DEVELOPING AND EMPLOYING EXPEDITIONARY CAPABILITIES: KEY TO TRANSFORMING AIR FORCES OF SMALL NATO NATIONS

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Abstract: This article presents the development of expeditionary capabilities as the key driver for transforming air forces. It provides an overview of the progress made by most of the small NATO nations and the deployment of their air expeditionary force packages in the Alliance missions and operations. The cooperative development of such capabilities is another factor driving transformation, in particular accounting for limited and further decreasing defence resources. Some recommendations are provided for the Bulgarian Air force in developing jointly deployable air capabilities with the neighbouring and other allied nations.

Keywords: Air Force transformation; expeditionary air capabilities; deployable air force packages; Air Expeditionary Wing, air operations.

Introduction

In today's and future security environments, the risks and threats to the national and allied security and defence, generally of asymmetric character, have to be met outside national borders or the traditional "area of responsibility" of the Alliance. Article 5 of the Washington Treaty, dealing with the collective defence of an ally or allies, presupposes the existence and development of expeditionary capabilities within the military of NATO members. Projecting air power is of key importance to the national expeditionary capabilities in support of NATO operations. The climate of today's and future unprecedented uncertainty requires an air force that is agile, adaptable and capable, with modern equipment and sufficiently trained personnel.

The changes in the geo-strategic environment and air power in particular dictate the need for new kinds of missions and operational doctrines, which in turn require a new generation of combat aircraft that is stealthy and can serve in multiple roles. Stealth and precision will be the two key characteristics of future air power.

The shrinking defence budgets of the small European NATO nations make it difficult to build and maintain modern air force capabilities and participate actively in the demanding allied operations. Furthermore, the pooling of allied forces and resources became the only alternative for the smaller nations, which are not able alone to provide sizable capability packages for increasing numbers of international commitments.

NATO Nations' Experience in Developing Expeditionary Capabilities

Some NATO nations, like the United States, Great Britain, France, Germany, Italy, Spain and Canada have great experience in developing and employing air expeditionary capabilities. Other allies, like Turkey, Greece, Poland and partially Romania have capacity to develop significant expeditionary capabilities. Some of the NATO small nations like Netherlands, Belgium, Luxembourg, Denmark, Norway and Portugal have chosen the cooperative approach to build air expeditionary capabilities, by establishing first the Benelux Deployable Air Task Force (DATF) in 1996¹ and, later, the European Participating Air Forces Expeditionary Air Wing (EEAW) with F-16s.² Both initiatives are perfect examples of pooling the forces and resources of small nations, achieving NATO interoperability, and a model of European military cooperation. Separately, these countries provide small to medium size deployable air and air defence packages for the allied collective defence and to EU military capabilities. Initially, Belgium, Netherlands and Portugal committed to the European Rapid Reaction Force (ERRF) the following deployable force packages: Belgium – 24 F-16s and 10 transport aircraft C-130 and A-310; Netherlands – one air brigade with F-16; Portugal – 12 F-16s, 16 transport aircraft C-130 and C-212, three maritime patrol aircraft and four PUMA helicopters.³

The United States has developed and since 2000 applied an air expeditionary force concept and today the US Air Force operates a number of air expeditionary forces with tens of air expeditionary wings, groups and squadrons deployed all around the world, including Europe, Iraq and Afghanistan. For example, 31st Air Expeditionary Wing at Aviano Air Base, Italy operated approximately 120 different types of aircraft, including F-15, F-16, EC-130E (air battlefield command and control center), EC-130H Compass Call (electronic warfare) and KC-135.⁴ Similar approach is applied in Great Britain and Canada, where Air Expeditionary Wings and squadrons are a key part of their air force structures. The British Expeditionary Air Wing (EAW) concept has its origins in World War II and was re-introduced in April 2006 "to provide an effective projection of modern expeditionary air power." EAW is identified as an agile, interoperable and deployable air force package. Since mid-2007 Canada started the formation of its first Air Expeditionary Wing with CF-18 fighter aircraft, which will require up to 550 personnel and associated investments of up to 300 mil-

lion Canadian dollars between 2008 and 2015.⁶ In December 2008, the country formed an expeditionary air unit in Afghanistan, Joint Task Force Afghanistan Air Wing, to carry out transportation, surveillance and reconnaissance missions for ISAF Regional Command South. The wing operates heavy lift and tactical support helicopters, tactical transport aircraft and unmanned aerial vehicles.⁷

