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MDS THESIS

## **Airbase Ground Defence: *Ad Hoc* is Not Good Enough**

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## ABSTRACT

Canadian Forces (CF) air component personnel, assets, and airfields have been placed at unnecessary risk because of the CF's *ad hoc* approach to airbase ground defence. Inadequate organic resources, combined with a belief that someone else will do the "heavy lifting," have produced an Air Force that is unable to adequately defend itself during expeditionary operations. Canada's Air Force has adopted a number of contrasting and short-lived means to secure and defend its airbases, most often drifting between two poles – an organic Military Police model and an Army combat arms model. Both approaches have serious shortcomings, and Canada is clearly out of step with most of its closest allies regarding airbase ground defence. The United Kingdom, France, Germany, Australia, the Netherlands, Italy, and the United States have all created dedicated Air Force security and defence occupations in order to provide robust organic Force Protection during expeditionary operations. This paper demonstrates that an *ad hoc* approach is no longer good enough and proposes that Canada's Air Force leadership should advocate for the creation of a full-time ground defence occupation within the CF air component. This occupation should be organised, trained, and equipped as a specialist light infantry force, fully inculcated in air force operations, and capable of operating both inside and outside of the base perimeter against contemporary conventional and asymmetric threats. This new occupation should also serve as the Air Force's readiness training cadre.

## CHAPTER 1 – INTRODUCTION

*Security no longer ends at the base perimeter. We must assume responsibility for a much larger tactical perimeter that will keep the threat away from our people and equipment.*<sup>1</sup>

- General Robert R. Fogelman, USAF Chief of Staff

### PROLOGUE (AFRICA, IN THE NEAR FUTURE)

As Corporal Brown stepped under the wing of the CF-177 Globemaster III airlifter, he marvelled that such a large aircraft could land on a runway as short as the one he found himself patrolling in Eastern Africa. Checking his watch, he reflected on the events that brought him here. Public outcry at the genocide happening nearby put enormous pressure on the Canadian government to act. Although the international intervention force had not begun arriving in strength, Canada had agreed to airlift some critical relief supplies to one of the areas hardest hit by the civil war. Corporal Brown and his partner, both Military Policemen, were responsible to guard the two CF-177s until the remaining members of the crew arrived for an early morning departure. A local security force was responsible for patrolling the airfield perimeter, so the Canadians' duty was limited to the close-in protection of the Canadian Forces (CF) aircraft. Scanning the opposite side of the ramp area, he spotted the only other airworthy aircraft in sight, a Belgian C-130.

As he adjusted the C-7 rifle on his shoulder, Corporal Brown heard several sounds in the distance – like the faint popping of champagne corks. The first mortar round impacted 50 meters from the right wingtip, instantly knocking Corporal Brown to the ground. His mind began to race. The pre-flight briefing had not indicated the probability of insurgents with stand-off weapons anywhere near the airfield; the primary threat to this humanitarian airlift mission was

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<sup>1</sup> General Robert R. Fogelman, quoted in Department of National Defence, B-GA-XXX-XXX/XX-000 *Aerospace Force Protection Doctrine (Study Draft 2)* (Trenton: Canadian Forces Aerospace Warfare Centre, 23 February 2007), 5-1.

supposed to be from thieves and looters! The second round ended Corporal Brown's thoughts, and his life. Twelve more mortar rounds landed in the next five minutes. As the sun started to rise on the African plain, half of Canada's strategic airlift fleet lay twisted and burning on the broken tarmac.

## **INTRODUCTION**

For too long, Canada's deployed Air Force personnel, assets, and airfields have been placed at unnecessary risk from both conventional military threats and contemporary asymmetric threats because of the CF's *ad hoc* approach to airbase ground defence. Inadequate organic resources, combined with a belief that another service will be there to do the "heavy lifting," have conspired to produce an Air Force that is incapable of adequately defending itself during expeditionary operations. The CF air component is unable to achieve many NATO benchmarks in the area of Force Protection and cannot contribute effectively to the collective defence of alliance or coalition deployed operating bases.

Historically lacking any clear doctrine and unable to foster a more proactive and coherent approach, Canada's Air Force has over time adopted a number of contrasting and short-lived means to secure and defend its airbases. Occasionally relying on Host Nation (HN) or allied Air Forces, it has most often drifted between two competing poles – an organic Military Police (MP) model and an Army combat arms model. Both approaches have serious shortcomings. CF MP personnel are currently undermanned, ill-equipped, and insufficiently trained to properly carry out this important mission. MPs could be trained to the required level, but only to the detriment of their specialist law enforcement skills. Several attempts have been made to increase the number of MPs available for this mission, but all have failed. Conversely, combat arms units are in very short supply as a result of the Army's high operational tempo, they are rarely available to



train regularly with air units, and when made available they are not dedicated for long enough to fully grasp the issues unique to airbase operations. Furthermore, combat arms units are subject to mission re-allocation based primarily on the priorities of the Army rather than those of the Air Force. Tellingly, the Army has consistently resisted making airbase defence a standing mission and incorporating it into land force doctrine.

Canada is clearly out of step with most of its closest allies regarding airbase ground defence. The United Kingdom, France, Germany, Australia, the Netherlands, Italy, and the United States have all created dedicated Air Force security and defence occupations – and associated units – in order to provide robust organic Force Protection during expeditionary operations. Most of these occupations also act as an Air Force readiness cadre, responsible for Chemical, Biological, Radiological and Nuclear (CBRN) defence, small arms, and combat skills training.

Accordingly, this paper demonstrates that an *ad hoc* approach is no longer good enough and proposes that Canada's Air Force leadership should advocate the creation of a dedicated ground defence occupation within the CF air component. Like our allies, this occupation should be organised, trained, and equipped as a specialized light infantry force, fully inculcated in air force operations, and capable of operating both inside and outside the base perimeter against contemporary conventional and asymmetric threats.

## **OUTLINE**

Chapter 2 begins with a look at the security and expeditionary environments within which the CF air component will most likely operate in the foreseeable future and provides an analysis of past and present threats to airbases. Chapter 3 provides a historical examination of Canada's various *ad hoc* approaches to airbase ground defence from the Second World War to

the present, showing how this important issue has waxed and waned at various times and but consistently failed to produce a critical mass of resident expertise within the Air Force. Chapter 4 surveys the organic Air Force security and defence occupations of a number of Canada's closest allies and shows the importance that these nations attach to airbase ground defence. Chapter 5 provides a critique of current Air Force plans for airfield security and defence, and analyses the weakness of both traditional models: the MP-centric approach and the Army-centric approach. It further recommends that Canada's Air Force leadership should lobby for a specialist occupation to carry out the mission-critical roles of airbase ground defence and readiness training, and provides an overview of the general characteristic and capabilities that such a trade should have based on the best practices of our allies.

## **CHAPTER 2 – THE FUTURE OPERATING ENVIRONMENT AND THREATS TO AIRBASES**

*It is easier and more effective to destroy the enemy's aerial power by destroying his nests and eggs on the ground than to hunt his flying birds in the air. And every time we ignore this principle, we commit an error!*<sup>2</sup>

- General Giulio Douhet

In order to properly evaluate the adequacy of Canada's airbase ground defence measures, it is first essential to understand the operating environment within which the Air Force will operate for the foreseeable future. Although it is impossible to forecast with absolute certainty what the future will hold, this chapter begins by identifying some broad trends that are likely to influence the conduct of CF aerospace operations in the near to mid-terms. This is followed by an analysis of the future operating framework for Canada's Air Force based on several emerging expeditionary concepts and strategy documents. Finally, specific ground threats to airbases and air assets are examined from the point of view of targeting objectives, tactics, and future trends.

### **FUTURE SECURITY CHALLENGES**

#### **Inter-state vs. Intra-state Conflict**

Inter-state conflict has been on the decline since the late 1980s. While there are still a number of hotly disputed areas with the potential to trigger high-tempo conventional military engagements (e.g., the Korean Peninsula, the Kashmir region, and the Straits of Taiwan), intra-state conflict is more likely to predominate for the foreseeable future.<sup>3</sup> Notwithstanding, the US National Intelligence Council predicts that when inter-state wars do occur, they "will grow in

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<sup>2</sup> General Giulio Douhet, *The Command of the Air* (Washington DC: Office of Air Force History, 1983), 53-54. Originally published in 1921 as *Dominio dell'aria*.

<sup>3</sup> Peter Gizewski, "The Future Security Environment: Threats, Risks and Responses," Canadian Institute of International Affairs, International Security Series (March 2007), 2-3, 7 [on-line]; available from <http://www.igloo.org/ciia/download/Publications/intern~2/issfutur>; Internet; accessed 27 March 2007.

lethality due to the availability of more destructive technologies.”<sup>4</sup> Furthermore, rapid population growth, changing demographics, urbanization, disease, and resources shortages will all increase the strain on fragile or failing states and raise the possibility of civil war and humanitarian crisis – particularly in regions such as the Middle East, Africa, and Southern Asia.<sup>5</sup>

Given the CF’s position as a key instrument of foreign policy, the Canadian government will almost certainly keep contributing military forces to international peace and stability operations and other “collations of the willing.” Air forces will continue to play an important role throughout the spectrum of conflict – from airlift and utility helicopter support for traditional peacekeeping and humanitarian missions in lower threat environments, to tactical helicopter and close air support missions for counter-insurgency and peace enforcement operations in medium to high threat environments.

### **Non-state Actors**

Non-state actors such as organized criminal groups, terrorists, and armed irregular groups will probably gain in prominence and pose an ever-increasing security challenge to states, and unstable countries will continue to act as breeding grounds and safe havens for such organizations. These combative non-state actors, who tend to be less predictable than “rational” state actors, are likely to seek increasingly sophisticated and lethal weapons and supporting technologies to accomplish their various aims. Furthermore, terrorist organizations and many insurgent groups will continue to operate without regard to international laws of armed conflict. Of particular concern to deployed CF elements will be those groups which encourage suicide bombings, employ improvised explosive device (IED) tactics, and wish to mount catastrophic

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<sup>4</sup> United States, National Intelligence Council, NIC 2000-02 *Global Trends 2015: A Dialogue About the Future with Nongovernmental Experts* (Washington DC: DI Design Center, 2000), 49.

<sup>5</sup> Gizewski, *The Future Security Environment...*, 3-5.

attacks against Western interests. Canada's Chief of Defence Staff, General R.J. Hillier, clearly recognizes the impact of these various non-state groups on contemporary CF operations:

We now face a different threat, which I have euphemistically called the “snakes” – non-state actors who respect no boundaries, obey no rules and are impossible to deter. Western militaries have reacted to this threat, but often in an ad hoc manner. In today and tomorrow's security environment Canadians must act not only for our interests, but also for our values.<sup>6</sup>

### **Asymmetry**

The overwhelming technical superiority of Western armed forces, particularly when operating alongside the United States, will make it very difficult – if not foolish – for adversaries to oppose international coalitions and intervention forces in a conventional military manner. Therefore, adversarial states and combative non-state actors will almost certainly employ asymmetric tactics against allied expeditionary forces in order to blunt their technological advantage and ability to apply concentrating force. Conventional military forces are particularly vulnerable to such attack due their inherent complexity, relatively cumbersome nature, and heavy reliance on logistics and fixed “lines of communications.” Groups employing asymmetry will likely use hit-and-run tactics and operate from urban terrain in order to maximize the physical and psychological impact of an attack and hinder the military response.<sup>7</sup> Rogue states and well-connected terrorist groups may also choose to use chemical, biological, radiological, or nuclear (CBRN) weapons to gain a definitive asymmetric advantage or to cultivate fear and confusion amongst the target population.

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<sup>6</sup> General Rick Hillier, “NATO Transformation: Canada's Contribution,” *On Track* 10, no. 4 (Winter 2005) [journal on-line]; available from <http://www.cda-cdai.ca/pdf/ontrack10n4.pdf>; Internet; accessed 13 April 2007, 7.

<sup>7</sup> Patrick Henrichon, “Protecting the Canadian Forces Against Asymmetric Threats,” *Canadian Military Journal* 3, no. 4 (Winter 2002-2003): 11.

## **Volatility, Uncertainty, Complexity and Ambiguity**

Above all, a high level of volatility, uncertainty, complexity and ambiguity – what the US National Defense University calls VUCA – will characterize the future security environment.<sup>8</sup> Essentially, nations and non-state organizations will continue to seek increased wealth and power, and this competition – when combined with rapid advances in technology and communications capabilities – will produce imbalance and volatility. Uncertainty will prevail when the intentions of an opponent are either unknown or when assumptions about the opponent are incomplete, incorrect, or contradictory. The interdependence of components in the future security environment will produce high levels of complexity where seemingly simple decisions lead to unexpected second- and third-order effects.<sup>9</sup> A particularly malignant form of this complexity is what Rittel and Webber call the “wicked problem” – where the apparent solution actually reveals or produces a more complex problem or set of problems.<sup>10</sup> Finally, ambiguity will result whenever the meaning of events and situation are unclear or could be interpreted in more than one way. This ambiguity will be further accentuated in those situations which cross cultural and ideological lines.<sup>11</sup>

## **THE FUTURE OPERATING ENVIRONMENT**

There is a growing perception in Canada that security at home is inseparable from security abroad and that expeditionary operations are a critical component of our homeland

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<sup>8</sup> United States, National Defense University, “Strategic Leadership and Decision Making: Preparing Senior Executives for the 21st Century,” <http://www.au.af.mil/au/awc/awcgate/ndu/strat-ldr-dm/cont.html>; Internet; accessed 28 April 2007.

<sup>9</sup> *Ibid.*

<sup>10</sup> Horst W. J. Rittel and Melvin M. Webber, “Dilemmas in a General Theory of Planning,” *Policy Sciences* 4, (1973); [reprinted on-line]; available from [http://www.uctc.net/mwebber/Rittel+Webber+Dilemmas+ General Theory\\_of\\_Planning.pdf](http://www.uctc.net/mwebber/Rittel+Webber+Dilemmas+General+Theory_of_Planning.pdf); Internet; accessed 29 April 2007.

<sup>11</sup> National Defense University, “Strategic Leadership....”

defence. Related to this is an expectation that the CF will become increasingly engaged in “full spectrum operations” involving concurrent combat, stability, and humanitarian assistance missions.<sup>12</sup> With this in mind, the CF is undergoing a rapid and wide-ranging transformation to ensure it remains “strategically relevant, operationally responsive and tactically decisive” in the face of a dynamic and uncertain global security environment.<sup>13</sup> In 2004, the Chief of the Air Staff (CAS) published *Strategic Vectors* to outline Air Command’s own vision of transformation from “a primarily static, platform-focussed Air Force” into “an expeditionary, network-enabled results-focussed Aerospace platform for the 21<sup>st</sup> Century.”<sup>14</sup> The pending *Air Force Strategy* document, currently in draft, provides an updated set of strategic vectors that envisions a transformed Air Force that is interoperable with Canada’s allies, expeditionary, and combat-effective.<sup>15</sup>

The Air Force has several ongoing initiatives to help expand its expeditionary capacity. The Air Force Support Capability project recently resulted in the creation of six Mission Support Squadrons (MSS) to provide integral and close support for Air Force deployments in the fields of engineering, logistics, human resources, finance, and communications. Building on this venture, the CAS recently chartered the Air Force Expeditionary Capability (AFExC) project to design and generate the remaining elements required to field and sustain “task-tailored, cohesive,

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<sup>12</sup> In CF parlance “full spectrum operations” is synonymous with the “three block war” concept first espoused by General Charles C. Krulak while he was Commandant of the United States Marine Corps.

<sup>13</sup> General R.J. Hillier, *CDS Planning Guidance - CF Transformation* (National Defence Headquarters, Ottawa: file 1950-9 (CT), October 2005, 2; available from [http://www.cds.forces.gc.ca/cft-tfc/00native/cds-planning-guidance\\_e.doc](http://www.cds.forces.gc.ca/cft-tfc/00native/cds-planning-guidance_e.doc); Internet; accessed 27 March 2007.

<sup>14</sup> Department of National Defence, A-GA-007-000/AF-004 *Strategic Vectors: The Air Force Transformation Vision* (Ottawa: DND Canada, 2004), 2.

<sup>15</sup> Department of National Defence, *Air Force Strategy: The Flight Plan for Canadian Forces’ Aerospace Power*, Working Draft v1.9.1, March 2007 (Trenton: Canadian Forces Aerospace Warfare Center), 19-20.

rapidly deployable [air] expeditionary forces.”<sup>16</sup> The emerging AFExC Concept of Operations (CONOPS) is based around the Air Expeditionary Wing (AEW) construct, which will consist of a scalable command element, an MSS, an Operations Support Squadron (OSS), and one or more Air Detachments. In order to support two deployed operating bases concurrently, the long-term end state is the creation of up to 11 MSS’ and OSS’ each. Although the AFExC CONOPS is still being developed, the concept has the strong support of the CAS who as recently as February 2007 stated that,

Lessons learned [from the Arabian Gulf theatre of operations] will be incorporated into our planning as we move further towards becoming an expeditionary Air Force. In the future, the MSS, along with Operational Support Squadrons (OSS) and Tactically Self-Sufficient Units [i.e., Air Detachments] will form Air Expeditionary Wings.<sup>17</sup>

The draft *Air Force Strategy* also includes a long-term campaign plan with eight lines of operation (LOO), five of which involve expeditionary roles. Table 2.1 provides a breakdown of these LOOs, along with the platform-specific Air Detachments and support elements that the Air Force is most likely to deploy within the next 15 years. The capabilities shown at Table 2.1 in italics, although not yet fielded, are integral to the emerging Air Force campaign plan. With the exception of CH-124 Sea King and *CH-148 Cyclone* helicopters while operating from Navy ships, all of these platforms and elements will potentially require ground defence forces to properly protect them at forward operating bases during deployments.

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<sup>16</sup> Department of National Defence, *Air Force Expeditionary Capability (AFExC): Concept of Operations*, Study Draft 2, 21 March 2007 (Trenton: Canadian Forces Aerospace Warfare Center), 3.

<sup>17</sup> Lieutenant General S. Lucas, Air Force Crew Brief February 2007, Vol 5, No, 1, Message from the Chief of the Air Staff, [http://www.airforce.forces.gc.ca/newsroom/crew/02-07/01\\_e.asp](http://www.airforce.forces.gc.ca/newsroom/crew/02-07/01_e.asp)



| <b>AF Line of Operation</b>                             | <b>Deployable Platforms/Air Detachments and Support Elements</b>    |
|---|---|
| Air Mobility  | CC130/CC130J Hercules   |
|   | CC177 Globemaster III   |
|   | CC150 Polaris (Transport and Air-to-Air Refuelling roles)           |
|   | CC144 Challenger  |
|   | Mobile Air Movements Section  |
| Aerospace Control and Strike                            | CF188 Hornet/ <i>New Generation Fighter Aircraft</i>                |
|   | Tactical Control Radar  |
|   | Deployable IFR Airfield   |
| Tactical Helicopter                                     | CH146 Griffon/ <i>Battlefield Reconnaissance Utility Helicopter</i> |
|   | CH147 Chinook   |
|   | CH-124 Sea King/ <i>CH-148 Cyclone</i>                              |
| Intelligence, Surveillance, Reconnaissance, and Control | CP140 Aurora/ <i>Canadian Multi-mission Aircraft</i>                |
|   | <i>Joint UAV Surveillance and Target Acquisition System</i>         |
| Air Expeditionary Support                               | Mission Support Squadrons   |
|   | <i>Operations Support Squadrons</i>                                 |
|   | <i>Air Expeditionary Wing Command Elements</i>                      |

**Table 2.1 – Deployable Air Force Platforms and Support Elements**

Source: *Air Force Strategy* (Draft v1.9.1, March 2007), 46-56; *CAS Planning Guidance 2007*, A2-6

## THREATS TO AIRBASES

Aerospace platforms are inherently fragile and heavily dependant on fixed bases for technical and logistical support – limiting characteristics that are recognized in Canada’s new capstone aerospace doctrine.<sup>18</sup> Early airpower theorist General Giulio Douhet was perhaps the first to recognize the inherent vulnerability of airbases and non-flying aircraft when he advocated striking the enemy air force’s “nests and eggs on the ground” whenever possible, rather than attacking its “birds in the air.”<sup>19</sup> The susceptibility of airbases to attack, combined with the progressively higher replacement cost of modern military aircraft and the ever-reducing fleet size

<sup>18</sup> Department of National Defence, B-GA-400-00/FP-000 *Canadian Forces Aerospace Doctrine* (Ottawa: DND Canada, 2006), 27-28.

