

Nov 17th, 8:00 PM

Keynote speaker - Chairman Brian Babin

Brian Babin

Chairman, House Committee Science, Space, and Technology

Follow this and additional works at: <https://commons.erau.edu/stm>

Babin, Brian, "Keynote speaker - Chairman Brian Babin" (2016). *Space Traffic Management Conference*. 1. <https://commons.erau.edu/stm/2016/thursday/1>

This Event is brought to you for free and open access by the Conferences at Scholarly Commons. It has been accepted for inclusion in Space Traffic Management Conference by an authorized administrator of Scholarly Commons. For more information, please contact commons@erau.edu.

Chairman Brian Babin

Remarks to Embry Riddle's 3rd Annual Space Traffic Management Conference

**Emil Buehler Aviation Maintenance Science Building, Rooftop
(600 S Clyde Morris Blvd, Daytona Beach, FL 32114)**

**Thursday, November 17th, 2016
During Dinner Banquet (8:00 p.m.)**

Good evening. It is a pleasure to be with all of you at this evening at Embry Riddle's 3rd Annual Space Traffic Management Conference – “Emerging Dynamics.” I thank Embry-Riddle and Dr. Diane Howard for the invitation to be with you this evening.

It's really remarkable that three years ago Embry Riddle had the vision and leadership to organize and host an annual Space Traffic Management Conference. As Chairman of the House of Representatives Space Subcommittee, I can attest that the policy issues you are discussing at this conference are timely and important. Thank you, to every one of you, for your efforts and contributions.

This evening, I would like to bring you up to speed on some of the work Congress has done and is doing on space traffic management and

share key policy questions that the Committee is exploring. I also have some personal perspectives to share with you on this subject. After these remarks, I look forward to speaking with you and hearing your perspectives.

To begin with, there are a number of policy issues the Space Subcommittee is tackling relevant to space traffic management. These include whether or not to transfer Department of Defense responsibility for civilian space situational awareness information and services to a civilian government agency, whether or not to grant Federal Aviation Administration that authority, and whether or not there is a need for additional authorities for the government to regulate on-orbit activities, including safety of flight and operations.

I recognize that today there is no consensus opinion on what, if anything, Congress and the federal government should do about space traffic management. I also recognize that there are many different ideas being discussed. Frankly, this is a good thing. It means our democratic processes are strong. We as a nation will be better off because we have

taken the time to have these discussions and assess the marketplace of ideas.

Please allow me to share with you what I believe are fundamental principles that should guide our discussions on space traffic management.

First, I believe the government's role isn't to give you permission to do something. The government's role should be limited to only those areas that require its intrusion, which is a high bar. The burden of proof shouldn't be on the individual to demonstrate the "right" to act; the burden of proof should be on the state when it seeks to restrict liberty.

Second, only when the public interest cannot be effectuated through non-government means should a function be deemed inherently governmental.

Third, if there are public interests that require the government to intervene, we must do our due diligence and assess all possible mechanisms of effectuating a desired policy outcome. This includes private sector standard setting and self-regulating organizations.

Fourth, we must take into account the impact of any government action on shifting the incentives and disincentives of private sector investment and innovation and responsible behavior. We cannot afford to drive American investment and innovation overseas. We need to ensure minimal government regulation and a free market in space for a broad range of commercial activities. We need to make sure that the government doesn't create a moral hazard and disincentivize responsible behavior.

In taking into account these four principles, we must also recognize that outer space and the orbital regimes we all rely upon should be available for use by current and future generations. There is a need to ensure access to Earth's orbits, to prevent orbital regimes becoming useless because of orbital debris and risks of collisions.

Over the past few years, the Space Subcommittee has been hard at work gathering stakeholder input, analyzing the issues, and conducting the due diligence necessary to inform any future legislative action. In the 113th Congress, we held a hearing specifically on space traffic management. In the 114th Congress, we passed the *Commercial Space*

Launch Competitiveness Act. The Act directs the Administration to report on orbital traffic management, space situational awareness, orbital debris, and compliance with the authorization and supervision requirements of the Outer Space Treaty. The Subcommittee is still waiting for a number of key reports from the Administration that will inform Congressional deliberations.

The Committee on Science, Space, and Technology will continue this oversight next year by evaluating the reports delivered by the Administration and holding hearings to determine whether or not legislative action is necessary, and if so, the nature of such legislation. I look forward to working with all of my colleagues on the space subcommittee - - Republican and Democrat - - in order to address this very important issue.

One of the challenges with discussing “space traffic management” is making sure that everyone is talking about the same thing. “Space traffic management” does not have an agreed upon definition.

