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**Teleprompter Script for Dr. David Honey, Director, Strategic  
Technology Office – The Warfighter Presentations**

The New Strategic Environment

» **DAVID HONEY:**

New threats;  
new responses.

That is why Dr. Tether created the Strategic Technology Office.

The mandate for creating STO was much broader than one specific  
emerging threat,  
or even a set of specific combat experiences.

It grew out of the recognition that,  
at the beginning of the 21<sup>st</sup> Century, the United States had emerged into  
an entirely new strategic environment –  
one in which its Combatant Commanders could be called upon with  
practically no notice,  
to tackle unprecedented situations under extremely demanding  
constraints—situations in which the stakes could not be higher.

What kinds of future situations?

Our previous models for military conflict do not describe what the  
COCOMs will face tomorrow because:

Our adversaries may be operating in regions dominated by political  
anarchy.

They may be embedded in well-organized societies,  
“hiding in plain sight.”

And our adversaries will not allow us to readily locate them.

They will have studied and learned crucial lessons from our military  
technology –  
especially our advantage in precision-guided weapons.

And they’ll have figured out that the cheapest solution to neutralize this  
U.S. advantage will be to present few or no target signatures.

Our adversaries will also be connected to their own transnational global  
networks.

So the future challenges we face cannot be successfully attacked  
by “stand-alone”  
military solutions.

They’re likely, instead,  
to require a combination of political, military, information, and economic  
operations.

These future contingencies will involve no clear distinction between the  
traditional strategic and tactical stovepipes.

A tactical success – destroying a  
targeted building –  
or a tactical asset –  
such as a well-placed sniper engaging a particular target –  
can have a strategic impact on the future course of a conflict.

Our new adversaries will likely have far-reaching and non-traditional assets of their own such as:

- \* Advanced COTS technology and world-class, graduate-level engineering and scientific talent;

- \* Abundant manpower; and

- \* Significant financial resources from rapid economic growth; from petroleum wealth; or from illegal drug operations.

They will continue to be highly innovative developers of improvised weapons and terror tactics, and they will also have the ability to exploit information technology and the mass media.

They won't hesitate to exploit civilian populations as shields or to use high-tech weapons for symbolic demonstrations.

Clearly old solutions will simply not work in this new strategic environment.

We need radically new ways of thinking about conflict and we need equally new solutions to coping with these challenges.

Will our Combatant Commanders have the “tool kit” they need to tackle and master these demanding and unprecedented situations when the President issues the order?

It is STO's mission to make sure that they do.

That's what we at STO are all about – building a “tool kit” for the COCOMS that will provide them what they

need to prevail in the kinds of previously unheard-of military situations that loom ahead.

STO is all about developing the technologies that will enable the U.S. COCOMS to be strategically dominant in tactical environments, theater-wide, anywhere in the world.

For example, we seek to provide our warfighters with a transparent battlespace.

From the predictable types of hiding places where our adversaries lurk – buildings, tunnels, bunkers, and caves – to the “hide in plain sight” possibilities afforded by operating in and among the civilian population – as well as in and on the oceans and coastal littoral environment.

We aim to enable U.S. warfighters – from the Pentagon to the battlefield -- to exploit this transparency and bring to bear precision influence at any time and any place.

And we look to develop technologies that are strategic “game-changers” – technologies that, at a stroke, not only nullify an entire adversary capability in the theater but, ideally, turn it to our advantage.

STO’s mission is to look ahead and equip the COCOMS to address threats for which they’re not yet prepared.

Consider this scenario:

An internal political “meltdown” occurs in a nuclear-armed

third-world country.

This is an instant crisis that could lead the president to order a COCOM to locate and secure that country's nuclear arsenal and production technology.

In STO we are asking, "What innovative capabilities would dramatically turn the tide for the COCOM?"

We need you to help us develop the capabilities that will allow US Forces to precisely geo-locate radioactive materials, weapons, guidance systems and production equipment, even when those targets have been disguised, hidden underground, or dispersed throughout the civilian infrastructure.

We also need your help in developing and delivering new capabilities for inserting, supporting and extracting small teams that can penetrate and take control of such facilities — and render the nuclear weapons harmless.

STO is seeking from you the technologies we need in order to provide a COCOM the means of taking on this mission – and dominating the outcome.

Consider another scenario.

