

# LEADING THE WAY

A CONVERSATION WITH  
General William G.T. Tuttle, Jr. USA (Ret.)

By Karen Schmitt

Those who lead the way often follow a path that strays from more conventional routes—one with twists and turns and surprises around every corner. Early on, General William G. T. Tuttle, Jr. USA (Ret.) embarked upon just such a career path and he hasn't missed a step! And he continues to delight in discovering possibilities along the way. Thank you, General Tuttle, for sharing some thoughts with *Defense Transportation Journal* readers.

*General Tuttle, you wrote an article on "Buoyancy Assisted Aircraft" in a recent issue of the Defense Transportation Journal ["A New Technology to Support a 21st Century Operational Concept"; February 2008; Vol 64; No. 1]. What inspired that topic?*

So much has taken place since I wrote, "Defense Logistics for the 21st Century" in 2005, especially in light of stabilization and reconstruction operations that we face in Iraq and Afghanistan. Securing populations and providing help to ease the transition to stable government, not only in Iraq but in other volatile regions as well, may center on areas lacking in roads, railways, ports and airfields. I find this scenario, identified in the Army's new FM 3-0 to be the key element of our military strategy in the near future.

I am also fascinated by a new technology that potentially would enable more effective sustainment of stabilization and reconstruction operations in the areas of the world described above. That technology, known as "Dynamic Buoyancy Management" along with several structural technologies, combines the buoyancy

attributes of a dirigible with the aerodynamics of a fixed wing aircraft to provide vertical take-off and landing and transport massive cargo loads regardless of infrastructure. The Defense Advanced Research Projects Agency (DARPA) has been evaluating the technology since 2005, and the Rapid Reaction Technology Office, Office of the Under Secretary of Defense Acquisition, Technology and Logistics, is developing an Advanced Technology Demonstration of a prototype air vehicle incorporating the technology.

For all intents and purposes, our Military is a mobile mini-nation constantly moving its "citizens" (or soldiers), and all the equipment, spare parts, amenities, and supplies required to support them and their stabilization/reconstruction missions in hundreds of smaller "cities" scattered amongst rugged terrain features. Medical systems and evacuation support, are especially important components of the sustainment capability which this new technology can support.

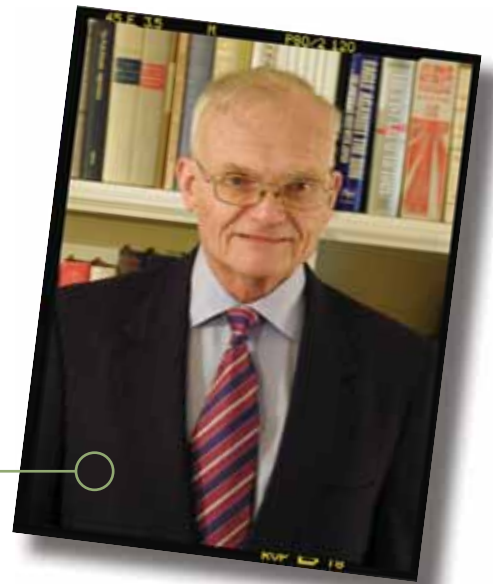
Conditions we could conceivably face warrant our attention. The desire

is there—the need is there—and people with vision are exploring possibilities. This was the genesis to an article on buoyancy assisted aircraft.

*When it comes to logistics, it seems to always be a question of "What Next?" According to US TRANSCOM's Joint Deployment and Distribution Enterprise (JDDE), "adaptive planning" will be an important skill set. How do you define this quality?*

Adaptive planning is pretty much the same thing as contingency planning—they have a similar meaning. You always have to project ahead to a situation that might possibly come your way. You have to adapt your processes, particularly logistics, to fit the engagement—from humanitarian assistance to peaceful settlement of conflict to all out combat. Then, you have to sustain the effort—to enable the operational commander to face the combat. You have to imagine all the situations that commanders are likely to experience—and make preparations.

I was heartened by General Schwartz's keynote address at the 2007 NDTA Forum in Charleston, SC. He talked about the need to save on aircraft fuel consumption. It's a huge problem. He said we need an alternative way to carry supplies, suggesting the potential use of lighter than air vehicles. As one result of that address, Aeros, Inc which developed the buoyancy management technology (see inset) was invited to Air Mobility Command back in November to brief AMC and TRANSCOM on the con-



cept and development of the technology. General Schwartz' interest has encouraged those working on developing this new air vehicle.

