

## Joint chiefs chairman urges military innovation

VIRGINIA BEACH

Despite shrinking Pentagon budgets and political wrangling over defense-spending priorities, the nation's top military officer didn't mention money in a speech Wednesday in Virginia Beach.

Army Gen. Martin Dempsey, chairman of the Joint Chiefs of Staff, said it's more important to discuss missions and capabilities than to bicker over how big the military should be.

"We're not ordering coffee at Starbucks. This isn't a matter of getting a tall, grande or venti. It's what will be different that will most matter," Dempsey told an audience of about 550 military officers, civilians and defense contractors at a joint war-fighting conference.

During his hour on the stage at the Virginia Beach Convention Center, Dempsey made references to topics as varied as the Civil War battle for Vicksburg; Facebook and Twitter (he uses both); and the war between Athens and Sparta in the 5th century B.C.

He spoke of the importance of cyberwarfare and a robust effort to deter potential enemies from crippling communications networks. But he also said today's military must train to operate in degraded environments where networked technology isn't accessible.

"GPS is terrific when it's working, but if it gets jammed, we have to be ready to continue the mission," Dempsey said, adding that "it could be that the worst-case scenario is actually the most likely scenario."

Dempsey's address marked his first return to Hampton Roads since March 2011, when he left Fort Monroe, where he headed the Army's Training and Doctrine Command, to become chief of staff of the Army. He had been in that role for just a few months when President Barack Obama tapped him to replace Adm. Mike Mullen as his top military adviser.

Dempsey didn't mention the \$33 billion in proposed defense cuts in next year's budget or the \$487 billion the administration has pledged to slice from Pentagon programs over the next decade. Instead, he urged conferencegoers to challenge their own assumptions and beliefs and to think critically about military vulnerabilities.

As an example, he cited a young Marine captain, Wayne Sinclair. In 1996, Sinclair wrote an article about new trends in explosives that made previously impenetrable military vehicles vulnerable to attacks and pointed out innovations South Africa had used in response.

The military didn't grasp the full import of Sinclair's work until 10 years later in Iraq, Dempsey said, when "simple homemade bombs nearly brought the world's most technically advanced fighting force to a halt." In response, the U.S. military developed mine-resistant, ambush-protected vehicles, or MRAPs, based on technology from South Africa, as Sinclair had suggested.

"There is no substitute for taking a clear-eyed look at the threats we face and asking how our force must change to meet them. So when you finish this conference, go find the Wayne Sinclairs of the world and get comfortable with the arguments that make you the most uncomfortable," Dempsey said. "That's the kind of intuition that will help us build the best possible joint force."

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## ===== Text of Gen Dempsey's address =====

Good morning!

As an Army officer who flew here on an Air Force helicopter and landed at a Navy base -- I feel more "Joint" today than most! What a way to arrive at the Joint Warfighting Conference!

Thanks to the Goldwater-Nichols Act, Congress fines me every time I fly Army.

Okay, that's not true. But, we do have other honest reasons for appreciating Goldwater-Nichols. It set the framework for translating a diversity of ideas into a unified effort. It cast "Joint" in legislative stone. And, it helped make "Joint" a combat multiplier on the battlefield. In this respect, it enshrines the best of our military heritage.

That heritage stretches all the way back to this day in 1863, when the Union army sealed the fate of Vicksburg by defeating the Confederates at the Battle of Champion's Hill. Vicksburg was an early, important joint campaign ... Army, Navy and Marines. The Air Force would have been there if we only knew how to fly.

Today, we meet at another pivotal time for the Joint Force.

We are transitioning from a decade of war. A complex and uncertain security environment looms. As we look toward the future, each Service — and our total Joint Force — face fundamental questions about identity, roles and capabilities.

We often joke about how each Service has its particular paranoia, or "identity crisis," that cause some to ask, "who are we, and why are we here?"

For the Air Force, it's the notion that unmanned flight will surpass manned flight -- that "we will take their flying scarves away" and hand them computer joysticks instead. The Army wonders if we will ever fight another major land war. The Navy fears the demise of carrier groups -- for generations the ultimate in maritime power projection. The Marines have the strongest case of institutional paranoia -- they worry about whether their service will continue to exist at all.

Of course, these are unfounded and exaggerated anxieties. But, you still hear them. You also hear another extreme -- collapsing all into a single service -- where everyone wears spandex leisure suits. Whoever thinks this probably attended one too many Joint Warfighting Conferences.

The reality is that we have it about right. There is strength in the Services' diversity -- and military utility in having multiple ways to meet the nation's security needs.

That said, these "identity crisis" moments are a good reminder we should always be thinking about what the future will bring. Based on what we have learned over the last decade -- about war and joint warfighting -- and based on what we can expect about the new security environment, there is a lot we can do to make our joint force even stronger.