Netherlands, Belgium, Denmark and Norway, as small NATO nations, are very active in developing multinational air expeditionary capabilities. The Benelux deployable air force package, DATF, based on the previous close cooperation between Belgium and Netherlands in building modern air forces with completely interoperable fighter aircraft (F-16) and cultural similarities of the two nations and Luxembourg, was built as viable, highly specialized, interoperable and expeditionary air force package, able to generate higher mission-capable rates in intense combat air operations. It demonstrated its capabilities and effectiveness in 1999 during NATO air operation "Allied Force" over Kosovo. The Belgian-Dutch force was deployed on the Amendola air base, Italy, with up to 500 personnel and 32 F-16 aircraft, and carried out more than 11 percent of the NATO missions during the operation. Denmark, Norway and Portugal, attracted by the DATF concept, joined the agreement in 2000. Since March 2004, the DATF countries have been deploying small air contingents to provide air policing for the new Baltic allies, rotating with other NATO nations.

Netherlands is the most active amongst the small NATO nations in building and deploying air expeditionary capabilities in allied operations. The Royal Netherlands Air Force is developed entirely as an expeditionary force and has been deployed in variety of international operations. It is also a key player of the NATO Response Force (NRF). From 1993 to 2001 Dutch fighter aircraft (F-16s) were stationed in Italy and participated in all NATO air operations over the Balkans. The Royal Netherlands Air Force contributed to several air operations: Deny Flight – with 15 aircraft, Deliberate Force – 18 aircraft, Decisive Endeavour – 11 aircraft, Deliberate Guard – 12 aircraft and Deliberate Forge – 8 aircraft. ¹⁰ In 1999, the country deployed 20 F-16 in Italy to take part in the NATO air campaign over former Yugoslavia. In 2001, Netherlands contributed with Air Force capabilities to the coalition operation Enduring Freedom in Afghanistan. In September 2002, six Dutch F-16 with one KDC-10, together with Norway and Denmark, supported this operation from airfield Manas, Kyrgistan. Netherlands supported ISAF for one year, since March 2004, with four AH-64D deployed at Kabul International Airport (KAI). They were followed by eight F-16 until September 2006 when the aircraft were redeployed to Kandahar Air Field. 11 The Dutch Air Task Force (ATF) at Kandahar included also 5 AS-532 Cougar helicopters and 6 AH-64D Apache helicopters. Later, the AS-532s were replaced by Chinook helicopters. Dutch fighters and combat helicopters have provided air support to British and Canadian troops in southern Afghanistan. Since 2003 until late November

2009, Dutch F-16s have flown 14,000 and Cougars – up to 4,000 flying hours in support of ISAF operations. ¹²

The Belgian Air Force has also evolved primarily as an expeditionary force on the basis of the Expeditionary Air Force Concept. Its fleet of modernized F-16s, 13 transport aircraft (11 upgraded C-130H and 2 A-310), two UAV batteries with 18 B-Hunter and more than 30 helicopters A-109 can and have been deployed in various NATO and EU-led operations. For the EU operation in Bosnia, Belgium has deployed Agusta A-109 helicopters and B-Hunter UAVs. Belgium has contributed to operation Allied Force with ten F-16s and flew more than 600 combat missions. ¹³

