Breaking up airpower into smaller, ground-controlled units was a bad idea in World War II. It hasn’t gotten better with age.

In World War II, Field Marshal Bernard L. Montgomery and other British commanders derisively used the term “penny packets”—that is, “small units”—to describe the improper dividing up and parceling out of airpower to ground forces. They turned the phrase into common currency among American airmen, too.

The concept was explained best by Air Marshal Arthur Coningham. “The strength of airpower,” he contended, “lies in its flexibility and capacity for rapid concentration; it follows that control must be centralized in an air commander and command exercised through Air Force channels; and air forces must be concentrated in use and not dispersed in penny packets.”

Penny packets, warned Montgomery, are the poorest use of airpower. “Worse than useless,” said Air Chief Marshal Arthur W. Tedder. Generations of airmen have heeded lessons from World War II, which established basic doctrine for unified control of airpower in a theater of war.

No one disputes that the needs of land forces, especially those under attack, should often be the top priority mission. The trouble comes when individual ground units want their own penny packets of airpower. Over the years, there are recurring calls to allow ground units of brigade size, or even smaller, to “own” Air Force aircraft, assign targets, and tend to their airspace deconfliction.

Today, airpower’s penny packet problem has re-emerged, with new twists. The issue is not just about who has operational control of fighters and bombers. The penny packets of the 21st century center just as much on intelligence-surveillance-reconnaissance (ISR) aircraft. For example, the Army plans for its Sky Warrior unmanned aerial vehicle, a derivative of USAF’s Predator, to be a medium-altitude aircraft wholly owned by individual Army units.

Early ISR

War experience says this is a bad idea. New Army policy and doctrine says otherwise.

The debate is international as well. In February 2010, Air Chief Marshal Stephen Dalton, who heads the RAF, warned that the airpower advantage “must not be squandered by nonexperts who do not really understand the third dimension, or relative time and space advantage that mastery of the air can deliver.”

During World War I, centralized control of the air was a given. US Army Gen. John J. Pershing’s American Expeditionary Force in France kept aircraft under high-level control at the field-army level, which aggregated several corps.

“Air units were parcelled out to divisional and subordinate headquarters only for specific operations,” noted historian John Schlight. The Army’s ground-oriented leaders and staff would later push to abandon this system of centralized control and decentralized execution, while the Air Service, Air Corps, Army Air Forces, and independent Air Force would fight to maintain the concept.

In those very early days, ISR would be done by observation aircraft assigned to perform corps-level tasks, such as artillery spotting.

When US Col. William Mitchell commanded the Allied air component at St. Mihiel in 1918, he rounded up American aircraft using First Army’s authority and borrowed French units to compose his pursuit and striking force. The observation aircraft were dedicated to corps tasks for the big offensive, and went back to central ownership after it was completed.

The 1930s saw a break between the Army’s “air service” units—providing observation and general support—and its
“air forces,” the pursuit and bomber arms. Debates flared on how best to command and control aircraft performing a ground attack role on the front with friendly troops engaged. Limitations on radio communications and a lack of procedures and training all created obstacles.

In World War II, the first to encounter the air control problem was the collection of British commanders fighting in the North Africa campaign. (Hence the term penny packets—an Anglicized reference to small packages of candy or cigarettes.) They worked through the worst of their problems while battling Lt. Gen. Erwin J. Rommel’s Afrika Korps in the desert in 1941.

RAF commanders such as Coningham, who led the Western Desert Air Force, used fighters to keep the Luftwaffe at bay while attacking Rommel’s tanks and columns roaming North Africa. Also, Coningham used airpower to provide close air support to British troops in contact with enemy forces.

Centralization of airpower forces was critical in North Africa. In 1941, Prime Minister Winston S. Churchill left no doubt of his own view. “The idea of keeping standing patrols of aircraft over our moving columns should be abandoned,” he said, because it was militarily “unsound to distribute aircraft almost crazy, with two air forces but no effective command.”

According to then-AAF Brig. Gen. Elwood R. Quesada, who was serving in the US coastal command, it was Coningham who helped the Americans overcome their outdated concepts. Coningham identified the crucial difference in outlook between a tactical formation dealing with targets in its immediate battlespace and that of a higher echelon which is aware of the location of more important and more dangerous targets.

“It often happens,” said Coningham, “that an Army formation at the front sees a good target which, though reported, is not attacked.” For example, a ground formation at the front reports a concentration of 200 motor transports and accompanying arms, but its request for an air attack is turned down. Why?

The reason, Coningham went on, might be that, only 20 miles away, there is a huge concentration of 2,000 vehicles, indicating an armor force of division size or even larger. This concentration, planners know from experience, will probably affect the battlespace in perhaps as little as 10 hours.

It is this concentration that will receive the weight of an air attack—not the comparatively small target on the front. The ground unit at the front, however, often is unaware of the larger formation, and cannot see the big picture. All it knows is that it requested an air strike and was turned down.

