Information magazine of the ALAT

AT THE HEART OF OPERATIONS

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22

« HARMATTAN »
DES HÉLICOPTÈRES DE CO
ENGAGÉS DEPUIS LES B

LE POINT DE VUE DE L'AL

FORCES en action

Raid hélicos sur la route de Syrte

Partis du bâtiment de projection et de commandement Mistral, des Tigre et des Gazelle du groupe aéromobile volent vers la côte. Mission : débusquer et détruire tout armement des forces pro-Kadhafi se trouvant sur un axe routier menant à la ville libyenne.

L'ALAT AU COMBAT !
Le 5e RHC en Afghanistan

L'EXPRESS

[Aérocombat]
LES COMBATS D'ABIDJAN

En avril dernier, la force LICORNE, en République de Côte d'
son appui à l'ONUCI en engageant ses unités de mêlée et le
légère de l'armée de Terre (DétALAT), dans le cadre de la r
par le Conseil de sécurité des Nations Unies. L'objectif : « pr
civiles menacées d'actes de violence (...) et empêcher l'uti
lourdes ». Retour sur cet engagement au contact.

Seule une manœuvre combinée entre forces au sol et hélicoptères peut permettre d'emporter la décision. L'aviation légère de l'armée de Terre (ALAT) est plus que jamais l'arme de la surprise tactique au ras du sol. L'aérocombat et le combat terrestre sont donc aujourd'hui nécessairement confondus. La troisième dimension tactique est non seulement indissociable à l'efficacité des forces terrestres mais elle est indissociable de l'armée de Terre », soulignait en juillet 2008, l'ancien chef d'état-major de l'armée de Terre, le général d'armée Elrick Irastorza. Les missions conduites dans Abidjan, en avril dernier, en sont la parfaite illustration. L'action coordonnée des ... de l'ONUCI et de LICORNE

Otan Les ailes de la victoire

Pour les Occidentaux engagés auprès des insurgés, la réussite de l'opérati
militaire sans troupes au sol est totale. Mais gare aux ...

Toutes les guerres sont sales. Du point de vue des militaires français, britanniques et américains, pourtant, le conflit libyen aura été l'un des plus « propres » de l'Histoire. Le bilan affiché par les forces de l'Otan est éloquent : zéro mort dans les rangs de l'Alliance et seulement deux erreurs de tirs « probables », selon un officier de haut rang, sur plus de 7 500 missions de frappes aériennes. A l'origine de ce prodige, trois

L'Alliance a ti
les leçons
des précéden
afghan
et irakien

Spécial LIBYE

Entretien avec Pierre Meyer

« Un raid d'hélicoptères de deux heures pouvait se traduire par 20 à 30 véhicules armés détruits »

Le colonel Pierre Meyer, commandant ... hélicoptères de combat (RHC) ... aéromobile

Libye : l'ALAT passe à l'action

Dans la nuit du 3 au 4 juin, les hélicoptères de l'ALAT ont entamé leurs attaques contre les kadhafistes, dans la région de Brega. L'ALAT a engagé 18 machines depuis le BPC *Tonnerre*, qui avait quitté Toulon le 17 mai au terme d'une génération de forces d'une semaine.

Texte : Jean-Marc TANGUY
Photos : Arnaud ROINE/ECPAD

EDITORIAL

I would like to primarily dedicate this ALAT News Magazine to our operations, since 2011 has been an exceptional year in this area for the Army and the Army Air Corps in particular.

Army General Bertrand RACT-MADOUX, Chief of Defence Staff, also wrote in daily agenda point N°1, which was read out before all the ALAT chiefs at the ALAT meeting on October 6th 2011, for our annual ceremony in Cannet des Maures: *"This year, our helicopters have written one of the most beautiful pages in the history, not only the Army Air Corps, but also of our common military history, and have reaffirmed their importance and effectiveness in modern combat."*

But before I continue, I would like to take the opportunity in this editorial to reaffirm loud and clear that although operational missions take priority above everything else, especially in combat or when it comes to saving lives, flight safety must nevertheless continue to be our constant concern.

Thus I want especially through this News Magazine, to honour all those men and women who have courageously taken part in these difficult and dangerous operations, to those who have paid the supreme sacrifice, such as our comrade, Captain Matthieu Gaudin, who died in combat in the remote and hostile Afghan mountains.

I invite you to read their stories, through which you will be able to measure and appreciate their professionalism, their military and human qualities, and above all once again, their immense courage, even though their modesty prevents them from saying it themselves.

As I often like to say, it is to them that we owe all the credit and the laurels of glory, as well as the brilliant successes in the Ivory Coast and Libya, and it is them who ensure the day-to-day safety of our forces and those of the Afghan National Army in the far reaches of the East.

It is the pilots, and of course the mechanics, the "gunners", the air traffic controllers, the meteorologists, the on-the-ground aircrew instructors (1), and all the security and adjoining personnel, without which the helicopters could not fly.

But it is also all of ALAT that has mobilized itself to give our brothers-in-arms all the means they have needed, and still need, to fight: ALAT training, ALAT research, ALAT support, ALAT staff chiefs and ALAT aircraft.

As I very often like to point out, these successes are not due to luck, but they are the result of choices which are and which have been made by the Army and ALAT for almost 60 years now; ethical, equipment, design, training principles, operational readiness, human resources, etc.

If we had to learn only one lesson from the operations carried out in 2011, it is that what you learn during training and you then put into practice within the regiment, matches perfectly the needs and the reality of commitments. Again, we must be careful not to lose such a tool, which is also the envy of many countries around the world. For I am not afraid to say that today France and its Army is still the only Western ALAT (2) force capable of conducting air combat with such a high level of efficiency in a whole range of missions and environments.

But while ALAT is fighting, it is also preparing for the future. Hence, it took delivery of its first 90 NH Caiman helicopter just before last Christmas, a wonderful gift under the Christmas tree. This device, which will gradually replace our ageing but trustworthy Pumas with their 40 years of loyal service, will initially equip the CFIA (Inter-Army Training Centre) (3) in Cannet des Maures in order to help train personnel for both land- and sea-based operations.

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(1) Ground Aircrew Instructor
(2) Apart from the U.S., whose forces are beyond compare in terms of resources.
(3) Inter-arms Training Centre

The First Helicopter Gunship Regiment will be the first unit to be equipped in 2013, with operational use expected for the following year (2014).

At almost the same time, we will terminate the perception of our 40 HAP Tigers (4) and will see the arrival of the first HAD (5) during the year. It will also initially go to the First Helicopter Gunship Regiment in 2013 in Phalsbourg to gradually replace our “old but reliable" Gazelle Vivianes, which have demonstrated their incredible vitality and were still in operation in 2011.

We must still continue looking forward into the future and continue giving our armies the modern air combat weapon which is essential in any operation, as was stated in Issue 32 of the IFRIs (French Institute of International Relations) Strategic Focus: the helicopter war - the future of air mobility and air combat: "It is because of their adaptability that the Army Air Corps are likely to remain one of the most effective tools and which will mark the difference between modern armies."

But it is also by cultivating our history and traditions that will always make ALAT a more cohesive power. Its veterans, those former members, all of whom have served at some point in their career under the blue beret in the construction of this fourth generation of ALAT, its veterans, its former members who are also very proud of the achievements of the younger generation of air combat soldiers.

The ALAT, alongside its brothers-in-arms in the rest of the Army, and also in the Libyan Navy and the Afghanistan Air Force, as well as in the Special Operations unit or the fire-fighters that fight forest fires in Southern France, were all at the heart of operations in 2011.

It is therefore quite legitimate and logical that the standards of our four regiments (6) have been awarded the Military Cross of Merit with Star, among the 13 other awarded emblems of our army.

Let me conclude, before letting you read the exciting stories of operations, to again pay tribute to all the actors involved.

Men and women of the ALAT for which that humility is too often a discreet characteristic, be proud of your accomplishments, because it is primarily your professional qualities, both military and human, that have made and will continue to make the difference. The strength of will that you have shown which drives you ever on is only a credit to you and to your army.

In conclusion, I will hand you over to our Chief of Defence Staff who said on October 6, 2011 at the Inter-Army Training Centre in Cannet des Maures:

"In coming here to meet you all, I would like to express my deep satisfaction and gratitude for your courage, selflessness and generosity, but also for the excellent work done by all personnel involved in these difficult operations, whether they belong to aircrews, command cells or maintenance crews. In spite of the difficulties, you have all continued to make sure our helicopters are ready for operations whenever necessary. For your outstanding work, I would therefore like to convey the tributes, as supported by the Chief of Defence Staff and the Minister of Defence, to testify to you the pride of the whole nation."

General Yann Pertuisel

ALAT Commander-in-Chief

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(4) Helicopter support-protection

(5) Helicopter support-destruction equipped with the HELLFIRE missile

(6) Strategic Focus n° 32: The helicopter war - the future of air mobility and air combat (IFRI)

(7) 1st, 3rd and 5th RHC (Helicopter Gunship Regiment), and 4th HRTS

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Operational Efficiency

In their honour

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The ALAT (French Army Air Corps), Past, Present and Future.

Founded in 1954, the ALAT (French Army Air Corps, in French: Aviation légère de l'armée de terre) was originally designed to reinforce tactical manoeuvres by its ability to overcome obstacles. Used at the time for observation and support, particularly in the fields of medical services and ground attack forces, over the years it has continued to adapt in order to meet the growing needs of ground tactical manoeuvres.

By developing its intelligence support capacity, its mobility and fire power in Algeria, it invented a new large-scale tactical manoeuvring capability that was put into practice by the Army's Mobile Air Corps while still remaining part of the Army Corps with the creation of the Army Recognition and Intervention Corps (GRICA in French) / Army Intervention and Security Corps (GISCA in French) (1). In the early 1990s, new strategic power and technological developments meant that the ALAT begun an extensive transformation that took a decade to complete. Today, while the concept of air combat (2) requires the total integration of helicopter gunships within air-land tactical manoeuvres, as in the case of melee weapons, the commitment requirements in 2011 are proof of their importance. For the first time since it was created, the ALAT is present throughout the whole spectrum of the Army's action.

The Weapon of Initiative

In a news interview on July 31 2011, General ELRICK IRASTORZA, the Chief of Defence Staff, when questioned on the role of helicopters in Libya, concluded by saying: "Over the last two months, we have seen an important technical, tactical and human performance. Conducting such operations at night from a ship out at sea, to infiltrate, do what you have to do, and then get back is a real performance. I know these pilots well and I take my hat off to them. "

In doing so, the Chief of Defence Staff confirmed the excellent operational level that the ALAT has reached after nearly sixty years of evolution. Having been formed in Indochina during support missions, the ALAT - so named because of the large number of aircraft that were used at that time – has since developed the use of helicopter gunships.

The Algerian war saw it develop significantly with the countless support missions that were carried out to assist ground troops who were engaged in daily combat with enemy. The definition of tactical flying, still used today by the ALAT crews, was the response of these pioneers to the military threat. By arming the military helicopters, they were able to take an increasing place within ground tactical manoeuvres which were mainly aimed at the armoured divisions of the Warsaw Pact. The change in global strategy that followed the collapse of the USSR in the early 1990s has been fully taken into account by the ALAT which have subsequently adapted themselves to the changes. Technical possibilities have been exploited to the direct benefit of tactical capabilities. Currently, in addition to its permanent presence as part of land protection missions in French national territory, the ALAT is committed to its combat capabilities, regardless of the context, mission, possible threat, or environment and is therefore a global reference.

Its mastery of tactical engagement in all its forms, even operational, especially at night, gives it a unique position in the world of helicopter gunships. It has become a key player in air-land tactical manoeuvres in which it is often decisive. Originally confined to support missions and field backup, it is now, and has been for many years, a key element of the overall military plan.

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(1) Army Reconnaissance and Intervention Corps (in French: Groupement de Reconnaissance et d'Intervention du Corps d'Armée)/Army Intervention and Security Corps (in French: Groupement d'Intervention et de Sûreté du Corps d'Armée). Each of these Army Corps included a helicopter gunship regiment, an infantry regiment and a light armoured vehicle regiment.
(2) Concept of deploying Airmobile forces within the French Army - 1 February 2011.

Sometimes engaging independently or sometimes combining (not overlapping) its action with infantry and especially armoured vehicle units, and sometimes with other armies, overcoming constraints relating to the type of terrain, it enables increasing inter-arms tactical capabilities by providing special powers and flexibility. Therefore, aside from technical issues relating to the exclusive commandment of the ALAT Chief, while trying to maintain or regain initiative, the inter-arms Commander integrates air combat possibilities into the tactical design phase in order to reach or achieve its maximum effect.

A Major Component of Tactical Engagement

Although the ALAT has intervened on French national territory several times as it does every year (3), in 2011 it was particularly in the limelight in inter-arms, inter-army and complicated inter-allied environments, against different enemies, whether symmetrical or asymmetrical, with a leading role in air combat with commitments that continue today in Afghanistan and interventions in the Ivory Coast and Libya.

The Helicopter Battalion is the third "battle group" of the La Fayette Task Force, and is deployed at Kabul airport where it carries out the following missions: reconnaissance, escort, destruction, fire support, helicopter-aided carrying, tactical transport and medical evacuations. Little by little, planning of air combat actions has been fine-tuned to ensure the best possible use of helicopters, still insufficient in numbers, to aid ground troops engaged in difficult operations. Since their deployment and integration within the La Fayette Task Force, the Tigre, Gazelle, Cougar and Caracal helicopters (4) have become indispensable to all ground operations, by multiplying intelligence gathering, fire power, and mobility capabilities. They reinforce significantly the tactical capacity by enabling to intervene quickly and very accurately against any enemy element that may attack ground units by offering the ability to deploy reinforcements or to evacuate injured personnel.

During operations carried out in April in the Ivory Coast, a detachment of ALAT helicopters were in action over the entire combat zone. As requested by the UNOCI, they were in operation day and night over urban areas, and were involved in reconnaissance, destruction and cover against an enemy that had a considerable anti-aircraft capability. The detachment was able to benefit from a total surprise effect only during its first intervention.

(3) Provide articles that concern internal missions.
(4) Three Caracal helicopters are deployed within the “Mousquetaire” Battle Group (BG), one of which belongs to the French Air Force.

Other actions benefitted from a relative surprise effect, but only due to the time the action began, an unknown factor to the enemy. Three principle points were noted after the action carried out by the ALAT detachment: the brutality of the action, the maintaining a favourable balance of power and a psychological upper hand. So although the initial actions were conducted under high threat, the following ones were much less so and by the last actions, the threat was almost negligible.
As part of Operation Harmattan, the use of a Helicopter Battalion (18 units) and a command post, as well as the armed (5) deployment of the Air Mobility Corps of the CFT (CFT / DIV AERO) was implemented within just a few days. The battalion was engaged, from the Battalion command post, in night fighting against an enemy operating in armoured vehicles on the defence and which had a wide range of anti-aircraft weapons. Technically and tactically challenging, this operation confirmed the maturity of air combat and the ability to plan, direct, coordinate, and carry out reconnaissance and destruction actions, even behind enemy lines, and achieve the expected tactical effect. Several hundred targets were attained in thirty attacks, supported by the French Navy and coalition aircraft.

Air Combat within the Heart of Tactical Manoeuvres

"You should not (or indeed cannot) plan a manoeuvre which relies on involving the ALAT"! This surprising recommendation, often stated, mainly reflects the difficulty in understanding how helicopter gunships are deployed in action. An old reflex, it no longer holds true, as has been proved for several years now in the field. The exceptional increase in helicopter gunship capabilities, the difficulties of controlling entire zones on the ground thus leading to areas that are permanently vacant, the fact that the enemy can be widely dispersed, the need to limit traces on the ground, as well as the need for reversibility, adaptability, responsiveness and autonomy, are all factors that call for an increase in the use of helicopter gunships as an essential key to tactical manoeuvres in its own right. Especially seeing that the Army's air mobility is an operational function whose principles of deployment, organisation, commanding, training, on-the-ground tracks, have the sole aim of engaging the enemy in combat on the ground.

The number of strictly land-based units – that is, units that can move only on the ground - which the inter-arms Commanders can use for a given mission, is by definition limited, unless you extend this notion to air combat units that are identical to those of the infantry and armoured vehicle divisions. The inter-army deployments then increase correspondingly. The Commander of ground forces has significantly reinforced manoeuvring capabilities with three complementary components, much improved by their specificities, on-foot combat (infantry), mounted combat (armoured vehicles) and air combat. This last component also provides a unique ability to act autonomously and/or deep into enemy zones, possibly at operational level.

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(5) Command and Deployment Post capable to plan, oversee and coordinate air combat missions of GAM reinforced level in an inter-arms, inter-army and inter-allies environment.
(6) FT 02, pages 52 and following. Four-speared inter-arms structure enabling the following articulations: 3 formations in 1st level then 1 in second level, 2 then 2, 2 then 1 and one reserve element, 1 then 2 and one reserve element, two different actions of 1 then 1.
This is the case of an offensive to attack, raid, operate, support, intercept, identify; and defence of a counter-attack, cover or cover the sides, stop an advance, hinder, harass, stake out; securing evacuation, controlling, taking decoy action and demonstrating strength, protecting, escorting, recognizing, and monitoring. This list is by no means exhaustive.

Some missions definitely seem particularly advantageous to air combat. Reducing the number of personnel makes it impossible control land zones permanently, except in some specific cases. Areas left uncontrolled, cannot be left to the enemy. Therefore, they are monitored and we must be able to intervene, often within quite short notice. For both these missions, using a third dimension, without being exclusive, is highly favourable. Planes often fly at high altitude and at high speed, and unmanned flights can vary sharply their trajectories and effects. Fighter pilots, by varying their speed and trajectory, can analyze a situation, detect movements, identify observation posts, and conduct tactical analysis.

But above all, the combination of the overall capabilities that are deployed for flexible and responsive operations are the key to success. For its tactical manoeuvres, the Army retains a four-speared inter-arms structure (6). Depending on the given mission, these four elements can be of any function. However, for offensive, defensive and security tactical modes that require contact with the enemy, it means using mainly infantry, armoured vehicles or combat aircraft. There are numerous missions (7) but they are well managed by the three types of arms. In sum, depending on the enemy, the tactical situation, the type of terrain and environment, either of these missions can be conducted by combining the effects, and not simply by overlapping the means of each component. The inter-arms Commander and has three means for manoeuvring, which can be interchangeable, and which he can use with the sole purpose of achieving its main effect. So if a particular function is in reserve or support, this is a conclusion of the planning phase and not an intellectual reasoning, or even a misunderstanding of inappropriate use. This is especially true in that each of these elements can be enhanced to reach a capacity that equals another type of arm, completing in this way its own potential capabilities (Joint Inter-arms Tactical Battalion predominantly on-foot combat, mounted combat, air combat).

A Commitment based on Capturing the "Effective" Combined Effort

Even though it is essential to maintain the expertise needed to respond to a symmetrical enemy, it is obvious that medium-term commitments will continue to affront an essentially asymmetrical or unbalanced enemy. The latter, once defeated, usually becomes asymmetrical. The parameters that define the intervention of ground forces, as cited above, are not likely to change. The personnel deployed will be limited in numbers according to the vacant zones, the enemy blends into the environment that suits it best and which, therefore, becomes as complex as possible for the units involved, the combat rules become more and more restrictive to the combat mode. Conventional modes of action, predictable and easily detectable, need to evolve to obtain greater fluidity and tactical transparency in order to surprise the enemy and restrict its freedom of action. You have to be mobile and stealthy, so that the rebel or the hunter lying in wait, becomes himself the hunted. The third dimension becomes the privileged place where all the sensors are deployed. The effort already widely made in favour of intelligence gathering should be continued and expanded using tactical UAVs. However this almost permanent monitoring of the operations zone is only useful if it can transmit in real time to platforms that can analyse the information and apply the necessary actions. Among these, helicopter gunships and their crews make up the best attributes. Indeed, not only do the weapon systems available to them offer a full range of intervention possibilities, but it is especially their mobility, combined with the tactical intelligence of the crew members, which enables a quick, responsive and well-reasoned processing of the objectives. Thus combining the action of sensors, ground troops and helicopters, who are all in permanent contact and who benefit from the same reference tactical situation, the inter-arms Commander is able to occupy the field and focus his deployments, to detect and hit the target as though he had far-reaching capability. The different deployed units that protect each other remotely work more and more efficiently, thus improving responsiveness and ground cover. The Commander who tracks their positions from his operations command centre, combines their effects to ensure greater concentration on the designated target. The initiative thus changes sides.

Air-land tactical manoeuvres, which are usually part of a combined inter-army and inter-allies framework, are inter-arms. Complex in its number of possible effects, it requires, upstream, a thorough preparation based on perfect know-how. The operational level reached by air combat, whose articles in this News Magazine are the most recent demonstrative illustration, consistently enhances the capabilities available to the Commander of land forces who must integrate them, along with other weapons, in his tactical planning, both today and in the future.

Colonel Hervé AURIAULT

Chief of the Research Office - COMALAT Planning

NATIONAL TERRITORY

Sixth G20 summit in Cannes: ALAT responding to severe pressure

As part of its domestic missions and land protection responsibilities, ALAT (the French Army Air Corps) was given a support and intervention mission to reinforce security for the 2011 G20 summit in Cannes. The 3rd RHC (Combat Helicopter Regiment) took responsibility for commanding, preparing and conducting this operation.

The sixth G20 summit was held in the Palais des Festivals in Cannes, which usually plays host to the Film Festival, on 3 and 4 November 2011. It was the largest international summit ever held in France and, at the invitation of the President of France – who was also President of the G20 in 2011 – it was attended by twenty-five heads of state and government of the world's leading nations, and representatives of seven international organisations. Running alongside this event were a number of other summits, including the B20 (Business Summit) and the G20 YES (Young Entrepreneur Summit). This international conference also offered anti-globalisation protesters the opportunity to try to make their voices heard. Indeed, a counter-G20 summit was held in Nice from 1 to 5 November 2011. The general security operation took account of experiences with recent summits in Italy, Germany and Strasbourg. ALAT was also deployed in the latter summit.

The security operation for the 2011 G20 summit was run centrally at the highest levels of Government and on an interministerial level, and saw 1,700 military personnel deployed in support of domestic security forces. The Department of Defence and Civil Protection, the Navy, Fire Service, Air Force, Army, Divisional and Mobile Gendarmerie, the Republican Guard, intelligence services and others joined forces to implement a general pre-determined risk prevention strategy.

As part of the security operation, ALAT's main roles were:

1/ To be ready to helitransport gendarmerie units rapidly to any trouble spots.

2/ To keep aircraft in a state of readiness to help extract G20 delegations to airports.

SUMMARY

Sixth G20 summit

ALAT responding to severe pressure

ALAT fighting forest fires

The Joint Helicopter Group

Under the orders of LCL REBINGUET, commanding officer of the BHMA (Battalion of Attack and Transport Helicopters) of the 3rd RHC, ALAT provided a detachment of 14 aircraft (12 Pumas and 2 Gazelles) in order to carry out these two missions. The 1st and 5th RHC contributed four and three Pumas respectively; the 2nd RHC provided five Pumas and the Gazelles.

In addition to the plans drawn up ahead of time, preparations for the mission involved two main field reconnaissance missions to establish the procedures to be put in place. A meeting was held in Nice one month prior to the G20 attended by all the protagonists in the security operation and the representatives of the different logistical platforms used during the G20. This was an opportunity for each protagonist to present the resources and procedures they would be deploying to carry out their assigned missions. It enabled ALAT to define procedures in a very complicated C3D environment (CTR NICE and CANNES, active air defence measures and a strong concentration of air units acting separately but simultaneously) and to put in place the coordination needed to extract the VVIPs. At the same time, a reconnaissance mission was undertaken at the Cannet base and at Cannes Mandelieu Airport to inspect the infrastructures made available to the detachment. The feasibility of the solutions envisaged at the Nice meeting was also checked, in collaboration with personnel from the SPHP (VVIP protection service). This reconnaissance validated the detachment's initial choices.

During its engagement, the ALAT detachment deployed on the Cannet base an operations centre commanded by Battalion Chief CAVAILLES, CBCOI (commanding officer of the organisation and instruction centre) of the 3rd RHC. Armed with a meteorologist, who proved invaluable, an intelligence team, an operations team and a C3D coordinator, the operations centre was the single entry point for the use of aircraft under the orders of the EMIA ZD (Joint Defence Staff) based in Cannes. Given the big distances involved, a network of radio links was needed to guarantee a permanent connection with aircraft in the air. Most of the time, the detachment was supported and billeted on the Luc base. From 2 to 5 November, the detachment was split into two to carry out its duties. Helicopters remained at Le Cannet: Pumas working for the gendarmerie, Pumas and Gazelles with an ELI (Light Response Team) at the service of the different reconnaissance missions and command links. The other Pumas responsible for extracting delegations were stationed at Cannes Mandelieu Airport.

1 November was an opportunity for a dress rehearsal of VVIP extraction using a controlled enemy group formed by all units present, and to confirm that the envisaged solution would work if necessary. In the night of 2 November, the assigned Pumas, working with the ALAT light division deployed at GRASSE at the gendarmerie command post, had the chance to test their plan and check themselves that they were consistent. The following day, in a live operational situation this time, units took to the air to helitransport a gendarmerie squadron in two waves to Cap d'Ail (west of Monaco). This mission demonstrated the perfect coordination between the gendarmerie and ALAT.

In total, ALAT's G20 operations comprised 108 blue berets in 14 crews, and nearly 200 flying hours between 22 October and 5 November. The G20 meant making logistical arrangements for two half-detachments from three different regiments over the course of a fortnight. It often involved changeable weather which meant crews' returns had to be postponed. Finally, and above all, even though an extraction mission happily was not ordered, it was ALAT's opportunity to improve still further its joint staff know how and, in particular, display its professionalism in the framework of a large-scale domestic operation.

Captain Cédric GOFFAUX
Commanding Officer, Transport Helicopter Squadron No.1

and Captain Nicolas CHOPARD
HMA (Attack and Transport Helicopter) Patrol Leader

ALAT FIGHTING FOREST FIRES

Deployed on 22 August to the Villefort municipal stadium around thirty kilometres from Mende en Lozère, one Gazelle and two Pumas were committed to tackling a fire that had already burned around one hundred hectares.

The role of the Gazelle was to make regular reconnaissance flights to give an overview of the fire, giving preference to the captain responsible for the DIH (Helicopter Response Detachment) based in Brignoles. It also guided fire-fighters on the ground, who often have no direct view of the origins of a fire. It marked the Puma drop zone and coordinated the use of air space during their interventions, thereby ensuring freedom to manoeuvre in the drop zones. The Gazelle was forced to intervene to call off a CANADAIR drop during an intervention by the Pumas. Finally, the Gazelle informed approaching aircraft of the situation on the ground and in the air when there was no other coordination.

Throughout the day, the following air traffic came and went with no fixed schedule: four or five CANADAIR planes and two TRACKER planes (roughly every 20 minutes), two MORIANE planes, three fire-fighter helicopters, one civilian DRAGON helicopter and sometimes an EC 145 light utility helicopter.
The role of the transport helicopters was to fly two DIH groups with equipment to a DZ close to the fire (as close as around one hundred metres from the first ash) in inaccessible areas. In some cases trees had to be cut down in order to land. Next, they ensured a constant supply of water by dropping, at DIH request, flexible tanks picked up in the feed zone (around 1 minute away by air).
At around 11.30 am, the DIH's zone seemed under control after a reconnaissance flight by the Gazelle over the various hot spots. Fifteen minutes later, a Puma took off from the feed zone in response to an emergency call to extract fire-fighters trapped inside the fire. The latter had been taken by surprise by the fire, and forced to abandon four full SLINGS (two would be recovered), equipment and three flexible tanks. When the Puma took off again, flames were visible under the tail beam. Several hectares had caught fire in the space of a few minutes. When they left, even though no flames were visible, the ground and subsoil remained at blistering temperatures, and any vegetation could have caught fire again.

At the end of a fire that had burned 200 hectares, the DIH was broken up the following evening. It had been deployed for four consecutive days: two days near MILLAU tackling a fire of roughly 75 hectares, and two days near Mende.

In conclusion, the ALAT detachment, an integral part of the DIH, enabled an immediate intervention on steep terrain to fight forest fires throughout the far south of France and Corsica.

This particularly rewarding experience showed that we were ready for operational deployment in the context of collaboration between civilian and military forces. These forces came together to act on behalf of the population, which was very appreciative of all our actions. We also enjoy the best possible standing in the eyes of elected officials (mayors, members of parliament).

Battalion Chief Eric VAILLANT

THE JOINT HELICOPTER GROUP

The Joint Helicopter Group (GIH), stationed on airbase 107 at Villacoublay, is the only unit of COS (Special Operations Command) dedicated to the protection of the national territory. Working in close collaboration with GIGN (Gendarmerie Domestic SWAT Team) and RAID (Research, Assistance, Intervention, Deterrence), two special operations units of the National Police, GIH ensures that the former has constant power projection and intervention capabilities, and that the latter has constant power projection capabilities. Set up to improve GIGN's power projection and intervention capabilities in defence of nuclear power stations, it is an integral part of the national maritime counter-terrorism plan, but it can also be tasked to intervene as part of CID or civil defence missions.
In the framework of national territorial protection, GIH was asked to participate in a training exercise by GIGN (its principal employer) on 25 August 2011. The aim of the operation was to free hostages held in an urban environment.

That morning, seven or eight terrorists were threatening to execute an estimated 18 hostages on the eighth floor of a social housing block on an estate in Montereau-Fault-Yonne, in the Seine et Marne department. First telephone contact between the leader of the response group and the current lookout patrol leader provided the "raw materials" needed to prepare for the mission.

