

**Confédération Interalliée des Officiers Médicaux de Réserve**  
**Interallied Confederation of Medical Reserve Officers**



Summer Congress 2007 – RIGA (Latvia)  
Congrès d'été 2007 – RIGA (Lettonie)

**Abstracts of presentations**  
**Résumés des conférences**

**EACCME**  
**European Accreditation Council**  
**for Continuing Medical Education**  
**Institution of the UEMS**

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To CME activity Director/Provider:  
Dr Hermann C. Römer  
Am Stadtgarten 18  
D – 45276 Essen

**Summer Congress CIOMR**  
**31 July – 4 August 2007, Riga**  
**language: English / French**

**European Accreditation**

European Accreditation has been granted to the CME activity identified above. European Accreditation is granted by the EACCME in order to allow participants to validate the credits obtained at this activity in their home European Country.

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**The EACCME has granted 21 European CME credits (ECMEC) to the congress.**

**Quality Control**

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**Thursday 02 AUGUST 2007**

**Thursday afternoon :**

**Scientific Programme**

Chair : Cdr Stef STIENSTRA (NLD)

- 1330-1350 Post Deployment Care Program of the German Armed Forces  
*Rütter (GE)*
- 1350-1410 Stress et troubles psychiques post-traumatiques Modalite Francaises de Prise en Charge  
*Le Roux (FR)*
- 1410-1430 Aero medical evacuation with interventional Lung Assist in lung failure patients  
*Kjaergaard (DK)*
- 1430-1450 Stress in the military, the personalised approach, the next challenge?  
*Van Acker (BE)*
- 1450-1510 Are there gaps in operational pre and post deployment support for Canadian Forces Reservists` Mental Health and how could the organisation mitigate the disparity?  
*Fassnigde (Can)*
- 1510-1530 UME (Emergencies Military Unit): High qualified response to critical situations making use of the skills of the Reservists  
*Diaz (E)*
- 1530-1600 *Coffee break*
- 1600-1620 Blood supply in Afganistan with frozen blood components.  
*Stienstra (NL)*
- 1620-1640 Impacts on the level of employability on the Reserve of Canadian Forces Health Service Group, vis-à-vis the analysis of Program Activities of National Defence  
*Lalande (Can)*
- 1640-1700 Train as you Fight!  
*Henny (NL)*
- 1700-1720 In Order to avoid post-traumatic stress syndrome - Knowledge of the area and the assignment - Feedback and preparation for departure on external assignments  
*Michel (FR)*
- 1720-1800 *Discussion*
- 1900 *Dinner*

**FRIDAY 03 AUGUST 2007**

**Friday afternoon :**

**Scientific Programme**

Chair : Cdr Stef STIENSTRA (NLD)

- 1330-1350      The Cultural Challenges of Health Services during Multinational Military Operations  
*Barette (Can)*
- 1350-1410      The mountain pack animal center - a specific unit in German Army “  
*Rennenkampf von (GE)*
- 1410-1430      The CBRNE threat needs new dedicated Analysers  
*Stienstra (NL)*
- 1430-1450      Acupuncture and the Treatment of Refractory Xerostomia (Dry Mouth)  
*Pock (US)*
- 1450-1510      Starlight Team: Medical Training using Scenario-based Live Simulation  
*Mousseau (Can)*
- 1510-1530      Digital Analysis of Bite Pattern Evidence using Adobe Photoshop  
*Johnson (US)*
- 1530-1600      *Coffee break*
- 1600-1620      Muscle strength and endurance profiles in a military population: a successful key for injury  
prevention  
*Hébert (CAN)*
- 1620-1640      A report on the findings of the university reserve training unit pilot project.  
*Thulare (South Africa)*
- 1640-1700      *Discussion*
- 1900              *Dinner*

# The cultural challenges of health services during multinationals military operations“.

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Martin Barrette M.A.  
52th Field Ambulance – Sherbrooke, Québec Canadian Forces

During the last year's NATO carried out operations in Bosnia, in Kosovo and in Afghanistan in a context of assistance of security or stabilization of the peace. All the units which participate in such missions, we find in a specifically Headquarters and Role 3 Field Hospitals in a multinational context. The set up of these organizations in a multinational context represents a constant challenge for the staff and members composing these units. Health service members have to be capable of adapting themselves quickly in spite of cultural differences.

The author will try to answer the following questions:

- A. In which manner do cultural differences have a positive or negative impact on multinationals operations for the staff of Health services?
- B. how can we work together in spite of cultural differences?
- C. which solutions are available to face the challenges that cultural differences represent ?

The author will base himself on his personal experience of the Canadian mission in Afghanistan and on results obtained during "Cultural challenges in military operations Conference" in the NATO SCHOOL, OBERAMMERGAU in Germany in February, 2007. Furthermore he will base himself on studies up to date concerning the subject and the following references:

References :

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DION, Michel, "Military Ethics: The Challenge of an Ethical Leadership and the Cross-Cultural/Inter-Religious Dialogue", Faculty of Administration, University of Sherbrooke, February 2007.

GHIÈS, Francis, "[Bridging cultural divides](#)", NATO Review, Winter 2005.

[KADRY SAID, Mohamed](#), "Assessing NATO's Mediterranean Dialogue", NATO Review, Spring 2004.

KAISSI Amer, KRALEWSKI John, CUROE Ann, DOWD Bryan, SILVERSMITH Janet. "How Does the Culture of Medical Group Practices Influence the Types of Programs Used to Assure Quality of Care?" Health Care Management Review. Frederick: Apr-Jun 2004. Vol.29, N° 2; pg. 129, 10 pgs

MCFARLAND, Maxie, "Military cultural education: necessary part of soldier-development programs" Special Warfare, July, 2005.

MONTGOMERY, McFater, "The military utility of understanding adversary culture" , Joint Force Quarterly: JFQ, 2005, no 38, pp.42-48

MORGAN, Mattew, "The Reconstruction of Culture, Citizenship, and Military Service." Armed Forces & Society (Transaction Publishers), 2003-4-1, vol. 29, issue 3, p 373

PINE, Art, "Military Medecine's Best-kept Secret : "West Point for Doctors" United States Naval Institute. Proceedings. Annapolis: Feb 2007.Vol.133, N° 2; pg. 24, 4 pgs

SCHWERZEL, Jeffrey, "Transforming Attitudes", NATO Review, Summer 2005.