Without warning,  
a U.S. ally is subjected to a series of cyber attacks, one following quickly upon another.

The consequences?

Widespread power outages.

An air traffic control system outage that leads to suspension of domestic and international passenger and cargo flights for the affected country.

A major stock market disruption that forces a suspension of trading that threatens a ripple effect through other world markets.

In response to an appeal from the ally's Prime Minister, the President orders a U.S.COCOM to assist the ally in defending its besieged networks, restoring order, and halting any further attacks.

What capabilities will the COCOM require to accomplish this mission?

How will the United States identify with certainty the responsible party or parties?

Are there defensive approaches that will be most effective once the attacks are contained?

And if punitive offensive action is called for, how will the COCOM, our ally and any cooperating commands be assured that they are not being spoofed into attacking the wrong target?

STO is asking you to help us to develop the technologies we need to deliver in order to put the capabilities needed to address such problems in the COCOM'S "tool kit."

Consider  
one final scenario:

The President orders a COCOM to prevent military equipment being supplied by a hostile foreign power overseas, from ever reaching their

intended destination in a Western Hemisphere country.

Knowing that the equipment is too big to move quickly except by ship, the COCOM would now confront a “needle in the haystack” search among the thousands of commercial vessels on the high seas.

What tracking and surveillance technologies, in foreign ports and on the ocean, would be required to support the COCOM in this mission?

What abilities to remotely “see into” ships and shipping containers, or otherwise detect key signatures, would be needed?

What capabilities short of armed naval action might offer the possibility of neutralizing these weapons during shipment – or once they’ve begun to be moved ashore?

The COCOM might need non-lethal, non-kinetic capabilities to neutralize or incapacitate these weapons without causing collateral casualties or damage to innocents nearby.

And so again, we are asking you to help us overcome the challenges we must surmount in order to develop these new capabilities.

With your help, DARPA’s Strategic Technology Office is going to build a COCOM “tool kit” that has the technologies needed to address new and emerging threats.

We want your help to cultivate ideas and develop technology approaches that offer great promise in surmounting the formidable

hurdles our Warfighters will face in this new strategic environment.

For the rest of this session, the STO team will discuss areas of technology and capability that we believe will be crucial to enabling the COCOMs to respond and prevail when confronted by these future contingencies.

- \* Peter Haaland will discuss technology needs for mapping and tracking chemical, biological, radiological, and nuclear threats;

- \* Joe Durek will discuss efforts that are needed to enable us to “see through” walls and dirt;

- \* Jennifer Ricklin will discuss challenges we face in penetrating the haze of combat;

- \* Deepak Varshneya will cover efforts needed to empower the warfighter on the ground;

- \* Khine Latt will address challenges we face in the maritime arena;

- \* Doug Kirkpatrick will discuss energy as a tactical asset, and.

- \* Larry Stotts will summarize the message of STO’s warfighter support presentation.

But there is also another critical element to STO’s mission.

One of the biggest and most fundamental of the strategic “game changers” for future conflict is network-centric warfare.

This is the other part of STO’s work – developing the communications

and network capabilities that will be required to address tomorrow's military scenarios, while protecting our own networks from disruption or exploitation.

These network-centric warfare capabilities are what will enable us to bring to bear the other strategic "game changers" that we're developing -- to, in turn, enable the COCOMS to dominate and prevail in these future contingencies.

STO's efforts in network-centric warfare – encompassing networks from the enterprise to the tactical – are so extensive that we'll be discussing them in an entirely separate session devoted to this topic immediately after the break.

So, before I turn the rostrum over to my teammates, I want to underline the main theme running through all of their presentations.

STO needs *you*.

We need your ideas for solving the formidable challenges posed by the scenarios and contingencies that our Combatant Commanders may face in the future.

We need your help to pinpoint the next operational threats.

We need your help in "thinking about the unthinkable" – and being prepared to respond to it.

We need your ideas for new and innovative technologies and solutions –  
the more ambitious,  
the better.

And, if you have ideas – perhaps a whole suite of ideas – that you'd like to push forward, then we need *you* on the STO team as a Program Manager.

So, as you listen to my colleagues' presentations today, think about what technology ideas and initiatives *you* could contribute to that future military operation – one with ultimately high stakes – that begins when a COCOM receives a Presidential order that says:  
“This is critical to our future, and you have very little time ...”

Thank you.

I'd now like to introduce Peter Haaland.