



ROYAL DANISH DEFENCE COLLEGE

## **BRIEF**

# **Special Operations - the Central Role of Air Capabilities**

By Major Lars H. Ehrensvärd Jensen,  
Institute for Strategy, Royal Danish Defence College

**BRIEF**

**Special Operations - the Central Role  
of Air Capabilities**

By Major Lars H. Ehrensvärd Jensen,  
Institute for Strategy, Royal Danish Defence College

*The Royal Danish Defence College is the Danish armed forces' powerhouse for education, training and research-generated consultancy. Our research is conducted within a broad range of military-related topics. Our research priorities, such as topics and resource allocation are determined by the Commandant of the Royal Danish Defence College, who is aided by a research council.*

*Research at the Royal Danish Defence College should enlighten and challenge the reader, whether they are in the armed forces or in the surrounding environment. This is only achievable if the employees have the freedom to administer their own research projects and draw their own conclusions. This is a principle, which is honoured at the Royal Danish Defence College.*

*We hope you enjoy reading the Royal Danish Defence College's publications!*

© Royal Danish Defence College

All rights reserved. Mechanical, photographic or other reproduction or photocopying from this book or parts thereof is only allowed according to agreements between The Danish Defence and CopyDan.

Any other use without written consent from the Royal Danish Defence College is illegal according to Danish law on intellectual property right. Excepted are short extracts for reviews in newspapers or the like.

Copenhagen July 2014  
Royal Danish Defence College  
Ryvangs Allé 1  
DK-2100 Copenhagen  
Denmark  
Phone: +45 3915 1515  
Fax: +45 3929 6172  
Editor: Acting Director of the Institute for Strategy Peter Kim Laustsen  
Layout by B-O. Kure  
ISBN: 978-87-7147-066-6  
Royal Danish Defence College Publishing House

## Special Operations - the Central Role of Air Capabilities

The first brief in the Royal Danish Defence College's series on special operations, *Special Operations – Myths and Facts*,<sup>1</sup> described and debunked various myths that may obstruct increased strategic use of special operations forces. The brief also presented concrete facts about special operations that are a precondition for understanding the strategic possibilities of special operations in the serious and diffuse security policy challenges that Denmark and its allies face in the future.

These challenges include, not least, defence cutbacks of DKK 2-3 billion, which may lead to considerable changes in the use and composition of the forces. The effect of the massive defence savings is exacerbated by expected continued cost increases of 10-15 % annually on military equipment. There is a real risk that the uninterrupted drop in the quantitative capacity of the Armed Forces within the foreseeable future will mean that Denmark can only deliver a purely symbolic effort in international operations. One of the possible ways to force the downward-sloping curve upwards again is to emphasize more joint services solutions than have so far been the tradition in the Danish defence.

Therefore, one of the purposes of this brief is to argue that Denmark actually already possesses – in this context – unused capabilities which are joint by nature.

## Current and possible future Danish special operations capabilities

Up to now, Denmark has only had two special operations units: the Army special forces and the Navy special forces, which for historical reasons are placed under those two services. Due to this historical background, it is a common assumption that special operations forces only consist of units such as the two mentioned here.<sup>2</sup>

NATO lists specific requirements for a so-called *Special Operations Task Group* (100-400 troops) that a state may want to contribute with. One requirement is that the task group can independently infiltrate and exfiltrate (i.e. enter and withdraw from hostile territory undetected) with its own airborne, land-based and maritime 'means of infiltration'<sup>3</sup>, for example Hercules aircraft, helicopters, parachutes, ships, boats and vehicles. Although the two mentioned Danish units have existed for more than 50 years, Denmark has so far not wanted to set up a complete special operations

(1) Jensen, Lars H. Ehrensverd (2014), *Special Operations – Myths and Facts*, Royal Danish Defence College Publishing House, pp. 8-10, [http://pure.fak.dk/portal/en/persons/lars-h-ehrensverd-jensen\(0826baec-5699-44dc-b7ec-5a5bde31eff0\)/publications.html](http://pure.fak.dk/portal/en/persons/lars-h-ehrensverd-jensen(0826baec-5699-44dc-b7ec-5a5bde31eff0)/publications.html)

(2) Rick Newton (2006), *NATO SOF aviation – a vector to the future*, Joint Special Operations University, Hurlburt Field, Florida, JSOU Report 06-8, page 2.

