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EXIT STRATEGY

How SDDC is working to overcome political and other obstacles to get materiel out of Afghanistan

by Mr. Clay G. Carter and Mr. Mark Diamond

The withdrawal of U.S. forces and equipment from Afghanistan is, without a doubt, one of the most complicated logistics operations in recent history. Aside from the mountainous terrain, undeveloped roads and enemy attacks, U.S. military transporters must deal with unpredictable border issues and a variety of other political and environmental constraints.

Despite these obstacles, U.S. Army transportation experts at Military Surface Deployment and Distribution Command (SDDC) say they are prepared to meet President Obama's Dec. 31, 2014, withdrawal deadline. SDDC has been responsible for moving the vast preponderance of military cargo into and out of Afghanistan since operations there began more than a decade ago.
As the Army service component command to U.S. Transportation Command (USTRANSCOM), SDDC is responsible for moving about 87 percent of all cargo into and out of Afghanistan.

DOD estimates that more than 750,000 pieces will need to be moved out before the 2014 deadline, equating to an estimated $36 billion in cargo and including everything from Mine Resistant Ambush Protected (MRAP) vehicles and High-Mobility Multipurpose Wheeled Vehicles, to unit equipment and more.

SDDC, a major subordinate command to U.S. Army Materiel Command, plans, books, ships and tracks cargo; conducts port operations; and manages personal property moves for America's warfighters, other federal employees and their families. The command also partners with the commercial transportation industry as the coordinating link between DOD surface transportation requirements and the capability that industry provides.

MULTIPLE CHALLENGES

Marisa Bealor, deputy chief of SDDC's Command Operations Center (COC), said one of the command's biggest challenges in moving more than 750,000 pieces of cargo is freedom of movement, mostly dictated by political circumstances.

"We know that, depending on the political climate in any given country, the rules for moving cargo can change, or we can incur additional fees," said Bealor. "And cargo can get held up at the border for many reasons, including inaccurate or missing paperwork, incorrect cargo dimensions, the type of cargo, which country the cargo in transiting through, and much more."

ROUND-THE-CLOCK SHIPPING

Personnel assigned to SDDC's COC plan, direct, synchronize, coordinate and monitor global surface movements and port operations through subordinate operational commands and strategic seaports. The COC maintains operational oversight of all SDDC operations 24 hours a day, 365 days a year. (U.S. Army photo by Mark Diamond, SDDC Public Affairs)

To handle the numerous issues involved with transporting the enormous volume of equipment across dozens of countries using multiple modes of transportation, personnel assigned to SDDC's 595th and 598th Transportation Brigades are located throughout Afghanistan and various locations along the Northern Distribution Network (NDN) to closely manage customs issues along with contract and cargo operations.

The 595th Transportation Brigade provides transportation expertise at major forward operating bases (FOBs) and redistribution property assistance team (RPAT) yards in Afghanistan, as well as several U.S. embassies and multimodal sites within that theater of operations. Once cargo crosses the Afghanistan border into the NDN, brigade personnel hand off operations to the 598th Transportation Brigade.

When it comes to moving equipment out of Afghanistan, a common expression around SDDC is, "Everyone knows Iraq and Afghanistan are different, but they still want Iraq results." But Scott Wadyko, lead traffic management specialist and movement execution supervisor with the COC, said comparing the redeployment operations in Iraq and Afghanistan is like comparing apples and oranges.

"They're both fruit, but that's where it ends," he said. "In Iraq, we had Kuwait. In Iraq, if I moved something to an RPAT yard and there wasn't room, I could move it to the next RPAT yard, and if there still wasn't room, I could move it into Kuwait; and I could put U.S. military eyes on the cargo throughout the entire process. We don't have those luxuries in Afghanistan."