Depending on the public policy outcomes one seeks to achieve, the term “space traffic management” means different things. For example, the

need for “space traffic management” is used often by advocates for expanding federal authority to regulate and direct on-orbit maneuvers for the purposes of collision avoidance. While those advocating for the federal government to take a more active role in facilitating improved space situational awareness data also call for federal “space traffic management.”

Further adding to the confusion, “space situational awareness” is often used interchangeably when discussing space traffic management, particularly within the context of the federal government serving as a clearing house of space situational awareness data.

It reminds me of planning a family vacation. Everyone agrees we should go to the beach. But when you actually get down to it – one person wants to go to the sandy shores of Daytona Beach, Florida, another wants to go to the rocky shoals of Maine, and another wants to go to cold waters of Alaska. Should we improve on-orbit flight and operational safety? Of course we should. Saying otherwise is like arguing against apple pie. But there is no consensus on what exactly to accomplish, how to accomplish it, or the metrics of success.

Regardless of how one chooses to define these terms, I believe it is more useful to ask and answer the questions of what policy outcomes should be sought, whether government intrusion is needed to effectuate those outcomes, and if so, to what degree is government intrusion justified. My Space Subcommittee staff and I are working through these questions. I applaud you for your efforts at this conference to ask and answer these very questions – your work is an important contribution to this public policy debate.

In assessing what we should be doing and why, it's important to recognize where specific stakeholder interests lay and the solutions they propose.

Department of Defense and the Joint Space Operations Center are advocating for civil space situational awareness and information service responsibilities be transferred from the DoD to a civilian federal agency. The bottom line is that the DoD doesn't want to use resources on non-military SSA functions. This is a legitimate position. But what is unclear, and still needs to be answered, is to what degree are DoD resources being taxed? The DoD will always maintain SSA capabilities

to protect national security. That won't change. What is uncertain; however, is what level of effort is devoted to commercial notifications associated with the external STM "storefront." What would be the benefits, if any, from a resource perspective of transferring the authority to a civilian agency, as opposed to maintaining the resources at DoD? And what are important non-resource considerations, such as international cooperation and space operations security?

The FAA is advocating for taking over existing DoD SSA responsibilities. They are also calling for expanding the number and types of SSA data sources they would process, including commercial sources. The Administration's Section 110 report concludes it is feasible for a civil agency, specifically the Department of Transportation, to take over DoD's function. But neither the Administration's report or the FAA has undertaken an analysis of the broader trade space to determine the pros and cons of non-governmental solutions. Are there viable solutions that are superior and do not involve the FAA or another civil agency taking over DoD responsibilities? As I'll discuss in more detail in a few

minutes - - there are definitely non-government solutions that we need to fully assess before making any decisions.

It's also important to note that the Administration, in the Section 108 report, has linked FAA authority to provide SSA information and services to broader FAA authority to regulate on-orbit activities. The FAA argues that if granted authority to provide SSA information and services, such an authority, coupled with existing statutory authority "to protect public health and safety, safety of property, national security interests, and foreign policy interests," would be sufficient for the FAA to promulgate regulations governing on-orbit safety of flight operations. The FAA has been publicly advocating for a "crawl, walk, run" approach. In this analogy, the FAA says that "crawling" is providing SSA information and services, "walking" is facilitating standards and best practices, and "running" is regulating only when necessary.

But the FAA's proposal would give the FAA authority to regulate before it has demonstrated the ability to provide SSA information and services and before the creation of standards and best practices. Should Congress allow the FAA to regulate on-orbit safety of flight before it has

demonstrated an absolute public necessity for such regulation? In other words, should Congress let the FAA “run” before it has crawled?

As the old saying goes, “when you are a hammer, everything looks like a nail.” When you are a regulatory agency, every problem can be fixed by regulating it. In principle, I am against this type of regulatory expansion. Only if the public interest cannot otherwise, and with certainty, be met through any other means, should Congress entertain the expansion of regulatory authority and infringements on our liberty.

The private sector, including for-profit entities, not-for-profit entities, associations, and academia, also have a stake in this discussion both as users, and also as providers of SSA and STM information and services.

Several years ago, a group of satellite operators recognized that if they were able to share data about where their satellites are, what frequencies they are transmitting on, and what their planned maneuvers are, they could achieve a safer flight profile on-orbit. These operators founded the Space Data Association, a private organization that has been very successful in attracting membership and improving safer flight

profiles on-orbit. The Space Data Association demonstrates how the private sector can successfully collaborate and innovate STM solutions without government intervention. They have been so successful that several federal agencies have joined the Space Data Association, including NASA and NOAA.