Belgium started deploying air assets in support of ISAF since 2002, when one C-130 landed at Karachi (Pakistan) for logistics flights. At the end 2004 one C-130 was stationed in Kabul for logistics support of ISAF operations. In early July 2005, four Belgian F-16, in multirole configuration, joined the Dutch ATF at KAI to increase the air support for the Afghan parliamentary elections, ISAF troops, defence of Kabul airport and reconnaissance. ¹⁴ On 14 July 2005, the Dutch detachment and the Belgium small air contingent were transformed into a European Expeditionary Air Wing (EEAW). ¹⁵ The Belgian Air Force has also deployed six F-16s with 125 personnel to Kandahar to provide air support for ISAF during operation Guardian Falcon. ¹⁶

Denmark started building air expeditionary capabilities after the end of the Cold War. In 1999, nine F-16s took part in operation Allied Force from Grazzanise air base, Italy. In 2000, the country was attracted by the multinational approach in developing expeditionary capabilities and joined the DATF agreement. In September 2002, the country deployed six F-16 to Manas airfield, Kyrgistan, in support of operation Enduring Freedom in Afghanistan. For two years (2002 and 2003) six Danish F-16 fighters flew totally 743 sorties in support of operation Enduring Freedom. Since 2004, the country participates on a rotational basis in the Baltic air policing mission with four F-16s. In June 2008, Denmark also deployed to Afghanistan four AS 550C2 helicopters for observation and light transport for Danish troops in Helmand province. In support of ISAF, Denmark has also deployed C-130 and Air Force Radar Information System to Kabul International Airport.

Norway also joined the DATF agreement in 2000 and in 2002 deployed four F-16s to Manas airfield in support of operation Enduring Freedom. Later, in 2006, the country deployed again F-16s joining the Dutch air contingent at KIA in the framework of EEAW, supporting ISAF operations.²⁰ The country has also joined the Baltic air police mission with four F-16s. Norwegian helicopters Bell 412 SP have also operated in Kosovo and Maritime Patrol Aircraft (MPA) P3 Orion have supported the operation Active Endeavour in the Mediterranean.²¹

During the operation Allied Force in 1999, the Portuguese Air Force deployed three F-16s to Aviano, Italy, and performed a number of missions.²² Portugal, as part of the DAFT agreement, has not taken a decision to deploy F-16s to Afghanistan but sent transport aircraft C-130 in the support of ISAF operations.²³ The Portuguese Air Force deployed in 2007 for one and a half months four F-16s to provide air policing for the new Baltic NATO nations.

Greece is the only small NATO nation with the largest and most powerful air force. The Hellenic Air Force, however, is not developed predominantly as an expeditionary force and the country seems reluctant to deploy its air assets in multinational operations. Its main mission is to guarantee the national airspace and to counterbalance the Turkish Air Force in the region. It is highly modernized and able to cover the entire spectrum of air missions. The Hellenic Air Force is committed significantly to allied collective defence and contributed initially with sizable force package to the European Rapid Reaction Force (ERRF): a combat helicopter unit; a transport helicopter unit; two fighter squadrons; four transport aircraft; one PATRIOT air defence battalion and one SHORAD squadron. They also actively participate in all NATO exercises in different countries. It is capable to generate sizable air expeditionary packages and employ them if the country redirects its defence policy towards a more active engagement in NATO and EU-led multinational operations.

The Czech Republic has already started to build limited deployable air capability packages. In 2008 and 2009, the country deployed a small fighter contingent with four JAS-39 Gripen to provide air policing for the new Baltic allies. In January 2010 the country deployed a small helicopter unit with 110 personnel and three upgraded Mi-171S multi-role helicopters at the Forward Operation Base Sharana in the Paktika Province, Afghanistan, as part of a US Helicopter Task Force. The Czech Air Force possesses a modern helicopter fleet and, in cooperation with Hungary and Slovakia, is in position to establish an expeditionary transport helicopter unit. The country also possesses a limited air lift capability.

