

Capability Insight: Maintaining air dominance in the Pacific



Lt. Gen. David A. Deptula, Commander USAF Kenney Warfighting Headquarters

Lieutenant General David Deptula is widely regarded to be one of the leading thinkers in the international air power community. He is well known for his groundbreaking practical and theoretical work on Effects Based Operations (EBO) as well as innovations such as the use of non-explosive smart bombs for reducing collateral damage. In his current posting as Commander of the new Kenney Warfighting Headquarters at Hickam Air Force Base, he is responsible for the planning, execution and assessment of air, space and information operations in the Pacific Theatre, minus the Korean area of operations. He is also responsible for Theatre Engagement at the operational level with partner nations in the Pacific region.

Interview with Lieutenant General David A. Deptula, Commander Kenney Warfighting Headquarters and Vice Commander, US Pacific Air Forces

DefenceToday: The Asia-Pacific region in recent years has seen one of the sharpest increases in the acquisition of modern weapons systems, combined with increasing tensions over political and economic differences. How does this impact the USAF in the region, especially in terms of demand on the available forces?

Lt. Gen. Deptula: With the economic development of countries in the Pacific comes advancements in military capability as well. Nations in the region understand the value of air power because of the vast size of the Pacific. Only aircraft allow rapid response across the theater within hours versus days or weeks when using surface means. Accordingly, the USAF needs to be responsive throughout the spectrum of contingency response: from humanitarian response/disaster assistance, to major regional conflict. Given the technologically advanced surface-to-air and air-to-air systems proliferating in the region this also means the USAF needs to plan carefully to ensure it has the quantity and quality of air and space systems in PACAF [US Pacific Air Forces] to be able to deter, and if necessary defeat, potential threats equipped and trained with advanced technology. Our Chief of Staff, Gen. Moseley, and the commander of PACAF, Gen. Hester have put just such a program in place, and before the decade is over there will be systems like additional tankers, C-17s, Global Hawks and F/A-22As joining PACAF.

DefenceToday: The new Kenney Warfighting Headquarters [KHQ] is an important recent development in this region. What capabilities will the KHQ bring into the Pacific theatre?

Lt. Gen. Deptula: The KHQ brings to the region the ability to command and control air operations anytime, anywhere. With the Pacific Air Operations Center established as a 24/7 operation, and with a permanent Air Force support staff, we will no longer have to take time at the beginning of a contingency to build a plan, and command and control capability to execute it, since we can now plan full time and have a command and control architecture in place all the time. This is important because there are many evolving situations in the Pacific AOR where our military presence can bring a stabilizing effect. The KHQ is also directly involved in building greater operational partnerships and relationships through

training and exercises with countries throughout the region. In November 2005, I had the opportunity to command a contingent of 250 US Airmen at Kalaikunda Air Station, India to train with the Indian Air Force. It was the first time our F-16s had flown with Indian fighters, which included the new Su-30MKI variant. The scenarios began with basic fighter manoeuvres before building to large force employment of mixed aircraft from both nations. Participants gained the trust of each other's air forces. If we are faced with a pop up contingency in the future we will now have an understanding of how each other's Air Force operates, and will be much better able to hit the ground running and effectively work together. In addition to enhancing interoperability, exercises such as this promote mutual understanding, and that ultimately improves peace and stability in the region.

DefenceToday: The USAF broke new ground with the Resultant Fury exercise; in which datalink-aided JDAM bombs were used to sink a number of maritime targets, including the former LST USS Schenectady. What impact do you see this technology bringing into this theatre, longer term, and what more recent developments have we seen in this area?

Lt. Gen. Deptula: The impetus for the Resultant Fury demonstration was the fact that maritime control is of significant importance to the PACOM [Pacific Command] commander, our friends and allies in the region, and that long-range/high-payload aircraft, our bomber force, provide the PACOM commander his most responsive capability to conduct counter-sea operations anywhere in the Pacific.

