



Beware a well-intentioned effort to give irregular warfare a superior place in air-dominance planning.

The Six Phases of Airpower

By Rebecca Grant

In recent years, the Pentagon has focused more and more heavily on irregular warfare and accorded it a far more prominent place in joint doctrine. The shift has forced to the surface the question of what constitutes the right air dominance force.

Today's force was structured primarily to mesh with an older concept of joint operations. This concept was based on four notional phases of combat—deter, seize the initiative, dominate, and stabilize. USAF and other services have always viewed Phase 3—“dominant maneuver”—as the critical point of a campaign.

Things have changed. For one thing, the doctrine writers have expanded the number of war phases from four to six. More importantly, doctrine now declares that irregular warfare in the latter two phases could require force commitments as great as or greater than those for dominant maneuver.

This marks a seismic shift in US thought—irregular war getting priority equal to dominant maneuver in force tasking.

It is time for rethinking what air dominance really means and how the Air Force should organize, train, and equip to provide it.

Newly revised Joint Publication 3-0 was where these phases were unveiled. A new one—Phase 0 shaping—opens and closes any combat episode. Phase 4 stability operations, while it already existed, underwent big changes.

Another new one, Phase 5, calls for “enabling civil authority”—a clear reaction to the US experience in Iraq.

HOW AIRPOWER FITS

Air dominance turns out to be important to all the phases and critical in most of them. Here are some examples:

Phase 0 Shaping. Shaping means influencing the state of affairs in peacetime.

Phase 2 Seize Initiative. Actions range from imposition of no-fly zones to limited strikes. Assuring access is key; airmen in the 1990s and early 2000s flew thousands of sorties to hold the initiative over Iraq. Demands on ISR collection increase, as does the need to prevent attacks on airpower bases.

Phase 3 Dominate. Air forces gain superiority with attacks on airfields, air defenses, and aircraft. They perform close air support and interdiction deep in the battlespace and also attack of strategic targets. ISR forces fulfill demands for overwatch and data on fixed, mobile, and high-value targets.

Phase 4 Stabilize. Surveillance and on-call fire support aircraft expand operating areas of land units. An ISR-focused F-16 circling over a ground patrol is on a Phase 4 mission. Combat patrols perform strafing and “presence” flights, plus direct support of troops.

Phase 5 Enable Civil Authority. Air forces provide armed overwatch, surveillance, and fire support. Building the capacity of the Iraqi air force is an air dominance mission in Phase 5, as is providing ISR to the Baghdad government.

As is readily apparent, the need for air dominance pops up everywhere in the new phases of war. In February 2008, doctrinal revisions beefed up the potential force commitments required for Phase 4 and Phase 5, where irregular war is most prominent.

EARLY PHASES OF WAR

Given the size and strength of today’s Air Force, what possible kinds of threats could emerge in Phase 0, 1, or 2? While many might say “none,” that is not the case. Dangers already are lapping ominously at the edges of our air dominance.

Russia appears to be signaling a newfound willingness to challenge American air dominance at the low levels of shaping and deterrence—Phase 0 and Phase 1, respectively.

After a 15-year absence and in response to an order issued by then-President Vladimir Putin, Russia’s Air Force began sending Tu-95 Bear bombers and Il-78 tankers on patrols in the Pacific, Atlantic, and near the Arctic Circle.

In other shaping and deterrence moves, Moscow talks of deploying its bombers closer to US soil. The newspaper *Izvestia* said Russia would respond to US missile defense systems in Poland and the Czech Republic by basing strategic bombers in Cuba.

It is hard to know how much importance to attach to this type of activity. However, it represents a distinct change in the environment, and one which shows how rapidly risk calculations even for Phase 0 and Phase 1 can fluctuate.

