



OCC NewsLetter

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- Protecting-Advocating-Resolving

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On behalf of the LaRC Office of Chief Counsel, I encourage you to take a few minutes and read through this quarter's Legal Newsletter. This version includes helpful articles (including an appearance by Superman) on export control submitted by Eric Rissling who serves as our Center Export Counsel, a timely article on political activity regulations (Hatch Act) by Dacia Bruns, an article Michael Mark authored on personal services, and an informative piece on software release by Andrea Warmbier. Both the export control and software release articles shed light on complex, cross organizational processes that can seem opaque and frustrating to those who need to navigate through them to share information or software with others. From years of working with the special authorities who are the designated owners of these processes (the Center Export Administrator and the Center Software Release Authority), we know that their objectives, like OCC's, are to help accomplish the NASA mission within the rule of law construct within which we all operate. I am reminded that NASA's Core Values are Safety, Excellence, Teamwork, and Integrity. It is through application of these values that we must all collaborate to make these processes work in order to succeed. In both of these areas the rules are ever changing, each case is unique, and success takes both process participants and end users who are committed to helping one another. As is typically the case in the legal realm, early coordination when export controlled materials or software may be shared with others helps enable a "yes, if" as opposed to a "no, because" result. We are, gratefully, here to serve!

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ITAR, EAR, and Export Control Awareness

(or, How to Know Just Enough to Stay Out of Jail)

What is Export Control?

The U.S. government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the U.S. due to national security, economic, and/or foreign policy concerns. In brief, Export Controls set the rules for the shipment or transfer, by whatever means, of controlled items, software, technology, or services out of the U.S. (termed an “Export”). Export Controls also encompass government restrictions on the release of certain information to foreign nationals here in the U.S. (referred to as a “Deemed Export”). Export Controls must be reasonably understood by NASA personnel if for no other reason than our fundamental mission encourages the sharing of information. The success of research opportunities and international collaborations require we follow export control laws and regulations. Also, noncompliance can result in dangerous people obtaining dangerous capabilities, as well as severe monetary and criminal penalties for those who ignore or disobey the law. Recent prosecutions against former NASA employees resulted in federal convictions with penalties that ranged from six months’ probation to 14 months incarceration.

IT Equipment and Export Control

One of the most frequently abused, and easily prosecuted, violations of export control laws is the carrying of controlled information residing on a laptop (or USB drive, or disc, or tablet) out of the country. This is why it is so important to submit a LaRC “Foreign Travel IT Request Form” to the LaRC Export Control Office prior to traveling, and to hand carry the printed approval form substantiating NASA approval to export/re-export any IT equipment and data in your possession. Individuals exiting or returning to the United States can lawfully be directed by Customs Officials to provide their laptops and media devices to Customs for inspection. No search warrant or probable cause is required for border searches by these law enforcement officers. If export controlled data/information is found on the device, the traveler will be required to provide evidence of the export license authorizing the transfer of the information beyond U.S. borders.

If there is no license, and no exemption or exception under International Traffic in Arms Regulations (ITAR) or the Export Administration Regulations (EAR), the traveler will very likely be arrested even if traveling on government orders for NASA. It is no defense that the traveler honestly intended to use the information only for his own purposes while outside of the U.S. and never share it with another person. Taking the controlled information out of the U.S. constitutes an “export” and, therefore, an export license is required.

The EAR and ITAR

A common misunderstanding is that export controlled data/information is categorically prohibited from being taken out of the U.S. While that is the right place to start, there actually are ways to transfer such information legally. All it takes is planning, time to coordinate through HQ NASA Office of International and Interagency Relations (OIIR), and licensing approval from the cognizant federal agency (either the State Department or the Commerce Department). The ITAR, 22 C.F.R. § 120-130, falls under the authority of the State Department. The EAR, 15 C.F.R. §730-774, falls under the authority of the Commerce Department.