<sup>19</sup> Douhet, *The Command of the Air*, 53-54.

of Western air forces, conspire to produce what Royal Australian Air Force officer and author Sal Sidoti calls “Air Power’s Achilles Heel.”<sup>20</sup> The asymmetric threat agents that the CF will encounter on future operations will most likely have neither the capability to attack our bases from the air nor engage our aircraft in air-to-air combat.<sup>21</sup> Instead, the main threats to our deployed airbases, personnel, and aerospace platforms will come from the ground. Ill-defended airbases are very lucrative targets, particularly since the destruction of high-value/low-density aircraft types such as the pending CF-177 Globemaster III airlifter can provide an adversary groups with strategic-level impact at very little cost and risk to itself.

In a RAND study commissioned by the United States Air Force (USAF), David Shlapak and Alan Vick determined that airbases would remain targets of choice and that opponents would continue to attack airbases for three main reasons:<sup>22</sup>

- First, to destroy high-value assets critical to air force operations. This is particularly concerning since even limited aircraft attrition can cause significant stress on operational plans in an expeditionary environment;
- Second, to temporarily suppress sortie generation at a critical moment in a conflict or crisis. This could allow short-term freedom of movement for an adversary group in support of its own tactical or operational plans; and

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<sup>20</sup> Sal Sidoti, *Airbase Operability: A Study in Airbase Survivability and Post-attack Recovery*, 2<sup>nd</sup> ed (Fairbairn, Australia: Aerospace Centre, 2001), 2-3.

<sup>21</sup> Notwithstanding the unlikely scenario of non-state groups operating military aircraft, determined terrorists groups could conduct air attacks using improvised civilian technology. For example, the “Tamil Tigers” recently conducted two air attacks on Sri Lankan government airbases using commercial light aircraft modified to drop small bombs. Similarly, Hezbollah is known to operate Iranian-supplied UAVs. During the summer of 2006, a Hezbollah UAV with an improvised explosive warhead was successfully flown into an Israeli warship off the Lebanese coast, severely damaging the ship.

<sup>22</sup> David A. Shlapak and Alan Vick, *Check Six Begins on the Ground: Responding to the Evolving Ground Threat to U.S. Air Bases* (Santa Monica CA: RAND, 1995), 15-19.

- Thirdly, to create a “strategic event” which would reduce public or government support for ongoing military operations – an incident that would be as decisive politically as the loss of a major battle would be militarily.

In his treatise on airbase operability and survivability, Sidoti identifies a number of other supporting reasons why adversaries might choose to target airbases.<sup>23</sup>

- To cause a distraction. Nuisance attacks may be launched to tie up local ground defence reserves and regional mobile reaction forces in order to reduce their effectiveness over time, in preparation for follow-on operations, or simply to cause a diversion while a main assault is launched elsewhere;
- To make a political statement. Terrorists in particular may target airfields for this reason, even if their attacks are not designed or successful in causing serious damage or significantly degrading operations;
- To infiltrate on or near an airfield to gather intelligence. Enemy reconnaissance or surveillance operations around airbases could remain covert, or limited probing attacks may be mounted to determine the defenders strengths and weaknesses;
- For forward observation and target designation. Small parties may be employed around airbases to observe and mark targets, and adjust the fall of stand-off weapons (e.g., mortars, artillery, and rockets) based some distance away. In conventional conflicts, enemy Special Forces may conduct observation and target marking for aerial weapons delivery;
- To capture the airfield. While unlikely in future asymmetric conflicts, conventional enemy ground forces could attempt to capture an airfield either to deny its use to friendly

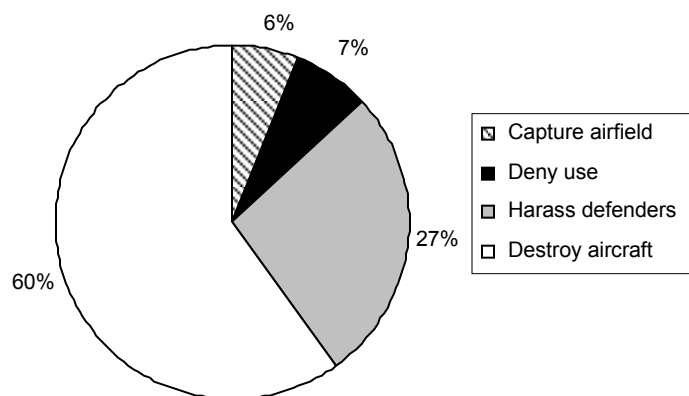
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<sup>23</sup> Sidoti, *Airbase Operability...*, 99-104.

forces or to utilize the airfield for its own operations. Traditionally, airmobile and airborne forces have been used in this role; and

- To destroy supporting or co-located facilities. Supporting facilities at an airbase may be more mission critical than the aircraft themselves (e.g., headquarters, maintenance facilities, and communications nodes). The destruction or disruption of such facilities may have a significant impact on friendly operations over broad geographical or functional areas.

In a RAND companion study for the USAF, Alan Vick analysed ground attacks on airbases from 1940 to 1992 and determined that 60% sought to destroy aircraft (384 incidents), while 27% sought to harass the defenders (173 incidents). Only a relatively small percentage of attacks sought to capture airfields or deny their use, and most of these took place during the Second World War.<sup>24</sup> Figure 2.1 provides a breakdown of Vick's airfield attack objective findings.



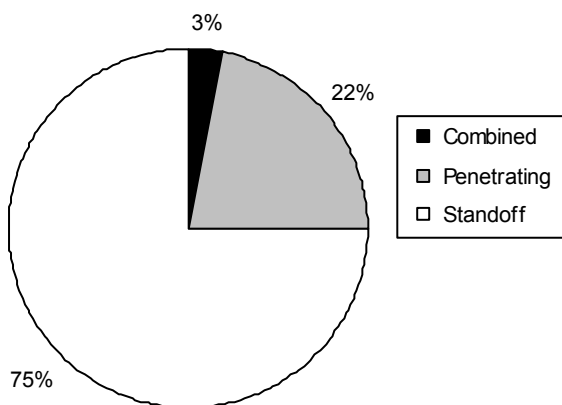
**Figure 2.1 – Airfield Attack Objectives, 1940-1992**

Source: Vick, *Snakes in the Eagle's Nest*, 10.

<sup>24</sup> Alan Vick, *Snakes in the Eagles Nest: A History of Ground Attacks on Air Bases* (Santa Monica CA: RAND, 1995), 9-14. Notable exceptions to this rule are the Soviet capture of the Kabul airport (1979), and the US capture of airports in Grenada (1983) and Panama (1989) for use as airheads. Also, North Korean guerrillas prevented the US from using the Kunsan airfield for several months during the Korean War.

Vick also analysed the tactics used during ground attacks and determined that three quarters relied on the use of stand-off weapons. Less than one quarter of these 645 attacks involved penetrating the base perimeter and very a small percentage combined both tactics.<sup>25</sup>

Figure 2.2 provides a breakdown of Vick's findings on airfield attack tactics



**Figure 2.2 – Airbase Attack Tactics, 1940-1992**

Source: Vick, *Snakes in the Eagle's Nest*, 107.

Compared to the 645 airbase attacks that Vick documented in the 52-year period between 1940 and 1992, the frequency of attacks has skyrocketed since the beginning of Operation Enduring Freedom (Afghanistan, 2001) and Operation Iraqi Freedom (2003). Most of the recent attacks against US and NATO airbases have employed stand-off tactics. For example, in the first three and a half years of Operation Iraqi Freedom, over 1,500 stand-off attacks were launched against airbases and a number of coalition aircraft were hit on arrival and departure by small arms and surface-to-air-missiles.<sup>26</sup> Similarly, the US-run NATO airbase in Kandahar has frequently been targeted by Taliban rocket attacks launched from over eight kilometres away.

<sup>25</sup> Vick, *Snakes in the Eagle's Nest*, 107.

<sup>26</sup> Brigadier General Robert H. Holmes, Colonel Bradley D. Spacey, Lieutenant Colonel John M. Busch, and Lieutenant Colonel Gregory J. Reese, "The Air Force's New Ground War: Ensuring Projection of Air and Space Power through Expeditionary Security Operations," *Air & Space Power Journal* XX, no. 3 (Fall 2006): 42-43.

Until May 2006, the airbase was being attacked by rockets two to three times each night – a situation that improved dramatically once the Royal Air Force Regiment began actively patrolling “outside the wire.”<sup>27</sup> (See Chapter 4, *The Royal Air Force Regiment*). While there are no publicly available studies which comprehensively analyse the objectives and level success of these recent attacks, anecdotal evidence suggests that most of them were aimed at cumulatively creating the “strategic event” discussed by Shlapak and Vick – in this case, the erosion of military morale and the domestic political will of Western troop-contributing nations in order to force a withdrawal.

Historically, the weapons of choice for threatening airbases and adjacent flying operations have been mortars, rocket-propelled grenades (RPGs), rocket artillery, satchel charges and IEDs, machine guns, long-range rifles, and shoulder fired surface-to-air missiles. Most airbase attacks have been carried out by airmobile or airborne troops, compact Special Forces teams, small guerrilla groups, and terrorist cells. Only rarely have airbases been attacked using mechanized forces or by units larger than company-size, and most of the attacks that did so were carried out by Allied forces during the Second World War and by US forces during recent interventions.<sup>28</sup> The *modus operandi* for attacking airbases is unlikely to change significantly in the future, although increasingly sophisticated stand-off weapons may be employed to enhance the asymmetric advantage.

The tendency of some air forces, including Canada’s, has been to concentrate all airfield security resources “inside the wire” to address the traditional threats of espionage, sabotage, subversion, and criminality. However, the stand-off threat poses the greatest challenge to

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<sup>27</sup> United Kingdom, Ministry of Defence, “Kandahar Air Base: Keeping it Safe (Part 1 of 3),” *Defence News* (6 Mar 07) [magazine on-line]; available from <http://www.mod.uk/DefenceInternet/DefenceNews/PeopleInDefence/KandaharAirBaseKeepingItSafePart1Of3.htm>; Internet; accessed 13 April 2007.

<sup>28</sup> Vick, *Snakes in the Eagle’s Nest*..., 114-157.

airbase defence in the contemporary security environment. Although base-bound security forces can provide some protection against penetration attacks – if properly trained, armed and equipped – they are almost totally ineffective in countering the stand-off attacks which have been and will probably continue to be the preferred method of targeting airfields. Table 2.2 shows some of the widely proliferated stand-off weapon favoured for use in airbase attacks. This is by no means an exhaustive list, but it provides a sample of the types and capabilities of weapons currently in the hands of non-state groups.

| <b>Weapon (Source)</b>                                       | <b>Weight/Portability</b>                             | <b>Effective Range/altitude</b>    | <b>Terminal Effect</b>                 |
|--|---|------------------------------------|--|
| .50 cal / 12.7 mm sniper rifles (Various countries)          | Approx 13 kg  | 2,000 m                            | Armour piercing (AP)                   |
| 12.7 mm NSV heavy machine gun (Russia, Bulgaria, Yugoslavia) | 50.2 kg – Gun & tripod<br>7.7 kg – 50-round ammo belt | 2,000 m direct<br>3,500 m indirect | AP, AP incendiary                      |
| SA-18 surface-to-air missile (Russia)                        | 18 kg. Man-portable shoulder-fired (MANPADS)          | 5200 m<br><i>3500 m</i>            | 1.3 kg. High explosive (HE) warhead    |
| 82 mm mortar (Russia, China, Yugoslavia)                     | 50 kg – Mortar & baseplate<br>3.1 kg – Mortar bomb    | 6,050 m                            | HE, fragmentation, smoke, illumination |
| 122 mm single rocket launcher (Russia, China, Romania)       | 63.2 kg – Launcher & tripod<br>46.3 kg – Rocket       | 11,400 m                           | HE, fragmentation, chemical            |

**Table 2.2 – Typical Stand-off Weapons**

Source: [www.janes.com](http://www.janes.com)

The abundance of man-portable air defence systems (MANPADS), capable of bringing down every type of aircraft in the CF inventory, is particularly worrisome since these systems are very difficult to detect and defeat. According to the United States Congressional Research Service (CRS), shoulder-fired missiles have caused 90% of all worldwide combat aircraft losses between 1984 and 2001. For instance, infrared guided MANPADS were a significant source of air combat losses during Operation Desert Storm (Gulf War, 1991), accounting for 12 of 29

collation aircraft loses.<sup>29</sup> Furthermore, the CRS estimates that between 350,000 and 500,000 MANPADS missiles are currently held in international military arsenals and up to 150,000 more missiles may be in the hands of terrorist and insurgent groups. For example, by December 2002, coalition forces in Afghanistan had captured 5,592 MANPADS from the Taliban and Al-Qaeda.<sup>30</sup> Table 2.3 shows some of the many terrorist and insurgent groups known to possess these weapons.

| Group                            | Location         | MANPADS Type                               |
|----------------------------------|------------------|--|
| Armed Islamic Group              | Algeria          | Stinger                                    |
| Kurdistan Workers Party          | Turkey           | SA-7, Stinger                              |
| Liberation Tigers of Tamil Eelam | Sri Lanka        | Stinger, HN-5 (possibly also SA-7, SA-14)  |
| Al-Qaeda / Taliban               | Afghanistan      | SA-series, Stinger, Blowpipe               |
| Chechen rebels                   | Chechnya, Russia | SA-7, Stinger (possibly also Blowpipe)     |
| Hezbollah                        | Lebanon          | SA-7, QW-1 (possibly also Stinger)         |
| National Liberation Army         | Macedonia        | SA-18                                      |
| UNITA                            | Angola           | SA-7, SA-14, Stinger (possibly also SA-16) |

**Table 2.3 – Non-State Groups with MANPADS, 1996-2001**

Source: Hunter, *The Proliferation of MANPADS*, 43.

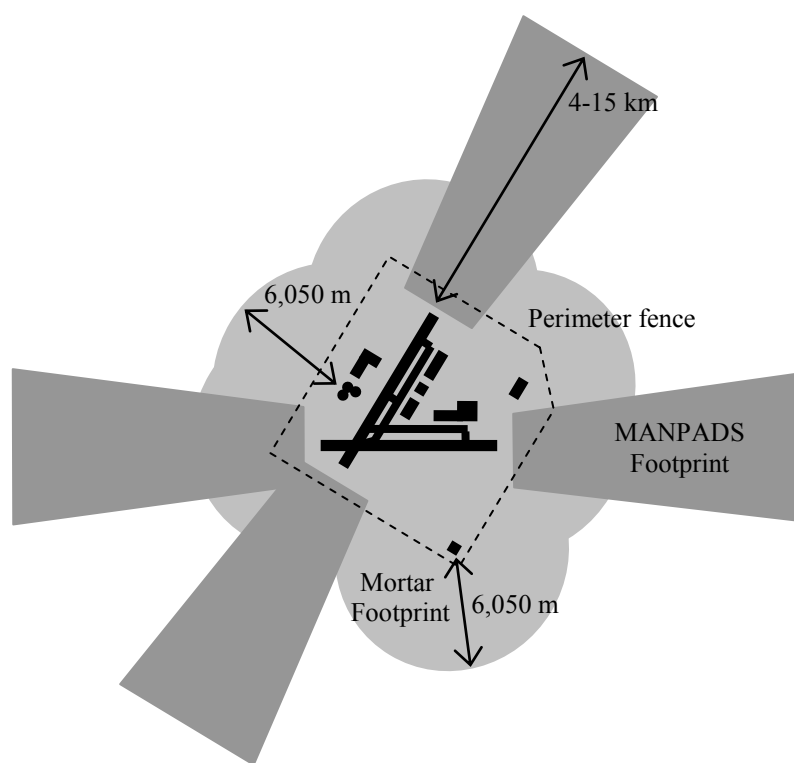
In order to effectively counter the stand-off weapon threat, airbase defenders must extend their operations well beyond the perimeter fence. Based on a detailed and realistic intelligence assessment of adversary capabilities, defenders must pay particular attention to the “footprint” created by all known and suspected enemy stand-off weapons. These footprints are essentially a series of overlapping circles, the radius of each representing the maximum effective range of the weapon type, and the center point corresponding to an operationally critical area. Successful

<sup>29</sup> United States, Congressional Research Service, “MANPADs Threat to Commercial Aviation,” Presentation to L’Institut français des relations internationales, 12 March 2004, <http://www.ifri.org/files/CFE/CFEbolcom.pdf>; Internet; accessed 14 April 2007.

<sup>30</sup> United States, Congressional Research Service, “Homeland Security: Protecting Airliners from Terrorist Missiles,” Congressional Research Service Report for Congress, 3 November 2003, [http://www.airsafe.com/events/war/crs\\_missile\\_report.pdf](http://www.airsafe.com/events/war/crs_missile_report.pdf); Internet; accessed 14 April 2007.



airbase defence requires that these footprints be dominated through aggressive patrolling, surveillance, the occupation of vital ground, and weapons effects. Given that aircraft are most vulnerable to MANPADS during takeoff and recovery, particular attention must be paid to the cone-shaped MANPADS footprints extending out from the active runway during launch and recovery periods. The length and width of the cone will vary depending on the type of MANPADS as well as the type and flying profile of the target aircraft. Figure 2.3 shows the notional stand-off footprints for a base threatened by an adversary group possessing 82 mm mortars and MANPADS.



**Figure 2.3 – Stand-off Weapon Footprints**

Despite a growing awareness within Canada's Air Force of the contemporary global security environment, and a renewed enthusiasm for expeditionary operations, very little concrete progress has been made in regard to mitigating the CF's considerable vulnerability to the various airbase ground defence threats detailed above. In fact, Force Protection (FP) and

“Survive to Operate” (STO) were recently singled out by the CAS as high risk areas for the Air Force. Of the 37 risks to mission success identified in the CAS Strategic Assessment for fiscal year 2006/2007, FP and STO were ranked 5<sup>th</sup> and 6<sup>th</sup> respectively.<sup>31</sup> Table 2.4 shows where FP and STO scored in relation to the other 35 risk areas.

|   |               |      |          |                             |                            |                |        |  |     |
|---|---------------|------|----------|-----------------------------|----------------------------|----------------|--------|--|-----|
| <b>Impact</b>   | Severe        |      |          |                             |                            |                |        |  |     |
|   | Major         |      |          | <b>6<sup>th</sup> (STO)</b> | <b>5<sup>th</sup> (FP)</b> | ...            |        |  |     |
|   | Moderate      |      |          | ...                         | ...                        | ...            |        |  |     |
|   | Minor         |      |          | ...                         | ...                        | ...            |        |  |     |
|   | Insignificant | ...  |          | ...                         |                            | ...            |        |  |     |
|   |               | Rare | Unlikely | Possible                    | Likely                     | Almost Certain |        |  |     |
| <b>Likelihood</b>   |               |      |          |                             |                            |                |        |  |     |
| Risk Level:   |               |      |          |                             |                            |                |        |  |     |
|   | Very High     |      | High     |                             | Significant                |                | Medium |  | Low |
| Note: Ellipsis marks show where other risk areas were listed on the original severity map |               |      |          |                             |                            |                |        |  |     |

**Table 2.4 – AIRCOM Risk Severity Map for FY 06/07**

Source: *Chief of the Air Staff Strategic Assessment FY 06/07*, 12.

The remarks accompanying this risk assessment provide an indication of the current state of the Air Force regarding FP:<sup>32</sup>

The AF is mandated to advance new Force Protection capabilities (i.e. Wing and deployed ops Force Protection, Wing Readiness Training Flights, VIP aircraft security, Chemical, Radiological, Biological and Nuclear protection) but the development of these capabilities is hampered by major deficiencies in personnel resources, inadequate expertise, training, equipment and time. The level of force protection training required for non-linear, non-contiguous, asymmetrical warfare is far beyond what the AF is capable of providing at the present time. As is, air resources, including Tactical Aviation, have little to no ability to operate in a medium to high threat environment in more than a “survive to evacuate” mode... Considering the present capacity, we will need Army assistance to mount any real capability at home or abroad.

<sup>31</sup> Chief of the Air Staff, *Chief of the Air Staff Level 1 Strategic Assessment FY 06/07* (Ottawa: CAS, 14 November 2005), 12; available from <http://airforce.mil.ca/daircbm/subjects/B>; DWAN; accessed 18 January 2007.

<sup>32</sup> *Ibid.*, 9.

At least for the present, Canada's Air Force seems unable to adequately protect itself from the many contemporary asymmetric threats that it faces.

**CHAPTER 3 –  
CANADA’S AD HOC APPROACH TO AIRBASE GROUND DEFENCE**

*Historical studies have demonstrated that when an airbase has been dependant on third parties or other services for primary ground defence problems have occurred.*<sup>33</sup>

- Sal Sidoti

Canada’s airbase security and ground defence practices, from the Second World War to present, bear a pattern of short-term improvisation and inconsistency. As the following survey shows, Canada’s *ad hoc* approach to airbase defence has been characterized by a lack of long-term commitment by the Air Force and the Army despite occasional bursts of interest from both camps. The result is that Air Force personnel and assets have frequently been placed at undue risk. That the RCAF and CF have escaped any devastating airfield ground attacks – a somewhat unique distinction amongst Canada’s allies – has as much to do with good fortune as with deliberate planning.

