Ladies and Gentlemen,

It is my distinct honor to join this esteemed group of the nation's – and indeed the world's – best logisticians.

I would like to thank NDIA for inviting me to speak with you. NDIA does a superior job of offering a vital channel through which government and industry can exchange information and ideas on national security issues.

Just look around the room today. The attendance of so many leaders in logistics reinforces the mission of NDIA in facilitating this critical exchange of ideas.

It is more important than ever that we have this conversation to foster the innovation, rapid response and accountability required in today and tomorrow's environment.

Over the next couple of days, in this beautiful city, we should not only be grateful for the warm weather and networking opportunities, but also for the opportunity to learn from each other across a range of important topics each day: like balancing sustainment strategies, Total Ownership Cost, interagency coordination and global solutions, affordability in weapons systems design and acquisition, and delivering operational logistics.

I encourage each of you to make it a goal to take back at least one idea from the conference that you can apply to your daily work.

And let me say right up front that, while I am obviously affiliated with a specific company and am proud of it, I'm here today to represent a broader industry perspective.

To that end I've drawn upon experience not only from my professional career but also from suppliers, partners and competitors, all of whom we asked to weigh in or,
as I've heard some in the military say -- to "chop" -- on my remarks in order to bring you a truly cross-industry perspective. The "chop" by all -- including competitors, I'm happy to say -- was very constructive! And so, in offering this perspective, I thank my fellow contributors.

Now, on to the theme of this conference: **"Global Sustainment in an Uncertain Future."**

Whether you're here today representing the government, military, academia or industry, I am confident we all agree that the ultimate and most important goal is to support the missions of military and civilian personnel in theater. This common sense of purpose is something that fuels the drive to always improve.

I was in Afghanistan a few months ago meeting with some of our folks on the ground there and met a young soldier who summed it up by looking at me and saying the following: *"Don't you guys ever leave us."* His words are directly relevant to our discussion today.

History is full of examples where logistics – or lack thereof – have resulted in battles won or lost. To me, the words

"Don't you guys ever leave us" is a powerful reminder to keep the wants and needs of the warfighter - and the civilian personnel whom we also cannot forget - at the forefront of our activities. Their current and future needs must drive our discussion today regarding what should be done and the sense of urgency in doing it.

There's never been as dramatic a logistics challenge as what we've seen in Afghanistan – a remote, austere environment for sure.

It's a challenge that the collective efforts of government and industry have met head on. We should thank those logisticians who have done a terrific job in rising to the challenge.

I recently watched video of Dr. Carter's speech given about a year ago at the Center for Strategic and International Studies. Describing the logistics challenge in Afghanistan, he said – and I'm paraphrasing – that you couldn't pick a worse place to fight a war, except maybe Antarctica.

Having been to both places in the last six months, I can definitely agree. With challenges in remote places like Afghanistan, combined with a borderless enemy, there is – as the conference theme indicates, uncertainty.

With logistics representing more than a quarter of the annual defense budget, and 65 to 70 percent of a Program's Total Ownership Cost, we…in this room

today…have a distinct opportunity to meaningfully affect the future.

The importance of logistics is nothing new. Sun Tzu said that, quote: "The line between disorder and order lies in logistics."

What is new in the world today is the need for synchronized logistics across multiple platforms in all domains – air, land, sea, space and cyberspace – for optimal global sustainment.

So the question is - How does this happen?

Industry, without government, does not have the total answer. We must build trust and accountability by working together. I think that bears repeating…We must build trust and accountability by working together. This is fundamental to our ability to meet current and future challenges head on, and to do so effectively.

I would like to use the time we have today to focus on four priority areas on behalf of industry:

First, creating a "system of systems approach"…

Second, selecting appropriate business models that balance flexibility with accountability…

Third, vigorously and continually connecting logistics "lessons learned" to program design engineering to drive out Total Ownership Cost, and …

Fourth, training future leaders.

Together these actions can help us achieve global sustainment in an uncertain future.

("System of Systems" Approach)

First is the importance of creating a "system of systems" approach.

We hear a lot about the latest technology solutions to improve or redefine our warfighters' logistics challenges, such as "total asset visibility" and "RFID tags."

These are, without a doubt, important tools, but their use can often jump ahead of what we should start with, which is an unambiguous understanding of mission objectives and the operational environment.

We acquire this knowledge through multiple channels, including: technology, boots-on-the-ground observation, and through the warfighter.

We learn what's working, what's not, and what's missing.

In a "system of systems" approach, equipment, material, and training requirements are documented and fulfilled in a synchronized manner…linking disparate pieces of

information into a virtually seamless flow…from the point of the spear to the thousands of people and companies that support them.

Just imagine a time when a potential maintenance action which will ultimately become a maintenance requirement is anticipated through embedded prognostics...

When soon-to-be material needs from various sources are automatically and seamlessly transmitted through the supply chain.

And imagine this being done without creating unwanted spikes within the logistics infrastructure. To prevent, for example, inventory or people sitting when needed elsewhere or surplus that is stockpiled for that "just in case" moment. In today's environment, the warfighter simply cannot afford this.

There are multiple options to implement a system of systems approach to synchronized logistics. A complete redesign of the entire logistics infrastructure would of course be the most expensive and time consuming option.

In fact, there are steps we can take that are effective without requiring a redo of the whole ball of wax.

The future of logistics --- as is the trend with weapons systems --- lies in developing a standard set of defined information interfaces. This creates a "logistics open

architecture," allowing military and civilian customers to interface seamlessly with supplier information systems.