As a regional economic power, India aspires to exert influence “from Socotra to Sumatra,” as the phrase goes. Scholar Ashley J. Tellis has pointed out that the task for India would involve focused

Above: Condensation billows from the wings of a maneuvering F-22 Raptor as it performs at an air show in Point Mugu, Calif. Right: Marines help clear the city of Fallujah, Iraq, of insurgents and weapons caches in late 2004.

Commanders establish and maintain access to operational areas, ensuring forward presence, basing, freedom of navigation, and cooperation with allies. Exercises such as Cope India and Red Flag are part of it. So is defense of US airspace.

Phase 1 Deter. In this phase, a crisis is brewing. Deploying B-2 bombers to Guam creates a flexible deterrent option. So does the positioning of extra intelligence-surveillance-reconnaissance assets near a trouble spot. Today, the deployment of Global Hawk unmanned aerial vehicles would signal resolve.





USAF photo by SSgt. Aaron Allmon

A B-1B takes on fuel from a KC-10 Extender on a mission over Afghanistan.

modernization and development of more advanced capabilities to operate throughout its “extended neighborhood.”

A changing international airpower equipment market has opened the door for new challenges to air sovereignty and to the need in Phase 2 to gain access and to seize the initiative. While the US has been fixated on irregular warfare, other nations have gone for air force capabilities at the high end.

Air Chief Marshal Fali Homi Major, Chief of Staff of the Indian Air Force, recently noted, “The air staff requirements for the fifth generation fighters have been made,” and that this would take about a decade.

Elsewhere, Russia and China in the last two years have announced or elaborated major programs that include development of fifth generation fighters and superior models of fourth generation fighters such as the Su-30. They seek a much higher degree of air capability than they possess today.

What’s more, there is a growing regional buildup of cruise and ballistic missiles. Appearance of these weapons in the wrong place at the wrong time could raise true challenges to American shaping in Phase 0, deterrence in Phase 1, and even gaining access and seizing the initiative in Phase 2.

Another potentially great challenge is a need to defend against short- and intermediate-range missiles targeted at cities or bases. Diversion of thousands of sorties from strategic targets or sup-

port of ground forces would be a major setback in campaign execution.

MAJOR COMBAT PHASE

In its 2005 Quadrennial Defense Review, the Pentagon noted that “China has the greatest potential to compete militarily with the United States and field disruptive military technologies that could over time offset traditional US military advantages.”

It might surprise many how much the world’s most ancient state gives pride of

place to air dominance concepts. China is an avid customer for air dominance technology in every form, from missiles to aircraft carriers.

Beijing does not much worry about global power projection, stability operations, or big land campaigns. China’s battlespace is in and around China itself.

Chinese doctrine focuses on campaigns—a series of battles for local objectives. Rapid defeat of the enemy is the main objective and the preferred method is to inflict strategic and operational paralysis or even defeat the enemy with one strike.

The air battle is absolutely central to China’s campaign plans. China experts note that People’s Liberation Army writings emphasize the supreme need to gain air superiority. In short, China plans to avoid land war in favor of air, space, and cyber combat.

China is preparing to wage a vigorous, defensive battle in its own airspace. It has bought advanced fighters such as the Su-27 and is in the process of acquiring more. The Chinese force is a lethal combination of advanced fighters and highly effective long-range surface-to-air missiles and the surveillance and command and control needed to integrate them all.

China already has an air force formidable in numbers. The Pentagon estimates that China has a total of 2,250 fighters, with 1,000 more older types for training. By packing large numbers of these fighters into so-called “active

Photo via Piotr Butowski



A Russian Su-35 is shown during a recent test flight. Some nations have invested in capabilities at the high end of air warfare.

defense of coastal waters” guarded by advanced SAMs, China produces an environment that poses great operational problems.

If this is the near-peer battlespace, USAF air dominance will be put to a stern test. USAF must be certain it can prevent Red Air and missile defenses from creating a lockout in the Taiwan Strait, for example. F-22s will have to hunt and kill SAMs. Tankers and vulnerable ISR support-aircraft orbits will have to be placed well back from the battle area or defended by dedicated combat air patrols.