**THE SECOND WORLD WAR**

The RCAF entered the Second World War without any ground defence or internal security capability, so a number of militia units had to be quickly mobilized in September 1939 to guard RCAF coastal air stations and other “Vulnerable Points.”<sup>34</sup> Over the next three years, as the situation in Europe deteriorated and a growing threat loomed from Japan, units of the Veterans Home Guard and conscript-based home defence units were also pressed into service to help protect the RCAF’s coastal operating bases from armed enemy attack.

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<sup>33</sup> Sidoti, *Airbase Operability...*, 233.

<sup>34</sup> Department of National Defence, *Army Historical Report No. 3: The Employment of Infantry in the Pacific Coast Defences (Aug 39 to Dec 43)* (Ottawa: Canadian Army Headquarters, 1944), 3-4, [transcription on-line]; available from <http://www.forces.gc.ca/dhh/downloads/ahq/ahq003.pdf>; Internet; accessed 27 February 2007.

An RCAF “Guards and Discipline Branch” was first formed in early 1940 and was quickly expanded due to the rapid growth of the British Commonwealth Air Training Plan (BCATP) and rising fears of enemy espionage, sabotage, and subversion. RCAF personnel assumed responsibility for the internal security of most RCAF and RAF Stations in Canada in August 1940, relieving the Canadian Army of this duty. The new division of responsibilities between the RCAF and the Canadian Army Special Force was detailed in RCAF Organization Order No. 3 as follows:

- (a) Air Officers Commanding are to be responsible for the protection of Air Force Establishments or materials from sabotage and for the local small arms A.A. [anti-aircraft] defence at such Establishments.
- (b) The Army will be responsible for the protection of the Air Force operational bases against attack by enemy armed forces.<sup>35</sup>

The RCAF’s new guard force was manned primarily by aircrew candidates and other airmen awaiting trades training who were employed under the direction of a smaller number of specialist “Security Guard” officers and non-commissioned officers (NCOs). Predictably, this interim duty was less than popular with the trainees and by June 1941 a new system replaced these rotating trainees with a smaller number of “General Duties (Guards)” personnel.<sup>36</sup> By the fall of 1942, there were over 4,000 permanent Security Guards and General Duties (Guards) employed throughout the RCAF. Armed mainly with rifles, these personnel guarded vital points, manned elevated sentry towers, and conducted mobile patrols within the airbase perimeter. However, due to their relatively small numbers, defence plans still required personnel drawn from the remainder of the station establishment to help man

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<sup>35</sup> Department of National Defence, Directorate of History file 79/429 Vol 3, *Secret Organization Order No. 3: R.C.A.F. Internal Security – Guards* (S.7676), 9 September 1940, 1.

<sup>36</sup> RCAF Police and Security Historical Group, *The RCAF Police and Security Services* (Unpublished manuscript, 3 February 2007 draft), 16.

machine-gun positions and anti-aircraft posts in the event of enemy ground or air attack.

Following a successful trial in the fall of 1942, it was decided to amalgamate the functions of the Security Guards with those of the RCAF Service Police, and from May 1943 onward an expanded Service Police branch assumed all internal security duties.

Two critical events eventually prompted the RCAF and Army to consider more robust external airfield defences: the capture of British airfields in Crete by German paratroops in June 1941 and the subsequent fallout in the United Kingdom (see Chapter 4, *Royal Air Force Regiment*) and Japan's entry into the war in December 1941. By April 1942, authorities had determined that Japan might conduct raids along the British Columbia coast with up to two brigades and it was feared that they might try to seize airfields on Vancouver Island to threaten nearby cities in Canada and the United States. Around the same time, a report was circulating throughout RCAF and Army headquarters' that provided some new tactical doctrine for aerodrome defence based on the RAF's recent experiences. An appendix to the report articulated the rationale for maintaining strong ground defences, enduring points which still remain true: to protect friendly aircraft on the ground; to enable continued flying operations; and to deny an airfield's use to the enemy. This appendix also noted that mobility and flexibility were key attributes for airfield defence forces.<sup>37</sup>

Rather than create an independent Air Force ground defence organization like the RAF recently had done, the RCAF decided instead to rely on the Canadian Army.<sup>38</sup> To carry

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<sup>37</sup> Library and Archives Canada, Army Headquarters Central Registry fonds, RG24-C-1, microfilm, reel C-5292, *Report of Ground Defence of British Aerodrome*, General Staff, 28 March 1942, Appendix 1, *Extracts From Tactical Notes on the Defence of Aerodromes*; under covering letter from D.M.O. and I. (H.Q.S. 8756. F.D. 12), 4 April 1942.

<sup>38</sup> Unfortunately, the reason for this decision is not clear from an analysis of available primary source documentation. The historical notes on the *Air Member for Personnel Branch, Chapter 22 – R.C.A.F Police and Security Services: 1939-1945* (National Archives, RG 74, C-421-100-S68) makes no reference to any deliberations or specific rationales leading to this decision.

out this increasingly specialized role, the Army mobilized twelve Aerodrome Defence Platoons in May 1942, each comprising one officer and 43 other ranks, and equipped with six “universal carriers” mounting 2-pounder guns and two carriers mounting 3-inch mortars (see Figure 3.1). Five platoons were assigned to RCAF aerodromes in Western Air Command (British Columbia), and seven were assigned to Eastern Air Command aerodromes (Nova Scotia, Newfoundland, and Labrador). Two additional platoons were later added in the West. According to a wartime Army Headquarters report, the specialized role of these platoons, in conjunction with other Army units in the area, “was that of breaking up and destroying any enemy attack before it reached the inner perimeter, manned by RCAF personnel.”<sup>39</sup>

While these platoons were forming, a “Director of Aerodrome Defence” position was established at RCAF Headquarters and corresponding staff positions were created at Eastern and Western Air Command, all filled with seconded Infantry officers.<sup>40</sup> These Army officers acted as advisors to the RCAF General Officers Commanding, prepared airfield defence plans, assisted unit officers commanding, inspected airfield defensive works and measures, and conducted related liaison between the RCAF and Army. Interestingly, although these officers were to be selected for their experience in aerodrome defence, it appears that this “experience” was limited to a one week attachment with 11 Group RAF in England where they were given a crash course in airfield defence operations delivered in part by personnel of the newly formed RAF Regiment.<sup>41</sup> While these officers were undoubtedly chosen for their

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<sup>39</sup> DND, *Army Historical Report No. 3...*, 21.

<sup>40</sup> Library and Archives Canada, Army Headquarters Central Registry fonds, RG24-C-1, microfilm, reel C-5292, *Memorandum from Chief of the Air Staff to Chief of the General Staff (S.22-1-12 (AMAS))*, 7 May 1942.

<sup>41</sup> Library and Archives Canada, Army Headquarters Central Registry fonds, RG24-C-1, microfilm, reel C-5292, *Report of Attachment to 11<sup>th</sup> Group R.A.F. – 20<sup>th</sup> Apr. 42 to 25<sup>th</sup> Apr 42*, prepared by Lt.-Col. G.T. Roach, 7 July 1942; and report on *Aerodrome Defence*, prepared by Lt.-Col. G.H. Rogers, 16 July 1942.

skill and experience as infantry officers, their practical experience in airfield defence and knowledge of Air Force operations was, at least initially, quite limited.

By December 1942, Army authorities recognized that the burden of aerodrome defence was too much for single platoons, so authority was granted to expand each to a company comprising a headquarters and two platoons – one based on the previous carrier platoon structure, and a second mobile platoon mounted in armoured half-track trucks. Pacific Command, for example, established nine Aerodrome Defence Companies, although only four reached their full establishment. In May 1943, the companies were further reorganized into a single Airfield Defence Battalion on each coast. Each battalion headquarters then assigned company or platoon-sized task elements to defend each of the airfields in its area of responsibility. However, due to the reduced likelihood of enemy raids in significant strength, these short-lived Battalions were disbanded during the fall of 1943.



**Figure 3.1 – Aerodrome Defence troops in Universal Carrier, talking with pilot from 127(F) Squadron, RCAF. Gander, Newfoundland, May 1943**

Source: Library and Archives Canada, copy negative: PA-210166



In August 1943, the RCAF re-assigned the defence of Eastern and Western Air Command Air Stations to the RCAF Provost and Security Service. Each command had a Deputy Assistant Provost Marshal (Defence) staff officer and two NCO Service Police (Defence) instructors to advise and oversee the command airfield defence program. Station-level D.A.P.M. (Defence) officers and Service Police (Defence) instructors were also appointed to advise each Station Commander on ground defence matters, conduct ground defence liaison with nearby Army units, organize and provide individual ground warfare training for assigned station personnel, and supervise collective ground warfare training. This new ground defence policy was explained, as follows, in letter from the RCAF Director of Provost and Security Services to his US Army Air Corps counterpart:

The duties of the Station Defence Officer and his two senior N.C.O.s comprise the setting up of strategic gun posts, slit trenches, and other physical defence features, and the systematic training in defence tactics of all station personnel, such training being compulsory at the units concerned. The officers and N.C.O.s selected for these duties have had advanced battle training and are fully qualified instructors (it should be explained that this is a very recent arrangement which supersedes a much more ambitious program of aerodrome defence, involving special bodies of aerodrome defence troops. Due, however, to the improvement in the general war situation, plus the increased necessity for economy in manpower and the fact that Army units are generally adjacent to the units concerned, it has been considered that the Station Defence Organization, as outlined above, is adequate under the circumstances).<sup>42</sup>

This policy, which continued until the end of the war, required all personnel to actively participate in the defence of their station from the most likely threats of an attack from a small enemy landing party, or from an odd enemy plane which might slip through on a nuisance raid.

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<sup>42</sup> Library and Archives Canada, Air Force Police Activities, RG 24, vol. 18179, file 997-0 pt.3, *Letter from Group Captain Sisley, RCAF Director of Provost and Security Services, to Colonel H.G. Reynolds, US Army Air Corps Provost Marshal (S22-1-1 (DPSS)), 9 July 1943, 3.*

The aerodrome security and defence situation in the United Kingdom was quite different from that in Canada. Since RCAF units were operating from RAF bases, the overall responsibility for airfield security and ground defence remained with the British. The 162 RCAF Security Police personnel posted overseas were almost all employed in England on provost rather than security duties.<sup>43</sup> The Canadian Army did not form any specialized aerodrome defence units for service overseas, although units of the 1<sup>st</sup> Canadian Corps garrisoned in Britain did have a broad area defence mission which could involve nearby airfields. For example, during Exercise “Waterloo” in June 1941, the Corps practiced its mobile counter-attack role against airborne troops around the Tangmere group of aerodromes in South-Eastern England. By June 1942, the Canadian infantry brigade assigned to the Tangmere counter-attack role was relieved of this duty by a British unit, although a battalion of the 2<sup>nd</sup> Canadian Division temporarily re-assumed this role under command of a British Infantry Brigade in the summer of 1943.

By mid-June 1944, following the Normandy landings, RCAF fighter squadrons of the recently formed No. 83 Group, Second Tactical Air Force began operating from forward airfields in France. Airfield defence again became a high priority since Canadian Air Force units were operating in very close proximity to German ground forces. However, during the Normandy breakout and subsequent campaigns, the British-Canadian Armies needed to maintain their forward momentum and could ill-afford to dedicate large numbers of combat forces to protect newly seized RCAF airfields in the rear areas. Canadian Army units were

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<sup>43</sup> Squadron Leader G.F. Stubinski, “History of the RCAF Police and Security Services,” in *On Guard for Thee: The Silver Anniversary of the Security Branch* (Winnipeg: JOSTENS Canada, 1993), 28-29. In his letter to Colonel H.G. Reynolds, Group Captain Sisley suggests that a new policy may shortly “result in our being called upon to provide considerable larger numbers of both officers and men for overseas service.” What drove this comment is unknown. Evidently it was premature, since the historical record shows that no large numbers of additional RCAF Service Police were ever sent to Europe.

sometimes assigned missions to capture enemy-held airfields – of which a particularly bloody example was the four-day battle for the Carpiquet airfield near Caen in early July 1944 – but the subsequent ground defence of RAF and RCAF airfields was not primarily an Army mission. In any event, No. 83 Group was tasked in direct support of the 2<sup>nd</sup> British Army rather than the 1<sup>st</sup> Canadian Army (which did not become operational until 23 July 1944) – a situation that would have severely complicated matters had the Canadian Army been assigned this mission. In actuality, armed air and ground crews normally provided close defence within the inner perimeter of forward RCAF bases while attached RAF Regiment units provided anti-aircraft and external ground defence. The British Air Ministry had specifically allocated about 4,000 infantry-trained members of the RAF Regiment for ground defence of forward airfields during the land advance across the Continent. According to an Air Ministry letter from August 1943, each Tactical Air Force Group was to be allocated six RAF Regiment field squadrons for ground defence and an additional 10 anti-aircraft squadrons.<sup>44</sup>

The exact level and quality of ground defence training provided to RCAF personnel is not clear from the available documentation. However, the official history of the RCAF hints at the ground threats faced by Canadian airmen in No. 83 Group. For example, an RCAF unit operating from an airfield at Eindhoven in the Netherlands,

... was put on alert as a small pocket of German troops on the other side of the Wilhelmina Canal threatened the base and the infantry units holding the canal were not sure they could contain them. No 400 Squadron and No 143 Typhoon Wing spent the rest of the day preparing to fight, not in the air as they had been trained, but on the ground; and just before midnight No 400 issues rifles to all its personnel, who made their way to shelters to await further instructions. After four hours they were allowed

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<sup>44</sup> United Kingdom, National Archives, Royal Air Force Operations Records, catalogue ref AIR 37/176, *Allocation of R.A.F. Regiment to T.A.F.* (B.J.28/D.O./D.D.G.D), 2 August 1943.

to return to bed, albeit fully dressed with rifles handy, and it was later revealed that enemy patrols had been seen one to two thousand yards from the officers' quarters.<sup>45</sup>

The first RCAF units to operate on German territory armed everyone in order to guard against saboteurs. In 30 March 1945, one such unit reported that,

Immediate steps are being taken to ensure that all personnel are familiar with, and know how to fire and dismantle all types of weapons used for defence. The precaution is being taken with an eye to future moves which will no doubt take us into German territory, and also [due to] the fact that this Unit might not be under the protection of an airfield which have (*sic*) RAF Regiment personnel for this purpose.<sup>46</sup>

The RCAF entered the war completely unprepared to deal with its own protection, which required that Army units be diverted for domestic airbase ground defence until four years into the conflict. When the Air Force finally assumed this role in 1943 it did so with only a handful of full-time specialists, relying on lesser-trained station personnel to form the bulk of its ground protection force. While thankfully never put to the ultimate test, it is arguable whether any RCAF home defence Squadron could have continued flying operations while its technicians and logisticians were all manning slit trenches. In the final stages of the war, the RCAF was spared responsibility for forming its own ground defence units or requesting them from the Army since No. 83 Group airfields were all under the protection of the RAF Regiment. Although the RCAF sustained numerous casualties from aerial attacks on its European airfields, it fortunately suffered none of the determined airfield ground attacks that afflicted many other allied air forces. The RCAF ended the war with only a relatively small number of Service Police ground defence specialists, most of whom were quickly demobilized. By 1946, the newly named RCAF Service Services branch was reduced to a

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<sup>45</sup> Breton Greenhouse, *et al*, *The Crucible of War, 1939–1945: The Official History of the Royal Canadian Air Force, Volume III*. (Toronto: University of Toronto Press/DND/Canada Communications Group, 1994), 334.

<sup>46</sup> *Ibid.*, 349.

total establishment of only four officers and 68 men, once again making effective airbase security and defence all but impossible.

## **THE COLD WAR**

The lessons of the last war were not completely forgotten as the RCAF soon began rebuilding for a new “cold” war with the Soviet Union, and ground defence was added back into the RCAF Security Services portfolio. Retired Wing Commander John Blake recalls the situation:

The need for such training had long been recognized by the RAF and the USAF which had the opinion that unless personnel of the Air Force were given some form of combat training, the force was, in actuality, composed of civilians in uniform.... The RCAF decided in 1951 that it would embark upon a training program for all new entrants... and to train all personnel already in the RCAF in the use of personal weapons: rifles, light machine guns, etc. and to develop a training program to organize all RCAF personnel into units capable of defending an Air Base in the event that this became necessary.<sup>47</sup>

The RCAF once again turned to the RAF Regiment for help in building this program, and four Regiment officers were subsequently loaned to the new Ground Defence Branch of the Directorate of Air Force Security. Working under Wing Commander Blake, these RAF Regiment officers quickly recommended that the RCAF recruit a number of ground defence officers and NCO instructors with previous experience. The 34 selected officers were sent to the RAF Regiment Depot in Yorkshire for an eight-week course and the 180 NCOs were trained at Camp Borden. The majority of these specialists were posted as instructors at the manning depots, where they instilled in new recruits an understanding that,

...notwithstanding their choice of trade they were also members of a fighting force – the RCAF – and when deployed to their RCAF units they would be able to defend their base... should this be necessary.<sup>48</sup>

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<sup>47</sup> Wing Commander (Retired) John Blake, *Notes on the RCAF Ground Defence Branch*, Prepared for the RCAF Police and Security Historical Group (undated), 1.

<sup>48</sup> *Ibid.*, 2.

While the RCAF Police remained responsible for the day-to-day security of Air Force establishments, station defence forces comprised of non-specialist personnel were capable of manning vital points during expanded security postures. By the time the four RAF Regiment officers returned home, the RCAF's new Ground Defence Officers and Ground Defencemen had been sent to airbases in Canada and Europe to conduct ground defence training and exercise these part-time station defence forces.

However, as the Soviet nuclear threat grew the Ground Defence organization began moving away from active ground defence toward passive defence.<sup>49</sup> In 1954, the Ground Defence Branch at Air Force Headquarters was shifted from the Personnel Division (Directorate of Security) to the Operations Division where it was eventually transformed into the Directorate of Nuclear Defence Operations. A 1957 historical report from 1 (Canadian) Air Division in Metz, France provides a flavour of the ground defence situation of the day:

Ground Defence policy has undergone several changes during 1957, which have been reflected in 1 Air Division. Passive Defence has been given a much greater emphasis than ever before with the greater probability of use of thermonuclear weapons and their much larger areas of immediate effects.... Active Defence activities have been generally restricted to training of personnel in personal arms and the maintenance of a Mobile Defence Force on each installation to cater to such hostile activities which are beyond the resources of the Security Police.<sup>50</sup>

While the nuclear issue initially detracted from the RCAF's ground defence posture, it would soon have a more positive effect. Following a promise made but never fulfilled by the Diefenbaker government, Prime Minister Lester B. Pearson moved in 1963 to acquire nuclear warheads for three new RCAF weapons systems: BOMARC surface-to-air missiles (SAMs)

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<sup>49</sup> In NATO terminology, active defence comprises any limited offensive action and counterattack necessary to deny a contested area or position to the enemy. Passive defence comprises those measures taken to reduce the probability and minimize the effects of damage caused by hostile action, but without any intention to take the offensive.

<sup>50</sup> Royal Canadian Air Force, "Historical Record, 1 Air Division [Metz, France], Period from 1 Jun to 30 Nov 57." [transcription on-line]; available from <http://www.pinetreeline.org/metz/otherm1/otherm1-13.html>; Internet; accessed 4 March 2007.

and CF-101 Voodoo fighter interceptors in Canada, and CF-104 Starfighter strike aircraft in Europe.<sup>51</sup> Faced with the dilemma of how to secure these warheads to the strict standards laid down by the United States (which still retained ownership), the RCAF decided to assign this role to the RCAF Police – ushering in a new era of robust security at RCAF installations. Protection provisions for each weapon system were generally similar, with the USAF Security Police guarding the interior of the Weapons Storage Area and the RCAF/CF providing external security and base defence. As an example, the CF-104 agreement stated that,

The RCAF is responsible for the general security of the agreed bases and external security of all land areas, structures, and other facilities made available by the RCAF for the use of the USAF. External security, for the purpose of this arrangement, is defined as protection against enemy forces, saboteurs, para-military forces or other unauthorized personnel.<sup>52</sup>

Until the last nuclear weapons left Canadian soil in June 1984, both the RCAF Police (AFPs) and later the Canadian Forces MPs took this mission very seriously. A massive indoctrination and training program was carried out to form dedicated nuclear security forces at all nuclear-capable bases, in addition to the regular airbase police units. The AFP establishment doubled to a high of 1,800 men, and 34 sentry dog handlers were trained to augment the security of these vital assets in Europe. Over 800 specialist AFPs were employed at the various nuclear units: 54 each at the two BOMARC SAM sites, 95 each at the four CF-101 bases, and 164 each at the two CF-104 bases. Each armed with a sub-machine gun and a pistol, these personnel provided strict access control and security surveillance of the Weapons Storage Areas and Quick Reaction Alert facilities, patrolled

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<sup>51</sup> John Clearwater, *Canada's Nuclear Weapons: The Untold Story of Canada's Cold War Arsenal* (Toronto: Dundurn Press, 1998), 27-30. Canada did not own these weapons *per se*. Under a complicated arrangement the US retained custody of the warheads until the requisite US and Canadian authorities approved their use, at which time the US would transfer them to Canada for tactical employment.