The Casablanca Conference of January 1943 put an end to debate over penny packets by acknowledging that the missions of air superiority and deep interdiction of enemy forces and supplies were top priorities. Subsequent campaigns in Sicily and Normandy brought application in this way.” Churchill cautioned against diverting RAF fighters needed to hold air superiority against the Luftwaffe. Soon enough, the British Army and the RAF took battlefield integration to an exceptionally high level. American forces had not yet learned these lessons, and serious problems erupted shortly after the US Army landings in North Africa in late 1942.

A Crucial Difference

At that time, observation and transport aircraft were organic to Army ground units. Airmen installed at forward Army headquarters arranged close air support operations. Just as their British counterparts had done early in the campaign, the US Army’s inexperienced ground commanders wanted visible air patrols over ground forces. With the Luftwaffe contesting the air, the piecemeal parceling out of airpower meant aircraft could not always concentrate for maximum effect.

It was a mess: The failure to concentrate airpower and attack deep targets often led to disaster. The RAF’s Tedder later called the Americans’ air arrangements attacked.” For example, a ground formation at the front reports a concentration of 200 motor transports and accompanying arms, but its request for an air attack is turned down. Why?

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of airpower to a high art and provided air superiority, deep interdiction of mov ing German columns, and increasingly responsive close air support.

Superficially, World War II’s penny packet disputes were about whether the land component leaders acknowledged the value and effect of centralizing air resources. The underlying problem was the contrast between the narrow (but urgent) tactical view of a small ground unit and the wider leadership view of the battlespace. Only senior commanders had the “big map” perspective of multiple ground units and areas beyond the front.

Beyond this, only airmen had a thorough knowledge of what aircraft were available for theater tasks and land component support at any one time.

World War II commanders finally agreed air superiority was top priority and wrote operational orders and doctrine giving senior airmen the resources and authority to manage air assets. Those in lower ranks would inevitably complain when the airplanes didn’t hit “their” target. The press of combat meant that, most likely, no one would tell them why.

By early 1943, the British Army had drawn the requisite conclusions and had ended debate on the issue. “The Air Force ... must be centralized and kept under Air Force command,” declared Montgomery. “I hold that it is quite wrong for the soldier to want to exercise command over the air striking forces. The handling of an Air Force is a life study, and therefore the air part must be kept under Air Force command.”

Such remarks reflected an understanding by the senior commanders that airmen needed centralized control to carry out their tasks, and this was also the best way to respond to ground force needs taken as a whole. Nothing could have been clearer.

However, the wisdom gained in the bloody war did not stick for long. Integration atrophied as the highly skilled joint commands broke up. The World War II doctrine forged in North Africa did not permanently eliminate the divided perspective.

**ISR Demand**

When new conflicts came, the clash of tactical and theater perspectives re-emerged, and the tactical view was too strong for many commanders to resist. The penny packet problem came back again as Korea and Vietnam forced rework of air control arrangements—with new technologies such as armed helicopters churning up new air control issues.

Probably the most important development in eliminating penny packet problems was the eventual creation of the joint force air component commander (or, in multinational operations, the combined force air component commander). The presence of a JFACC or CFACC as co-equal to the land and maritime commanders allowed airmen to nip in the bud any notion of dedicating aircraft to ground force units.

From 1991 through 2003, land campaigns were short, sharp, and successful. CFACCs provided lavish aircraft for on-call close air support and used their quickly won dominance of the air to strike deep targets at will. It seemed once again that penny packet problems were a thing of the past.

Then along came the lengthy and draining stability and counterinsurgency operations in Iraq and Afghanistan. As more ground forces deployed, the question of penny packets came roaring back. The big difference between the current battlespace and World War II North Africa emerges from air superiority, which was quickly achieved in Afghanistan and Iraq. Coalition forces have become accustomed to air superiority, allowing new penny packet debates to rise up around two main issues—providing close support and ISR to coalition ground forces.

Until recently, American ground units turned for indirect fire support mainly to their own artillery. The two recent wars in the Greater Middle East have seen this function performed mostly by aircraft. This is in part the result of advances in the technology of precision attack. By 2001, the air component boasted effective advanced technologies such as the satellite guided joint direct attack munition (JDAM), which allows aircraft to efficiently strike ground targets with great accuracy.

Changing concepts of operation also altered the debate. Dispersed ground operations on Iraq’s roads or in Afghanistan’s mountains obliterated the concept of front lines. In these kinds of discontinuous battlespaces, ISR, fire support, and combat support logistics increasingly have come to depend on the air component.

The first change was the demand for more ISR, which inevitably raised calls for penny packet control of individual air assets. Later came calls for more-direct tactical control of aircraft allocated for strike. However, the nascent penny packet problem for strike aircraft was cured by a deliberate effort to improve air and ground cooperation.

As in North Africa decades earlier, the solution took time and the commitment of both air and ground leaders. Army commanders such as Maj. Gen. Curtis M. Scaparrotti, commander of NATO’s Regional Command East in Afghanistan, have praised the quick response of airpower in Afghanistan and the strong working relationship.

