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"Right Tech" Solutions for USAF Security Force Assistance

by Mike Lydon

I ask you to think through what more we might do—through training and equipping programs, or other initiatives—to enhance the air capabilities of other nations and whether, for example, we should pursue a conceptual '100-wing air force' of allies and partners to complement the '1,000-ship navy' now being leveraged across the maritime commons.

- Robert M. Gates, 18 Apr 08

The Services have been charged with a new mission for the 21st century. This mission is to Build Partnerships and Build Partnership Capacity (Security Force Assistance (SFA)) around the world[1]. Much of this work will be conducted in countries characterized by crushing poverty, lack of resources, and an unemployed youth bulge generating associated terrorism. This is not uncharted territory for the military; we have conducted years of similar work since the end of World War II. Korea was less developed than Ghana in the early 50's;[2] Taiwan was a poor island full of refugees after the fall of the nationalist government, while from the 1990's through today European Command works with former Warsaw Pact nations through the Partnership for Peace program (PfP). PfP was effectively used to diffuse a tense situation by partnering, engaging and mentoring the countries cut loose by the dissolution of the USSR.

To conduct the SFA mission the USAF needs the ways and means to engage some of the fragile, failed or failing states that can still generate international threats within their ungoverned spaces. Some are key regional states that are proximate to strategic resources and transportation corridors. The USAF effectively mentored many developing nations following WWII using US aircraft. Now even USAF 'surplus' F-16A cost over $30M. When the National Domestic Product of a nation is the same as one aircraft, the rational choice is to do without.

The reality of failing states causing endless amounts of trouble is a clearer threat than the possibility of China lunging across the Taiwan Straits, North Korea invading the South or Arab states attacking Israel. Each one of those scenarios has a first world nation (Taiwan, South Korea, and Israel) with the capability of defending against any effort likely to be sent out. Why are those Partner Nations so well suited to take on their adversaries? Years of constant, patient, and pervasive engagement by the United States to build up their capabilities to the point where US lives need not be at risk. Where we could and have become mired in Kosovo, Pakistan, Columbia, Liberia, Somalia, Iraq, Honduras, Congo, Georgia; the list is almost endless. By not engaging smartly with third world nations, we guarantee ourselves another trip to an FOB in a hot and humid country.

[1] National Security Strategy of the US, pg 11, White House, Washington DC, May 2010
[2] Pham, J. Peter, 'What Happened to Africa?', Human Rights and Human Welfare, Vol 8 2008

For the USAF, Airpower and SFA is a ticket out of constant employment of our US forces, aircraft and tax dollars. The USAF must build the capability to directly engage, teach, and support the smaller, poor nations that need our expertise, helping them to defeat local or global terrorist networks and stabilize their local regions.

Right Tech

For an example of how our current approach is misaligned with realities of many countries that need our assistance, let's look at a country like Chad. In January of 08, a band of Aozou rebels invaded and attacked the capital city in a rag tag column of around 300 infamous African Toyota "technical's." Hundreds of Chadians lost their lives and property in the violence.[3]

Why should we care? These things don't happen in a vacuum. The rebel force was supported and funded by the Sudanese government as part of its strategy of genocide in southern Sudan. By backing the rebels in Chad they complicated the relief effort in Sudan, thwarted the African Union and UN peacemaking effort and stirred up conflict around their region.

Think about the quick work a light gunship armed with 50 caliber weapons could have made of an unarmored column in the middle of the desert. A couple of AC-47 (converted Turbo DC-3) gunships and some training and you have Desert Storm's Basra Highway of Death II. However, the Chadian Air Force lacked the ways or means to effectively engage this easily targeted force. Making things worse are the options available to the US Air Force to assist that Chadian Air Force. The World Bank estimates the Chad Gross National Product at $14M. At $80M per new aircraft, how many F-16s can Chad afford, let alone a C-130J ($85M)?[4] Driving those costs are aircraft size and complexity far in excess of the more basic requirements needed by revenue deficient Air Forces. Where is an aircraft that is cheaper and easier to fly and maintain? Why is the US Air Force and western industry not filling this void?

In the modern era, insurgencies have been difficult to defeat without the extensive use of airpower.[5] Historical examples of airpower in counter insurgency include the use of civilian light aircraft as ISR and command and control platforms in Rhodesia (Zimbabwe)[6], extensive use of helicopters and gunships in El Salvador, and light aircraft used as spotters to seal borders in Algeria.[7] Airpower allows legitimate governments to provide government services (police, courts, medical clinics) to communities in hard to reach places, seal the borders to insurgents and smuggling, boost the morale of their troops via re-supply and aero-medical evacuation, and rapidly deploy troops and police to meet concentrations of insurgents head on. Airborne Intelligence, Surveillance and Reconnaissance (ISR) are absolutely essential in modern information-driven operations.[8] Airpower is a natural asymmetric weapon for nation states and lack thereof is a principal reason many nations fare poorly in counter-insurgency.