STOCK, Gregory N., MCFADDEN, Kathleen L., GOWEN III, Charles R."Organizational culture, critical success factors, and the reduction of hospital errors" International Journal of Production Economics, 2007, Vol: 106 Issue (Month): 2 (April), Pages: 368-392

WEAVER Robert, " Continuing to build security through partnership", NATO Review, Spring 2004.

Biography:

Since September 8th 2002, Lieutenant-Colonel Barrette is the commanding officer of the 52th Field Ambulance Sherbrooke. He is a Health care administrator. Lieutenant-Colonel Barrette completed a Baccalaureate in Philosophy in May 1995, a Master degrees in Philosophy in May 1998, at the University of Sherbrooke and in 2006 a multi-disciplinary certificate. Lieutenant-Colonel Barrette is professional of search at the Faculty of Administration at the University of Sherbrooke.

Lieutenant-Colonel Barrette graduated the Militia and Staff-officer Course from the Canadian Land Force and Staff College (Kingston) on July 18th 1998 and the Joint Reserve Command and Staff Course at the Canadian Forces College (Toronto) in June of 2003.

He was deployed on two missions as a staff officer of with the National Command Element (Task Force Bosnia-Herzegovina) to Velika Kladusa during Operation Palladium rotation 5 in August 1999 to March 2000 and with the Kabul Multinational Brigade (KMNB) in Afghanistan during Operation Athena from January to August 2004. From November 2000 till March 2001, Lieutenant-Colonel Barrette made 40 voluntarily presentations to more than 1200 students in the elementary and secondary schools of the Eastern Townships (Quebec).

From May to September 2000, he was the commanding officer of the Recruit School of the 71st Communication Group at the Campus of St-Jean in St-Jean-sur-Richelieu (Québec). In December 2005, he received a national mention of the Canadian Royal Legion for services rendered within the framework of the year of the War veteran.

# **“UME (Emergencies Military Unit): High qualified response to critical situations making use of the skills of the Reservists”**

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Gualberto DIAZ<sup>1</sup>, Miguel SANCHEZ, Raul MUÑOZ  
<sup>1</sup>*International Center for Therapeutic Research*

The Emergencies Military Unit was created in 2006 following a presidential decision in order to overtake the logistic, mobility, communications, control, lead and intelligence military capabilities. The aim is to put in the heart of the critical situations, either technological or natural emergencies, their strength and response skills called up by a presidential imperative, or also to provide aid at the demand of the authorities of specific regions of the country.

The staff is imbued with reservists which provide wide civilian knowledge and experience to complement the capabilities of the Unit. Most paradigmatic examples are the sanitary reservists, involving skills such as ATLS (Advanced Trauma Life Support) and ALS (Advanced Life Support), Civil Protection, etc. thus offering a point of meeting between civilian society and military environment, in national or regional crisis and emergencies.

## **Biography::**

Medical Doctor specialized in Family Medicine, Sanitary Centres Management and Homeopathy.  
Presently working as a Medical Reviewer in the local research centre of Servier in Madrid

## **Military and Reservist:**

Voluntary Military Service instruction in 1999 as a Second Lieutenant, destined to the Base Services Unit of Araca (Vitoria, Spain) 01/01/2001-30/06/2001

First Promotion of Voluntary Reservists in Spain, 2005, destined to the Defense Central Hospital (Madrid).

Attendant to CIOMR since 2001 (Spain), Vicepresident for Spain since 2005.

First vocal for the sanitary issues of FORE (Spanish Federation of Reservists Associations).

# **Are there gaps in operational pre and post deployment support for Canadian Forces Reservists' Mental Health and how could the organization mitigate the disparity?**

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Lt(N) Social Primary Reserve List Work Officer  
*Company 2IC 15 Feild Ambulance Canadian Forces*

People involved in the pre and post deployment screening process in the Canadian Forces will readily acknowledge that the needs of reservists are complicated and not easily addressed. However, for the reservist who volunteers for a deployment, there is an expectation, supported by health services policies directing that the Canadian Forces will provide mental health support, to mitigate any negative outcomes from such experiences. This understanding is consistent between CF health providers and members, the question is how is it operationalized. Because duty and exposure to hazards on deployment do not distinguish between components, post deployment care must also be equivalent. The challenge emerges not with the mechanism of injury but with the availability and access to specialized mental health services. The purpose of the paper will be to articulate many of the discrepancies identified by reservists returning from recent deployments and offer some ideas to attend to these inconsistencies.

The methods used in this paper will be qualitative in nature; utilizing individual feedback and the interviews of reservists who have recently been deployed. In concert with the qualitative data, an analysis of the provision of current levels of care will be conducted; contrasting reservist and regular force members and accounting for the various elements and geographic regions.

The study is currently in progress; therefore results would be premature.

The information provided in this paper will be useful to identify a path that provides for a more cohesive and comprehensive response to the level of care required for reservists deployed on operations. This will become an increasingly significant topic for discussion as a consequence of the escalation of reservists deploying to precarious and sustained high tempo operational areas. This paper will identify barriers to Mental Health Service, which are distinct to the reservist and propose solutions to address these concerns.

## **Biography:**

Currently I am working as a social worker at the Carewest Operational Stress Injury Clinic in Calgary Alberta. This clinic provides specialized mental health services for retired CF members who have suffered an Operational Stress Injury. In addition to that I am Reserve Social Work Officer who provides psychosocial support for our local area.

I have over 15 years clinical experience with individuals and families focused in the area of crisis and trauma. Within the military environment my studies have become even more focused in the area of combat related trauma. I have served both in an operational role within the Navy and in a support role. It is my previous experience in a combat trade which I feel has given me the greatest insight into the stressors of deployment.

