCC mimicked language previously used by Kirkland, Trimble's General Counsel, who Lu referred to as "one of our more vocal critics." In the letter, Lu criticized the Board for acting as a spokesperson for GPS manufacturers and for not doing more to assist LightSquared in searching for technical solutions to the interference problem. Although the letter questioned the Board's impartiality, it did not reference Section 208 or allege that Parkinson or other Board members had financial conflicts of interest that prevented them from weighing in on LightSquared's proposal. Miller also received a copy of Lu's letter.

Several hours before the letter was sent, a LightSquared representative contacted Miller and told him about LightSquared's plans to send the letter. Shortly thereafter, Miller sent an e-mail to Greenstone requesting that OGC have an attorney present during the Board's November 9 meeting "because some of the topics like LightSquared have been so highly charged in the press."<sup>39</sup> Neither Parkinson, Schlesinger, nor Miller forwarded Lu's letter to the OGC.<sup>40</sup>

Greenstone told the OIG that he had been planning to attend the November meeting to provide Advisory Board members with the required annual ethics training. He said that shortly after he began the training session, members began quizzing him about their personal circumstances and the session quickly devolved into requests for specific ethics advice. At that point, Greenstone said he stopped the general training session and began meeting with concerned members individually. During these conversations, Greenstone consulted by telephone with Andrew Falcon, his OGC supervisor. Based on their combined advice, Parkinson, Hatch, Burns, and Murphy recused themselves from further consideration of issues relating to LightSquared's petition and did not participate in the afternoon session concerning LightSquared, during which the Board was scheduled to discuss additional test results and possible mitigation strategies.<sup>41</sup>

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<sup>38</sup> Miller said he first learned of the issue from the *Politico* story, which Russo, the EXCOM coordinator, had alerted him to. Miller and Greenstone disagree whether Miller shared the *Politico* story with Greenstone at that time. Miller recalls doing so but Greenstone insists he did not see the article until after the November 9 Board meeting.

<sup>39</sup> Miller and Greenstone agreed that shortly before November 3, they discussed Miller's general concerns about LightSquared. However, Greenstone said he did not recall Miller mentioning that Board members had already taken actions relating to the company that potentially affected their financial interests.

<sup>40</sup> Schlesinger became seriously ill the night before the November 9 meeting and therefore did not attend. Schlesinger said he was quite sick during the week prior to the meeting and has no recollection of anyone showing him a copy of Lu's letter.

<sup>41</sup> Miller added the following "Editorial Note" to the minutes of the meeting: "A number of Advisory Board members recused themselves from this discussion based on consultation and discussion with NASA Office of General Counsel during the annual ethics briefing. While the intent of the Panel was to continue the transparent, balanced discussions begun at the June meeting regarding the national policy question of GPS (Radio Navigation Satellite Service) and LightSquared (Mobile Satellite Service) co-existence, a number of press reports indicated that a legal strategy would be pursued if a technical solution could not be found. The following Board members thereby formally recused themselves to avoid the potential appearance of a conflict-of-interest on any particular

## J. Events Following the November 2011 Meeting

On January 4, 2012, Greenstone contacted the OIG to alert our office about OGC's concerns that Advisory Board members may have violated Section 208. On January 12, Lu e-mailed a 24-page "petition" to NASA Inspector General Paul Martin requesting the OIG investigate whether any Board member had violated Federal conflict of interest laws.

On January 13, 2012, the co-chairs of the EXCOM, Ashton B. Carter, Deputy Secretary of Defense, and John D. Porcari, Deputy Secretary of Transportation, sent a letter to the NTIA stating that it was the "unanimous conclusion of the test findings by the National Space-Based PNT [Positioning, Navigation, and Timing] EXCOM Agencies that . . . LightSquared's . . . plans for its proposed mobile network would cause harmful interference to many GPS receivers."<sup>42</sup> The letter noted that FAA testing similarly found that "the LightSquared proposals are not compatible with several GPS-dependent aircraft safety-of-flight systems." The same day, LightSquared's Carlisle wrote the NTIA claiming that the EXCOM's testing was flawed and that the EXCOM had "erroneously concluded that both general navigation and aviation devices would be impacted" by his company's planned network.<sup>43</sup>