The exercise alert was sounded. Each member of personnel performed their own tasks: recover equipment (weapons, ballistic protection, etc.), take out and configure helicopters, assess the weather, etc. The patrol leader produced an action plan using satellite photos and photos of the building he'd collected from GIGN.

"The patrol's mission, if negotiations fail: deploy by vertical assault, on the roof of the building, 18 GIGN soldiers, at the TOT. Be able to extract, from this same location, gendarmes and hostages, after the intervention."

Emphasis was placed on adhering to the TOT(1) and the effect of surprise because a land assault was launched simultaneously at the base of the building. Detailed preparations were made for the mission: entry route, timings, the best sectors for approaching the objective in order to eliminate conflict, and precise drop zone (small surface area for a simultaneous landing). The plan could be redrawn rapidly based on a ground coding if the satellite information was not reliable enough.

The announcement of the execution of a number of hostages after several hours of negotiations triggered the intervention.

A TOT was set for 15:10 local time. The order was given. Last briefing on the tarmac and the patrol left Villacoublay, entering its tactical phase before the assault.

At T-10 minutes, the mission leader confirmed the assault.

At 15:10, the two climbing ropes touched the roof of the building and in a few seconds the top floor was reached. During the 10 minutes of the assault, the EM(2), the group's guardian angels, were able to deal with any element impeding progression, from the helicopters.

A detonation, followed by several exchanges of live rounds, put an end to this interminable investigation.

The recovery order was given on the closed radio network.

A cluster and gondola were used to extract the gendarmes and freed hostages from the roof.

Upon their return to the airbase, the mission leader started the routine debriefing. It's a way of measuring effectiveness for future exercises and, who knows, a real mission. This means everyone has to conduct regular reviews...

Lt de GASTINE

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(1) TOT: time on target
(2) EM: elite marksman

ABIDJAN

THE FÉLIX HOUPHOUËT BOIGNY (FHB) TOWER UNDER THE ORDERS OF THE 1st RHC CONTROLLERS

Within the framework of mandate 7 for the LICORNE force deployed in RCI, MCH(f), CARRARA and THEIL 1st RHC air security controllers, were assigned the mission of working within DETALAT operations. The range of responsibilities was vast, and included monitoring flight orders and OMAs (air mission orders) for the Air Corps, monitoring the frequency necessary for coordinating movements, but also managing ASECNA (Agency for the Security of Air Navigation in Africa and Madagascar) documentation.

All of these duties, slightly outside the scope of their usual job description in the regiment, bear witness to the versatility and adaptability of ALAT air traffic controllers. In the night from 2 to 3 April 2011, the nature of their work took on an extra dimension within the framework of taking the F.H.B. airport.

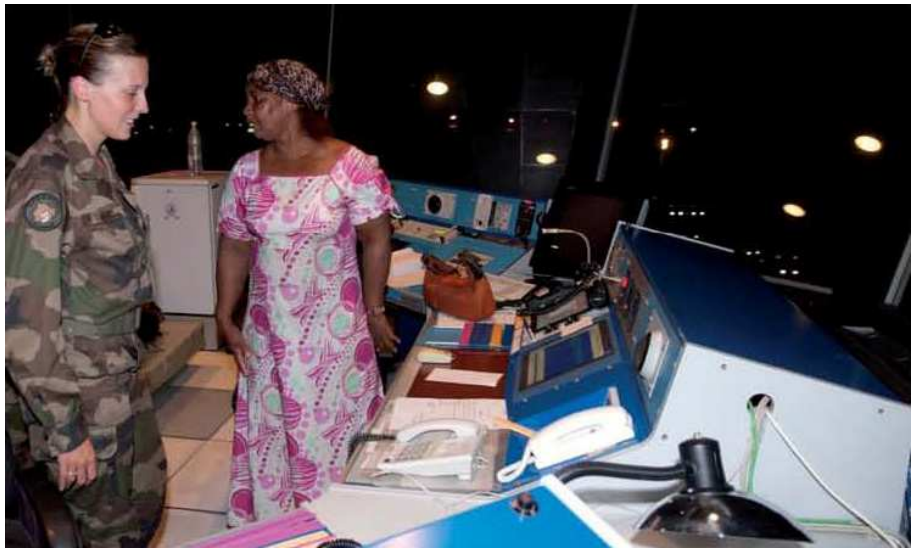
2 April at 15:00, all personnel involved are gathered in the PC-IAT for a briefing providing an overview of the mission aiming to secure the airport within the framework of evacuating French and foreign nationals. The main instruction stipulated is that it was essential for the ATTs to arrive and depart by sea.

22:00, the security force convoy, made up of VABs and light armoured vehicles, moves into position to form the train to be deployed from the start base to the airport. Despite the extraordinary nature of the mission these soldiers are making ready for, the atmosphere is serene.

22:45, the DETALAT Gazelles take off under cover of night to carry out a reconnaissance mission for the route the convoy will take with the aim of guaranteeing its security while travelling.

From 23:00, with reconnaissance revealing no immediate danger, the convoy sets off on its way, under the protection of the helicopters. It takes 40 minutes to reach the tarmac.

Security is put in place quickly. An ERC 90 SAGAIE and LICORNE battalion units (BATLIC) are responsible for the main building, while other elements go about securing the control tower.



SUMMARY

The Félix Houphouët Boigny tower under the orders of air traffic controllers

The GAZELLE module in action

The PUMA PIRATE in action

Extracting French and Foreign nationals

The battle for maintenance

DETALAT LICORNE, withdrawal

At 23:45, a Gazelle Viviane detects the presence of two armed personnel on the control tower roof.

In spite of immediate action from a group, the two manage to get away. Building reconnaissance also reveals the presence of an Ivorian air traffic controller and her daughter. They are apprehended by the task force and secured in a room under the control tower cab.

The entire process to prepare the ground for the type C-130 ATTs is then carefully put in place.

At 00:00, escorted by the task force, two 1st RHC female air control sub officers take control of the cab. After an initial surprise due to the obsolete and run-down state of the equipment, they rapidly make themselves familiar with the premises, scrupulously making an inventory of the means available to them, which boiled down to some makeshift runway lighting, a broken ILS, a radio console and its movement log, as well as the presence of a team of fire-fighters. Furthermore, nightfall did not help orientation, and information on the airport's location in relation to the different Abidjan neighbourhoods would have been necessary.

The report is then made to LCL GEBLE, head of the DETALAT and PC-IAT co-ordinator.

Our controllers are now able to initiate their new mission which consists in overseeing the arrival of the ATTs, and thus, the reinforcements required.

Initially shocked by the control tower operation, the Ivorian air traffic controller accepts to enter into dialogue and provides the DETALAT controller with a quick overview and some explanations relating to the aeronautical environment, as a relationship of trust sets in.

At 01:00, the first ATT arrives with the legionnaires who then take over securing the tower and complete the overall security operation.

Throughout the night, MCH CARRARA and THEIL enable seven other ATTs to land in all safety, extracting the nationals towards LOMÉ in TOGO at a steady rhythm.

In the end, two hours' break in the timing of planes arriving gives personnel the chance to rest and refuel.

At daybreak, frightened by news on a local television channel, the Ivorian controller expresses the wish to reassure her family. She returns later.

Throughout the morning, the mission linked to air circulation develops to mainly receive MI-17 and MI-24 type ONUCI aircraft, while ensuring continuity in extracting the nationals with DETALAT helicopters.

Poor knowledge of the various pick-up areas does not help managing traffic.

As the flow of traffic becomes smoother, our NCOs set to preparing instruction for a group of Air Force air traffic controllers, initially on alert from Metropolitan France.

A final difficulty linked to transmission systems incurs a communication problem with the PC-IAT, which prevents the transmission for the arrival of the last C-130.

At 16:30, fifteen Air Force air traffic controllers arrive at the tower to relieve DETALAT personnel. Thanks to the 1st RHC NCOs' preliminary work, the relief team is in place and operational quickly. MCH THEIL and CARRARA then return to the PORT-BOUET camp having carried out a 17 hour non-stop mission.

This exceptional experience, unique in its nature, provides another perspective on the job of air traffic controllers within the Army. Indeed, taking part in an operation in a foreign international airport, working with limited means, in an air space and "area of responsibility" for which one has only theoretical knowledge, and all on practically no notice, for seventeen consecutive hours, is a highly uncommon experience. It shows that the capacity to adapt kicks in naturally, and that the pressure is not so high when you're working with people who have done exceptional work too, with remarkable rigour and professionalism.

All the areas have been completed and everyone has played their part, providing support from the start of operations in Ivory Coast to the arrival of nationals at the camp. Indeed, the escort and the security put in place for the air traffic controllers perfectly demonstrates the interdependent nature of our specialists, without which the mission could not be completed.

MCH (F) CARRARA

GAZELLES ABOVE THE STREETS AT NIGHT

Abidjan, 30 March 2011. Faced with the violence carried out on civilians, and the refusal of L. Gbagbo to accept a political solution, the UN passed resolution 1975 to put an end to the situation.

UNOCI, whose patrol already contained two Mi-35, requested the Licorne task force to provide support for the destruction of certain targets in Abidjan. This mission was entrusted to the Gazelle modules (two cannon Gazelles and two Viviane Gazelles), as well as the Army Air Corp Detachment's (Det ALAT) Puma Pirate.

The first of its kind, this difficult mission, undertaken mainly at night over a dense urban area and always over Gbagbo's forces, has been a success. Apart from the undeniable protection of Sainte Clotilde, the patron saint of ALAT, this success is due mainly to the crews' preparation and the *modus operandi* followed.

Meticulous preparation for crews

The crews prepared the various missions during a potential target study phase carried out before the first strikes. Taking into account the development of the situation, the results expected ranged from psychological effects to destruction. The crews prepared reports providing the precise details of target coordinates, its altitude, its characteristics, the respective Observation Position, and Firing Position coordinates for each craft as well as their angles of attack, firing height, regroup mode, ammunition required, etc.

In the same way, crews meticulously prepared reference documents, in particular mapping the area. This is particularly useful for strikes, and was done following the ATP 49 (1) method which perfectly suited the crews' needs. It was even necessary to systematically extend this mapping exercise to a more extended area (around two kilometres) than that of the target in order to respond to other ongoing missions.

It transpired from these different exercises upstream of the missions that it is vital to have access to an information cell to exploit and pass information up and down the line of command, to prepare the mission, edit the material and assess the videos after missions. This contributes to lightening the load for crews completely consumed by their missions.

Psychologically, the progressive development of the crisis was a crucial factor. Indeed, it enabled teams to carry out missions on a gradual scale of intensity and complexity, and thus to prepare for more brutal combat.

As for technical preparation, the previous weeks' training covered operations in urban areas.

An original *modus operandi*

The actions carried out once again demonstrated the success of mixed modules in this type of operation in urban areas. Indeed, combining Viviane Gazelles and cannon Gazelles meant adding the former's strengths (thermal vision, precision, ability to destroy armoured vehicles) to the latter's ability to respond immediately in a saturated area.

The Vivianes systematically flew under the protection of "cannon" teams flying in race-track pattern to cover and support the Vivianes in destroy or reconnaissance missions.

This action also revealed the necessity of having several transport craft. In this type of action (multi-target, known and omni-directional air/surface danger, permanent presence above the enemy) it is not possible, as it has sometimes been suggested, for a Tigre to replace two Gazelles. Not only is the Tigre not endowed with ubiquity, but one crew cannot take on the load of two. Indeed, the environment requires such an overload of work that it is not reasonable to give both a destroy and a protect mission to the same crew. Having four transport craft therefore ensured massive and brutal strikes, and the ability to respond and provide immediate protection to the module for the duration of actions, and for the teams to devote themselves to a single, precise task (destroy or protect).

(1) Use of helicopters in land operations

Putting together a four Gazelle module was also motivated by the aim to preserve the initiative of crews in action by providing continuous fire. A helicopter taking evasive action loses initiative and has to then regain its manoeuvre space. Having four vectors guarantees continuous destroy fire, and continuous cover and response fire, even if one or two craft come under attack and take evasive action. The module preserves the initiative, unlike a two helicopter patrol.

In the same way, such a module preserves a psychological advantage throughout the action. Indeed cannon Gazelles' brutal and unremitting harassment preserves the initiative and sets in place a relationship of power. While initial actions were carried out under particularly sustained fire, subsequent actions saw a decrease in anti-aircraft fire, which ended in being only occasional at the end of the operation.

When entering the area, the two Vivianes systematically took the lead, so as to acquire a visual on targets as soon as possible, followed by the cannons in their standby race-track pattern. The module leader's winger systematically preceded them, relieving the module leader of navigational duties as well as of preparing cannon fire on patrol. They could thus concentrate on managing missions and manoeuvring the module.

During the target study phase, on top of the chosen *modus operandi*, crews studied the way in which to best use their respective weapons systems, adapting to the specificities of the area of action: a high density urban area. It was important to be able to reach targets which might be close to walls or hidden by obstacles while avoiding all collateral damage. It was therefore necessary to shoot from a great height to overcome low obstacles for Hot shots and for fire to be as vertical as possible for cannons. This vertical fire avoids shells scattering as much as possible and ensures the greatest firing precision.

Consecutive fire of Hots was preferable to simultaneous fire. This process forces teams to exercise an intellectual discipline which was vital in an already advanced state of fatigue, but represents a remedy to possible missile malfunctions to guarantee the destruction of a priority target.

For the cannons, shots were fired from a great height. Cannons were most often fired in patrol, and successively. After the rounds were fired, it was practically impossible to know what the result was without Viviane observation. The cannon crews fell victim to "target fascination", particularly during the first engagement, when all their shells were used up in the very first rounds of fire. But very quickly crews learnt to manage their shooting and the flight commander, while guiding their pilot, controlled the consumption of shells and observed the target surroundings.

Indeed, throughout this operation, crews were engaged in intense and particularly stressful combat phases. The longest combat phase, in the night from the 10 to 11 April, lasted 11 hours.

Gradually, reflexes become less sharp and attention wanes. It is vital to anticipate sleep deprivation which will be felt in the first missions by adapting the pace of work.

CNE VERBRACKEL

Gazelle module leader

THE PUMA PIRATE IN ACTION

Let us set the scene

After losing the election in November 2010, Mr. Laurent Gbagbo hung onto power in the Ivory Coast.

After several months of status quo, the situation in Abidjan deteriorated at the end of March.

Thrown into panic by the fighting, Ivorian citizens, and expatriates of all nationalities demand UNOCI and French Forces protection (which received around 5,000 of them at the camp). Then, on 4 April, to put an end to the use of heavy weapons against the population, and following a UN resolution, France put its forces into action, to support UN forces (which included 2 Ukrainian MI24 attack helicopters, the first to engage in combat), at the UN's request. The DETALAT provided two mixed Viviane and cannon Gazelle patrols (4 aircraft), 6 Pumas, and one Puma Pirate (mounted with a 20mm cannon on the side). All of this was later reinforced by a 3 Cougar patrol.

The action took place between 4 and 11 April 2011, supporting UNOCI in its extraction missions, as well as saving the Japanese Ambassador.

On 11April 2011, around 1 pm, the new forces arrested Mr. Laurent Gbagbo.

The missions

There were two types of cannon Puma mission: destroy missions aimed at targets determined in advance or in the moment (light vehicles, heavy weaponry positions, buildings) and escort and support missions (only undertaken on the last morning).

Mission preparation

The key point was to be able to rapidly locate a target in the city, without losing time searching for it, know its appearance, its tactical aspects, and to have studied the different angles of attack prior to the operation. We therefore spent long hours studying aerial photographs and made some reconnaissance flights. That was for the upstream work.

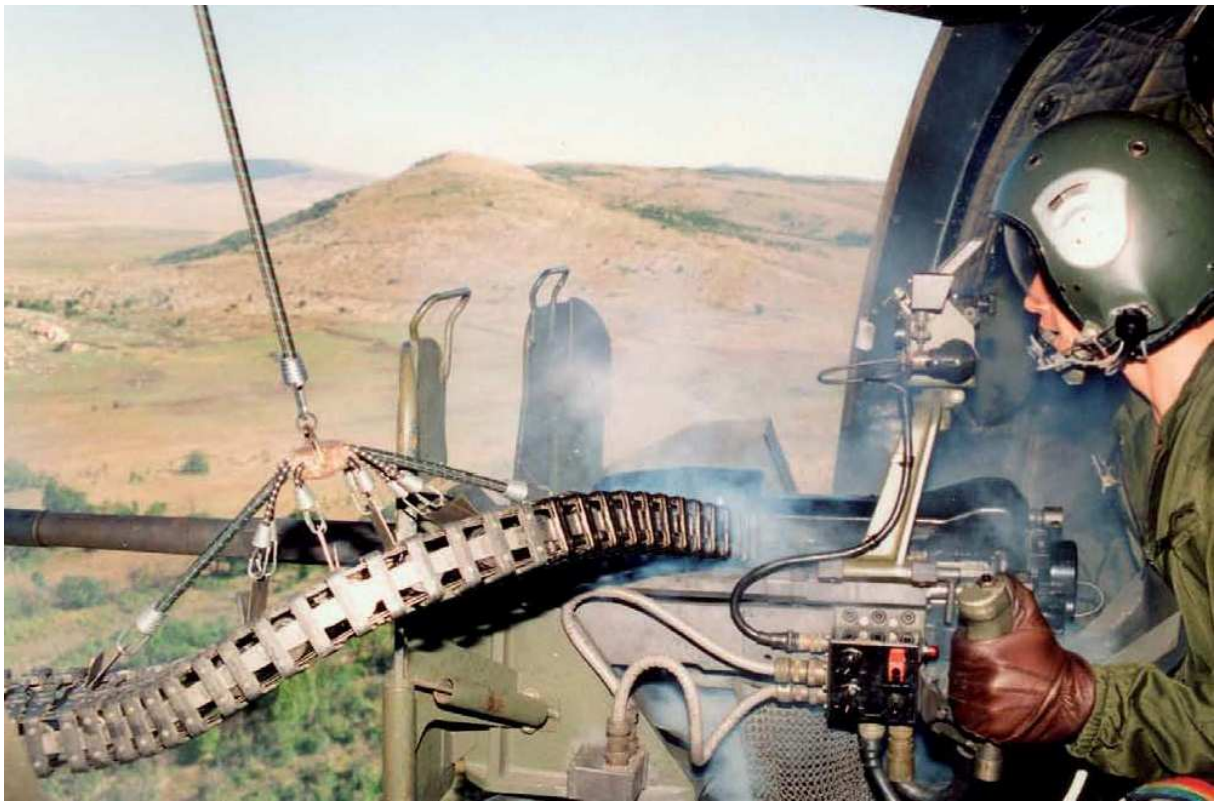
Once engaged, the roles are the following at the time the mission is assigned: the CB (Flight Commander) receives the mission from the PC. The rest of the crew is by the craft in the landing area reconfiguring it or resting. Once the elements have been delivered, a briefing with the shooter and the rest of the crew takes place. We thus see the importance of preparation upstream and the involvement of the entire crew so that, when the moment arrives, it is only necessary to issue a single reminder about a target which is automatically known.

Executing missions

The aim of this paragraph is not to provide a chronological account of the various targets struck, but more a summary of how they were approached. The few points which it seems necessary to deal with are the following: the roles assigned in helicopters, managing air space, the choice of the type of shot, and finally, managing fatigue.

With regards to roles assigned in aircraft, this is done according to the design of the Pirate Puma itself.

Because the cannon is mounted on the right side, contrary to all other ALAT crews, the flight commander is on the right, and the pilot on the left. This configuration requires a careful choice of pilot, who must be experienced enough to fly the craft on the left. As for the rest, it seemed necessary to me to provide a systematic reminder before each flight, within the framework of the briefing, the point of which was to concentrate each crew member on their task. This is an essential element which avoids confusion during high stress episodes such as coming under attack (which, obviously, did not fail to occur). Finally, I imposed a strict discipline in communications between one another, as radio traffic was very heavy, a discipline which I imposed upon myself in strictly respecting phrasing and the framework for giving firing orders.



In general, strike actions were carried out using 5 craft: 2 Viviane Gazelles, 2 cannon Gazelles, and the Pirate HM which, given the unexpected nature of missions, their overlaps, the continuity of action, the reduced size of the area, led us to opt for an “ongoing” management of the air space. The information on the geographic position of the team was communicated to the pilot, on an internal frequency, once again highlighting the crucial character of upstream preparation and perfect knowledge of the area by all crew members. As such, the traffic was very heavy, and crashes were avoided through regularly providing positions in relation to main landmarks which everyone knew (buildings, etc.) and thanks to arranging craft at different altitudes chosen in the moment.

I insist on this type of management, which provides us with considerably greater mobility, and great flexibility of movement, made possible by the relatively small number of craft engaged at once.

With it possible to count the crews actually engaged on Pirate HM, and thus RETEX, on one hand, it is difficult, first to know the actual efficiency of types of shot, and also, to choose what, out of the shots taught, are the best adapted. The Ivorian theatre is a theatre with multiple, spread out threats. I now consider that in this type of situation, only a “dolphin dive” (1) type shot is efficient protection from threats. Indeed, we often came under fire from all sides, and orbital fire would have exposed us far too much. I also specify the need for VOLTACT (tactical flight) in presentations so as to make the most of the element of surprise. And I add that, flying over a known area to prepare for shooting, we used night-time VOLTAC.

Finally: the problem of the rate of missions and ensuing fatigue. To our great surprise, after briefing, we discovered that the entire crew had held up well through the three sleepless nights, two of which were consecutive.

With the help of stress, the need for sleep is not necessarily felt. These observations, however should be put into perspective, as operations only lasted a few days, clearly a bearable length. The question of replacing the Pirate Puma crew did not come up. In the end, we did not make any changes, as we observed that, for a short period of engagement like the one we experienced, it was preferable to keep a familiar crew, even one which was a little tired.

This operation fully validates Pirate HM involvement in this type of situation. The meticulous preparation of actions explains, in part, the operation's success, even if luck was a non-negligible factor. Thus from the first operation, the craft was hit by direct fire from a light infantry weapon which affected the rear transmission. The remarkable response from engineers, linked to their excellent capacity to adapt, meant that re-engaging in combat was possible less than two hours later.

CNE BRIMAUD

Pirate Puma Flight Commander, 1st RHC

(1) A manoeuvre consisting in appearing at the last moment, taking height, and then “re-diving” to fire, with the element of surprise

EXTRACTING FOREIGN NATIONALS

At the end of March, the rise in violence and insecurity in the Republic of Ivory Coast(RCI), following the presidential election at the end of 2010, drove many French and foreign nationals to contact their respective embassies to request being given protection. Given the number of foreign nationals to evacuate, and especially the difficulty for the VABs to access certain areas, it was decided that HMAs (Manoeuvre and Assault Helicopters) would carry out this mission.

These operations were successful thanks to an organisation that has been well tested over several years presence in RCI, reinforced by meticulous preparation of missions, perfect coordination, and a great ability to react with solutions, despite a few material constraints.

The detachment, which arrived in RCI in February, had two months to train, perfect its knowledge of the town of Abidjan, and especially, to closely follow the development of the security situation in the country, before missions were initiated. The nine years of Licorne force presence in RCI has built up a large number of documents and maps. The crews were able to rely on the work of the many detachments before them. The challenge consisted in digesting this work so as to put it to the most efficient use possible. With the main elements in place, the detachment thus adapted the maps and documents to suit the situation as best as possible. Sources of information were numerous (FENNEC, human informants, photos) provided exhaustive information for all the crews in daily RENS briefings.

When it became necessary to provide security for French and foreign nationals, all the crews had expert knowledge of the geography of the area, but also the security situation. This ensured crews remained composed in action. But another element played a crucial role.

From the moment they arrived in the country, crews were formed and remained identical until the last day of presence in the Ivory Coast. This element may seem insignificant. However, it guaranteed great capacity for reaction and greater efficiency in action, with mutual knowledge and trust making certain actions automatic.

Intervening in an urban area to extract civilians represented a real challenge: locating them, determining the security situation as well as identifying the people to extract... Missions were carried out by day and by night, depending on how urgent the situation was. Preparations therefore had to be as meticulous as possible, while being short enough to secure targets rapidly.

Every time the situation allowed it, a mixed patrol flew in front of the HMA(s). The VIVIANE's mission was to locate and secure the area, with the cannon Gazelle at the ready in the event of hostile fire.

This configuration is to be preferred for this type of action. It provides great reversibility of the craft in action and the best possible security conditions for all during the mission. Then, given the increase in the number of people to extract, patrols were reduced to 2 HMAs providing mutual support, or even 1 aircraft for certain missions.

Locating foreign nationals turned out to be very sensitive. Apart from having to locate them on a map of the city of ABIDJAN, they then had to be found in the middle of the city. In the great majority of cases, there was a considerable gap (around 500m) between the position on the map and the actual position in the city. This corresponds to so many minutes' flying at low altitude and low speed looking for a waving flag. Commandos abseiled down in most cases. This presented the advantage of dropping them off close to the foreign nationals and avoided commandos having to progress in an urban environment. The radio network also provided information updates and continued guidance close to the target.

The pick-up phase was the most difficult. Indeed, landing in the city exposes crews to a number of traps: electric cables, dust, all sorts of objects just waiting to fly away at the slightest gust, but especially the presence of the population! As soon as the HMAs landed, they were surrounded by the crowd in under a minute. We needed to assess our load capacity at all times and, if needs be, leave a few bags behind to take off vertically from certain areas.

Even if all the operations met with success, thanks in large part to meticulous preparation and perfect execution, the role of luck should not be downplayed. The situation could have shifted at any moment.

That is why it is vital to remain humble and continue to develop tactics and equipment to make us even more efficient. The crews' ability to react in the moment must be developed, to successfully complete missions even when the situation is different to the one described in briefing. The crews' training prepares them perfectly for the requirements of actual combat, and realistic training remains, more than ever, the key to success.

Captain MARET

1st RHC

ABIDJAN: ALAT'S MAINTENANCE BATTLE

The PRA (Aircraft repair platoon), deployed in Abidjan within DétALAT from 5 February to 21 June 2011, was charged with supporting the helicopter fleet made up of Pumas and Gazelles (Viviane SA 342 and Cannon SA 341). While the work rate had to be adapted at the start of the tour to respond to the mechanical requirements of a demanding fleet, but also to restrictive conditions, the PRA made it possible for DétALAT to fulfil all its operational missions according to one principle: availability.

Consisting of 26 military personnel and technicians (including 4 EALAT DAX engineers), the PRA worked every day, and sometimes at night to keep the DétALAT aircraft in the air. It should be recognised that, throughout the stay, the task was not simple, as our old PUMAS are tired felines which know Africa well, but find it increasingly hard to compete with slightly more alert Gazelles. Thus, the rates of availability were 82% for Pumas, and 90% for Gazelles.

For eight engineers, the stay lasted until 3 July as DétALAT had to take five aircraft out of action (3 Pumas and 2 Gazelles). These craft were put onboard the civilian freight ship ECLIPSE.

Logistical support: the main DTO actor.

Nothing generates solutions like external operations! All remedies against unavailability are gathered in the same place to ensure craft remain available. Finding logistical support to provide spare parts at the right time and the right place is a permanent challenge for logistics personnel. Directly responsible for providing spare parts, DétALAT maintenance, while the theatre was a priority and in spite of certain limitations encountered, temporarily in re-supplying forces, did not have to suffer waiting for parts. Indeed, a control panel and a complete Viviane weapons system were delivered within 72 hours.

Damage sustained in combat, operations like any other.

During the different stages of DétALAT engagement, all aircraft came under hostile fire. Two Pumas returned from the Port-Bouët camp having been hit by light artillery fire.

On 4 April, at 18:45 the Pirate Puma was admitted to the PRA following an impact which perforated the tail section and the rear transmission. Works on the structure were carried out at an NVO (operational support level) and replacing the transmission part is a familiar technical operation. The aircraft, the only cannon HMA in the detachment, was made available at 20:15, and sent back into battle.

The number of personnel on duty and the team leader's qualifications and experience meant the works were carried out smoothly and fast, while respecting procedures, much to the benefit of operational engagement.

At 02:00, in the night from 8 to 9 April, a second PUMA was hit. Significant damage was sustained, and reparations only started at 9 in the morning. The six impacts sustained required replacing the MRP (Main Rotor Hub), an EAP (Versatile air input) module, a main blade and an engine, as well as many structural repairs on an NSO level.

After, six days of unavailability, the craft was returned to flight.

Operational implementation, or the need to last.

Even if, at the start of the operations, the word of the hour was "we must last", it must be recognised that, in high intensity combat situations, increasingly by night and in unfavourable weather conditions, the MEO (implementation personnel) are put to the test. Indeed, to respond to MEO requirements, the "pistards" (personnel working in the landing area) had to be reinforced to staff the FARP (forward ammunition and refuelling point) set up near the aircraft landing area. Thus, in the night from 4 to 5 April, aircraft and crew were engaged in operations for over seven hours, while from 10 to 11 April, the operation lasted 11 hours, nine of which were at night.

Without a doubt, the PRA and MEO personnel action, throughout the entire stay and particularly during operations, made it possible for DétALAT to complete all its missions. Each engineer gained new and unusual experience, each engineer executed their duties as a soldier during the maintenance battle from 5 February to 21 June 2011 and confirmed, once again, the reality and the relevance of the ALAT saying: "a craft, a crew, an engineer".

CNE Charles PAYEN – 1st RHC/BHRA

DETALAT Mandate VIII,
IVORY COAST June-November 2011, A Return To Calm

Deployed on 21 June 2011 within the Licorne Operation, DETALAT mandate VIII armed with the 5th RHC, relieved the crews which participated directly in the difficult operations in April 2011. Initiated in the middle of the stabilization phase, our mandate has seen ALAT's position and format develop in the same way as the rest of the forces on the ground, aimed at withdrawing our forces at the end of our mission.