# **“Muscle strength and endurance profiles in a military population: a successful key for injury prevention.”**

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Maj L.J. Hébert<sup>1,2,3</sup>, PT, PhD, Sylvie Nadeau<sup>4,5</sup> PT, PhD,  
Marc Perron<sup>3</sup> PT, M.Sc., Denis Gravel<sup>4,5</sup> PT, PhD,

<sup>1</sup>*Canadian Forces Health Services Headquarters, Health Services Delivery, Ottawa, Canada*

<sup>2</sup>*Faculty of Medicine, Radiology Department, Université Laval, Quebec, Canada*

<sup>3</sup>*Valcartier Garrison, CSV, Quebec, Canada*

<sup>4</sup>*Centre de recherche interdisciplinaire en réadaptation, IRM, Montreal, Canada*

<sup>5</sup>*École de Réadaptation, Université de Montréal, Montreal, Canada*

**Introduction.** In modern armies, soldiers are exposed to very physically demanding tasks. In a previous study, it was shown that a high percentage of soldiers were using a high level of effort to complete standardized army fitness tests.

**Hypothesis:** The physical capacities vary between soldiers according to age and gender, and muscle strength and endurance may not be sufficient to prevent them from working near their musculoskeletal (MSK) limits, which may explain the increasing incidence of MSK injuries in modern armies.

**Objectives:** To quantify trunk and lower limb muscle strength and endurance profiles in Canadian Forces (CF) soldiers.

Forty CF soldiers (mean age; 34.8±7.2) were submitted to a dynamometric testing (Biodex Medical Systems) to obtain the maximal torque of ankle plantar (PF) and dorsiflexors (DF), knee flexors (KF) and extensors (KE), hip flexors (HF) and extensors (HE), and the trunk extensors (TE). The torque, angle and velocity measurements were recorded during concentric isokinetic (peripheral joints) and isometric (trunk) tests. Two endurance tests for the knee and trunk extensors were also performed to assess the relative muscular endurance that was determined by the maximum period of time the subject can hold a resistance equivalent to 75% of its maximal torque.

The maximal peak torques was higher in men than women. In men, the muscle strength was always higher for the 18-30 group followed by the 31-40 and then the > 40 group. In women, there was no such clear trend as, depending on the muscle group, the strength was higher in younger (HF 30°, HE 30°), higher in older (KF 60° and 30°, ankle DF) or very similar between younger and older CF members (KE 30°, ankle PF). The mean holding time of the TE on the Biodex was 64.5 sec ± 37.7 for men (n=30) and 89.1 sec ± 41.1 for women (n=10)(p = 0.088) while according to the Sorensen endurance test, the women had more trunk extension endurance (207.0 sec ± 70.2) compared to the men (135.6 sec ± 38.5)(p=0.011). For the KE, the mean holding time was 85.9 sec ± 104.7 for men (n=30) and 61.9 sec ± 19.2 for women (n=10)(p = 0.254).

In the CF population, the muscle strength and endurance vary between men and women and amongst age groups. Compared to normative data, the muscle strength and endurance of some CF soldiers at the lower limb and the trunk is lower than in healthy subjects. This explains why, during the completion of routine tasks such as carrying standardized loads, some soldiers are using a relatively high level of effort, which put these soldiers at a higher risk of injury. The present findings should be used to design tailored prevention strategies based on muscle strength and endurance training.

Dr Hébert is a physiotherapist with the Canadian Forces Primary Reserve List. He served with the Regular Forces from 1982 to 1996 where he was appointed to different units in Canada and overseas. After his training at the Montreal University in 1982, he completed a Master Degree in Biomedical Sciences at the same University in 1989. He also obtained a PhD degree in Experimental Medicine at l'Université Laval in 2001. Major Hébert contributed to a book chapter, published 25 major papers and more than 60 abstracts. He taught at the Montreal University from 1987 to 1992. He is teaching at the

Faculty of medicine at L'Université Laval since 1990 where he is adjunct professor and also occupies the function of the director of research at the radiology department. He is a researcher with the Quebec provincial rehabilitation network. Part of his research focus on the variables that best explain and predict musculo-skeletal (MSK) injuries in the military population as well as factors limiting the performance of soldiers. He also developed an expertise in the assessment of upper limb MSK pathologies using novel interventional magnetic resonance imaging techniques. He received several research funds as principal investigator and co-investigator. Since May 2000, Dr Hébert is the National physiotherapy-training director for the Canadian Forces Health services Headquarter, Health Services delivery.

## **"TRAIN AS YOU FIGHT"**

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Walter HENNY MD  
*Royal Dutch Army Reserve*

The conflict in Iraq has shown the emergence of the IED. It causes extensive injuries to the legs and the lower trunk. Snipers now aim for the neck and the groin; areas which are not well protected by current body armour.

The resulting injuries are best treated applying damage Control Surgery.

Preceding admittance to a role 2 or 3 MTF, the TCCC concept (Tactical Combat Casualty Care) seems to be working well. It might be advisable to teach that concept not only to medics, but to "all" soldiers, using the "Train As You Fight"- principle . Examples of newer dutch military medical training concepts will be discussed, such as giving care whilst wearing Night Vision Goggles and/or being shot at (MILES system).

Colonel Walter HENNY is a retired surgeon, formerly attached to the Dept. of Surgery, University Hospital Rotterdam, the Netherlands

He has had a life-long interest in Acute Care, in less than ideal circumstances in particular. Having served as a draftee in the seventies of the last century, he still is actively involved as a reservist in preparing military medical personnel for deployment.

His involvement with CIOMR since 1981 includes service as Secretary of the Scientific Committee, organizer of the 1992 Breda Congress, President and Secretary General.

At present Col HENNY is the Secretary of the First Aid Committee and he represents CIOMR in the COMEDS Expert Panel on Medical Training, and in the CIOR PFP Committee.

He is a member of the International Committee of AMSUS.

# “Digital Analysis of Bite Pattern Evidence using Adobe Photoshop”

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David W. Johnson<sup>1</sup>

<sup>1</sup>*Office Armed Forces Medical Examiner, Armed Forces Institute of Pathology, Washington DC, USA*

## Past methods of Analyzing Bite Pattern Evidence

- 1.) Direct Comparison
- 2.) Photographic Overlays

## Digitally Analyzing Bite Pattern Evidence using Adobe Photoshop

- 1) General Discussion of Adobe Photoshop Capabilities
- 2) Scanning Bite Mark Photographs
- 3) Detecting and Correcting Angular Distortion in Bite Mark Photographs
- 4) Resizing the Image to Life Size
- 5) Scanning Suspect's Dental Casts
- 6) Fabrication of Overlay and Digital Analysis

## Upon completion of this presentation, the audience should be able to...

- 1) Describe past methods used in analyzing bite pattern injuries
- 2) Outline the process of digitally analyzing bite pattern injuries using Adobe Photoshop

A digital technique for comparing bite pattern injuries found on a victim with a suspect's bite pattern using a standard commercial computer software (Adobe Photoshop) was presented.