Russo told the OIG that he did not believe that the Advisory Board's input had any impact on the EXCOM's decision to oppose LightSquared's plan. According to Russo, the EXCOM's decision was "driven almost entirely by the test results" of the various groups that had studied the issue. Lori Garver, NASA's Deputy Administrator and a member of the EXCOM, agreed. She said she did not believe the Advisory Board's input had any significant impact on the EXCOM's decision making: "I have never had a person from the Government say to me anything other than '[LightSquared's proposal] can't happen. This is technically a problem for the Government and not a small problem.'" Although Garver agreed that NASA should do a better job ensuring that advisory committee members avoid conflicts by improving coordination and communication between the committees and the OGC, she said any suggestion by LightSquared that conflicted members of the Advisory Board torpedoed the company's bid for FCC approval is "a red herring."

On February 14, 2012, the NTIA sent a letter to the FCC conveying the findings of the EXCOM. The same day, an FCC spokesperson issued a statement saying that the Commission was proposing to vacate LightSquared's conditional approval and was seeking public comment on its

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matter: Parkinson, Burns, Hatch, Lord, Murphy, and Ciganer. Also for the record, Brenner recused since the June meeting, and Parkinson was not present on June 10 when the Board recommendation that the Federal Communications Commission (FCC) find other, more compatible spectrum was formulated." As noted in footnote 3, Lord did not participate in the June Board meeting and Ciganer was not subject to the strictures of Section 208, as she was not a Special Government Employee.

<sup>42</sup> The letter can be found at <http://www.gps.gov/news/2012/01/lightsquared/2012-01-13-LightSquared-letter-to-NTIA.pdf>.

<sup>43</sup> The letter can be found at <http://www.lightsquared.com/wp-content/uploads/2012/01/Letter-NTIA-EXCOMM.pdf>.

plans to indefinitely suspend the matter. LightSquared filed for Chapter 11 bankruptcy protection on May 14, 2012.<sup>44</sup>

### **K. Federal Conflict of Interest Statute, 18 U.S.C. § 208**

Generally speaking, Section 208 prohibits a Federal Government employee, including a Special Government Employee, from participating personally and substantially in an official capacity in any “particular matter” that would have “a direct and predictable effect” on the employee’s financial interests or on the financial interests of any corporation on which the employee serves on the board of directors. In pertinent part the statute provides that

whoever, being . . . a special Government employee, participates personally and substantially as a Government officer or employee, through decision, approval, disapproval, recommendation, the rendering of advice, investigation, or otherwise, in a judicial or other proceeding, application, request for a ruling or other determination, contract, claim, controversy, charge, accusation, arrest, or other particular matter in which, to his knowledge, he . . . [or an] organization in which he is serving as officer, director, trustee, general partner or employee . . . has a financial interest – Shall be subject to [specified criminal] penalties.

Accordingly, violation of the statute requires that four elements be met. An individual must: (1) be “an officer or employee of the executive branch of the United States Government” who (2) “participates personally and substantially as a Government officer or employee;” (3) “in a “particular matter;” (4) in which he knows he has a financial interest.<sup>45</sup>

The Office of Government Ethics (OGE), the Government agency charged with preventing and resolving conflicts of interest in the Executive Branch, has promulgated regulations that provide additional guidance regarding the meaning of these keys terms. According to these regulations, an employee is prohibited by Section 208 from participating personally and substantially in an official capacity in any particular matter in which, to his knowledge, he or any other person specified in the statute has a financial interest if the particular matter will have a direct and predictable effect on that interest. Title 5, Code of Federal Regulations (C.F.R.) § 2640.103.

OGE regulations state that the term “particular matter”

encompasses only matters that involve deliberation, decision, or action that is focused upon the interests of specific persons, or a discrete and identifiable class of persons. Such a matter is covered . . . even if it does not involve formal parties and may include governmental action such as legislation or policymaking that is narrowly focused on the interests of such a discrete and identifiable class of persons. The term particular matter, however, does not extend to the consideration of adoption of broad policy options that are directed to the interest of a large and diverse group of persons.

5 C.F.R. § 2635.402(b)(3).

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<sup>44</sup> Tiffany Kary and Michael Bathon, “LightSquared Files Bankruptcy After Network Blocked,” *Bloomberg*, May 15, 2012, <http://www.bloomberg.com/news/2012-05-14/lightsquared-failed-wireless-venture-files-for-bankruptcy.html>.

