# Written Testimony of Will Roberts Director of Emerging Technologies

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Before the U.S. Senate Committee on Homeland Security and Governmental Affairs (HSAG)

#### I. INTRODUCTION:

My name is Will Roberts, and I have worked in the Federal procurement space for the last 15 years. I am currently the Director of Acquisition Solutions and Emerging Technology for ASI Government, LLC. Previously, I was the Acquisition director for the Joint AI Center (JAIC) at the U.S. Department of Defense.

I am particularly passionate about Government procurement, and during my time at the JAIC I became very aware of the procurement-related challenges in delivering AI to government end users. As I will be repeating throughout my testimony, my time in this space instilled a strong belief that the Acquisition Professional - particularly the Contracting Officer - serves one of the most important roles in navigating how the Government will harness AI for the welfare and defense of this nation.

But I didn't always feel this way – my attitude towards AI and emerging technology used to mirror the current sentiments of many federal acquisition professionals. Before joining the JAIC, I was a contract professional at the Air Force, my goal was to vector over to Wright-Patterson AFB and work on major systems alongside some of the best minds in federal contracting. I wanted to help build new airplanes, weapon systems and the like. I wanted to be part of the "next big thing." I wanted to take the defense contract skills I learned and apply them to real tangible challenges. Technology was not tangible to me, and I looked at emerging technology as providing more costs and headaches than any real gains to a program or mission. As a consumer, I am among the worst adopters of technology. I still read a newspaper. My wife and I just recently bought a Roomba this year – we didn't really trust it before then. So, I sympathetically relate to the current aversion to AI adoption that exists in many agencies and offices.

Months before my family and I were heading to Dayton, OH an innovation advisor to the Secretary of the Air Force, whom I had worked some early AI contracts for, convinced me to apply for the lead acquisition position at newly created JAIC under the leadership of Lt. General Shanahan. I took the chance and now look back at the decision as a pivotal one in my own career. During my time at the JAIC, I read more, I had access to more information, and my attitude toward AI completely changed. One of my primary lessons learned was simply the scale and importance of artificial intelligence as a revolutionary technology. AI truly is the "next big thing" – and our federal workforce must be more prepared to realize its incredible benefits but also its risks. But technical knowledge of AI is only one ingredient in the recipe for success. I became aware of some *new* skills that the modern acquisition professional needed to develop to successfully buy AI functions and deliver them into government missions at the speed of relevance. These weren't weapon systems skills or large airplane-buying skills. There was not a clearly written framework for these skills. The AI procurement professional had to think different, fast, and agile. The federal acquisition professional had to truly understand the AI marketplace and recalibrate his existing procurement domain knowledge. Applying government procurement domain knowledge to an

Al functionality is not intuitive, nor can one easily lift and shift their traditional acquisition expertise. It is a new skill that must be *learned*. And, as I will try to demonstrate in my testimony, the Contracting Officer and the Acquisition Team as a whole, are among the most important roles in the effort to modernize the government missions through Al. Success in this new chapter of U.S History rests in the hands of a very diverse acquisition team. And, I will add, it requires a special level of *talent*.

### II. THE AI PROCUREMENT TALENT WAR

In the commercial marketplace, the AI Talent war has intensified, brought about in large part by the introduction of large language models and generative AI. A recent Wall Street Journal article described many companies paying as high as seven figure salaries to AI programmers and data scientists. These are all technical skills and it makes sense that various industries are vying for such aggressive investments. Such investments make sense because the private marketplace supplies innovations, so they need the technical talent. Our American industry fosters our current and future inventors and creators.

In the same way, the Government should be involved in a major AI talent effort. However, the Government's aggressive talent investments should not focus primarily on technical expertise – simply because, when it comes to AI, the Government does not *make* it. It *buys* it. And buying it is hard enough. Buying and delivering AI – creating that bridge from the technology to the end user – is not something companies can really do, certainly not as affectively as the Government can. This is an inherently government function. The Government knows its missions, its end users, and its internal bureaucracy. The Government creates the bridge between the product and the mission. Under the bridge is the chasm in which products die and never see adoption. But buying AI is a function that the government is not doing very well, and *this* should be the focus on our hiring, and training efforts. We must be seriously concentrated in cultivating top-notch modern acquisition teams. These are the bridge builders that enable technology adoption.