Croatia was the only one of the newest NATO nations, which in July 2009 deployed at Camp Bondsteel a small helicopter detachment of 24 people and two Mi-171 S multi-role helicopters to support KFOR operations. The detachment was directly subordinated to the KFOR HQ in Pristina.²⁷ The country is at very initial stage in developing a small air expeditionary force package.

The rest of the new NATO nations are participating in ISAF, but without deployed air expeditionary elements. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Slovakia and Slovenia were able to deploy only Air Force personnel to manage Kabul International Airport on a rotational base. Bulgaria, Hungary and Slovakia have very limited capabilities to develop deployable air and air defence force packages. Currently, they are

able to provide only limited tactical air lift capability. These nations also have some in-theatre lift capabilities, but not developed as expeditionary force packages.

The new small NATO nations are unable to develop alone sizable and credible air expeditionary capabilities. The decline of defence budgets as percentage of GDP and downsized air forces pressure these nations to pool their combat and support assets in the framework of multinational task forces to be able to deploy credible air capabilities in multinational operations. This necessity, however, is still not prominently reflected in their national defence policies. They have to seek to organize their individual air expeditionary capabilities through bilateral and multilateral arrangements in order to optimize the effect of limited defence resources. Their best alternative is to apply the cooperative approach, thus pooling capabilities for greater effect.

Several possible options are available. The Czech Republic and Hungary are in position to establish an expeditionary fighter squadron with JAS-39 Gripen, Romania and Bulgaria – an expeditionary helicopter squadron, Greece and Bulgaria – an expeditionary air transport squadron with C-27J Spartan. Romania has already chosen F-16 as a replacement of its old MiG-21s Lancer. If Bulgaria chooses the same type of fighter aircraft for its air force, in the mid-term perspective the two countries would be able to establish bilaterally an expeditionary fighter squadron and, together with Greece or Turkey – an expeditionary fighter wing. In case of decision for procurement or leasing Gripen, Bulgaria could join the Czech Republic and Hungary in an effort to form a multinational expeditionary air squadron.

Unmanned aerial vehicles (UAV) are becoming also an important component of today's air forces in many countries. Small nations could join their resources in building such capabilities and make them expeditionary. Either manned and unmanned, air expeditionary capabilities are necessary not only for the ongoing multinational operations but also for the fulfilment of national commitments to the NATO Response Force and the European battlegroups.

Albania, Estonia, Latvia, Lithuania and Slovenia in mid- and long-term perspective will not be able to develop their air forces, capable to perform all national missions and tasks, including air policing of national airspaces. For the latter mission they have to rely on the support of other allies. Albania and Slovenia have only limited helicopter capabilities, mainly for domestic purposes.

The three new NATO nations in the Baltic are very active and productive in their defence and force cooperation and integration. Separately, these countries will not be able to develop sufficient air expeditionary capabilities. The best alternative for them would be to build jointly deployable air capability packages for tactical air transport, a helicopter unit or a fighter aircraft unit for air policing of their national airspaces.

Similar approach could be applied by the new NATO nations in the Western Balkans – Slovenia, Croatia and Albania.

Implications for the Bulgarian Air Force

The Bulgarian Air Force experiences difficulties in its modernization and lags behind several small allied nations in building, developing and deploying modern air expeditionary capabilities. The only air asset Bulgaria was able to provide for NATO operations in the Balkans was one tactical transport aircraft An-26 for SFOR and KFOR in the period from late 2001 till the end of 2004. The initial NATO force goals for Bulgaria envisioned a very limited number of transport and attack helicopters and a tactical transport aircraft. With some modifications and extended time for implementation, these specific force goals are still not fully implemented. There are two ongoing modernization projects for procurement of five tactical air transport aircraft C-27J Spartan and 12 transport helicopters AS-532 Cougar. However, the country has not decided yet on the new fighter aircraft to replace its MiG-21s, which have to be phased out in 2012. This decision is expected in 2011. After 2012, Mig-29s will remain the only operational fighter aircraft, however not deployable outside the country.