Reducing DETALAT forces has led to significant changes in our organisation and our structure which must also be viewed within the context of the major developments in the Licorne Force. Implementing a new OPO marked a turning point, committing French forces to the post-crisis period to support normalisation, and thus modifying our missions. Finally, we noted that operations undertaken by our predecessors had done our Army proud, as much within the Licorne Force as in relationship to the local population and the French expatriate population.

Mandate VIII has been marked by a progressive withdrawal of material, leading to total withdrawal, at the end of November, via freight ship. With 40 personnel relieving the 80 1st RHC soldiers, our detachment had to rapidly implement new ways of working. With everyone generally combining several functions, our first task was to re-organise infrastructure to adapt it to our needs and capacity. A centralization of detachment operations on a PC level established a short circuit internal chain of command.

In parallel to our changes, the Licorne Force structure has been significantly modified. On 9 July 2011, the PCIAT was thus dissolved, for its responsibilities to be taken over the BATLIC (3) CO (4). The detachment then became part of the battalion OPCON (5) and becoming fully functioning part of it. Integration within BATLIC, armed with the 2nd foreign infantry regiment, happened naturally. Considered from the start as an elementary unit as and of itself, the detachment joined a combined forces structure with much experience and many skills. This integration was also an opportunity for all personnel to discover the foreign legion's esprit de corps and particularly the 2nd REI traditions.

With Mandate 26 relief and the arrival of the 4th Alpine Regiment, we continued our mission with mountain troops. Even though we had already initiated withdrawal procedures, we were still able to carry out the main reconnaissance missions in the theatre for them, before putting an end to our operational activities. The immediate integration of blue berets amongst the alpine guard meant we could carry out our new mission with increased support.

These developments in format and structure also changed the nature of our mission throughout our mandate. With a two GAZELLE mixed patrol available until the beginning of August, the detachment completed its mandate with two PUMA helicopters. The main mission remained medical evacuations for the Force. Training and communication missions for BATLIC and the entire Force continued, while taking into account news linked to the development of the general situation.

Thus, in an attempt to make up for the lack of observation material and information following the departure of the VIVIANE, we tested, with the 1st Foreign Cavalry Regiment Platoon PEI(6), the use of a vehicle equipped with SOPHIE thermal cameras. Thanks to this means of observation we have a complementary method of identification to our NVG.

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(1) Operations Order
(2) Combined Forces Command Post for the Theatre
(3) Operation Centre
(4) Licorne Battalion
(5) Operational Control
(6) Forward investigation Platoon

The various contacts made during our presence, demonstrated that ALAT action during the events profoundly marked minds.

Awarding the Legion of Honour to Captain VERBRACKEL of the 1st RHC during the 18 June commemoration ceremony bore witness to the importance and recognition of air-mobile action during the events. ALAT action was regularly and unanimously saluted in official speeches by the French authorities in June and July.

During the DETALAT dissolution ceremony which took place on 1 November on the Port-Bouët camp, Colonel JAUNIN, COMANFOR for Licorne Forces, thus paid homage to all the blue berets who have passed through RCI since October 2002, in his order of the day.

During the 14 of July ceremonies, it was also the expatriates who approached us directly to thank us for our work, all of them having had contact, close or remote, with the Licorne combat helicopters last April.

The Ivorian population has not forgotten our colleagues' actions either, as we have heard on patrols in which we take part within the 1st REC squadron. During the stopover in the Marine Nationale La Marne building, the under-secretary for defence, Mr. KOFFI KOFFI thanked us warmly for our work. At a time when the Ivory Coast is on its way to normalization, the last “BUFFALOs" left the frequency on 3 November to return to France and their regiments. Mandate VIII completed a mission which may have been far from the explosive action of the past few months, but was nevertheless rich and interesting, and resolutely placed under the banner of change. After a flight over the areas with particular significance for ALAT, and having paid our respects to our colleagues who were injured or lost in this African theatre, it was with great emotion that we turned this page in the great book of the history of our Army.

Captain Pierre-Antoine DOUAY

head of DETALAT Mandate VIII

LIBYA

The Story of the HSG(1)'s part in the United Protector Operation Air Campaign

Take part in the air campaign as an HSG liaison officer near the JFACC(2) in POGGIO RENATICO in Italy provides an original focus in grasping all the challenges of the Harmattan operation.

The Harmatan operation was the opportunity for French armed forces to again to prove their ability to act in unison in a multinational coalition. The overall coherence and the complementarity of the three forces enabled France to assert its rhythm and priorities in the running of operations

The role of ground forces in this essentially air and sea operation, given the restrictions of the UN mandate 1973, merits particular intention in order to be fully appreciated. Indeed, there was no LCC (3) in OUP but a new political, strategic and tactical position for the COMHSG(4) whose tactical success depended precisely on inter-force and inter-ally acceptance of its methods of action.

The first spotlight will be on the understanding of the political and military environment and the tactical pounding of the air campaign carried out against a background of great political and military expectation by the French and British HSGs.

To analyse any military campaign rationally, we should understand the chains of command. Harmattan, an extremely complex operation, even requires meticulous dissection that will be the subject of a second spotlight.

Attention will focus finally on the integration of the action of the air and land component in OUP that was certainly proportionally smaller but tactically fundamental as it was unique. It met a real human and technological challenge.

The political and military environment and the tactical pounding of the air campaign.

Immediately after the Paris summit on Libya on Saturday 19th March 2011, on the orders of the President of the Republic, the Chef d'État-Major des Armées *Chief of the General Staff* (CEMA) launched Operation Harmattan, the name of the French participation in the international air and sea military campaign to protect the Libyan population from attacks by the forces of Colonel Gaddafi.

Until 31 March, when theatre command was transferred to NATO as part of the OUP, the coalition was coordinated by the US and each military resource was commanded by its national command structures.

In France, the *Centre de Planification et de Conduite des Opérations* Planning and Operations Centre (CPCO), under the authority of the CEMA commanded resources.

SUMMARY

Air combat component in an air campaign

Implementation of Harmattan

At the centre of manœuvres

Testimonials

PUMA IMEX

Utility and attack helicopters

TIGRE's first outing

Coordination

Operational logistics

Tactical lessons

General Bouchard's letter

(1) Helicopter Strike Group - HSG.
(2) Joint Force Air Component Command - JFACC (NATO's command and control structure).
(3) Land Component Command - LCC.
(4) Colonel grade HSG Commander - COMHSG.

From then, the USAF(5) concentrated on logistics support, particularly refuelling, for operations.

The aim of this military campaign was to apply a United Nations Security Council (6) resolution 1973 and to impose the NFZ(7) to prevent Libyan aircraft from bombarding the population and protect Libyans from attacks from forces loyal to Colonel Gaddafi.

To reach these objectives, the coalition resources, particularly air resources, carried out air interdiction missions and had to reduce particularly ground to air defence capabilities and strike military objectives that may threaten the Libyan population.

French armed forces engaged in the coalition provided capacities that enabled it to carry out maritime surveillance, detection, air control, reconnaissance, air strikes and refuelling missions.

An air and sea force - Combined Task Force (CTF) 473 - ensured that French air and sea resources were used coherently. The ships that comprised it constantly relieved each other at sea in order to protect the aircraft carriers. They supported OUP by contributing to air interdiction missions aimed at setting up an air exclusion zone and sea control particularly to impose the arms embargo and protect the Libyan population by neutralising the military objectives that threatened it.

Mid-May, as they had not been able to take the town of Benghazi, pro-Gaddafi forces adapted their systems to protect themselves from air strikes. To create a tactical diversion, France and the United Kingdom decided to send attack helicopters off the Libyan coast.

Little by little, mutual scepticism over each other's ability to meet the operational and political requirements of the UN mandate gave way to trust legitimately gained then to respect certainly; acts of bravery by the crews involved but also by “support” functions that were less exposed but just as involved.

Integration of the action of the air combat component in OUP

The arrival of the French HSG on the Projection and Command Vessel (BPC) TONNERRE off the Libyan coast was certainly the major event of the end of May 2011 for the POGGIO RENATICO CAOC(8) 5 that welcomed and supported the JFACC.

Entirely dedicated to air operations, this headquarters of more than 300 NATO aircraftmen work normally in an entirely controlled process. The integration of the attack helicopters required a period of adaptation.

An intense phase of explanations at all hierarchical levels (visit of the HSG chief to Naples to POGGIO RENATICO, introduction of liaison officers to all air, sea and NATO command bodies) was undertaken for faster integration. Doing this, the first HSG strikes were explained, studied, planned, ordered then carried out.

The realisation that there was a need for convergence to move on and build coherently

The effectiveness of air combat actions was meticulously dissected in the light of a recurrent idea: is the result worth the risk? At first, the absence of a battle damage assessment (BDA) caused some doubt but quickly the reliability of the HSG missions, the absence of losses that was surprising for some and the reporting of the first tactical results confirmed the credibility of the "French Helos". With each strike came trust, then respect, of which there will no longer be a lack. Once the observation phase was over, procedures were homogenised according to NATO rhythms.

(5) US Air Force - USAF.
(6) Note supprimée car traduction française d'un terme anglais.
(7) No Fly Zone.
(8) Combined Air Operation Centre - CAOC.

Normalisation towards the search for synergies

An actual operational laboratory, OUP was an opportunity to deploy a vast range of new technologies and see systems cohabiting whose age difference public morals would disapprove of! Little by little, the HSG's actions purely and simply dissolved into the ATO(9). The ultimate phase, for reasons of discretion, was in the end only known to a handful of "happy few".

Operations in Libya, like those in Iraq and Afghanistan, showed the extraordinary complexity of modern conflict. Only a "global approach" helped define the outline of the conflicts, win militarily and ensure a future for the destabilised zone. On a smaller, tactical level, the task to ensure overall coherence is already gigantic. Harmattan was an undoubted military success for French forces that proved their complementarity and effectiveness.

A real technical and operational laboratory, this extraordinary deployment of resources must be rapidly exploited, from a doctrinal and capacity point of view, by the Armed Forces at the risk of having to reinvent what has already been toughly tested during action.

LCL Thierry LETELLIER
COMALAT/BEP/Section doctrine-RETEX

(9) Air Task Order - ATO.

THE COMMAND AND IMPLEMENTATION POST IN OPERATION HARMATTAN

17 March and 17 May 2011, two dates forever written in the history of air mobility.

17 March 2011, the United Nations Security Council adopted resolution 1973 authorising air strikes to protect the Libyan people. Operation Harmattan started the following weekend.

Two months later, on 17 May, the BPC TONNERRE left Toulon for Libya with an air mobile tactical group on board with 18 aircraft and a dedicated command post.

2011 was marked by the build-up and certification of the command and implementation post (PCMO) of the CFT Air Mobility Division. This meant testing the capacity of the new structure to be integrated into the level 1 or 2 command structure. Without this calling into question the initially defined methods of certification, Operation Harmattan helped constitute a command post that was suited to using an air mobile component for power projection.

The Harmattan air mobile component

Called Helicopter Strike Group (HSG), Harmattan's air mobile tactical component was based around a command and implementation post (PCMO) and an air mobile subgroup (S/ GAM).

The PCMO was constituted from a key core belonging to the air mobile division (DIV AERO) of the Land Forces Command strengthened by inter-force personnel. For Harmattan, it became an inter-force command post responsible for planning, conceiving, coordinating and running combat actions decided on by the air sea Task Force responsible for all operations in the Libyan Theatre, the TF 473.

Called Helicopter Strike Squadron (HSSq), the mobile group was built around a core from the 5th Combat Helicopter Regiment (RHC) then the 3rd RHC and finally the 1st.

From a certification point of view, an air mobile component had been envisaged under national or multinational command as an element subordinate to a division or directly commanded by the component (Land Component Command-LCC). The hypothesis of a positioning as tactical level directly attached to the operating level was only hinted at. It is however in this specific framework that the hierarchical attachment of the HSG to the TF 473 was operated and the PCMO showed all its added value.

General organisation of command

In compliance with directives describing the integration and use of the Air Mobile Group within Operation Unified Protector (OUP), the operation control of the HSG (OPCON) was allocated to the SACEUR at the beginning of the campaign. OPCON was then delegated to the OUP Com CJTF (Combined Joint Task Force) and tactical command (TACOM) was given to COM TF 473.

In the operational phase, TACOM for helicopters engaged in each mission was transferred to the COM JFACC. TACON, normally allocated to the CAOC (Coordination Air Operation Centre), was delegated to be Air Mission Commander (AMC).

But in fact, OPCON was delegated to the CTF 473. TACOM was exercised directly by the HSG. TACON was provided by the BPC escort vessel under delegation from the CAOC.

Initially, planning for air mobile actions was given to a binational structure located at the Poggio-Renatico CAOC 5 in Italy. In addition to this planning work, the FR-UK (Combined Helicopter Planning Group, CHPG) planning group was to coordinate British and French HSG actions with the CAOC and CJTF. The CHPG's existence was in the end short lived. In an extremely "air" oriented logic, the HSG UK chose very early to allocate all its commitments just to CAOC 5.

In this complex inter-ally and inter-force environment, the HSG, a tactical level with no LCC, was in direct contact with the operational level; its interlocutors were indeed the TF 473, the CAOC, the CJTF and the British HSG.

The HSG's role

What was the HSG's role? Was it an amphibious operation or a projection of power operation? If we are asking the question, it is because it concerns a major political and operational characteristic, the ground footprint.

At this stage, we do not need to find a definitive response to a complex question but rather clarify two key notions in the coastal operations.

Certainly, the definition of amphibious operation does not call to mind the notion of ground footprint. Operation Harmattan nevertheless showed that the concept inevitably involves the idea of landing ground troops. In May, the announcement of the arrival of a French Combined Amphibious Task Group (CATG) in the area raised questions in the media.

The concept of power projection sheds a different light on the actions carried out from the sea. This is different particularly from amphibious operations with the notion of ground footprint as it translates as the aptitude to make a direct and significant contribution to military operations carried out on the ground without wanting to install forces.

In the current state of thought, it is possible to say that operation Harmattan confirmed that the HSG was a tool particularly adapted to running operations from the sea.

Fundamental aspects of the PCMO command system

As part of operation Harmattan, support for the HST command system was provided by a PCMO operating at extended borders. It grouped together units necessary for planning, coordinating and running air combat operations.

The command system rested on the following functions:

With its G2 and its G35, the PCMO had the resources to design a coherent air combat manoeuvre based on a fine tactical analysis of the enemy situation with a view to obtaining a tactical effect on the ground. With personnel from the three forces, the PCMO was addition able to plan the use of inter-force support and assistance.

(9) Air Task Order - ATO.

The COM HSG finally had four liaison detachments, deployed respectively with:

- the OUP COM CJTF in NAPLES
- the COM CAOC 5 in POGGIO RENATICO
- the COM TF 473 in the JOA on board the aircraft carrier Charles-de-Gaulle
- and the COM TG COUGAR (UK) in the JOA (DL located successively on board HMS ALBION then HMS OCEAN).

In organisations with a strong "Air" culture, these liaison officers played an essential educational role by advising their welcoming organisation in the specific features of air combat.

The temptation of targeting

The second characteristic of the HSG's action concerns the "Air" dimension of the NATO Unified Protector operation. This was indeed above all an air campaign whose operational coordination and employment rules could considerably limit the effectiveness of the air combat manoeuvre.

From the point of coordination, the air mobile component integrated without difficulty into the 3-D system particularly respecting the identification criteria set out by NATO. In terms of personal employment, the air campaign also translated into the application of a targeting plan. Whether it was Dynamic Targeting or Deliberate Targeting, this process was a perfect response to the requirements of the Air Force. However, this was less suitable for a helicopter component as it involved neutralising forces whose positions could not be formally identified by air vectors.

Faced with an opponent experienced in the most inventive techniques of camouflage only very low horizontal vision for crews and conventional air combat manoeuvres such as offensive reconnaissance provided the desired tactical effects(1).

Application of the order decision-making process

In this complex environment, the PCMO was an essential level of command between the TF 473 and the HSSq. It was responsible for orders given to the HSSq applying tactical thought principles described in the Operational Planning Process (OPP).

But the PCMO discharged above all its subordinates from any working relationship with the TF 473. Consequently, the HHSq was able to concentrate on preparing its mission particularly managing to organise rehearsals before any action launched in Libya.

The decision-making process was initiated by a CONOPS set up by the TF 473. Each phase of the CONOPS was then the subject of an OPO written by the HSG. To guarantee firstly the coherence of the planning work and secondly the effectiveness of internal HSG operations, air combat operations were reasoned by groups of 4 to 5 actions.

Each action was then ordered as a FRAGO, which was read and approved by the OUP CPCO and the CJTF in Naples.

To offer the HHSq optimal Mission preparation conditions, the sequential process was prioritised throughout the Harmattan mission. Within this framework, and particularly for distributing a FRAGO, the rule required the following chronology to be applied:

- 96 hours before: Orientation of the RENS sensors in compliance with the reference CONOPS CTF
- 72 hours before: Orientation/Decision by the COM HSG
- 48 hours before: The FRAGO/Mission Brief issued
- 24 hours before: Backbrief
- On the day: ATO reference strike day
  - o Preparatory Go/NoGo Brief meeting (in the morning about 10 AM or early afternoon)
  - o FRAGO NGFS received
  - o Go/NoGo Brief (late afternoon about 5 PM).

Installing the PCMO on a BPC-type vessel helped facilitate this process. Moving the EME closer to the TF 473 also increased efficiency. With a short decision-making chain, it guaranteed adaptation to any changes in the tactical situation.

Operation Harmattan was a major step in the process of building up of the Air Mobility Division command posts. Whereas the PCMO's vocation was to be part of level 1 or 2 command structures, the Libyan campaign showed the requirement for a C2 structure able to conceive and run air combat operations independently or not.

But operation Harmattan also helped open the Army Air Corps' field of air and sea actions.

Until now limited just to amphibious operations, these actions must be the subject of proper reasoning on the use of the air mobile component as part of coastal operations. This is the purpose of the RETEX process currently being run by the CFT, ALFAN and COMALAT.

LCL Stéphane LE FLOCH
CFT/DIV AERO.

(9) Rear Admiral Coindreau, commander of the TF 473, including the naval component and the French GAM explains, without ambiguity, the undoubted added value provided by the Army helicopters in the settlement of this "fully joint and combined" operation.
"After the first months of the operation, the choice of helicopters was a natural one. Faced with coalition air attacks, pro-Gaddafi forces had developed ways of remaining threatening whilst concealing their artillery capacity. At altitudes where fighter planes were flying, formal identification was difficult". "The air mobile group enabled us to present a new threat to the opponent".
"Helicopters flying at very low altitudes got better visibility on targets, complementing the action of aircraft well". He also said:
"Obliged to change their method of action, pro-Gaddafi forces were destabilised. This was decisive in changing the situation on the ground".

HARMATTAN:
HELICOPTER MANOEVRES AT THE CENTRE OF ALL MANOEVRES

May 2011: after four months of exclusively air campaigns, the French President of the Republic decided to massively engage Army Air Corps massively in Libya. In three days, the French air mobile group left discreetly on the BPC(1) Tonnerre. With 170 men and women and 18 helicopters, this powerful and independent combat unit was to carry out more than 30 raids in almost 4 months absolute darkness in the middle of enemy lines. Supported by the Navy that took part in the firing, manoeuvres and intelligence for the helicopter assaults, Army Air Corps crews won the battle.

In technical terms, precise destruction with no collateral damage caused by helicopter fire helped break the physical and psychological resistance of the pro-Gaddafi forces. In operational terms, these military results enabled the overall manoeuvre to be settled once and for all.

In strategic terms, among all the resources and processes that enabled this outcome, the engagement of the French helicopters and their combat effectiveness were decisive in the political outcome.

The logistics and technical manoeuvre of the GAM: simplicity and effectiveness

These results are due to a combination of many manoeuvres that preceded the fighting.

It is firstly the large-scale logistics manoeuvre that called on the Army and Navy at very short notice. This essential manoeuvre enabled all maintenance personnel and equipment required for this large-scale operation to be transported on the BPC in three days. The GAM had on embarkation all lots, tools and munitions necessary for the build-up to engage the Libyan coast from the sea. This initial manoeuvre was continued with a high-performance logistics flow enabling spare parts to be transported from the mainland to the BPC in record time.

From the build-up to the FOC(2), the GAM and the BPC TONNERRE developed "deck planning". Whereas the BPC only had six blocks, GAM had to be able to take off quickly with a dozen armed aircraft. When preparing combats, the EMT(3) employment officer and the BPC "AVIA" officer conceived a detailed manoeuvre of positions on blocks and movements for all aircraft on the flight deck, without forgetting those that were "spare" in the hangar(4). This manoeuvre was presented during a "specific back brief" called "deck briefing" to all maintenance teams, blade folding and munitions teams that prepared bridging before the first wave of attacks.

Once the first aircraft had taken off, a nocturnal ballet of helicopters lit up the deck to put in place a second wave of attacks on the blocks enabling it to take off. Finally, the GAM developed the take-off and landing manoeuvre on BPC in close cooperation with the AVIA offices and controlling officers. For reasons of tactical discretion, the attack waves took off with lights turned off.

(1) Command protection vessel.
(2) Full operational capability declared on 26 May 2011.
(3) Tactical headquarters.
(4) Each aircraft had a specific emissions and fuel allocation.

Finally, these preparatory manoeuvres enabled each raid to infiltrate about 10 helicopters at low levels in total darkness, in absolute radio silence to avoid interception.

These operations timed precisely to the nearest second for all combat modules started with a conventional instrument infiltration night flight phase. Once a visual on a horizontal reference had been acquired (coastline), teams flew with night goggles and started their ground combat phase. After the engagement, they had to be able to return securely and safely to the BPC with a finely calculated autonomy without using the security reserve(5) and sometimes with a mechanical fault... in an advanced state of fatigue caused by the intensity of the fighting. The precision of deck manoeuvres for taking off and landing about 10 helicopters in a few minutes, the rigour and simplicity of radar recuperation, rearming and refuelling procedures required advanced coordination work between the BPC and the GAM. This cumulation of details suffered no "good enough" and enabled the inevitable and many non-compliant situations that the GAM had to confront during these campaigns to be covered.

Tactical helicopter manoeuvres: simplicity and cost effectiveness

Faced with repeated attacks from French helicopters engaged at a level of cooperation yet to be achieved with the Navy (that supported with firepower and adapted its manoeuvre to that of the GAM and its tactical objectives(6)), the enemy reacted very strongly and showed that its military potential, its ability to react, adapt and above all that its morale was far from being affected. The GAM had therefore to manoeuvre to find the enemy, get it to react and seize the opportunities to destroy it.

Indeed, the success of the GAM off the Libyan coast rested on very precise control of tactical manoeuvres. After receiving the mission from the ALAT (PCMO) command post, the manoeuvre was elaborated in the EMT(7) with combat squadron unit commanders.

This started therefore with a study of the enemy and effects to obtain that helped determine the idea of the manoeuvre. Quite conventionally, a patrol was dedicated to opening the itinerary, followed by a destruction/coverage module, and then finally the reserve responsible for exploiting the enemy in time and space in reaction to the first attacks. The crews attacked the opponent’s fronts, sides and/or backs in desert or semi-urban areas, under fire from a perfectly camouflaged, trained and well-equipped enemy, experienced in anti-air combat and that attempted regularly to shoot down helicopters with SA 7 and 3A(8).

This manoeuvre was based among others on combat flights in the dark of night and this tactic paid off. Above all, it helped design varied, reversible and adapted air mobile manoeuvres that use the technical abilities of the helicopters whilst respecting the principles of deception manoeuvre, surprise, recognition, coverage and of course the reserve. This constituted the GAM’s effort, its real strike force. This reserve, in waiting and engaged behind time, often won the day at a key moment of the fighting. After nights of engagement, the GAM had with no losses inflicted heavy blows on the ranks of the enemy, disorganising it for long periods.

(5) The aircraft’s management of play time (ability to fight in the action zone) was crucial.
(6) During this operation, the Navy showed an exceptional ability to adapt to the tactical effects decided by the GAM. Designing under heavy time and space constraints its own naval manoeuvre with anti-air frigates responsible for protecting the BPC and firepower support for helicopters, submarine and Atlantique 2, the Navy/helicopter partnership was formidably effective. With simplicity and good tactical sense, it smashed a good number of heavy procedures not suited to fighting.
(7) Tactical headquarters based on the battalion EMT module.
(8) Anti-air weapons: ZSU, ZPU, 14.5 and ALI.

It is without doubt in this immaterial dimension that rests the success of the helicopter manoeuvre.

Commanded from a flying Puma command post, this team of helicopters manoeuvred grouped together, united and powerful groups for several hours. The Gazelle patrols re-engaged on the orders of the Puma command that remained in the area with the Tigres and could reorganise its manoeuvre on the enemy in reaction(10).

The IMEX(11) manoeuvre: the media dimension

Finally, the success of the operations rested above all on the ability of the GAM to recover crews shot down or that land in enemy territory. This quite real eventuality constrained the manoeuvre in all combats.

The GAM was therefore configured to enable the recovery of its personnel in all phases of combat, at sea(12) or on the ground. To do this, Puma IMEXs penetrated with CPA 30 commandos on board behind the operation to be able to recover any patrol very quickly. This mission, fundamentally different to CSAR(13) procedures, rested on three principles: speed of recovery, brutality of firepower and psychological and tactical cohesion. So each crew knows that its wing man and the entire combat module will be able to recover it instantly and provide protection. Psychologically, this trust and mutual knowledge within the GAM helped carry out audacious manoeuvres with considerable results From experience and despite the helicopters being totally nested in enemy lines, it quickly appeared that the enemy dreaded helicopter strikes.

Report

The successive GAMs had the opportunity to carry out many dangerous and repetitive campaigns, but these were conventional in their methods of operation. Luck obviously played its role in the safe return of crews. But it must be said that the French ALAT masters specific knowledge of using combat helicopters that is envied by the entire world. Its actions combining a helitransport and naval support manoeuvre all rested on concentrating firepower, simple coordination, tactical coherence and strong morale.

For the ALAT, this is only the application of a heritage handed down by generations of air combatants. Neither a support force nor an assistance force nor a melee force, the ALAT acts and forces us to think otherwise. It is now once and for all a contact force that offers a spectrum of missions and methods of operation which remain to be defined.

Of course, the results and the final effect sought after are a combination of all types of intervention that have all contributed on their level to meeting objectives fixed by political authorities. If the engagement of the ALAT was part of an overall manoeuvre, its contribution was again this year, decisive.

LCL Pierre VERBORG

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(10) The autonomy of the Puma was increased with the use of a fuel can. Whilst the Gazelle patrols were refuelling and rearming, the Tigres and Pumas were providing constant fire and command in the combat area.
(11) Immediate extraction: air combatant combat procedure for recovering autonomously a crew as quickly as possible after landing it in an emergency.
(12) In cooperation with the Navy Panther on board the anti-air frigates, a very simple specific procedure was put in place in order to recover ALAT crews. Cover was provided by a Tigre or the wing man.
(13) CSAR was provided by the French or American Air Force.

EXPERIENCE OF A HARMATTAN 2 PATROL CHIEF

The sun is setting on the horizon, it is 7 PM somewhere off the coast of Libya...

The Command and Projection Vessel (BPC) Mistral is moving towards the dedicated operations area for tonight. My aircraft is ready and armed, my mission is known and repeated, my crew is briefed. I make the most of this period of calm on the deck to breathe a little and think about the incredible opportunity that this mission has provided.

I left the 17th application group on 7th February to join the 3rd combat helicopter regiment (RHC) at Étain. I was warmly welcomed by my squadron and my chiefs quickly send me on a mission for other units in France. A last course at the Le Cannet des Maures EALAT to become Viviane patrol leader and here I am theoretically ready to face all types of mission, in line with training principles used at the Army Air Corps (ALAT). Except I don't have the training or experience necessary to confront all the out of the ordinary situations that a team leader and moreover a patrol leader must be able to manage. My first months in the regiment were an opportunity to fly it with former pilots or young team leaders and to learn some of the little "tricks" that are not taught in school.

Then came the order to arm a relay for operation Harmattan in Libya that is said to be a real war operation where air combat will be more than ever in contact. Through quite an exceptional combination of circumstances, crews were missing and despite our lack of experience in the Force, another lieutenant in my group and I are designated to leave. Very experienced team leaders (more than 2500 flying hours) were appointed to us as pilots to provide maximum effectiveness and safety in the aircraft. I would like here to salute their humility and selflessness.

They were able to advise us, manage us and support us without ever expressing any resentment at only being the pilot for a young "rookie". Little time was left to prepare the equipment, complete a theoretical course in night landing at Lanvéoc, perform a tactical exercise on a simulator based on what was learned from the first mandate and it was already time to leave Toulon on the BPC Mistral on 10th July.

Our detachment was overall quite young and few people held qualifications for night landing. First we had to train to get the right qualifications. We were joined on the Navy vessel by two Tigre crews and a Viviane crew from the 5th RHC. Relations were excellent and we came together very quickly. We soon had the impression of all belonging to a large combat formation. At the same time as the technical build-up, we carried out two mechanisation and daytime firing exercises at sea to learn the procedures created by the previous mandate. The incoming crews were transferred to the Mistral and we were eager to listen to their experiences and their feelings. A last mission was prepared jointly and carried out by "injecting" our most battle hardened crews. Our last pilots were qualified for landing. Our detachment was then declared operational. Our missions were prepared in two days. They started with a tactical discussion with the Air Mission Commander (AMC) to which the patrol leaders taking part in the mission were invited. Teams were then designated and started, in close corporation with the information office, to study the ground, objectives and infiltration and exfiltration itineraries.