Col (Dr) David W. Johnson is from Great Falls, Montana, where he maintains a general dental practice with special emphasis in the field of hospital dentistry for children. In addition to his Air Force Reserve assignment, he serves as a consultant in forensic odontology to the Montana Department of Justice and annually lectures at the Montana Law Enforcement Academy. In 1985 he completed a postgraduate preceptorship in Forensic Dentistry and Forensic Sciences at the Oregon Health Sciences University and has acquired fellowship status in both the American Academy of Forensic Science and American Academy of General Dentistry. He is a Diplomate of the American Board of Forensic Odontology, has served five years on the Board of Governors for the American Society of Forensic Odontology and is a Past-President of that organization. Furthermore he has testified as an expert witness in the field of forensic odontology and has appeared in the Discovery Channel's "New Detective Series".

# Post Deployment Medical Assessment Process US Forces

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Major General ROBERT JOHN KASULKE (USAR)

*Deputy Surgeon (IMA), Mobilization, Readiness and Reserve Affairs  
Office of the Surgeon General, Falls Church, Virginia 22041-3258*

My presentation will focus on the process of post deployment medical assessment, treatment (if necessary) and follow-up care for the injured veteran.

I will include the transfer from Military medical to civilian (Department of Veterans Affairs) responsibilities.

The data cited will be that which has been developed from the beginning of the current conflict in Afghanistan and Iraq in addition to those procedures which are employed to process the wounded veterans which are codified and dictated by policy and law.

The results will be the summary of the numbers of veterans who have been through the process, timelines for completion of the process and the injury patterns that affect our wounded combat veterans. The conclusions will be a detailed summary of successes and the problems that are encountered by the large numbers of wounded veterans that have been involved in this process from the beginning of the War up to the present.

## SOURCE AND YEARS OF COMMISSIONED SERVICE

Direct, Over 25

## CURRENT OCCUPATION

President, Robert J. Kasulke, MD, PC, Watertown, New York

## MILITARY SCHOOLS ATTENDED

Army Medical Department Officer Basic and Advanced Courses

United States Army Command General Staff College

United States Army War College

## EDUCATIONAL DEGREES

Fordham University - BS Degree - Biology

Syracuse University Maxwell School of Citizenship and

Public Administration - MPA Degree - Public Administration

State University of New York, Syracuse, College of Medicine -

MD Degree - Medicine

## FOREIGN LANGUAGE

None recorded

## PROMOTIONS

## DATES OF APPOINTMENT

| <u>Rank</u> | <u>Component</u> | <u>Date</u> |
|-------------|------------------|-------------|
| CPT         | USAR             | 11 Jun 80   |
| MAJ         | USAR             | 15 Nov 83   |
| LTC         | USAR             | 14 Nov 90   |
| COL         | USAR             | 28 Jun 96   |
| BG          | USAR             | 14 Jan 02   |
| MG          | USAR             | 01 Jul 05   |

MAJOR DUTY ASSIGNMENT

FROM            TO            ASSIGNMENT

USAR - Not on Active Duty

|        |        |  |
|--------|--------|--|
| Jun 80 | Jul 81 | General Surgeon, 5503d United States Army Hospital, Columbia, Missouri (Jun-Jul 81, non-rated)   |
| Aug 81 | Jan 84 | General Surgeon, 912th Combat Support Hospital, Johnson City, Tennessee<br>Student, Combat Casualty Care Course, Fort Sam Houston, Texas (Jan 83, ADT) |
| Jan 84 | Aug 84 | Control Group  |

Major General ROBERT JOHN KASULKE (USAR)

|        |        |  |
|--------|--------|--|
| Aug 84 | Aug 92 | Commander, Hospital Units 1, 2 and 3, 310th Field Hospital, Malone, New York   |
| Aug 92 | Aug 93 | General Surgeon, 376th Combat Support Hospital (Hospital Unit Base), Malone, New York                                    |
| Aug 93 | Aug 94 | Chief of Surgery, 376th Combat Support Hospital (Hospital Unit Surgical), Liverpool, New York                            |
| Aug 94 | Aug 95 | Commander, 376th Combat Support Hospital (Hospital Unit Surgical), Liverpool, New York                                   |
| Aug 95 | Aug 99 | Commander, 4218th United States Army Hospital, Liverpool, New York   |
| Aug 99 | May 01 | Commander, 865th Combat Support Hospital, Utica, New York  |
| May 01 | Mar 05 | Commander, 8th Medical Brigade, Brooklyn, New York   |
| Mar 05 | Jul 05 | Deputy Surgeon (IMA), Mobilization, Readiness and Reserve Affairs, Office of the Surgeon General, Falls Church, Virginia |

SUMMARY OF JOINT EXPERIENCE

DATE            RANK            ASSIGNMENT

None

US DECORATIONS AND BADGES

Legion of Merit  
Meritorious Service Medal  
Army Commendation Medal (with 2 Oak Leaf Clusters)  
Expert Field Medical Badge

# **Aero medical evacuation with Interventional Lung Assist in lung failure patients**

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Kjaergaard B, Christensen T, Neumann PB, Nürnberg B.

*Center for cardiovascular Research, Aalborg Hospital, Aarhus University Hospital and Medical Corps, Royal Danish Air Force, Denmark*

Acute respiratory failure can make long distance transportation by air extremely difficult. Despite pressure cabins, the pressure will fall to about three quarters of one atmosphere, and the oxygen partial pressure will fall proportionally. Interventional lung assist (iLA) is a well documented treatment in the critical care unit, but has not been evaluated scientifically in long range aero-medical evacuation before. The present animal study was performed to test the feasibility of treating lung failure with iLA during intercontinental air evacuation in a military setting.