The heavy payload and long range of bombers make them ideal platforms to conduct interdiction of maritime targets. However, while interdiction of maritime targets has always been a capability of bombers, it atrophied somewhat during the US defense drawdown of the 1990s. Additionally, with the phase out of the Harpoon anti-ship missile, there are very few weapons that can engage ships underway in all weather. Therefore, we wanted to match up modern weapon technologies with the bombers to demonstrate a long-range, rapid response, all-weather precision day night capability to hit moving ships. The demonstration was a



The 1st Fighter Wing declared initial operational capability in December 2005, making the USAF's fifth generation fighter ready to fight. (US Air Force Photo by Tech. Sgt. Ben Bloker, USAF)

success, highlighting what network-centric warfare is all about: integrating air, sea, land, space, and cyberspace systems to achieve dramatic results.

The addition of precision guidance to JDAMs through datalink, launched against multiple, moving ships in all weather from bombers traveling from thousands of miles in a matter of hours, and executed real time through the Kenney Headquarters' Pacific Air Operations Center now gives the PACOM commander a decisive advantage against anyone in the region who might entertain notions of aggression using maritime forces. We have plans to build up this capability in the near future.

DefenceToday: The US has established forward bases in Guam and Okinawa and the new USMC site at Shimoji Island near Taiwan in the Pacific theatre. What is the USAF long-term thinking on the roles of these strategic sites, and what developments are planned?

Lt. Gen. Deptula: Regional access translates into responsiveness in times of contingency need whether those are humanitarian or power projection in nature. Guam is a very important location for us in that regard, and has the advantage of being a US territory in a strategically vital location in the Pacific. With respect to US bases on Okinawa, they exist because of the mutual agreements between Japan and the US as allies, and are viewed by both nations as beneficial to enhancing security in the region.

Andersen AFB, Guam is the most forward operating base on US soil in the Pacific, and it is a key logistics hub with the largest fuel storage and one of the largest munitions storage facilities in the USAF. Air Force bombers have been rotationally deployed to Guam as part of PACOM's ongoing force posture adjustment.

To enhance US capability to rapidly respond to crises in the region, we are establishing additional ISR [Intelligence, Surveillance and Reconnaissance] and power projection capabilities in Guam, and we have a plan for multiple phases of construction over the next several years for the associated additional force structure. Those forces will consist of Global Hawks for ISR, continuous rotational bombers for long range strike, rotational

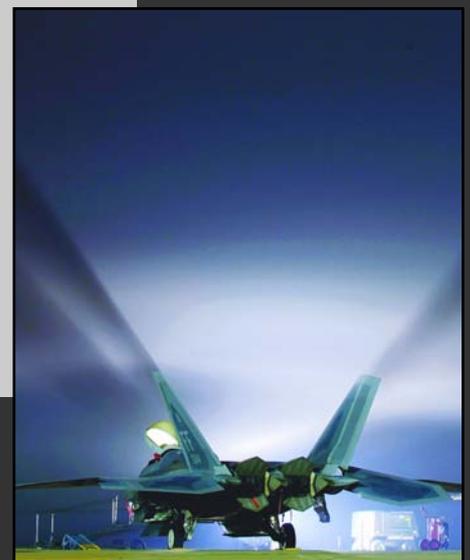
fighters for air dominance and strike, and tankers to provide the air refueling for reach and endurance.

DefenceToday: The ongoing US Quadrennial Defense Review (QDR) and related force structure debate has created considerable uncertainty about the future of many key air force programs, including the F/A-22A, F-35 Joint Strike Fighter, replacement tankers, E-10 Multi-Sensor Command and Control Aircraft and various space programs. How critical is force modernisation for the USAF, and how would funding shortfalls impact capability?

Lt. Gen. Deptula: With respect to force structure we have a geriatric Air Force. Tankers with an average age over 45 years, bombers that are over 40, fighters with average ages over 20, some of the F-15s I fly are over 30 years old. Modifications can extend life to a degree, but we are flying aircraft to ages we simply never have before. That results in experiencing failures on subsystems that we have never experienced before, leading to restricted operating envelopes on some aircraft, and that decreases overall national security capability. The bottom line is that recapitalization is a must if we want to retain an Air Force capable to meet the potential security threats that lie in the future. Accordingly, our Air Force Secretary and Chief have recapitalisation as one of their top priorities, and have taken action to ensure we get the systems that we need.