<sup>52</sup> *Ibid.*, 277.

facility perimeters, and provided mobile Security Alert Teams for incident response. Nuclear security specialists were skilled in field tactics, covering fire, use of cover, convoy escort procedures, security sweeps of runways prior to launches, and security for mass loads and combat turnarounds.<sup>53</sup>

In March 1960, as nuclear weapons security preparations were in full swing, a new Emergency Defence Plan was published by Headquarters 1 (Canadian) Air Division that transferred all remaining active ground defence responsibilities from the Nuclear Defence staff back to the Security (AFP) staff. Two years later the trade name of Ground Defencemen was changed to Nuclear Defence Instructor, formally marking its transition from an active to a passive defence specialization. A cadre of Air Division AFP personnel were qualified as Small Arms Instructors and the RCAF Police once again became responsible for all aspects of Air Force security and ground defence training. In February 1968, with the implementation of the *Canadian Forces Reorganization Act*, the AFP trade also disappeared and its members became Military Policemen within the new CF Security Branch (which inherited all of the roles of the RCAF Directorate of Security). The Nuclear Defence trade, as one commentator put it, simply “disappeared in the imbroglio of integration.”<sup>54</sup>

The last nuclear weapons were withdrawn from the Canada’s CF-104 Starfighter squadrons in 1972, bringing the nuclear era for its European-based air forces to a close after only eight years of operational service.<sup>55</sup> The AFP/MP nuclear security forces, as robust as

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<sup>53</sup> Colonel (Retired) R.J. Donovan, “Nuclear Security Operations,” in *On Guard for Thee: The Silver Anniversary of the Security Branch* (Winnipeg: JOSTENS Canada, 1993), 33-24

<sup>54</sup> Captain W. H. Welsh, “A Canadian Air Force Regiment,” *Canadian Defence Quarterly* 12, no. 1 (Summer 1982): 39.

<sup>55</sup> The BOMARC warheads were also returned to the US in 1972, although nuclear-tipped Genie air-to-air missiles continued to arm CF-101 Voodoo aircraft in Canada until 1984. MP nuclear security units were maintained in Canada until all of these weapons were repatriated to the United States.



they were, had maintained a very tightly focused role of protecting specific assets within a larger air station or base. Throughout the 1970s and 1980s, the broader issue of general airbase ground defence at CFB Baden and CFB Lahr in West Germany was addressed in two parts: through an auxiliary Base Defence Force (BDF) which, along with the base MP unit, would operate within the base perimeter in times of increased security alert; and by German Territorial Army units. The *Bundeswehr* maintained six (later twelve) Territorial Home Defence Brigades of light infantry troops that were assigned a rear-area defence role. For example, a company of Territorial Army troops was assigned to protect the exterior of the CFB Lahr airfield and a further Rifle Battalion was earmarked for security of the greater Offenburg-Lahr area.<sup>56</sup>

Within this seemingly robust layering of defences, the BDF organization could justifiably be singled out as the weakest link. It was a part-time organization which was overly focused on riot control and internal security and its personnel lacked the training and equipment required for credible ground defence against the postulated threats of the day. A series of articles in *Canadian Defence Quarterly* from 1980 and 1986 openly questioned the ability of the BDF to protect CF airbases against Soviet airborne and Special Forces, terrorists, or even armed malcontents.<sup>57</sup> In one article, W. H. Welch concluded that,

All in all, then, CF airfield defence is basically anti-infiltration/anti-sabotage oriented.... It does not provide defence against organized ground attack.<sup>58</sup>

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<sup>56</sup> Sean M. Maloney, *War Without Borders: Canada's NATO Brigade in Germany, 1951-1993* (McGraw-Hill Ryerson: Toronto, 1997), 288, 299.

<sup>57</sup> Captain H. W. Welsh, "The Canadian Forces and Airfield Defence," *Canadian Defence Quarterly* 9, no. 4 (Spring 1980): 19; Welsh, *A Canadian Air Force Regiment*,...37-41; and Captain H. W. Welsh, "Base Defence Forces: There is Much Room for Improvement," *Canadian Defence Quarterly* 16, no. 2 (Autumn 1986): 36.

<sup>58</sup> Welsh, *The Canadian Forces*..., 20.

In a later article, Welch added,

Obviously, the term Base Defence Force is a misnomer. A more accurate descriptive term is “Base Sort of Internal Security Force.”<sup>59</sup>

Having witnessed the BDF system first hand as a Base Security Officer in the late 1980s, the author can attest that these were not unfair assessments of the very limited capability of the BDF to deter or contain, never mind stop a determined adversary. Some BDFs were further hampered by unclear or illogical command relationships. For instance, the Base Security Officer – as the Base Commander’s security adviser and commander of the full-time armed MP force – should have retained tactical control of the BDF when called out. This often did not happen, and in some extreme cases, the MPs were actually subordinated to the part-time BDF. Although the BDFs at Lahr and Baden were better trained and more frequently exercised than their domestic counterparts, the overall weakness of the BDF concept was still concerning since NATO had acknowledged airfield defence as a key area of concern in the late 1970s.<sup>60</sup> The BDF concept, driven largely by Cold War requirements, disappeared once the Soviet threat dissipated and was replaced with the current Base/Wing Auxiliary Security Forces (WASF in Air Force parlance). Although each WASF is now closely aligned with the Wing Security Force (the MP unit) for command and control, they are smaller and have even less ground defence capability than the BDFs did.

## **THE GULF WAR TO PRESENT**

The Air Force’s reliance on part-time “defence” forces during the Cold War left it in a quandary when Canada decided to send CF-18 fighter-bombers to the Emirate of Qatar in

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<sup>59</sup> Welsh, *Base Defence Forces*..., 38.

<sup>60</sup> “RAF Regiment Improvements,” *International Defence Review* 12, no. 4 (1979): 482.

1990 under the US-led coalition to counter Iraq's invasion of Kuwait. The Canadian Air Task Group Middle East (CATGME) was initially prepared to rely on host nation security forces and a handful of MPs to protect the air contingent. However, a subsequent threat assessment made it obvious that a more robust security force was needed. In late October 1990, the Deputy Commander of 1 Canadian Air Division led a reconnaissance visit to Doha airbase to, among other things, assess the security requirements. The team included an Infantry Major who, according to his regimental history, "put his two and a half days in Qatar to good use" and returned home with "a vastly converted Air Force recce party."<sup>61</sup> Very quickly thereafter the Chief of the Defence Staff (CDS) approved a 100-man infantry "security company."<sup>62</sup>

"Mike" Company of the 3<sup>rd</sup> Battalion, Royal Regiment of Canada (RCR), from 4 Canadian Mechanized Brigade Group (CMBG), was subsequently handed the task of "[d]efending Canadian personnel, aircraft and combat supplies from ground attack," and its first troops arrived in Doha on 5 October 1990.<sup>63</sup> The three platoons of this 118-man company were barely sufficient for the task of protecting four disparate locations: "Canada Dry 1" camp, which held the Canadian Support Group and most of the living quarters (3.5 km from the airfield); "Canada Dry 2" camp, containing the air and ground-crew living quarters (2.5 km from the ramp); the main military ramp area and CATGME tactical headquarters; and the Quick Reaction Alert area.<sup>64</sup> Canada's official history of the Persian Gulf War (Operation

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<sup>61</sup> Captain Greg Miller, The Regimental Website of the Royal Canadian Regiment, "'Mike' Company and the Persian Gulf," [http://thercr.ca/history/1992-present/mike\\_coy\\_persian\\_gulf.htm](http://thercr.ca/history/1992-present/mike_coy_persian_gulf.htm); Internet; accessed 7 March 2007.

<sup>62</sup> *Ibid.*

<sup>63</sup> Miller, "*Mike*" Company.... Mike Company was commanded by the same officer who accompanied the CATGME recce party in October 1990.

<sup>64</sup> Jean Morin and Richard H. Gimblett, *The Canadian Forces in the Persian Gulf: Operation Friction, 1990-1991* (Toronto: Dundurn Press/DND, 1997), 108.

FRICION) recounts that “Mike” Company,

...dug defensive positions, erected fences and observation posts, and placed guards around the perimeter to control access to the base. The unit’s war diary relates that the company stacked tens of thousands of sandbags and used more than five hundred rolls of barbed wire during the two months of installation. Because aircraft were not in fortified shelters, their protection posed a constant problem, necessitating continuous night-time patrols and checks. Four *Grizzly* armoured vehicles were brought from Canada. Armoured, armed, and fast, they were the envy of neighbours faced with similar problems. Soon, however, they were put at the service of an integrated allied patrol team. This economized the security resources of Doha Air Base.<sup>65</sup>

The “Royals” were replaced by “Charlie” Company of the 1<sup>st</sup> Battalion, Royal 22<sup>e</sup> Régiment (R22eR) in late December 1990. Like the Royals, the “Vandoos” were challenged to provide more than minimum security due to the large size of the Doha Airbase. They sought to mitigate the “high” terrorism threat through a muscular and aggressive defence system that featured heavily fortified defensive positions, perimeter watchtowers, and armoured vehicle patrols.<sup>66</sup>

As the infantry patrolled the perimeter, controlled access, and searched vehicles for explosive devices, the eight-person MP section focussed mainly on police and administrative security duties. This was a change from Lahr and Baden where these same MPs were part of the full-time Base Security Force. The sidelining of Military Police in the deployed airbase security and defence role suggests that their Cold War static internal-security focus (countering criminality, subversion, espionage, and sabotage) was no longer adequate to deal

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<sup>65</sup> *Ibid.* The “neighbours” refers to a USAF Security Police Squadron tasked with protecting a US F-16 Squadron operating from the Doha airport. At the time, USAF Security Police were equipped only with un-armoured vehicles. USAF Security Forces now routinely operate armoured vehicles for airbase ground defence missions. See Chapter 4, *USAF Security Forces*.

<sup>66</sup> Captain David N. Deere, ed, *Desert Cats: The Canadian Fighter Squadron in the Gulf War* (Stoney Creek, Ontario: Fortress Publications, 1991), 111. The security threat in theatre was rated as high based partially on Saddam Hussein’s public pronouncement that terrorist groups sympathetic to Iraq would wreak havoc against the coalition nations arraying against him. See also Sean M. Maloney, “‘Missed Opportunity’: Operation Broadsword, 4 Brigade and the Gulf War,” *Canadian Military History* 4, no. 1 (Spring 1995): 38.

with contemporary threats on operations. As the official history tells it, Military Police during Op FRICTION were “neither numerous enough nor sufficiently well trained to carry out a defence of the perimeter in a war setting.”<sup>67</sup> The Air Force was fortunate that the infantry stepped up to the plate, acquitted themselves well, and provided first-rate protection of the “Desert Cats” squadron in Qatar.

Notwithstanding, one is left wondering if the Army would have pulled its combat troops from airfield security duties if the Canadian government had approved Operation BROADSWORD – a plan which would have deployed to Saudi Arabia a 7,000 to 12,000-person force built around 4 CMBG (the parent unit of 3 RCR and 1 R22eR). According to historian Sean Maloney, a CDS staff check completed on 13 October (a week after “Mike” Company arrived in Qatar) assumed that Op BROADSWORD would “receive first priority over existing Army operations, and that resources could be drawn from elsewhere.”<sup>68</sup> Not surprisingly, the Army’s first priority if it was committed to the fight would be combat sustainability and battle casualty replacement. Given the government’s subsequent decision to sideline the Army from the coming ground battle, it is not unreasonable to suggest that the Army’s willingness to continue guarding an airbase in the rear was at least partly driven by a desire not to be left completely out of the war.

Op FRICTION was a wake-up call for the Air Force. Years of operating from static bases in Germany had made it complacent to the realities of expeditionary operations. The insufficiency of existing ground support concepts and organizations was exposed in the *ad hoc* nature of the CF’s Gulf War air contingent. This situation prompted the development of a

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<sup>67</sup> Morin and Gimblett, *The Canadian Forces and the Persian Gulf...*, 155.

<sup>68</sup> Maloney, *Missed Opportunity...*, 39.

Contingency Support Wing (CSW) concept in the mid-1990s.<sup>69</sup> The concept envisioned deployable Airfield Security Force (ASF) squadrons, comprised mainly of specially trained Military Police personnel,

...with capabilities for protection of CF aircraft, mission critical equipment and personnel, intelligence/counter-intelligence gathering on local threats, armed response to threats inside the security area of operations, onboard armed security, and police services which includes criminal investigation and reporting.<sup>70</sup>

It also envisioned an Airfield Defence Force (ADF),

...with capabilities for Low-Level Air Defence (LLAD) and external perimeter security and defence beyond the capabilities of the ASF Sqn. This element is comprised of LFC units (4 AD Regiment, 128 Battery) requested by Comd AIRCOM when required for deployed operation.<sup>71</sup>

The Army, however, was no longer willing or able to commit land forces for ADF-type duties, a position that was spelled out in a letter from the Director General Land Forces Development in May 1995 the same month that the CSW concept document was published.<sup>72</sup> The CSW concept provided no permanent establishment for these ASF squadrons so personnel still had to be sourced from units across the Air Force – straining an already over-stretched MP branch. Notwithstanding, Ministerial Organizational Orders were approved in August 1997 that created 4, 8, and 14 ASF Squadrons at Cold Lake, Trenton, and Greenwood respectively as units of the Regular Force. The ASF concept took hold within the senior ranks of the Air Force MP community despite the lack of dedicated resources, and composite ASF

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<sup>69</sup> Department of National Defence, *AIRCOM Concept of Operations for 2 Contingency Support Wing* (AIRCOM Winnipeg: DCOS P&R/SO Con 3), May 1995, B-5/32.

<sup>70</sup> *Ibid.*, B-8/32.

<sup>71</sup> *Ibid.*, B-9/32.

<sup>72</sup> Lieutenant Colonel Tony Battista, *et al*, *Report on the Air Force Security/Resource (Force) Protection Review* (1 Canadian Air Division Headquarters: file 2131-6 (1 CAD/CANR HQ/A3 SAMP), 30 November 1999, 39.

Flights were successfully subsequently deployed on several missions facing moderate ground threats. An ASF Flight was organized in 1996 protect the 430 Tactical Helicopter Squadron detachment supporting United Nations operations in Haiti and another Flight was created and deployed in 1999 to protect the composite “Kosovo Rotary Wing Aviation Unit” at Pristina airport. The later ASF Flight operated both inside and “outside the wire,” successfully securing Forward Area Refuelling Points and Mobile Repair Party locations in the face of potentially hostile ground threats.

In January 2002, as part of Canada's military contribution to the campaign against terrorism, two CP-140 Aurora Long Range Patrol (LRP) aircraft and 200 personnel deployed to an airbase in the Arabian Gulf region. They were followed one month later by a Tactical Airlift detachment of three CC-130 Hercules aircraft and 180 personnel. The original security concept of operations for “Camp Mirage” was based on a small composite ASF Flight of 24 MP personnel, supported by an auxiliary security force made up from the LRP and TAL detachment personnel. However, the in-theatre air detachment commanders would not agree to provide personnel for an auxiliary security force citing the negative impact this would have on generating flying sorties.<sup>73</sup> Consequently, the under-sized ASF Flight handled all camp access control, vehicle searching, flight-line security, perimeter patrolling, and police duties within its own limited resources. Due to competing demands for MP personnel for other CF operations, the Air Force was unable to force-generate sufficient numbers of MPs to maintain an all-encompassing ASF Flight after the first two rotations.

Despite its earlier protestations, the Army agreed in March 2003 to provide a defence and security (D&S) platoon of infantry at Camp Mirage to take over access control, vehicle

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<sup>73</sup> The author was deployed as the ASF Flight Commander for this operation, and personally made the appeal to establish the local auxiliary security force as per the CONOP.

searching, and close defence duties from the Military Police who then reverted to garrison policing and security support duties with a smaller number of personnel. However, the Army's approach to this task had been uneven in the intervening four years. Between August 2003 and February 2004 the RCR provided three light infantry platoons for two months each. The task was then relegated to *ad hoc* platoons of reserve infantry on six month rotations from 38 Canadian Brigade Group (Land Forces Western Area) and later Land Forces Central Area. The 38 CBG troops actually arrived in theatre before all of their required pre-deployment training was completed, and later up to 8 platoon members at a time were sent forward to Camp Julian in Afghanistan.<sup>74</sup> Although this doubtlessly alleviated boredom and helped augment Camp Julian's defences, it further suggests that airbase defence in the rear was not a top priority for the Army. Notwithstanding these *ad hoc* D&S platoons at Camp Mirage, the Army continues to resist any formal commitment to the airfield defence role and this mission remains unmentioned in land force doctrine.

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<sup>74</sup> Department of National Defence, CF Lessons Learned Database (Knowledge Management System) [searches under Op Athena and Camp Mirage]. <http://kms.kingston.mil.ca/kms/>; DWAN; accessed 26 March 07



## **CHAPTER 4 – ALLIED PERSPECTIVES ON AIRBASE GROUND DEFENCE**

*Rear guards are the safety of armies and often they carry victory with them.*<sup>75</sup>  
- Frederick the Great

In order to fully evaluate the relative strengths and weaknesses of Canada's approach to airbase ground defence, it is instructive to survey the manner in which our allies carry out this important mission. This chapter reviews the development of airfield ground defence capabilities within the United Kingdom, France, Australia, The Netherlands, Italy, and the United States. These countries were chosen because they, like Canada, have been actively involved in air expeditionary operations since the end of the Cold War, and because Canada is likely to work alongside all of these nations during future coalition or NATO operations. The Netherlands and Australia are also countries with military forces of similar size and capability as those of Canada.

### **UNITED KINGDOM: *THE ROYAL AIR FORCE REGIMENT***

In 1926, the Committee of Imperial Defence ruled that the British Army would retain responsibility for the general defence of land areas upon which RAF stations were located, based largely on the experience of the First World War when the Royal Flying Corps was part of the Army. The RAF, however, soon found this arrangement wanting during the Arab-Jewish disturbances in Palestine (1935-1938) when the large British Army garrison was frequently unable to protect outlying RAF stations threatened by terrorist attack. Although the Air Staff had begun to recognize the inadequacy of these arrangements, the RAF entered the Second World War without a competent cadre of its own advisors to plan and organize airfield defence. Unfortunately, many RAF commanders falsely assumed that their

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<sup>75</sup> Frederick the Great, quoted in United States, Joint Chiefs of Staff, *Joint Publication 3-1, Joint Security Operations in Theater* (Washington DC: Department of Defence, 2006), IV-1.

installations and assets would be well protected by infantry, armour, and anti-aircraft artillery units of their Army brethren.

In 1940, without adequate protection from either their own land forces or those of their allied hosts, the RAF units of the British Expeditionary Force were quickly overrun by German forces in Norway, France, and the Low Countries. This ill-fated campaign prompted the Air Staff to hastily form a Directorate of Ground Defence to better coordinate defence arrangements and issue guidance to RAF stations. As historian Kingsley Oliver explains,

By this stage of the war it was clear to the RAF that it could no longer rely upon the Army for the close defence of RAF installation; indeed it was only in circumstances far removed from the reality of a major war that politicians and senior officers of both Services had been able to shelter behind the illusion that the British Army would have sufficient resources to do everything from fighting the land battle to defending the bases on which the Royal Air Force depended for air operations.<sup>76</sup>

However, even when combined with the formation of a new Ground Gunner trade for anti-aircraft defence and a Defence Officer specialization within the Administration Branch, this new Directorate could not fully resolve many of the critical issues required to ensure a fully effective ground defence program.

This would all change after the fall of Crete to German paratroopers. The loss of Crete, with its three forward airfields, was a seminal moment for the RAF. Prime Minister Churchill personally reviewed the RAF's ground defence policy and ordered that the shortcomings be corrected. He declared that, "Every airfield should be the stronghold of fighting air-groundmen and not the abode of uniformed civilians in the prime of life protected by detachments of soldiers."<sup>77</sup> A Cabinet committee was formed which subsequently

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<sup>76</sup> Kingsley M. Oliver, *Through Adversity: The History of the Royal Air Force Regiment, 1942-1992* (Rushden, Northhamptonshire: Forces & Corporate Publishing, 1997), 29.