Russia is another player. Russian radar manufacturer Phazotron has in the works a powerful radar upgrade sufficient to challenge US technology in this area. The advanced Zhuk ASE radar might appear on the Flanker as early as 2010.

Radars that can outclass all but the F-22 in power and search volume present a severe challenge—especially if the radar appears on fighters laden with air-to-air missiles.

If advanced SAMs and any Red Air are in the area, the task of dealing with them would fall to the F-22. If the mission requires rapid closing speed, as with inbound cruise missiles, the F-22 is the right platform.

The basic message is that Russia, India, China, and others don’t need to build or sell vast fleets to pose a threat to US air dominance. Given the requirements for global operations, low casualties, and irregular warfare, a threat could emerge if only half or a quarter of these programs come to fruition.

IRREGULAR WAR PHASES

As recent events have made only too clear, it is no longer wise for planners to consider major combat only in planning for air dominance. They must also give strong consideration to the demands of Phase 4 and Phase 5, usually the scenes of irregular warfare.

The current cycle of the debate on irregular warfare is highly situation-specific. It dates back not much further than 2004, the year that US forces fought two major ground battles for the Iraqi city of Fallujah. Neither the war in Iraq nor the American military has been the same since.

On April 5, 2004, marines launched an operation intended, in part, to retaliate for the murder and mutilation of four American private contractors at the hands of insurgents.

Norwegian Air Force photo



An Il-78 refuels a Tu-95 Bear bomber midflight. Russia appears to be signaling a new-found willingness to challenge US air dominance in some arenas.

The marines fought well, but were withdrawn on May 1, 2004. There followed a period of intensive surveillance, reconnaissance, and preparation. In November, a force of marines with Iraqi troops attacked in a far more successful second offensive.

Fallujah I was important, in part, because it marked the beginning of a true insurgency, one that would stretch on and on, ultimately giving rise to the so-called US “surge” of 2007-08. From 2004 onward, there was little doubt that US forces and coalition partners were fighting often intense irregular warfare battles as they strove to meet the objectives of stabilization in Phase 4.

Irregular warfare in the Greater Middle East has sparked great airpower innovation. Faced with weak air opponents, most air platforms can play. Inventions like ROVER and precision airdrop get quick results.

Airpower experts have dealt with irregular warfare for a long time. From the famous British use of airpower in Iraq after World War I to the daily overwatch in Afghanistan today, examples abound. Some of the best came from the China-Burma-India Theater in World War II.

The expansion of today’s joint doctrine to include irregular warfare opens up a key question: Should IW become co-equal with major combat operations in sizing the air dominance force?

Theories of irregular warfare have flourished in joint circles and among airmen in recent years. They are so popular, in fact, that there is a real question about whether the Air Force should

concentrate mainly on air dominance for Phase 4 irregular warfare operations as the core of its future strategic plans.

Intellectual challenge aside, for airmen, the most crucial theory about irregular warfare is the assumption that it will be waged in permissive airspace.

For example, the air dominance environment determines to what extent C-17s can drop relief supplies or perform precision airdrops to resupply special operations forces and allies. The air dominance environment will affect the use of many ISR platforms and unmanned aerial vehicles. For all the dependence on Predator and Reaper, these platforms cannot operate in hostile airspace.

Irregular warfare can be tough on friendly air forces when the enemy has strong air defenses. In Vietnam, the US lost 2,448 fixed-wing aircraft of all types from all services. Helicopter losses were more than 5,500 of all types.

It would take only a few modern or advanced SAMs for a low-capability force to stymie full air operations in irregular warfare, including regular air transport and cargo. America’s asymmetric advantages in irregular warfare lose their edge in the absence of air dominance.

Put another way, Phase 4 or Phase 5 can go back to Phase 3 in a flash.