Major preparatory coordination work was carried out with the BPC to validate the boat's position in the overall kinetic. Everything, from take-off until the last aircraft landed, was timed to the minute to enable deconfliction as we were flying low with the lights off in complete darkness. Gazelle crews were also compromising between the number of missiles and the "playtime" in the zone and all the mass estimates were calculated as closely as possible. We used mission preparation collaborative software for all these tasks, MPME, which was at its most efficient. Once the reconnaissance and attack helicopters (HRA) finalised their manoeuvre, Puma crews prepared they are waiting zones.

That evening, we used two utility and assault helicopters (HMA), one dedicated to the AMC so it could command and manage the mission, the other carrying the CPA 30 immediate extraction team (IMEX) and remaining close to the objective zone to be able to recover as quickly as possible a crew that may be forced to land.

The day of the mission was devoted to preparing the equipment and the machine. Everything not needed was removed and everything taken (munitions, GPS, flight recorder, navigation lot) had a well-defined place. Aircraft were set out on the flight deck in a very precise manner. At night, in complete darkness, about 10 aircraft were to take off from six blocks. We met afterwards to practice the mission on a giant model of the operating zone where each crew progressed on the rhythm of the minutes chimed out by the BPC COMAVIA.

A last briefing for the IMEX commandos to tell us what to do in the event of a crash and there was just a few hours left before leaving.

At the allotted time, in total silence and darkness, the flight deck mechanics and teams pushed the aircraft to their places and inspected them a last time. On the deck, where we can't see an aircraft 50 m away, this feat is down to rigorous and repeated training. My pilots started the machine and we scrupulously followed the checklists that we created from the first mandate's RETEX. My patrol took off and we flew at maximum speed above the sea to reach the objectives where the Tigres that had left in advance lit up our progression and attempted to acquire the targets. Then we arrived above the ground and we tried as far as possible to maintain the same flight parameters except where faced with obstacles and electric power lines. I was responsible for securing the trajectory with a thermal camera. It is in these objective securing and acquisition phases that I must make the most progress as although I was taught the theory at Le Cannet, it is only with practice and experience of thermal imaging that we become really effective. I was concentrating as much as I was able and I clearly felt my inexperience as a patrol leader. Navigation was entirely the responsibility of the pilot who used his GPS to bring the aircraft to the observation post at the planned minute according to what was prepared and rehearsed that same afternoon.

The zone complied with the photographs that we received from the intelligence unit; targets are globally on course and at the planned distance. Brief radio contact and the Gazelle opened fire on their respective objectives supported during this critical phase by the Tigres flying above us and securing our positions like guardian angels. They dealt with targets of opportunity or any enemy vehicle attempting to move into the Viviane intervention area. The given time in the zone finished and I received the order to extract my patrol. We were then flying over the Mediterranean, still as low as possible, on the way back to the BPC. We returned to conventional night flying before the ship. The last very delicate landing phase in complete darkness on the boat with all lights turned off went off well only thanks to the permanent dialogue within the crew that also the dexterity of my pilot.

Other aircraft landed whilst we quickly stripped down ours and I went to the target room to process my recordings and report my destruction. The tension lowered little by little and we became quickly tired, as the adrenaline lost its effect. We met the other crews and mechanics to share our impressions and events of the night's mission. Everyone got back, that's the main thing.

One hour on mission is worth 20 in France in terms of the experience acquired. Whether it is the multiple changes of type of flight, the absolute confidence that must reign within the crew and the module, the thermal imaging library or the landing in total darkness, all these elements are lessons that I would probably have spent months learning. Here we had to concentrate everything into two months and a good dozen missions and only the excellent cohesion of the crews and attention the more experience paid to the younger enabled this. There remains much for me to learn and discover both technically and tactically as missions in Libya are very specific and targeted. Nevertheless, this OPEX was, for two young lieutenants out of school six months ago, an extraordinary operational and human opportunity and experience.

Lieutenant Romain GALLINEAU

THE HARMATTAN GAM'S IMEX: THE MANOEUVRE OF ALL MANOEUVRES

The ALAT's intervention during operation Harmattan was an essential addition to the actions already carried out after three months of air campaigning. The success of the helicopter campaign rested on two principles. The first was to provoke a tactical and psychological breakthrough on the ground by carrying out not only a remote war but fighting in the middle of opposing troops, eye to eye. The second was the ability of the air mobile group (GAM) to extract one or several crews if they had to land in an emergency and in any conditions. No personnel should fall into enemy hands.

To this end, in compliance with existing employment documentation, the GAM put in place an immediate extraction procedure (IMEX) adapted to the Libyan theatre based on the fundamentals of this procedure as practised for several years within the Army Air Corps.

The loss of a helicopter and its crew being thought to be probable, the GAM prepared and performed its combats with the IMEX at the centre of all manoeuvres.

1. THE IMEX: a strategic manoeuvre

In the Libyan theatre, GAM crews were massively engaged (about 10 helicopters per raid) in direct contact with pro-Gaddafi forces. They led a land and night combat at very low altitude and within range of any small weapon or ground to air defence system. Although the Combat Search and Rescue (CSAR) alert was held by the French or American Air Force for fighter pilots, this NATO operating method did not guarantee, in regard of the enemy system and the time factor, immediate recovery that the GAM imposed.

Consequently, using regulations documentation and experience from the Afghan theatre, the GAM Puma Squadron adapted the Libyan IMEX procedure on time and firepower parameters.

The IMEX module had to be able to engage in a particularly short timescale in the crash zone with a team of commandos to secure the environment, provide medical care for one or two injured and finally, extract all personnel.

To do this, the Harmattan IMEX rested on three principles: speed of recovery, the brutality of firepower when providing support and the tactical and psychological cohesion of everyone involved in the manoeuvre.

An aircraft landed or shot down in the GAM action zones meant that loyalist troops and pro-Gaddafi mercenaries were certainly present. This is why the extraction manoeuvre had to take place within minutes of the crash.

Simultaneously, the threat imposed securitisation around the zone. Immediate securitisation was then provided by the wingmen then a Tigre whose role it was at all times and that had all the weapons systems and sufficient autonomy to provide the Puma IMEX with a safe manoeuvre. The Tigre patrol leader then became the IMEX manoeuvre OSC(1). The combination of time and firepower factors required one or two Puma IMEXs that followed at a distance the assault waves of attack helicopters.

But above all, the IMEX mission provided the psychological cohesion that was essential to the effectiveness and competitiveness of the crews engaged. Everyone knew that no one would be left on the ground.

In addition, "Gazellex" and "Tigrex" procedures enabled the rapid extraction of teams from the ground using several types of aircraft prepared in the event of it being tactically more pertinent to prioritise speed.

To do this, a secondary recovery zone for the transfer of crews extracted by Gazelle or Tigre was added to the IMEX Pumas.

2. Technical configuration

The effectiveness of the IMEX mission rested mainly on its ability support the waves of assault at all times and being able to work to timescales where a crash occurred at the end of the mission. To this end, all Pumas were fitted with an additional tank at the bottom of the hold. This autonomy enabled the mission to be carried out from the first aircraft taking off to the disengagement of the attack modules, the most critical moment of the combat, following the example of procedures used in Afghanistan or during operation Licorne.

(1) On scene commander

The Puma's radio capacity enabled the team to remain in constant contact with the BPC(2), attack modules and the AMC (Air Mission Commander). This way, it could serve as a relay between the different attack modules and transmit additional intelligence for the continuation of the fighting. In the event of a crash, a dedicated frequency enabled internal coordination within the IMEX module (the Puma and the Tigre) under control of the AMC that maintained the running and coordination of the overall operations manoeuvre.

During each strike, the Puma IMEX was generally the second aircraft to leave the deck. It landed once all had returned to the BPC.

3 Tactical preparation

All the crew's tactical discussions aimed at an IMEX capacity (playtime IMEX) enabling a 30 minute intervention after the last aircraft is extracted.

Air Force commandos (including one first aider) were in the hold of each Puma. Already used to working with the ALAT in the Afghan theatre, they immediately adapted to the IMEX procedure and provided a definite added value to the preparation and carrying out this essential mission. In addition, depending on the mission, a doctor strengthened the group. Indeed, the flying time required to return to the BPC sometimes exceeded 30 minutes, a critical period during which the condition of one or several injured was crucial and needed the heavy medicalisation that only a doctor (and not a first aider) could provide.

His presence on board the Puma therefore considerably increased the chances of survival of personnel seriously injured during extraction before reaching the advanced surgical unit (ACA) on the BPC Tonnerre or Mistral.

4. Prepare and brief

The precision of strikes required meticulous preparation of the trajectories of the engaged aircraft's modules. The manoeuvre was formalised on crew mission preparation module posts (MPME) so the positions of the patrols were known by everyone and the IMEX crew in particular.

The AMC approved each route and prepared for crashes with the Puma IMEX team leader. In the end, the crew members in the IMEX aircraft knew the action zones of the attack helicopters. The options chosen during the preparation of trajectories on MPME were then approved during the "rehearsal" during which the IMEX procedures were systematically tested. Preceding the strike, this meeting of all players in front of the "sandpit" was an essential phase as much for tactical and technical reasons as for the psychological dimension.

In regard of what the capture or loss of a crew would represent, the IMEX had a real strategic importance and was a major preoccupation within the global tactical manoeuvre. It imposed a precise organisation and meticulous preparation on each raid. In the near future, the delivery of the new generation helicopter CAIMAN – NH90 will offer the ALAT much improved capacity is to carry out this sensitive mission.

CNE BRUNO REYDELLET

Operation Harmattan

HM Squadron Commander, mandate 1

(2) Command and Protection Vessel

UTILITY HELICOPTERS
AT THE CENTRE OF INTER-FORCE COOPERATION

Operation Harmattan, the French part of the international military intervention in Libya, started on 19th March 2011. Under the United Nations Security Council resolution 1973, it aimed to protect live in civilians from repression by Colonel Gaddafi's forces. The three forces then cooperated to carry out offensive missions in Libya. Originally comprising the aircraft carrier Charles-de-Gaulle, a nuclear submarine, frigates and a supply ship, the air and sea group was strengthened in May by a Projection and Command Vessel (BPC). On board were the Helicopter Strike Group and its armed support, the ALAT helicopter detachment named Helicopter Strike Squadron (HSSq).

From then on, the role of the air mobile group was to reduce the combat potential of pro-Gaddafi forces by carrying out raids in Libya. Each strike included Gazelles and Tigres. An integral part of this system, the utility and assault helicopter module (HMA) with its two Pumas was responsible for transporting the Air Mission Commander (AMC) and the IMEX (Immediate Extraction). Even though it used methods of action completely controlled by the air combat, the specific inter-force context due to the number of participants to coordinate simultaneously, made it essential to adapt and harmonise each one's skills.

The first difficulty was having a large number of aircraft taking off from a flight deck that only had six blocks. This challenge was met for each strike by combining the ALAT's and the Navy's know-how. The five blocks available on the deck, the particularly large number of "non-compliant" cases and the autonomy required by patrol to successfully complete the mission (given that a strike may use up to 10 helicopters) must all be taken into account. Once the aircraft were positioned on the deck, it only remained to implement take-off. Almost without lighting, these "yellow dogs" assisted by "ponev(1)" enabled a real ballet of aircraft. The start-up, lashing and rolling to the blocks made it a jewel of coordination. This prodigious giant "Tetris" finishes with a very delicate phase for the pilots due to the absolute darkness and the proximity of obstacles, take-off.

But the difficulty does not end there. Even if teams were completely in control of the mission, it is important that they have optimum coordination. To do this, the first ring in the chain of command, the Air Mission Commander (AMC) was placed as close as possible to the patrols. The Pumas, with the AMC on-board, served as a relay with the higher command level and the different air or sea intelligence factors. This way, the crews received intelligence on the enemy system in real time. The Atlantique 2 (ATL 2) offered the AMC an overview of the operating zone at all times.

(1) Flight deck personnel. These were ALAT personnel used on the vessel to implement combat helicopters on the flight deck.

If the Puma AMC was the first level of the system, the immediate extraction Puma (IMEX) was the last and essential ring.

Indeed, not having the ability to recover within minutes a team that had to land or crashed in hostile territory could not be envisaged. Consequently, the Puma integrated into the intervention tactical module with an IMEX team on board was always able to intervene as soon as possible. This mission is different and complementary to the Combat Search and Rescue (CSAR) in its timescales, its implementation volume and its execution conditions. The CSAR is a larger system on alert requiring several escort fighter craft and helicopters. However, the IMEX is only used with the support of the wingman that has a recovery capacity in the non-permissive zone straight after the crash.

An IMEX is taken to extract the crew. On operation Harmattan, it comprises air parachute commandos (CPA 30): particularly the group leader, a transmitter, a medic capable of providing first aid to war wounded with level 2 combat first aid (SC2) and hospital accident and emergency training. Specialists in the air in environment, they are qualified and have extensive training in all types of rope drop, high altitude operational freefall and firing. Despite the absence of training outside the operational context, the Puma and CPA 30 crews were able to adapt perfectly and carry out their mission in perfect synergy.

This operation taught us much both in terms of individual know-how and inter-force cooperation. Cultures and regulations may sometimes differ. However, the mission was completed sometimes at the price of a few compromises but above all with constant and concerted adaptation. We must continue our efforts in this direction through common instruction and training in order to improve inter-force coordination in the perspective of our future operations.

Lieutenant Julie DORNA

Puma patrol leader

OPERATION HARMATTAN, FIRST SORTIE OF THE 6th SPECIAL OPERATIONS SQUADRON

Recently, in a previous article we mentioned the arrival of the Tigre with the Special Forces. A feline full of ambition, six months after its debut with the 6th Special Forces Squadron ((EOS 6) it was pushed into "conventional" missions on the BPC Tonnerre with that of the 5th RHC and next to all types of Puma and Gazelle with the CFT air mobile division.

Of course, it was not the first to campaign for the vampires(1) since for the last two years the squadron has been backing up the corsairs and the Mohicans(2) with a pilot or team leader or even a fully constituted crew. But this time, the squadron sent an aircraft with its crew and its implementation group.

The framework

In Libya, the ALAT's aim was to protect the population with rigour, discernment and extreme precision, which recently earned it in the name the army of freedom (General RACT-MADOUX, CEMAT at the ALAT day on 6th October 2011)

However, the campaign was different from other theatres in many respects. This time, it involved engaging in enemy units independently with no ground forces and carrying out deep lying excursions from a mobile platform with the support of less maintenance but with different assistance: frigates – Atlantique aircraft and others. Each mission led therefore to a MEDO then meticulous preparation over 48 hours whilst keeping a constant ability to adapt. The last major difference was the volume of aircraft engaged: about 10 aircraft with a certain number re-engaging after refuelling on the BPC.

The projection of force – build up

Operation Harmattan had already been launched when the decision to employ the ALAT was taken. In 72 hours, and relatively discreetly, all the resources were grouped on the Gal Lejay training base or taken on the BPC Tonnerre that was at the quayside at the time. This was the right moment to start to create a spirit of cohesion within the detachment, talk about the major outline of the coordination between crews and refine its equipment.

(1) Name given to the 6th special operations Squadron.
(2) Respective names given to the first and second 5th RHC support helicopter squadron.

The 72 hours that followed the aircraft being placed on the BPC were also precious for providing some crews with the requirements necessary for their deck landing qualifications. In addition, using the EFA(3) installations, the Tigre crews trained on FMS(4) simulators with sea procedures.

Then, after embarking and sailing, two major phases started: the IOC(5) and the FOC(6). The IOC involved the complete module qualified in day and night deck landing. Several days were required to "age" the youngest whilst acclimatisation to the Navy environment continued. Then, as the action procedures to be implemented were being drafted, the modules trained in two areas: firing and rehearsing at sea deck coordination and layout measures. Everyone was involved. Aircraft implementation teams "drilled" the putting in place of the missions, the forced the landing recovery resources critically provided by a Panther on board a frigate were tested, controllers coordinated the return to the vessel of a complete module in IMC(7).

Finally, the air mobile group part of the NATO operation called HSSq (Helicopter Strike Squadron) was declared FOC and could be engaged on the evening of 3 June.

Debriefing

Such an operation must come with debriefing to all the ALAT but also the Navy. A document including the summaries of the different unit commanders had already been distributed in the regiments. Associated Navy procedures and regulations are being amended.

Globally, the operations crystallised all teaching in training schools and in regiments. For pilots, all the functions of the aircraft were used. After a take-off and sea flying phase using instruments, all fighting took place using tactical night flying and then were completed by a return to the BPC with visual flight. The systematic use of MPME(8) enabled coordination in time and space to the nearest minute in order to complete a succession of "conventional" missions: infiltration, covering, supporting, lighting, recognising and destroying and finally, exfiltration. It is all these missions that are always organised according to different procedures in order to keep the initiative that makes up a complex operation and characterises air combat.

So capitalising the experience of operation Harmattan and Pamir, the 6th special operations squadron made a major step towards a future projection within the regiment to the benefit, this time, of special operations.

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(3) Franco-German school.
(4) Full Mission Simulator.
(5) Initial operating capability - Full operational capability.
(6) Final operating capability.
(7) Weather conditions for flying with instruments.
(8) Crew Mission Preparation Resources.

THE HSG "UNDER CONTROL"

17 May 2011, the BPC(1) Tonnerre set sail for the coast of Libya, in the Gulf of Syrte. A few knots away from Toulon, it was joined by 18 helicopters from three ALAT(2) regiments. This departure marked the end of the HSG(3) implementation phase in record time particularly given the number of aircraft engaged. This was only the beginning of this mission as unique as it was exciting.

The detachment commanded by Colonel Bayle comprises the PCMO(4) armed notably by the air mobile division of the Land Forces command (CFT/DIV AERO) and the HSSq(5). I serve in the PCMO ASM(6) unit responsible for inserting the HSSq action into the battle space until now occupied by the air and sea aircraft and the Air Force.

The first approach, there should be no particular difficulties in inserting the helicopters, that fly in an area closer to the ground, into an airspace where fighters fly thousands of metres higher. For all that, this single difference of measuring unit as well as our visit to the POGGIO RENATICO CAOC(7) 5 before leaving showed several points of difficulty that were to be resolved more or less easily during our preparation for the campaign.

Firstly, the NATO(8) preparation cycle was not adapted to that of the HSSq and its method of action. It should be remembered here that the engagement of the air mobile group was decided on in addition to the air plan of action to obtain a tactical effect. Also, the intervention of the HSG had to closely follow the situation on the ground that changed according to the results of operations carried out by opposition forces, by the coalition and by the HSSq itself. Efforts were therefore directed towards the place where the situation required.

In addition, the constraints of the vessel, a real floating aerodrome, had also to be taken into account.

Consequently, the procedure chosen had us reserve, three days before the campaign, a large zone to cover the most probable options. The air campaign was then built around the zone reserved by the HSG. The ALAT team in place at the CAOC relayed our requests and integrated the volume demanded into an airspace that covered all dedicated resources (ATL 2, Frigates) or those associated with the HSG's mission (AWACS(9), air or sea fighters, helicopters and British ships). In operation, the CAOC, the AWACS or the anti-air frigate managed the conflicts of each one involved in its responsibilities zone. ALAT and Navy resources were coordinated before the campaign by the HSG the BPC and the headquarters on the Charles de Gaulle, particularly for naval firepower support.

In parallel to this deconfliction, zones were also allocated to naval resources (BPC, frigates, SNA(10), Panther…) to separate their action from that of the air resources. The activities of the ASM unit were linked to the PCMO rhythm and saw therefore at the same time the planning of two or three future operations as well as the monitoring of the day's mission.

During night strikes, we used the extensive resources of the SIC(11) to get a view of our aircraft's blocks on a map background using the ICC(12) program and liaison 16 implemented by most units working in the theatre (AWACS, vessels). At the same time, the BPC SDO(13) provided additional information on a second screen. This equipment provided real added value as it enabled us to follow the progression of the helicopters in real-time particularly in relation to points where naval firepower support was delivered. As such, I observed a "twinge of sorrow" from everybody when a block disappeared from the screen caused by an unfortunate technical hazard.

During the strikes, the IFF(4) played an important role as unlike usual procedures, it was not cut above enemy territory as the enemy no longer had the resources or the time to use them against the HSSq. This enabled infiltration, attack and exfiltration trajectories to be followed and facilitated the decision to apply the PCMO firepower when required. Finally, during the critical disengagement phase, it made monitoring the aircraft easier and enabled BPC controllers to assist the crews quicker. Indeed, they had to find a ship at sea in the middle of the night back from a war mission that was particularly difficult in tactical and technical terms. This merited all the attention of the “support base”.

To conclude, the 26 war missions were completed before I left the BPC Mistral to return to port. In regard of previous NATO experiences in Afghanistan and Kosovo, certain constants seem to be confirmed. Firstly, the structure's rules are much less rigid as it appears. They can be adapted and enable greater freedom of action as long as the hierarchy associates itself with the understanding of ALAT methods of action and constraints.

This mission was one of the most interesting that I have been asked to take part in. Both before leaving and during the action, I saw a common desire to meet the challenge presented to us. This convergence of effort enabled us to complete our mission but above all contributed to the return of our crews without damage, night after night, mission after mission.

LT QUEMENER

Control squad leader 3rd RHC

(1) BPC: Projection and Command Vessel
(2) ALAT: Army Air Corps
(3) HSG: Helicopter Strike Group
(4) PCMO: Command and Implementation Post
(5) HSSq: Helicopter Strike Squadron
(6) ASM: Air Space Management
(7) CAOC: Combined Air and space Operations Center
(8) NATO: Note supprimée car traduction française d'un terme anglais
(9) AWACS: Airborne Warning and Control System
(10) SNA: Nuclear Attack Submarine
(11) SIC: Information and Communications System
(12) ICC: Integrated Command and Control
(13) SDO: Operations Management System
(14) IFF: Identification Friend or Foe

HARMATTAN OR THE MERITS OF OPERATIONAL LOGISTICS

May 2011, Phalsbourg. The orders were clear and precise: get an independent air mobile group (GAM) onto the Projection and Command Vessel (BPC) Tonnerre after grouping resources together at Le Cannet des Maures. The challenge was a big one! It involved appointing personnel and identifying the necessary equipment to deploy the GAM in a very limited time frame. The resources being spread all over the ALAT's units, their transport to Toulon had to be coordinated. If the major equipment was in place with Le Cannet crews to establish contact with the as yet embryonic Command and Implementation Post (PCMP armed in its substance by the CFT air mobile division strengthened with inter-force personnel), outside resources were brought in by road. The VTL-R procession arriving from the 9th air mobile support battalion and a number of trailer trucks loaded with munitions then started down the Toulon Arsenal's quai Milhaud. Clever coordination was established between the J4, the S4 and the "bosco". A logistics team played the role of harpoon to empty all KC20-type containers under the benevolent eye of the logistics officer and the quartermaster. Almost 36 uninterrupted hours were required to transform the vehicle hangar into an air and sea storage area that combined tools, spare parts, survival equipment, NBC equipment and weapons.

Tuesday 17 May, the BPC left the port of Toulon. It was already time to review: Had we forgotten nothing?

Reaching full operational capability (FOC) requires several actions from the logistics component. Apart from support given to provide resources required to qualify the crews, this involved applying the concept of operational logistics through contact with the crew of the Tonnerre: ensure the helicopter strike squadron (HSSq) was operational at all times.

Optimising workspaces: the hurried embarkation of the freight created a jumble of equipment. Mechanics were employed to reconstitute the lots of tools carrying out inventories and chandlers checked the deployment lots were correct. In addition, the clutter caused by the presence of about 20 helicopters (18 for the ALAT) in the aviation hangar meant the aircraft support squadron could only keep what was strictly necessary in it and they even had to create Gazelle maintenance blocks in the vehicle hangar. This physical organisation was essential subsequently to reduce the

Carrying out the deck implementation team drill: comprising the strip personnel, the "blade folding" group and the munitions experts, they had to impose their rights faced with Navy requirements As the BPC was not a forward operating base (FOB), a dialogue was required to make our operational needs understood whilst maintaining safety on board. To do this, a working group met daily during the build-up phase to deal with any problems encountered. By working together it was possible to implement decks of a dozen helicopters in the dark of night. Finally, arming the aircraft with each type of munitions helped raise the awareness of all involved but also established a chronology and the munitions loading plan which was useful particularly when re-engaging during action.

On Thursday 26 May, the Helicopters Strike Squadron (HSSq) was operational. If deception was required when the PCMO announced that the first operation had been postponed, this delay was used to refine the work carried out in the first days. On Friday 3 June, the first French helicopters flew over the Libya to deliver firepower. In logistics terms, the operation was broken down into several points.

Everybody met firstly during the deck briefing. Led by the squadron tactical staff (EMT), the aim of this is to distribute the aircraft configuration (aircraft associated with a crew, an indication, a full tank of fuel, a volume of munitions and take-off and landing times).

"What if" scenarios were also discussed so everybody could integrate them looking for optimum responsiveness to non-compliant situations. To the extent that imposed "vulnerability time" (VULTIME) meant that a light intervention unit would not be used, it was decided that only strip repairs would be carried out during the action. In cases where the strip could not intervene, and aircraft of each type would be ready with an associated delay (Puma "unfolded" in the aviation hangar, Gazelle and Tigre "unfolded" on the spot). The positioning of the S3 (running) and the S4 (logistics) on the aviation runway during operations was essential to take joint decisions to postpone or possibly reorganise the deck as the air mission commander commanded the module's action in flight.

Finally, in order to last over time, we needed to take account of the logistics required to refuel the detachment. If the refuelling ship passes through the zone every 10 days, the HSSq was still able to benefit from an American C2 Greyhound landing on the aircraft carrier Charles de Gaulle and had to land a Pilatus from the 9th BSAM in Malta to get critical spare parts and put in place some equipment requested.

After 21 war operations and almost 2 months at sea, the BPC Mistral relieved its sister ship. An operation within the operation, the transhipment of the HSSq's resources created to constraints and four imperatives for the EMT. Indeed, the logistics teams only had four landing craft to transfer more than 500 m³ of freight in less than 48 hours. The HSSq set itself to have an immediate implementation capacity on the BPC Mistral, to keep a maintenance capacity on the BPC Tonnerre until the last aircraft took off, to place a logistics team on each BPC to manage the flow of equipment transferred and to put online two Gazelles and one Puma is part of the disengagement from the BPC Tonnerre. for this energy consuming manoeuvre, the BPC Mistral was used as a logistics vector: change of personnel, total replenishment in munitions and transport (unfortunately partial) of spare parts. Its welcome was always remarkable enabling the first mandate command teams to transmit their expertise to a new crew and a new pumped up detachment in the best conditions before their progressive disengagement.

Brought together with in an extremely short timeframe, all ALAT units were able to respond to provide the logistics build-up for the HSSq. With its indestructible desire, the technical and logistics personnel in the detachment proved that operational logistics was not empty words. This enabled the battalion to keep its operating capacity at the highest level, everywhere and in all circumstances throughout its mandate.

Capt Thibaut RAVEL
1st combat helicopter regiment/CDU EMH1

THE TACTICAL LESSONS OF OPERATION HARMATTAN

Following on from its mission in the deployment, the CBA LITAS will make note of the technical lessons learned during the operation following the general framework of an operation order. General situation

Since 17 May 2011, as part of operation Harmattan, Army Air Corps (ALAT) personnel have been working off the Libyan coast on Navy Projection and Command Vessels (BPC).

On 15th September 2011, date at which the French President of the Republic made an official visit to Tripoli and Benghazi, the Helicopter Strike Group (HSG) Command and implementation post (PCMO) had ordered 30 operations or "strikes" (304 sorties) for the Helicopter Strike Squadron (HSSq), its armed support, on several hundred objectives.

At this date, general lessons and a certain number of specific lessons can be drawn from this operation:

1 - Full operating capacity of the personnel cannot (and must not) be reached in less than one week. A period of adapting the ALAT's methods of operation to those of the Navy is required and vice versa. The young crew members must not be separated straightaway; they must be well "managed".

2 - Deep-lying offensive reconnaissance and their mobile raids from the sea (when no friendly units are engaged on the ground) are missions for which crews prepare when they are at school. This tactical know-how must be considered to be a fundamental, even if it is not the most used in other theatres of operation, and we must continue on this path. However, in technical terms, tactical and night flying must be practised on all types of ground and over longer distances than currently.

A - Articulation

The Helicopter Strike Squadron (HSSq) counted up to 18 combat helicopters (2 TIGRE, 7 GAZELLE VIVIANE, 2 GAZELLE CANON, 2 GAZELLE MISTRAL, 1 GAZELLE COMMANDEMENT and 4 PUMA). The average rhythm of operations (48 hour strikes/48 hours rest) adopted by the HSG requires regularly re-engaging crews. The modules are not fixed, the mission, enemy and the ground determined the articulation.

So three to ten helicopters could be engaged simultaneously.

Nevertheless, on average, an air combat module comprises about 10 reconnaissance and attack helicopters (HRA) and utility and assault helicopters (HRA) spread out as follows:

- 1 command PUMA including the Air Mission Commander (AMC)
- 1 PUMA IMEX (immediate extraction) including a CPA 30 team
- GAZELLE VIVIANEs armed with HOT missiles
- TIGREs armed with 30 mm guns and 68 mm rockets.

B - Situation of the enemy forces

Pro Gaddafi forces (FpK) stayed permanently commanded, organised and responsive. Well-equipped and capable of coordinated action, they never laid down their arms and always seized any opportunity to attempt to inflict losses on us.