<sup>77</sup> Winston Churchill, quoted in K.H. Minton, "Active Ground Defence of Airfields in UK," *Air Clues* 41, no. 3 (March 1987), 84.

recommended the formation of an aerodrome defence corps under the executive control of the Air Ministry. The War Office finally agreed to this solution and on 1 February 1942 a Royal Warrant of King George VI raised the Royal Air Force Regiment. The RAF Regiment quickly established itself as a formidable ground fighting force and by war's end comprised about 50,000 officers and airmen in 240 combatant squadrons.

Since the end of Second World War, the Regiment has been continually employed on operations worldwide, including Palestine, Aden, Suez, Cyprus, Malaya, Indonesia, Oman, Northern Ireland, the Falkland Islands, and Kuwait. RAF Regiment personnel are currently operating in Iraq (Basra International Airport) and in Afghanistan (Kandahar Air Base).

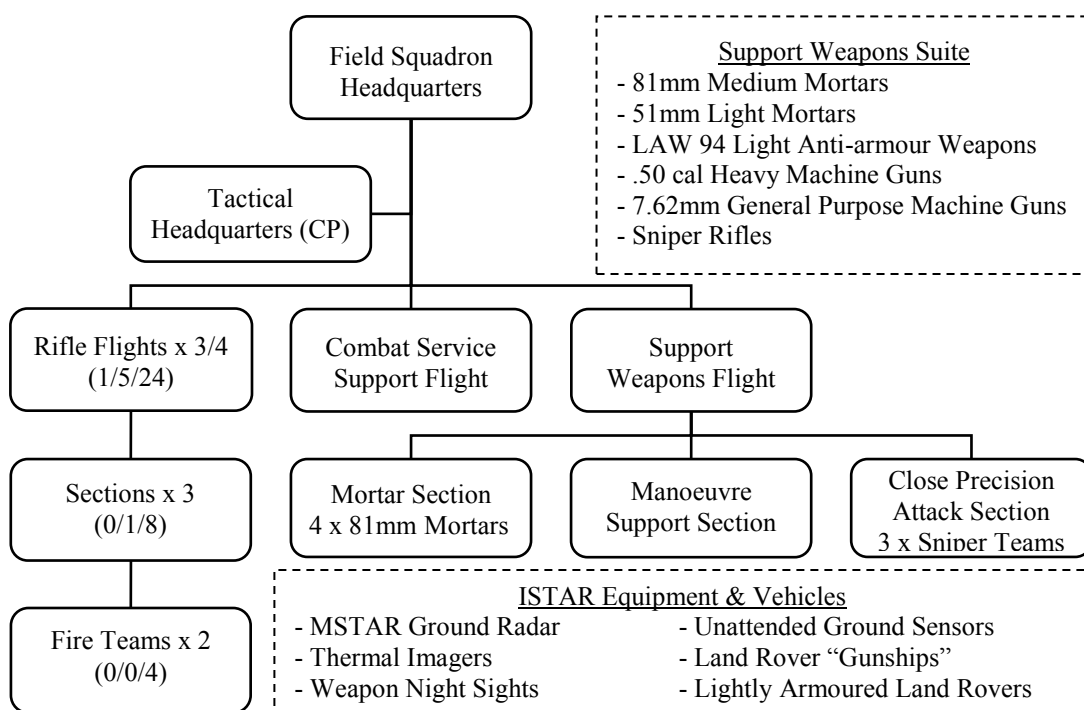
Today, the Regiment leads the RAF's Force Protection program. While the primary mission of RAF Regiment remains the active ground defence of RAF installations and assets anywhere in the world, it also carries out a number of other important FP and STO functions. The Regiment provides the main source of RAF expertise in Chemical, Biological, Radiological and Nuclear (CBRN) Defence, and it contributes one Squadron of specialists to the Joint CBRN Regiment. Additionally, each RAF station has a Ground Defence Training Section in which Regiment instructors train all station personnel in measures like first aid, weapons handling, and CBRN defence. RAF Regiment personnel also provide the Ground Extraction Force for the RAF's Combat Recovery program (including Combat Search and Rescue of down aircrew), and the main Tactical Air Control Parties (TACPs) that coordinate close air support for the British Army.

In 2004, as a result of the reduced air threat on operations, the UK Ministry of Defence decided to disband the Regiment's Ground Based Air Defence (GBAD) Squadrons. The British Army is taking over the operation of all remaining "Rapier" fire units under a new

joint headquarters within the RAF command structure.<sup>78</sup> Regiment personnel from the disbanding GBAD units are being redistributed amongst the Field Squadrons, two new Force Protection Wing Headquarters, and the UK's new Special Forces Support Group – where their expertise will be used in securing airfields, temporary landing zones, and drop zones.

RAF Regiment Field Squadrons are very heavily armed and highly mobile infantry units comprising between 130-150 troops. While their size is akin to an Army Company Group, each Squadron has almost the same firepower and Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR) capability as a British Army Infantry Battalion.<sup>79</sup>

Figure 4.1 shows the organization of a typical RAF Regiment Field Squadron.



**Figure 4.1 – RAF Regiment Field Squadron Organization**

Sources: Watkins, *Airbase defence...*, 88-89; Ministry of Defence, *RAF Regiment go on foot...*; and Royal Air Force, *The RAF Regiment Field Force...*

<sup>78</sup> Ministry of Defence, *Delivering Security in a Changing World: Future Capabilities*, (Norwich: The Stationary Office, 2004), 9.

<sup>79</sup> Squadron Leader D.M. Watkins, "Airbase defence: the optimum strategy to counter modern threats to joint air operations," *The Royal Air Force Air Power Review* 7, no. 3 (Autumn 2004): 88.

The current strength of the RAF Regiment is about 3,000 all ranks, including some 500 part-time reservists. Table 4.1 shows the disposition of Regiment sub-units.

| <b>Field Squadrons</b>                    |  |
|---|--|
| No 1 Squadron                             | Ground Defence                                       |
| No 2 Squadron                             | Ground Defence (Parachute capable)                   |
| No 3 Squadron                             | Ground Defence                                       |
| No 27 Squadron                            | CBRN Defence (RAF element of Joint CBRN Regiment)    |
| No 34 Squadron                            | Ground Defence                                       |
| No 51 Squadron                            | Ground Defence                                       |
| No 63 Queens Colour Squadron              | Ceremonial & Ground Defence                          |
| <b>GBAD Squadrons</b>                     |  |
| No 15 Squadron                            | 6 x Rapier (Disbanding, March 2008)                  |
| No 16 Squadron                            | 6 x Rapier (Disbanding, March 2007)                  |
| No 26 Squadron                            | 6 x Rapier (Disbanding, March 2008)                  |
| <b>Headquarters and Other Units</b>       |  |
| RAF Force Protection Centre               | Regimental Headquarters (FP Staff Advice & Training) |
| No 1 RAF Force Protection Wing HQ         | Formerly No 1 RAF Survive-to-Operate (STO) HQ        |
| No 2 RAF Force Protection Wing HQ         | Formerly No 2 RAF Survive-to-Operate (STO) HQ        |
| No 3 RAF Force Protection Wing HQ         | Formerly No 3 RAF Survive-to-Operate (STO) HQ        |
| No 4 RAF Force Protection Wing HQ         | Formerly No 4 RAF Survive-to-Operate (STO) HQ        |
| No 5 RAF Force Protection Wing HQ         | Newly formed unit                                    |
| No 6 RAF Force Protection Wing HQ         | Newly formed unit                                    |
| E Flight, No 28 (AC) Squadron             | Ground Extraction Force, Combat Recovery (CSAR)      |
| Special Forces Support Group              | RAF Regiment element within joint "tier 2" SOF unit  |
| <b>Royal Auxiliary Air Force Regiment</b> |  |
| 2503 Squadron RAuxAF Regt                 | Ground Defence (Reserve)                             |
| 2620 Squadron RAuxAF Regt                 | Ground Defence (Reserve)                             |
| 2622 Squadron RAuxAF Regt                 | Ground Defence (Reserve)                             |
| 2623 Squadron RAuxAF Regt                 | Ground Defence & CBRN Defence (Reserve)              |

**Table 4.1 – RAF Regiment Disposition**

Sources: [www.raf.mod.uk](http://www.raf.mod.uk); and [www.armedforces.co.uk](http://www.armedforces.co.uk)

Battle-proven and possessing a very strong doctrinal foundation, the Royal Air Force Regiment is widely acknowledged as the standard against which all other airbase ground defence forces are judged. An article in the *International Defence Review* provides an

example of the wide-spread respect garnered by this ground combat unit:

The UK's professional airfield defence force, the RAF Regiment, has been repeatedly assessed in NATO evaluations as one of the most, if not the most, efficient and effective organization of its kind available in the alliance.<sup>80</sup>

### **FRANCE: *LES FUSILIERS COMMANDOS DE L'AIR***

The French Air Force ground defenders trace their lineage back to 1936 when two *Groupements d'infanterie de l'air* were created within *l'armée de l'air*. While these original paratrooper units were disbanded by the Vichy Government in 1940 because of the armistice with Germany, the Free French Air Force soon created its own units of *l'infanterie de l'air* – later expanded and renamed as *les chasseurs parachutistes* – of which several battalions were later integrated into the British Special Air Service Brigade. Following this tradition, the French Air Force formed *les commandos parachutistes de l'air* (CPA) in 1956 to help fight the rebellion in Algeria. By the early 1960s these CPA units began re-rolling to protect airbases at home and abroad and to safeguard the air component of France's nuclear deterrent force. In 1965, a new specialty of *fusilier commando* was created to recognize this emerging airbase protection role.

Today's *fusiliers commandos* fall under the direction of *le Commandement des forces de protection et de sécurité de l'armée de l'air* (CFPSAA). The CFPSAA is responsible to the Air Force Chief of Staff for the overall coordination of FP and ground defence activities at home and abroad. Under the guidance of the CFPSAA, *fusiliers commandos* are employed in 34 “Protection Squadrons” and three parachute intervention units: *Commando parachutiste de l'air* (CPA) 10, 20 and 30. The CFPSAA also oversees French Air Force fire-fighting and rescue services and a new CBRN specialist trade.

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<sup>80</sup> International Defence Review 4/1979, *RAF Regiment Improvements*, 482.

The *fusiliers commandos* serving in the Protections Squadrons are tasked with the physical security and close defence of airbases and vital points, both in France and abroad. They have no military policing role, however, since this mission is assigned to the *Gendarmerie nationale*. To assist with the airbase security and defence mission, over 600 *fusilier commandos* are trained as military working dog handlers. The three parachute-capable *fusilier commando* units have more specialized roles:

- CPA 10, comprising over 200 troops, is a Special Operations-capable unit tasked with seizing and securing airports in support of non-combatant evacuation operations and other military activities. It also provides target designation teams to direct laser-guided bombs;
- CPA 20 and CPA 30, each comprising about 250 troops, specialize in three missions: *mesures actives de sûreté aérienne* (MASA); *récupération survivor en altitude* (RESAL); *recherche et sauvetage au combat* (RESCO). For the MASA mission, CPA sharpshooters fly with special helicopters crews to intercept low speed aircraft that violate restricted airspace over sensitive sites and special events. The role of these sharpshooters is to engage these aircraft with small arms fire if necessary. The RESAL mission, involving the rescue of personnel from high-altitude mountainous regions, was recently established due to the operating environment in Afghanistan. For the RESCO mission, the CPAs provide ground extraction teams in support of traditional CSAR duties. CPAs 20 and 30 can also be tasked to augment the defence of deployed Air Force elements;

In addition to these specialized roles, all three CPAs can carry out ground reconnaissance missions and provide TACPs to direct air strikes.

Together, the *fusiliers commandos* and *commandos parachutistes de l'air* currently total about 5,545 personnel – which represents 7.8 % of the overall regular and reserve personnel strength of the French Air Force (see Chapter 5, Table 5.1). This is the highest percentage of the seven nations surveyed, and clearly demonstrates the importance that France places on the security and ground defence of its airbases, both at home and abroad.

#### **GERMANY: *DAS OBJEKTSCHUTZREGIMENT DER LUFTWAFFE***

During the Second World War, Germany was the first country to recognize the value of attacking enemy airfields using airborne troops. German *Wehrmacht* (Army) and *Luftwaffe* (Air Force) paratroopers successfully seized under-defended airfields in Denmark, Norway, Belgium, the Netherlands, and Crete. In the European theatre, the *Luftwaffe* relied on its many paratroop units, anti-aircraft units, *Luftwaffefelddivision* (Field Division) units, and the elite “Hermann Goering Regiment” for the security of its own airfields and installations.<sup>81</sup>

Notwithstanding its European defences, *Luftwaffe* forces operating in North Africa and the Mediterranean lost over 367 aircraft to British Special Forces ground raids between 1940 and 1943. Alan Vick attributes the high *Luftwaffe* ground loss rate in the desert theatre to the *ad hoc* and reactive nature of its ground defences there. In particular, he cites the poor coordination between the *Luftwaffe* units that were responsible for interior base defence and the army *Afrika Korps* units that were responsible for rear area security.<sup>82</sup>

During the Cold War, the German army retained responsibility for rear area security outside the perimeter of *Luftwaffe* bases. Up until 1997, *Luftwaffe* security within the base perimeter was a unit-level task performed primarily as a secondary duty. In time of crisis, air

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<sup>81</sup> Oliver, *Through Adversity...*, 23.

<sup>82</sup> Vick, *Snakes in the Eagles Nest...*, 114-126.



force conscripts and reserve personnel would be called upon to form specialized “safeguard” units to further bolster the ground defence posture. This system worked adequately given the internal focus of the *Luftwaffe* during the Cold War, but was insufficient as Germany refocused its armed forces for expeditionary operations.

In order to better ensure the Force Protection of deployed *Luftwaffe* units against both conventional and asymmetric threats, the *Objektschutzbattalion der Luftwaffe* (Security Battalion of the Air Force) was made operational in March 1997. Numbering about 1,000 all ranks, the battalion was organized into five Squadrons: two “Infantry Security” Squadrons of four Flights each, one Point Air Defence Squadron with shoulder-fired “Stinger” missiles, one CBRN and Fire Protection Squadron, and one Airfield Damage Repair and Explosive Ordinance Disposal (EOD) Squadron. The unit was designed to be modular so that an appropriate mix of Flight or Section-size force elements could be grouped together and deployed depending on the threat.

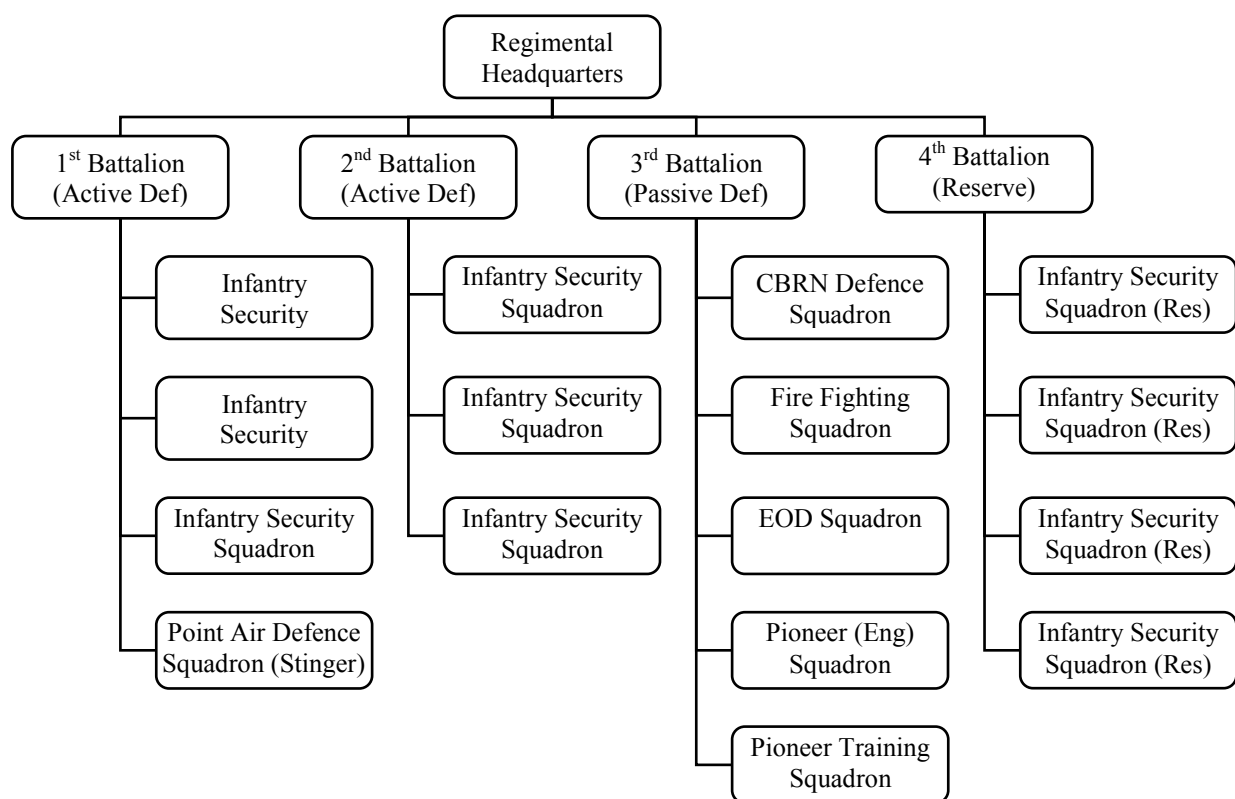
In early 2003, the German Ministry of Defence released new defence policy guidelines setting out its transformation goals. Recognizing the need for forces that could rapidly take part in international crises and conflicts, the document called for the services to focus on building six essential capabilities, the last being “survivability and protection.”<sup>83</sup> This re-emphasis on Force Protection led the *Luftwaffe* senior leadership to increase its ground defence capability under its recently streamlined force structure.<sup>84</sup>

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<sup>83</sup> Major Pierre Lepine, “From Cold Warriors to Expeditionary Forces – The Current Challenges Facing the German Armed Forces,” *Canadian Military Journal* 7, no. 3 (Autumn 2006): 43-44.

<sup>84</sup> Lieutenant General Klaus-Peter Stieglitz, “The *Luftwaffe* of Tomorrow,” *NATO’s Nations and Partners for Peace* 50 (2006): 94, 100.

In June 2006, the *Objektschutzbattalion* was dissolved and its active and passive defence missions passed to the new *Objektschutzregiment der Luftwaffe* (Security Regiment of the Air Force). The new Regiment numbers about 1,800 active personnel and has an additional 680 reserve positions. In creating the *Objektschutzregiment*, the *Luftwaffe* explicitly acknowledged the requirement to control its own dedicated, professionally trained and robustly equipped ground defence forces that are able to deploy quickly and operate throughout the threat spectrum.<sup>85</sup> Figure 4.3 shows the current organization of the Regiment.



**Figure 4.2 - Objektschutzregiment der Luftwaffe Organization**

Sources: Federal Ministry of Defence, *Informationsdienst für Reservisten*,...4, and <http://www.luftwaffe.de/portal/a/luftwaffe>

<sup>85</sup> Germany, Luftwaffe, “Das Objektschutzregiment der Luftwaffe “Friesland” – Objektschutz in der Luftwaffe,” <http://www.luftwaffe.de/portal/a/luftwaffe> [search under *Das Objektschutzregiment der Luftwaffe “Friesland”*]; Internet; accessed 7 February 2007.

The *Objektschutzregiment* retains the modularity and builds on the passive/active defence mix of its smaller predecessor. The “infantry security” troops are trained at the German Army Infantry School in Bavaria and are armed with typical infantry weapons and equipment, including medium machine-guns and light anti-armour weapons. Based on lessons learned from recent operations in Kabul, Afghanistan, the Regiment is looking to increase its holdings of armoured vehicles and night vision equipment, and wishes to acquire 40mm grenade machine-guns for increased direct fire support.<sup>86</sup>

The Regiment’s mission does not specifically cover installation defence in Germany, allowing it to concentrate its efforts on preparing and training for deployed operations. In so doing, the *Objektschutzregiment* provides the Luftwaffe with a very flexible ground combat capability in support of its contemporary crisis reaction air forces.

#### **AUSTRALIA: RAAF GROUND DEFENCE**

The Fall of Singapore to the Japanese Army, on 15 February 1942, dealt a devastating blow to Australians who had hoped this island fortress would halt Japan’s further aggression. The defeat left Australians facing, for the first time, the possibility that they would have to defend their own shores. These fears were soon realized when, on 19 February 1942, the RAAF Base at Darwin was caught completely unprepared by two successive Japanese air raids. The raids on Darwin, which killed about 250 military personnel and civilians, “prompted understandable fears that the air attacks would soon be followed by an invasion force.”<sup>87</sup> By the following October, the RAAF had taken steps to create a specialist Security

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<sup>86</sup> Wolfdieter Hufnagl, “Objektschutz ernst genommen (II),” TRUPPENDIENST 272, no. 5 (2003) [magazine on-line]; available from <http://www.bmlv.gv.at/truppendienst/ausgaben/artikel.php?id=96>; Internet; accessed 7 February 2007.