The leadership of the MoD and the Air Force is facing two alternatives – to procure stealthy or non-stealthy multirole fighter aircraft. Since the first option is hardly affordable, Bulgaria will have to choose the second one. To make part of the new fighter aircraft expeditionary, they need to be equipped with ICAO and NATO interoperable navigation, communications, data-link, IFF and air-refuelling systems and, most importantly, with capabilities for network-enabled operations. The new transport aircraft and helicopters, however, equipped adequately with all necessary mission support systems and highly trained air crews will form the initial air expeditionary packages of the Bulgarian Air Force in short and mid-term perspective. In shortterm perspective, Bulgaria is able to develop initial air expeditionary package with its transport helicopters AS-532 Cougar and transport aircraft C-27J Spartan. The country could expand its deployable air capabilities with Mi-24 and Mi-17 helicopters but failed to overhaul and modernize them and most probably will phase them out, thus loosing some in-theatre air lift and air strike capabilities. It is not late, however, to reconsider the option to retain and modernize 10-12 Mi-17s. With only 8 transport and 4 CSAR helicopters Bulgaria will be in great difficulty to provide even medium tempo of in-theatre air lift in today's and future dynamic operational environment.

In mid- and long-term perspective the initial deployable air capabilities have to be augmented by fighter air expeditionary package, preferably in the framework of bilateral or multinational air expeditionary force structure (squadron or wing). Furthermore, the development of expeditionary elements in the Bulgarian Air Force needs to

include command and control, logistics and maintenance, transportation and operational planning. In this respect, Bulgaria urgently needs to improve its identification of friend or foe (IFF) system to make it fully interoperable with NATO standards. The NRF air expeditionary packages provide models for developing air expeditionary elements within the national Air Force.

In long-term perspective (beyond 2025), however, to be able to operate together with allies employing stealthy combat air platforms, the Bulgarian Air Force will need a stealthy multirole fighter aircraft. If such a political and military ambition is not affordable, Bulgaria should acquire a second squadron of multirole aircraft for replacement of all its MiG-29s. The previous force modernization plan (till 2015) to maintain only 20 multirole fighters was predetermined by defence budget constrains, some wrong defence priorities and low political ambition. With only one fighter squadron Bulgaria will be in great difficulty to respond adequately to all national and international missions and tasks, including providing air policing for a neighbouring or another allied nation. Most probably the new force modernization plan, to be approved in 2011, will retain the number of multirole fighters around 20. Temporarily, Bulgaria can reduce the number of its fighter aircraft, but in long-term perspective should strive to increase them to 40-42. Only then it will be able to fully implement the entire spectrum of air missions and contribute adequately to the national defence and allied collective defence and operations. Such a force size will provide an opportunity for the Bulgarian Air Force to deploy in long-term perspective a force package of 8-12 fighter aircraft in NATO or EU-led multinational operations and a fighter squadron to the Alliance's force structure.

The Bulgarian Air Force will remain as a small air arm but should not be reduced to a miniature one. The experience of some old small NATO nations, like Belgium, Denmark, the Netherlands, and Portugal with smaller national territory than Bulgaria, maintain at least two or more fighter squadrons in their air forces, thus providing sufficient air combat capabilities for the respective country and the Alliance, while respecting the allied principle of fair burden sharing and contributing adequately to the allied defence capabilities.

Conclusion

Facing greater variety of operations and higher operational tempo with significantly reduced air force, it will be a real challenge for all small NATO nations, especially the new ones, to cope with all national and allied commitments. The Air Force transformation outputs will be determined mainly by the development of effective air expeditionary capabilities. For the small allied nations the best and cost effective option to achieve such capabilities is the cooperative approach. Through formation, equipping and training bilateral or multinational air expeditionary squadrons and wings, the

small NATO nations will be able to adequately contribute to the allied collective defence and to various multinational operations, thus enhancing also the national expeditionary capabilities.

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