Methods: Eight adult female pigs were cannulated in the right axillary artery and the right jugular vein. An arterio-venous iLA device (Novalung®) was connected. The ventilator was adjusted to below half of the needed minute volume before the use of iLA. The animals went through different modalities of transportation in ambulances, helicopters and aircraft. Two of the pigs were tested in a hypobaric chamber, and the remaining 2 animals underwent a 7.5 h intercontinental transportation from Denmark to Greenland in a Hercules C130J transport airplane.

It was possible to maintain physiological PaCO<sub>2</sub> and PaO<sub>2</sub> in normal flight altitudes with iLA. Compared to a pump-driven ECMO systems iLA is safer and more efficient.

The current study demonstrates the feasibility of iLA during military aero-medical air evacuation.

# **Impacts on the level of employability and training on the Reserve of Canadian Forces Health Services Group, vis-à-vis the analysis of Program Activities of National Defence.**

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Lcol Jacques Lalande, CD  
*Canadian Forces Health services Group Headquarters, Ottawa, Canada*

Three Program Activities were identified to align to Canadian Forces strategic outcomes.

1. Generate and Sustain Relevant, Responsive, Effective, Combat-Capable, Integrated Forces;
2. Conduct Operations; and
3. Contribute to the Canadian Government, Society and the International Community in Accordance with Canadian Interests and Values.

This results in added pressures on the capacity and the role of the Medical Reserve of the CF, but also on the whole mechanisms of employability and training. These mechanisms will have to be adapted to these new realities while taking in consideration both military and civilian resources available.

The key of success facing such change is flexibility, identification of obstacles, improvement or changes of our methods in order accomplish the missions, which are entrusted to us.  
Personal recherche on the Canadian Forces Commands structures.

## **Biography:**

Since his enrolment in the Canadian Forces in 1981, LCol Jacques Lalande has occupied a number of leadership positions at the Field Ambulance, Brigade, Area and National levels. Trained as a Psychotherapist, he has worked in a variety of professions within the military, civilian, correctional and college elements, including human relations, training, psychotherapy, investigator, and educational program designer.

Presently, he is employed as Reserve Advisor 2 at the Canadian Forces Health Services Group Headquarters in Ottawa. As part of RX2000, he supervises 15 military personnel involved in the restructure of the Reserve health services of the Canadian Forces. He brings to the group experience as a Commanding Officer of 51 Field Ambulance, Training Officer and Investigator for SQFT, Founder and Administrator for Le centre de Psychothérapie du Plateau Mont-Royal in Montreal and Education Counselor at Centre de Relation d'Aide, Montreal, excellence and valuable experiences.

# STRESS ET TROUBLES PSYCHIQUES POST-TRAUMATIQUES

## MODALITE FRANCAISES DE PRISE EN CHARGE

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Christian LE ROUX

Vice-Président de l'Union Nationale des Médecins de Réserve  
*ORSAC du CIRAM de PARIS*  
*DRSSA BREST*

La prise en charge collective est un temps essentiel du processus thérapeutique et elle s'associe aux prises en charge individuelles.

Le stress s'exprime précocement par rapport à l'événement subi ; il tend à disparaître après l'exposition à cet événement.

Il faut donc une prise en charge précoce.

Cependant, on ne peut rien prédire de la clinique à long terme car il peut exister une phase asymptomatique de latence d'un trouble qui, par accès récurrents, pourra se prolonger plusieurs années, voire toute une vie.

Ainsi s'établit ce que la terminologie française dénomme « syndrome de répétition traumatique ».

Il faut donc envisager aussi un suivi thérapeutique de longue durée : avec une prise en charge individuelle et spécifique.

Plus tardivement se pose la question de la réparation au plan médico-légal.

Psychological repercussions of psychic traumatism have to be considered as a break in wound.

It is necessary to take a global care of them.

Collective care is an essential stage in therapeutic process and is linked to individual care.

Stress has an early expression in relation to the undergone event ; it tends to vanish after exposure.

Early care is therefore necessary.

Yet, no one could predict clinical long term evolution since an asymptomatic latent phase may occur as the underlying trouble will later appear and will possibly have a relapse many times, may be all along the entire patient's live.

That is what is named in french terminology « syndrome de répétition traumatique ».

So we need to plan a long time therapeutic procedure, involving individual and specific care.

Belatedly, the problem of legal and financial compensation could arise.

### Biographie

Gastro-Entérologue, Radiologue, Ancien Chargé d'Enseignement clinique à la Faculté de Médecine Paris Ouest, le Docteur Christian LE ROUX est Chef de Service à l'Hôpital du Vésinet.

Vice Président (Mer) de l'Union Nationale des Médecins de Réserve, il est Auditeur de l'Institut des Hautes Etudes de Défense Nationale et occupe depuis 1987 le poste de Conseiller Santé auprès du Commandant du Centre d'Instruction des Réserves de la Marine à Paris. Il a participé à la cellule d'organisation des congrès de la CIOMR en France : Paris en 1991 et Strasbourg en 2002. Il a été représentant permanent de la Délégation française aux sessions de la CIOMR sans interruption de 1995 à 2006. Vice Président du Comité F.A.C.

Médaille d'Honneur du Service de Santé des Armées. Chevalier de la Légion d'Honneur.

# **„In order to avoid post-traumatic stress syndrome – Knowledge of the area and the assignment – Feedback and preparation for departure on external assignments “.**

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MICHEL A.  
*General Hospital Niort, France*

The French SSA currently responds to three assignments :

- Organized relief (mandates of two months)
- Alerts
- On request, in relation to conflicts

When a professional soldier, or a reservist returns from an assignment he writes a report which is sent to the central management of the SSA.

- Presentation for example, of the reports of different health officers (doctors, dentists, vets, pharmacists, administrative officers)
- Presentation of the information collated by the management of the SSA
- Preparation for the assignment

Before each departure this information is used by the training center at LYON. Officers are due to leave on an assignment. Follow a one-day course, during which they are given certain information relating to their assignment (practical advice, environment).

- Presentation
- Training course examples

To adapt or modify medical responses.

The French SSA assignments are carried out with the perspective of offering logistical support to the military forces on the ground, and medical support to the population according to operations.

Presentation of information and the use of experience on the ground concerning this second mission. Example of KOSOVO (PLANA).