<sup>87</sup> Australian War Memorial, “Remembering 1942: The bombing of Darwin, 19 February 1942.” <http://www.awm.gov.au/atwar/remembering1942/darwin/transcript.htm>; Internet; accessed 15 April 2007.

Guard Unit at Livingston Airfield in the Northern Territory. Soon re-designated as No. 1 Airfield Defence Squadron (1AFDS), this battalion-sized unit was staffed with specialist airmen from the new Aerodrome Defence Guard (ADG) trade and given the responsibility of guarding operational RAAF bases, both inside and outside of Australia, from Japanese attack. No. 2 Airfield Defence Squadron (2AFDS) was formed in March 1945 to increase the pool of trained ground defence specialists and ADG personnel from both units saw action throughout the South Pacific for the remainder of the war. Both Squadrons were disbanded in late 1945, although 1AFDS was briefly resurrected from 1951 to 1953 to train National Service personnel in airfield defence duties.

In response to overseas commitments in Southeast Asia, the RAAF resurrected the Airfield Defence Guard trade in 1965 with a mission to defend its personnel, aircraft, and facilities from attack by saboteurs, guerrillas, partisans, and regular enemy soldiers. By 1968, about 200 ADGs were serving at RAAF facilities in Malaysia, Thailand, and South Vietnam. In Vietnam, ADG troops conducted both on-and off-base ground defence duties at the Vung Tau and Phan Rang airfields, and a number of them were also employed as helicopter door gunners. By the time Australia withdrew its forces from Vietnam in 1975, the ADGs had suffered one killed and seven wounded in action.<sup>88</sup>

Following the Vietnam War, active duty ADG tradesmen remained organized around five independent Rifle Flights until March 1983 – at which time they were co-located under a reformed No. 2 Airfield Defence Squadron (2AFDS). In recent years, the ADGs have evolved to meet the changing asymmetric threats to RAAF operations and have maintained a

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<sup>88</sup> For complete history of ADG operations in Vietnam see Chris Coulthard-Clark, *The RAAF in Vietnam: Australian Air Involvement in the Vietnam War, 1962-1975* (St. Leonards, Australia: Allen & Unwin, 1995), 217-242.

high level of deployed service throughout the world, including operations in Cambodia, Kuwait, East Timor, the Solomon Islands, Afghanistan, and Iraq.

Today the Ground Defence (GRDEF) occupational grouping – comprising ADGs and Ground Defence Officers (GRDEFO) – provides the RAAF with a specialist ground defence force to protect air force bases and installations from hostile ground action. GRDEF personnel also provide a training cadre to ensure all RAAF personnel remain competent in ground defence, CBRN defence, and weapon handling skills. Primary GRDEF operational tasks include the following: Aircraft Security Operations both in flight and within the confines of an airfield; Patrol and Surveillance Operations around the approaches of airfields to provide early warning and protection of military assets and personnel; Close Personal Protection Operations to ensure the safety of aircrew, passengers, and others during transit to and from aircraft or airfields; and Quick Reaction Force (QRF) duties including “counter-attack and counter-penetration tasks, cordons and searches, vehicle and personnel checks, and convoy protection.”<sup>89</sup> The RAAF recently procured its own armoured “Bushmaster” Infantry Mobility Vehicles to protect ADG personnel while carrying out QRF, convoy escort, and other high-threat activities (see Figure 4.4).

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<sup>89</sup> Royal Australian Air Force, “Airfield Defence Guard – Tasks – QRF,” <http://www.defence.gov.au/raaf/adg/tasks/qrf.htm>; Internet; accessed 18 January 2007.



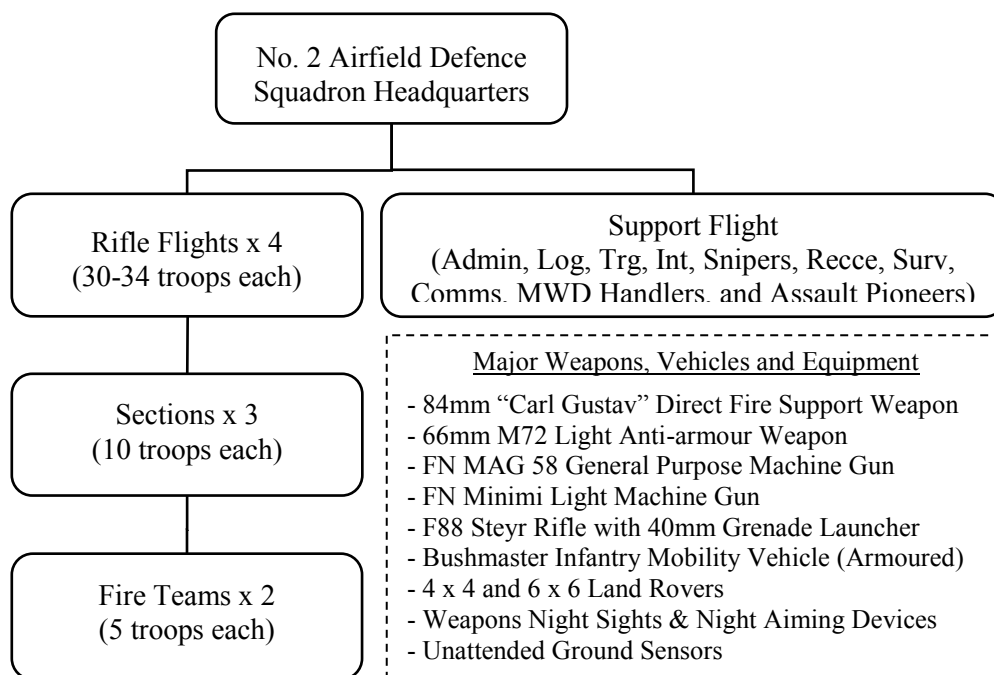
**Figure 4.3 – RAAF ADGs with Bushmaster Infantry Mobility Vehicle**

Source: <http://www.defence.gov.au/raaf/adg/images>

RAAF Combat Support Group is the lead agent for operational-level Force Protection issues with the responsibility to raise, train, and sustain the RAAF's airbase protection capability. Under the Combat Support Group, all deployable GRDEF resources fall under No. 395 Expeditionary Combat Support Wing (395ECSW) based at RAAF Townsville. Within this Wing, the Airfield Defence capability is apportioned into the following sub-units:

- No. 1 Airfield Defence Squadron (1AFDS), RAAF Edinburgh;
  - No. 1 Rifle Flight, RAAF Pearce;
  - No. 2 Rifle Flight, RAAF Edinburgh;
  - No. 3 Rifle Flight, RAAF Williams (Laverton);
  - No. 4 Rifle Flight, Defence Corporate Support Centre, Tasmania;
  - No. 5 and No. 6 Rifle Flights, RAAF Richmond; and
- No 2 Airfield Defence Squadron (2AFDS), RAAF Amberley;

2AFDS is the only full-time Airfield Defence Squadron with a Permanent Air Force (PAF) establishment of about 170 personnel. 1AFDS is a Total Force unit integrating a PAF cadre with a larger number of GRDEF reserve personnel. Upon completion of training, reserve personnel are required to complete 11 months of full-time service with an Airfield Defence Squadron, followed by a minimum of four years of part-time service (32+ days/year) at a reserve Rifle Flight. Figure 4.4 shows the organization of 2AFDS.



**Figure 4.4 – RAAF Airfield Defence Squadron Organization**

Sources: <http://www.defence.gov.au/raaf/adg>; and author's correspondence with GRDEF officer

GRDEF personnel work very closely with Military Working Dog (MWD) teams from the RAAF Security Police (SECPOL). There are about 148 MWD teams dispersed over four locations and these dog/handler teams routinely patrol alongside ADG personnel on deployed operations. Together, the ADG riflemen and SECPOL MWD teams provide a formidable ground defence detection and response force in support of RAAF expeditionary operations.

## **THE NETHERLANDS: *RNLAF FORCE PROTECTION ORGANIZATION***

The Dutch painfully learned the vital importance of airbase defence during the German invasion of the Netherlands in May 1940. In fact, one of Nazi Germany's main justifications for violating the Netherlands neutrality was the capture of Dutch airbases for use in the coming attacks on Britain.<sup>90</sup> On the first day of the invasion, German airborne troops overcame the relatively light defences and occupied a number of airfields around The Hague and Rotterdam.<sup>91</sup> Although Dutch land forces subsequently counterattacked and retook several airfields around The Hague, their air units sustained heavy losses and they were forced to operate their remaining aircraft from improvised strips concealed from the Germans. The struggle for control of military airfields played a key role in paralysing the Dutch defensive system, and may well have hastened the capitulation of The Netherlands' government a few days later.

During the early Cold War period, airfield defence soon became a priority as the Dutch rebuilt their air force and an Air Field Defence Command was formed as one of five new operational commands. At this time, the newly independent Royal Netherlands Air Force (RNLAF) began building a formidable GBAD system using a combination of anti-aircraft missiles and guns. Air Field Defence Command was later amalgamated under a new Tactical Air Forces Command and older and less relevant air defence systems were eventually decommissioned as the Cold War drew to a close. By 1996, several of the former GBAD squadrons had been converted to the airbase ground defence role.

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<sup>90</sup> Werner Warmbrunn, *The Dutch Under German Occupation, 1940-1945* (Stanford CA: Stanford University Press, 1963), 6.

<sup>91</sup> In 1940, Dutch air assets were split between the Army and a small naval air arm. The RNLAF was not formed as a separate service until after the war.



Dutch post-Cold War security policy envisions an activist role for its armed forces and a willingness to intervene in the early stage of crisis situations throughout the world.<sup>92</sup> To support expeditionary operations, the RNLAf recognised and addressed the requirement for a dedicated protective security and point defence capability. The RNLAf currently has a security and ground defence career field that encompasses three sub-specialties and a closely related air defence career field with two sub-specialties. These trades are responsible for the following tasks:

- *Bewaking* (Guarding). At each RNLAf installation, these personnel are responsible for general base security duties such as access control, monitoring electronic security systems, responding to alarms and security breaches, and conducting mobile security patrols. They do not have a law enforcement role, since this mission belongs to the *Koninklijke Nederlandse Marechaussee* (Royal Netherlands Military Police) that has the status of a fourth military service.
- *Hondengeleiding/Bewaking* (Dog Handling/Guarding). These specialists are responsible for maintaining, training, and handling military working dogs in support of base security and defence, at home station and on deployment. Dog handlers can also carry out all regular security and guarding duties.
- *Object Grondverdediging* (Resource Protection). These specialists are responsible for the ground defence of priority resources – such as F-16 fighters, Apache and Chinook helicopters, and Patriot missile systems – both at home and abroad. They also carry

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<sup>92</sup> Netherlands, Ministry of Defence, “The Netherlands Ministry of Defence – Facts and figures on Dutch security policy and the armed forces” (July 2004) [brochure on-line]; available from [http://www.mindef.nl/binaries/Facts%20and%20figures\\_tcm15-46659.pdf](http://www.mindef.nl/binaries/Facts%20and%20figures_tcm15-46659.pdf); Internet; accessed 20 February 2007.

out deployed installation access control, perimeter security patrolling, and mobile response force duties.

- *Stingerschutter/Bewaking* (Stinger Operator/Guarding). These troops operate the shoulder-fired Stinger anti-aircraft missile launcher in the defence of civilian and military airfields and assets. Stinger operators are also responsible for their own security and Force Protection both at home station and deployed operating locations.
- *Lancering Patriot/Bewaking* (Patriot Missile Operator/Guarding). These personnel operate the Patriot anti-aircraft and anti-ballistic missile system. In conjunction with the Stinger operators, they provide for their own security and FP.

The security and ground defence career field is also responsible for training other RNLAF personnel in small arms, STO, and ground combat skills.

The RNLAF currently maintains three specialized *Object Grondverdediging* (OGRV) platoons at a high state of readiness to support expeditionary operations. In 2003, the Ministry of Defence partially reversed an earlier decision to cut this ground defence capability from the RNLAF and assign it to the Army and Marine Corps – although the total number of Air Force OGRV platoons was reduced from six to three because of defence budget constraints.<sup>93</sup> One of these 37-person OGRV platoons is maintained by the Security Squadron at Volkel Air Base and the remaining two platoons are maintained by the Security Squadron at Leeuwarden Air Base. The De Peel Air Base also has two deployable Stinger flights of 24 troops each. Recent deployed missions for the OGRV platoons include guarding the RNLAF Apache helicopter detachment in the Republic of Djibouti (United Nations Mission in Ethiopia and Eritrea), and protecting the RNLAF transport and MEDIVAC

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<sup>93</sup> Netherlands, Ministry of Defence, “Moties bij de Defensiebegroting 2003,” [http://www.mindef.nl/actueel/parlement/kamerbrieven/2003/1/140203\\_moties.aspx](http://www.mindef.nl/actueel/parlement/kamerbrieven/2003/1/140203_moties.aspx); Internet; accessed 20 February 2007.

helicopter detachment in Split, Former Republic of Yugoslavia (NATO Stabilization Force). Most recently, OGRV groups have been tasked with protecting RNLAf helicopter and fighter detachments in Kabul and Kandahar, Afghanistan.

OGRV troops and Stinger operators are trained in infantry-type skills and employ a variety of support weapons including machine guns, 40mm grenade launchers, hand grenades, and light anti-armour weapons. Select OGRV personnel are trained as snipers, combat lifesavers (medic), and helicopter door gunners. The RNLAf also maintains a pool of security and OGRV reservists in a number of Air Reserve Squadrons. These troops are capable of providing security augmenting for both home station and deployed operations.

#### **ITALY: *BATTAGLIONE FUCILIERI DELL'ARIA***

In recognition of the increasingly expeditionary character of the Italian Air Force since the 1991 Gulf War, and in response to the Defence Minister's planning guidelines for 2002/03, the Italian Air Force moved to create a specialized unit to support its FP and STO programs.<sup>94</sup> In May 2004, the *16° Stormo Protezione delle Forze* (16<sup>th</sup> Force Protection Wing) was constituted with an anti-aircraft defence component and a ground defence component – the latter being assigned to a battalion of the newly created *Fucilieri dell'Aria* (Riflemen of the Air). This unit, and its Air Force riflemen, share a common heritage with the “*Battaglione Loreto*” (Loreto Battalion) of the Second World War, whose job it was to occupy enemy airfields and defend friendly ones.<sup>95</sup>

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<sup>94</sup> Colonel Ettore Ciniglio Appiani, “Aeronautica Militare 16° Stormo - Reparto Protezione delle Forze,” <http://www.lagazzettadelmezzogiorno.it/oggetti/17122.doc>; Internet; accessed 21 February 2007.

<sup>95</sup> Italy, Aeronautica Militare, “Dopo Sessanta Anni I Nuovi Fucilieri Dell'Aria Dell'Aeronautica Militare,” <http://www.aeronautica.difesa.it/SitoAM/Default.asp?idNot=11469&idente=1398>; Internet; accessed 21 February 2007.

The primary mission of the new *Fucilieri* is the ground defence of Air Force installations and assets outside of Italy, and the recapture of any areas that fall under enemy control. The *Fucilieri* are not mandated to conduct routine security duties at bases in Italy, although they may be employed in support of domestic operations in cases of “extraordinary necessity and urgency.”<sup>96</sup> Essentially, their main task at home station is to train and prepare for deployment.

The ground defence battalion is divided into three companies and comprises about 300 all ranks. The Italian Air Force concept of operations for deployed airbase defence is to use three concentric rings of protection: the outermost ring, extending well beyond the airfield, is the responsibility of land forces or special forces; the intermediate ring, from the base perimeter out to about 6 kilometres, is assigned to the *Fucilieri*; and the innermost ring, within the base perimeter, is assigned to local unit personnel.<sup>97</sup> Within their area of responsibility, the *Fucilieri* are primarily concerned with countering the threats posed by small military forces, terrorists/saboteurs, and stand-off weapons (mortars, MANPADS, etc). The *Fucilieri* seek to mitigate the vulnerability from these threats through the integrated use of patrolling, checkpoints, observation posts, and strong-points, and they also provide a security response force for incidents with the inner perimeter that are not within the purview of the Police or Special Forces (e.g., hostage taking).

*Fucilieri* training comprises three months of air-mobile infantry training, followed by a further period of on-job-training. During the latter phase, particular attention is paid to Civil and Military Cooperation (CIMIC) practices to ensure that good report is established with

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<sup>96</sup> Appiani, *Aeronautica Militare 16° Stormo*....

<sup>97</sup> *Ibid.*, and Italy, Aeronautica Militare, “Fucilieri Dell’Aria,” <http://www.aeronautica.difesa.it/SitoAM/Default.asp?idnot=13268&idsez=1&idarg=&idente=142>; Internet; accessed 21 February 2007.

persons living in the vicinity of deployed airfields. Select personnel are also trained in Explosive Ordnance Reconnaissance and Disposal in order to assist with post-attack recovery activities. The *Fucilieri* are trained and equipped with a number of infantry support weapons, including hand grenades and light, medium, and heavy machine-guns (5.56mm, 7,62mm, and .50 calibre). Although this career field continues to train its initial compliment of troops, its personnel have already begun deploying on operations. A contingent of *Fucilieri* is currently operating in Afghanistan; it protects the personnel and assets of an Italian Air Force utility helicopter squadron at Kabul International Airport.

#### **UNITED STATES: USAF SECURITY FORCES**

The US Army Air Force gave little thought to creating robust airbase defences until early 1942 when its British allies were implementing the lessons learned from Crete by creating the RAF Regiment. In February of that year, the US Army Chief of Staff approved the establishment of up to 296 airbase security battalions comprised largely of 53,000 black soldiers. Designed to defend against local ground attacks, these battalions were trained in infantry tactics and equipped with light armoured vehicles, 37mm guns, 75mm field guns, and a variety of medium and heavy machine-guns. However, the expected ground threat did not materialize (except in China in 1944-1945), and many of the battalions were quickly disbanded as the Allies gained control of the air and ground in Europe. At the end of the war, all remaining security battalions were inactivated.

The newly independent US Air Force quickly began re-building its ground defence forces at the outset of the Korean War in 1950, expanding its Air Police establishment from 10,000 to 39,000 and equipping it with armoured cars and infantry-type support weapons. However, the USAF lacked any coherent tactical ground defence doctrine until March 1953,

just a few months before active hostilities ended.<sup>98</sup> Although North Korean forces largely ignored airbases as key targets, the conflict exposed the first signs that US Army and USAF priorities did not always coincide regarding airbase defence.<sup>99</sup>

Airbases once again became prime targets during the Vietnam War with sapper and rocket attacks emerging as the favourite *modus operandi* for Vietcong guerrilla forces.<sup>100</sup> In the early stages of the war, the external defence of US airbases was a South Vietnamese responsibility, with USAF Security Police concentrating on internal base security. However, the local troops were notoriously poor at controlling access, the airfields usually had inadequate fencing, and USAF Security Police often had too few resources to properly patrol along the inside of base perimeter.<sup>101</sup> On 1 November 1964, a seminal event took place that reshaped USAF thinking on airbase defence. Vietcong forces infiltrated to within 400 meter of the Bien Hoa airbase perimeter and set up six 81mm mortars. In a 20 minute period they fired 83 rounds onto the airfield, destroyed five B-57 bombers, heavily damaged eight more, and lightly damaged a further seven. The guerrillas slipped away without losses.

When the South Vietnamese defences proved inadequate, the USAF turned to the US Army for assistance. However, as Brigadier General Raymond Bell explains,

Throughout the Vietnam conflict, the Army was but a casual participant in protecting Air Force bases. In August 1965, for example, Lt Gen John L. Throckmorton said Army troops would not secure air bases. There were not enough soldiers for the mission. In December 1965 Gen William Westmorland reiterated the Army stand. He

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<sup>98</sup> Roger P. Fox, *Air Base Defense in the Republic of Vietnam, 1961-1973* (Washington DC: Office of Air Force History, 1979), 5.

<sup>99</sup> *Ibid.*, 6.

<sup>100</sup> Brigadier General Raymond E. Bell Jr, "To Protect an Air Base..." *Air Power Journal* (Fall 1989) [journal on-line]; available from <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj89/bell.html>; Internet; accessed 22 February 2007.

