

P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board Andre Fuetsch AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS April 25, 2017

The Honorable Ted Cruz 404 Russell Senate Office Building United States Senate Washington, DC 20515

Re: Global Positioning System Vulnerability

Dear Senator Cruz:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC strongly applauds your intention to introduce and support legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Elliott Mulkin



P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board Andre Fuetsch AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS April 25, 2017

The Honorable Ed Markey 255 Dirksen Senate Office Building United States Senate Washington, DC 20510

Re: Global Positioning System Vulnerability

Dear Senator Markey:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC strongly applauds your intention to introduce and support legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Joseph Wender



P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board Andre Fuetsch AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS April 25, 2017

The Honorable Susan Collins 413 Dirksen Senate Office Building United States Senate Washington, DC 20510

Re: Global Positioning System Vulnerability

Dear Senator Collins:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC strongly applauds your intention to introduce and support legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Mark Leduc



P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board

Andre Fuetsch

AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS May 3, 2017

The Honorable Roger Wicker 555 Dirksen Senate Office Building United States Senate Washington, DC 20510

Re: Global Positioning System Vulnerability

Dear Senator Wicker:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC urges your support for legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Olivia Trusty



P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board Andre Fuetsch AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS May 3, 2017

The Honorable John Garamendi 2438 Rayburn House Office Building United States House of Representatives Washington, DC 20515

Re: Global Positioning System Vulnerability

Dear Representative Garamendi:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC urges your support for legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Dante Atkins



P: +1 202-628-6380 W: www.atis.org

ATIS Board Officers

Chair of the Board Andre Fuetsch AT&T

First Vice Chair Joseph Hanley TDS

Treasurer

Jay Bluhm

Sprint

President and Chief Executive Officer Susan M. Miller ATIS

Vice President of Finance & Operations **Kelly Weiss** ATIS May 3, 2017

The Honorable Duncan Hunter 2429 Rayburn House Office Building United States House of Representatives Washington, DC 20515

Re: Global Positioning System Vulnerability

Dear Representative Hunter:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Synchronization (SYNC) Committee is writing to urge the introduction of legislation for the building of a backup to the Global Positioning System (GPS). GPS disruptions may have economic, financial, and service impacts to entities that depend upon a functioning wireless communication infrastructure. GPS vulnerability has been identified as an ATIS SYNC priority.

ATIS is accredited by the American National Standards Institute and is a founding partner in the 3rd Generation Partnership Project (3GPP), the global collaborative developing Long Term Evolution (LTE), LTE-Advanced and 5G wireless specifications. It is also a founding Partner of the oneM2M global initiative, a member and major U.S. contributor to the International Telecommunication Union, as well as a member of the Inter-American Telecommunication Commission. ATIS SYNC develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces.

ATIS has consistently recommended and advocated that Alternative Position, Navigation, and Timing (PNT) Systems be developed and deployed in the United States. Most recently, ATIS SYNC recommended to the National Space Based PNT Advisory Board that an eLoran system be developed and implemented in the U.S. to provide a near-term alternative to GPS for telecommunications and other critical infrastructure. Key properties of this system would include its low frequency of operation, technical maturity, resiliency to jamming and spoofing, independence from GPS, and ability to nationally deliver precise time.

ATIS SYNC urges your support for legislation to make eLoran and GPS timing backup a reality.

Thank you for your time and leadership on this critical issue.

Sincerely,

Thomas Goode ATIS General Counsel

cc: Kyle Egan