This system allows military and civilian personnel to not only order equipment, maintenance, or training, for example, but also track the whereabouts of those goods or services anywhere in the logistics chain.

This is different from “Just in Time” logistics or “Total Asset Visibility”…It is logistics enabled not by individual bytes of data, but by information from our operating forces, integrated with all the suppliers who ultimately fulfill the various needs.

Embracing these ideas does not mean abandoning current processes. Quite the opposite: A system of systems approach respects and works within the culture of the services, supporting and enhancing that culture, not dampening it.

Using such an approach to synchronize logistics is ultimately beneficial to the taxpayer as well as to our warfighters.

This provides a high level of service at a lower cost…increasing efficiency by cutting inventories, and improving the cycle time of the logistics support chain by reducing redundancy…All the while delivering what the warfighter needs, when they need it, from whatever source required.

(Selecting Appropriate Business Models)
A second action to achieve global sustainment in an uncertain future is to select the appropriate business models.

Today's environment calls for greater affordability and cost control. Government and industry, working together, have shown the ability to achieve both affordability and cost control through Performance based contracts, like PBLs.

Public-Private Partnerships foster an increase in the trust factor because each party is intimately involved in the program's success.

In addition, this approach maximizes utilization of public infrastructure for which the taxpayer has, in many cases, already paid.

Expanding the scope of PBLs beyond equipment availability to a complete system that includes equipment and trained warfighters may be the path to even greater affordability and efficiency. But this isn't an easy path. It's a path where we – industry and government together – must create higher levels of openness and trust.

Industry, working with government, is up to the challenge of supporting the military to deliver effective, cost-efficient solutions through a competitive environment.

Finding the right business model allows industry to quickly respond to rapidly changing military needs… while at the

same time maintaining the appropriate oversight and accountability in the use of the government's funds.

We have seen this in practice… reducing, by example, the time between the identification of a requirement in the field to the fulfillment of that requirement from what in the past took more than 65 days to less than 18 days today…

All while saving the government millions, promoting competition and getting the best solution to the warfighter. It can be done.

What's required is aligning government and industry along efficient business systems and models that produce flexibility, responsiveness and operational excellence… while adhering to the proper oversight controls that reinforce accountability, and reward industry for efficient use of assets.

(Connecting "lessons learned" to design engineering)
Moving on to a third action that can enhance global sustainment in an uncertain future is vigorously and continually connecting logistics "lessons learned" to program design engineering to drive out Total Ownership Cost. In other words, logistics and design engineering need to be continually "connected at the hip"….especially during the program design phase.

As most of you know, the first 20 percent of a new program's design phase drives 75 to 80 percent of its Total Lifecycle Cost. Simply, once a program gets past the

critical design phase, the logistics costs are basically "locked in." This leads to a lot of "could-a, would-a, should-a" moments later on if not done properly up front.

Government and industry can certainly optimize logistics support post design phase…for example, using the two priorities mentioned earlier…but the highest ROI is when the logistics support cost is "up front".

So why don't we do this? Several reasons come to mind:

- One reason is that there's still not an acceptable, agreed upon Total Ownership Cost model…or models. Without this acceptable lever, and with ever-present program funding pressures, if a program increased its near term design costs to lower long term logistics costs, the program might be cancelled, making any logistics support a moot point.
- Another is that the right logistics data isn't readily available. Many times it's because "my computer can't talk to your computer," again reiterating the need for an open logistics architecture to connect aspects of the supply chain.
- And a basic, but critical reason is that logistics folks are not connected "at the hip" with design engineering folks….especially "up front".

In summary, we need to sharply focus on an acceptable Total Ownership Cost model or models. This will allow Program Managers and the government to consider meaningful T.O.C. cost trades during Pre-Milestone and Milestone reviews.

This should be our commonplace practice. Maybe at some point we'll figure out how to make the color of money an enabler, and not an excuse.

(Training Tomorrow's Logistics Leaders)

So, I've talked today about three actions to take that can help achieve global sustainment. And I know that speeches always come in "threes," but I'm going to go go out on a limb today and give you a fourth action, although really an enabler for the other three!

And so, last but certainly not least, global sustainment in an uncertain future hinges on training tomorrow's leaders in effective leadership.

Leadership is, after all, the key discriminator between success and failure in the logistics realm as well as on the battlefield.

For experts in the logistics field, leadership means not only providing subject matter expertise, but also taking a seat at the strategy table…participating, anticipating and taking action to mitigate issues.

And it means doing all this while also identifying the next generation of leaders and training them to handle any given situation. Training tomorrow's leaders means opening our minds to new techniques that can be effective with them, acknowledging that they grew up differently than those of us in my generation did.

The reality is that many of today's early career logisticians grew up on video games, texting, and web surfing.

I gotta tell you…You want to see a mystified…and frustrated…look on a new logistician's face? Throw a ten pound technical training manual down in front of them and tell them "it's time to learn!" See what happens!

We've got to identify tomorrow's leaders and cultivate them in the most contemporary and effective manner. Soldiers – for example - experience live, virtual and constructive training in extremely realistic simulation environments in preparation for the battlefield.

Logisticians will look to us to provide constructive and virtual training. This is not a replacement for live training; It is in addition to it.

The bottom line is that today's logisticians face challenges that are no less important than the soldiers they support. Training helps them prepare for an uncertain future.

In conclusion, we can't eliminate uncertainty in the world, but we can anticipate and prepare for it.

Thank you again for the opportunity to speak with you … and our deepest thanks to all of our men and women in uniform for your service. We can never thank you enough.

I look forward to your questions.

(END)