<sup>101</sup> Vick, *Snakes in the Eagles Nest...*, 73.

felt that every US military member, regardless of service, must be prepared to engage the enemy in combat. The result was that no Army troops were ever completely dedicated to the task.<sup>102</sup>

From 1964 to 1973, the North Vietnamese Army and Vietcong forces attacked USAF bases 475 times, destroying 99 aircraft and damaging another 1,170. According to statistics compiled by Alan Vick, more US aircraft were destroyed by airbase ground attacks than were destroyed by North Vietnamese MiGs in the air (99 compared to 62).<sup>103</sup> This significant threat, and the US Army's reticence to provide the required level of protection, led the USAF to create Combat Security Police Squadrons equipped with infantry-type training, armoured vehicles, and heavy support weapons. This culminated under the "Safe Side" program in the creation of the 82<sup>nd</sup> Combat Police Wing with three assigned squadrons, each with 21 officers and 538 airmen. These specialized Security Police squadrons were manned and equipped similarly to Army infantry battalions, but trained specifically for the airbase ground defence mission.

From the mid-1970s to the end of the Cold War, installation security and passive defence became the focus as the USAF concentrated on protecting its European bases from infiltration by Soviet *Spetsnaz* special forces and attack by surface-to surface missiles. However, in the wake of Vietnam, senior USAF leaders had finally recognized the need to maintain a viable airbase ground defence capability and new Security Police doctrine, training, and equipment was adopted. Unlike in previous wars, the USAF was generally well prepared for the ground defence challenges posed by operations from Grenada and Panama, to

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<sup>102</sup> Bell, *To Protect an Air Base*....

<sup>103</sup> Vick, *Snakes*..., 68-69.

Desert Storm and Allied Force.<sup>104</sup> Just as senior leadership commitment to airbase ground defence began to wane once again – in light of post-Cold War downsizing – the June 1996 bombing of the USAF’s “Khobar Towers” barracks in Dhahran, Saudi Arabia, propelled Force Protection back to the forefront of USAF thinking.<sup>105</sup>

In light of the Khobar Towers attack and the emerging focus on Air Expeditionary Forces, the Air Force Chief of Staff decided to radically reorganize the USAF security apparatus. In 1997, the law enforcement, security, combat arms training career fields of the Security Police were merged into a single new “Security Forces” career field. At the same time, the new Air Force Director of Security Forces had two new organizations at his disposal: the Force Protection Battlelab, tasked with identifying and validating new FP concepts, doctrine and equipment; and the 820<sup>th</sup> Security Force Group (SFG), heir to the Vietnam-era 82<sup>nd</sup> Combat Police Wing. While comprised primarily of Security Forces personnel, the 820th SFG is a composite unit that also includes specialists from the Office of Special Investigations, civil engineering, intelligence, communications, logistics, administration, and medical career fields. The 820th “provides a highly-trained, rapidly-deployable ‘first-in’ force protection capability” in support of USAF missions worldwide.<sup>106</sup>

The Security Forces career field is currently undergoing a second round of transformation to better deal with the realities of Air Force operations in the non-linear battlespace, as typified in Afghanistan and Iraq. In so doing, the career field is moving further away from the Cold War model of forces postured primarily for home station law

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<sup>104</sup> Lieutenant Colonel Herbert T. Brown, “Current Air Base Ground Defence Doctrine: Are We Postured to Meet the Expectations of the AEF?” (Maxwell AFB, Alabama: Air Command and Staff College Course Research Paper, 2001), 12-13.

<sup>105</sup> *Ibid*, 13.

<sup>106</sup> United States, USAF Academy, 10<sup>th</sup> Security Forces Squadron, “Security Forces History,” <http://www.usafa.af.mil/10abw/10msg/sfs/history.cfm?catname=10SFS>; Internet; accessed 22 February 2007.



enforcement and internal security duties to one postured primarily for expeditionary FP operations – including airbase defence operations outside of the airfield perimeter (see Figure 4.5).



**Figure 4.5 – 820<sup>th</sup> SFG Members Patrolling Outside of Balad Air Base, Iraq**

Source: USAF photo

## **CHAPTER 5 – A NEW AIRBASE GROUND DEFENCE MODEL FOR CANADA**

*Force Protection remains of paramount importance, second only to mission success.*<sup>107</sup>

- General R.J. Hillier, Chief of Defence Staff

Despite a decade and a half of activity, Canada's Air Force has yet to find fully workable solutions to its post-Cold War expeditionary Force Protection shortcomings. This chapter explores the problems inherent in Canada's past and current *ad hoc* approaches to airbase ground defence, analyses some of the key lessons learned and best practices of Canada's principal allies, and proposes a "third option" for Canada's air component – the creation of a specialist Air Force ground defence occupation. Based on the approaches of our allies, this chapter then lays out some general characteristics and capabilities that such a specialist occupation should have in order to best protect Canada's Air Force against the postulated ground threats identified earlier.

### **CURRENT PLANS AND PROBLEMS**

The developing AFExC concept, introduced in Chapter 2, envisions expeditionary Operational Support Squadrons deploying with a Force Protection Commander (Major) and a 51-person ASF element consisting primarily of Military Police personnel. This revitalized ASF would be responsible for close/integral security and policing support and some very limited ground defence operations within the base perimeter. The draft AFExC CONOPS wisely states that all FP elements must be capable of 24/7 operations and be able to work with any CF aircraft fleet. However, it also states that Air Expeditionary Wings will only operate in low to medium ground threat environments. Given the projected asymmetric threats

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<sup>107</sup> General R.J. Hillier, quoted in Department of National Defence, *DGLCD Doctrinal Note 004/06 – Force Protection in the Land Force* (Canadian Forces Base Kingston, Director General Land Capability Development, 7 November 2006), 1.

covered in Chapter 2, this constraint seems extremely unrealistic. With this limitation in place in 1990/91, Canada would not have been able to participate in the Gulf War because of the high terrorist threat level. Similarly, this constraint would preclude Canada's Air Force from deploying new platforms like the Chinook helicopter to locations such as Kandahar airfield, where stand-off weapon attacks remain a regular occurrence. The draft goes on to point out that the AEW will be incapable of conducting ground defence operations outside the base perimeter and, therefore, will have to rely on CF land forces, coalition forces, or host nation (HN) forces for this mission.<sup>108</sup>

Aside from the threat level issue, the draft AFExC CONOPS has two serious shortcomings: a continued reliance on MP-based ASF units without any assured increase in MP establishment, and an unrealistic expectation that the Army will dedicate sufficient external ground forces whenever required or, alternatively, that a HN will provide adequate competent forces.

### **Military Police and Airbase Security**

The concept of using MP personnel for integral and close security support at airbases has some merit. These personnel have significant expertise in the areas of personnel security, information security, and physical security and remain the force of choice for countering the "traditional" security threats of espionage, subversion, criminality, and low-level sabotage. Their specialized law enforcement and custodial skills are particularly useful when the arrest and detention of "unlawful combatants" or the collection and handling of Prisoners of War is anticipated. Furthermore, these personnel provide commanders with a policing capability that is essential for the maintenance of good order and discipline. There is little argument that Military Police are the ideal personnel to coordinate and carry out routine security duties at

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<sup>108</sup> DND, *Air Force Expeditionary Capability...*, 12-14.

main operating bases (MOBs) in Canada, since domestic security operations must closely follow the rule of Canadian law.

Notwithstanding, MP personnel do not have the required numbers, training, or specialized equipment needed to adequately counter the asymmetric threats which are likely to characterize the expeditionary environment for some time, such as high-level sabotage (e.g., vehicle borne-IEDs), penetrating attacks, and stand-off weapon attacks. Although MPs could be organized, trained, and equipped for this mission, it would come at a cost. Since publication of the *Report of the Special Advisory Group on Military Justice and Military Police Investigation Services* in March 1997 (following the *Commission of Inquiry into Activities of the Canadian Airborne Regiment in Somalia*), the Military Police Branch set out to professionalize its law enforcement and investigative functions. The result is an occupation that is now focussed on highly technical and specialized police skills. These skills are also very perishable. MPs who are employed away from policing duties for extended periods of time – such as a posting to a standing ASF unit – will require retraining and recertification in order to return to policing duties later.

Another significant challenge for the MP Branch is retention. Non-commissioned MP personnel gained “specialist” status, and a requisite pay increase, as a result of the aforementioned professionalization effort. Many MPs, particularly those recruited in the past decade, are simply not interested in operating in the quasi-infantry ASF role during operations.<sup>109</sup> While this reticence may be partially overcome by inspirational leadership, it

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<sup>109</sup> This observation is based on the author’s experience commanding an *ad hoc* MP/ASF force at “Camp Mirage” in the Arabian Gulf region. Many MPs expressed dissatisfaction with routine camp access control and flight line/perimeter security duties and felt that their specialist police skills sets were being underused.

presents a potentially serious morale and retention problem if large numbers of Air Force MPs are formed into standing ASF units with little or no residual military policing opportunities.

One way to counter these effects is to increase the establishment of regular MP units at main operating bases and then combine small task-tailored force packages from several bases into “just in time” deployable ASF elements.<sup>110</sup> However, this approach conflicts with one of the guiding principles of the draft AFExC CONOPS – to organize and train as you fight. Specifically, the CONOPS states that, “*Ad-hoc* force generation of deployable elements from disparate locations across the country will be minimized/eliminated.”<sup>111</sup> Furthermore, this option runs counter to how most of Canada’s principal allies approach expeditionary FP. The RAF, RAAF, *Luftwaffe*, and Italian Air Force all rely on dedicated high-readiness ground defence units that train and deploy as a coherent whole. The USAF, French Air Force, and RNLAf currently use a hybrid system with some dedicated high readiness units for theatre activation and high threat operations (e.g., 820<sup>th</sup> SFG, CPA 20, and OGRV platoons) and other small task-tailored force packages generated from MOB units combined into expeditionary units for follow-on operations.

However, even the USAF Security Forces career field is moving away from the later force generation model as part of its ongoing transformation effort. The following passage from the 2006 *Security Forces Transformation Strategic Plan* frames the scope of the problem from an USAF point of view:

Today’s Security Forces are garrison-centric, manned and operated on Cold War principles and practices. Most Security Forces are home-station focused... on law enforcement, and remain threat-based (i.e., still overwhelmingly force-on-force, and not adapting to non-linear battlefields and non-state actors). Many “shooters” are

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<sup>110</sup> Small task-tailored force packages refer to elements of section size (10-13 troops) or less.

<sup>111</sup> DND, *Air Force Expeditionary Capability...*, 15.

performing tasks that don't support combat capabilities and as a result training has suffered. This orientation has placed a high degree of stress on the force operating in a new national security environment of world-wide asymmetric threats and expeditionary combat operations with increasingly higher deployment requirements.<sup>112</sup>

To overcome these issues, the SF career field is creating a new Squadron construct based on three flight-sized elements in tiered readiness: one training for deployment, a second deployed, and a third reconstituting after deployment.<sup>113</sup> During its reconstitution phase, each SF Flight would augment a civilian-centric "Air Provost" element to deliver police and security services at home station. However, this model would not work in Canada since domestic law effectively precludes the use of armed contractors or DND civilians to form the nucleus of a garrison Air Provost element.

Another major factor weighing against an MP-centric expeditionary FP solution is the ongoing requirement to generate MP personnel for General Support (GS) tasks – those that support a Joint Task Force as a whole rather than any particular component. The very limited number of MPs within the Air Force creates a force generation dilemma. Most GS MP tasks must be apportioned to the three environmental commands since National Defence Headquarters (NDHQ) and Canadian Operational Support Command (CANOSCOM) "own" very few forces. Without very strong safeguards in place, any establishment increase to support expeditionary Air Force operations could trigger CANOSCOM or NDHQ to demand a higher percentage of GS tasks from the Air Force – partially defeating these increases.

Despite concerted efforts in the past, the Air Force MP community has been unable to obtain the manpower increase required to make the ASF concept fully viable. With only 267

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<sup>112</sup> United States, United States Air Force, *Security Forces Transformation Strategic Plan* (Washington DC: HQ USAF/A7S, 2006), 12.

<sup>113</sup> With this new construct, the USAF's basic deployable SF "building block" element will go from a 4-person Fire Team to a Flight of approximately 44 troops.

Regular Force MP positions throughout the Air Force, it is simply not possible to adequately support all of the security and policing functions at the MOB, provide MPs for GS taskings, and sustain a deployed 51-person ASF element. The situation becomes even more untenable if a second Air Force Line of Operation is contemplated. In 1999, a comprehensive study for the CAS determined that 95 new Air Force MP positions would be the absolute minimum required to maintain a Squadron-sized ASF capability. Although the CAS supported the study findings, the Canadian Forces Provost Marshal (CFPM) and Vice Chief of Defence Staff (VCDS) disagreed with the Air Force's vision of the MP role in FP, particularly as it related to ground defence tasks that could be performed by land force elements. The VCDS subsequently directed that all implementation action cease.<sup>114</sup> Given the cool reception of NDHQ toward past Air Force MP establishment plans, it seems overly optimistic to believe that current plans calling for up to 572 MP/ASF personnel will meet with more enthusiasm.<sup>115</sup>

To its credit, the Air Force MP community stepped to the plate in the mid-1990s – during a period of rapid downsizing and extreme fiscal restraint – and developed the ASF to a point that gave the Air Force at least a basic “inside the wire” security and defence capability. However, while Military Police remain a very valuable resource and key component of any FP program, they are not the best occupation to carry out the critical airbase ground defence mission. As pointed out in a 2005 NDHQ report reviewing the functions of the MP Branch,

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<sup>114</sup> Major J.G. Simpson, *Briefing Note for CAS – Status of Security/Resource (Force) Protection Review* (1 Canadian Air Division Headquarters Winnipeg, 23 February 2001); and Lieutenant Colonel J.G. Savard, *Briefing Note for the Comd – Ground Security Support to Air Operations – Deficiencies* (1 Canadian Air Division Headquarters Winnipeg: file 2100-8 (1 CAD PM), 12 November 2002).

<sup>115</sup> Office of the 1 Canadian Air Division Provost Marshal/Force Protection Officer, *Air Expeditionary Capability* [PowerPoint presentation] (1 Canadian Air Division Headquarters Winnipeg: 8 December 2006). 1 Cdn Air Div PM/FPO staff have determined that 572 MP/ASF positions would be required to implement Air Force plans to create 11 Operational Support Squadrons and support two concurrent expeditionary LOOs.

there is strong internal and external perception that this Branch has spread itself too thin; raising the spectre that MPs might become the “jack of all trades, master of none.”<sup>116</sup>

### **Combat Arms and Airbase Ground Defence**

If the Military Police are not well positioned to defend Canada’s airfields, then an instinctive default would be to formally assign this task to Army combat arms units. This has been done in the past, most notably on the home front during the Second World War. One might also assume that the CF’s unified nature makes the debate largely academic since the “Army” and “Air Force” are essentially artificial constructs in Canada. However, while the CF may be a single unified service on paper, the day-to-day reality is much different. The air and land components of the CF have, for a variety of very good reasons well beyond the scope of this paper, adopted dissimilar cultures and priorities. These differences conspire to reduce the long-term effectiveness of a land force solution to the airbase defence problem.

In 2002, once it became clear that a larger Air Force MP establishment was unlikely, the 1 Canadian Air Division Provost Marshal/Force Protection Officer recommended that the ADF role be formally included in the Defence Planning Guidance as a standing Army task.<sup>117</sup> However, for reasons not clear from available records, this did not happen. Although the Army did assist the Air Force with airfield defence and security forces at Camp Mirage – in a relatively benign threat environment – it did so primarily by forming *ad hoc* D&S platoons of reserve infantry. Since the end of the Second World War, the Army’s willingness and ability to commit Regular Force combat arms units to defend airbases in a higher threat environment while concurrently supporting a land battle remains untested.

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<sup>116</sup> Department of National Defence, “Report on the Military Police Functional Review – Signing the Route to Relevance,” October 2005, under cover of Captain (N) S.M. Moore, *Military Police (MP) Branch Functional Review* (NDHQ Ottawa: file 1901-1 (EA CFPM), November 2005).

<sup>117</sup> Savard, *Briefing Note for the Comd....*



The lack of a dedicated land force ADF makes it exceedingly difficult for Canada's Air Force to train and to exercise realistically for higher threat operations. This problem has become particularly acute since the Air Force started conducting regular "Wolf Safari" exercises in order to practice operations under NATO Allied Command Operations (ACO) Force Standards. The lack of Army ground defence participation, despite Air Force requests, has severely diminished the ability of the Air Force to realistically practice operations in the contemporary threat environment. The findings of the Canadian Forces Aerospace Warfare Centre umpire staff after the last Wolf Safari exercise are particularly revealing about the extent of this problem and the search for solutions:

A [land force] D&S unit was not available for the Ex nor does (*sic*) it appear likely that a D&S unit will be provided for [the upcoming NATO] TACEVAL [Tactical Evaluation]. An Air Force solution must be devised, which is sustainable beyond the TACEVAL. A long-term solution for Air Force deployments must be given the highest priority. At least three possible solutions are evident:

- Expand the tasks, trg[, ] size and eqpt of the ASF
- Speed up establishment of a RAF Regiment style unit
- Form ad hoc ADF unit
- Ignore the requirement for Active Def[ence]<sup>118</sup>

The Army's general philosophy on Rear Area Security (RAS) is summed up in a doctrinal notation which states that the "local defence of units, installations and personnel within the rear area is a common responsibility of all elements."<sup>119</sup> Although armoured reconnaissance forces may be tasked with RAS operations as a primary mission, the Army essentially expects that all units, even Combat Service Support units, can provide for their

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<sup>118</sup> Canadian Forces Aerospace Warfare Centre, "Wolf Safari 06 – CFAWC Findings" [PowerPoint presentation], [http://trenton.mil.ca/lodger/CFAWC/A&LL/Wolf\\_Safari/Wolf\\_Safari\\_e.asp](http://trenton.mil.ca/lodger/CFAWC/A&LL/Wolf_Safari/Wolf_Safari_e.asp); DWAN; accessed 18 January 2007.

<sup>119</sup> Department of National Defence, B-GL-394-002/FP-001 *Reconnaissance and Surveillance Operations (Interim)* (Ottawa: DND Canada, 2004), 97. Although not explicitly stated in Canada's land force doctrine, the "rear area" in a joint context would include those in-theatre airbases supporting CF air units.

own basic defence. Land force doctrine also expressly states that,

Reconnaissance forces can conduct a RAS task if it is the only task allocated during an operation. RAS as a secondary task cannot be conducted concurrently with other operations/tasks due to resource limitations.<sup>120</sup>

Since armoured reconnaissance assets are critical to the Army's Intelligence, Surveillance, Targeting and Reconnaissance (ISTAR) system, they will "not normally be available for this task during high tempo operations."<sup>121</sup> Regular Force infantry units are also in very high demand and are unlikely to be made available in sufficient numbers for RAS in general, and airbase defence operations in particular, if the Army is heavily engaged in operations. Given the limited size and operational tempo of Canada's land forces since the 9/11 terrorist attacks, it is fully understandable why the Army is so reluctant to commit the airbase defence mission to its doctrine.

The UK and US experience provides a compelling argument that even when land forces are doctrinally responsible for the external protection of airbases, a nation's Army will usually be overstretched when Air Force ground defence needs are at their highest. The RAF's experience with the British Army in Palestine in the 1930s and during the first two years of the Second World War forced it to take control its own airbase defence destiny. The USAF recently reached the same conclusion – culminating in 2004 with the abrogation of an agreement signed 19 years earlier which had made the US Army responsible for airbase ground defence operations "outside the boundaries of designated USAF bases and installations."<sup>122</sup> This agreement was never fully implemented or carried out to the USAF's

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<sup>120</sup> *Ibid.*, 96.

<sup>121</sup> *Ibid.*, 28.

<sup>122</sup> General John P. Jumper, CSAF, and General Peter J. Schoomaker, CSA, *Abrogation of Joint Service Agreement 8: USA-USAF Agreement for the Ground Defence of Air Force Bases and Installations* (Washington D.C., November 2004).

satisfaction, and became a constant source of frustration for deployed USAF commanders who remained responsible for the security of all assigned resources, but who had no control over the ground defence forces operating immediately outside of their expeditionary airfields.<sup>123</sup> The ongoing Security Forces transformation initiative aims to re-posture this career field away from a Cold War garrison-centric focus in order to take more responsibility for the external airbase ground defence mission.

## **ALLIED BEST PRACTICES**

### **Air Mindedness**

The RAF has long recognized the value of cultivating “Air Mindedness” – an approach that shapes the conduct of air operations and training through a well-developed understanding of the essential nature and effects of Air Power. More than just the ability to operate safely around aircraft, Air Mindedness requires a comprehensive grasp of the unique mindsets, capabilities, command and control arrangements, and threats involved in air operations. Air Mindedness is not taught as much as it is inculcated. RAF doctrine is clear on the link between Air Mindedness and successful Force Protection:

It is...important that FP for Air operations is delivered by Air Minded Force Elements (FEs) and individuals with doctrine, structures and equipment to meet the task, supported by thorough training and experience in focussing on the delivery of Air Power through formal and continuing training, exercises, evaluations and operations.<sup>124</sup>

The continued maintenance of the RAF Regiment is, in large part, driven by the RAF’s desire to ensure that its ground defence operations and training programs are carried out by air minded specialists who share the same operational culture as those under their protection and

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<sup>123</sup> Based on author’s observations as an exchange officer serving with the USAF Security Forces.