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[3] "Echo effects: Chadian instability and the Darfur conflict", Sudan Issue Brief 9, ReliefWeb, February 2008.1

[4] USAF Committee Staff Procurement Back-up Book FY 2010, *www.saffm.hq.af.mil/shared/media/document/AFD-100128-071.pdf*

[5] Odierno, Raymond T,. Brooks, Nichoel E. and Mastracchio, Francesco P.,'ISR evolution in Iraqi Theater', Joint Forces Quarterly #50, pg 51-55, https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/ndupress&CISOPTR=20630&REC=9

[6] Pettis, Stuart, "Role of Airpower in Rhodesian Bush War", Air and Space Power Journal Online, http://www.airpower.maxwell.af.mil/airchronicles/cc/pettis.html

[7] Corum, Johnson, "Airpower in Small Wars", University Press of Kansas, 2003

[8] Ibid, Ordierneo

Most third world nations cannot afford to buy or maintain the high tech equipment and platforms the USAF is selling though Foreign Military Sales. What we typically sell is too expensive, overly complex, and can't be maintained without a high tech industrial base and well educated technicians. What most nations can maintain are simple aircraft, sensors with line replaceable units, equipment with long warrantees or end to end, multiyear service contracts.

Aircraft such as Basslers (rebuilt, re-engined) DC-3s or Cessna's Caravan series are examples of civilian 'right tech' aircraft that could be used by some potential partner air forces. They each sport the nearly bullet proof Pratt and Whitney PT-6 turboprop engine and lack the complexity associated with pressurized cabins, hydraulic control surfaces and expensive electronics. Sensors and communication gear can be easily added to create relatively sophisticated ISR and Command and Control platforms. When you have no air capability, binoculars and a radio is a capability leap. Low cost platforms can be kitted out with weapons to make gunships and light attack aircraft, including precision guided munitions. In permissive environments, which describe most insurgencies, an aircraft is simply a platform to effectively carry the tools that need the third and forth dimension (air and time) to make the tool more effective.

Making this case are two US ISR programs, one in the US Army, the other developed by the USAF, each program was designed around the Beech King Air turbo-prop business aircraft (US Military designation-C-12). To give a sense of scale, the list price for a slick C-12 is $4.5M (no mission related equipment installed).[9] Compared to the price of a C-130J, a country could purchase a squadron of C-12's for the price of one C-130, allowing more aircraft over the battlefield, more presence in the bush, and operational ability more appropriately scaled to their financial capabilities and mission sets.

RAMP Program

One place where the US is trying to right tech partner air forces is in US Southern Command. SOUTHCOM is attempting to gain support for a Latin American Regional Aircraft Modernization Program (RAMP).[10] The RAMP Countries Study explored ways that modern, low-cost, sustainable capabilities can be procured and employed within Central America through the phased procurement and implementation of light tactical airlift, light helicopter, and light interceptor aircraft. During the 1970s and 1980s, the US helped multiple Latin American countries modernize rotary-wing, airlift, and fighter aircraft through the Military Assistance Program. Foreign Military Financing (FMF) and Foreign Military Sales (FMS) funding exported A-37s, F-5s, UH-1s, and C-130 A/Bs. Since these weapons systems are now at their end of service life and rapidly approaching obsolescence, many Central American air forces are unable to maintain air sovereignty or independently meet their air mobility needs after natural disasters.

After four years of getting no support for the concept in Washington, SOUTHCOM is re-whickering the project for the next POM cycle. RAMP as envisioned in their white paper is essentially dead.[11]

While SOUTHCOM is working on the problem, the challenge of modernizing partner nation militaries is not just a SOUTHCOM problem. In PACAF the Philippines Air Force

[9] Ibid. USAF Committee Staff Procurement Back up book FY2010
[10] Connell, Curtis et al, RAMP Final Report 12 Dec 2007, US SOUTHCOM
[11] Private conversation with SOUTHCOM A5U Staff Officer

recently (2005) retired its ancient Northrop F-5s. CENTCOM is helping to equip the Lebanese and Iraqi Air Forces with Cessna Caravans with hardpoints for Hellfire missiles. Despite many African nations being threatened by insurgencies, drug smuggling and trans-national terrorism, most sub-Saharan African air forces are in poor condition. All told, every combatant command has potential partner countries that could benefit from a 'right tech' aircraft.

That does not leave NORTHCOM out in the cold by any stretch. A light mobility or strike aircraft with modern ISR sensors hooked into a common, inter-agency operating picture is a perfect platform for NORTHCOM to deploy in its disaster assistance, border protection and counter-drug role. With many Air Force National Guard and Reserve units looking for a mission due to base realignment or aging aircraft, squadrons of light aircraft tasked with providing disaster relief at home and training partner nations abroad is a great match.