<sup>45</sup> See *United States v. Stadd*, 636 F.3d 630, 636 (D.C. Cir. 2011).

According to OGE, to participate “personally” means “to participate directly” and to participate “substantially” means that “the employee’s involvement is of significance to the matter.” The regulations elaborate further on these terms:

Participation may be substantial even though it is not determinative of the outcome of a particular matter. However, it requires more than official responsibility, knowledge, perfunctory involvement, or involvement on an administrative or peripheral issue. A finding of substantiality should be based not only on the effort devoted to a matter, but also on the importance of the effort. While a series of peripheral involvements may be insubstantial, the single act of approving or participating in a critical step may be substantial. Personal and substantial participation may occur when, for example, an employee participates through decision, approval, disapproval, recommendation, investigation or the rendering of advice in a particular matter.

5 C.F.R. § 2635.402(b)(4).

Finally, OGE regulations interpret the concepts “financial interest” and “direct and predictable effect.” Financial interest means “the potential for gain or loss to the employee . . . as a result of governmental action on the particular matter.” 5 C.F.R. § 2635.402(a). A member of a corporation’s board of directors is deemed to have the same financial interest as that of the corporation, 5 C.F.R. § 2635.402(b)(2), and a Government employee who owns more than \$25,000 of stock in a corporation affected by a matter is imputed to have the same financial interest as that of the corporation. 5 C.F.R. §2640.202(b)(2).

With regard to “direct and predictable effect,” the regulations state:

A particular matter will have a direct effect on a financial interest if there is a close causal link between any decision or action to be taken in the matter and any expected effect of the matter on the financial interest. An effect may be direct even though it does not occur immediately. A particular matter will not have a direct effect on a financial interest, however, if the chain of causation is attenuated or is contingent upon the occurrence of events that are speculative or that are independent of, and unrelated to the matter. A particular matter that has an effect on a financial interest only as a consequence of its effects on the general economy does not have a direct effect within the meaning of this subpart. A particular matter will have a predictable effect if there is a real, as opposed to a speculative possibility that the matter will affect the financial interest. It is not necessary, however, that the magnitude of the gain or loss be known, and the dollar amount of the gain or loss is immaterial.

5 C.F.R. § 2635.402(b)(1).

### III. ANALYSIS

Parkinson and the other Advisory Board members serving as Special Government Employees were clearly subject to the restrictions of Section 208. Whether the other elements of the statute are met, however, raises a more complex set of questions. Below we analyze how these elements apply to Parkinson first and then to the other Board members who participated in the Board's June meeting but recused themselves at the November meeting. We also offer suggestions to improve OGC's procedures when working with advisory committees that we believe could help NASA and its volunteer committee members avoid similar problems in the future.

#### A. Parkinson

As described above, Parkinson appeared at the EXCOM's May 2011 meeting where he expressed strong opposition to LightSquared's plan. He also participated in the Advisory Board's June 9, 2011, discussion of the effect LightSquared's proposed network would have on GPS devices but did not vote the following day on the Board's resolution opposing the company's application. Finally, he helped edit and authorized that his signature be placed on the August 3 letter Schlesinger sent to the FCC opposing LightSquared's application.

We conclude that the FCC proceeding was a "particular matter" under the statute given that it involved the request of a specific company to proceed with a multi-billion-dollar plan to construct a nationwide broadband network. Moreover, co-signing a letter in his capacity as Vice Chairman of the Advisory Board urging the FCC to reject LightSquared's application constituted "personal and substantial" participation by Parkinson in that matter. In addition, the FCC proceedings had a "direct and predictable effect" on Trimble's financial interests – as discussed previously, the company itself had warned investors that, if approved, LightSquared's plans could affect Trimble's financial condition. Accordingly, we conclude 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.