(3) MC 437/1, *NATO Special Operations Policy*, April 2006, Annex D, page D-1.

unit.<sup>4</sup> The Air Force has never established its own special operations forces to participate in joint contributions.

The historical organization of the existing Danish special operations forces is one of the reasons why the potential of the Air Force in terms of special operations is not widely acknowledged, inside or outside of the Air Force. This brief, which is dedicated solely to the role of air capabilities in special operations, will therefore complete the picture of Denmark's overall possibilities in special operations. The aim is that readers of the next briefs will perceive special operations as an integrated joint services matter, in which airborne, land-based and maritime capabilities work together on an equal basis.

### **Air capabilities conduct special operations – they do not only support**

The Air Force – like the rest of the Armed Forces – has for many years regarded its role in connection with special operations as supportive. This perception is expressed, for instance, in the 2010-14 defence agreement, which describes the Air Force's contribution to the other services' operations as 'transportation' or 'troop transport', i.e. transportation of other services' units and supplies. Only fighter tasks are seen as independent delivery of effect: an effect that can be described as physical (kinetic) destruction and psychological impact. The decision-makers have never acknowledged that Denmark's existing air capabilities can play an independent role in special operations.

In relation to contemporary special operations, this is obsolete. As described in the first brief, special operations include many other possible effects besides physical destruction. Among other things, special operations can fulfil requirements in the security policy spectrum between diplomacy and the decision to deploy (decisive) conventional military power. In other words, special operations can solve tasks within the general framework of military, political, economic and civilian aspects as described in NATO's new *Comprehensive Approach*.<sup>5</sup> This aspect is discussed in more detail in the next brief.

Unfortunately, the existing land-based and maritime special operations forces contribute to the obsolete perception by using ambiguous or confusing concepts about the very important air capabilities, and this impedes or obstructs the necessary paradigm shift.

---

(4) Dr. Peter Viggo Jakobsen, The Royal Danish Defence College, points out that Denmark's current policy that larger states make airplanes available to Danish special operations will not be possible in the future. The large countries will not continue to support Denmark, as witnessed several times in Afghanistan in the period 2001-2012. Peter Viggo Jakobsen, *Har Danmark råd til nye krige?*, Tidsskriftet Ræson, No. 01/12, page 71 (in Danish).

(5) We here use NATO's abbreviation MPEC, which stands for military, political, economic and civilian. The individual political, economic and civilian aspects may include countless individual and coordinated instruments, but there MPEC framework is here used as a general concept.

Land-based and maritime special operations forces have existed for more than 50 years, whereas actual air special operations forces have only been known for a few decades. The 'old' special operations forces therefore often use the concept 'enablers' in regard to aircraft and helicopters and 'assets' in regard to capabilities that can support what they see as the actual special operation.

These concepts are confusing because they consolidate the perception that air capabilities exclusively support special operations. However, due to the future complex global challenges and the requirements for rapid and cheap deployment, it is the air capabilities rather than the land-based and the maritime types that set the boundaries for the overall special operations capabilities. Many military units can 'kick down the door', but being able to project the military capability at the right time, in the right place, with the right scope and in the right way is the global strategic challenge of the future.

Air units should therefore perceive themselves as executing rather than supporting in special operations. Special operations forces have had a tendency to focus on the local effect on the target, i.e. focus on the units that 'kick down the door', but that is just one element of the total special operation.

In its *Comprehensive Approach*, NATO acknowledges that lasting and stable security solutions require a package of concerted political, civilian and military means.<sup>6</sup> The Armed Forces may therefore have to focus on delivering other types of effects besides 'hard and kinetic' effects in the future.

