Chapter 6:
Education

Number of Admitted Candidates to Officers Academies (year 2012)

Honduras	2008	2010	2012
Army	173	375	210
Navy	122	147	202
Air Force	64	59	85

Mexico	2008	2010	2012
Army	350	917	409
Navy	420	455	369
Air Force	277	314	88

Dominic. Rep.	2008	2010	2012
Army	62	100	80
Navy	20	73	50
Air Force	59	62	60

Nicaragua	2008	2010	2012
Forces	125	100	n/a

Colombia	2008	2010	2012
Army	750	581	768
Navy	128	171	249
Air Force	120	n/a	136

Venezuela	2008	2010	2012
Army	n/a	n/a	453
Navy	n/a	238	281
Air Force	n/a	195	153
National Guard	n/a	309	303

Guatemala	2008	2010	2012
Forces	187	216	222

El Salvador	2008	2010	2012
Forces	130	196	137

Ecuador	2008	2010	2012
Army	166	150	230
Navy	111	164	102
Air Force	60	74	50

Brazil	2008	2010	2012
Army	452	467	471
Navy	240	268	232
Air Force	89	225	206

Paraguay	2008	2010	2012
Air Forces	101	101	140

Peru	2008	2010	2012
Army	240	550	270
Navy	100	79	88
Air Force	63	106	100

Bolivia	2008	2010	2012
Army	300	255	769
Navy	120	250	293
Air Force	198	195	233

Chile	2008	2010	2012
Army	207	240	234
Navy	166	174	138
Air Force	120	121	120

Argentina	2008	2010	2012
Army	439	410	625
Navy	167	261	249
Air Force	145	90	142

Uruguay	2008	2010	2012
Army	85	68	71
Navy	44	29	30
Air Force	36	19	34

n/a: not available

Source: Information provided by the Ministries of Defence of Argentina, Chile, Ecuador, Guatemala, Army, Navy and Air Force of Uruguay, National Military Academy (Argentina), Army, Military Aviation School and Naval Military College (Bolivia). Ministry of Defence, Navy and Military Academy (Brazil). Army, Navy, Air Force, Military School and Aviation School (Chile). Ministry of Defence, Army and Incorporation Headquarters of the Military School (Colombia). State Secretariat of the Armed Forces, National Army, Air Force and Navy (Dominican Republic). Superior Military School, Superior Naval School and Military Aviation School (Ecuador). Ministry of Defence and Army (El Salvador). Polytechnic School of Guatemala. Military Academy, Military Aviation Academy and Faculty of Naval Sciences of the Military Aviation Academy (Honduras). Secretariat of National Defence and Secretariat of the Navy (Mexico). Army of Nicaragua. Ministry of National Defence (Paraguay). President's Office, Ministry of Defence, Air Force, Chorrillos Military School, Naval School, and Air Force Officers' School (Peru). Ministry of Popular Power for University Education, *Memoria y Cuenta del Ministerio del Poder Popular para la Defensa* (2011), Military Academy, Naval School, Military Aviation School and Training School of the National Guard.

Number of graduates from military schools and academies (2011)

Cadets from officer academies and schools in Latin America get their officer rank and get a bachelor degree or equivalent when they complete their studies.

Country	Army	Navy	Air Force
Argentina	162 graduates	83 graduates	77 graduates
Bolivia	210 graduates	57 graduates	56 graduates
Brazil	441 graduates	186 graduates	170 graduates
Chile	146 graduates	113 graduates	68 graduates
Colombia	308 graduates	126 graduates	142 graduates
Cuba	700 graduates	200 graduates	400 graduates
Dominican Republic	19 graduates	16 graduates	36 graduates
Ecuador	131 graduates	62 graduates	32 graduates
El Salvador		54 graduates	
Guatemala		85 graduates	
Honduras	49 graduates	19 graduates	11 graduates
Mexico	301 graduates	35 graduates	169 graduates
Nicaragua		38 graduates	
Paraguay		83 graduates	
Peru	301 graduates	82 graduates	38 graduates
Uruguay	51 graduates	15 graduates	11 graduates
Venezuela*	200 graduates	128 graduates	72 graduates

* 103 graduates from the National Guard.

Exchange programmes

All officer military academies in the region allow for exchanges with other schools in Latin America. By way of example, in 2011 the Higher Military School of Ecuador sent 2 cadets to complete their career at the Military School of Chile.

Also, in the officer graduation (2011) of the National Military Academy (*Colegio Militar de la Nación*) in Argentina, 1 Ecuadorian and 2 Paraguayan cadets were present.

Other schools have exchange programmes with other countries of the hemisphere. For instance, the Peruvian Navy sends to Annapolis Navy Academy (USA) a total of 40 officers, in addition to 3 completing their education process and two recently admitted candidates (2012).

Education

Besides their military rank, cadets/candidates get a civilian equivalent degree. To that end, they go through an education process that breaks down the curriculum into two areas: academic and military training. The first is taught by civilian and military professors, while military education is mainly given by military personnel on active duty assigned to that end.

Also, some colleges welcome national and international experts who give classes or lectures in their specialization area. For example, the National Military Academy (Argentina), Military School (Chile) Polytechnic School (Guatemala), Higher Centre of Military Studies (Nicaragua). This is mandatory at the Military Academy of the *Agulhas Negras* (Brazil). In other cases, this practice is not usual.

School requirements and conditions

Young men and women who wish to enter the military academies and schools in the region should either be native or naturalized citizens of the relevant country. Furthermore, among other requirements, they must be single.

In all cases, they must pass an academic and physical admission exam. At the Military Academy of *Agulhas Negras* (Brazil) there is a preparatory course at the Army Cadets Preparatory School that takes one year.