However, we also found that Parkinson's action did not appear to be motivated by any pecuniary interest, but rather from a desire to safeguard the GPS network he had helped create. Parkinson told the OIG that at the time Schlesinger sent the letter to the FCC it did not occur to him that he might have a conflicting financial interest. Rather, he said that his efforts to oppose LightSquared's application were based solely on his belief that the company's expanded broadband system would seriously interfere with GPS applications that were vital to U.S. economic interests.<sup>46</sup> We found no evidence to contradict this statement. Indeed, Parkinson had properly disclosed his ties to Trimble on his financial disclosure forms and his efforts to

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<sup>46</sup> Despite Trimble's warning to stockholders, Parkinson expressed the view that Trimble might actually have benefitted financially had the FCC approved LightSquared's application by manufacturing and selling devices that would not be affected by LightSquared's expanded network. For purposes of Section 208, it is immaterial whether Trimble would have suffered a gain or a loss.

persuade the EXCOM and the FCC to oppose LightSquared's application were public and widely known.

In addition, although NASA was aware of Parkinson's connection to Trimble and Agency attorneys had warned him to avoid participating in particular matters affecting Trimble's financial interests, no one at NASA recognized until November 2011 that the Advisory Board's consideration of LightSquared's proposal posed a potential conflict. In fact, even the LightSquared representatives who attended the Advisory Board's June meeting did not raise the issue.<sup>47</sup> Moreover, in a series of warning letters over the past several years NASA attorneys told Parkinson that as a Board member he would "normally be exposed only to general" matters and that consideration of a particular matter by the Board would be an "unexpected event." We acknowledge that the primary responsibility for avoiding conflicts lies with the individual Special Government Employee and that Parkinson had repeatedly received ethics training during his many years serving on Government advisory committees. Nevertheless, Section 208 is a complex statute and under the circumstances of this case we do not fault Parkinson for not immediately recognizing that what he viewed as a general matter of public policy concerning the efficacy of the nation's GPS system was actually a "particular matter" he should avoid.

In contrast, we do not believe that Parkinson's participation in the Advisory Board's June 9, 2011, discussion of the effect LightSquared's proposed broadband system would have on GPS devices violated Section 208. Although it is a close question whether mere consideration of the technical issues surrounding LightSquared's FCC application by the Advisory Board constituted a "particular matter," simply taking part in a discussion of those issues in a public forum did not constitute "substantial participation" under the statute.<sup>48</sup> Moreover, as explained previously, Parkinson did not vote on the Board's June 10 resolution opposing LightSquared's plans.

As to Parkinson's May 2011 appearance before the EXCOM, we believe it is a close question whether the EXCOM's deliberations about LightSquared's proposal constituted a "particular matter" under the statute. However, assuming they were a particular matter, we do not believe that Parkinson's participation in the EXCOM's decision making was "substantial." Both Russo and Garver told the OIG that in formulating a position on the effect LightSquared's proposal would have on GPS devices the EXCOM relied primarily on the testing conducted by the working group and the other expert panels. We found no evidence suggesting that Parkinson's single appearance before the EXCOM had any significant effect on its deliberations.

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<sup>47</sup> Miller told the OIG that he was troubled by LightSquared's failure to raise the potential conflicts of Parkinson and other Advisory Board members at a time when the issue could have been addressed through the members' recusal. Instead, Miller said it appeared to him that LightSquared had waited to raise the issue until it lost the battle over its FCC application.

<sup>48</sup> In reaching this conclusion, we are not questioning OGC's advice at the November 2011 meeting that the wisest course of action was for Parkinson and the others not to participate in the discussion of LightSquared issues planned for that afternoon. As discussed earlier, in addition to Section 208, Federal regulations also admonish Special Government Employees to avoid even the appearance of a conflict of interest.

## B. Other Advisory Board Members

As to the other members of the Advisory Board who participated in the June meeting but recused themselves from future consideration of LightSquared's proposal 5 months later on the advice of NASA ethics counsel – Hatch, Burns, and Murphy – we did not find their actions inconsistent with the statute. Even if the Advisory Board proceedings could be deemed a “particular matter” and voting on the Board's resolution constituted “substantial participation” in that matter, we find that this vote did not have the required “direct and predictable effect” on any of these Board members' qualifying financial interests.