Another issue with moving cargo out of Afghanistan is the number and types of supply routes, or what U.S. Army transportation experts call "ground lines of communication" (GLOCs). While most of the cargo travels out of Afghanistan through Pakistan—called the Pakistan GLOC (PAKGLOC)—cargo also moves out of Afghanistan to the north, through the NDN. SDDC officials said the NDN stretches from the Baltic ports in the northern part of eastern Europe to Afghanistan, traversing Russia and more than a dozen other countries. Additionally, some cargo leaves Afghanistan via

NO LUXURIES HERE
While the successes of the U.S. drawdown from Iraq have raised expectations for the retrograde from Afghanistan, the geographic circumstances are vastly different. Bordering Iraq is Kuwait, where the U.S. military maintained on-the-ground control of cargo movement throughout the entire process. No such luxury exists in the Afghan theater. Here, the last MRAP to depart Iraq is lifted aboard ship at the Port of Ash Shuaiba, Kuwait, March 24, 2012, for transport to the United States. (U.S. Army photo by David Ruderman, 402nd Army Field Support Brigade Public Affairs)

military and commercial air transport. Although SDDC is DOD's "surface" transportation expert, the command adapts as circumstances dictate. When the PAKGLOC closed for more than a year from 2011 through early 2013, SDDC moved more cargo out of Afghanistan by air than the U.S. Air Force. Every day brings new challenges, Wadyko noted.

BY LAND, SEA OR AIR

"We have a significant number of mostly commercial contracts that enable us to move the cargo," said COL Glenn Baca, SDDC director of operations, who described the Afghanistan redeployment as a continuing effort.

For example, he said, "Universal Services Contract 7 enables us to move cargo by surface (e.g., truck, rail or ocean vessel), and a multimodal contract allows us to move the cargo by air and then by sea. In the broadest sense, everyone generally agrees there are four modes of transportation: trucks, trains, vessels and airplanes. Any time you use more than one of those conveyances, it's multimodal."

Under the multimodal contract, commercial aircraft transport cargo out of Afghanistan. Most multimodal cargo is flown to one of several nearby ports, where it is transferred to an ocean vessel for the final leg of the journey to the United States. Because of the high cost of air transport, usually only high-value or sensitive cargo travels all the way to the United States by air, Baca said. "The reason multimodal is significant is

because it gives us flexibility," he added. "If you can't move it out by land, you can fly it out." By contrast, ships are slower, but they can carry much more cargo than planes.

Bealor said it is important to note that SDDC is executing a great number of multimodal operations because of the command's new contractual relationships. Before, she noted, discussions of multimodal operations centered on the Air Force's Air Mobility Command (AMC) or AMC's Tanker Airlift Control Center. "Now, SDDC can contract for that [air] service much the same way we contract for vessels, trains and trucks."

Although SDDC is responsible for transporting most of the cargo out of Afghanistan, Wadyko said the combatant commands normally decide the route and mode of transportation. Every move requires extensive planning and back-and-forth coordination involving multiple organizations. "As DOD's distribution process owner, USTRANSCOM conducts the orchestra," said Baca, but "the orchestra—USTRANSCOM's service component commands—makes the music."