A number of commercial companies are investing in and operating ground and space-based SSA infrastructure, observing, software and processing capabilities. Information and services are for sale on the open market. Companies are competing to develop more cost-effective, timely, and accurate SSA data, often relying on off-the-shelf and non-military technologies and infrastructure. In some cases, commercial capabilities and analytics are superior to DoD's. This is good news for America and for the global community. The more the American private sector invests and innovates - - the better off our nation and the international user community will be. We must ensure our public policy choices do not inhibit or undermine American innovation and investment.

There are also academic institutions and non-profit entities innovating and contributing to improved SSA information and services. The University of Arizona has been forward leaning with proposals for open-source SSA data solutions, advocating for a hybrid public-private partnership solution to addressing safety of on-orbit flight operations.

We should stoke the embers of private sector creativity, not smother them with a bureaucratic blanket.

As I reflect upon all these different stakeholders, I do begin to see some commonality. First, there seems to be a general consensus that the public policy outcomes sought should be to enhance the safety of space operations and preserve the environment for future use. Second, there doesn't seem to be any agreement as to what the metrics of success are. To what degree are we to enhance safety and preserve the environment? Without such metrics, we risk chasing after the horizon and crafting policies that aren't appropriately bound. Third, there is a recognition that the challenge of enhancing safety of space operations and preserving the orbital environment is an international challenge.

Together, these stakeholder communities have developed a number of public policy solutions to enhance the safety of space operations and preserve the space environment. At the highest level, these solutions are as follows:

- Keep things at the status quo and allow the private sector to develop solutions independent of government intervention;
- Transfer DoD SSA responsibility to the FAA and empower the FAA with broader authority to regulate on-orbit safety;
- Facilitate private sector, market oriented, for-profit STM services;
- Promote public-private partnerships and open-data models;
- Facilitate bottom-up self-regulating standards and guidelines;
and
- Advocate for greater international coordination of safety of flight operations.

None of these proposals are mutually exclusive; however, some options would clearly inhibit other solutions. At this point, everything should be on the table for consideration.

The basic notion of whether space traffic is managed sufficiently right now by the private sector is an ongoing debate. Let us not forget that the United States leads the world in promoting safety of flight and preservation of the space environment. In the United States, space debris mitigation is a regulated activity. FAA, FCC, and NOAA licenses are all required to conform to U.S. space debris mitigation guidelines. The Federal Government, in principle, is also supposed to conform to U.S. space debris mitigation guidelines. These guidelines direct how an operator is supposed to design, operate, and terminate operations in order to minimize their satellite or launch vehicle becoming a source of debris. It includes a directive that operators select a safe flight profile and operational configuration on-orbit. Furthermore, U.S. space debris mitigation guidelines are complemented with international debris guidelines - - providing an international coordination mechanism for standards and best practices.

Some have argued that SSA information and services is an inherently governmental function. But I believe this question is already answered and the answer is no. The private sector provides SSA information and services and has done so for years. The provision is clearly not inherently governmental.

The real question is whether or not ensuring that operators have SSA information and services of appropriate fidelity and that they must act on such information to ensure safety of flight and environmental safety is an inherently governmental function. This is a public policy question for legislative consideration, not bureaucratic fiat.

Another related question is who bears the costs associated with SSA and STM. Should the taxpayer subsidize the data and services for space operators? Or should the operators be responsible, either via fees levied by the government, or through private markets, to cover the costs? The implications of this choice go beyond simply who will pay for a service. It also raises questions of liability and incentives for space operators to improve upon SSA and ensure safer on-orbit flight profiles.

If the government provides a service, does it disincentivize responsible behavior by the private sector and create a “moral hazard”?

As we assess, and if necessary, move forward with new policies for space traffic management, I call upon each and every one of you to uphold the political and economic principles that make our nation so great: Individual Liberty and Freedom. We must do our due diligence and assess all possible mechanisms of effectuating a desired policy outcome. The government’s role should be limited to only those areas that require its intrusion, which is a high bar. I recognize that outer space and the orbital regimes we all rely upon should be managed appropriately and available for use by future generations. But I also know that if we fail to provide a competitive environment for private sector innovation and investment, other nations will happily step up. Outer space is not “airspace” or “territorial waters.” There is no sovereign territory in outer space. If we do adopt a burdensome regulatory structure, commercial space operators will decide to work with other nations that are more permissive. This will lead to an eroded industrial base, decreased national capabilities, declining international

influence, and the loss of a skilled workforce. I, for one, don't want that to happen on my watch.

In closing, I ask you to imagine a future in which American innovation in outer space leads. A future in which your sons and daughters benefit from an efficient use of Earth's orbital regimes, led by an American presence in outer space, not because of government programs, but because we were free, as private citizens, to explore, discover, and use outer space. Our success will carry the philosophical principles of our great nation, in peace and for the benefit of all mankind. Thank you.

###