Hatch owned more than \$25,000 in stock in John Deere, a company that was part of the GPS Coalition that opposed LightSquared's plan. However, unlike Trimble, Deere has a wide product base and had not made any public statements suggesting that LightSquared's proposal could impact the company financially.<sup>49</sup> Similarly, Burns' United Airlines holdings do not constitute a disqualifying financial interest. Although United's airplanes use high-precision GPS units and the company participated in the GPS Coalition through its membership in the Air Transport Association, we found no evidence of a “close causal link” between any decision on LightSquared's proposal and United's financial interests.<sup>50</sup>

Finally, according to the official meeting minutes, Murphy voted in favor of the resolution. However, as previously stated, Murphy told the OIG that he did not vote on the resolution because Boeing had interests on both sides of the LightSquared matter, although he failed to vocalize his decision to abstain. However, even if we were to accept the minutes as accurate and assume he voted on the resolution, Murphy's holdings in Boeing do not represent a disqualifying financial interest because there is no evidence suggesting that Boeing's financial condition would have been impacted by a decision on the LightSquared proposal.

## C. NASA OGC

We found that NASA's OGC could have taken steps that might have identified the potential conflict of interest issues associated with the Advisory Board's consideration of LightSquared's proposal in time to take curative action. Although OGC attorneys reviewed the Board members' financial disclosure forms and alerted members that they must avoid participating in particular

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<sup>49</sup> Hatch sold Deere stock options on March 9, 2011, for a profit of \$61,968.10, and again on June 3, 2011, for a profit of \$177,369.76. He said neither sale was motivated by a fear that LightSquared's plans would hurt Deere stock, but rather that he needed the cash to invest in an oil and gas opportunity. Hatch said he never had any concerns about discussing or voting on the LightSquared resolution because in his mind having recently read the ethics materials he received as a new member he believed that as long as the Advisory Board was discussing an issue that affected GPS manufacturers across the board he did not have a conflict of interest. Hatch said the only reason he recused himself at the November 2011 meeting was because the NASA ethics attorney advised him it would be the safe thing to do until the issue could be further analyzed.

<sup>50</sup> 5 C.F.R. § 2635.402(b)(1). Burns told the OIG that during the November Advisory Board meeting he contacted attorneys for United Airlines to seek their assistance in analyzing whether he had a disqualifying conflict with regard to LightSquared, and they told him he did not. Burns said the only reason he recused himself at the meeting was because Greenstone advised him it was the safest thing to do until the issue could be analyzed further. He also expressed the belief that with more time to analyze the issue, fewer Board members would have been advised to recuse themselves.

matters that involved any of the listed private companies, they did not regularly review meeting agendas or attend Advisory Board meetings. Rather, they relied on the individual members and Miller, who is not an attorney, to recognize potential conflicts and bring them to their attention. As a result, OGC attorneys were not aware that the Board was considering the LightSquared issue at the June meeting and therefore were not in a position to recognize the potential conflict or provide timely advice to Board members about how to avoid it.<sup>51</sup>

Advisory committee members generally are technical experts tasked with considering general scientific issues of broad applicability. As such, they may not be in the best position to recognize when their deliberations shift from general to particular matters within the meaning of the Federal conflict of interest statute. We believe the better practice would be for OGC ethics officials to regularly review advisory committee agendas ahead of time and attend committee meetings whenever possible in an attempt to identify and resolve possible conflicts.

#### **D. Executive Director of the Advisory Board**

We also found that Miller could have acted more diligently to help Advisory Board members avoid any conflicts posed by the LightSquared issue. As a full-time NASA civil servant who had received repeated ethics training, Miller should have been more familiar than the Board members with the ethics rules. In addition, he received copies of Board members' financial disclosure statements and was involved in crafting the warning letters sent to them by NASA ethics counsel. As a result, he was aware that many members of the Board worked for, held stock in, or served on the boards of directors of either GPS manufacturers or large commercial GPS users who were actively opposing LightSquared's plan. In addition, Miller knew the Board was scheduled to discuss interference issues related to LightSquared's FCC application at its June meeting. Moreover, Miller acknowledged that it was part of his responsibilities as Executive Director to help Board members identify and avoid financial conflicts, and told the OIG that, in hindsight, it would have been better if he had contacted the OGC about the Board's consideration of the LightSquared issue prior to the June meeting. However, he said he simply did not recognize the Board's technical evaluation of LightSquared's plan as a "particular matter." During our interviews Miller described his own career-long involvement with and dedication to GPS issues and his past relationships and deep respect for some of the members of the Advisory Board, but denied that these ties blinded him to potential conflicts or that he was overly deferential to the Board members.<sup>52</sup>