So what is controlled...what is it that I cannot take or ship out of the country or disclose to a foreign national? There are lists of what is controlled under EAR and ITAR. They are not easy to read, and that is why LaRC has an Export Control Office to help us know what the lists mean and to determine the classification of the information or items (see related article in this OCC Newsletter “Would Superman Require an ITAR License?” for a perspective on what’s involved in classifying an item for ITAR or EAR purposes). The ITAR controls the export of goods and technical data on the United States Munitions List (USML) as well as certain items on the Missile Technology Control Regime (MTCR) Annex. USML items are mainly “military” in nature, with a limited number of “dual-use” items. The EAR controls the export of goods and technology on the Commerce Control List (CCL), including certain items on the MTCR Annex. Items

ITAR, EAR, and Export Control Awareness (or, How to Know Just Enough to Stay Out of Jail), Cont'd

on the CCL are typically referred to as “dual-use” items. Reforms of these regulations by the Obama administration resulted in a significant number of technologies moving off the USML (i.e., ITAR controlled) and onto the CCL in June 2014, meaning they are still controlled but not to the same extent and degree as when considered “military” in nature.

Some Examples of Export Controls

It might be easier to start off with what is NOT controlled: fundamental research. Fundamental research is not specifically defined, but is generally understood to be information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the public domain. Also not controlled is basic marketing information on function or purpose, or general descriptions of items.

The ITAR controls defense articles listed on the USML and technical data related to those articles. Controlled “technical data” as defined in the ITAR is: Information which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of “defense articles”; classified information related to defense articles; information covered by an invention secrecy order; and, software directly related to defense articles. Items listed on the USML include:

- Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines (ITAR Article IV)
- Explosives and Energetic Materials, Propellants, Incendiary Agents and Their Constituents (ITAR Article V)
- Aircraft and Related Articles (ITAR Article VIII)
- Fire Control, Range Finder, Optical and Guidance and Control Equipment (ITAR Article XII)
- Spacecraft and Related Articles (ITAR Article XV)

The EAR controls specific information necessary for the development, production, or use of a product enumerated on the CCL. Such information takes the form of “technical data” or

“technical assistance.” General categories of items on the CCL include: Electronics (Category 3); Computers (Category 4); Lasers and Sensors (Category 6); Navigation and Avionics (Category 7); Aerospace and Avionics (Category 9). Obviously, these are very broad categories. To determine actual classification and controls requires drilling down through the specific tables of the CCL. Do not try this at home alone! The LaRC Export Control Office and the Office of Chief Counsel exist to help you navigate these rules and laws so you can perform NASA’s mission. Don’t hesitate to reach out to them.

In a recent March 9th, 2016 correspondence to all NASA Center Directors, NASA Administrator Bolden reiterated his expectation that NASA serve as a model of effective export control implementation. He said “As the world’s premier aerospace agency, NASA has a unique responsibility to safeguard the sensitive technologies that are crucial to our missions. The loss or theft of certain advanced aerospace technologies could have grave national security implications for the Nation.” Don’t take chances when it comes to export controls. Check SATERN for training opportunities, and freely seek help from the Export Control Office and OCC.

The Export Compliance Journal: "Would Superman Require an ITAR License?"

(Source: [The Export Compliance Journal](#), reprinted with permission)



This would have made an incredibly boring plot twist for a Superman movie, but it is reasonable to assume that if Superman, the super-strong, super-fast native of the Planet Krypton, were to travel to another country to perform a feat of amazement, he would have to apply for an export license first.

Due to his rare capabilities and his association with the United States of America, Superman is a walking, breathing military-grade weapon. So if Kal-El, A.K.A. Clark Kent, A.K.A. Superman, existed in today's world of export sanctions, denied or restricted party screening, and classified goods, what would be the ramifications and export controls around him leaving the United States?

How would you classify the Man of Steel for export control purposes?

If Superman did exist, my first thought would be on how he would be classified. Is he a controlled good or commodity? Is he a defense service? Would he be classified as a military component under the ITAR (International Traffic in Arms Regulations), or a dual-use good under the EAR (Export Administration Regulations)? Would non-U.S. citizens having access to Superman within the United States be considered a release of technology, or a deemed export?

If I was tasked with classifying the Man of Steel, I would have to think that he would be considered "Specially Designed" as a military component on the USML (United States Munitions List). The first piece of criteria for an item to be considered "Specially Designed" states that the item "has properties peculiarly responsible for achieving or exceeding the performance levels, characteristics, or functions" listed in a USML paragraph. Superman would definitely be "peculiar." The guy once froze an entire lake

and used it to put out a raging factory fire, which is not generally considered a normal activity. Secondly, I imagine that there isn't a performance criterion that Superman couldn't exceed. Superman is famously known by comic book lovers for developing new powers whenever needed, so I imagine that the fellows at the DDTC (Directorate of Defense Trade Controls, U.S. State Department) would have a hard time finding a way to put a cap on his super-human abilities.