C - Situation of friendly forces

The HSSq was working as part of a complex air and sea system. It was based on a BPC escorted by a frigate and could benefit from the support of frigates firing at land targets. The major part of the air missions were carried out with the intelligence support of an ATL2. Using armed helicopters from a BPC, although complex and sometimes constraining, undoubtedly multiplied the effects (absence of ground in print, unpredictability, mission preparation conditions).

D – Role of the HSSq

Using an effect to obtain given by the PCMO during the mission brief, the HSSq offered the COMHSG during the back brief the use of its resources in space and in time.

E - Intention

With a view to guaranteeing the maximum efficiency (obtain the right effect and tactic), this involved carrying out from the coordination brief a coordinated mission preparation (essentially carried out internally in cooperation on MPME), that was methodical (timeline starting at two days before) and meticulous resting on simple technical diagrams and systematic "unpredictability".

F - Distribution of the missions

- GAZELLE VIVIANE

The VIVIANE carried out destruction and offensive reconnaissance missions. For the majority of missions, the VIVIANE patrol was supported by a TIGRE

- GAZELLE CANON

From time to time very effective, the engagement of a GAZELLE canon is complementary to that of the Tigre.

- TIGRE

The first to take off and the last to land, the Tigres carry out offensive reconnaissance, attack, escort and cover missions. They are also always used to support GAZELLE VIVIANE and the PUMA IMEX if one of the aircraft in the module crashes. Finally, auto-protection systems make its presence essential during any strike; GAZELLE teams are instructed to imitate the Tigres.

- PUMA IMEX:

An integral part of the air combat tactical module, it is the "life insurance for the crews" that no doubt it will be their in a few minutes to recover them if they have two land in hostile territory.

G - Movements

Attack helicopters carry out all missions in VTN (night tactical flying) mode at speeds varying between 60 and 110 kt in complete obscurity.

H - Coordination instructions

- H1: Vultime

Vultime ("vulnerability time", essential for the best coordination between inter-force resources) is the time where lines of engagement are crossed during infiltration and exfiltration.

- H2 - Opening fire

To guarantee the best execution of the mission by the patrols and due to their complexity, a short loop flying command enabling to understand the expectations of the HSG in real time and feel the situation on the ground is required. This is the role of the Air Mission Commander (AMC).

I - Liaison/ transmission

The AMC is the top link in the network, the command network (UHF HQII on which the PCMO, the ATL2, fighter patrols or navy vessels work) and the low network, the modules/patrol network.

The entire network respects radio silence until the first firing when the network is revealed to the enemy (so-called "zip lip" implementation procedure).

J - Refuelling

"Splash endurance": the aircraft's autonomy until the tank is dry.

K - Conduct

The BPC only has six spots so delicate manoeuvres are required to enable safe take-off and landing for all the strike force. This requires a particularly detailed study of the articulation and the non-compliant cases.

Battalion leader Julien LITAS

Operation Harmattan 2 officer

LETTER FROM GENERAL BOUCHARD, OPERATION UNIFIED PROTECTOR COMMANDER

NATO RESTRICTED
Releasable to OUP

COMMANDER
COMBINED JOINT TASK FORCE UNIFIED PROTECTOR
COMMANDANT
DE LA TASK FORCE INTERALLIES UNIFIED PROTECTOR
Viale della Liberazione, 80124 Bagnoli, Naples, Italy

Our ref: 1500/ OJS KTD 040/T-/11

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Monsieur l'Amiral Edouard Guillaud
Chef d'Etat-Major des Armées
Etat-Major des Armées
14, rue Saint Dominique
75700 Paris SP07
France

Dear Admiral Guillaud Monsieur

LETTER OF COMMENDATION FOR THE CONTRIBUTION OF FRENCH ARMY AVIATION ATTACK HELICOPTERS TO OPERATION UNIFIED PROTECTOR (OUP)

I want to express my deep gratitude and sincere appreciation of the French Army Aviation Helicopter Strike Group (HSG). Their outstanding and significant contribution to Operation Unified Protector (OUP) over the last four months deserves mention and the admiration of us all.

Engaged for the first time on the 3rd of June, French HSG has carried out more than 310 sorties during which 422 HOT missiles, 13,500 rounds and 1,500 rockets were fired. These combat missions, conducted at night and from sea in a high density environment, resulted in the destruction of some 600 military targets amongst which 400 vehicles.

Beyond these impressive figures, the successful integration of French HSG within the overall OUP campaign provided our operation with a flexible and complementary capability to achieve tactical effects. HSG's ability to plan and safely conduct combat missions was central to the ongoing success of this NATO mission. Clearly the HSG has played a critical role in enhancing our capacity to protect the civilian population of Libya by reducing the Pro-Gaddafi Forces military potential.

1
Releasable to OUP
NATO RESTRICTED

I had the great pleasure to meet the crews, engineers and staff during my visit on FS Tonnerre in June. As an Attack Helicopter pilot myself, I could personally recognize their outstanding job, their professionalism and their courage. They are, as a whole, a group of men and women you can be proud of and deserving of recognition.

Very Respectfully,

J.J.C Bouchard
Lieutenant-General, Cdn Forces

Ils ont démontré courage, audace et flexibilité. Ils méritent d'être reconnus d'une façon spéciale.
Charlie

COPY TO:

Permanent Representative of the French Republic on the North Atlantic Council
SACEUR
CTF 473

AFGHANISTAN

SUMMER 2011, THE MOUSQUETAIRES 5 INTENSIVE CAMPAIGN IN KAPISSA AND SUROBI ALONGSIDE INFANTRY BATTLE GROUPS

There is a "before" and a "after" an operation in Afghanistan. Everyone that returns, mechanics, commandos, gunners and crews say so. Those from BATHELICO Mousquetaire 5 say this even more because the conditions of their campaign were particularly hard. It was straightaway marked by the first French crash in this theatre, the loss of 15 comrades including one of theirs, Captain Gaudin. The conditions were hard because in an environment recognised to be especially difficult for using helicopters, offensive operations carried out at a sustained rhythm over time against a well organised and tough enemy were obviously trying for the men. Here are a few opportunities to reflex on the Mousquetaire 5 campaign that it has often been said was "new" and in any case, will mark a change in the use of BATHELICO at the centre of the battle in Afghanistan.

The battalion was confronted with particularly difficult environmental conditions. Three quarters of the nights were level 5, the altitude varying between 1800 and 3000 metres, the heat between 25°C and 45°C, the weather was uncertain and the dust so fine that filters were ineffective. These factors combined to make Afghanistan without doubt one of the most difficult terrains for using helicopters. All battalion commanders realised this. American Army Aviation units, who have a long experience of the Iraqi theatre, also raised the problem. If we add unpredictable and violent winds (regularly greater than 20kt) several days in succession, the conditions were sometimes really quite exceptional.

Beyond geographical constraints for air combatants that kill as much as the enemy, it was the particularly high constant pace of the operations that marked minds. This lasted a long time to respond to the urgency of operational situations and so as not to leave the initiative to the enemy.

SUMMARY

Afghanistan
At the centre of the fight

A day in Kapisa

TIGER pilot, immediate take off

Battle Group support

Importance of the TIGRES

Preparation

Since its creation, the battalion has been involved in all significant La Fayette Task Force operations. It has been regularly involved in the high-intensity combat phases lasting a few hours or one or two days, particularly during BLACK SMITH HAMMER or WINTER BLACKSMITH operations. These phases were succeeded by periods of relative calm enabling potential to be regenerated. This summer, the battalion was subject to a long-lasting intense rhythm. Between the end of May and the beginning of August 2011, day and night, more than 400 more missions were carried out continuously, sometimes on three different fronts. During the summer's major operations, SHAMSHIR, RAPIER1 and 2, it carried out as many missions as part of these operations as in parallel for other LFTF units.

As its predecessors, it adapted and was able to regenerate continuously and transparently for the Task Force Chief of Staff.

The rhythm was sustained as the campaign was particularly offensive. This pace remained sustained subsequently. More than half of the close combat attack missions – CCA – supporting the Battle Group led to opening fire.

The Mousquetaire 4 battalion previously carried out a deep level destruction mission.

Since the month of June, this type of mission has been carried out regularly(2). The high number of medical evacuations shows both the rhythm and the toughness of the campaigns. One of the direct consequences was a greater psychological exposure to death. As well as other comrades in other battle groups in the LFTF4, battalion personnel were confronted directly, regularly and harshly with the loss of "brothers in arms" as they have rarely done so in recent years(3).

One of the first reasons for the difficulty and intensity of the campaigns was our presence in the "green zone". During last winter and spring, the LFTF3 engaged this zone considered to be "difficult". In the summer, the density of the vegetation and the compound walls several metres high made it comparable to a labyrinth. Firing distances did not generally exceed 25 m. LFTF4 aimed to keep this acquisition. The RAPTOR and QUINZEDEUX battle groups were the first to carry out operations in this area, forced to engage fighting at very short distances. The LFTF 4 had to keep a high operating rhythm to counterbalance the advantage the enemy would gain from terrain that had become favourable when the leaves returned. The principle was "the enemy is where we are", if the force engages therefore at the bottom of the valleys, the enemy *de facto* will be fixed there or at least contained at the distance of the MSR VERMONT(4).

An asymmetric and particularly aggressive enemy, the insurrection showed its ability in addition to use conventional and terrorist methods of action alternatively. This new phase was without doubt a major change this summer; it is the second explanation of the difficulty of the campaign. In addition to IEDs, it used suicide bombers, particularly in Joybar on 12 July, an attack that caused the death of five French soldiers and their interpreter. The insurrection continues to show that it has perfect knowledge of our rules of engagement. In a more conventional manner, this battle hardened and determined enemy showed that it could coordinate its action between two valleys and concentrate its efforts. During the fighting in Mobayan, the force had to face groups whose manoeuvres were thwarted successfully by engaging the reserve and opening a second front.

_____

(1) Between June and October: 130 CCA missions completed, 67 led to opening fire.
(2) For the first five months of its campaign, Mousquetaires 5 carried out 5 missions to destroy high added-value targets (7 VBIED)).
(3) The battalion was involved in all MEDEVAC; the battalion was always present at ceremonies to repatriate the bodies of their comrades.
(4) Main support road VERMONT: strategic road connecting Surobi to Bagram through Kapisa.

A consequence of the first two reasons was an increased risk of friendly fire and civilian victims. This increase is directly linked to campaigns in the highly populated green zone and the nesting that the insurgents are systematically looking for. The risks were permanent for reconnaissance and attack helicopters. Half HOT missiles and 30 mm guns were fired at distances less than 100 m from friendly units, sometimes much less.

Finally, the last reason may be the use of snipers and anti-helicopter raids, methods of action that may be considered as changes of strategic importance.

Undoubtedly, the use of this type of weapon, even by a small number of insurgents, is now a reality to be taken into account. The greater number of weapons (DRAGOUNOV, PTDR41, DSHK) and at the same time easy access through Pakistani networks increased this threat even more.

The battalion continued to adapt faced with this situation. As its predecessors, it showed imaginative in its methods of action. The end aim was still the same: how could it increase the responsiveness of its resources, particularly CCA, whilst being able to last and regenerate a human and mechanical potential transparently that remained constrained and limited?

On the basis that each operation is different, this involved repositioning the Nijrab and Surobi FOB, rotating the crews, the projection of an ELI(5), the both mixed and homogenous use of Tigre and Viviane HRAs and the reduction of the performance of aircraft in the summer.

The use of tactical flights(6), a specific feature of the BATHELICO in the theatre, had to be explained regularly. This is a proven method to counter the SAFIRE threat. All aircraft affected until now filled at between 50 and 300 m and at speeds of less than 120 kph. The surprise effect was always sought: tactical flight, variation in times and itinerary, level 5 night flight, deception, flying in the last part of the night... etc.

With its multiple capacities, the battalion can respond to many technical problems but it cannot do everything and certainly not without preparation. As its predecessors, the battalion had contributed to the RETEX. It also organised combat seminars for chief of staff officers. To help it in its tactical choices, battalion rules of use were established. Indeed, there is much doctrine and rules combat documentation for using helicopters and flight security. However, this cannot formalise notions of mission preparation times, preparation times specific for each theatre... The battalion was engaged several times continuously for 96 hours without respite and breaching technical, human and doctrinal limits.

In four days at the end of June, the battalion successfully carried out several types of operation whilst at the same time carrying out CCA and MEDEVAC missions. In the week of 14 July, the BATHELICO led army chiefs', the CEMAT and the CEMA's transport operations whilst carrying out these MEDEVAC, the CCA and the OHP linked to campaigns that cost the lives of seven comrades.

(5) Light Intervention Unit. A team of mechanics able to intervene on defective equipment in an emergency and in all terrains and environmental conditions.

(6) Combat flights cover all flight procedures that the crews use, depending on the situation on the ground, to complete their missions. Designed by the Army Air Corps (ALAT) during the Algerian war, tactical flights involve using the ground to protect it from being seen and hit by the enemy by day and by night by adapting speed and trajectory in obstacles. It is one of the types of combat flight.

A particularly high risk of the operations was the heavy pressure felt by the crews and above all the regular confrontation with death have led the battalion to pay particular attention to psychological support. The first series of actions followed the fatal crash of 10 June 2011. In cooperation with the battalion's doctor, the theatre psychologist was made available to personnel for both group and individual discussions. Undoubtedly, this (voluntary) method used also for our comrades in the Infantry Battle Groups, contributed to rapidly regaining full operating capacity(7). In August and October, the battalion called in the psychologist again to review the psychological state of the AMC and the EMT that were without doubt suffering from an accumulation of heavy stress caused by the rhythm and intensity of the operations.

Taking all this into account, the battalion's campaign confirms certain doctrine principles in terms of inter-force land combat. The first of these is the position of air combat support. Most of the successful CCA support involved the HRAs super-imposing ground troops. On 7 September, during fighting in Mobayanne, "it was raining 30 mm shells" reported personnel on the ground. In this type of engagement characterised by deep nesting and a risk of friendly fire and civilian damage, it could not be otherwise. We must therefore be pragmatic, trust tactical intelligence and refrain from doing nothing. The success of high-intensity land combat requires battle groups most times to be supported by air combat units.

The second concerns the design of inter-force manoeuvres: the success of the battle group manoeuvre may depend on the support provided by combat helicopters. The level of violence always decreases with the presence of air combat units. Depending on the circumstances, the intervention of the HRAs helps loosen the vice, disengage land units and relaunch the action. The absence of mobile air capacity integrated into the tactical manoeuvre may condition an engagement. The success of high-intensity land combat depends on the availability of air combat capacities and the combination of their effects and those of ground units.

The summer of 2011 was an important stage in the French military campaign in Afghanistan and undoubtedly marked the air combat personnel in the Mousquetaire 5 battalion. Whilst still part of continuous action, the conditions met by our successors will be certainly different again. The Afghan insurgent is battle-hardened, unpredictable and aggressive. TFLF 4 has undoubtedly enabled the Afghan army to reach a level of certain independence. It proved its effectiveness this summer by carrying out operations alone and by pushing back insurgent attacks; it is now systematically placed in advance. Thanks to this transition process, the ANA will soon be alone in Kapissa and Surobi. However, future BATHELICO could also be as kinetic. Insurgents have fully understood that the phases of disengagement were always critical periods. The battalion will continue to support its comrades in Afghan units closely. Beyond these perspectives, the intensity of this summer's Mousquetaire 5 helicopter battalion campaign and following its predecessors again showed that it was at the heart of the battle.

Lieutenant-Colonel Frédéric BEUTTER

Commander of the Mousquetaire 5 helicopter battalion.

(7) Following an accident, all the battalion's activities were suspended for 48 hours. They were then restarted with no restrictions.

A DAY IN KAPISA

Daybreak in Kabul. As often in summer, the sky is blue, there are no clouds and the early morning temperature is already high. This day in this country that has been at war for such a long time is not an ordinary one for democracy, as is the day of the election. All coalition forces are on maximum alert, as is the Lafayette Task Force (1) in the zone for which it is responsible in the RC(2) East. The Tigre module crews are, as every day, on call (3) during the day in KAIA(4).

At 7 AM LT(5), the first insurgent movements are reported on the battalion's network. Quickly, the first TIC(6) in Kapisa start!

At 8 AM LT, the order for a patrol of two Tigres to take off reaches the battalion. Its mission is to get as quickly as possible to the Alasay Valley to support elements stationed on the COP(7) Belda that were under attack by insurgents.

Arriving on the eastern foothills of Kohe Safi (central relief separating Kabul from the Kapisa), the patrol leader contacts the personnel responsible for 3D coordination in the northern section of the Lafayette Task Force for the "latest" tactical situation. He says that two F15s are currently on station(8) in Belda about to bomb a DSHK(9) position located to the north of the valley.

A patrol must then engage only in the Tagab Valley and contact the JTAC(10) is the situation is becoming confused in this sector. Once the link has been established, the patrol establishes an over watch(11) close to the village of Joybar. While the patrol is observing in dunkin(12) around the zones to be observed, the JTAC says that shots are systematic when the aircraft pass the compound. The patrol realises that it has a good visual on the sector and is able to carry out a suppressive fire to the north west of the position concerned for about 50 m. After the agreement of the JTAC, a 20 shell gun SADDLE-UP shooter-shooter(13) attack is carried out. The area returns to calm and the patrol takes the opportunity to fill up.

(1) LAFAYETTE Task Force, LAFAYETTE brigade
(2) RC, Regional Command
(3) On alert
(4) KAIA, Kabul International Airport
(5) Local time
(6) TIC, Troop in contact
(7) COP, Combat Out Post
(8) Note supprimée car traduction française d'un terme anglais
(9) DSHK, 12.7 mm calibre weapon
(10) Joint Tactical Advanced Controller
(11) Observation
(12) Note supprimée car traduction française d'un terme anglais
(13) The two fire simultaneously

The respite is short lived. The patrol received the order to take off and contact personnel on observation at the northern entrance to the Alasay valley where it is observing insurgents in the compound sector. After a return to calm and meticulous observation that did not detect an enemy presence, the patrol was asked about the possibility of separating aircraft as a TIC has just taken place to the east of the Tagab market. On the orders of the leader, the winger goes to the zone and makes contact with the JTAC. ANA(14) troops are engaged on the Buckeye road close to the Tagab Bridge by shots coming from the compounds located to the south and also to the north by insurgents ambushed in the green zone close to a characteristic wall on the northern road and including a remarkable light blue door.

After confirmation that the objective has been seen, the Tigre carries out two gun attacks delivering 83 shells putting a final stop to the insurgents' action.

At the same time, little further north, a second aircraft intervenes close to a compound surrounded by vegetation on the exits of the village of Joybar.

Easily confirmed by the crew that observed a lot of gunshot crackling from the covers, the authorisation is sent to open fire on the position identified. Three successive gun attacks and 90 shells were required to neutralise the insurgent groups.

If relative calm has returned to the Tagab Valley, the situation in the upper Alasay Valley is flaring up again following an attack by a large group of insurgents close to the Belda COP.

Given the urgency of the situation, the patrol was then asked to get quickly to the zone and contact the Alasay COP JTAC located 2 km further down. After initial contact, it asked the patrol to stay in the south of the valley so as not to interfere with the ANA mortar fire in progress. Once firing was finished, the patrol contacted the unique in Belda for CCA guiding. The situation is more than tense, insurgents ambushed below northern and southern edges of the Wadi(15) that runs 200 m to the north, attempt to mount an assault. The position of the insurgents is designated in relation to a VAB(16) easily identifiable by the COP. The situation is clear and the terrain enables a rapid strike, the patrol gathered for a SADDLE-UP shooter-shooter attack IN HOT (17) in the Wadi axis and facing east. 220 shells were delivered in two attacks to stabilise the situation in the sector.

Although the patrol is still in over watch, it is informed that the ANA must fire on a DSHK position detected to the north of the valley and must prepare to carry out an attack on his new objective. Two attacks are carried out.

After 160 shells fired on this new target, the patrol is at the end of playtime(18) and must hand over to the next patrol (a Tigre with a Viviane Gazelle armed with HOT2) that has come to take over. It then joined the Nijrab FOBs, the fuel low (19) lights on for refuelling and a return to KAIA. Impacts are detected on one of the aircraft. The day ends.

Captain GANDOLFI

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(14) Afghan National Army
(15) River
(16) Front Armoured Vehicle
(17) Firing imminent
(18) Independence
(19) Note supprimée car traduction française d'un terme anglais

KABUL, AUGUST 2011; THE COFFEE IS STILL HOT.

I'm a Tigre pilot and it's my first mission to Afghanistan. It's 12:45 at Kabul International airport and, as usual, we're filling up on coffee after lunch. Apparent calm, the patrol leader's telephone rings, I already know that my coffee will go cold on the table.

It's a CCA(1) alert: a land convoy is being harassed by insurgents, no further information. I know that time is limited and I quickly ran the 500 m that separates us from the tarmac taking the opportunity to warn duty mechanics of an immediate take-off.

Everything goes very quickly. After putting on my bullet proof vest, I inspect the aircraft's weapons and get into the cockpit. I notice far away my team leader coming back from the operations centre where he was told the details of the mission. He made a hand gesture telling me to start the aircraft, the mechanic confirmed that everything was OK. The team leader gets in and, while the turbines were already rumbling, he rolls out the mission. Once again, we are in KAPISA. Even though this type of mission was not a first, and I know my weapons systems perfectly, I always keep in mind that there is a threat to helicopters in this valley. Our patrol made up of two Tigres took off in less than 15 minutes.

After 20 minutes flying and contact with the JTAC(2), we quickly identify the convoy's position. It is stopped on the MSR(3) between TORA and NIJRAB. The two lead vehicles are being attacked.

We have been asked to neutralise the zone where the fire is coming from located 400 m to the east of the convoy to enable it to disengage. The two patrol commanders detect the effective presence of armed and hostile personnel as well as the absence of Afghan civilians using a thermal camera. More than 10 minutes are required to tell the difference between enemy positions and the most advanced friendly positions and avoid friendly fire which is the nightmare of Tigre crews. Very quickly, it is reported that the two Tigres are taken as targets. I stay calm as our height means we cannot be reached by ALI(4) but nevertheless I carry out evasive manoeuvres, and the second pilot does the same. Once the pressure is off, we deliver several volleys of highly effective intense and precise fire thanks to our powerful 30 mm gun. Insurgent activity stops and the convoy can disengage. We escort the set of 13 vehicles to its destination. It is 14:30, drivers and passengers can breathe a sigh of relief going through the doors of the NIJRAB. forward position base (FOB). We return to base and I get back to my coffee, hot, under the stifling 47°C in Kabul.

LT MIGNOT

(1) CCA: close combat attack
(2) JTAC: joint tactical air controller
(3) MSR: main supply route
(4) ALI: light infantry weapons

MOUSQUETAIRE BATTLE GROUP SUPPORT

The Mousquetaire helicopter battalion is an air combat unit within the Lafayette Task Force. This battalion works in a demanding environment (high mountains, high summer temperatures) that has a serious impact on the performance of helicopters. The Battle Group is systematically engaged in land manoeuvres and most often at the most difficult times of the day and night. It uses technical and logistic support that is both remarkable and complex.

In terms of organisation, the "Mousquetaire" battalion - in its support section - is organically comprised of a logistics maintenance office whose role is to manage technical aspects and handle supplies as well as a squadron made up of armed helicopter maintenance groups both with about 20 personnel. The first is dedicated to supporting the six reconnaissance and attack helicopters (HRA), the second to six utility and attack helicopters (HMA). In addition, this second unit is in the unique position of being inter-force as it includes a group of Air Force technicians including a Caracal that is deployed within the battalion. Army Air Corps (ALAT) personnel represent more than 90% of maintenance personnel.

The battalion's maintenance personnel is resolutely driven by a spirit of support. Each member of personnel works day and night and in all conditions to deliver the maximum potential and ensure that all the battalion's aircraft are available almost 100% of the time. A supplies module helps effectively resolve difficulties with spare airports; it represents a major element of logistics support. To provide permanent support upstream, each member of the technical and logistics personnel follows a battlefield inoculation course during the Operational preparation before deployment (MCP). This enables them to work closer to the action, in FOBs (forward operating base) or in hostile areas depending on land movements. This way, the intervention of ELIs (Light Intervention Unit) or the systematic detachment of maintenance personnel in FOBs to refuel and rearm the HRAs during ground support missions - Close Combat Attack (CCA) - is a process mastered and proven by the battalion. Maintenance personnel are mentally ready and physically conditioned to intervene far, in hostile areas, to support their brothers in arms in battle groups with whom they share fundamentals (combat shooting training and combat first aid particularly), the same values and the same culture.

The recovery on the ground of a Tigre wreck on 5 February 2011 is a perfect illustration of this. Both constrained by operational needs and technical and logistics requirements, battalion support was entirely successful in action alongside supported ground troops. The technical skill associated with the battlefield inoculation of maintenance personnel is one of the key factors in the success of the Mousquetaire Battle Group.

The value of this air combat unit rests as much on the dexterity and professionalism of its crews as the technical mastery and skills of its logistics personnel. It contributes directly to guarantee the freedom of action of the French Brigade.

CNE LEVOTRE EMH 2

5th RHC/BHMA commander

IMPORTANCE OF THE TIGRE IN AFGHANISTAN

After two campaigns in the Afghan theatre, the last of which as a unit commander, it is striking to see the importance of Tigre helicopters in air and land manoeuvres.

Firstly, escort missions for tactical transport or during airmobile operations made a large contribution to BATHELICO (helicopter battalion) successes with battle groups. In addition, the quality of fire support for troops deployed on the ground led to an inter-force cohesion that was deeply beneficial for the Army Air Corps. I noticed this cohesion particularly after 14th July ceremonies during public events on the Esplanade des Invalides. I "surprised" an infantry man back from Afghanistan in the process of caressing the helicopter with tears in his eyes. He then explained how he came out of an ambush at the bottom of the Alasaï Valley alive thanks to the intervention of a patrol of two Tigres. I think we can see the importance of the support of the Tigres for ground troops in the eyes of that young soldier.

Secondly, the role of helicopters has extended to the tactical appreciation of the different battle groups. Indeed, after reliable information is acquired, a large number of objectives were treated with mixed modules. After meticulous preparation of the mission, vehicles loaded with explosives or groups of insurgents for example were able to be dealt with using BATHELICO resources. The effect of this was firstly to neutralise the insurgents but also to make the battle groups' ground manoeuvres easier.

Finally, the presence of helicopters above French soldiers has quite a beneficial psychological effect. Indeed, insurgents hesitate to launch an action when a patrol has the ability to fight back immediately in the event of attack. The dissuasive effect of the "CCA on station", maintaining helicopters in the air as long as the battle groups do not have control, enables the coalition's losses to be reduced whilst maintaining permanent pressure on the insurgent.

CNE BOUILLON

OPERATIONAL PREPARATION BEFORE DEPLOYMENT IN AFGHANISATAN IN DECEMBER 2011

The particularly difficult conditions of engagement in the Afghan theatre require a high level of operational preparation by us. We owe it to all our personnel.

Since the end of 2008, the operational preparation before deployment (MCP) system in Afghanistan has been successfully implemented and constantly developed by the RETEX.

Six months long, the MCP has three successive phases: individual training, collective than validation. It responds to 4 imperatives: forge cohesion (objective mainly met during the cohesion camp and the synthetic exercise Béarnistan), toughen up and harden the unit (marches, assault course during the rally), train in a realistic manner (with the adaptation of our know-how following the mentor RETEX) and preserve the general balance between the projected unit and that remaining at the base.

For example, combat first aid that was initially targeted at the combat group as a reaction to an attack has little by little involved into the preparation of a crew and personnel in the hold of a utility and attack helicopter HMA(1), attacked with injured on board or that of a crew of maintenance personnel in an aircraft hangar in reaction to an insurgent attack.

So what differentiates this MCP from another? Preparation adapted to local engagement conditions. Here, the effort is concentrated on three points:

- The development of ruggedness
- Learning specific know-how (dust for the HMAs, flying with limited power, mixed patrols or helicopter fire support)
- Inter-force training on two levels:
  - Chief of General Staff with the EIPA(2) and EPPA(3) at the side of the projected units (1st BM, 1st RI and 27th BCA)
  - Crew thanks to the CENTAC, to the benefit of the 1st RI and the DAO(4) for the 27th BCA.

What constraints? As we are talking about the 5th RHC, we know about the Afghan theatre. Indeed, the MCPs are facilitated by the automatic handover of certain categories of specialists from the regiment(5), which means that we can always rely on already qualified personnel, with solid experience of the theatre(6). On the other hand, there is a danger that the personnel in question may go off the boil, with MCPs and deployments coming in rapid succession, combined with the temptation to rely on the experience we already have.

So the preparation must be adapted somewhat to the specific operational context without dropping below a limit. Particularly, the fundamentals of the soldier remain the priority, along with cohesion.

Today, everyone agrees on the quality of this MCP. Let's continue our efforts bearing in mind that the greater our conviction that we are ready, the more we will be able to deal with the most exposed situations.

Lt Col Benoît CIRÉE

(1) HMA, Utility and Assault helicopter
(2) EIPA, Initial Preparation Exercise in Afghanistan
(3) EPPA, Operational preparation before deployment Exercise
(4) DAO, Operational Assistance Detachment
(5) The TIGRE, COUGAR modules and COUGAR-TIGRE-CARACAL maintenance personnel have been provided by the 5th RHC since July 2009
(6) For example, in each aircraft, one of the crew members will have spent at least one mission in the Afghan theatre for the handover of December 2012.

OPERATIONAL EFFICIENCY

TACTICAL TRAINING AT ALAT
TAKING THE LATEST OPERATIONS INTO ACCOUNT

The action of a *Groupement Aéromobile*(1) (Air-Mobile Group) from a *Bâtiment de Projection et de Commandement*(2) (Projection and Command Ship) on the Libyan coast during operation HARMATTAN, the decisive role played by helicopters in urban and peri-urban areas in the Republic of Ivory Coastduring the battle of Abidjan and the missions completed by ALAT in the Afghan mountains or in the Sahel desert all bear witness to the undeniable tactical abilities of our teams.