I want to take a moment to talk about the diversity of a good acquisition team. A typical AI project, from ideation to adoption, requires a special team that operates in a way that is rare in federal acquisition. Technical experts alone, and contractors alone, will not achieve success. Many factors exist – money issues, legal problems, ethical concerns, contractual matters – that threaten a project's momentum and potentially stop a project dead in its tracks. It takes diverse skills, managed by a very capable product manager. This is a government function. And these skills must be applied in very new ways. These various experts must also be tightly knit because the delivery of AI is multifaceted and not subject to traditional phases. In Al government acquisition, the development, procurement, and sustainment all happen at the same time and in cycles. This means the budgetary people talk to the testing and evaluation people, the contracting people talk to the end users, etc. It is not played like a "relay race," typical in traditional acquisitions, where the baton is handed in linear fashion from budget to procurement to testing, etc. It is a team sport, and the entire team needs to run the ball together down the field, pivoting and reacting to the dynamic environment. During my time in this space, I witnessed budget and money experts looking at their fiscal laws and procedures in new ways and forced to make innovations to bridge the technology over to the end users. Experts in the field of law and social sciences became crucial, but they also were entering uncharted territory in their expertise and were confronted with very new concepts relating to human-machine interaction, Al's impacts on the workforce, and a myriad of ethical risks. And, of course, the contracting professional becomes an

essential key to the team. And as with the other team members – contracting officers must apply their contractual domain knowledge in new ways.

At the end of this testimony, I will provide two recommendations for how the Government can get on the right track in cultivating a modern acquisition team – particularly with special focus on the procurement professional.

The first would be granting various contract authorities to all components in the federal government. As I will explain later, the modern Contracting professional needs a full and diverse toolbelt. Every tool, whether Other Transactions, of FAR-based vehicles, Public Private Partnerships, or Partnership Intermediary Agreements – fits a unique need and within the diverse range of AI projects, a skilled contracting professional will use each tool.

But tools are no good if you don't know how to use them, or when the contracting talent is not empowered through trust by their leaders. And so, the second and much more important recommendation is for a much more robust, substantive, and universally mandatory Al Acquisition training program for all current and incoming acquisition professionals.

### III. THE IMPORTANCE OF THE CONTRACT FOR AI SUCCESS

I want to take a minute to provide a little bit more of my background, because I think it would provide some benefit to this testimony, particularly as it concerns the importance of our nation's contracting officers. When I was in law school, I became fascinated with contract law. And mainly because I saw in contract law something special. I saw two people agreeing upon something, and in the process creating their own law -which more or less the courts would protect. This "law" could even be written on a napkin – it was the essence of the *deal*. It was the "tit-for tat" – the way that both parties can benefit from an arrangement. It is the foundation of business. And I loved it – because it transcended rules that are created by official lawmakers. Because these laws, these agreements, could be written by two ordinary people on a napkin and retain the full force of law.

As I delved more into these principles, I started to study Government contracting – and became even more fascinated. In this context, the U.S. Government becomes a business partner – they become one of these parties that create a binding agreement with another – again formalized in a written agreement – which becomes, in a way, a law written by the parties – *not lawmakers*. Starting in the year 1800, Congress began creating rules to curb and control the flexibility of Government contracting officials acting in this capacity – to prevent abuse and maintain stability in the contracting process. But even so, when the Government contracts with a company – the Government enters the market and *engages in business*. The Government creates terms which become *binding*.

But the Government is not a company. Instead of shareholders, this business is financed by American taxpayers. This means that *everyone* invests in the business. And the taxpayers are paid back through a different means of return than rising stock value. The taxpayers seek a return in the form of welfare, defense, peace, and security. And so, this is the ultimate responsibility of the American contracting officer – to bring these returns. It is for this reason that I believe the American Contracting Officer serves one of the most critical roles in our Government.

It is with this interest that I left law school after passing the bar and took an oath of office as a civil servant, to do my part in ensuring taxpayers received such returns from the business of Government.

And in my 15 years I realized that the course of U.S. History can be summarized in a series of transactions. In fact, this is all history is to me... it's a series of business transactions. Starting in the Revolutionary War before the U.S. became a nation, the government has relied on industry. Some transactions, we should not be proud of, and we still carry the scars of these business decisions, many of which were outlined in the four corners of contractual agreements. But, for the most part, historical business transactions formed the great nation we are today. American industry and ingenuity, not the government, was the source. The Government was the means to connect that ingenuity to the mission to strengthen the nation and benefit the taxpayer. But it was the American inventor that created the airplane. It was industry that facilitated the industrial mobilization effort that supplied the planes, ships and tanks that helped us win World War II. It was the ingenuity of industry that took us to the moon in the 1960s. All accomplished through a series of contracts between the government and industry.