WAR IN REVERSE

What happens when irregular warfare suddenly isn’t? The air defense environment has become a function of technology development and global arms sales.



USAF photo by S/A, Levi Rlendeau

Airmen from the 380th Expeditionary Aircraft Maintenance Squadron carefully back an RQ-4 Global Hawk UAV into a hangar after a mission in Southwest Asia.

The latter variable can swing within a few short years.

The actions of Venezuelan President Hugo Chavez is one case in point. Venezuela has oil money to spend in the arms market and is doing so with purchases of Su-30s, other aircraft, and equipment such as tanks and rifles. A retired Russian general recently speculated that Venezuela could protect its oil fields with surface-to-air missiles.

“Needless to say, should S-300s be delivered to Venezuela, they would effectively strengthen its defense capability, and it would not be easy for its possible adversaries to punish the country by striking at its oil fields,” said former Russian Air Force commander Gen. Anatoly Kornukov.

Kornukov figured 10 S-300 battalions with six launchers each “should be enough” to do the job.

Taken in isolation, the idea of SAMs blanketing the Venezuelan oil fields sounds far-fetched, as does the notion of Russian bombers setting up shop in Cuba.

The larger point, however, is that nations can change their capabilities in the air dominance sphere relatively quickly. New weapons can come into play almost overnight in irregular warfare.

Vietnam-era servicemen remember the impact of the SA-7 anti-aircraft missile. Beware, too, of hidden cultural snobbery in assuming that everyone is

content to practice irregular warfare and hope for the asymmetric best.

In the final analysis, forces sized and equipped for irregular warfare run a real risk of being useless if a regional threat environment suddenly changes.

TOWARD A BALANCED FORCE

The problem is not some sort of irreconcilable conflict between fifth generation fighters and low-tech counterinsurgency-type aircraft. The real issue is how to assess the risk of heavy investment in specialized irregular warfare capabilities at the expense of spending the marginal dollar on a balanced force capable of winning across the phases of war.

The key point in the risk assessment is the need to nail down what it takes to create the conditions for waging irregular warfare in the way that America must—with full air dominance.

Technology contributions for irregular warfare tend to cluster around modifications of existing systems or innovative upgrades to communications, networks, and weapons. Combat-urgent improvements in irregular warfare capabilities can be carried out in a relatively short period.

To be sure, there are some exceptions, but, for the most part, irregular warfare forces gain much from pre-existing air dominance.

There are exceptions. The difficulty in expanding the ISR force is one. The highly reliable Predator with its upgraded geo-location and weapons abilities came along recently. The US began war in Iraq with just nine Predators deployed. Only one Global Hawk—AV-3—was in flyable condition and it spent nearly all its time airborne.

It would have taken time to fill out this force structure regardless of whether irregular warfare or something else was the guiding light.

From an operational perspective, the supposed conflict between major combat operations and irregular warfare is a false one for airmen. Irregular warfare unquestionably has its own unique set of requirements. Yet for air and space operations, it is not hard to adapt a balanced force structure to accommodate them. The history of airpower in irregular warfare shows that there is remarkable utility to be gleaned from a balanced, conventional aircraft force.

Some may still plead the case that a “low-tech” or “right-tech” aircraft should be developed and fielded by the Air Force and sold to foreign partners. The main reasons cited are to reduce cost and provide tailored capability. Rarely contemplated is what those American or allied aircrews would do given the sudden introduction of even an SA-6 into the battlespace—much less those S-300s in Venezuela.

Technology time lines for high-end air dominance forces are measured in decades with billions of dollars of investment. Time is running out to make decisions about achieving a modernized force structure. That force may well have to be smaller, but it can hardly be equally or less advanced than today’s.

The fact is, the US military has never had a long-term planning strategy with irregular warfare as its centerpiece. More to the point: If the Air Force loses its air dominance edge, one of the culprits may be a well-intentioned effort to give IW a superior spot in today’s military planning. ■

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