The second challenge would be to find a USML category that could describe all of his abilities. Category I on the USML is for close assault weapons, which Superman certainly is. If you don't believe me, just ask General Zod. Category VIII covers military aircraft, which he could also be classified under due to his power of flight. He does often get confused with birds and planes after all. How about Category X for Personal Protective Equipment? If a bomb goes off, and Superman covers you up to protect you from the blast, isn't he personally protecting you? Don't even get me started on Category XV for Spacecraft systems. He is definitely "Space Qualified" due to his frequent trips beyond Earth's atmosphere.....and because he is an alien.

This list could go on and on. Once Superman was properly tagged and classified, we would have to apply for an export license, most likely a DSP-73, or a temporary export license. He would have to make his way back State side at some point. Clark Kent does have a day job, and I am not sure how the Daily Planet's vacation policy is structured. If Superman would need an export license, this would severely affect whatever crisis he was travelling abroad to avert, since ITAR license applications can take up to five weeks to be returned. I wonder if Lois Lane has any pull at the Department of State? Needless to say, I would not want to be the Export Compliance Officer in charge of exporting the Last Son of Krypton. In the end, I would probably just end up applying for a Commodity Jurisdiction and have the U.S. government help me out with the appropriate classification. I could always send along a copy of Superman II as my supporting material.

Keeping Your Social Media Hatch Act-Compliant this Election Season

Many Federal employees joined public service based on their interests in public policy and government, and likely have strong opinions about the upcoming presidential election. Since social media is increasingly used in campaigns, it is important to understand the restrictions on federal employees' use of personal social media to engage in political activity. In general, all federal employees are prohibited from engaging in partisan political activity while "on duty" (including telework) or in the workplace. Further, Federal employees should not engage in partisan political activity in an official capacity at any time, nor should they solicit or receive political contributions at any time. Of course, we can all vote, and the following clarifies other liberties we enjoy and the restrictions applied to us, based on our civil servant positions.

As a preliminary matter, "partisan political activity" is considered any activity directed at the success or failure of a candidate for partisan political office or a partisan political party or group. The Hatch Act regulates partisan political activity by Federal employees based on their status as "Less Restricted" or "Further Restricted" employees. For LaRC's purposes, "Further Restricted" employees include members of the Senior Executive Service, while all other civil servants are "Less Restricted" employees.

For both types of employees, it is important to consider that some prohibitions are "24/7," meaning they apply both while employees are on and off duty, while other prohibitions only apply while on-duty or in the workplace. 24/7 prohibitions for all employees include using their official authority or influence to affect the outcome of an election; soliciting, accepting, or receiving a political contribution; being candidates in partisan elections; and soliciting or discouraging the political activity of a person with business before their employing office. On-duty or in the workplace prohibitions for both types of employees include wearing buttons, t-shirts, hats; displaying screen savers, posters, candidate photographs; and making online donations.

The U.S. Office of Special Counsel (OSC) has provided updated guidance related to the Hatch Act as it applies to social media. On the next page, you will find a chart that provides general guidance on the traditional Hatch Act restrictions as applied to social media for both Less and Further Restricted Federal employees.

It is important to note the Hatch Act applies, even during leave status. Thus, a Less Restricted employee could campaign while on leave, while a Further Restricted could not. Both types of employees would be prohibited from fundraising while in a leave status.

Of course, your specific situation may not fall neatly into one of the boxes above and social media and applicable guidance continues to evolve. OCC's Ethics advisors are here to help. In the event you encounter a concern where there is not time to seek Ethics advice, remember this is a developing area of law and avoiding potential Hatch Act violations is always a best practice.