Scaparrotti said he and USAF Brig. Gen. Steven L. Kwast, commander of the expeditionary wing at Bagram Airfield, began every day with a “combined update with our close staff on what we’re going to do that day.” He added, “The way we operate could only be done with airpower.”

Once, a visiting Vietnam veteran warned Scaparrotti that he was taking great risk with his dispersed forces. In Vietnam, he said, platoons were within a short march of each other and always under cover of their own artillery. Scaparrotti replied he was comfortable with his maneuver plan because he had airpower “no more than 11 minutes from
Beyond this, the Army’s aviation roadmap calls for a big shift to fleets of unmanned air vehicles for tasks like cargo resupply, too. “We’re integrating [UAVs] into all our formations down-range,” confirmed Army Vice Chief of Staff Gen. Peter W. Chiarelli in an April speech at an Army aviation symposium.

The Army doctrinal outlook sees no problem with a penny packet approach to organic ISR. In this respect, the thinking behind Sky Warrior, the Army’s Predator variant, speaks volumes. Sky Warrior production will ramp up to 24 aircraft per year. The Army will attach each of these to its units, where they will work with other Army aircraft and helicopters to allow Army operators to see and strike in the airspace.

Col. Gregory Gonzalez, the Army’s project manager for unmanned air systems, told a UAV conference earlier this year, “The bottom line is the Army is not rethinking its [decision] to assign these aircraft to specific units. We’re going to have a direct-support relationship. We’re not considering pooling all of our resources and running them from some location back in the United States.”

This may seem all well and good, but one showstopper looms over the debate—the issue of airspace control.

The Air Force has mastered the process of airspace allocation. A lesson from Afghanistan was to avoid complicating the battlespace with superfluous restricted operating zones. An ROZ is designed to protect airspace over a special operations forces patrol or engaged Army unit, but an ROZ in the wrong place can block the air component from sending fighters or UAVs to help out. It can also confuse routing across a battlespace—a modern example of inefficiency of penny packet allocations.

Twenty-first century warfare will be more dependent than ever on airpower. As such, airmen are holding fast to the strong arguments against a modern-day return to the slicing and dicing actions of yore.

This is evident to airmen everywhere. Command and control must be retained at the highest possible level to ensure optimum tasking, warned Air Chief Marshal Allan G. Houston, Australia’s Chief of the Defense Force. He added, “It is imperative that we do not penny packet these assets.”

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a dead stop over top of those troopers who are out there in harm’s way.”

The question of whether ISR assets should be assigned directly to ground forces proved a tougher issue for airmen. The Army has moved ahead with plans for its own ISR air fleet based on recent combat lessons and new concepts. Early RQ-1 Predator video changed overnight the conditions of maneuver by allowing the command post to see the battle in real time—although early Predator sensors and operating altitudes limited the view to a so-called “soda straw” perspective.

The images were compelling and useful, however, and soon came to feel like a prerequisite for maneuvering into an area of potential danger. Much of the mission revolved around the hunt for terrorist leaders and attacks on sensitive targets. Detailed visuals and monitoring of enemy communications are essential to actionable intelligence on high value targets.

The result was a tug against the doctrine of unified control. As the demand for airpower intensified, the impulse of land forces was to call for direct control of aircraft by lower and lower tactical echelons. Benign airspace conditions created just what Churchill had vigorously denounced—a demand for ISR aircraft to act as airborne standing patrols.

Partly because of this incessant drumbeat for more ISR support, Predator combat air patrols rose from a handful in 2001 to 34 in early 2009, and are on their way to a planned 65 orbits by 2013.

Debate stuck on control of the platform. All signs indicate that, as a result of Iraq and Afghanistan, Army leaders will take home an intense new passion for organic air assets. This is especially true for ISR aircraft.

Army doctrine and operational concepts are laying a deep foundation for this. In the late 1990s, the Army began a major shift to more reliance on close air support and less emphasis on supporting artillery. This process was bound to lead to new questions about air control and support priorities. Iraq and Afghanistan operations only accelerated the debate.

Slicing and Dicing Action

Future Army doctrine, articulated in the Army Capstone Concept of December 2009, calls for an Army based on operational adaptability. It says that the Army’s outlook assumes a requirement for organic Army information generation.

The Army now states that fighting for information will be the first task in the battlespace of the future. However, much of this opening battle will depend on air assets. “Fighting for information will require combined arms capabilities, access to joint capabilities, specialized training, and the employment of appropriate combinations of manned and unmanned air and ground systems,” the document reads. A steady stream of ISR is crucial for the Army to ensure operational adaptability in a decentralized battle space, it claims.

Proficient, dispersed small units are key to its future fighting style, the Army insists. Vertical lift and maneuver remain part of the picture. “At increasingly lower echelons, Army leaders must be able to integrate the actions, activities, and capabilities of joint assets into operational campaigns,” the service notes in its Capstone concept. In short, Army doctrine is opening the door for new penny packet problems.