



Public Policy Positions

Approved by FOSA Board April 6, 2018

Federal Public Policy Recommendations on Improving Safety, Security and Efficiency in Critical Infrastructure and Facilities

1. Pipeline safety

- a. Pipeline and Hazardous Materials Safety Administration (PHMSA) leak detection guidance. To provide clarity to the pipeline industry and related industries, PHMSA should fulfill the leak detection mandates of the 2011 Pipeline Safety Act, specifically by developing performance-based leak detection standards.
- b. Public-private leak detection testing facilities. To properly assess the efficacy of various leak detection technologies and provide performance certification of such technologies, federal funding should be made available for construction and operation of a dedicated leak detection testing facility operated by a government entity or non-profit organization with expertise in pipeline operations. FOSA's Technology Committee pledges to provide technological information and support to this effort.

2. Rail safety

- a. Infrastructure spending. In any infrastructure spending relating to railways, Congress should include appropriate funding for advanced technologies, such as fiber optic sensing, which will make railways safer and more efficient.
- b. Additional funding for USDOT's Transportation Technology Center (TTC). Increased federal funding should be made available to the TTC for purposes of testing the use of distributed fiber optic sensing in various terrains and geographic settings for both freight and passenger rail. Testing should address 1) optimization of track-side security, 2) increasing worker safety, 3) reducing the number and severity of

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derailments, 4) development of optimal installation techniques, 5) leveraging of existing fiber networks near railways, and 6) similar purposes. Coordination should occur with other interested agencies, such as the Department of Homeland Security. FOSA's Technology Committee pledges to provide technological information and support to this effort.

- c. Pilot projects and trials. In addition to testing by TTC and other entities, adoption of new technologies by the rail sector requires pilot projects and trials in active rail environments. Therefore, Congress should provide USDOT with funding for pilot projects and trials to be conducted in conjunction with the research topics listed above. Coordination should occur with other interested agencies, such as DHS. FOSA's Technology Committee pledges to provide technological information and support to this effort.
3. Power cable efficiency, safety and security
- a. Public-private testing program. Federal funding should be made available for construction and operation of a facility for the testing of sensing technologies designed to improve the efficiency, safety and security of high voltage power cables using advanced technologies like fiber optic sensing. Such facility should be operated by a non-profit organization or quasi-government corporation with expertise in power facility and/or power cable operations or employing personnel with such expertise. FOSA's Technology Committee pledges to provide technological information and support to this effort.
4. Smart Infrastructure
- a. Infrastructure spending. In spending for transportation infrastructure, Congress should include appropriate funding for, and require DOT to include, advanced technologies, such as fiber optic sensing, which will make such infrastructure safer and more efficient. Consideration should be given to each technology's sensitivity, accuracy, durability, serviceable life, non-obviousness, ability to distinguish threats from innocuous events or conditions, need for supporting services such as electrification and maintenance, cost effectiveness, and ability to integrate with other technologies.

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- b. Public-private program for smart road testing. Federal funding should be made available for new and existing test beds for smart road technology designed to improve integrity, efficiency and value of public roads. Such facility should be operated by a non-profit organization or quasi-government corporation with expertise in smart infrastructure or employing personnel with such expertise. FOSA's Technology Committee pledges to provide technological information and support to this effort.
- c. Dig Once. FOSA endorses The Broadband Conduit Deployment Act of 2018, H.R. 4800 (Eshoo, McKinley) and the version of this legislation enacted as part of Fiscal Year 2018 Omnibus Appropriations. This legislation is commonly referred to as the "Dig Once" bill. The Eshoo-McKinley bill mandates the installation of fiber conduits for covered highway construction projects. The enacted version requires states receiving federal highway funding to appoint a broadband infrastructure coordinator for the purpose of sharing road construction information with broadband infrastructure providers so they may have their conduit or fiber optic cable included. The policy is referred to as "Dig Once" because it aims to eliminate the need to dig up roads post construction. Legislation promoting Dig Once policy has been introduced repeatedly in Congress since 2009. FOSA urges the modification of Dig Once to include consideration of appropriate placement of the conduit/cable to enable its use for sensing, thereby making it possible for highways to become "smart highways" in the future with little or no additional expense.

5. Border security

- a. Border security technology. FOSA endorses the Secure Miles with all Available Resources and Technology (SMART) Act of 2017, H.R. 3479 (Hurd, R-TX, Aguillar, D-CA), which requires the DHS to consider the most effective and efficient technology for securing the border, including sensors, LIDAR, cameras, UAVs. FOSA also endorses identical language included in the Uniting and Securing America Act, HR 4796 (Hurd, R-TX, Aguillar, D-CA), and the Border Security for America Act of 2017, HR 3548 (McCaul, R-TX). Furthermore, FOSA urges modification of these provisions of H.R. 3479, H.R. 3548, and H.R. 4796 to clarify that consideration shall be given to each technology's sensitivity, accuracy, durability, serviceable life, non-obviousness, ability to distinguish threats from innocuous events or conditions, need for supporting services such as

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electrification and maintenance, cost effectiveness, ability to integrate with other technologies, and ability to enhance situational awareness. FOSA also endorses provisions of the House and Senate Homeland Security Appropriations Acts which require evaluation of fiber optic sensing for various purposes.

- b. Technology funding for border security and critical assets. Building on the funding levels included in Fiscal Year 2018 appropriations, FOSA urges Congress to appropriate sufficient funding in Fiscal Year 2019 and beyond for technology meeting the criteria above for border security and perimeter security for critical assets. FOSA encourages federal agency testing of fiber optic sensing specifically for these purposes.

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