YOUR VOICE
YOUR VOTE

Keeping Your Social Media Hatch Act-Compliant this Election Season

Permissible Social Media Activity Chart

Permissibility of Activity, General Hatch Act	Examples of Associated Social Media Activity	Less Restricted	Further Restricted
Engage in political activity while on duty or in the workplace	Share, like, or retweet a post from a candidate or partisan group; or post/tweet a comment directed at the success or failure of a candidate or partisan group; Like, or Follow the social media page of a candidate or partisan group while on duty or in the workplace	No	No
Use official position to support political campaign	Use a social media account in your official capacity to engage in political activity ¹	No	No
Solicit or receive political contributions, host a political fundraiser (on or off duty)	Tweet, Retweet, Share, or Like a post or content that solicits political contributions	No	No
Attend political rallies, meetings, or fundraisers while off duty	Participate in political webinars and online meet-ups while off duty	Yes	Yes
Be members of political clubs or parties	Follow, Like, and Comment on partisan political pages while off duty	Yes	Yes
Donate to partisan campaign, political parties, or groups while off duty	Donate through candidate's website or crowd source page while off duty	Yes	Yes
Volunteer for political campaign, distribute political campaign signs, pamphlets while off duty, serve as delegate to party convention	Forward campaign or political party emails; link to or post the partisan material of a candidate, political party or partisan group; share or retweet the social media pages or posts of a candidate, political party, or partisan group	Yes	No
Display/distribute policy-related propaganda	Using a profile picture such as "Conservative Values"	Yes	Yes
Display/distribute candidate-related propaganda while on duty or in a Federal building	Use of Presidential candidate's picture as your profile picture, if you post on social media while on duty or in a Federal building	No	No

1. However, including your official title or position on the profile of your personal social media page is generally not prohibited.

WHAT YOU NEED TO KNOW ABOUT PERSONAL SERVICES (AND WERE AFRAID TO ASK)

The issue of personal services contracts keeps popping up within the Government and NASA, and so we thought it would be useful to provide some basic information about what this thing is and the limitations on such contracts.

Q – What makes something personal services?

A – The shortest answer is personal services involve an employer-employee relationship. What does that mean? First, and most obviously, it involves the decision to hire or fire an individual. If you are involved in that process, there is strong evidence that you are engaged in personal services. Other indicators include things such as writing the performance appraisal of that individual, or having substantial input into the person's appraisal; setting the person's salary or wage; approving or disapproving leave requests; and directly assigning work to an individual and supervising that person in the performance of that work. The Federal Acquisition Regulation (FAR) lists a number of indicia of personal services, including such things as performance on site, furnishing of principal tools and equipment by the Government, the services are integral to the effort of the organization or subpart in furtherance of the mission, comparable services are performed by other agencies using civil servants, the need for the service exceeds one year, and direct Government supervision of contractor employees is needed. See FAR 37.104(d). In sum, if you are acting as the person's supervisor, you may be engaging in a personal services contract.

Q – All right, so what makes it a personal services contract?

A – The way the Government obtains virtually all of its personal services is by hiring people as civil servants. The other way to obtain personal services is from non-civil service personnel through a contract. There are, however, limitations on use of personal services contracts. Specifically, there is a statute that limits our ability to use such contracts. That statute is found in Title 5 of the U.S. Code at Section 3109. It permits the head of an agency to obtain temporary or intermittent services. The FAR and NASA FAR Supplement (NFS) both contain limitations on using such contracts. FAR 37.104(b) states agencies shall not award personal services contracts unless specifically authorized by statute. The NFS notes NASA has such authority under 5 USC §3109, but notes NPR 3300.1 governs use of such personnel. Chapter 3 of that NPR states NASA will not use this authority unless the expertise is unavailable within NASA or another agency.

Q – OK, but I know Susie Scientist is the best person to work on my program, so how do I get her?

A – NASA frequently obtains non-personal services from Subject Matter Experts through our support services contracts, e.g., the TEAMS and STARSS contracts. You normally cannot, however, provide a "by name request" to the contractor to hire Susie to support your program. Doing so effectively is the creation of a personal services contract because you are telling the contractor who to hire. What you can do is list the types of expertise and experience you need to support your work. This does not mean reproducing Susie's resume – rather, you need to describe the depth of knowledge and experience you require. It is up to the contractor to locate someone who has that requisite knowledge and experience, and it might be Susie, or another expert in the field, but that other person will possess the skill sets you need to accomplish your mission.