<sup>124</sup> United Kingdom, Royal Air Force, AP 3241, *Force Protection Doctrine for Air Operations* (High Wycombe: UK MOD, 2006), 1-2.

who have a long-term stake in the outcome of their activities. Army troops temporarily assigned to the airbase defence role will never develop the same level of Air Mindedness as indigenous Air Force ground defence specialists.

### **Resident Expertise**

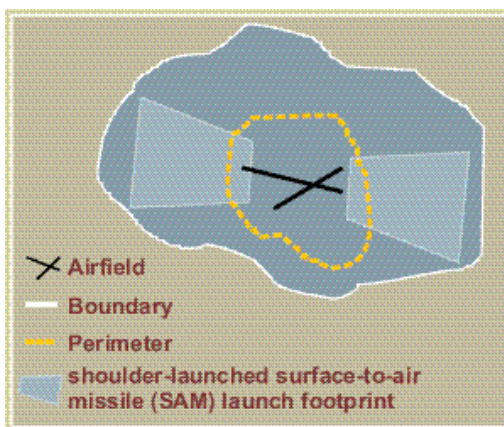
All of the specialist security and ground defence organizations identified in Chapter 4 are designated as the lead agent for their respective Air Force FP programs (see Appendix 1). Unlike Canada's Air Force, in which the Military Police have only rudimentary ground defence training and capability, these allied organizations can actually speak with authority about this critical area of FP. By not fully relying on other arms to provide airbase defence services, these organizations are able to build a critical mass of expertise that can then be tapped to produce tactical and operational-level advice and doctrine in support of Air Force-unique operations. Without a specialist ground defence occupation, it difficult if not impossible for Canada's Air Force to maintain full control over its FP destiny.

Many of the surveyed ground defence organizations are also responsible for conducting individual readiness training and evaluations in the areas of ground combat skills, small arms, STO, and CBRN defence. This role provides employment opportunities for ground defence personnel outside of high readiness units and it alleviates the burden on other non-specialist occupations in filling readiness training billets. The RAF Regiment takes this one step further by developing some of its personnel as CBRN defence specialists in addition to their combat infantry role. A similar approach in Canada would help alleviate the ongoing challenges of manning the Wing Readiness Training Flights with appropriately qualified and

experiences personnel and could help rejuvenate the Air Force's flagging operational CBRN defence capacity.<sup>125</sup>

### The Ability to Operate “Outside the Wire”

British, Australian, and United States doctrine all recognize that in the absence of dedicated Army or HN resources Air Forces must be able to mount credible ground defence operations outside the base perimeter within the critical stand-off weapons footprint. For example, the newly revised US Joint Publication 3-10 now provides deployed USAF commanders with the flexibility to negotiate airbase boundaries with the Joint Force Commander in order to adequately counter stand-off weapon threats. This joint doctrine enables Air Force Security Forces operations in what the USAF calls the “Base Security Zone.”<sup>126</sup> Figure 5.1 depicts a notional airbase boundary that includes the MANPAD footprint and which extends well beyond the facility perimeter.



**Figure 5.1 – Notional Base Boundary Including MANPAD Footprint**

Source: United States, Joint Publication 3-10..., IV-4

<sup>125</sup> There has already been discussion within the Air Force community of the potential for a new CBRN specialist occupation. See Lieutenant Colonel W. B. MacLean and Major L.D. Taylor, *Record of Discussion (ROD) – Air Force CBRN Working Group (AF CBRN WG)* (Air Staff, NDHQ Ottawa: file 2100-8 (D Air SP 4)), 10 November 2006.

<sup>126</sup> United States, Joint Chiefs of Staff, *Joint Publication 3-10 – Joint Security Operations in Theater* (Washington D.C.: 1 August 2006), IV-4 to IV-8. For a description of the Base Security Zone construct see Holmes, *et al*, *The Air Force's New Ground War...*, 44-45.

Similarly, the RAAF doctrinal construct provides for a “Patrol and Surveillance Area” extending at least 5km and up to 40km from the airfield. In higher threat environments when sufficient Army forces are not available, RAAF Airfield Defence Squadron personnel aggressively patrol and monitor this area. The RAF Regiment also seeks to dominate what it calls the “Ground Defence Area,” which routinely extends 10-15km or more from the airfield. This is done through a combination of foot and vehicle patrolling, area surveillance, and the periodic occupation of key ground.<sup>127</sup>

### **Trained, Organized, and Equipped to Fight**

The allied Air Force ground defence organizations surveyed in this paper all have the requisite training, organization, and equipment to fight credibly in the defence of their airbases. All of these units are equipped with support weapons that provide integral direct-fire and in some cases indirect-fire capability (e.g., medium and heavy machine guns, sniper rifles, mortars, grenade launchers, and light anti-armour weapons). Some organizations, including the RAF Regiment, RAAF Airfield Defence Guards, and USAF Security Forces have lightly armoured vehicles for Quick Reaction Force (QRF), patrolling, and convoy escort duties. Appendix 1 provides a comparison of the ground defence characteristics and capabilities of the surveyed nations. Essentially, all of these organizations represent an infantry-type capability integral to the Air Force. However, unlike Army combat formations, the organization, training, and equipment of these Air Force units is specifically optimized for defensive FP operations rather than offensive combined arms operations.

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<sup>127</sup> Detailed doctrinal information was not readily available to confirm the exact extent to which the other allied Air Force ground defence organizations identified in this paper operate within the stand-off weapons footprint.

### **A THIRD OPTION**

Historically, the debate in Canada over responsibility for airbase security and defence has played out between the RCAF Police and CF Military Police on the one hand, and the Canadian Army and CF land component on the other. Little serious effort has been dedicated to exploring a third approach that a number of our closest allies have adopted – a dedicated Air Force ground defence occupation. Canada had already benefited from such forces in past conflicts. During the Second World War, the RAF Regiment bore the brunt of defending the RCAF’s tactical airfields in Europe after the Normandy landings. More recently, during the Kosovo air campaign, Canadian air forces operating from Aviano, Italy were protected by a large numbers of USAF Security Forces. Today, CF personnel operating from Kandahar airfield continue to benefit from the RAF Regiment’s aggressive patrolling and surveillance activities around that base.

Given the CF air component’s renewed interest in FP, the shortcomings of past and current *ad hoc* approaches to ground defence, and the projected operating environment, the time is right for Canada to follow the lead of its principal allies and seriously explore the creation of a specialist Air Force ground defence occupation. Rather than investing further in an MP-centric “inside the wire” only solution, or trying to rely on the Army with its “on again, off again” attitude toward of airbase defence, the Air Force should take control of its own destiny and create an organization to provide professional ground defence forces in higher threat environments and to act as a specialist FP training cadre. With such an occupation, Canada’s Air Force could finally rest assured that its bases would be adequately protected regardless of the availability and capability of the Army or a Host Nation. Canada’s

Air Force could then become a net contributor to coalition airbase defence efforts, rather than having to cede all the “heavy lifting” of our FP to others.

Table 5.1 analyses the size of allied Air Force security and defence occupations in comparison to overall military strength. Based on an average ratio of 4.3 %, Canada should have approximately 731 troops dedicated to this role. This number is comparable to the previously mentioned 572 MP positions needed to revitalize the ASF, even though a strengthened ASF would still not provide the Air Force with any external ground defence capability against stand-off threats.

| Air Force  | AF Military Personnel |                      |         | AF Ground Defence Forces |                    |        | GDF as % of AF Total |
|--|-----------------------|----------------------|---------|--------------------------|--------------------|--------|----------------------|
|  | Regular               | Reserve              | Total   | Regular                  | Reserve            | Total  |                      |
| United States  | 347,400 <sup>1</sup>  | 285,555 <sup>1</sup> | 632,955 | 24,000 <sup>3</sup>      | 9,000 <sup>3</sup> | 33,000 | 5.2 %                |
| Germany  | 51,400 <sup>1</sup>   | 65,950 <sup>1</sup>  | 117,350 | 1,800 <sup>4</sup>       | 680 <sup>5</sup>   | 2,480  | 2.1 %                |
| United Kingdom   | 50,010 <sup>1</sup>   | 40,660 <sup>1</sup>  | 90,670  | 2,500 <sup>6</sup>       | 500 <sup>6</sup>   | 3,000  | 3.3 %                |
| France   | 63,600 <sup>1</sup>   | 4,300 <sup>1</sup>   | 67,900  | 4,950 <sup>7</sup>       | 595 <sup>7</sup>   | 5,545  | 7.8 %                |
| Italy  | 44,000 <sup>1</sup>   | 1,152 <sup>1</sup>   | 45,152  | 350 <sup>8</sup>         | u/k                | 350    | 0.8 %                |
| Canada   | 14,500 <sup>1</sup>   | 2,600 <sup>1</sup>   | 17,000  | n/a                      | n/a                | n/a    | n/a                  |
| Netherlands  | 11,050 <sup>1</sup>   | 5,000 <sup>1</sup>   | 16,050  | 750 <sup>9</sup>         | 500 <sup>9</sup>   | 1250   | 7.8 %                |
| Australia  | 13,249 <sup>2</sup>   | 2,400 <sup>2</sup>   | 15,649  | 320 <sup>10</sup>        | 200 <sup>10</sup>  | 520    | 3.3 %                |
| Average  |                       |                      |         |                          |                    |        | 4.3 %                |
| Notes:   |                       |                      |         |                          |                    |        |                      |
| <sup>1</sup> International Institute for Strategic Studies, <i>The Military Balance 2006</i> , 28-29, 37, 68, 76, 84, 88, and 109.   |                       |                      |         |                          |                    |        |                      |
| <sup>2</sup> Australia, Department of Defence, <i>Defence Portfolio Budget Statements 2006-07...</i> , 92.   |                       |                      |         |                          |                    |        |                      |
| <sup>3</sup> Grant, <i>The Security Forces Rewrite</i> , 58. Although USAF Security Forces personnel have secondary law enforcement (MP) role, they are all trained and equipped to perform ground defence duties.             |                       |                      |         |                          |                    |        |                      |
| <sup>4</sup> Interpolation from various sources.   |                       |                      |         |                          |                    |        |                      |
| <sup>5</sup> Germany, Federal Ministry of Defence, <i>Informationsdienst für Reservisten...</i> , 4.   |                       |                      |         |                          |                    |        |                      |
| <sup>6</sup> www.armedforces.co.uk, <i>RAF Regiment &amp; RAF Reserves...</i>  |                       |                      |         |                          |                    |        |                      |
| <sup>7</sup> Author’s correspondence with European Air Group (EAG) staff.  |                       |                      |         |                          |                    |        |                      |
| <sup>8</sup> Italy, Aeronautica Militare, <i>I Fucilieri Dell’Aria Alla Giornata Azzurra...</i> This number included three 100-man companies, plus an estimated 50 additional personnel for staff and training overhead        |                       |                      |         |                          |                    |        |                      |
| <sup>9</sup> Author’s correspondence with EAG staff. This includes all RNLAf personnel involved primarily with security/ground defence functions (OGRV platoons, <i>Bewaking</i> personnel, dog handlers, and Stinger troops). |                       |                      |         |                          |                    |        |                      |
| <sup>10</sup> Author’s correspondence with RAAF GRDEF officer. Reserve total does not include the personnel of the Reserve Airbase Defence Protection Flights, but only ADG tradesmen and GRDEF officers.                      |                       |                      |         |                          |                    |        |                      |

**Table 5.1 – Relative Size of Allied Air Force Ground Defence Forces**



## **Mission and General Characteristics**

The primary mission for an Air Force ground defence occupation should be to protect CF aerospace power from ground-based threats in order to support continued air operations. It should have no law enforcement role since this properly remains the responsibility of the Military Police occupation. A ground defence occupation should compliment rather than compete with existing MP resources. MP personnel should remain the “force of choice” for domestic airbase security and deployments in low threat environments, whereas a new ground defence occupation should provide more robust FP capabilities for expeditionary operations in medium to high threat environments.

A governance framework and detailed organizational construct for such an occupation is beyond the scope of this paper. However, some general characteristics can be derived from the best practices of our allies. Therefore, the principal roles of this occupation should include:

- The conduct of airfield patrolling, screening, and area surveillance operations (including off-base operations within the stand-off weapon footprint whenever Army, coalition, or HN forces are insufficient to the task);
- The provision of a local QRF to counter any actual or attempted ground attacks against the airbase;
- The point defence of vital point and critical assets, in conjunction with MP and auxiliary security forces;
- The operation of high-risk vehicle checkpoints, in conjunction with MP and auxiliary security forces;
- The provision of armed security escorts for high-risk off-base convoys,

- The provision of counter-sniper operations;
- The delivery of Air Force pre-deployment/readiness training (including ground combat skills, small arms, and CBRN defence); and
- The provision of FP and ground defence advice to commanders.

Possible secondary roles for this occupation could include:

- Assisting MP and WASF with access control, base security, and vital point security during expanded domestic security posture; and
- The provision of light infantry-type forces in support of regional operations (e.g., Aid to Civil Power, homeland security operations, etc).

### **General Capabilities**

In keeping with the lessons and best practices of Canada's allies, a specialist ground defence occupation must be properly, trained, armed and equipped to deal with both asymmetric and conventional (small unit) military threats. In order to effectively find, fix, deter, delay, and ultimately defeat these ground threats, the following general capabilities would be required:

- **Mobility.** A high degree of mobility is essential to successful conduct ground defence operations within and around airbases. Contemporary threats require that the vehicle fleet include light armoured vehicles mounting automatic weapons for QRF, convoy escort, and external patrolling duties in high-risk areas. More heavily armoured vehicles can actually be counter-productive by isolating ground defence personnel from the indigenous populations surrounding airbases and interfering with "hearts and minds" activities.

- Fire Support. Ground defence force must have sufficient organic direct-fire support to defeat or delay robust ground threats until heavier HN or Army QRF/RAS forces can engage them. Heavy machine guns and area suppression weapons (such as automatic grenade launchers) are particularly useful in this role;
- ISTAR. Intelligence, surveillance, target acquisition, and reconnaissance capabilities are all critical enablers of airbase defence. Ground defence forces must have sufficient organic surveillance and target acquisition equipment to be able to detect and engage ground threats in day and night conditions. Strong linkages must be made with integral, adjacent, and higher formation ISTAR elements in order to provide a complete operating picture and facilitate intelligence-driven operations; and
- Military Working Dogs. Patrol dogs and explosives detection dogs are a critical force multiplier that can also provide a strong psychological deterrent against certain threats. Given the absence of a Military Police MWD capability in Canada, a ground defence occupation would be a logical place to develop such a program.

A new specialist Air Force ground defence occupation would have a number of useful side effects. For example, this trade could considerably broaden the pool of Air Force candidates for Joint Task Force 2, the Canadian Special Operations Regiment, and the Canadian Forces Nuclear, Biological, and Chemical Defence Company – enhancing the joint nature of these units. Ground defence personnel would return to the Air Force after serving with these organizations with a greatly increased depth of FP knowledge. These ground defence specialists could make another important joint contribution, when not required for Air Force operations, by providing defence and security elements in support of Disaster Assistance Response Team (DART) deployments. This occupation would also be an ideal

choice to provide ground extraction teams if Canada's Air Force ever decides to create an indigenous CSAR capability. Finally, personnel who later decide to remuster from this occupation to other Air Force trades would bring with them knowledge and skills that could greatly benefit unit-level FP activities and programs.

## **CONCLUSION**

In the future, Canada's Air Force will operate in an environment increasingly characterized by volatility, uncertainty, complexity, and ambiguity. The Air Force will deploy more frequently into dangerous and unpredictable areas in order to conduct a wide range of expeditionary operations – from humanitarian assistance and peace enforcement, to counter insurgency operations and coalition war fighting. Across the operational spectrum, ground threats will not always be fully defined, but adversaries will almost certainly seek an asymmetric advantage in order to counter the technological superiority of Western air forces. This, combined with the inherent fragility and vulnerability of air forces on the ground, will ensure that airbases remain targets of choice for conventional military forces as well as combative non-state actors.

From the Second World War to present, Canada has adopted a number of *ad hoc* solutions to airbase security and ground defence to address its specific short-term needs – frequently assuming that the Army or its allies will do the “heavy lifting” when more robust airbase defence forces are required. Despite occasional bursts of interest from the Army, its long-term commitment to airbase ground defence has been lacking. Conversely, while Air Force MPs have often been used successfully to counter the “traditional” security threats of criminality, espionage, subversion, and low-level sabotage, they have generally proven to be

insufficiently trained, ill-equipped, and under resourced to carry out the wider airbase ground defence mission.

A survey of our principal allies shows that Canada is out of step in the important area of airbase ground defence. The air forces of Britain, France, Germany, Australia, the Netherlands, Italy, and the United States have all created dedicated security and defence occupations and associated expeditionary units in order to provide robust organic Force Protection during operations. Most of these career fields also act as an Air Force readiness cadre – responsible for CBRN defence, small arms, and combat skills training.

Emerging Air Force expeditionary plans are based on an expanded MP/ASF model for “inside the wire” security, supplemented by Army or HN forces for external airbase ground defence in higher threat environments. However, competing visions between the Air Staff and NDHQ on the proper role MP have so far prevented the increased establishment necessary to make the ASF model viable. For its part, the Army continues to resist any formalization of the airbase defence mission and inclusion in land force doctrine. Furthermore, the heavy operational tempo of combat arms unit on other high priority missions calls into question the likelihood that adequate land forces will be made available for airbase defence when they are needed most.

Given the CF’s current focus on Force Protection, considering the limitations of past approaches to airbase ground defence, and looking at the best practices of our allies, the time is right for Canada’s Air Force leadership to advocate the creation of an organic ground defence occupation. An Air Minded ground defence trade – trained and equipped as specialist light infantry, and capable of operating both inside and outside the base perimeter against contemporary threats – would greatly help to mitigate the risks posed to airbases, air assets,

and Air Force personnel during expeditionary operations. Airbase ground defence is a critical enabling capability that requires a specialized military occupation to ensure sufficient operational readiness, deployability, and sustainment. *Ad hoc* is no longer good enough.

## Appendix 1

## COMPARISON OF ALLIED AIR FORCE SECURITY &amp; GROUND DEFENCE FORCES

| Country  | Police Role | External Ground Defence Role | Internal Security and Access Control Role | Medium and/or Heavy Machine Guns | Snipers | Mortars and/or Anti-Armour Weapons | Grenade Launchers | Armoured Patrol Vehicles | Military Working Dogs | Lead Agent for Air Force FP Program | Combat Skills Training Role |
|--|-------------|------------------------------|---|----------------------------------|---------|------------------------------------|-------------------|--------------------------|-----------------------|-------------------------------------|-----------------------------|
| United States<br><i>Security Forces</i>              | Limited     | Yes                          | Yes                                       | Yes                              | Yes     | Limited                            | Yes               | Yes                      | Yes                   | Yes                                 | Yes                         |
| Germany<br><i>Objektschutzregiment der Luftwaffe</i> | No          | Yes                          | Yes                                       | Yes                              | Yes     | Yes                                | u/k               | Limited                  | Yes                   | Yes                                 | u/k                         |
| United Kingdom<br><i>RAF Regiment</i>                | No          | Yes                          | Limited                                   | Yes                              | Yes     | Yes                                | No                | Yes                      | Yes                   | Yes                                 | Yes                         |
| France<br><i>Fusiliers commandos de l'air</i>        | No          | u/k                          | Yes                                       | Yes                              | Yes     | u/k                                | Yes               | u/k                      | Yes                   | Yes                                 | u/k                         |
| Italy<br><i>Fucilieri dell'Aria/16° Stormo</i>       | No          | Yes                          | No  | Yes                              | Yes     | u/k                                | u/k               | u/k                      | u/k                   | Yes                                 | u/k                         |
| Canada<br><i>MP/ASF Flights</i>                      | Yes         | No                           | Yes                                       | No                               | No      | No                                 | No                | No                       | No                    | Limited                             | Limited                     |
| Netherlands<br><i>Bewaking/OGRV Platoons</i>         | No          | Limited                      | Yes                                       | Yes                              | Yes     | Yes                                | Yes               | u/k                      | Yes                   | Yes                                 | Yes                         |
| Australia<br><i>Airfield Defence Guards</i>          | No          | Yes                          | Limited                                   | Yes                              | Yes     | Yes                                | Yes               | Yes                      | Yes                   | Yes                                 | Yes                         |

Source: Compilation from sources listed in Bibliography

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