But we are turning a new page in our history as a nation. There is indeed a new technology that is powerful. This technology will change the nation, it will change the way families live their lives, businesses operate, and nations interact with one another. It presents numerous advantages and many dangers. We have the opportunity now to become ready for this growing revolution, but currently we are not. And so, the question for the Government is not – "how do we <u>develop</u> it?" If we are to follow the historical path that has made our nation successful in the past, the question for the Government must be – "how do we <u>buy</u> it?"

This question of "how do we buy it" – this was my life for the past three years as I headed acquisition activities for the DoD Joint AI Center. It can be complicated. To every acquisition professional working today, these are very exciting and historical times, and in many ways they will feel like they are navigating unpaved paths in a frontier. Many aspects of the job were *very* unpaved, such as negotiating terms for the responsible use of certain AI functionalities, such as those involving warfighting and medical procedures. Navigating the wild frontiers of this technology is exciting but can also be very dangerous. It is a job that must be taken seriously.

I'm going to mention three main examples of how AI Procurement is different and unique: (1) intellectual property; (2) responsible use of AI; and (3) the incorporation of agile performance language.

When it comes to intellectual property, for example, there are many unique considerations for the prudent Contracting Officer. There must be a balance between rewarding the American inventor and nontraditional company, while at the same time preventing arrangements that are not advantageous to future government operations. It takes unique knowledge of the technical components of AI in order to determine the proper IP strategy. The rights to the data, for example, will probably be different than the rights to the AI model. Even with data, we have input and output data. We have trained and untrained models. We have infrastructure that runs the pipelines and hosts the AI application – each of these components require careful thought into the appropriate IP ownership. Insisting on rights to the wrong things will discourage the right players from providing technology to our end users. On the other hand, giving rights to the wrong things will lock the government into one company, which will balloon costs on a program and prevent any new competition and innovation. It not only takes a knowledge of the underlying technology (technical knowledge) to navigate these waters, it takes knowledge of the market (business knowledge) and adequate knowledge of tailorable IP language (domain expertise). The AI Training Act tackled the technical knowledge for the civilian agencies. The reality is that all three areas of knowledge (technology, business, and contract domain) are missing and are not treated as a priority.

Responsible AI becomes another unique dilemma. When considering the topic of "AI Trustworthiness", there are two forms of trust that must be attained: (1) trust in the functionality of the AI model (i.e. will it work?); (2) trust in the responsible use of the product (i.e. is it safe/ethical?). Losing trust in functionality will prevent early adoption and create skepticism – something we have historically seen in our slower adoption of airplanes, submarines, and the radio (to name only a few examples). Losing trust in responsible use is more serious, as it pertains to safety, privacy, and equal treatment. For now, the four corners of the contract define the mutual agreement on how to handle the parameters of what is "responsible use." This has been an interesting challenge. In procurement, the contractor's quality control of responsible use can be evaluated in very powerful ways - 2 especially: (1) as a discriminator for contract award selection; and (2) as a metric for testing and evaluation. Emphasizing the responsible use of AI (RAI) in either of these two phases of the acquisition sends a clear message to the contractor, but also requires contract professionals to set very clear and objective definitions of what is and what is not responsible. On one end, the parties can mutually agree to keep the terms ambiguous - thereby making any responsibility for RAI meaningless. On the other end, the government may push for terms so restrictive that most companies will grow wary to contributing their talent to the mission. The latter is perhaps even more problematic. As with IP, I will resort to the same three areas of knowledge for the prudent and competent Al procurement professional: (1) Technical; (2) Business; and (3) Contract Domain knowledge. Technical knowledge to know the various types of data biases, risks, and mitigation tactics involved in responsible use of AI. Business knowledge to gauge the attitudes and awareness in this critical topic, including how to speak about the Government's position to cautious companies, and understanding nontraditional companies' resourcing capabilities to comply with any potentially restrictive RAI requirements. Contract domain knowledge to understand when and where such agreements should be articulated in contractually binding language, and which agreements should be worked instead through the ongoing business relationship. In other words, RAI is loaded and intricate. Al is so diverse that RAI risks vary according to the circumstances. Some AI functionalities are extremely low risk, while others impact human life or privacy. It's new and important. But mastering the three areas I mentioned would resolve most of the issues. But most importantly: fear of risks should not prevent us from utilizing this technology – as the technology will often prevent many more risks associated with human error (in everything from business processing, medical diagnosis, and even defense activities). If AI Acquisition professionals are unable to skillfully navigate these risks and alleviate anxieties and fears, the true benefits of AI on government missions may never be fully realized.