Q – So what if I don't like the SME the contractor provides?

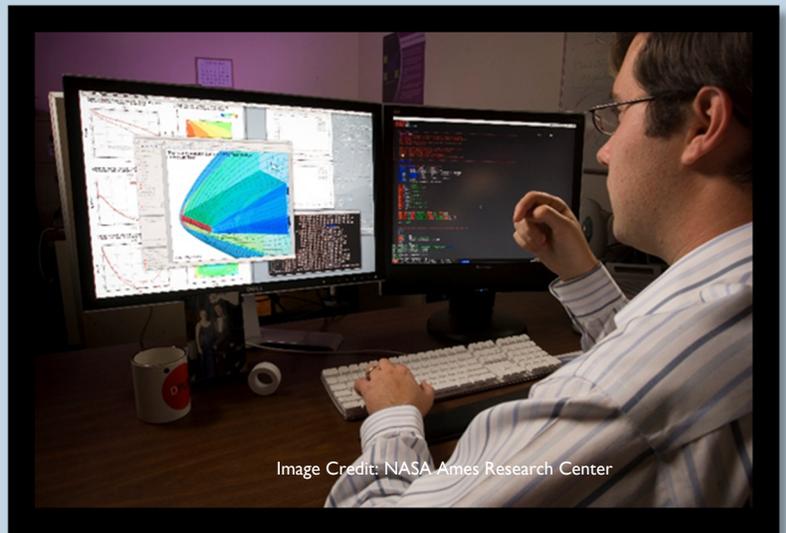
A – If the individual turns out not to have the knowledge or experience you needed, your recourse is to inform your Contracting Officer (CO) or Contracting Officer's Representative (COR) of the problem. Be specific as to what it is that is not meeting your needs (and no, the fact the person is not Susie is not a reason for complaint). The CO or COR will raise that with the contractor, who will be expected to take appropriate action to address the situation. Whatever you do, do not "fire" the SME! You have no authority to do so – remember, that is a hallmark of personal services. This actually has happened at LaRC; the consequences of doing this can jeopardize getting the work done for your program, as well as be detrimental to your career as a civil servant. There is a process to follow, and, if not followed, it may jeopardize your program or project's work, as well as expose you to potential adverse action.

Q – So what are my takeaways?

A – First, remember you don't have the authority to hire or fire contractor personnel. If you have a problem raise it through your management and the CO/COR. Second, if you need people with skills not available within the Government, there are ways to obtain them through non-personal services contracts, where you specify the work to be performed but you don't provide day to day supervision of the individual – you are paying the contractor good money to do that. Third, if there is no other way to obtain what you need except through personal services, you need to talk to your friendly CO and COR to see if the only way to meet your needs is through a personal services contract. Our experience at LaRC is that it is virtually never the case that a personal services contract will be needed. In short, we can find avenues short of personal services to get you what you need.

Top 5 Ways to Speed-Up the Legal Approval of Software for Release

NPR 2210.1 governs the reporting, review, assessment, and release of all software created by or for NASA. The NASA Langley Software Release Authority, Bonnie Lumanog, is responsible for ensuring that all releases of applicable software are accomplished according to the requirements of the NPR. The Office of Chief Counsel (OCC) is one stop in the software release approval process, along with export control (for distributions outside of the U.S.), Langley's 508 Compliance Coordinator, the Center's Software Classification official, and the programmatic leads, as well as the Center's Chief Information Security Officer for certain types of software. The release of NASA software is truly a team effort coordinated across the Center.



As one part of the approval process, the OCC routinely encounters issues associated with approving the software for release. Here are a few issues that can be addressed up front to speed up our portion of the approval process:

1. Software Development – Do NOT use a grant or cooperative agreement to develop software. Software should be developed under a NASA contract. The reason for this is the rights that NASA obtains in the code. Under the default provisions of a grant or cooperative agreement, NASA only acquires a Government purpose license in the software, whereas under a contract, NASA can obtain an unlimited license in the software giving the Government broad rights to use and distribute the software publicly (but see note #3 below for some cautionary notes). If you are anticipating software development, it is important to make sure the agreement that governs that software development gives NASA the rights that it needs in the code.
2. Software Markings – When the software is delivered to NASA, watch out for any restrictive markings. NASA obtains unlimited rights in software that is delivered under a NASA contract with no markings. There are instances where markings are appropriate for software deliverables. However, if you see any markings, and are unsure whether they are authorized under the contract, please give us or your Contracting Officer a call to double check so the issues can be dealt with promptly.
3. Third party code – Buyer beware! Sorting out rights with third party code (which is code not owned by or licensed to the Government) typically causes the longest delay in our approval process. The license agreements that govern third party code need to be reviewed, and sometimes negotiated by our office to ensure NASA can obtain the necessary rights in the software. This includes third party open source software, as there are some licenses that NASA either cannot agree to as a U.S. Government Agency, or do not permit NASA to release the software in its intended manner. We highly recommend that if third party code is considered to be incorporated into the software, you coordinate with our office in advance to ensure the code will not adversely impact NASA's plans to use or release the code.

Top 5 Ways to Speed-Up the Legal Approval of Software for Release, Cont'd

4. Submit a complete New Technology Report – Submitting a New Technology Report (NTR) is the first stage in getting the software approved for release. You can submit an NTR at <http://invention.nasa.gov>. The NTR requires information about the software itself and information about who developed the code. For any non-U.S. Government employees, we will need to know if the co-author was working under a funding agreement with NASA, as that agreement will tell us what rights NASA has in the code. Additionally, please be aware that the NTR that is used to initiate the software release process is the same form that NASA uses for invention disclosures, so it is put in the same review queue. If you submit an NTR for software release purposes only, please give our office a call to let us know so we can try to move it through the queue faster.
5. A Look Behind the Curtain – One thing to also be aware of is that our approval is dependent on other offices and governed by other timelines that are outside of our control. For example, if NASA wants to open source release some code that was developed by a contractor, there may be contractual requirements for NASA to wait to release the software until the contractor determines that it does not want to pursue patent protection on that software. These delays can be as long as two years! Additionally, there may be times when there is a request for open source release of software, but NASA's Technology Transfer Office is considering patent protection on the underlying methods/processes, so we have to withhold our approval until that decision is made. We appreciate your cooperation with these other offices to ensure that our approval can occur as fast as possible.

If you ever have a question about the status of the review or any of the above, please do not hesitate to give your favorite patent attorney a call!

[As Langley continues to develop supersonic transport, consider the early efforts of Langley researchers as evidenced in the below drawings accompanying a patent issued on March 21, 1967, for a supersonic aircraft](#)