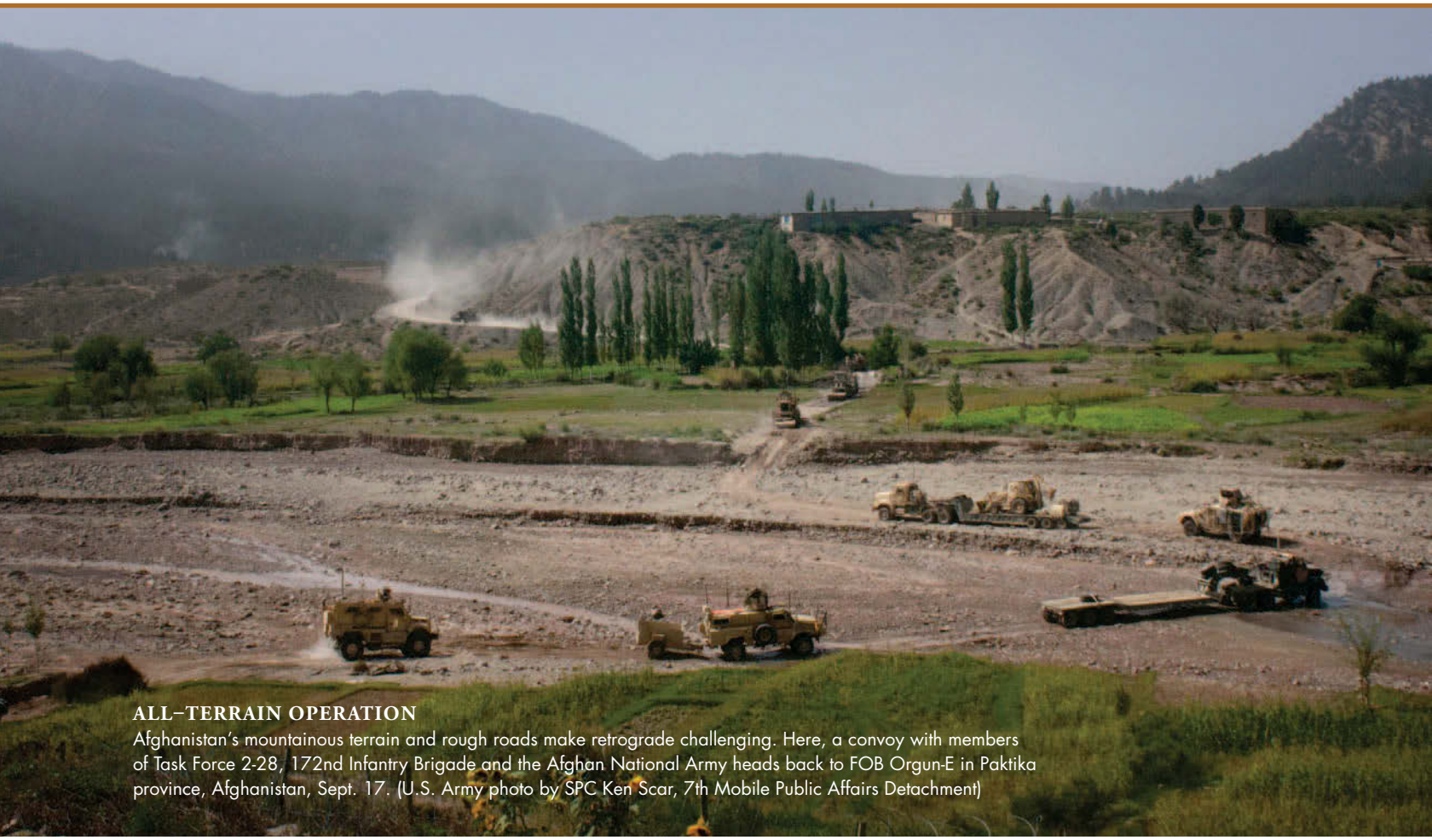
COST VS. SPEED

Wadyko said, "I like to tell people, 'You get three things: speed, cost and reliability … pick two.' If you want speed, you go multimodal, but you're going to pay much more. If you want low cost, then it's going through the PAKGLOC, but that's going to take more time; you're going to lose speed. Or, you can take it north through the NDN where you'll lose speed and the cost goes up. It's always a balancing act."

Part of that balancing act is knowing what can and cannot move along the NDN. Sensitive cargo, unit cargo and weapons are prohibited along the NDN, SDDC officials said. Other political

REDISTRIBUTE OR REDEPLOY?
The more than 750,000 pieces of U.S. military materiel in Afghanistan are scattered among numerous far-flung locations. Here, SGT Andrew Markley, NCO in charge at FOB Sharana Materiel Redistribution Yard, and Mobile Container Accountability Team leader SPC James Moore sift through items Jan. 15 at the FOB Shank redistribution yard in Logar province. (U.S. Army photo by 1LT Henry Chan, 18th Combat Sustainment Support Battalion Public Affairs)