In the context of special operations, aircrafts and helicopters therefore should not be regarded as transport capabilities, but as effect providers.<sup>7</sup> Whereas a fighter can be seen as providing destruction, Hercules aircraft, Challenger aircraft and EH-101 helicopters provide other effects, for example diplomatic, humanitarian, informational or psychological effects. Therefore, these types of aircraft should be seen as providing effect on line with fighters; they simply provide a different strategic effect.

In connection with special operations, investing in such aircraft is therefore not just a question of investing in 'unsexy' transport capability. On the contrary, it is an investment in operational capabilities that can provide a highly demanded contribution in the form of a strategic effect, which is more than symbolic.

---

(6) See NATO's *Strategic Concept* (2010), item 21. [http://www.nato.int/nato\\_static/assets/pdf/pdf\\_publications/20120214\\_strategic-concept-2010-eng.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf)

(7) The name of the Air Force's transport unit underlines this unfortunate transport paradigm: Air Transport Wing Aalborg.

## Challenges in connection with force projection

One of NATO's three core tasks is crisis management.<sup>8</sup> 'Crisis' can be defined as a point during a course of events when a decisive turning point is reached that requires action to prevent serious escalation. In other words, crisis contains a strong element of time pressure.

If a state wants to use conventional military force, challenges in terms of deployment and logistics increase dramatically the greater the distance to the home base and by pressure to deliver effect rapidly. Climate and geography may present additional challenges. On-going tasks may furthermore reduce the number of available forces to the extent that there are no realistic courses of action. Risks become too high if it is not possible to support deployed forces with training, deployment, logistics and redeployment. Consequently, key conventional operations often become so economically and politically costly that they are not a viable alternative to *not acting*. However, you cannot manage a crisis without acting.

The ability to conduct special operations expands a state's strategic options and, due to the operational characteristics that distinguish special operations forces from conventional forces, the risks associated with deployment of military power can be reduced to a manageable level.

First and foremost, special operations forces are so small that even small states are capable of strategic deployment over very long distances. It is commonly acknowledged that Denmark has a very limited capability for long-distance deployment of conventional forces, which are heavy and require a large logistic support apparatus.

Special operations forces have an operational and organizational design that only requires very limited logistical support. Denmark already has resources to deploy a fleet of vehicles which can operate for up to three weeks without logistical support several thousand miles from Denmark, for example to rescue Danish citizens in distress. In a study in 2006, the Army and the Air Force examined, among other things, whether Denmark can manage such a rescue mission far from Denmark by using special operations techniques. It is precisely a core competence of special operations forces to manage in unknown and hazardous terrain for long periods with very limited support. By deploying the best trained and most experienced soldiers and air crews, the risk of the overall operation is diffused and reduced.

The risk of a special operations contribution is also reduced by the operational design, which always strives to exploit the element of surprise to achieve local, temporary superiority or to remain undetected.<sup>9</sup>

---

(8) See NATO's *Strategic Concept* (2010), item 4. [http://www.nato.int/nato\\_static/assets/pdf/pdf\\_publications/20120214\\_strategic-concept-2010-eng.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf)

(9) Jensen, Lars H. Ehrensvärd (2014), *Special Operations – Myths and Facts*, Royal Danish Defence College Publishing House, pp. 8-10, [http://pure.fak.dk/portal/en/persons/lars-h-ehrensvard-jensen\(0826baec-5699-44dc-b7ec-5a5bde31eff0\)/publications.html](http://pure.fak.dk/portal/en/persons/lars-h-ehrensvard-jensen(0826baec-5699-44dc-b7ec-5a5bde31eff0)/publications.html)

Special operations apply joint (services) operational techniques which make strategic operations with very limited resources possible. Normally, it does not make political, economic or military sense at an acceptable risk level to let a conventional platoon, a conventional company or a conventional battalion operate with, for example, a Hercules aircraft because the strategic tasks entail a complexity and risk for which conventional forces are not trained or equipped. The applied special operations techniques require comprehensive and long-term training and a high level of experience. These operations have a high risk level (bordering on physically impossible), which requires a high level of training among the involved to diffuse the risk of failure: a level of training that normally does not exist among the conventional forces.