- Before departure
- On their return
- 

Use of information to modify certain postings in the theatre of operations with the example of KOSOVO.

Alain MICHEL

Born on 26th March 1953 at BLOIS FRANCE

### **Studies**

Sciences Politique degree, thorough studies in law degree, Doctorate in law, Degree of Healthcare National School (Hospital Manager)

### **Profession**

Niort General Hospital Top Manager

### **Military career**

Officer in technical and administrative SSA CORPS

National president of ANORCTASSA (Officer's national association of technical and administrative SSA corps)

Reservist at VAL DE GRACE HOSPITAL in PARIS

## **‘Starlight Team: Medical Training Using Scenario-based Live Simulation’**

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LCol G.Richardson, Maj M.J. Good, Capt R.P. Farrell, m.d., Capt I.M.D. Mousseau  
*Canadian Forces Health Services Group*

The command and control of Health Services resources were centralized in 2001. The CFHS Reserves fluctuates between 1100 and 1400 members dispersed geographically across 14 units and one clinical Primary Reserve List. The HS’s ability to provide appropriate health care is contingent on its ability to evaluate and assess medical standards in practice.

Given restricted resources, a lack of dedicated training infrastructure and the dispersion of medical expertise, the HS Res is creating a national tool, the Starlight Team, to maintain and assess medical standards and capability.

The Team provides medically relevant casualty simulation within current, theatre-specific scenarios as dictated by the training audience. The Team leverages the medical competencies and flexibility resident in the HS Reserve with the experience of theatre veterans. The methodology has been tested in both Regular and Reserve contexts.

We would like to present this concept as a niche for the Reserves in support of operations.

Captain Isabelle Mousseau joined the Canadian Forces Army Reserves as a Medical Assistant and commissioned as a Health Care Administrator in 2000. She has held command and staff positions in Regular and Reserve Forces Field Ambulances and deployed on two domestic operations. She is now employed on a full-time basis as the Reserve Training Officer by the CF H Svcs Gp HQ in Ottawa where she coordinates the operations and logistics of the Starlight Team.

Capt Mousseau studied Genomics and Biopharmaceutical Sciences in Ottawa and completed a MSc in Molecular Biology and Genetics in 2005 at the University of Alberta.

Capt Mousseau is the Administration Officer for the CIOR Canadian Presidency and the Liaison Officer between CIOR and CIOMR.

# Acupuncture and the Treatment of Refractory Xerostomia (Dry Mouth)

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Col (Dr) Amyce R. Pock

*Director, USAF Medical Corps & Chief, Medical Force Management; Office of the Air Force Surgeon General*

Chronic, refractory xerostomia (dry mouth) can be caused by a variety of conditions, but is most commonly associated with the use of radiation and/or chemotherapy for the management of head and neck related carcinomas. The condition is typically associated with a significantly decreased quality of life and may be only partly relieved with the use of pilocarpine.

What is not commonly known, however, is that the combination of auricular (ear) acupuncture combined with the selective placement of a few needles on the Large Intestine meridian can be highly effective in restoring significant salivary flow—even in patients who have suffered from severe xerostomia for extended periods of time (i.e. years)!

This presentation will describe the use of medical acupuncture in the amelioration of this condition. The treatment involves two, 30 minute sessions spaced 24 hours apart. Results typically last 6 months or more.

Over 30 patients have been successfully treated with this regimen, with a 100% success rate!

Acupuncture is an ancient art with modern day applications. The effective use of these techniques can yield dramatic results that can be life-changing for affected patients.

Niemtzow, RC, May BC, Peng YP, Inouye WS, Johnstone PAS; Acupuncture technique for pilocarpine-resistant xerostomia following radiotherapy for head and neck malignancies. *Medical Acupuncture*, 2000;12:42-43

Johnstone, PAS, Riffenburgh, RH, Niemtow RC. Acupuncture for Xerostomia; Clinical Update. *Cancer*: 2002;94:1151-1156.

*Auriculotherapy Manual: Chinese and Western Systems of Ear Acupuncture.* Terry Oleson, PhD. 2nd edition, Health Care Alternatives, Los Angeles, California, 1998.

## **„ The Mountain Pack Animal Centre – a specific unit in German Army “**

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F.v.Rennenkampff  
*Mountain Pack Animal Centre, Germany*

Because two veterinary officers belonging to the Mountain Pack Animal Centre of German Army this unit has close connections to the German Army Medical Service.

The mission of Mountain Pack Animal Centre is to support parts of a brigade, a task force or special forces by transporting weapons, equipment, but also soldiers in an alpine environment if other means of transportation can not be used. Mules and small specific mountain horses, called Haflinger, are used especially in very high alpine operation areas up to 4000 m.

These horses can also be used for reconnaissance by riding and draughting a specific universal carrier for wounded soldiers or equipment.

The Mountain Pack Animal Centre also has the mission to educate soldiers of the mountain brigade, of special forces, the sanitary corps and foreign countries in specific items concerning mountain pack animal affairs.

From 2002 until 2004 parts of Mountain Pack Animal Centre were tasked to support the flow of supplies to observation posts and temporary checkpoints and to accompany patrols on their missions at Task Force Prizren belonging to Multinational Brigade Southwest / KFOR.

At least this Animal Centre has to develop new operational procedures, equipment and education concerning pack animal items.

The Mountain Pack animal Centre is the only unit in German army having the expertise concerning transportation of man and equipment by pack animals, riding horses and draught animals and it`s further development.

- \* 26.04.1957 in Hannover
- 1976 – 1978 Officer candidate at Mountain Infantry Battalion in Berchtesgaden
- 1978 – 1884 Studies of veterinary medicine in Munic
- 1984 . 2003 Veterinary officer at Mountain Pack Animal Centre in Bad Reichenhall
- 2003 – 2005 Commander of the Dog Handling School of German Army
- since 2005 Commander of the Mountain Pack Animal center in Bad Reichenhall

married, six children (5 sons and 1 daughter)

# Post Deployment Care Program of the German Armed Forces

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G Ruetter

*GE MoD Joint Medical Staff II*

Taking into account Germany's increased responsibility aside the international community of nations, the enlarged range of tasks and deployments have lead to physical and psychological challenges for both the assigned personnel and their families as well.