Let me frame our challenge by talking about what I've called the security paradox. On the one hand, we are witnessing greater levels of peace and stability worldwide. In evolutionary terms, the human race has never before experienced such low rates of violence. On the other hand, destructive technologies are proliferating in two directions. They are proliferating horizontally across advanced militaries and vertically down to non-state actors. As a result, more people have the ability to harm us -- or deny us the ability to act -- than at any point in my life.

Here is the discomfiting reality -- we face a far more competitive security environment ... one where our relative degree of overmatch against many foes will have decreased.

Today's security paradox doesn't call for a larger or a smaller military. Instead, it calls for a different military -- one poised to deter, deny and defeat threats at every point along the spectrum of conflict.

What does this mean for the force? The joint force we have is in need of a reset. The joint force we will need does not yet fully exist. And after more than ten years of hard joint warfighting, our Services have a good idea of what we do well together and where we need to improve. We must take what we have learned to build the future Joint Force -- the Joint Force of 2020. Getting this right is so important that it's one of four priorities I've established as Chairman.

Now, let me say right from the get-go that Joint Force 2020 is going to look a lot like Joint Force 2012. I'm not talking about making a leap to the 24<sup>th</sup> century -- you know, warp speed and tractor beams. But, I do know that our present debates about force sizing must give way to a

more fundamental discussion of missions and capabilities. We are not ordering at Starbucks — it's not just tall, grande or venti. It's what will be different that matters.

Think of it this way -- about 80% of Joint Force 2020 is either programmed or already exists. The major building blocks of today's force will still be around in eight years. That said, we have a perishable opportunity to be innovative in two ways. We can significantly change about 20% of the force. And, we can change the way we use the other 80%.

How will that change occur? We have some pretty amazing material capabilities coming online that will reverberate across the force as a whole. But non-material change will matter even more -- how we use doctrine, training, leadership, and education – the whole DOT-M-L-P-F.

Of course, we are only at the beginning of a long intellectual journey. But for today, I'll lay out some of my initial thinking about how that 20% I mentioned will change, and how it is likely to change the way we use the other 80%.

Take cyber. Cyber is one of those areas where our actual capabilities are beginning to resemble science fiction. In the future, cyber will become both a standalone warfighting instrument with global reach and a ubiquitous enabler of the joint force. It will be both part of the 20% that's new and part of what allows the 80% of the force to be used differently.

To make cyber a reality, we need to do two things. We need to continue aggressively pursuing new offensive and defense capabilities. And we need cyber to be “wired” in to the whole force right away. With SOF, a specialized community grew up in parallel to the conventional force and has only become integrated over the last decade. We can't afford to keep cyber apart.

There are several other emerging capabilities that will play outsized roles in Joint Force 2020. ISR and long-range strike are two of them. So is undersea technology, one of the few areas where we enjoy an overmatch against all adversaries. Unmanned technologies are on the rise and gaining importance...not only in terms of effectiveness, but also versatility and value. In an era of fiscal constraint, a platform that offers these traits will almost always be the right one in which to invest.

The development and integration of these emerging capabilities will by no means amount to all that is new in Joint Force 2020. But, I will wager today that they will make up an important part of it.

Integrating the new capabilities I just talked about with our foundational conventional force is incredibly important. Collectively, they will provide new ways to generate military power, and to do so quickly, with global reach and strategic adaptability.

This combination of increasingly powerful, networked capabilities and agile units at the tactical edge is an important development for several reasons. It provides the basis to project both discreet and overwhelming force across multiple domains. It gives policy makers and commanders alike a greater degree of flexibility in how they pursue objectives. And it allows us to press our advantages in advanced precision platforms, emerging capabilities, and global

networked mission command. Most importantly, it leverages our decisive advantage — adaptive leaders at every echelon. In Joint Force 2020, these factors will prove overwhelming to the enemy.

We can glimpse the power of this approach in Iraq.

When I commanded the First Armored Division in 2003, we were just learning to break down the walls between operations and intelligence. By the time I was CENTCOM commander in 2008, we had achieved near seamless Joint integration at the tactical level. “All-source” intelligence was fused, ISR was networked out to the tactical edge, and special and conventional forces were coupled. As a result, we went from multiple operations to snatch one high value target to snatching multiple high value targets in one operation. This is the kind of joint integration we must build for major combat operations.

There is a flip side to using networks and advanced technology to overwhelm an enemy. Our substantial dependence on networked technology could become a critical vulnerability for joint operations. So we need to ensure that our globally networked force can operate effectively in any environment, but particularly those that our adversaries purposely degrade. In short, we need to be ready for the space and cyber domains to be contested exponentially more than they are today.