*What was the greatest logistics challenge that you faced in your military career? And, how did you overcome it?*

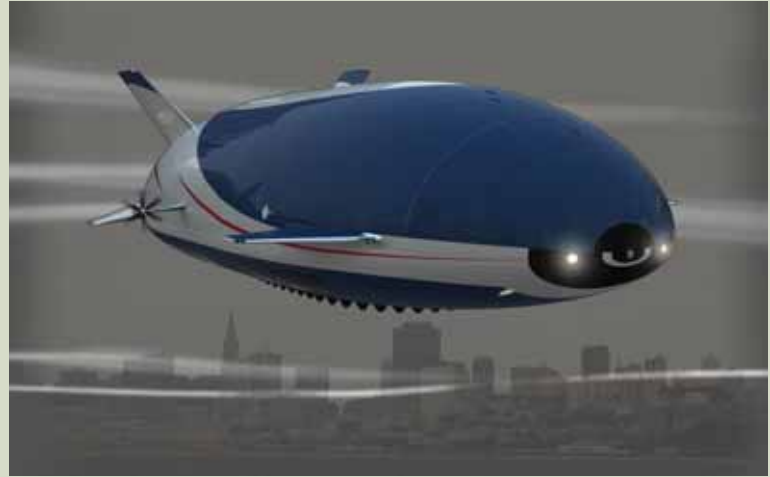
Every assignment presents a logistics challenge. "Just Cause" in Panama [1989~1990] was managed relatively easily. The 18th Airborne Corps handled support using a "reach back" (to Fort Bragg) strategy. They were so well prepared, and it went so quickly that the Army Materiel Command (AMC) didn't have to deal with insurmountable difficulties. But when facing "Desert Storm," we had to do well in deploying our forces and preparing them for combat. This involved a whole series of complex issues. For one, we were on the heels of a cold war yet moving into a hot zone, so to speak, and we were on the verge of downsizing as things began heating up.

The Dessert Storm / Shield conflict required modernizing the Army for a desert environment. We had to bring tanks up to date and see to it that the troops had the most modern equipment. We deployed large stocks of ammunition. General Schwarzkopf wanted plenty and for good reason—we were proving that America had an enormous capacity to sustain operations. Ships came up the Persian Gulf in an endless stream—the amount of cargo that was offloaded and moved forward was astounding. Our support requirement at AMC was just as large, and it came at a time when we were beginning to cut back. I remember a visit to Red River Depot [Texas]. People were showing me their pink slips saying, "You can count on us! We'll keep working!" The post cold war downsizing had started. We were in the process of having to cut back in August of 1990—but everyone was on a 24/7 schedule to move supplies and get units topped off. The mechanism had started to curtail the exodus of our people, and folks were very proud to jump back in and help no matter what.

At the same time we were adapting to desert warfare. Teams from Sikorsky were working on ways to keep aircraft blades from weathering. Other manufacturers were correcting problems in the sand colored paint used to camouflage vehicles.

## AIR BORN

### FAA begins certification process of the Aeroscraft ML866



The FAA has accepted the type certification application for the Aeroscraft model ML866 made by Worldwide Aeros. The Aeroscraft is based on proprietary Dynamic Buoyancy Management and Structural Technologies that create a completely new class of aircraft. Unlike other aircraft, the Aeroscraft generates lift through a combination of aerodynamics, thrust vectoring and gas buoyancy generation and management.

Aeros president and CEO Igor Pasternak said, 'This is a monumental step forward in the aerospace industry. It is a new dimension of flight!'

Prior to the ML866 Type Certification program, the FAA had issued Type Certificate to Worldwide Aeros Corp. for the airship models Aeros 40B and Aeros 40D Sky Dragons. Aeros airships had also been certified in Europe and Asia.

The capabilities of the Aeroscraft ML866 create new prospects for all kinds of travelers to reach destinations inaccessible to conventional airliners. The interior cabin can be comfortably configured with amenities from private state rooms to a fully functional business and conference center.

The Aeroscraft is also intended to haul cargo. The Aeroscraft's ability to access remote areas around the world would create opportunities for opening of new markets, efficient product delivery at reduced cost, and facilitate manufacturing in rural areas. Also, it will help improve the environment due to the lesser required land transportation mode.

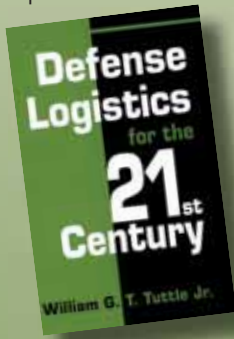
About Aeros: Aeros is the world's leading lighter-than-air, FAA-certified aircraft manufacturing company. The company's operations involve the research, development, production, operation and marketing of a complete family of Aeros-branded air vehicles used in government and commercial applications. These include non-rigid FAA Type Certified Aeros 40D Sky Dragon Airships, Advanced Tethered Aerostatic Systems and New Type Rigid Air Vehicle – Aeroscraft.

The original color made it just too hot inside the tanks. Industry did a fantastic job in supporting us. They turned on their patriotism—that "Can Do" spirit.