LEAVING THE FOB
Inessential equipment on FOBs is either relocated to other areas in Afghanistan, transported back to the United States or destroyed. Here, SGT Wayne Young of 426th Brigade Support Battalion, 1st Brigade Combat Team, 101st Airborne Division secures chains to equipment during a retrograde operation June 1 on FOB Joyce, Nangarhar province, Afghanistan. (U.S. Army photo by SPC Vang Seng Thao, Combat Camera Afghanistan)



ALL–TERRAIN OPERATION
Afghanistan's mountainous terrain and rough roads make retrograde challenging. Here, a convoy with members of Task Force 2-28, 172nd Infantry Brigade and the Afghan National Army heads back to FOB Orgun-E in Paktika province, Afghanistan, Sept. 17. (U.S. Army photo by SPC Ken Scar, 7th Mobile Public Affairs Detachment)

constraints pose additional difficulties in transporting retrograde cargo through the northern routes. Because of these restrictions, SDDC officials said the NDN currently is used primarily to bring in sustainment cargo.

Wadyko added that although it costs three to four times more to take cargo through the NDN versus the PAKGLOC, it's still significantly cheaper than air transport.

All told, Baca said the transportation costs associated with moving all the equipment out of Afghanistan are estimated at about $6 billion. "That number can potentially move up or down, depending on what routes are available to us coming out of Afghanistan," he added. "If we have to fly a lot of cargo out, that number will probably go up, and if we can use the PAKGLOC and go to vessels, the number could go down."

BEST-VALUE TRANSPORT

No matter which route is used, Baca said they know it will be expensive to bring cargo out of Afghanistan. However, by using a new approach to logistics called Velocity Volume Distribution Retrograde (V2DR), he said, the command can offset that cost once the cargo reaches the stateside seaports. (See related article on Page 56.)

Essentially, V2DR is designed to balance the volume of cargo with the velocity at which the cargo needs to travel. It does this by identifying early what cargo is being shipped and which routes and modes of transportation will be used to expedite the movement of cargo out of Afghanistan. Additionally, V2DR extends the retrograde delivery window from 10 to 21 days, which allows for aggregation of cargo at stateside ports and, in turn, for best-value routing decisions (e.g., trains versus trucks) on how to move the cargo to its final U.S. destination.

"When the cargo comes across the ocean and gets to the United States," Baca said, "we plan to use the volume concept to move as much cargo as we can by train. If you're going over 300 miles, it's cheaper to move large amounts of cargo by train than by truck. We want to aggregate as much cargo as we can at the U.S. ports, move it by train to its final destination and save more money doing it.

"When we were leaving Iraq, we were fortunate to have Kuwait," Baca added. "As long as we got the stuff across the border

CLEAN SWEEP
Soldiers, DA civilians and contractors work March 5 during the training portion of Operation Ammunition Clean Sweep 13. The operation sought to determine how much serviceable ammunition needed to be transported back to the United States. (U.S. Army photo by CW4 David Turner)

into Kuwait, we could put it there, sort it out and then move it. Because we don't have that same situation in Afghanistan, we need to make sure we're generating enough velocity that we can get the cargo well clear of Afghanistan in a timely enough manner to meet the timelines associated with the drawdown that the president has announced."

CONCLUSION

According to Baca, one of the biggest challenges is knowing what needs to be moved. "We need to know definitively what we have to move. The network has plenty of capacity, as long as we move the cargo in a timely manner. If the cargo isn't identified until very late and there's a huge amount of cargo that has to move late, the challenge will become very difficult."

For more information, go to ***http://www.army.mil/sddc.***

MR. CLAY G. CARTER is the SDDC deputy director of operations, G-3 directorate. Carter holds a B.S. in business management from Park University. He retired from the U.S. Air Force after 22 years of service. Before being promoted to his current position, Carter was the program manager for the Defense Transportation Tracking System in SDDC. He has received numerous military and civilian awards.

MR. MARK DIAMOND is a public affairs specialist assigned to Headquarters, SDDC. He has more than two decades' experience in various positions supporting communications for the U.S. Army and U.S. Air Force. Diamond has earned dozens of command- and service-level military journalism awards, and is a four-time recipient of the Department of Defense Thomas Jefferson Award.