Although these theatres present few similarities(3), the air-combat missions which were or are being carried out, meet with success, as the teams adapt the tactical skills learnt at the *École de l'Aviation Légère de l'Armée de Terre*(4) (Army Air Corps School) to the situation at hand and against the enemy.

The school is the melting pot where everything starts and where theoretical and practical knowledge, the ethical, technical and tactical skills, are passed down - all the fundamentals which remain crucial to the safety of Army Air Corps combatants and the success of their missions.

The objective is to provide trainees with real intellectual flexibility(5), alongside rigorous planning and execution skills for missions, and easily-adaptable basic principles.

The EALAT has been able to adapt its training to take into account the fundamentals necessary to recent missions. It is always referring to mission documents, the various RETEX(6) from the latest missions and the experience of its instructors. Alongside training personnel, trainees also actively take part in their own tactical training, through their rich, recent experiences, providing the possibility of a two-way exchange and active participation in formulating ways of thinking relevant to their future deployment in a unit.

Training, however, must remain exhaustive in its general precepts to provide responses to all possible scenarios, without focussing on current engagements to the detriment of future operations.

KEY TERMS

Tactical training

TIGRE training

Maintenance personnel training

Simulation

Battalion structure

MCO centre

Red Alert

Management Policy

Also, the mixed module work, joint preparation for missions including all types of helicopter and weapons systems, taking into account C3D(7), and reporting these missions in English, makes it possible to adapt the general tactical principles to all theatres of operations, current and future.

Amongst the modern tools available to Army Air Corps combatants, simulation is obviously the one which has revolutionized tactical training the most. Indeed, EDITH(8) provides a variety of missions(9), from actual scenarios to fictitious ones, with only the mission designers' imaginations as a limit. It confronts trainees with all the situations - diverse, complete and dense - in order to refine tactical training, and ensure that theory is as close as possible to reality.

But all the training delivered at the school is simply general principles which can be adapted to the missions, the terrain, and the areas in which ALAT is deployed. Also, it would be pointless to try and cover the entire range of missions and types of flight, given the limited number of flight hours and training days. We must continue to leave our pilots(10) with significant room for manoeuvre, and develop a culture of reacting to unplanned technical or tactical developments.

As current operations may not be those of tomorrow, the EALAT cannot provide solutions for each tactical situation, but rather provides the keys to obtaining the desired tactical effect on the ground or on the enemy.

The school thus provides crews with all the tools to adapt to current, diverse and developing conflicts, in the image of the armed forces in general. Operational as soon as they arrive in their regiments(11), Amy Air Corps combatants can effectively rely on what they have learnt in the school, and develop this teaching to reach optimal levels of skill.

By Sainte Clotilde, long live the ALAT!

The CFCU captains 2011-2012

(1) GAM
(2) BPC
(3) Climate, terrain, friendly/enemy situation and modes of action used
(4) EALAT
(5) Each combat situation is different, ability to adapt is a necessity
(6) *Retour d'expérience* (Feedback)
(7) *Coordination 3e Dimension* (3rd dimension Coordination)
(8) *Entraîneur didactique interactif tactique hélicoptère* (Didactic Interactive Helicopter Training Programme)
(9) Within the framework of amphibian and exercises and operations, the teams deployed during HARMATTAN were trained on the EDITH exercise "DIABLOS", which set off from a BPC.
(10) Whatever the level of qualification or responsibility, from the fighter pilot training course to CFCU.
(11) The behaviour of young patrol leaders during HARMATTAN perfectly illustrates this point.

TIGRE SHOOTING TRAINING AT THE EFA

I. Principles to remember:

Training shooters (pilots and flight commanders) on the Tigre HAP aims to provide crews with the technical and tactical skills necessary to using weapons systems (30mm canon, 68mm rockets and Air-Air Mistral missiles) as well as the aircraft's self-protection systems (decoys).

This training relies mainly on simulations due to the cost of munitions, targets and flight hours, but also because of simulator performance which teaches trainees manoeuvres and elementary technical skills while eliminating certain constraints of actual flight which reduce the efficiency of teaching demonstrations.

Simulations represent over 30% of shooting training at the EFA. The teaching method involves all available means of simulation, from learning shooting procedures on CPT (Cockpit Procedures Trainer) to leading sanctioned tactical missions through simulated shooting on FMS (Full Mission Simulator).

Training is completed with "real" shooting to confront crews with the real world which, on a psychological level, involves "taking the plunge", a realisation which is vital to their future position as a shooter.

For ammunition-based weapons systems with "autonomous piloting and guidance" (Mistral and Hellfire missiles from 2013 and the Tigre HAD delivery), as initial shoot conditions are paramount, simulations are able to teach technical manoeuvres and reduce the number of real shots to what is strictly needed, without completely removing the necessity of these for inexperienced shooters. On the other hand, munitions "without guidance or piloting" once fired (shells and rockets) require more real shots as simulations cannot generate the same environmental disturbances which require the shooter in a high stress situation to analyse the efficiency of their shooting and control the real use of their fire.

II. Current constraints:

The main constraints recorded in the use of simulations (FMS and CPT) relate to using the Rocket Sub-systems with the necessity of materializing rocket trajectory from launcher departure to impact. The terminal effectiveness of munitions (shells-rockets) still lacks realism with a single on-target impact a sufficient condition for destroying the objective in question. These limitations mean it is not possible to learn how to control shooting over an extended target, or to assess the distribution of impacts in the target zone, necessary conditions for positioning the device when engaging in a firing situation.

Furthermore, the EDITH simulator, used for tactical training, is not applicable to training for shooters, as the interfaces involved in executing shooting procedures are still too far from the Tigre HAP (loading handles not compliant, incomplete imagery in the head-down display, etc.).

Actual air-surface shooting capabilities in Canjuers currently cover requirements for the various arms systems integrated in the French TIGRE HAP and German KHS, with the exception of tracer ammunition weapons (12.7mm machine gun for the German HAP) and laser guided Hellfire missiles for the future HAD. But the planned closure of the Western side of Canjuers during the CETIA (Centre d'Entraînement aux Tirs Interarmes – Training Centre for Combined Forces Shooting) works between 2013 and 2015 will require all the School air-surface shooting training to relocate to nearby shooting ranges, such as the Mediterranean trial centre (DGA-île du Levant) or shooting ranges further away.

With regards to using Hellfire missiles for training, the EFA is proposing keeping a qualification shoot at the end of training for flight commanders, while waiting for HAD simulation implementation and the RETEX, and findings from an intensive implementation of the sub-system by teams.

III. Necessary developments and prospects.

Financial constraints on ammunitions budgets and targets, and constraints for using this ammunition and the laser guidance system relating to it (peacetime profiles) require considering the necessary developments for training teams taking into account feedback in the school and from operations.

Simulations at the EFA have already meant it is possible to propose reducing rocket allocation (from 24 to 20 for shooting for pilots in the front, and from 48 to 36 for flight commanders in the back) by changing 2-rocket salvo shoots to daytime shoots.

RETEX for Afghan and Libyan theatres of operations provides two important lessons for shooting training:

- adapting a “vital shot” process as supporting fire (close combat attack – CCA – procedure) involved with creating a RED(12) “combat profile". This development has been approved by the EMA since September 2011, but only taught on simulators while waiting for it to be acknowledged by the TTA 262;
- Tigre combat in Afghanistan also revealed that firing rockets was impossible for pilots due to constraints involved in identifying targets, assessing collateral damage, optimizing fire support requiring use of the main viewer, and the responsibility of the commander in the back.

Thus, removing rocket fire for the pilot position in the front during training in favour of purely self-defence canon fire can thus be considered. If accepted, this development will be harmonized with the in-unit pilot training programme.

The arrival of German KHS Tigres at the EFA in 2012 as an operational standard and the Tigre HAD in 2013 (equipped with the Hellfire Air-Surface missile subsystem with laser guidance) and its in-flight CATM (Captive Air Training Missile) simulator requires studying new uses for the available firing ranges (with adapted targets, if necessary).

Indeed, while the profiles for the 12.7mm machine gun, the 70mm rockets and the KHS HOT missiles can be integrated into the overall Canjuers plan, the use of tracer or incendiary ammunition is forbidden, as is firing Hellfires and using laser designation. Relocating HAD Hellfire and KHS machine gun firing to the île du Levant therefore now seems like the solution.

Conclusion:

Firing training for Tigre crew is carefully based on simulation methods on the ground in order to efficiently and progressively acquire the basic skills without actual flight constraints which often impede the efficiency of training demonstrations. The "freeze", "replay" and "reinitialize" functions thus take on their full value within the context of acquiring basic skills.

This training work takes on vital importance with the arrival of “intelligent" ammunition, highly expensive, but ruthlessly efficient, which only requires one identification before the target is designated.

Beyond acquiring the technical manoeuvres and procedures on the simulators, it is also about teaching the crew optimal use of firing and the positioning of their craft (situation intelligence).

Facing real-world situations in firing training in this way is essential as it creates psychological and physiological constraints which adversely affect performance and cannot be reproduced by simulators on the ground (CPT, FMS) and only to a small degree during on-board simulations (MES, CATM).

LCL (ER) Willy Ravinet
EFA firing preparation office

(12) RED : Risk Estimate Distances

ALAT MAINTENANCE PERSONNEL TRAINING

The success of ALAT's many operational engagements can be explained today, and it has been in the past, by the high quality of its teams, deploying ever higher-performance aircraft, but also the existence of highly technical maintenance work.

Air-mobile technical support's excellent results, while of course relying on the daily investment of each flight engineer, whatever their rank or specialty, are also the direct and obvious consequence of high quality technical training provided in the flight engineer schools or training centres: thus, flight engineers' skills are honed to serve the needs of ALAT.

Technical training for ALAT flight engineers is currently undergoing major changes, which aim to make it compliant with support regulations based on navigability requirements.

Combined forces operations, taking navigability into account, the arrival of new aircraft, using private services to carry out certain training programmes where appropriate, the professionalization of the armed forces with, as a consequence, the arrival of EVATs within the ALAT workshops are so many new elements to take into account when organising and providing technical training.

Combining forces is effective because all ALAT technician NCOs are now given preliminary training in Rochefort (42 weeks). Indeed, for the first time in 2011, young ALAT flight engineers marched alongside their colleagues from other forces on 14 July, in a clear symbol of this osmosis.

AT type qualifications (8 to 14 weeks), most often carried out as combined forces training for shared aircraft, remain taught at the Bourges military schools for the current aircraft (Gazelle, Puma and Cougar); the CFA-PTL provides training for the Tigre and CFIA NH 90 the Caïman. Certain QTs are provided by the private sector (Caracal, Pilatus, certain Tigre modules, renovated Cougar while waiting to be included by the school) or by the air force (Fennec, TMB 700).

The separation between "basic training" and "QT" is established by taking navigability into account, as the schools must now act within an FRA 147 framework and follow the training programmes defined in FRA 66.

The professionalization of forces has been taken into account by ALAT maintenance: since 2005 ALAT has decided to fully involve its volunteer forces fully in supporting and deploying its aircraft. ALAT maintenance EVATs are thus fully-fledged engineers, with their specialty recognised by awarding ALAT specialty insignia which refers to other categories of personnel's certificates.

The organisation and provision of training, however, could be optimised if the availability of teaching material for training flight engineers was not so often sacrificed due to significant budgetary constraints. Rescue solutions, often demoted, require a particularly high human investment, and often finish up being more expensive (private training services required).

In spite of this difficulty which should be definitively resolved in the new programmes, the undeniable excellence of ALAT flight engineers' technical training, now based on navigability requirements (a difficult but appropriate choice made at the very start made by the Bourges equipment school, in particular) will provide the solutions to the air-mobility challenges of tomorrow.

LCL Yves ROHEL
COMALAT/Maintenance office

DEVELOPING SITUATION INTELLIGENCE

Simulations take part directly in ALAT's operational capacity and the success of its engagements, through their potential to develop situation intelligence, to anticipate knowledge of operational theatres and maintaining general skills crucial to future engagements.

During army operations over the past ten years, it was necessary to engage in situations where the political-military context became increasingly complex. The ALAT team missions therefore had to be carried out with greater control and proficiency in all technical and tactical areas. In particular they required crews to develop situation intelligence to the point of instinct. For many of them, simulations were the tool to develop this situation intelligence.

Indeed, the training adapted to simulations develops situation intelligence on 3 progressive levels:

- apprehending the situation: knowing what is going on around you;
- understanding the situation: understanding your environment;
- remaining in control of the appropriate reaction for the most complex situation: taking the measures most appropriate to all constraints while respecting imperatives for success.

Knowing what is going on in one's immediate surroundings has always been a key to successful combat. Not being taken by surprise or, at least, staying in control of procedures to reacting to being taken by surprise, enables helicopter crews to act efficiently faced with asymmetrical or unsymmetrical types of threat. However, it is not possible to review, in actual flight all the concrete events which might occur during a mission. The volume of information received by a crew in flight is very often at the limits of what even specially selected and trained personnel can process quickly. Thus, simulations present the advantage of methodically confronting this personnel with a great number of concrete situations which correspond to an analysis of the main operational situations. It enables crew to create their own analysis grid which will organise the waves of information with which they are bombarded when piloting a new generation helicopter. Once integrated, this information constitutes an understandable situation. Simulations thus provide training for taking decisions while integrating the variables involved in a complex mission. To take a concrete example, it is forbidden by the rules of engagement to complete a destroy mission without having precisely assessed collateral risks so as to minimise or even remove them. This assessment must be made extremely quickly during a destroy mission, as it must not put the craft in danger, or allow the enemy to take cover. It is therefore appropriate, using to tactical simulations, to make our crews rehearse this situation analysis and the ensuing actions until they become a familiar and efficient tool.

This instinct for combatants, acquired in simulations and then validated in actual flight translates into full control of the situation and the measures to implement which we call situation intelligence.

New combatants to an operation or rotation of personnel must not diminish the force's efficiency due to the discovery of the environment. Building virtual databases, representing a theatre of operations' area of responsibility, provides knowledge of the theatre environment at the preparatory stages before deployment.

(13) The first two define the famous "situation awareness" so important to Anglo-Saxons

Preparation before deployment may be carried out using virtual terrain databases representing the area of operations for a theatre of operations. Thus, on EDITH, the tactical training programme, all ALAT regiments have been able to prepare for rotations in the Afghan theatre. The deployment area between Kabul, Kapisa and Surobi has already been recreated on a training and pre-deployment conditioning database which is so realistic that crews could be briefed on procedures specific to the theatre, training to engage fire while respecting the rules of engagement and knowing the entire physical geography for the engagement area with its technical and tactical threats.

The amphibious operational procedures which were implemented during operation HARMATTAN have been replicated for years on the EDITH tactical trainer. This has taught the constraints of amphibious operations during engagements, but also how to work within the framework of actions recommended by the doctrine. The many exercises carried out by crews thus made it possible for the helicopter battalion commander from the first wave of Harmattan to state that if crews had not be able to train so much on EDITH, they would not have met with such success in this mission, as they acquired tactical proficiency using this tool.

Technical dust landing procedures are also taught and drilled using simulations. The renovated SHERPA provides training for HMA teams. *Entraîneurs de formation initiale* (EFI) - Initial Training Programmes – or *entraîneurs de pilotages et de systèmes d'armes* (EPSA) - Piloting and Weapons System Programmes – or TIGRE simulations provide challenging learning and training conditions for HRA crews. Procedural proficiency is thus acquired in simulations before being applied in actual flight.

Similarly, crews must become familiar with new generation helicopter button displays to the point of manoeuvres becoming second nature. The aim of simulations is to is thus for the right finger to apply the right pressure to the right buttons to obtain the desired effect without needing to look at the controls in question, or even for this choice to have any effect on decisions about trajectory, shooting or what tactical choice to opt for.

Preparations for the next war are always the most complex. Simulations respond to this need by maintaining technical or tactical skills which cannot be carried on combat vehicles for reasons of cost or availability.

Two TIGRE Full Mission Simulators, or TIGRE Cockpit Procedure Trainers combined can deliver the operational preparation potential of two TIGRE squadrons (3,500 hours of training in a TIGRE cabin). The practice hours required to achieve proficiency in the TIGRE weapons system cannot be afforded in actual flight. That is why the army put a crew training policy in place for its ALAT which optimises complementary means on three fronts.

Real flight complementing simulated flights, but also substitution flights complementing flights with helicopter weapons systems and local low-cost simulations complementing centralised simulations which include the most complex simulators to ensure high performance.

Thus, the availability of simulators, which stands at around 95%, provides units whose main aircraft are deployed in operations to continue training to prepare for the next tour of duty, or to maintain tactical and technical skills which are not used in current operations. Simulations are thus useful to preserve, update and increase the range of tactical skills.

ALAT is always considering its tactical modes of action. They develop in its documentation, its training and its operational preparations. Thus, a tool such as the EDITH tactical training programme prepares for joint tactical, joint operation and multinational combat, applying the doctrine of other operational functions, seeing it develop at its real speed according to its intrinsic capacities.

In the same way, simulators are a means of applying lessons learnt from RETEX from ongoing operations. The short-term advantage is that there is therefore no down time during operational rotations. The incoming crews have knowledge of the theatre and are immediately involved in their mission. The long-term advantage is that needs for new material are assessed in simulations and in actual flights. Between these two, and according to the sensitivity of the topic, training operations change according to the long-term need to integrate RETEX cultural or structural elements into the training simulation.

Thus, thanks to the investments made by the army, modern ALAT simulation has provided its crews with the skills to carry out complex missions in the Ivory Coast, Afghanistan or Libya, because it teaches the complex techniques for its new generation devices without becoming restricted by them. By accustoming crews to consider their missions in the spirit and the letter of their training and, most of all, developing an instinct in them for making decisions which are considered and right, simulations enable crews to think while acting(2) efficiently, even in the most tense scenarios. They provide the grounding to "act as a thinking man, and think as an active man," as Henri Bergson said.

LCL Eric MERCK
Simulations co-ordinator for air-mobility functions
COMALAT/BEP

(2) Army general LAGARDE

BATALLION STRUCTURE: POTENTIAL DEVELOPMENTS AND REVIEW

After the trials in Pau, the 3rd Combat Helicopter Regiment (3rd RHC) adopted battalion structure in summer 2010(1). This new structure received a baptism of fire when the "Big 3" engaged successfully and simultaneously in two major operations over the last months: PAMIR in Afghanistan from June to December 2011, and HARMATTAN off the Libyan coast from July to September 2011.

Efficient and effective, battalion structure enables the commanding officer to refocus the entire regiment on operational preparation while having available a level of command devoted to engaging in combat.

Battalion structure also refocuses operational personnel on their main job line. It is also of interest in rationalizing support and optimizing operational preparation by sharing resources.

Made up of 2 battalions, the 3rd RHC is structured according to a standard format for all CFT air-mobility divisions. It is thus structured around a *bataillon d'hélicoptères de manoeuvre et d'assaut* (BHMA) - Manœuvre and Assault Helicopter Battalion, a *bataillon d'hélicoptères de reconnaissance et d'attaque* (BHRA) – Recognition and Attack Helicopter Battalion – and a *bataillon d'appui aéromobile* (BAA) - air-mobile support battalion. Each of these battalions is itself organised in squadrons, including a maintenance squadron within each flight battalion (BMHA and BHRA).

Each is led by a *commandant de bataillon* (COMBAT) – battalion commander - and an *état-major tactique* (EMT) – tactical staff - made up of desk officers and an officer responsible for maintenance.

Following their COMBAT's orders, each battalion is responsible for its personnel's operational preparation. This involves briefing, training and can even involve *mise en condition avant projection* (MCP) – pre-deployment conditioning, when the battalion constitutes the structure of a *groupement* or *sous-groupement aéromobile* (GAM or S/GAM) – air-mobility group or sub-group - ready to be deployed. As for the BAA, it is responsible for the regiment's TTA operational preparation, and the *disponibilité technique opérationnelle* (DTO) - Operational Technical Availability - of the material which it keeps in storage.

The battalion commander also commands an HR cell within their EMT, providing HR command for their personnel.

For command, the main advantage of this structure is to have 2 autonomous flight battalions available within the regiment. These are responsible for all aspects of operational preparation.

They can generate formations on an S/GAM or GAM level on request, which can be deployed rapidly with individual additions or one-off reinforcements from other battalions in the regiment, or the outside, if the resource is not available internally. Responsible for its DTO, the battalion commander more able to lead all their squadrons to achieving their potential and training their crews with regard to priorities established by the commanding officer, and planned exercises, missions, or operations.

The flexibility gained in this way is palpable. Indeed, thanks to this direct command, battalion level is the first level for reports providing an objective and concrete perspective of levels of preparation for personnel and material. Amongst other things, it provides the commanding officer, "outside the arena", with the necessary perspective to make their choices, take their decisions, and establish the direction they want, without being busy with secondary issues.

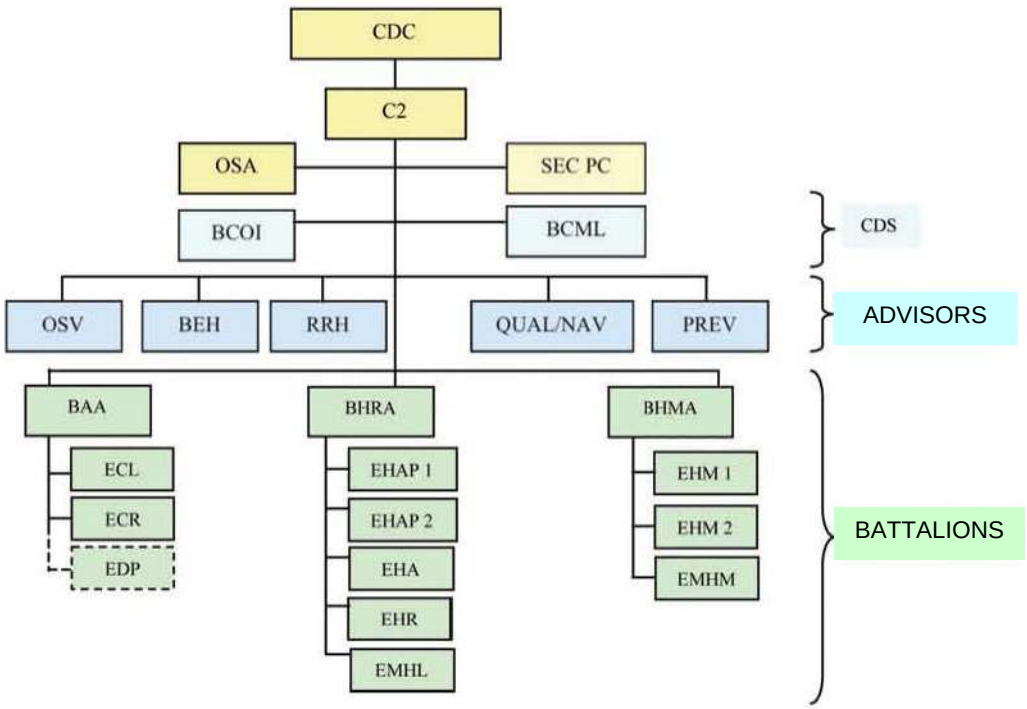
(1) The 1st RHC changed to battalion structure in summer 2011, establishing the passage to this structure for the entire *division aéromobilité du commandement des forces terrestres* (CFT/DIV AERO) - air-mobility division of ground force command.

Recent experience has also shown that the rare incidence of an ALAT regiment engaging all the means at its disposal does not favour systematically having a designated commanding officer at the head of an operational detachment. A regiment's level of excellence sometimes has more to do with the everyday life of a unit than in far-off theatres of operations.

In particular, battalion structure redefines the respective roles of the *commandants d'unité* (CdUE) – unit commanders – and the commanding officer. Through the introduction of an extra level of command, the CdUEs see their area of responsibility transformed, without necessarily being diminished. For the commanding officer, the change can be felt too. Responsible and in charge of all regimental activities, they must nevertheless remain an operational chief, ready to take to the head of a GAM in deployment to engage in combat, if the stakes, the environment or the volume of forces deployed require it. This perspective must constitute their top priority. Experience of battalion structure is still too recent to for a definitive opinion on this question. From this point of view, a pragmatic approach must carefully place the right level of command for external operations.

To conclude, this new organisation, put in place in the 3rd RHC in the summer of 2010, is proving itself with the successes with which we are familiar from operations PAMIR, HARMATTAN, and the G20 in Cannes last October. The overall result is positive as these detachments were armed on the basis of battalion operational structures in place in metropolitan France. Based on refocusing operational personnel on their main job line, this structure provides battalion commanders with all the means necessary to preparing their unit for operations, and thus enables the regiment to respond efficiently to the requirements of ALAT's and air-combat's current engagements.

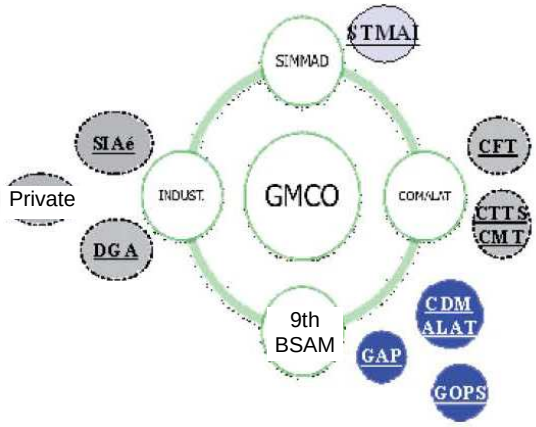
Colonel Frédéric TURQUET
Commanding Officer for the 3rd RHC



The 3rd RHC in December 2011

THE AIR-MOBILE SUPPORT 9th BATALLION MCO CENTRE, A TECHNICAL FACILITATOR "HOTLINE"

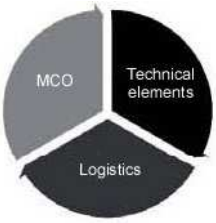
The *plateau maintien en condition opérationnel* (MCO) – centre for maintaining equipment in operational condition – for the air-mobile support 9th battalion, initially a joint task force, reports to COMALAT. A technical echelon able to relay or re-direct directives towards all aviation perimeter training.



Responsible, in the first place, for coordinating logistical activities for contracting on the PUMA and COUGAR helicopter fleet, its field of action has been extended to all helicopter fleets (old and new generations), for over a year, in priority for external operations training and overseas or carrier group detachments (HARMATTAN, ATALANTE).

Its actions, which initially centred on searching for means of improving logistical flows to make them more fluid, and provide solutions for supplying provisions to different blockades was then opened to much wider perimeters, extending even beyond the limits established by its founding text.

Drawing on the three areas of "logistics – technical issues – markets" , and thanks to three years of feedback, the MCO centre now plays a particularly important role in implementing processes led by the SIMMAD (MCO), conferring upon it an undeniable place within the central logistics operation for the aviation perimeter.



Today, MCO centre missions concentrate on running emergency operations, anticipating provisioning needs in liaison with central bodies (SIMMAD or SIMMT), for external or special operations (4th RHFS). Amongst other duties, it contributes to navigability by acting as an undeniable technical relay (echelon) in processing *comptes-rendus de fait techniques Qualité* (CRFT/Q) – technical incident and quality reports.

Without wanting to roll out an entire catalogue of actions carried out, a few examples will provide readers with a more precise vision of the possibilities provided by the Montauban 9th BSAM MCO centre in support of the forces deployed in all theatres of operations.

Actions undertaken from a technical perspective.

- Direct support for special tools and material submitted to FR 2969 in External Operations and lots de déploiement ou de projection (LDD) – Deployment or Projection Packages – made available (support for PAYAN actuators by the 1st maintenance group, direct metrology support for any calibrations required, etc.);
- particular management of requirements for organes-accessoires-équipements (OAE) – Organs-Accessories-Equipment - linked to the TURBOMECA MCO, Eurocopter, THALES and written into the maintenance contract for aviation material (C2MA) as central support (acceleration of private and public repairs in liaison with the SIMMAD helicopter fleet (F9) market manager or through maintenance operations with the central shops (example of the BRUZ 2nd RMAT support for head down viewers and viewing heads for PAMIR and HARMATTAN);
- central pole for processing complaints relating to technical documentation to rapidly deal with any lack of availability (processing part of the CRFT/Q and any complaint sent directly to the MCO centre, in the event there is no equipment matriculation file documentation, certificate of conformity, Delivery and inspection note (DAIN), complaint file sent to Eurocopter, etc.);


EUROCOPTER

EASB

EMERGENCY

ALERT SERVICE BULLETIN

OBJET : LIMITATIONS - Pompe hydraulique

Grippage pompe hydraulique

- relaying to units all alert service bulletins (ASB), dispensations, directives d'application (DA) – application directives – which might give rise to research into a technically non-compliant item, to managing an inventory and referring to the central shop (cable hoist following ASB n°...);
- Technical HOTLINE to provide responses to any impromptu requirements particularly for specific equipment for deployed forces (HARMATTAN 2011 "SLC Hydraulic Clamp" equipment borrowed from the public body "SIAé" for a one-off intervention on the carrier group fleet on a BPC – projection and command ship).
- publishing a quarterly newsletter for all forces in metropolitan France and in deployment to underline certain irregular situations, certain procedural breaches which have been observed and potential developments in MCOs in force.
- monitoring the potential of the aircraft-adjusted GTM TURBOMECAs which are part of unavailable aircraft or those in a good state for all platforms in a monthly report named "ETITMA" which will organise, amongst other things, re-supplying provisions on site (organisation of repatriation, supplying industrial partners, monitoring aircraft which is in good condition as well as unavailable craft);
- managing the librairie aéronautique de l'armée de terre (LAAT) – Army Aeronautical Library - monitoring the existence of a reference shroud for each fleet, bringing deployed units in line with one another updating lots de deployment (LDDs) – Deployment packages – monitoring services bulletin (SB) - bulletin services – dispensations, application directives and other.