The systems that we are investing in have much greater capability than the legacy systems we currently have in the force, so we will not require as many aircraft as we have had in the past to achieve an equivalent capability. However, it must be recognized that our force structure requirements are directly tied to our National Security Strategy. If we are to maintain a strategy that relies on a robust capability to maintain presence around the world, the driver of force structure becomes both the requirement for warfighting capability for that strategy and the sufficient size forces to maintain an adequate rotational base to meet our security strategy, whichever is larger.

The Pacific Rim is extremely important to the security and future of America. Gen. Hester, the PACAF commander has a plan for the lay down of



An F/A-22A Raptor sits on the flightline during an operational readiness evaluation of the USAF 1st Fighter Wing. (Senior Airman Austin Knox, USAF)

new forces in PACAF so we have the capabilities to ensure our responsibilities are fulfilled throughout the region. C-17s, Global Hawk, F/A-22As and F-35As, along with rotational tankers and bombers, are all part of those plans.

DefenceToday: The capabilities of the F/A-22A are not well understood outside the USAF, and the aircraft is widely being portrayed as a 'pure air superiority fighter' with little capability for other roles. What kind of capability does the F/A-22A have in strike and ISR and how does the USAF envisage using this capability in combat?

Lt. Gen. Deptula: The F/A-22A is truly a multi-mission transformational combat aircraft. With its advanced integrated avionics providing unparalleled situational awareness, supercruise capability (the ability to fly faster than the speed of sound without afterburner) and stealth technology it is the only operational fifth-generation fighter in the world. It combines these capabilities with precision weapons to provide a joint force commander an unprecedented level of capability.

The F/A-22A is not just an F/A-22A. One of the challenges we have as a result of historical traditions are labels. In addition to traditional fighter and bomber missions, the F/A-22A can conduct the kind of activities that an Airborne Early Warning and Control (AEW&C) system does, or the RC-135 surveillance aircraft does, or what an electronic attack aircraft does. What the F/A-22A brings to the equation is not just another aircraft to replace F-15s, but a multitude of capabilities for a joint force commander. It's not just an F/A-22A it's an F/A/B/EA/RC/E-22A.

These capabilities will secure 21st century battlespace awareness with an exponentially increased ability to find, fix, track, target, engage and assess targets while at the same time providing critical information to other aircraft and ground forces, and it provides unique cruise missile defense options for theater commanders and for homeland defense.

DefenceToday: The F-35A Joint Strike Fighter (JSF) is to occupy an important niche in the USAF force structure, replacing the F-16C in interdiction and strike roles. Is there any basis for claims by F/A-22A critics that JSF is a suitable substitute for the F/A-22 in air combat and deep strike roles?

Lt. Gen. Deptula: The JSF is not a substitute for the F/A-22A. In fact, the JSF will rely on the F/A-22A for air dominance. The F/A-22A offers the aerodynamic performance and manoeuvrability required to counter advanced 'double-digit' SAMs [Surface-to-Air-Missiles developed in the Soviet Union during the 1980s and later by Russia with NATO reporting names higher than SA-10] and next generation air threats that are growing throughout the Pacific Theatre of operations. The F-35A JSF is a low cost, multi-mission aircraft primarily designed for air-to-ground operations to replace Air Force F-16s and A-10s. Today, the F-15 and F-16 are a highly successful synergistic team; the F/A-22A and F-35A will be the winning team of the future.

DefenceToday: Available reports to US Congress indicate that the unit flyaway cost of the F/A-22A at the end of the currently planned production run will be of the order of US\$90-100 million per airframe, or about 25-30 per cent more expensive than the legacy F-15E, or about 15-20 per cent more expensive than full production JSF. In terms of value for money, how does the F/A-22A compare to proposed alternatives such as the F-15E and JSF?

Lt. Gen. Deptula: We cannot afford not to invest in the F/A-22A. The F/A-22A is an insurance policy for our nation's defence as the linchpin for establishing air dominance and precision attack capabilities in the future. Too many people look at the F/A-22A as a single role aircraft. As I mentioned above it can perform the roles of not only air-to-air but also surface attack, suppression/destruction of enemy air defenses, airborne warning, electronic attack, cruise missile

defense, and others. It can perform roles and in situations that the F-15E, and joint strike fighter cannot. Given the multiple capabilities, and magnitude of capabilities, of the F/A-22A, it is worth every penny of the American taxpayer's investment.