The above-mentioned study showed, among other things, that special operations techniques make it possible to project significantly more combat capacity than Denmark is normally assumed to possess. One technique is an air bridge. For example, a Hercules aircraft can, with conventional techniques, project approx. 19 tons of combat capacity to a given place 6,000 km from Denmark per day. But by use of improvised landing sites, so-called Tactical Landing Sites, this reduces the tactical flight distance to 50-200 km, and the same aircraft can project 95 tons of combat capacity in one night.<sup>10</sup> With 2-3 aircraft, Denmark can thus project 200-300 tons of special operations capacity in one night, and this may have a decisive strategic effect in a crisis situation.

### **A practical example**

The following example illustrates the practical possibilities:

*A group of Danish relief workers have disappeared in a failed state where anarchy and criminal gangs rule, 6,000 km from Denmark. No state power claims sovereignty.*

*The Danish government decides to launch an evacuation. First, the relief workers must be located. The Ministry of Foreign Affairs requests permission to use an airport in one of the neighbouring states, and all the state's strategic instruments - diplomatic, political, economic, legal, military, etc. - are brought into play.*

*We assume that permission is given to use an airport 500 km from the operations area. While the long and heavy transport is handled by civilian airlines, a Hercules aircraft takes off with a patrol, which is landed by parachute to reconnoitre and set up a tactical landing site somewhere in the wilderness close to the place where the relief workers are assumed to be. Another Hercules aircraft takes off with command and control elements to the airport where an advanced operational base is established.*

---

(10) Preconditions: It is dark for approx. 10 hours, i.e. like close to equator. Each aircraft makes five roundtrips per night. The cargo consists of vehicles and soldiers who are trained in this type of operation, so loading takes max. 15 minutes.

---

*The civilian planes now move 15 special operations vehicles (approx. 5 tons each), 60 special operators, an infantry company (approx. 120 foot soldiers) and 50-100 soldiers and civilian specialists (legal advisers, interpreters, electronic warfare personnel, military police, dog handlers, medical doctors, etc.) and ground personnel for the planes in the operations area. At the same time, three EH-101 helicopters with shifting crew fly the 6,000 km to the operations area, which takes approx. 1.5 days. (The Navy's flexible support ships are an excellent operational and logistical platform for special operations should the need for protection near the coast arise<sup>11</sup>).*

*One day later, two Hercules aircraft bring the 15 vehicles and 60 special operators to the now operational tactical landing site. The distance is 300 km. The 15 vehicles continue the 200 km to the target area. They are carrying supplies for three weeks, can drive over 1,500 km without refuelling and their mission is to locate the relief workers. Simultaneously, the force sets up a new tactical landing site approx. 15 km from the target. The infantry company is moved to this site and marches to the target, where it can participate as an attack force if necessary. The landing site will also support the three helicopters, including refuel them, which is done via a Hercules aircraft with a large on-board fuel tank or by fuelling directly from the aircraft's tanks.*

The scenario is not described further here. According to conventional wisdom, it may seem impossible that a small state should be able to carry out this type of operation. However, in 2000, Great Britain carried out a similar operation in Okra Hills near Freetown in Sierra Leone (6,000 km from Great Britain) with capacities that do not surpass Denmark's. In 'Operation Barras', three CH-47 Chinook helicopters, three Lynx helicopters, special operations forces, an infantry company and navy ships liberated six British hostages.<sup>12</sup>

In a similar operation, in 1976, Israel liberated over 400 Israeli hostages in a joint special operation with approx. 100 troops and four Hercules aircraft in Entebbe, Uganda (4,000 km from Israel).<sup>13</sup>

A third known operation with the same operational design was 'Operation Eagle Claw' in 1980, when the US attempted to rescue 53 American hostages from its embassy in Tehran, Iran.<sup>14</sup> The operation failed, among other things, because of the lack of cooperativeness, integration and co-training across the services. As a result, the American defence received orders from central headquarters to establish a

---

(11) The American Armed Forces are in the process of acquiring scrapped merchant ships, which will be converted to special operations platforms. Denmark already has similar capabilities in the form of the flexible support ships.