Finally, the AI procurement professional must understand the concept of "agility." This is a very strange concept in our current procurement environment – but every competent procurement professional that acquires AI must rise above their culture and engage in agile and flexible contracting. In some environments, the word "agile" has become an annoying buzzword. However, agility is essential for successful AI delivery. Agile contracting can be summarized in three sentences: Contract fast. Iterate Often. Fail Early. Contracting fast to keep pace with the speed of relevance in emerging technology. Iterate often implies that all contracts would be results-based instead of requirements-based. In other words, the entire acquisition team was focused on results based in phases, or sprints. As results are recorded and value is measured, the team builds the new iteration to improve what is working and stop what is not. Finally – the "fail early" philosophy was a direct response to the fallacy of sunk costs. Setting up contract agility means you can pull the plug before things get bad. In other words, you prevent wasting taxpayer dollars on bad AI projects. The current procurement and acquisition process is anything but agile. It is more akin to creating a huge barge that is approaching a port. If, within a few

hours of reaching port, it is discovered that the requirement must change – or the underlying technology has changed – it is too late. No time to turn. No time to adjust. There's no stopping that big barge from coming in. Agile contracting creates swift boats that can swerve and pivot among the volatile waves of technological change. This is a paradigm shift in thinking. It is currently practiced in Government, but only by a small percentage. Agile must become mainstream. This requires an aptitude that, again, is not emphasized or required across the board in federal procurement. It is currently not a core competency, and it should be. The longer we keep this tucked away as a niche, the longer we remain completely unprepared for the modern challenges that await us as a nation.

Agile AI contracting also involves a keen understanding and prudent utilization of all the contract authorities available to the procurement professionals. The prudent, trusted business advisor must have a variety of tools in her toolbelt. FAR-based tools, Other Transactions, Technology Transfer agreements, and the like. There is no 'one-size-fits-all solution – and the wrong kind of contract will often negatively impact successful adoption. In many situations, the intellectual property strategy will determine the most optimal contract mechanism. In other situations, the unique aspects of the marketplace would determine the most appropriate course – such as opting for a public private partnership if the Government is merely a contributor to a larger commercial effort. This may lead a prudent CO to use a specialized technology transfer vehicle such as a Public Private Partnership or a Partnership Intermediary Agreement. These types of determinations require AI business acumen which, again, must be *learned*. Through a combination of heighten business acumen and domain knowledge of all the contractual authorities available, the competent CO will then wield her tools in a way that benefits the market, contracts at the speed of relevance, and focuses on results over process.

Within the four corners of the contract, the parties agree upon IP terms that can completely destroy the Government mission or lead a major spark of new AI functionalities in our nation's commercial marketplace. Within the four corners of the contract, the parties agree on the parameters of responsible use for AI. Such agreements could lead to potentially disastrous results that extinguish the momentum or lead to effective uses of powerful technology which paves the way for future progress done safely. Within the four corners of the contract, the parties set up agile performance that can lead to actual measurable value. In essence, within the four corners of the contract rests the fate of successful artificial intelligence adoption. The role of the dealmakers, then, becomes paramount.

## IV. AI PROCUREMENT TRAINING CHALLENGE

So what, then, is the level of priority and importance within the executive agencies? As of today, Al acquisition training is sparse. Even the training that exists among certain agencies is not universally mandated to all professionals, but rather seen as a niche – or elective training. New interns entering the workforce are currently not required to learn about the technology, the marketplace, or contractual challenges of Al – or for any new technology for that matter.

This is not good, especially if we are to acknowledge and agree that AI will continue grow into a transformative and revolutionary technology that will impact every mission, agency, and field office in the Government. The end users are incredibly diverse – further testament to the universal impact of AI. They include soldiers protecting us from foreign threats as well as immigrants wanting a more efficient citizenship process. From IRS processing to forestry service activities. From health and human services

to border protection. Al can enhance it all – increasing mission impact, severely cutting costs, and even saving lives.

But with the current lack of priority to build these needed AI procurement skills across the board, we are essentially setting our future workforce up for failure. We are looking over at a commercial gold mine, ready to be mined. And we have no miners.