We deployed Patriots as air defense protection; at first, however, the engine that powered the generators posed problems. They had come from Allison Gas Turbine

## General William G.T. Tuttle, Jr.

General Tuttle did not follow the traditional Transportation Corps career track. His assignments were diverse and far-reaching, and ranged from academe [Assistant Professor of Social Sciences at West Point] to battlefield [Executive Officer of the 9th Infantry Division, Vietnam] to diplomacy [Chief of the Policy and Programs Branch, Policy Division, Supreme Headquarters Allied Powers Europe, NATO] to name just a few. He also led the US Army Operational Test and Evaluation Agency where he championed the Palletized Load System (PLS), capable of quick heavy load (up to 16 tons per truck) within the tactical environment. PLS provides rapid movement of ammunition, supplies, shelters and containers. His military career culminated at the US Army Materiel Command (AMC), where he served as Commander from 27 September 1989 to 31 January 1992. In this position, General Tuttle was in charge of all logistical support and the entire industrial base for the US Army. He supported soldiers in the field and “was instrumental in crafting a more modern AMC to ensure operational readiness.”



*“Defense Logistics for the 21st Century” by William G.T. Tuttle, Jr., Annapolis, MD: Naval Institute Press, May 2005. 355 pages*

for the initial fielding of Patriot, but we had not bought more from Allison for several years. Our folks didn’t know how to repair the turbine blades. But after a phone call to the CEO, Allison engineers dug in. In a little over a week, everything was under control. Once again, industry jumped to task.

There were distribution challenges as well. Initially It was hard to deliver high priority custom orders quickly to Saudi Arabia, but we devised a system—the requirement relayed to an AMC inventory control point via satellite phone and the item moved by FedEx to the aerial port at Charleston—and it worked well for quick deliveries. TRANSCOM allocated a daily C141 out of Charleston and the services negotiated specific pallet allocations for each service branch for each flight. If there were shortfalls, service logisticians swapped pallet priorities to make things happen. Success here was more about inter-service cooperation than simply adaptive planning.

We all had to change, to refocus and to react to the unique environmental challenges. And, communications needed to be good. If you don’t know what the problems are from the front you can’t make the necessary changes.

*What is the difference between logistics in the military and logistics in industry? What are the lessons that can be shared?*

Both groups have vital strengths and both set good examples to follow.

In the commercial world, people are incentivized. They are always looking for better ways to satisfy customers while keeping costs reasonable. They know that successful globalization lies in managing their supply chains. They strive towards efficiency and effectiveness. Military logisticians are picking up on the concept of Supply Chain Management, which started to materialize in the late 80’s.

The military provides excellent training and instills strong commitment and value systems. This is what makes individuals with active service experience so desirable to employers. The job is more personal in the military.....there is more a sense of cooperation than competition.

The industry / military partnership has gotten stronger due to military cutbacks, and more and more tasks are outsourced. Mutual understanding has improved while the tasks of logistics support have grown more complex. The partnership deserves great credit in the sustainment successes of the last decade. NDTA has been an important part of the process.

The industry/military relationship, just as in a marriage, goes up and down. Sometimes objectives differ. We’ve seen

this when it comes to contracting—a continual bone of contention. But the measure of the relationship is whether or not things get done—and they do get done—and, reasonably well. Major changes like DTCI, will eventually settle down and we’ll get the results that we want.

People on both sides need to be willing to step outside their “stove pipes” and understand each other. It’s the same case with “jointness” among the military. We are from different tribes—we wear different uniforms—we have different cultures. Secretary of Defense Rumsfeld had the right idea when he established the Distribution Process Owner (DPO), and TRANSCOM has advanced the ball with the combatant commands and the services very well since then. We have to continue promoting that process.

*NDTA works hard to encourage relationship building, between industry and military, and also between senior leaders and young professionals through our Mentor ~ Protege Program. As you embarked upon your career did someone provide you support and guidance along the way?*

I had a lot of mentors steering me along the way. I started life as an infantry paratrooper in the 82nd, then joined the Transportation Corps when it began to build up and replace officers getting ready to retire from WWII. I went to Korea right after graduate school. That is where I got to know three lieutenant colonels very well—these were my first mentors. We often ate meals together and they shared good advice on career development then and for several years afterwards. I didn’t follow the usual path—I had very few transportation assignments. My career was like a smorgasbord—a little bit of everything.

*In some respects, your career seems tailor made for the “new logistician,” the multi-skilled officer who is not focused on a single discipline. Can you sum up the most desirable attributes that a logistician can have?*

- Focus is important.
- Focus on FLEXIBILITY – be ready for anything
- Focus on the CUSTOMERS and their NEEDS – that’s the reason the logistician exists
- Focus on PROBLEM SOLVING – then find the tools you need DTJ