DefenceToday: The US has an established 'two-war' strategy of being able to fight and win two simultaneous conflicts on either side of the world. To fight this strategy can we expect to see the Global Strike Task Force concept materialize?

Lt. Gen. Deptula: Potential adversaries are working hard to devise various methods to deny US forces access. The ability to negate these 'anti-access' strategies is resident today, to a degree, by mixing a variety of aircraft into a Global Strike Task Force (GSTF). The concept hinges on a mix of stealth, speed, precision, and long-range capabilities. Like any task force, the GSTF is not a fixed entity but rather a tailored force that can be assembled to meet a particular contingency for a particular threat environment. As threat SAM and aircraft systems become more capable and proliferate around the world, we need to ensure the capabilities resident in a GSTF can deal with ever advancing threat systems. The kinds of capabilities resident in the F/A-22A will transform what an Air Force component commander can provide to a joint force commander. Not only a 'kick-down-the-door' capability but also the means to operate inside adversary airspace for the duration of any conflict. This is a critical but often unrecognised capability, as smart adversaries will not reveal all their air defenses in the opening phases of a conflict. The GSTF concept offers a solution for 'breaking down the door' to allow follow-on joint operations among which the F/A-22A will continue to operate. The F/A-22A teamed with penetrating and standoff bombers and other appropriate assets can provide indispensable capability for holding adversary anti-access systems at risk. Accordingly, the F/A-22A is crucial to ensuring our Combatant Commanders around the world have this capability to meet the demands of our National Security Strategy. Any F/A-22A shortfall in numbers sufficient to maintain the rotational base required to fulfill the force structure requirements of our defense strategy will directly affect the ability to execute that strategy if called upon to do so.

DefenceToday: US forces played a pivotal role in the initial relief operations following the Asian Tsunami disaster. How does the USAF envisage using its existing capabilities in future humanitarian and disaster relief operations?

Lt. Gen. Deptula: Our ability to respond to humanitarian and disaster relief operations is vital in helping to maintain stability and security in the region. First and foremost, it's all about saving lives. Second, having our military personnel in a disaster area provides a stabilising presence in a chaotic situation. Third, it is a visible demonstration of American values and intentions: building friendships to assure peace and stability, offering a helping hand in times of need, and departing the area when no longer necessary. Our ability to rapidly deliver humanitarian relief and provide disaster assistance is a key element in our strategy to build a stable and secure environment in the Pacific. By doing what we can to help in times of need we are proving our good intentions. Additionally, working together to prepare for humanitarian and disaster relief operations facilitates building closer relationships with countries in the region. We want to build good relationships with all the people who live in the Pacific region.



USAF B-2A Spirit bomber prepares to refuel over the Pacific Ocean while forward deployed to Andersen AFB, Guam.
(Tech Sgt Cecilio Ricardo, USAF)

Empowering the digital battlefield

Digital mission data, tactical and recon video are critical to achieving combat superiority in today's digital battlefield. Our Mission Data Recorders (MDR) record the highest quality digital video and capture digital mission data from any airborne or ground vehicle. Our modular architecture creates flexibility to meet multiple operational requirements. This powerful recording platform provides critical data that can be extracted and then distributed throughout the battlefield.

Mission Data Recorders:

- **Support Network-Centric Operations**
- **Digital Video/Audio Recording: HUD, FLIR, and MFDs**
- **Digital Data Recording: PCM, ACMI, MFOQA, HUMS, Ethernet & 1553**
- **Real-Time Image Capture and Compression**
- **High-Speed Network Architecture**
- **Mission Data Loading**
- **Removable Solid-State Memory Modules**

TEAC's Digital Debrief Stations integrate and synchronize video and aircraft digital data to deliver 21st century mission debrief capabilities, including 3-D playback or full ACMI capability. In today's digital battlefield, we offer more choices, superior reliability, long-term support and lower life cycle costs. If it's worth a mission... it's worth a TEAC.



TEAC Aerospace
Technologies

www.teac-aerospace.com

Tel: 01.323.837.2715 Fax: 01.323.837.2815 E-mail: amcgowan@teacaerospace.com

©2006 TEAC Aerospace Technologies, Inc. All trademarks are property of their respective companies.