Daily service and training may bring burden and dangerous situations which can result in physical as well as psychological disturbance.

Deployment experiences have shown that both deployed personnel and their families need special care in order to avoid long lasting disturbances and diseases.

Challenging circumstances while being deployed require synergistic interdisciplinary cooperation in order to minimize stress for soldiers and their families as much as possible. Personal disposition, experience and circumstances require individualized consideration and care and may be different from cases to case.

Any support when handling stress is part of psychological care. Every soldier needs to support his comrade, especially every superior. Every time when this support is not sufficient, professional care by both the medical and the psychological service is provided synergistically.

Citizenship: German

Profession/occupation: Surgeon & entrepreneur

Civic activities: Disaster management and military medicine

Born on April 19th, 1953 in Worms on Rhine, Germany

Gunter H. Ruetter, MD, PhD is the President of the Monitoring Force Group, an international full service life sciences Contract Research Organization [CRO], currently present in 27 countries, conducting phase I to IV clinical trials for the pharmaceutical industry in all therapeutic areas as well as consulting in defense and disaster medicine for universities, national health institutes and further government organizations. Dr. Ruetter founded the company in Muenster, Germany in 1995, focusing on quality and speed in clinical operations. Since 2002 based in Washington, DC he is responsible for global business development and general management of the organization. Prior to this Dr. Ruetter was assigned as Medical Director and advanced to General Manager in the German pharmaceutical industry. This followed a distinguished career in general and trauma surgery rising to the position of Senior Surgeon at the University of Marburg.

Dr. Ruetter studied law, philosophy, economics and medicine at the universities of Mainz, Cologne, Muenster, Mannheim and Heidelberg, receiving his M.D. from the University of Heidelberg and his medical license from the State of Baden-Wuerttemberg in 1982. He obtained his Ph.D. in cyto-pathology and virology at the German Cancer Research Center in Heidelberg in 1988. Besides numerous specialties in surgery, emergency medical service and sports medicine, Dr. Ruetter complemented his medical training with executive business courses at the St. Gallen Business School in Switzerland.

Apart from his business activities, Dr. Ruetter is Colonel (Medical Corps) in the German Joint Medical Service Air Force Reserves and assigned as a Branch Chief at the Federal Ministry of Defense. He is also Chairman of the Joint Medical Reserve Forces Organization and Delegate of the Interallied Confederation of Medical Reserve Officers.

Dr. Ruetter has been in demand as distinguished consultant, author and lecturer of medical entrepreneurship and clinical research at several chambers of commerce, medical service and civil-military cooperation, disaster and defense medicine at the Netherlands Defense College and the Academy of the German Armed Forces Joint Medical Service after his career as a lecturer and scientist at the University of Marburg and the German Cancer Research Center.

He is an active member of various academic societies, professional and military associations like the Drug Information Association, World Association for Disaster and Emergency Medicine, German Association for Military Medicine and Pharmacy, German Association for Surgery, German Association

for Trauma Surgery, German Disaster Medicine Association and the Association of Military Surgeons of the United States.

As of 2005 Dr. Ruetter has been member of the Board of Directors of the German American Business Council in Washington, DC. Dr. Ruetter has been honorary professor at the Hebei Medical University in Shijiazhuang, China as of 2006. He also has been elected to secretary general of the Interallied Confederation of Medical Reserve Officers as of Summer Congress 2007.

## **„Blood supply in Afghanistan with frozen blood components“.**

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S. Stienstra

*Royal Dutch Navy Reserve, The Netherlands*

High quality and reliable blood supply is essential for trauma surgery in role 2 and 3 field hospitals. During deployments lots of red blood cell concentrates and frozen plasmas are shipped to military hospitals like the British Role 2 Field Hospital in Helmand, South Afghanistan, where I served in January and February 2007. Fortunately most of the stored blood components are not used and unfortunately these have to be discarded after their shelf life has expired.

The Dutch military blood bank has developed a deep frozen blood component chain for blood supply, which includes deep frozen red blood cells, deep frozen fresh plasma and even deep frozen platelets.

Deep frozen blood products are produced in the military blood bank in The Netherlands with special, newly developed procedures. During transport and storage the blood components are kept at  $-80^{\circ}$  C. Plasma is frozen and thawed conform the usual procedures, but stored at  $-80^{\circ}$ , which allows longer storage. Red blood cells are frozen with glycerol as cryo-protectant. Platelets are frozen with DMSO as cryo-protectant. These cryo-protectants have to be washed out in a controlled thawing and washing procedure on a dedicated instrument.

The described frozen blood components supply system has several positive features. After thawing the products are in a better condition compared to the classical fluid blood bank products. They did not suffer the storage lesion and this can be shown with both biochemical data as by microscopy. As frozen products can be stored much longer compared to liquid blood components, almost no blood products have to be discarded. Normal fluid red blood cell concentrates can be stored for 35 days and deep frozen red blood cell concentrates can be stored for ten years.

Platelets, which normally only can be used within a week after donation, can be stored deep-frozen for two years. So far we had in military blood transfusion only very limited use of platelets. The deep frozen platelets are after the thawing and washing procedure slightly activated, but this is a positive feature for trauma medicine. Results show, that in clinical practice bleeding stops quickly and faster using this platelet product and limits the use of red blood cell concentrates.

Both the quality of the blood components, after processing to make them ready for transfusion, and the number of unused blood components, which has to be discarded, have improved. Although the proposed blood component supply system is more expensive, compared to classical blood supply, it saves money, as less blood products have to be discarded. In practice sometimes more than 90% of the supplied blood is

not used. To have less blood in stock is not acceptable, as there must be enough donor blood available in case of mass casualties.

A great feature is the availability of platelets in the field hospital. After transfusion of red blood cells and fresh frozen plasma bleeding stops promptly on the transfusion of platelets.

## **„ THE CBRNE THREAT NEEDS NEW DEDICATED ANALYSERS “**

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S. Stienstra

*<sup>1</sup>Royal Dutch Navy Reserve, The Netherlands*

After the 9-11 attack by terrorists several governments realized their vulnerability towards creative asymmetric attacks. Due to increasing complexity of our society we create more vulnerability towards terror attacks. More chemical substances than we realize can be misused to destabilize our modern society. Recently aircraft passengers were confronted with new regulations, which limit the amount of fluid, which a passenger can bring on board with hand luggage. How far should we go limiting the allowance to bring liquids and substances on board? It indicates that we need new analytic instruments for screening the safety of luggage in all types of transport.