March 21, 1967

A. W. ROBINS ET AL
SUPERSONIC AIRCRAFT

3,310,262

Filed May 21, 1965

2 Sheets-Sheet 1

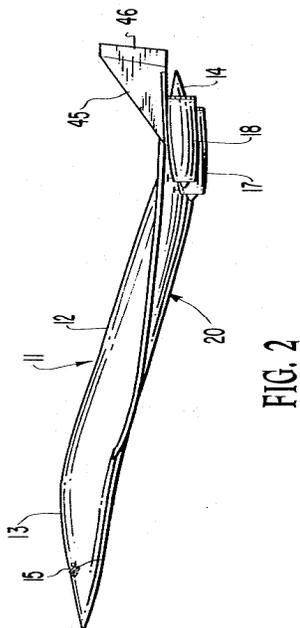


FIG. 2

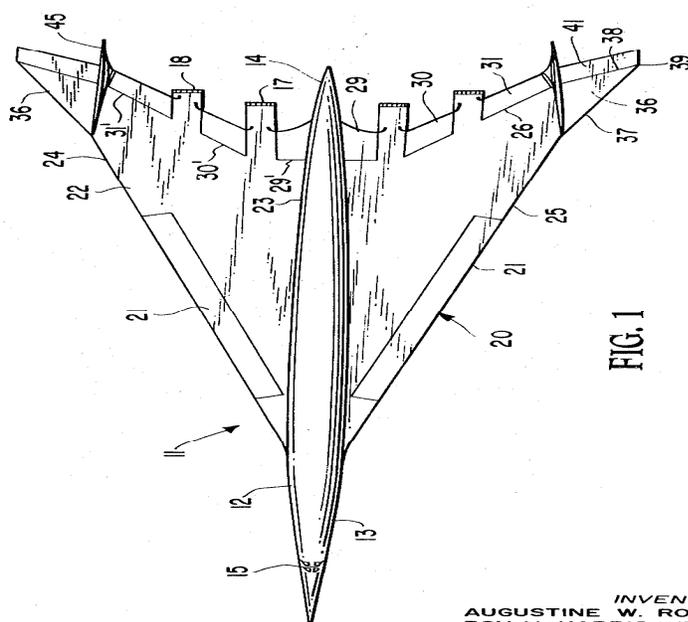


FIG. 1

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RECENTLY ISSUED PATENTS: NOVEMBER 1, 2015—APRIL 30, 2016

- ◆ Jeffery Y. Beyon, Grady J. Koch and Michael J. Kavaya, NASA LaRC. Patent Number, 9,201,146 issued December 1, 2015 for **Airborne Doppler Wind Lidar Post Data Processing Software DAPS-LV**
- ◆ Mehdi R. Khorrami, NASA LaRC. Patent Number 9,227,719 issued January 5, 2016, for **Reactive Orthotropic Lattice Diffuser for Noise Reduction**
- ◆ Arthur T. Bradley, NASA LaRC. Patent Number 9,229,451, issued January 5, 2016 for **Locomotion of Amorphous Surface Robots**
- ◆ Travis Turner, NASA LaRC; Reggie T. Kidd, ATK Space Systems; David P. Lockard, Mehdi Khorrami and Craig Streett, NASA LaRC; Douglas L. Weber, ATK Space Systems. Patent Number 9,242,720, issued January 26, 2016 for **Autonomous Slat-Cove-Filler Device for Reduction of Aeroacoustic Noise Associated with Aircraft Systems**
- ◆ Jae-Woo Kim, NIAA; Emilie J. Siochi and Kristopher E. Wise, NASA LaRC; Yi Lin, NIAA; John W. Connell, NASA LaRC. Patent Number 9,242,861, issued January 26, 2016 for **Amorphous Carbon-Boron Nitride Nanotube Hybrids**
- ◆ Douglas M. Nark and Michael G. Jones, NASA LaRC. Patent Number 9,245,089, issued January 26, 2016 for **Statistically Based Approach to Broadband Liner Design and Assessment**
- ◆ Christopher J. Wohl, Jr., Joseph G. Smith, Jr. and Emilie J. Siochi, NASA LaRC; Ronald K. Penner, ATK Space Systems. Patent Number 9,278,374, issued March 8, 2016 for **Modified Surface Having Low Adhesion Properties to Mitigate Insect Residue Adhesion**
- ◆ Edward R. Generazio, NASA LaRC. Patent Number 9,279,719, issued March 8, 2016 for **Electric Field Quantitative Measurement System and Method**
- ◆ John V. Foster and Kevin Cunningham, NASA LaRC. Patent Number 9,285,387, issued March 15, 2016 for **In-Flight Pitot-Static Calibration**
- ◆ Lawrence J. Prinzel and Alan T. Pope, NASA LaRC; Olafur S. Palsson and Marsha J. Turner. Patent Number 9,283,468, issued March 15, 2016 for **Method and Apparatus for Performance Optimization through Physical Perturbation of Task Elements**



[It's a Funny]

From cross-examination of a medical expert in a workman's compensation trial:

Q – Doctor, you say the plaintiff has a pain in his back, radiating down into his leg. How do you know that?

A – He told me.

Q – Do you have an x-ray of that pain?

A – No, sir.

Q - Isn't it a fact you are depending upon what your patient told you as the basis for your conclusion that he is suffering from pain?

A – That, sir, is the difference between a physician and a veterinarian.

Boren's Laws of Bureaucracy:

When in charge, ponder.

When in trouble, delegate.

When in doubt, mumble.

More corollaries to Murphy's Law:

If you perceive that there are four possible ways in which something can go wrong and circumvent these, a fifth way will promptly develop.

SCOTT'S SECOND LAW: When an error has been detected and corrected, it will be found to have been correct in the first place.

FINAGLE'S THIRD LAW: In any collection of data, the figure most obviously correct, beyond all need of checking, is the mistake.

If a test installation functions perfectly, all subsequent production units will malfunction.