I was encouraged to see Congress release the AI Literacy requirements for the Department of Defense, as well as the AI Acquisition Training ACT for civilian agencies. But I do not believe they go far enough.

I worry that the execution of these statues will not extend to all acquisition professionals. I also worry about the content of the AI Acquisition curriculum. The various elements of the AI Training Act, for example, are within the competency of technical knowledge. As I stated earlier, this is critical information for any AI Acquisition program, but it is only one piece. Technical knowledge of AI alone will not bridge the gap between product and user adoption. Acquisition professionals must be trained in how to buy AI, how to deliver AI, and how to sustain modern technology in a way that brings true results and widespread adoption. In other words, all acquisition professionals need to be trained on technical, business, and contract domain knowledge. Technical knowledge alone will not bridge the valley of death and imbed new inventions into Government missions.

#### V. THE ASKS

And so I close with two major recommendations for consideration of the committee. The second recommendation is more important than the first.

My first recommendation is for more contractual authorities to be provided to more contracting offices across the Government. FAR Based contracts, Other Transactions, Partnership Intermediary Agreements, Commercial Solutions Openings, Public Private Partnerships... these are examples of tools that should be in every modern acquisition professional's arsenal. Each one responds to unique objectives or marketplace conditions. Using a less optimal contract authority could result in less optimal competition, and ultimately a completely different product. In preparation for this testimony I spoke with some Contracting and Agreements officers who were among the few that have access to all the tools. One told me that each authority has served a different purpose in AI Acquisition, and that it would have been very difficult and not quite as effective for her to have used the Federal Acquisition Regulation on every procurement action. Many offices are limited to the FAR, and this therefore limits the tools that contracting officers can use as an effective business advisor and civil servant in modern procurement.

However, even if every single contract office had access to all statutory contract authorities, my fear is that – without any accompanying workforce development – very few offices would take advantage of these additional authorities. Or worse – due to substandard hiring and workforce development, contract offices managers would not trust their contracting officers to make sound business and contract decisions, as some tools require more expertise than others.

And so, the more important recommendation I have is one that I have echoed throughout this testimony. If we are to believe that AI is a revolutionary technology that will impact every single government mission – we must make AI Acquisition training mandatory across the entire federal acquisition workforce. The trainings must be robust and focused on the three core competency skills: (1) technical

knowledge of artificial intelligence, its architecture and risks; (2) business knowledge of the marketplace, and more effective market research strategies; and (3) contract knowledge as applied to AI, to include IP, responsible use of AI, and agile contracting techniques. Again, this training must be robust and substantive, captivating and inspirational. Not dull and basic. The emergence of technology makes this style of training that important.

Our bridge builders need to get smart about this. They need to be *trained to be trusted*. Anything less would strip them of the flexibility to successfully negotiate a successful public private meeting of the minds.

#### VI. CLOSING

There is an urgency to this, but we are not too late if we start now. There are already existing commercial AI capabilities that could improve public welfare and defense with greater efficiency and less taxpayer expense. Some of these existing narrow AI solutions are not just low hanging fruit. The fruit has fallen from the tree and sits in the grass, perfectly ripe and ready to eat. And because no one picks it up, it rots into obsolescence. So many technologies that could have provided high value impact. So who are those forces who can walk over and pick this fruit up? Again, it is my belief that this can be done by a talented and diverse acquisition team, to include the AI procurement expert. People with the right knowledge, skills, and abilities are scarce and in high demand. We need to expand the pool of people with the knowledge of what to buy, how to buy it, and then how to deliver it.

Thank you for giving me this opportunity to speak about the importance of AI Procurement. I have dedicated years of hard work as a civil servant trying to make this better. My eyes have been opened to the importance of AI and the critical need to transform our current procurement processes and culture to fully take advantage of it. But, unfortunately – my eyes were opened because I fit a very niche role in the Government as the Acquisition chief of DoD AI center. My understanding and dedication, along with the small percentage of hard-working civil servants in this space should not be niche. Every acquisition professional in the Government should come to understand what I have come to understand.

Only then will AI stop serving as a specialized field for a small percentage of Government procurement professionals, but rather a core competency – mandatory for all incoming interns. Only then will we get serious about buying, adopting, and using this already existing and powerful technology. And only then, will we finally start to realize the major surges in efficiency and savings in cost that this technological revolution will absolutely provide for the welfare and defense of our nation. Thank you.