LiMA-LAAR-MC-12W

The USAF is taking hesitant steps towards developing light aircraft capabilities. Three aircraft programs are making their way through the torturous acquisition process. In 2009 the SECDEFs Intelligence, Surveillance, Reconnaissance (ISR) Task Force directed and funded the USAF to develop an MC-12 based, manned ISR capability to augment the Predator ISR caps in OIF/OEF. The aircraft are currently flying missions in Iraq and Afghanistan helping to fill some of the insatiable demand for ISR in our information driven operations. The MC-12 is a perfect example of an effective lower cost platform and they should be leveraged for sales to less developed Partner Nation.

Two other aircraft programs, the Light Mobility Airlifter (LiMA) and the Light Attack Armed Reconnaissance (LAAR) programs are designed to help the USAF train, advise and assist partner nations in developing air power capabilities.[12, 13] The LiMA aircraft is envisioned to be a Cessna Caravan class aircraft capable of delivering 2 metric tons or 12 pax 900 nautical miles and conduct Short Take Off and Landing operations (STOL) on unimproved fields. The program is on an accelerated acquisition schedule and could deliver the first aircraft as soon as FY11 or early FY12.[14]

The LAAR aircraft is envisioned to be a Hawker-Beechcraft T-6 class aircraft capable of conducting attack, ISR and armed escort/overwatch missions.

USAF squadrons employing the aircraft will be manned by Air Advisor Instructors trained in all phases of operations. From pilots and maintenance, to airfield ops and other support functions, each career field of a squadron will include specially trained Air Advisors to train and advise partner nations in their Aviation Enterprise Development.[15]

With Aircraft Sales Comes Influence.

What do Cambodia, Eritrea, Guyana, Mauritania, Mongolia, Pakistan, Paraguay, Peru, Sri Lanka, Tanzania, Kenya and Zambia all have in common? These countries bought the Chinese

[12] ACC LAAR CONEMP V4.0, Mar 10, 2010
[13] Air Mobility System Concept of Employment, V1.2, AMC
[14] Solicitation #LIMA, FBO.gov, https://www.fbo.gov/index?s=opportunity&mode=form&id=50b7d0cc740d85fdcbd2cf6e8588bbf6&tab=core&_cview=1
[15] Solicitation #LAAR, https://www.fbo.gov/index?s=opportunity&mode=form&id=b30065477e7b9159bb2687f2cc2a3667&tab=core&_cview=

Harbin Y-11 light utility aircraft over the last few years. The aircraft can haul 17 passengers or up to 2 metric tons over a 1000 km.[16] It's in the same class as a Caravan or King Air. The question to ask from these sales is not how to buy the company stock, but who taught those pilots how to fly? Who do the partner nations call when they need advice and whose values and influence was transferred in the process?

The bottom line is, with military sales comes influence; day to day face time with the partner nation airmen and machines brings benefit to the provider of those capabilities. China provides pilot training courses along with aircraft sales. Looking across Africa, many senior leaders of African Air Forces are graduates of foreign military training. Long term relationships are built when a junior officer lives in a foreign country for an extended period of time. If a country buys US aircraft, we typically sell the whole package: interaction with our leadership and their military communities, mobile training teams, pilot training slots and a whole host of contracting opportunities to build up the local infrastructure. These interactions, for good or ill, influence the nation for years into the future.

> Since September 11th 2001, one thing is abundantly clear: There is no substitute for cooperation with allies and friends as we wage the global battle to defeat terrorism. The U.S. cannot do it alone. Interoperable coalition forces, access to critical forward bases, and strong relationships with allies and friends are essential to achieving our national security objectives. What SAF/IA does is a critical enabler for expeditionary air and space operations.
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> - 2005-2006 Air Force International Affairs Strategic Plan

It is in doctrine and practice that we donate and sell weapons systems to nations in order to further our own strategic goals. We are not altruists, but know and expect consideration and influence in the nations we support. American values and American influence are qualitatively better than Chinese values and world views; to give the USAF a way to impart our values, the service needs to engage with right tech aircraft the third world can afford.

USAF practice, policy, and cultural bias to high end/high tech solutions is pricing the United States out of the ability to influence the development of countries in the non-integrating gap around the world. Aviation enterprise development is at a point in many countries where a small investment in right-tech airpower would have a large force multiplying effect. Partner nations in less developed parts of the world need airpower. Aircraft can foster economic development, governance, improve law enforcement, and cross cue ground and maritime forces against border incursions, insurgents and poachers.

The USAF should not backtrack or cancel the development of the LiMA and LAAR aircraft. The programs are a critical tool in the future of USAF Security Force Assistance for the next decade. The next few months will make or break the programs, with tough FY 12/13 budget work on-going; these programs cannot be sacrificed for the price of one more Joint Strike Fighter.

If building partnerships and building partnership capacity is to be a core competency of the USAF, the service needs tools appropriate to conduct the job.

[16]Wikipedia. Org, http://en.wikipedia.org/wiki/Harbin_Y-12

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