(12) [http://en.wikipedia.org/wiki/Operation\\_Barras](http://en.wikipedia.org/wiki/Operation_Barras)

(13) [http://en.wikipedia.org/wiki/Operation\\_Entebbe](http://en.wikipedia.org/wiki/Operation_Entebbe)

(14) [http://en.wikipedia.org/wiki/Operation\\_Eagle\\_Claw](http://en.wikipedia.org/wiki/Operation_Eagle_Claw)

joint special operations command in 1986 to prevent repetitions of such failures.<sup>15</sup> This command, USSOCOM, has since been a model for similar special operations structures in many other countries, although not in Denmark.

The purpose of the example above is to show that Denmark could actually execute such an operation with existing resources.<sup>16</sup> A task like this obviously involves risks and requires political courage, but it cannot be excluded that such a need might arise. The task is on the border of Danish capability, but the risk can be reduced by deploying a highly trained and coordinated special operations unit with contributions from all components of the Armed Forces.

Such a unit would serve in many other contexts, for example NATO operations and humanitarian tasks, e.g. after natural disasters that destroy the local infrastructure. The unit could also serve in UN efforts to cover the time gap between the signing of a peace treaty and the deployment of an operational peace force. The composition of the force depends entirely on the nature of the task, but air capabilities are, in any case, decisive.

### **Other synergies achieved by integrating air capabilities in special operations**

Air power is an impactful strategic instrument. It is rapidly deployable, relatively risk free and can operate over very large distances. Under the right conditions, air power is highly suited for creating technological asymmetry in the use of power in ways that make it difficult for adversaries to defend themselves.

Using air power is often associated with collateral damage. The West emphasizes adherence to the rules of war, and unscrupulous enemies will often seek protection against air strikes by hiding among civilians. In such situations, the challenge is not so much combating the target, but rather finding and identifying the targets and neutralizing them with least possible risk of harming innocent civilians. By using air power within the framework of special operations, it is often possible to neutralize targets which would otherwise have to be excluded due to the risk of collateral damage.

Better integration of air power in special operations would likewise produce a synergistic effect, which improves the possibility of using air power significantly. Special operation forces can be deployed to observe targets covertly and direct air strikes to attack at precisely the split second when the conditions for air strikes are optimal, i.e. when the risk of harming civilians is at a minimum.

---

(15) The so-called Goldwater-Nichols Act legislated a reorganization of the American defence, mainly to stop rivalry among the services. USSOCOM was established as a joint services component in the American defence.

(16) In the study, the Air Force operations planners recalculated all weight and distance calculations included in such an operation.

This technique has been applied with great success in recent wars. In Afghanistan during the period 2001-02, approx. 300 special operators organized the land component (the Northern Alliance), and, in cooperation with the air component, they removed Taliban from power within only 49 days. This occurred without participation by conventional Western land forces. Better integration of air power in special operations thus improves the strategic capabilities significantly.

### **The crew is decisive in special operations, not the equipment**

The limited but widespread conventional wisdom about air operations as part of special operations includes a myth that air special operations can only be conducted with specially developed, high tech and extremely costly special operations aircraft.<sup>17</sup> This is not correct. Great Britain's special operations squadrons have solved highly complicated tasks with aircraft that are not particularly more sophisticated than Denmark's. The above-mentioned hostage release in Sierra Leone in 2000 is one example.

In NATO's definition of special operations in the policy document MC 437/1, air special operations are within the scope of the general definition of special operations: 'activities conducted by specially organized, trained and equipped military forces to achieve military, political, economic or informational objectives with unconventional military means in hostile, inaccessible or politically sensitive areas.'<sup>18</sup>

MC 437/1 explains that the difference between conventional operations and special operations lies in the operational techniques and methods and the significantly higher degree of physical and political risk associated with special operations. It is remarkable that NATO does not consider advanced technology crucial for special operations. In reality, most special operations can be executed by normal aircraft and helicopters.<sup>19</sup>

The value and role of air capability are defined by the special operations forces' universal 'truth': *People are more important than equipment.*<sup>20</sup>

Special operations crews fly conventional airplanes better than their colleagues from the conventional forces, i.e. with more precision and in a tougher and more dangerous environment. The crew furthermore diffuses the risk better and uses conventional equipment in innovative ways. It is internationally acknowledged that the crew – not the equipment – sets the limits for air capability in special operations.<sup>21</sup>

---

(17) For example, the HH-53 Pave Low helicopter or the MC-130 Combat Talon aircraft.