Actions undertaken from a logistical perspective

- Managing "ETAT 4" crucial requirements for all fleets (daily processing of requirements related by the theatre, searching for solutions with SIMMAD F9, the market facilitators and the 2nd GAP);
- searching for replacement parts following a break in the chain of logistics, whether by carrying out reparations from a 9th BSAM maintenance group, either by reducing repair times in private or public bodies, sometimes by harvesting the part from aircraft (decommissioned HORIZON craft in storage in the 9th BSAM, or PUMA at the CUERS AIA);
- managing EPMA credit between 700 and 1000 K€ per year for purchases in the private sector by the 2nd GAP marché achats finances (MAF) cell according to the rules defined by the public market code. These purchases are linked to solutions to a crucial requirement, the purchases of renovation components for the maintenance contract PUBLIC MARKETS AND OTHER CONTRACTS for aircraft (C2MA) in view of satisfying External Operations requirements in priority (renovation kit for PAYAN actuators as direct support for External Operations, support in completing the EDV TIGRE/GAZELLE flight recording KITS for External Operations, repairs carried out in the private sector (RIP), example: specific equipment, in particular linked to the application of FR2969, purchase of specific parts, maintenance and repair work for GB45 groups, etc.);

CODE DES MARCHÉS PUBLICS ET AUTRES CONTRATS

- supporting sections which supply provisions to achieve autonomy by providing them with the means they require within the framework of levelling stocks for External Operations (implementing the *commande des flux logistique* (CFL) – Logistical Flow Command; opening HERMES drawing rights to provide spare parts to airport areas or other destination, monitoring IATA qualification needs for transporting dangerous materials by air);
- expertise provided to the divisions for supplying provisions and for logistics in central organizations (COMALAT, CFT, SIMMAD, organizations outside the perimeter ALAT – SIMMT or SMITER) which translates as studies, reports and feedback of indicators (External Operations additional costs, monitoring MCO repayments, individual monitoring following helicopter crashes: TIGRE motor, 22 round rocket pods).

In conclusion, the Montauban 9th BSAM MCO centre, truly at the heart of the operations, is a technical facilitator "hotline" for the general maintenance chain, the objective of which is to obtain the best availability for aircraft at the lowest cost. The arrival of the new "CAIMAN – NH90" helicopter in 2012, the spare parts for which will be stored in the 2nd GAP could result in the effective combination of forces for the MCO centre.

Captain Tony COPPA
BMOI / Adjoint GMCO

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1st GM : 1st maintenance group (9th BSAM) - BMOI / attached to GMCO
2e GAP : *2e groupement des approvisionnements* – 2nd group for supplying provisions (9e BSAM)
4e RHFS : *4e régiment d'hélicoptères des forces spéciales* – 4th special forces helicopter regiment.
AIA: *atelier industriel aéronautique* – industrial aeronautical workshop
COMALAT: *commandement de l'aviation légère de l'armée de terre* – Army Air Corps Command
CFT: *commandement des forces terrestres* – Ground Forces Command
EPMA: *entretien programmé des matériels aériens* - programmed maintenance of aircraft equipment
GTM: *groupe turbomoteur* – Turbomotor Group
IATA: International Air Transport Association
LCP : *lot complémentaire de projection* – complemetary deployment package
LDD: *lot de déploiement ou de projection* – deployment or projection package
SIAé: *service industriel aéronautique* – industrial aeronautical service
SIMMAD: *structure interarmées de maintenance des matériels aéronautiques de défense* – joint army structure for maintaining aeronautical defence Equipment
SIMMT: *structure intégrée du maintien en condition opérationnelle des matériels terrestres* – integrated structure for maintaining ground force equipment in operational condition
SMITER: s*ervice de maintenance industrielle terrestre* – ground force industrial maintenance service

RED ALERT AT THE 9TH BSAM ETCM

Malta Airport, early June 2011, 16:15 local time. PC-6 has arrived at its place in the parking area, a few metres from the Puma which has just engaged its rotor brake.

In a few minutes, the boxes containing various spare parts are taken on board the helicopter which will shortly leave for the projection and command ship “Tonnerre”, cruising off the Libyan coast.

On 4 June the French media will report the first strikes carried out the previous night by the ALAT

Gazelles and Tigres against Libyan military targets, within the framework of operation “Harmattan”.

It was half way through Wednesday that the request to urgently deliver spare parts was sent by the “Harmattan” GAM. This type of mission, carried out on short notice (“Red Alert”) for units deployed in external theatres, is one of the responsibilities of the ETCM(1) Peloton Pilatus. The parts (generally stored on the Montauban 9th BSAM site) are then delivered as quickly as possible by PC-6, most often to another airport or air base where they will be put on board the next flight, civil or military, to the theatre of operations.

These missions should be distinguished from those which also deliver spare parts, but for ALAT units in training overseas. Indeed, such missions are subject to a prior request to put aircraft on alert, and thus provide sufficient notice for preparation.

It was therefore towards midday, on Wednesday, that the telephone rang at ETCM operations to request the feasibility of a delivery to Malta as soon as possible; soon after, the designated crew (which was then returning from Châteauroux, from a delivery of parts for Kabul) was alerted of what was in store for them the following day, and was diverted to Rennes to pick up part of the spare parts. During this time, at ETCM, the few pilots available all got to work preparing their colleagues' flight (flight message, request for international mission orders, flight plan, request for assistance at a stop-over), as the squadron did not have personnel dedicated to preparing missions.

Take-off was from Montauban on Thursday morning and, after six hours’ flight and a stop-over in Sardinia, the delivery arrived less than 30 hours after receiving a request at ETCM, thus completing the GAM capacities.

Several other missions for Harmattan saw PC-6 freight delivery to destinations as varied as Villacoublay, Hyères or Landivisiau where parts were then transferred on board other aircraft to Malta or the "Charles de Gaulle" PA.

In April, another Red Alert topped up BATALAT “Licorne” stocks just before its engagement. A PC-6 took off at the end of the night from Montauban to land in the morning at Rennes and pick up the parts. Before midday, they were delivered to the Plessis aerodrome, near the Roissy CDG airport, where they were placed on board a flight to West Africa.

Whatever the destination or the nature of the cargo, the “Red Alert" missions provide the 9th BSAM PC-6 crews with the satisfaction of supplying their colleagues in External Operations with the means of completing their mission.

Adj SAINT-ARROMAN

9e BSAM - ETCM / Peloton Pilatus

(1) Escadrille de Transport et de Convoyage du Matériel – Equipment Transport and Delivery Squadron. A well-loaded PC-6 during a mission to supply aircraft spare parts.

RISK MANAGEMENT POLICY UNDERGOES ORDEAL BY FIRE

ALAT engagements in 2011put each air-combat specialist (pilots, maintenance personnel, air control personnel, etc.) and each level of command(1) in work and engagement conditions of very different natures(2), sometimes only a few weeks apart.

What could have put a brake on operational engagement did nothing to limit the Army Air Corps' actions most of it had been anticipated thanks to the principle of training programmes corresponding as closely as possible to potential operations.

Thus, the readiness of COMALAT to accept a reasonable and calculated level of risk to ensure efficient operational preparation while preserving the flexibility necessary to respond to urgent dispensation requests, was proven to be perfectly coherent on the ground. The policy must now be maintained and maximised to always increase the safety of personnel to endure efficiency in combat.

The Army's flight security and risk management policy validated

Considering the scope and length of combat situations, the operational engagements of 2011, more than ever, highlight the relevance of the article delivered to you in the previous edition of the ALAT newsletter, on "defining standards and managing operational risk." It finished on: "The obligation to prepare crews before engaging drives our strategy for managing operational risk towards choosing unique “peace time / crisis” standards. This strategy aims to not make them vulnerable to the risks inherent in exposing them to areas of flight with which they are not familiar and which would add to the new risks specific to the "theatre of engagement".

Certainly, this strategy clearly exposes us to a higher risk(3) in "peacetime" training.

It is, however, the Army’s considered choice, after a global analysis of operational risk, made with the necessary perspective, upstream of crisis situations and based on feedback from what will soon be sixty years of combat(4).

The high level of involvement from actors on the ground as well as from army personnel to anticipate these risks, taking into account feedback and human factors as well as guaranteed consistency between training in schools, preparation and operational engagement have paved the way to this ambitious, but necessary objective. The pro-active use of resources provided by simulation equipment, tactical and technical has also played a large part in making the successive engagements of several detachments possible just a few weeks apart, and within the context of limited resources.

Thus, the choice of a “training – preparation and operational engagement" continuum, within the definition of standards and operational risk management has been fully justified and played an important part in limiting knowingly taking risks at all levels as well as the number of dispensation requests.

(1) Operational and organic command, tactical controller, tactical chiefs..
(2) The operations are characterised by very different environments (summer-winter mountain flights in Pamir, flight in urban and semi-tropical areas in Licorne, land and sea for Harmattan, and over deserts for others) and tactical situations which are just as heterogeneous (asymmetrical or unsymmetrical enemy position, urban combat, combat by day and by night, etc.).
(3) But for which the fallout in terms of efficiency vs. consequences must be monitored.
(4) Standards which we must, however, take care to reassess to guarantee their relevance in the long term.

Dispensations granted for careful decisions

All throughout these operations and during the sometimes very short phases prior to engagement, units and command on the ground have been confronted, and still are confronted, with exceptional situations which standard procedures, whether they relate to techniques, maintenance or executing flights only cover in part.

Throughout these operations, when deadlines allowed it, an almost daily exchange took place between COMALAT and command in the theatre, using the flight security channel (BSV-OSV) to consider accepting dispensations of a technical nature(6) or for employing crew, assessed using the yardstick of a recognised risk; these dispensations are then backed up by specific decisions which aim to minimise the risks inherent to accepting them.

When reviewed, the nature of the dispensations accepted, stemming from technical considerations and not relating to employing crew, confirmed that the standards defined(7) and the abovementioned continuum are appropriate.

The main crew-employment related dispensation, during Harmattan, involved managing deck landing qualifications for which an accelerated training for teams was accepted. This dispensation was then the subject of strict monitoring and joint management between COMALAT and ALAVIA(8), the fruit of an effective two-way collaboration set up in 1999. On the other hand, certain dispensations relating to employing crew were refused as the units involved did not have the necessary expertise and training.

Furthermore, to preserve all the flexibility expected, in particular when the deadlines provided are very tight, the possibility for command in the theatre to award dispensations to meet a justified need, advised by the officer for flight security in the theatre, has made it possible to meet needs.

Finally, flight security policy implemented in ALAT over 2011, a highly demanding year in terms of operational engagement, has been shown to be consistent. It must be maintained and at best, optimized.

A hundred times on the job…

The results for engagements in the African theatre are very positive. There have been no accidents or even serious incidents, but essentially war damage, accepted, linked to the bitterness of fighting and the courageous engagement of crews in extreme situations.

This should not make us forget the accidents during the 2010-2011 cycle in Afghanistan, a particularly demanding theatre in all areas, and which led to the death in combat of one of our colleagues in commanded air service.

The system is therefore forever perfectible. Certain light incidents were due to non-compliance with basic procedures which must continually be reminded.

Also, while a decrease in operational engagement seems likely, operations continue. This decrease in activity requires great vigilance so that it does not become synonymous with disregarding safety regulations for flights.

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(6) With the STAT and the SIMMAD

(7) Example: Tigre retreating to BPC, documentation for landing the Tigre on the BPC, managing ammunition on board, managing maintenance in a sandy or salty environment, etc.

(8) ALAVIA had dispatched their landing expert on board.

This welcome pause should be the opportunity to:

- process the large amount of feedback delivered to COMALAT and which must be the subject of an analysis to improve procedures and equipment;
- concentrate on perfecting normal and basic procedures;
- improve operational preparation programmes (MCP), different for each theatre, learning lessons from engagements, but also from serious events;
- improve documentation of procedures to guarantee better readability internally and externally;
- improve standard procedures and maintenance procedures for which the engagement environments exposed shortcomings, even for fleets that are well known from 35 years of use;
- improve communications with joint forces command in the theatre to raise their awareness of specific constraints for implementing aircraft with very different technologies, personnel fatigue and the necessity of prioritizing missions;
- consider the use of new technologies, particularly digital, for which the results provide interesting opportunities for use but for which the “longevity" is sometimes difficultly compatible with arms programmes.

To conclude, and to return to the 2011 article, let us never forget that we should never attempt actions with which we are not familiar. Let us prepare with the professionalism characteristic of all Army Air Corps personnel and let us always remember that flight security is a necessary condition for mission success, whatever its nature, location, or urgency.

If, in spite of all of this, you are confronted with an “abnormal" situation, act with "situation intelligence, common sense, rigor, and always... professionalism”.

Lieutenant – colonel de Follin
Head of COMALAT flight safety office

IN MEMORIAM IN MEMORIAM

RÉPUBLIQUE FRANÇAISE

CITATION

DÉCISION N° 124

LE MINISTRE DE LA DÉFENSE
ET DES ANCIENS COMBATTANTS

Vu le décret n° 56-371 du 11 avril 1956 modifié, portant création de la croix de la Valeur militaire,

Vu la décision n° 6131/DEF/CAB/SDBC/DECO/A/1 du 30 avril 2002 portant ouverture du droit à la croix de la Valeur militaire pour le théâtre de l'Afghanistan.

CITE
A L'ORDRE DE L'ARMÉE

le lieutenant Matthieu **GAUDIN** - ID 94 190 10079 -
- 3ème régiment d'hélicoptères de combat – Etain (Meuse) -

« Engagé à compter du 29 mai 2011 comme chef de patrouille d'hélicoptères de reconnaissance et d'attaque au sein de la brigade La Fayette, dans le cadre de l'opération "Pamir" en Afghanistan, a fait preuve de belles qualités militaires.

S'est particulièrement distingué dès le 5 juin en assurant la protection de l'hélicoptère qui transportait le général commandant la brigade. Grâce à l'emploi judicieux de son système d'alarme "Viviane", est parvenu à déceler un groupe d'insurgés, puis à faire manœuvrer efficacement la patrouille pour soustraire cette dernière aux tirs et aux vues de l'adversaire.

Le 10 juin, en début de soirée, a conduit une nouvelle mission d'escorte nocturne, au cours de laquelle son hélicoptère s'est écrasé entre la base opérationnelle "Morales Frazier" et Kaboul.
Est décédé des suites de ses blessures.

Pour son sacrifice au service de la France, mérite d'être cité en exemple ».

CETTE CITATION COMPORTE L'ATTRIBUTION DE LA CROIX DE LA VALEUR MILITAIRE AVEC PALME DE BRONZE

Fait à Paris, le 17 juin 2011.

Gérard LONGUET

SGA/SMG Impressions 05 55 93 61 00

IN THEIR HONOUR

WELL-DESERVED AWARDS

Ceremony with the Chief of Defence Staff on 6 April 2011 at the Hôtel National des Invalides

Lieutenant Pierre KEICHINGER, Warrant officer Christophe BRACHET, Lieutenant Grégory DALLE ST, Second-lieutenant Nicolas ASNARD, Second-lieutenant Éric BASSET receive the Military valour cross.

Ceremony with the President of the French Republic on 6 June 2011

Captain Victor ESTEVLES is made knight of the Legion of Honour.
Captain Erick ZINUTTI is made knight of the National Order of Merit.

14 July 2011, the 1st RHC on the Champs Élysées

KEY FACTS

Ceremony at the Hôtel National des Invalides

14 July in Paris

ALAT Ceremony 2011

Military ceremony G 20

Honours and awards

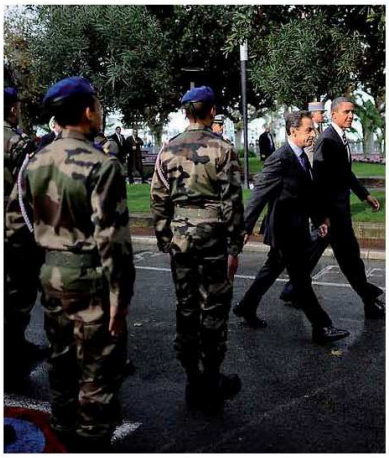
EALAT Army Air Corps school

On Thursday 6 October, the ALAT ceremony presided by the Chief of Defence Staff marked the changing of the banner between the 18th and 19th group of pilot officer students, and the swords handed to officers from the non-commissioned officers corps.

During the ceremony, General PERTUISEL Commander of ALAT awarded the rank of brigadier of honour to Rear Admiral COINDREAU commander of the Navy's Rapid Reaction Corps, which commanded Combined Task Force 473 during operations in Libya.

In Cannes at the G20 Summit

A military ceremony was held on 4 November attended by the French and American military. The event, which brought together the President of the French Republic and the President of the United States of America, was held to commemorate the history and strength of the friendship between the two countries, and to salute the action of French and American military forces which took part in operations in Libya.



The award of all its operational units in 2011 is an unprecedented distinction in the history of ALAT.

11 November in Paris

The President of the French Republic awarded the Cross of military valour to the units recently engaged in external operations. The 1st regiment of helicopter gunships were among the 12 honoured units (including four from the Army). The regiment was particularly awarded for operation Harmattan from May to July 2011 (it was also present during events in the Ivory Coast Republic at the beginning of the year).

23 November in Pau

The Chief of Defence Staff awarded the Cross of military valour to the 5th regiment of helicopter gunships and the 4th regiment of special force helicopters (for operation Pamir in Afghanistan).

16 December in Étain

The Minister of Defence awarded the Cross of military valour to the 3rd regiment of helicopter gunships (for operation Harmattan in Libya).

ALAT AWARDS GIVEN IN 2011

OFFICER OF THE LEGION OF HONOUR

BG	DU BOUËTIEZ DE KERORGUEN	Eric	Decree of 1 July 2011

KNIGHT OF THE LEGION OF HONOUR

Lt Col	AUROY	Hervé	Decree of 1 July 2011
Lt Col	HALVICK	Patrick-François	Decree of 1 July 2011
Capt	JANOT	Ludovic	Decree of 1 July 2011
Capt	MIGOTTO	Christophe	Decree of 1 July 2011
Lt Col	PELTRE	Denis	Decree of 1 July 2011
Capt	SALL	Boubacar	Decree of 1 July 2011
Lt Col	VETTORI	Bernard	Decree of 1 July 2011

MILITARY MEDALS

CWO	BONNAHON	Patrick	Decree of 14 April 2011
CWO	DUTECH	Bruno	Decree of 14 April 2011
CWO	ESCOFIER	Laurent	Decree of 14 April 2011
Maj	ESCRIBANO J	acques	Decree of 14 April 2011
CWO	LETOURNEUR	Jean-Pierre	Decree of 14 April 2011
CWO	SERRA	Patrick	Decree of 14 April 2011
CWO	TISNES	Philippe	Decree of 14 April 2011

NATIONAL ORDER OF MERIT

Officer rank

Col	BAYLE	Alain	Decree of 5 May 2011
Lt Col	BLATIER	Daniel	Decree of 4 November 2011
Col	BONNET DE PAILLERETS	Olivier	Decree of 4 November 2011
Col	DE CERTAINES	Christian	Decree of 4 November 2011
Col	DARRICAU	Gilles	Decree of 4 November 2011

Knight rank

Capt	BERNERON	Jean-Raphaël	Decree of 5 May 2011
Capt	BEYAERT	Franck	Decree of 5 May 2011
Maj	BROCARD	Daniel	Decree of 5 May 2011
Capt	MARTINEZ	Christophe	Decree of 5 May 2011
Capt	VAZQUEZ	Cyril	Decree of 5 May 2011
Capt	ZINUTTI	Erick	Decree of 5 May 2011

Capt	BINDNER	Fabrice	Decree of 4 November 2011
BC	CAVAILLES	Bruno	Decree of 4 November 2011
Lt Col	CAZELLE	Vianney	Decree of 4 November 2011
Capt	DELETANG	Yves	Decree of 4 November 2011
Lt Col	DUMAS	Benoît	Decree of 4 November 2011
Capt	FERNANDES	Eric	Decree of 4 November 2011
Lt Col	HAUTREUX	Olivier	Decree of 4 November 2011
Maj	LAGE	Joël	Decree of 4 November 2011
Lt Col	LE FLOCH	Stéphane	Decree of 4 November 2011
Lt Col	PERROT	David	Decree of 4 November 2011
Lt Col	VINCENT	Christophe	Decree of 4 November 2011

AERONAUTICAL MEDALS

Lt Col	BULCKE	Alain	Decree of 26 January 2011
Lt Col	FIGEAT	Hubert	Decree of 26 January 2011
Lt Col	KERGUS	Jean	Decree of 26 January 2011
Lt	KOPF	Jean-Pierre	Decree of 26 January 2011
Maj	LEPRÊTRE	Michel	Decree of 26 January 2011
Col	MARTIN	Arnaud	Decree of 26 January 2011

AWARDS TO THE ORDER OF THE ARMY CORPS WITH MVC SILVER GILT STAR

Capt	LOMBARD	Kévin	4th RHFS
Lt	DAOUT	Loîc	4th RHFS
S/Lt	FOTIUS	Mathieu	3rd RHC
Cpl	COUDIN		4th RHFS

AWARDS TO THE ORDER OF THE BRIGADE WITH MVC SILVER STAR

Lt Col	REBINGUET	Alain	3rd RHC
CWO	AUGUSTE	Gaêtan	4th RHFS
Lt	MINEL	Jean-Marie	4th RHFS
Lt	FEUILLEBOIS	Bernard	4th RHFS
Lt	BARTHELEMY	Thibaut	5th RHC

AWARDS TO THE ORDER OF THE REGIMENT WITH MVC BRONZE STAR

Capt	VERBRACKEL	Jean-Joseph	1st RHC
Capt	ESTEVES	Victor	1st RHC
Lt	LE TARO	Adrien	1st RHC
Lt	ROUPLY		1st RHC

Lt	GRAVA	Jean-Phillipe	1st RHC
Lt	JENOT	Bruno	1st RHC
Capt	FOUILLAND	Hubert	3rd RHC
Lt	DORNA	Julie	3rd RHC
Lt	GALLINEAU	Romain	3rd RHC
S / Lt	AUGUSTO	Hélèna	3rd RHC
CWO	LEFLOCH	Jérôme	3rd RHC
Capt	SANTOIRE	Damien	3rd RHC
Lt	ROBERT	Nicolas	3rd RHC
Lt	JORDA	David	3rd RHC
Mshl	WITEK	Alan	3rd RHC
MCpl	BOURHIS	Kévin	3rd RHC
Cpl	MOUSTOIFA	Saïd Hassani	3rd RHC
CWO	REBILLART	William	4th RHFS
CWO	BRACHET	Christophe	4th RHFS
BCh	MARIE-ROSE DITE CETOUTE	Charles-Henry	4th RHFS
Capt	MARTINEZ	Christophe	4th RHFS
Mshl	BAUDOIN	Romain	4th RHFS
CWO	PIERRE	Frédéric	4th RHFS
Capt	ARIBAUT	Jean-François	4th RHFS
Lt	WITTMER	Frédéric	4th RHFS
Mshl	ALEXANDRE	Vincent	4th RHFS
Mshl	COURTADE	Eric	4th RHFS
CWO	CREPIN	Fabien	4th RHFS
Lt	DELPIT	Bruno	4th RHFS
CWO	SATGE	Philippe	4th RHFS
CWO	CALVEZ	Philippe	4th RHFS
Lt	CASTALDO	Daniel	4th RHFS
Lt	BARTHELEMY	Thibaut	4th RHFS
CWO	OLLIVIER	Guillaume	EFA
Lt	DALLEST	Grégory	EFA
S Lt	WAAG	Arnaud	5th RHC
Mshl	KAMPS	Sylvain	5th RHC
S Lt	BAYEUL	Jean-Pierre	5th RHC
CWO	RENE	Pierre	5th RHC
Capt	CELERIER	Jean-Christophe	5th RHC
ASP	DAVID	Laurent	5th RHC
CWO	KERVEILLANT	Claude	5th RHC
Lt	CHAUVIERE	Juliette	5th RHC
CWO F	ELGATE	Eric	5th RHC
Lt	CAMAU	Frédéric	5th RHC

Capt	ANDRE	André	5th RHC
Mshl	GAIA	Grégory	5th RHC
Lt	QUARTIER	Clotaire	5th RHC
Capt	BELLANGER	Franck	5th RHC
CWO	VALETTE	Laurent	5th RHC
Lt	KEICHINGER	Pierre	5th RHC
ASP	ASNARD	Nicolas	5th RHC
S Lt	GRANOVSKY	Stéphane	5th RHC
Capt	VIDAL	Alain	EALAT DAX
Capt	GANDOLFI	William	5th RHC
Lt	BES	Amaury	5th RHC

AWARDS TO THE ORDER OF THE BRIGADE WITH GOLD MEDAL BRONZE STAR

CWO	MAURY	Guillaume	6th BIMA
Lt	MAGENDIE	Tiphaine	EALAT DAX
Capt	VIDAL	Alain	EALAT DAX
Lt	LEFEUVRE	Julien	5th RHC

AWARDS TO THE ORDER OF THE REGIMENT WITH GOLD MEDAL BRONZE STAR

Capt	PERIGNON	Bastien	3rd RHC
Lt	BINNENDIJK	Tanneguy	3rd RHC
S/Lt	MILLE	François	3rd RHC
Capt	GOYARD	Jérôme	4th RHFS
Lt	GOURDON	Florence	4th RHFS
Lt	FLAMAND	Patrick	4th RHFS
Lt Col	MAURICETTE	Eric	4th RHFS
Capt	PISTRE	Sébastien	4th RHFS
Capt	DORANGE	Nicolas	4th RHFS
BC	JANNIN	Jean-François	4th RHFS
CWO	POUVREAU	Jean-Baptiste	5th RIAOM
CWO	MAURY	Guillaume	6th BIMA
Lt Col	CARBONNEL	Patrick	5th RHC
Lt	MOAL	Fabian	5th RHC
CWO	ROCHER	Christophe	5th RHC
Capt	QUAESAET	Emmanuel	5th RHC
CWO	SAVY	Laurent	5th RHC
CWO	HUGON	Franck	5th RHC
CWO	MAIZY	Olivier	5th RHC
Lt	PFEGLER	Sébastien	5th RHC

TESTIMONY OF SATISFACTION FROM CEMA

CWO	CHAIX	Grégory	4th RHFS
BCh	SAMEDY	Nicolas	4th RHFS
CWO	VAUTHRIN	Olivier	4th RHFS
SSG	DOMINGO	Arnaud	4th RHFS
Lt Col	MAURICETTE	Eric	4th RHFS
Lt Col	VERBORG	Pierre	5th RHC
Lt Col	VERMOREL	Vincent	5th RHC

TESTIMONY OF SATISFACTION FROM CEMAT

	EAAT OG group	No. 252 of 18/05/2011	
Col	GOUT	Frédéric	5th RHC

TESTIMONY OF SATISFACTION AT THE LEVEL OF THE DIVISION

CWO	IVANES	Marcel	GAMSTAT
CWO	TUMOINE	Jérôme	EFA
CWO	DUMESNIL	Yannick	5th RHC
SSG	CHAMOTON	Frédéric	5th RHC
SSG	MONANGE	Pierre	5th RHC
Capt	JEANJEAN	Julien	5th RHC

LETTER OF CONGRATULATIONS FROM CEMA

CWO	JARRIGE	Stéphane	5th RHC

LETTER OF CONGRATULATIONS FROM CEMAT

Lt Col	MOURET	Xavier	EALAT LE LUC
Lt	MARCEAU	Dominique	COMALAT
Lt	QUARTIER	Clotaire	5th RHC

LETTER OF CONGRATULATIONS AT THE LEVEL OF THE DIVISION

Mshl	HERVO	Aurélien	GAMSTAT
BGC	TIARE	Georges	GAMSTAT
CWO	ALMEIDA	Christophe	5th RIAOM
Mr	ALI ABDALLAH	Ali	5th RIAOM
Capt	OSMANOVIC	Alain	EFA
MDL	BROUSSET	Séverine	EFA

ALAT ADDRESS BOOK

COMALAT

Postal address: 14 rue Saint Dominique – 75700 PARIS SP 07 - Tel. 01 41 28 93 93

General PERTUISEL	Commander of ALAT
Colonel du FAYET de la TOUR	Chief of staff
Lieutenant-colonel LAURENT	Chief of staff
Colonel AURIAULT	Chief of office, prospective studies
Colonel DENIAU - Chief of office, aeronautical regulations personnel	
Lieutenant-colonel de BENOIST de GENTISSART - Chief of office, aeronautical maintenance	
Lieutenant-colonel ROBLIN	Chief of office, activities
Lieutenant-colonel de FOLLIN	Chief of office, flight security
Lieutenant-colonel ONIMUS	Deputy of office, flight security
Lieutenant-colonel JOUYS	Chief of office, air traffic
Lieutenant-colonel SEITZ	Chief of office navigability
Colonel BOUTINAUD	President of CPSAT
Lieutenant-colonel VACHET	Vice President of CPSAT

EA.LAT – Army staff

Postal address: EA.LAT – BP 30 – 83340 Le Cannet des Maures - Tel. 04 98 11 72 99

General GOURLEZ de la MOTTE	School commander,
Colonel de GUILLEBON	Colonel, DCO
Chief warrant officer LACROIX	Chief of staff
Captain CATALAN	Public relations officer
Colonel BOUVET	General directorate of training
Lieutenant-colonel BENTRESQUE	School training office
Lieutenant-colonel LEBRE	Training quality verification office
Lieutenant-colonel WEGSCHEIDER	Regulations intelligence