Preparing for this is as much a matter of leadership and training as it is engineering. To the extent possible, we need to continue to function even if our connectivity or system performance begins to degrade. GPS is great when it's on. But if it gets jammed, we must be ready to continue the mission. In my day, we did that with map and compass. Luckily there are more elegant solutions today.

To foster this level of resilience, we need to practice it again and again. We need to simulate degraded environments in our wargames and stress test each of our systems. It could be that the worst case scenario is actually the most likely scenario. Marines and soldiers have long been taught to assemble their rifle while blindfolded. We need all operators of military systems to develop the equivalent skill. I understand this involves an element of risk. But better to take that risk now when we can effectively learn from a poor outcome rather than in war when the outcomes can be fatal.

Our best hedge against degraded environments is mission command and adaptive leadership. We need to grow leaders who thrive in an environment filled with uncertainty and organizations that are adept at managing stress on their technological systems.

We also know that in the future, our homeland will not be the sanctuary it once was. Whether it's cyber attacks launched from afar or terrorists closer to home, our critical infrastructure will be threatened. This is a problem because many of the global capabilities that underwrite our superiority on the battlefield are operated from here. UAVs over Afghanistan are flown by pilots sitting in the continental U.S. Will we still be able to operate these capabilities abroad if the power grid goes down or the internet stops functioning? And for how long? The Joint Force of

2020 must own up to this monumental challenge in mission assurance. Our effectiveness depends on it.

With all this talk of networking and its inherent challenges, it is important to note that I don't just mean technology. I also mean social networking in the broadest sense of the term, both human relationships and ideas. When I think of the successes we have had in Iraq and Afghanistan, strong relationships and new ideas were what allowed us to make the most progress.

Now, it's not just counterinsurgency campaigns that need relationships and ideas. Just stop for a minute and ask yourself: "What kind of relationships and ideas do we need to successfully counter WMD proliferation, terrorism, cartel violence, or piracy?" For each of these thorny problems, we need relationships across our own government. And we'll need to cultivate new and creative partnerships on many fronts — both public and private, government and non-government.

It is telling that the first time I met someone from the State Department, I was a Lieutenant Colonel with 22 years of service. Today, you can hardly find a Lieutenant who hasn't worked with USAID, State, or Justice. And that's a good thing. As violent technology proliferates into many more hands, threats to our security will not just come from other advanced militaries. They will also take more than military power to address. So when it comes to the Joint Force of 2020, the military instrument should never be exercised alone.

Now that was a lot of thoughts about the future before everyone's had their second cup of coffee this morning. I know everyone here shares a sense of urgency with me when we talk about the future joint force and the future of joint warfighting. We simply can't afford to get this transition wrong.

So, as we build the Joint Force of 2020, we must capitalize on emerging technology and pay greater attention to resilience in a contested environment. Joint Force 2020 is not just about the 20% of the force we can change. It is also about re-purposing the other 80% that will remain.

We also need to remember that there are many things that won't change. War will always be a contest of wills. We need a military that can impose its will. That could be with a machine gun or a mouse click ... or in tomorrow's security environment, probably both. It will certainly mean Soldiers, Sailors, Airman and Marines with moral and physical courage. And, it means trained and equipped battalions, ships and squadrons who can close with and defeat the enemy. Our Services must to continue to bring well-honed core competencies to the joint fight, even as we ask them to employ those competencies in new and different ways. That can be uncomfortable, but I know we're up to the task.

Although building a vision of the future force seems daunting, we are a country of quick learners and big ideas. And the quickest learners among us often have some really big ideas. The trick is to pick them out and run with them, even when they cut across the grain.

Years ago, a young Marine Captain named Wayne Sinclair wrote an article about IEDs that radically transformed the way we think about transporting our ground troops in combat. He

noticed how trends in explosives and vulnerabilities in our ground vehicle fleets could potentially put our troops at risk. He even pointed to a promising solution devised by South Africans. You could say Wayne is one of the godfathers of the MRAP. The problem is, he wrote his paper in 1996, but we didn't recognize the value of his thinking until 2006.

Now Wayne went on to serve in Iraq and ride in the very MRAPs he called for, but not before simple homemade bombs nearly brought the world's most advanced fighting force to a halt.

The moral of the story is that there is no substitute for taking a clear-eyed look at the threats we will face, and asking how our force must change to meet them.

There are great thoughts out there – inside and outside the military – that will help us significantly innovate 20% of the force while re-imagining how to employ the other 80%.

So when you leave this conference, go find the Wayne Sinclairs of the world, and get comfortable with the arguments that make you most uncomfortable.

This is the kind of intuition that will help us build the best possible Joint Force 2020. We're going to need it in spades.

Thank you.