(18) MC 437/1, *NATO Special Operations Policy*, April 2006, page 1-1, item 4.

(19) Rick Newton (2006), *NATO SOF aviation – a vector to the future*, Joint Special Operations University, Hurlburt Field, Florida, JSOU Report 06-8, page 6 ff.

(20) *Ibid.*, page vii.

(21) *Ibid.*

But does Denmark possess such crews? As described in the brief *Special Operations – Myths and Facts*, special operations forces are defined by being specially chosen, specially trained, specially equipped and specially designated (to conduct special operations).<sup>22</sup> Danish pilots fulfil these criteria. This was most recently documented in the Libya operation in 2011-12 when the four Danish F16 fighters delivered a more precise effect in more difficult tasks and at a far higher operational pace than even the large allied states could muster. Danish pilots are selected based on very strict criteria and have always been among the best internationally. As a result of the strict selection, our pilots' skills are at the very top, which is precisely what is required in special operations.

The Air Force already has experience with special operations-like missions. The Air Force's Hercules aircraft land in provisional landing sites in Afghanistan, drop supplies to ground troops from high altitude and are used to operating in very difficult weather in Greenland. The Air Force's helicopter pilots cooperate with The Danish National Police Action Force in highly complicated helicopter operations. The Air Force trains with the Army and Navy Special Forces on a regular basis. The Air Force can therefore designate crews as special operations crews without dropping below the international standard – on the contrary. This is the assessment of an American expert in air special operations at the Air Force's annual Air Power Seminar in 2010.<sup>23</sup>

All it takes for the Air Force to establish an actual special operations capacity is thus to decide to do it and begin to conduct special operations with existing aircraft and crews.

## Summary

It is well known that Denmark's strategic air transport capability is very limited – at least when it comes to projecting conventional military power. However, in terms of projecting joint special operations capability, Denmark's possibilities are significantly larger. Using special operations techniques, Denmark's military capacity can be increased significantly both in terms of speed and risk reduction. One element is to use the above-mentioned tactical landing site technique and thus circumvent the normal need for access to and control over an airport.

With its existing capacities, Denmark can deploy a highly demanded international contribution. Such a capability would expand Denmark's strategic options considerably. It is even possible to imagine scenarios in which Denmark's special operations contribution consists exclusively of aircraft and related planning and logistics

(22) Jensen, Lars H. Ehrensvärd (2014), *Special Operations – Myths and Facts*, Royal Danish Defence College Publishing House, pp. 8-10, [http://pure.fak.dk/portal/en/persons/lars-h-ehrensvard-jensen\(0826baec-5699-44dc-b7ec-5a5bde31eff0\)/publications.html](http://pure.fak.dk/portal/en/persons/lars-h-ehrensvard-jensen(0826baec-5699-44dc-b7ec-5a5bde31eff0)/publications.html)

(23) Statement by Rick Newton at the Air Power Seminar 2010 when he assessed the Air Force's possibilities based in his arguments in the article *NATO SOF aviation – a vector to the future*, Joint Special Operations University, Hurlburt Field, Florida, JSOU Report 06-8.

---

capability, not army or navy special operations troops. A contribution of that type would be a so-called Special Operations Air Task Group.

The purpose of this brief has been to change the common perception that special operations are limited to units like the Army or Navy Special Forces. In future special operations, air capability will in many cases be a dimensioning factor for a country's possibilities for conducting special operations.

The next brief in the Royal Danish Defence College's series on special operations discusses the strategic effects of and options with special operations. The brief assumes that the reader understands that special operations are a joint matter that can integrate Denmark's combined capabilities, including the Air Force, as well as other strategic instruments besides the purely military.