MANY POSSIBLE PATHS

SDDC works toward best-value transportation

by Mr. Clay G. Carter and Mr. Mark Diamond

As U.S. forces prepare to withdraw troops and equipment and end combat operations in Afghanistan, Army transportation experts with the Military Surface Deployment and Distribution Command (SDDC) are working behind the scenes to ensure that all the pieces are in place to meet President Obama's Dec. 31, 2014, deadline as efficiently as possible.

According to SDDC officials, the massive withdrawal of equipment from Afghanistan must focus on increasing the velocity and flow of cargo while balancing the efficiency of the transportation network.

Part of the process is the Retrograde, Reset, Redeployment, Redistribution and Disposal (R4D) mission. Although the word "retrograde" sometimes describes "an organized movement away from the enemy," in the jargon of U.S. military logistics it also refers to a specific disposition of cargo known as Theater Provided Equipment (TPE), or permanent theater assets. TPE is assigned to units when they arrive in theater; when the units depart, the TPE is available again for use by another unit. As the Afghanistan mission draws down, the TPE becomes part of the R4D process.

BREAKING IT DOWN

The five categories of disposition are:

- Redeployment, which applies to cargo that belongs to the units.
- Redistribution of equipment, "cross-leveling" it from one unit to another.
- Retrograde and reset, or returning cargo to Army and U.S. Marine Corps (USMC) logistics depots in the United States for refurbishing and reissue to forces in the field.
- Disposal, a process already taking place in Afghanistan.

DOD "is making decisions on what equipment in theater is not economically

HOMEWARD BOUND
The SDDC's V2DR tool identifies early what cargo, large and small, is being shipped out of Afghanistan and which routes and modes of transportation will expedite moving it. Here, Soldiers with the 1st Air Cavalry Brigade, 1st Cavalry Division (1/1 CAV), redeploying to Fort Hood, TX, after a year in Afghanistan, load bags onto an open trailer May 14 at Camp Marmal, Balkh province, Afghanistan. The bags then went to the flight line for shipment stateside. (Photo by SGT Richard Wrigley, 1/1 CAV Public Affairs)

worth moving back to the United States," said COL Glenn Baca, SDDC's director of operations. "Currently, they're saying there is about $7 billion in property that's more economical to either destroy in theater or donate to our partners as excess defense items."

The vast majority of equipment will be moved out of Afghanistan. No matter what the process—retrograde, reset, redistribution or redeployment—and no matter which service owns it, once the cargo is ready to move, in most cases SDDC is responsible for making that happen.

To ensure the success of the Afghanistan redeployment, SDDC officials said U.S. forces must overcome physical, environmental, political and operational constraints, as well as enemy threats and cost factors. Marisa Bealor, deputy chief of SDDC's Command Operations Center, said the command also must balance the velocity (speed of moving cargo) that commanders on the ground want with the efficiency (low cost) that the services want and current fiscal constraints demand.

Although challenges exist, SDDC experts have answers. To handle the monumental task of moving equipment out of Afghanistan, SDDC last year unveiled a new approach to logistics dubbed Velocity Volume Distribution Retrograde (V2DR).

As Bealor put it, V2DR is designed to balance the volume of cargo against the velocity at which the cargo needs to travel. It does this by identifying early what cargo is being shipped, and which routes and modes of transportation will expedite moving the cargo out of Afghanistan. Additionally, V2DR extends the retrograde delivery window from 10 to 21 days, which allows for aggregation

A JOINT EFFORT
SDDC will move the vast majority of the equipment in theater back to the United States, but some of it is being disposed of or donated to local partners. Here, Navy PO3 Lucas Benavidez, Expeditionary Disposal Remedial Team member, guides a column of local national trucks transporting scrap metal Jan. 14 out of the Forward Operating Base Sharana Materiel Redistribution Yard, Paktika province, Afghanistan. (U.S. Army photo by 1LT Henry Chan, 18th Combat Sustainment Support Battalion Public Affairs)