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<sup>51</sup> In addition to the recusal option, Section 208 provides a mechanism by which a Federal agency may exempt Special Government Employees from the statute's strictures. This so-called waiver provision allows the head of an agency, after consultation with OGE, to determine that the value of an advisory committee member's advice outweighs concerns about his or her potential conflicts. 18 U.S.C. § 208 (b)(3). Although the ethics presentation provided to the Advisory Board by Greenstone in October 2010 included a mention of Section 208 waivers, most members we interviewed said they were not aware of the waiver provision and several were critical of the OGC attorneys for failing to make the waiver option more readily known. Although NASA has granted Section 208(b)(3) waivers to FACA committee members on 18 different occasions since 2003, OGC's Falcon said his office strongly prefers considering all other potential solutions to a conflict of interest before considering the waiver option and does not like to overemphasize its availability to advisory committee members.

<sup>52</sup> Schlesinger told the OIG that he believed Miller was in a difficult position given the "difference in status" between himself and members of the Advisory Board. "For him to go to Brad [Parkinson] and say, 'Hey, think



## E. Miller Was Not Required to File a Financial Disclosure Report

During our review, we found that Miller was not required to file an OGE Form 450. Under NASA policy, presidential appointees, members of the Senior Executive Service, and certain other senior officials as well as all political appointees are required to file a Public Financial Disclosure Report known as an SF-278.<sup>53</sup> Other NASA employees, such as those classified at the GS-15 level who are personally and substantially involved in the awarding or oversight of Government contracts, evaluating or administering grant proposals, or establishing or enforcing safety standards must file OGE Form 450s.<sup>54</sup> In addition, an OGE Form 450 must be filed by any other employee whose supervisor determines that the employee holds a position

requiring the incumbent . . . to exercise judgment in making Government decisions or taking actions in which such decisions or actions may have a direct and substantial economic impact on the interest of any non-Federal entity; or whose positions are otherwise identified as requiring the employee to file a report to avoid a real or apparent conflict of interest, and to carry out the purposes behind any statute, Executive order, rule, or regulation applicable to or administered by that employee (e.g., employees whose duties involve investigating violations of criminal or civil law).<sup>55</sup>

In light of the role executive directors' play helping advisory committee members identify and avoid potential conflicts, we believe NASA should require the same disclosures from them as are required from committee members.<sup>56</sup>

## IV. OIG Recommendations

In light of the findings of this report, the OIG makes the following recommendations to improve NASA's system for monitoring and advising FACA advisory committees:

1. Expand the ethics training provided to committee members to include a more thorough discussion of the term "particular matter" and the types of investments and arrangements that are considered "financial interests" and consider including a more detailed discussion of Section 208(b)(3) waivers in the training so that members and executive directors are more familiar with the option. In addition, NASA should require that all newly appointed members attend ethics training focused on advisory committee issues before they participate in committee meetings.

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about whether you're out of line or not,' seems to be expecting a little bit more than perhaps the circumstances would warrant. Now . . . in retrospect, that might have been a good thing." Schlesinger predicted, "As one looks to the future, I think that he [Miller] would be inclined to be less deferential."

<sup>53</sup> NASA Procedural Requirements (NPR) 1900.3B, "Ethics Program Management," April 23, 2007. Chapter 4.1.2, determines which employees must file SF-278s.

<sup>54</sup> NPR 1900.3B, Chapter 4.1.3.a(1).

<sup>55</sup> NPR 1900.3B, Chapter 4.1.3.a(2).

<sup>56</sup> After we inquired about Miller's OGE Form 450, he sought and received permission to file one. Our review of it showed that Miller did not appear to have any holdings that would have posed a conflict with respect to LightSquared.

2. Revise OGC warning letters to include a more thorough discussion of what constitutes a “particular matter” and remove language suggesting that such matters are unlikely to come before advisory committees.
3. Make it a practice for OGC attorneys to attend advisory committee meetings whenever possible. At a minimum, require executive directors to provide meeting agendas to the assigned OGC attorney in advance and require the attorney to review the agenda and discuss possible conflicts with the executive director.
4. Require the executive directors of all advisory committees to file an annual OGE Form 450, “Confidential Financial Disclosure Report.”