An inventory was made of the present demand for safe transport and its vulnerability to terror attacks. Also the safety and safety awareness in public buildings, offices and industrial complexes was assessed.

Knowing the demand for a certain safety level, an inventory was made to identify analytical equipment, which can be used to check passengers and luggage on possible threats. The same can be used for protecting public areas, offices and industrial complexes.

It is amazing how some governments, financially driven, underestimate the consequences of CBRNE incidences and disasters. Both threats due to release of dangerous substances just by accident and deliberate abuse of chemicals and/or biologicals by terror organizations is underestimated. Financial rationales are often the cause that the preparedness is less than technically could be possible.

Still some commercial companies realize the importance of safety and preparedness towards terror attacks and take their precautions. Several detection systems are now under development and a new market of safety devices comes into existence.

Key question is how far we would like to go with defending us with technical devices against potential terror attacks. Also the design of buildings, transport vehicles and industrial complexes can limit the risk on CBRNE incidences.

### Biography:

Stef Stienstra studied biochemistry and medicine at the State University of Groningen in The Netherlands and started after a career in clinical diagnostics, blood transfusion and discovery management within innovative biopharmaceutical spin-off initiatives of universities his own consultancy for biopharmaceutical industry.

He is now consulting the University of Oxford in the UK (blood diagnostics), Tokyo University in Japan (stem cell technology), Heim Medizintechnik in Turkey and Germany (blood transfusion), MediUmTECH in Germany (tattoo removal technology and dermal immunology), Mc Kenna, Long & Aldridge in USA (biotech strategy in Bioshield program) and HBT in The Netherlands (special medical and environmental diagnostics).

In parallel he is commander of the reserve of the Royal Dutch Navy and consulting on several levels on bioweapon defence and bioterrorism risks. He gives all over the world lectures at military academies. In the time left over and during waiting times at airports he writes articles for several professional magazines.

# **URTU SITREP**

## **A REPORT ON THE FINDINGS OF THE UNIVERSITY RESERVE TRAINING UNIT PILOT PROJECT**

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D.W.Chambers  
*South African Irish Regiment SAIC*

This report is a follow up to a paper on the URTU, which was presented by Col. G Hide SAMHS, in 2005.

The University Reserve Training Unit was conceived and authorised as a pilot project in response to the severe shortage of junior leaders which faced the SAMHS in particular as a consequence of the ending of the National Service feeder system in South Africa. Concurrently, this situation was exacerbated by the requirements of the revised SANDF force design which emphasised a small regular force/large reserve force structure, together with a commensurate growth in South Africa's external military commitment to UN and AU peace keeping operations.

With the end of conscription, the Reserves were subjected to massive attrition in numbers, especially in the junior leader ranks. The URTU concept therefore sought to put in place a recruitment, training and commissioning course based on a non continuous, part time approach, which would allow the attraction of professionals who would not normally choose regular military service as a career.

An initial working group was established which defined the cadet requirements, recruitment and selection process, together with adapting the existing SANDF training curricula for non continuous purposes. Key considerations were that at no point would existing officer selection and commissioning criteria be undermined or not met. Equally, a number of long term objectives supporting a core strategy with regard to the commissioning into the reserves of members who would in the future become captains of industry with a predisposition towards voluntary military service were built into the URTU concept.

Marketing and recruitment of the target population at universities proved an immediate success, with an exceptional calibre of candidate applying for the course, who evoked all of the traditional reasons for volunteering when interviewed. A tough combination of a pre-selection process and rigorous selection weekend, based on an ethic of "select for success" derived an initial intake of candidates for the pilot project. At the same time, recruitment of the required Directing Staff for the pilot also proved to be straight forward as the project was able to select its DS from highly competent volunteers drawn from across the arms of service.

Commencement of training however immediately introduced difficulties for the project, as it competed with other pressing priorities within the SANDF, inclusive of evolving strategies for recruitment and training, transformation, and the normal issues with organisational inertia.

Initially much consideration had been given to a core commissioning course that would provide a standardised benchmark for all Army and SAMHS officers, and which would facilitate longer term cross service/cross corps career movement. It however became clear that many of the original aspects of the URTU hypothesis would not be sustainable either in the pilot or beyond as a result of a combination of organisational core specialities and structure together with cost considerations.

To date, empirical evidence from the course has proven the selection approach to be valid, However, reassessment of the URTU concept within the ambit of the SANDF Vision 2020 has resulted in an immediate recommendation that the URTU syllabus be restricted to a basic commissioning course based around the SANDF Basic Military Training and Officer's Formative courses,

The pilot project has also identified nine strategic imperatives that are key to the success of ensuring the recruitment, training, development and retention of suitable reserve force leaders

- 1 The existing commissioning system for Reserve officers is out of synch with both Defence Force needs and the desire to create a motivated and professional reserve officer corps manned by soldier

citizens. The existing system must be adapted to address the needs of the 21<sup>st</sup> Century SANDF, and the realities of reserve force soldiering;

- 2 Implement and sustain a management process to facilitate managing innovation, change and flexibility of response within the ambit of strategy and doctrine; and
- 3 Implement and support a lifelong learning and development environment based on mutually supporting military and civil requirements in support of the citizen soldier concept.
- 4 Adopt an Officer Development Model that clearly shows how training and leader development are linked within an appropriate lifecycle for reserve force officers.
- 5 Leverage the strong relationship between the quality of training and officer development programs and Military Culture. Military professionalism and the ethos of the officer must operate routinely together to provide the correct foundation to effectively train and develop military leaders.
- 6 Commit to maintaining standards-based training – applicable on the same basis to both regular and reserve force members.
- 7 Inclusion of tertiary education institutional input into the officers training syllabus as part of a formal academic/military partnership.
- 8 Recognition of the requirement for a strong “home” unit environment based on the ethos of the Regimental System and the “officers mess”

Enactment of legislative provisions to protect service men and women with regard to Reserve service and appropriate military and civil career development.