Centre de formation interarmées NH90 (CFIA NH90) (Joint army training centre)

Postal address: CFIA NH90 Base général Lejay – 83340 Le Cannet des Maures - Tel. 04 98 11 72 70

Colonel de BOLLIVIER	Corps leader
Lieutenant-commander TROTTER	Second-in-command

Général LEJAY Training Base

Postal address: EA.LAT Base école général LEJAY - 83340 Le Cannet des Maures – Tel. 04 98 11 72 99

Colonel DOUTAUD	Corps leader
Lieutenant-colonel BOUTTIN	Second-in-command

Général NAVELET Training Base

Postal address: EA.LAT Base école général NAVELET – BP 354 - 40107 Dax Cedex – Tel. 05 58 35 92 99

Colonel FAURE	Corps leader
Lieutenant-colonel DEPRECQ	Second-in-command

Centre de vol en montagne (Mountain flight centre)

Postal address: CVM – RN 116 – 66800 SAINTE LEOCADIE – Tel. 04 68 06 47 50

Captain LACAMBRE	Chief of centre

EFA

Postal address: Base général LEJAY – 83340 Le Cannet des Maures – Tel. 04 98 11 72 99

Colonel POURET	School commander,
Lieutenant-colonel CLAUS	Second-in-command
Squadron leader CHEVALIER	Flight security officer
Lieutenant-colonel GOIMARD	Training division
Lieutenant-colonel HINTERLANG	Deputy senior officer
Lieutenant-colonel KLETKE	Chief of division, support
Commander PORE	Chief of service, TSI
Captain RODIER	Chief of technical services
Ms BUREL	Communications unit

CFA PTL TIGRE – TIGRE French-German Training Centre for technical-logistics personnel

Postal address: CFA PTL – Fliegerhorst - Postfach 700 – D – 29328 - FASSBERG (Germany) – Tel. 00 49 50 55 17 + extension

Colonel EBERT (D)	Corps leader
Commander SITARA	Tigre training division
Captain PALLIER	Deputy senior officer

CFT / DIV aeronautics (Lille)

Postal address: Quartier Kléber – 59041 Lille cedex - Tel. 03 28 38 + extension

General du BOUETIEZ de KERORGUEN
Colonel LEFEBVRE
Colonel AIGUBELLE
Colonel VIDAUD
Lieutenant-colonel BODENEZ
Lieutenant-colonel CHEVANNES
Lieutenant-colonel GERVAIS
Lieutenant-colonel LE FLOCH
Lieutenant-colonel MUGUET
Lieutenant-colonel NGUYEN
Lieutenant-colonel VERGER
Commander CANOVA
Captain AYCARD
Captain COURDESSES
Captain LE MAIGNAN
Captain PIERRON
Captain REYNAUD
Lieutenant BAIOCCO
Lieutenant LEVAN

1st RHC

Postal address: BP 30302 – 57373 Phalsbourg cedex – Tel. 03 87 25 20 00

Colonel de LAFORCADE	Corps leader
Lieutenant-colonel DUPONT de DINECHIN	Second-in-command
Lieutenant-colonel GEBLE	Commanding officer, BAA
Lieutenant-colonel CHIPOT	Commanding officer, BHRA

Lieutenant-colonel MOURET	Commanding officer, BHRA

3rd RHC

Postal address: Base d'Etain Rouvres – 55400 Etain – Tel. 03 29 87 82 99

Colonel TURQUET	Corps leader
Lieutenant-colonel COMIER	Second-in-command
Lieutenant-colonel GERARD	Commander of BAA
Lieutenant-colonel BEUTTER	Commander of BHRA
Lieutenant-colonel REBINGUET	Commander of BHMA

5th RHC

Postal address: Quartier de Rose – B.P. 595 – 64081 Pau Cedex – Tel. 05 59 40 40 11

Colonel GOUT	Corps leader
Lieutenant-colonel CARBONNEL	Second-in-command
Lieutenant-colonel THIEBAUT	Commander of BAA
Lieutenant-colonel CIREE	Commander of BHRA
Lieutenant-colonel VERBORG	Commander of BHMA

GAMSTAT

Postal address: Base de défense de Valence – GAMSTAT – BP 1008 - 26032 VALENCE CEDEX – Tel. 04 75 79 76 99

Lieutenant-colonel (TA)LANGLOIS	Corps leader
Lieutenant-colonel BONZOM	Director of experiments
Lieutenant-colonel MOREAU de BELLAING	Chief of group, HÉLI.
Lieutenant-colonel BONNAVENTURE	Chief of group, NUM - ENV.
Lieutenant-colonel MARCHES	Chief of group, LOG - INT.
Commander CHARTIER	Chief of group, EXP - OP.

4th RHFS

Postal address: Quartier de Rose – B.P. 1143 – 64081 Pau Cedex – Tel. 05 59 40 40 11

Colonel POINCIGNON	Corps leader
Lieutenant-colonel BEORCHIA	Second-in-command

GROUPEMENT INTERARMÉES D'HÉLICOPTÈRES (Joint army Helicopter Group)

Postal address: BA 107 – 78129 Villacoublay Air – Tel. 01 45 07 37 93 (secretariat)

Lieutenant-colonel SCHMIDT	Detachment Commander

BATALAT DJIBOUTI

Postal address: SP 85040 – 00820 Armées – Tel. 00 253 45 90 16

Lieutenant-colonel LEBET	Corps leader

DETALAT GABON

Postal address: SP 85702 – 00864 Armées – Tel. 00 241 44 76 00

Lieutenant-colonel MEVEL	Detachment Commander

ESCADRILLE AVION DE L'ARMÉE DE TERRE (Army aircraft squadron)

Postal address: GSBDD – 35 998 RENNES ST JACQUES DE LA LANDE – Tel. 02 99 35 37 24

Captain EASTWOOD	Unit commander

9th BSAM

Postal address: BP 777 – 82 077 Montauban Cedex – Tel. 05 63 91 37 07

Colonel ROSSI	Corps leader
Lieutenant-colonel PRADELLES	Flight security officer
Lieutenant-colonel BASSET	BMOI
Captain TARDO-DINO	Commander of ETCM

CENTRAL ADMINISTRATION GENERAL COMMAND STAFF - DEPARTMENTS– OVIA

EMA

General BRETHOUS	CPCO
Colonel BARBRY	CAOA
Colonel DARRICAU	COCA
Colonel D'AZEMAR	COCA
Commander KRIER	CPCO
Colonel TALARICO	SCC
Colonel RICHOU C	AB CEMA

DSAE

General MARY	DSAE / DIRNAV
Colonel FORT	DSAE / FORMEX
Colonel PERROT	DSAE / DIRCAM
Battalion chief MENET	DSAE / DIRCAM
Squadron leader BARBEAU	DSAE / DIRCAM
Captain BEYAERT	DSAE / DIRCAM
Captain HAZARD	DSAE / DIRCAM
Lieutenant TOUZEAU (Ciprog ATHIS MONS)	
Chief warrant officer GAMALERI (Ciprog ATHIS MONS)	

EMAT

General DEMIER	OGRI
Colonel MEYER	DPS / BORG
Colonel NICOLAS	DPS / BPES
Colonel TRAXEL	DPP / BPLANS
Colonel BURGER	(MAT) DPP / BMCO
Lieutenant-colonel DURAND	DPP / BPSA
Lieutenant-colonel VANNET	DPP / BMCO
Lieutenant-colonel VANOLI	DPS / BPFB
Lieutenant-colonel VIEL	DPS / BSI
Captain PALIARD	DES / EMO-T
Major HANET	CAB / CEMAT

CIH

Colonel DORANDEU	CIH
Colonel d'ARGAIGNON	CIH
Lieutenant-colonel SALLAT	CIH
Squadron leader MEUNIER	CIH

IAT

Colonel de CERTAINES	expert OPS AERO

IGA – T

Colonel BOUILLAUD	aeronautical officer

COMILI IDF

Commander CURUTCHET

STRATEGIC AFFAIRS DELEGATION

Colonel de FRITSCH

DRHAT

Colonel BECKRICH	Head of support office

Lieutenant-colonel BONNARD support office
Lieutenant-colonel PICARD support office
Colonel VALETTE d'OSIA CCM
Captain RITTER CCM
Colonel de BOUVIER SDEP / PMFA
Lieutenant-colonel CRUZILLE SDEP / BPRH
Lieutenant-colonel GUTTER SDEP / BPRH
Lieutenant-colonel GHEERBRANT SDFE Tours
Commander CARTOUX Selection office (Vincennes)
Captain HUMBERT Selection office (Vincennes)
Lieutenant SAINTOT Selection office (Vincennes)
Lieutenant SORIA Selection office (Vincennes)
Major TRARIEUX Selection office (Vincennes)

DRH-MD
Colonel CRUZILLE

DGA
Lieutenant-colonel d'ARTIGUE UM/HELI
Lieutenant-colonel CHABRIER CATOD
Lieutenant-colonel LECAPLAIN Istres
Lieutenant-colonel GAILLON (EPNER Istres)
Lieutenant-colonel LEBRE (DCE Cazaux)
Captain PLAZA (DCE Cazaux)

BEAD-Air (Brétigny sur Orge)
Lieutenant-colonel IMBAULT
Chief warrant officer TOULOUSE

UFV (Creil)
Lieutenant-colonel MONNET
Captain THOMAS

SIMMAD (Brétigny sur Orge)
Commander GHIRARDINI
Battalion chief GEOFFROY (Montauban)
Captain MARTINEZ (Montauban)

CDAOA
Lieutenant-colonel LAMBOURG

DEF / MMAé
Colonel SAMIE

SGA
Colonel MARTIN

MINISTER'S CABINET
Battalion chief EPSTEIN

SGDSN
Colonel GRINTCHENKO

DRM
Lieutenant-colonel BERETTI (Paris)
Lieutenant-colonel PENARANDA (Paris)
Major MARIETTE (Creil)

COS
Colonel BONNAIRE (Villacoublay)
Lieutenant-colonel SENECHAL (Villacoublay)
Captain LANTELME (Villacoublay)

WAR COLLEGE
Colonel ALLAVENE

CESAT
General JUMELET
Lieutenant-colonel PERROT
Captain JAEGER

CRRE (Strasbourg)
Lieutenant-colonel de RAUTLIN de la ROY

CDEF
Colonel LUCAS

CRR-FR (Lille)
Lieutenant-colonel HALWICK
Lieutenant-colonel KERGUS
Battalion chief DELAUNAY
Captain FAURE
Captain GUILBAUD
Chief warrant officer IVANEC

STAT (Satory)
Lieutenant-colonel HAUTREUX (OP NH 90)
Lieutenant-colonel VINCENT (OP TIGRE)
Lieutenant-colonel BLANCHARD (OP support LD)
Battalion chief RICHARD (deputy programme off.)

ARMY REGIONS

REGION TERRE SUD-EST (South-west)
Colonel GARIEL

REGION TERRE SUD-OUEST (South-west)
General BARATCHART
Lieutenant-colonel BOUILLARD EPIGE (Mont de Marsan)

EMIA-ZD EST (East)
Lieutenant-colonel PEREZ

ARMED FORCES STAFF

EMF 1 (Besançon)
Colonel LE PICHON
Colonel DELVILLE
Lieutenant-colonel VITTOZ

EMF 3 (Marseille)
Lieutenant-colonel BERMOND
Lieutenant-colonel WOLFF

TRAINING SCHOOLS

EMB (Bourges)
Lieutenant-colonel CHAMEAU

COËTQUIDAN (Guer)
Lieutenant-colonel DESCHARD
Captain PUJOL
Captain ROULIER

EEM (Compiègne)
Lieutenant-colonel ENGELHARD
Commander GEFFROY

BRIGADES

BFST (Pau)
Colonel SALVA
Lieutenant-colonel CAZALAA
Lieutenant-colonel LEFEBVRE
Lieutenant-colonel GOUWY
Lieutenant-colonel PELTRE

11th BP (Toulouse)
Commander VIGNES

27th BIM (VARCES)
Battalion chief BRAZIER

OTHER ENTITIES OR UNITS

EM CECLANT (Brest)
Colonel SABRAYROLLES

EM ALFAN (Toulon)
Lieutenant-colonel VETTORI

GSBdD (Phalsbourg)
Lieutenant-colonel DONTENWILLE

2nd RD - NBC
Colonel GIOT

CEPC (Mailly)
Lieutenant-colonel GOISNARD

CNCIA (Châlon en Champagne)
Lieutenant-colonel HUOT

DMD 26 (Valence)
Lieutenant-colonel SIRODOT

DMD 80 (Amiens)
Colonel HEYRAUD

NAHEMA
Lieutenant-colonel DIROU

ALAT

LIAISON OFFICERS SERVING ALAT

Lieutenant-colonel CIOLETTE	(Brazil) EA.LAT / EM
Lieutenant-colonel PLAZA	(Spain) EFA
Commander DEPREITERE	(Belgium) EA.LAT - Dax

POSTS ABROAD – OVERSEAS FRENCH DEPARTMENTS AND TERRITORIES – LIAISON OFFICERS – AMT – AFT – AD

Colonel BAYLE	London
Lieutenant-colonel MINART	Great Britain (Middle Wallop)
Colonel GRAMMATICO	Casteau (Belgium)
Colonel BARRAU	Casteau (Belgium)
Colonel VEILLON B	Brussels
Lieutenant-colonel de FAUTEREAU-VASSEL	Brussels
Lieutenant-colonel VOGIN SHAPE	Mons
Lieutenant-colonel ROUL	Germany (BFA)
Captain VALLANCE	Brunssum
Captain SOLIGNAC	Albania
Colonel DAUTREY	Italy
Commander du FAYET de la TOUR	Malaysia
Lieutenant-colonel MAURICETTE	Malaysia
Captain SAVIGNAC	Morocco (MCMD)
Commander LECRU	Morocco (MCMD)
Lieutenant-colonel BOUYSSOU	New Caledonia

SCHOOLING

WAR COLLEGE
Commander CARRIERE
Commander FERNANDO
Commander VEYSSIERE

EMSST
Commander AUTEM
Commander BERTHELOT
Commander BOURBOULON
Captain CLABAUX
Commander COULON
Battalion chief DESQUESSES
Commander DODIN
Commander DORANGE
Commander JOURNOT
Commander MALLET
Captain SEIGNER
Commander VERDUN

The national union of ALAT associations

The club for those who wear or have worn the blue ALAT beret.

The active units of ALAT distinguished themselves in particular in recent months around the world, helping to write the finest pages of the history of our military force and our country.

All the regiments of ALAT have been awarded by the highest government authorities in France, in recognition of the value and effectiveness of our division, which all other armed forces can rely on.

ALAT is not just a military force; it also has a history, traditions and a heritage kept alive by its veterans associations. The regional groups of these associations, along with Entraide ALAT and AAMALAT, together form UNAALAT. UNAALAT represents all of you, both active personnel and veterans, as part of the entities ONAC, FNAM, RANAT in the world of combat, where our forces, being the youngest, are often the last to intervene.

Our veterans are proud to wear the blue beret, and rightly so. For it is a symbol of their contribution to the success they share with our younger officers – those who have inherited their legacy of fine human, professional, and military qualities.

Based on an agreement between COMALAT and UNAALAT, the active units and veterans groups are brought together with greater strength, showing their cohesion under all circumstances. They show greater solidarity and provide mutual assistance in an increasingly trying and hostile world.

This solidarity and mutual assistance are vital to make the voice of reason heard, particularly during a period when Defence objectives and priorities are again being brought into question.

Lieutenant General (rtd) Charles-Henri de Monchy
President of UNAALAT

Since 1960, the association Entraide ALAT (ALAT mutual assistance) has been working in favour of military and civilian defence personnel serving the Army Air Corps.

The association's resources come from the subscriptions of its active or reserve personnel, from the golf tournament, donations from other units (at open days, charity sale events, etc.), as well as individual donations, ALAT associations and various civil associations and companies.

Thanks to the members of the association, for more than the past half-century, Entraide ALAT has provided emergency financial assistance to families in need.

Entraide ALAT is an association supported by you, and designed for your benefit. Our unique association can only continue to act with your help.

General Guy VIOT

President of Entraide ALAT

Entraide ALAT in 2011:

- provided assistance to 5 families affected by accidents;
- formed a partnership with GMPA to allow them to contribute to action taken by Entraide ALAT;
- in association with GMPA, provided school and study benefits to 31 orphans;
- handed out Christmas cheques to 43 orphans;
- funded the ALAT knives sale. Initiated by Chief warrant officer Philippe MICHELON and the COMALAT navigation quality office, the project was a real success, selling some 4,200 knives. All the proceeds went straight to Entraide ALAT.
- made a donation to Terre Fraternité, an association which provides everyday help to our wounded army friends. If possible, the donation will be made again in 2012. Being a member of Entraide ALAT is a way of showing solidarity to just and vital causes.

Assistance provided by Entraide ALAT

In addition to moral assistance, Entraide ALAT also provides material aid:

- immediate assistance: sums paid to the victim's family within 48 hours,
- occasional assistance in case of need (upon examination of applications),
- school and study benefits for orphans,
- Christmas cheques for orphans up to the age of 18,
- holiday cheques for orphans up to the age of 18,
- zero-interest loans (upon examination of applications).

In 2011, ALAT mourned the passing of 5 officers who left behind them 2 widows and 7 orphans.
In the past decade, 63 victims were survived by 42 widows and 95 orphans.

Your subscriptions and donations are welcome

Entraide ALAT is a registered association which means you are entitled to an income tax credit (in France) amounting to 66% of your donations and subscriptions.

e.g. for a €60 donation, you are entitled to a €40 income tax credit

Cheques can be made payable to Entraide ALAT and sent to: COMALAT / Bureau Santé / Entraide ALAT - Zone aéronautique Louis BRÉGUET - 78129 Villacoublay air

website: www.entraidalat.fr

COMALAT / Entraide ALAT Intraterre website:

http://www.comalat.terre.defense.gouv.fr/spip.php?article16

The bestiary of HARMATTAN.

Having spent two years at the tactical division of EALAT (school of army aviation), I began to wonder about the relationship between the orders I tried to give and the way they were carried out in an operations following my appointment for Harmattan3. One thing is clear: role models are the cornerstone of any system which hopes to last for any length of time. At a time when society is seeking reference points and guiding principles, and becoming imbued with a certain "new age" spirit, I decided to yield to the current fashion and scour the animal world for a totem that could serve as a model for our young officers. It was a tricky choice, so I suggest we turn to one France's greatest thinkers: Jean de la Fontaine.

In its report on "The Bear and the Gardner", Jean de la Fontaine and Co.'s International Agency for the Rating of Animal Resources picked up on an idea encapsulated since the 15th century, but especially in the 16th and 17th centuries, in two popular French expressions: "le pavé de l'ours" (the bear's paving stone) or "rendre un service d'ours" (do a bear's service), expressions which appear frequently and mean "do a person a disservice having intended to help them". These two expressions are inspired by a number of legends wherein a bear, believing he is doing good, throws a paving stone or other heavy object on to a man intending to chase away an insect or other parasite, killing him in the process, and leading us to assume that the bear's great muscular strength is not accompanied by proportionate intelligence. "Nothing is more dangerous than an ignorant friend - better a wise enemy", as the aforementioned report has it.

Given this plantigrade animal's low IQ, we will distance ourselves from it. We will not opt for the eagle either, as it has a fairly unsavoury history of conquest and domination. The lion, which roars autocratically like a braggart, uses its mane to show off in front of females, and displays a pimp's morals in setting lionesses to work to provide its daily bread, is frankly unsympathetic too. Instead we will track down a more suitable model for command: I refer, as you may have guessed, to the puma.

The puma can run at speeds up to 50 kph. It can leap up to 12 metres from a standing start. And it can jump up to 4 or 5 metres in height, without a run-up. The puma has a slim, muscular physique, and its backside is higher than its head, enabling it to jump easily. Its long tail, darker at the tip, is one of the puma's defining features. Finally, it has long, pointed, retractile claws and four digits. Its rear paws are larger and more powerful than its front paws, allowing it to leap efficiently and move easily in the snow or on steep terrain.

The puma has a small, rounded head with small ears set wide apart, giving it exceptionally keen hearing. It has powerful jaws and a highly developed sense of smell. The colour of its eyes varies from green to amber, and it has a very wide field of vision. It can see very well in the dark.

The puma moves silently. It is an animal that can swim well if threatened. For hunting or other reasons, it can climb trees and display great agility, Vigilant and attentive to everything that happens, careful and discreet, it does not chatter, and nor does it bellow like a vulgar big cat.

It does not waste its energy unnecessarily but expends it when necessary with speed and power. It is exact and precise in its actions, and is keenly aware of the boundaries of its territory, in other words its own limits.

It is persevering and determined with its prey, which it observes for long periods, silently, from its tree or a rock.

It does not confuse strength with aggressiveness, gentleness with weakness, love with submission, or serenity with mental stupor; it has an intimate knowledge of the laws of nature, and obeys them faithfully, knowing that transgressors are punished mercilessly. It is difficult to observe in the wild.

But its first love and true passion is of course... the gazelle: it thinks only of them, and knows all their habits and behavioural patterns, their speed and agility, their redoubtable flair and wisdom, which it monitors very closely, knowing how to exploit it to the full. The gazelle is an agile animal, THE PUMA-GAZELLE PROJECT TEAM

But its first love and true passion is of course... the gazelle: it thinks only of them, and knows all their habits and behavioural patterns, their speed and agility, their redoubtable flair and wisdom, which it monitors very closely, knowing how to exploit it to the full. The gazelle is an agile, lively animal which can run very quickly. Some can reach speeds of 90 to 100 kph over distances of several hundred metres. Slender and graceful, it has long, slim, light legs and a lean musculature, concentrated close to the body. It has light, slender bones and a very flexible spinal column.

The gazelle has dense, fragile and highly pointed hooves, ideal for running. Its lungs are highly developed and promote gas exchanges.

It boasts a volume of oxygen uptake during effort of nearly 380 ml/kg/min. They can maintain speeds of 50 kph over long distances (up to six kilometres, for a maximum period of 15 minutes) and are able to intersperse their running strides with remarkable leaps.

Gazelles are alert and have excellent vision (up to 360 degrees), spotting predators at distances of up to 300 metres. When excited, worried or to discourage potential predators, gazelles like to leap: this is called "stotting" (akin to bouncing). Gazelles are quite belligerent, and fights between males can be violent.

However, the wide world contains a thousand hidden dangers, and strength comes only from a union. Thus, the Puma and the Gazelle would soon be vulnerable without the essential and precious support of a number of other actors. They are joined by the enormous eyes of the Owls, responsible for monitoring everything that happens on three levels: under the water, on the water and in the air, and providing incisive information that penetrates the thick darkness of all that is unknown, menacing, anxiety-provoking and subtly dangerous. But this would all be a vast, disjointed puzzle without the Pelicans, whose precious support, like the thunder and lightning of the Signals Corps, provides these units with the coordinates, communications and resources needed for a massive nervous system that controls a truly living body: animated, coordinated, responsive and powerful.

Beyond these very close collaborators, situations make for pleasant and profoundly honest encounters.

This is the case of Neptune's trident, whose positioning, insight and reliability provide our allies, some of whom may have a natural fear of the vast watery expanses, with a feeling of calm control over the seas. At the same time, the painstaking work of a whole army of conscientious ants in drawing up a map of the world creates a marvellously detailed picture, so that the journeys and objectives involved in an attack are of absolute precision, both in detail and proportion, thereby helping to make missions successful.

The union between Pumas and Gazelles, which transcends the laws of nature by sublimating instinctive impulses in favour of a hyper-rational synthesis, has managed to create the best-performing project team on the market, and in exceptional circumstances (American Puma, African Gazelle, Asian Tigre and European ALAT) make a very promising start to the New World Order we are promised.

For the Incas, pumas were seen as embodiments of the mountain gods. The name of Lake Titicaca means the "lake of the stone pumas". Blueprints for the city of Cuzco, which means the "navel" of the world, were based on the outline of this cat.

In the animist beliefs of North American peoples, the spirit of the puma is that of the chief who imposes himself without using violence or coercion. It is a model of perseverance and determination, waiting patiently for its prey to pass by from its vantage point in a tree or on a rock.

In these beliefs it occupies a similar position to the lion in the Western bestiary, but instead of chauvinistically and autocratically setting its females to work, as we have seen, it engages its gazelles to circumvent the enemy and draw into its nets the prey identified on the basis of precise, methodical objectives. Jean de la Fontaine is not coming back and in eternity is preparing, we are told, an ultimate fable to the Glory of this New Tactical Creation following the recent and exhilarating coming of new actors: the Tigre and the Cayman.

As for the Puma, it was, is and always will be our teacher and model, and we give it the best of ourselves, as perhaps you are also thinking of doing yourselves!

LCL MOURET
Commanding Officer BHMA
(Battalion of Attack and Transport Helicopters)
of the 1st RHC (Combat Helicopter Regiment)

The army air corps opens up to young aeronautics enthusiasts

ALAT (the French Army Air Corps) and the FFA (French Aeronautics Federation) signed a partnership agreement on 12 May 2011.

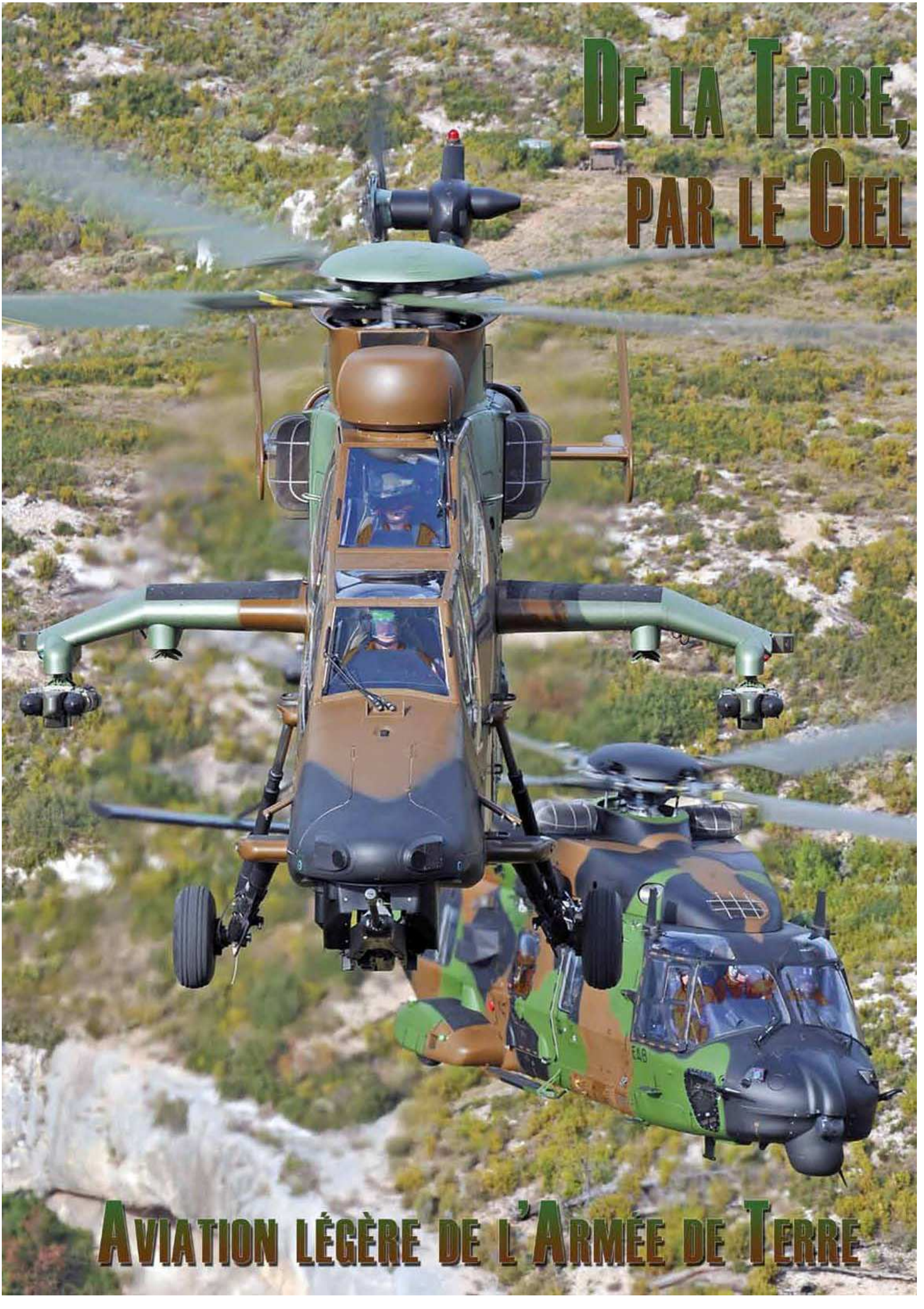
General Pertuisel, commanding officer of ALAT, General Royal, deputy director of army recruitment and human resources, and Jean-Michel Ozoux, president of the FFA, signed a partnership agreement.

It is the first partnership between these different organisations.

It aims to introduce ALAT professions to young aeronautics enthusiasts taking part in initiatives led by the FFA.

In practice, this partnership will make it possible to deploy public awareness-raising initiatives at events organised by the FFA or

This partnership will take a variety of forms: educational initiatives, participation by ALAT in the air tour for young pilots, and visits to ALAT bases for young people preparing to sit the brevet d'initiation aéronautique (introduction to aeronautics diploma).


De la Terre,
par le Ciel
Aviation légère de l'Armée de Terre