A HEAVY LOAD
Mine Resistant Ambush Protected vehicles such as this one, shown being loaded onto a U.S. Air Force C-5 Galaxy transport aircraft at Bagram Airfield, Parwan province, Afghanistan, Feb. 2, are among the more than 750,000 pieces that DOD estimates will need to be moved out of theater before the Dec. 31, 2014 deadline. (U.S. Army photo by 1LT Henry Chan, 18th Combat Sustainment Support Battalion Public Affairs)

at stateside ports. With more cargo aggregated stateside, SDDC can make best-value routing decisions (e.g., trains versus trucks) in moving the cargo to its final U.S. destination, typically an Army or USMC depot.

REHEARSING RETROGRADE

To ensure that the V2DR process runs smoothly, SDDC personnel and various other military partners participated in a series of SDDC-sponsored rehearsal-of-concept (ROC) drills in May and July. The drills took place in two phases, said Scott Wadyko, lead traffic management specialist and movement execution supervisor with SDDC's Command Operations Center. The first phase involved all the processes for moving the equipment out of Afghanistan, from the redistribution property accountability team (RPAT) yard to a seaport of debarkation, and onward to a U.S. port. In the second phase, the fictional vessel approached the U.S. port. This phase involved offloading the cargo and preparing it for movement to the final destination by rail or truck.

In opening statements before SDDC's second V2DR ROC drill, the SDDC commander described the importance of ensuring that everyone does their part.

"During the first ROC drill, we discovered some processes that needed to be fixed," said MG Thomas J. Richardson, SDDC commanding general. "That's why we have ROC drills. It's about seeing ourselves through the entire process, and then understanding what actions are going to occur and who is responsible for each action. We have to understand all the moving pieces, and there are a lot of moving pieces.

"It's not just the action of moving something on a truck or train," Richardson

REHEARSING THE DETAILS
Led by Commanding General MG Thomas J. Richardson, left, SDDC hosted rehearsals for retrograde operations in May and July at SDDC headquarters, Scott AFB, IL. The events included a detailed review of the many tasks involved in quickly and efficiently moving military equipment out of Afghanistan. The ROC drills had support from a number of key military transportation partners, including U.S. Transportation Command, U.S. Army Materiel Command, the U.S. Army TACOM Life Cycle Management Command and the U.S. Air Force Air Mobility Command. (U.S. Army photo by Mark Diamond, SDDC Public Affairs)

said. "We do that every day. It's the synchronization of the entire process to make sure everybody can handle the cargo at the same time. When we're talking about the logistics of moving this much military equipment out of Afghanistan, there are no little issues."

During the second phase of the drill, Wadyko said U.S. military transportation experts discussed a variety of issues, and raised and answered some important questions. At this point in the process, he said, SDDC can start working best-value transportation decisions. For example, he said, moving cargo by rail costs about half of moving it by truck. "If we can wait two or three days until we have enough cargo to 'build a train,' we can save a lot of money," Wadyko explained.

FLEXIBLE DATES

According to Wadyko, one of the most important pieces to the V2DR process is the extension of the required delivery date (RDD), when retrograde cargo must reach its final destination.

"In the past, we were treating retrograde cargo the same as unit cargo. Unit cargo must get back, reset and be ready to go. Retrograde cargo isn't as urgent," he said. "You can still have a required delivery date, but with retrograde cargo there's little difference between 14 days and 21 days. With a 14-day RDD, we're going to get the cargo on a truck and get it out of the port as quickly as possible. That costs more money. With a 21-day RDD, however, we can take the extra time to make decisions based on both value and velocity."

Additionally, he said, in the past, SDDC battalions based their productivity on how fast they could get the cargo out of the port, which works against using more cost-efficient transportation options such as trains. "The V2DR process fixes that. Now we can massage the flow. If the depots are getting flooded with equipment, we can stop or slow the flow. If the depots need reset vehicles (e.g., vehicles that are going back into the system for reissue right away), we can identify those vehicles and get them out of the port quicker. We have that level of detail and flexibility."

For more information, go to ***http://www.army.mil/sddc.***

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