Because of the type of education they provide (comprehensive), these schools have a boarding system, allowing weekly or bi-weekly leaves, depending on each case. Some schools give cadets the opportunity to take courses at universities and external centres. Chile (Universidad Diego Portales) and Colombia (Nueva Granada Military University) are some of these examples.
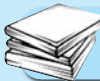
Schools allow for the entry of professionals, provided that they complete a training period that may take from 4 months to 2 years, depending on each case. Once completed, they join the officer corps as professional officers/warrant officers, depending on the denomination given by each country.

Disciplines most commonly required are the areas of medicine, dentistry, nursing, veterinary medicine and law, among others.

Source: Information provided by the Ministry of Defence of Argentina, Air Force of Uruguay, Military Aviation School of Bolivia. National Military Academy (Argentina). Navy, Army Military School and Military Aviation College (Bolivia). Planalto, Navy, Military Academy, Air Force Academy (Brazil). Ministry of Defence, Army, Navy, Air Force and Military School (Chile). Incorporation Headquarters of the Military School, Naval School and Air Force School (Colombia). Defence web page (Cuba). Ministry of Defence, Superior Military School, Superior Naval School and Military Aviation School (Ecuador). Ministry of Defence and Army (El Salvador). Press Department of the Ministry of Defence (Guatemala). Military Academy, Military Aviation Academy (Honduras). Secretariat of National Defence and Secretariat of the Navy (Mexico). *Memoria del Ejército de Nicargua* (2011). Ministry of Defence (Paraguay). President's Office, Ministry of Defence, Air Force, Chorrillos Military School, Naval School, and Air Force Officers' School (Peru). State Secretariat of the Armed Forces, National Army, Air Force and Navy (Dominican Republic). Army and Human Resources of the Navy (Uruguay). Ministry of Popular Power for University Education, *Memoria y Cuenta del Ministerio del Poder Popular para la Defensa* (2011), Military Academy, Naval School, Military Aviation School and Training School of the National Guard.

Main institutions with a Defence Course Offering

Country	Institution
Argentina	* National Defence School * "Teniente General Luis Marìa Campos"War College * Intelligence Institute of the Armed Forces * Argentine Joint Peace-keeping Training Centre • University of La Plata • Torcuato Di Tella University
Bolivia	* University for Strategic Research in Bolivia (UPIEB)-Ministry of the Presidency - Ministry of Defence and Ministry of Government * National School of Higher Education Studies "Coronel Eduardo Avaroa Hidalgo" * Centre for Peacekeeping Operations of the Bolivian Army (COMPEBOL)
Brazil	* War College * Joint Centre for Peacekeeping Operations in Brazil • Universidad Estadual Paulista, Universidad Estadual of Campinas, Catholic University of São Paulo"
Chile	* National Academy of Political and Strategic Studies * Army War College * Joint Centre for Peacekeeping Operations • Pontifical Catholic University of Chile • University Andrés Bello
Colombia	* War College • Military University Nueva Granada
Cuba	* National Defence College • Raul Roa Garía Institute of Higher International Affairs Studies • Defence Information Centre
Dominican Republic	* Graduate School of Higher Security and Defence Studies * Graduate School of Human Rights and Humanitarian International Law
Ecuador	* The Peacekeeping Unit School "Ecuador" (UEMPE) • Institute of National High Studies
El Salvador	* College of High Strategic Studies
Guatemala	* Ministry of Defence (with the guarantee of San Carlos University, University Francisco Marroquín and Panamerican University) * Superior Command of Education of the Army • Security in Democracy • ESTNA Centre (Foundation for the Institutional Development of Guatemala)
Honduras	* National Defence College • Honduras Documentation Centre (CEDOH)
Mexico	* Centre for Superior Naval Studies * National Defence College
Nicaragua	* Nicaraguan Army
Paraguay	* Institute of Higher Strategic Studies * Joint Peacekeeping Operations Training Centre. • Metropolitan University of Asunción
Peru	* Centre for Higher National Studies * Joint Training Centre for Peacekeeping Operations (CECOPAZ) • University Alas Peruanas • Catholic University of Peru
Uruguay	* High National Studies Centre * Military College of Higher Studies
Venezuela	* Bolivarian Military University of Venezuela * Institute for High National Defence Studies

Source: Information supplied by the above mentioned institutions.

• Public or private institutions that do not fall under the Ministry, the Secretariat of Defence, or the Armed Forces.
* Institutions that report to, or are related to, the Ministry, the Secretariat of Defence or the Armed Forces.

Analysis:

Military Education as an Agent of Innovation

Claudio Fuentes Saavedra
Diego Portales University. Chile

Military training institutions should serve as transformation agents. However, the bureaucratic and institutional weight and aversion to innovation are the major obstacles to such purpose. The following paradox arises: the hierarchical order of military institutions provides ideal conditions for reform; however, at the same time, the bureaucratic and cultural context that prevails in these institutions causes a strong resistance to promoting innovation.

This paper is intended to answer three questions: Why is it necessary to promote reform in professional military education? What general guidelines should be considered in such reform? And why is it so difficult to try out institutional changes, particularly in Latin America? My conclusion will address the necessary conditions to implement such a reform.

Why is it necessary to implement a reform? Regulatory and context-driven reasons actually make it essential to implement a professional military education reform. On the regulatory side, it is fundamental to link the democratization of Latin American countries to the changes that all the State institutions must implement to respond to the new democratic context.

From the global perspective, since the end of the Cold War, the world has gone through huge transformations in its security-related dilemmas. While inter-state conflicts decline, intra-state disputes seem to arise. The international community acquires greater protagonism in conflict prevention and the concept of "responsibility to protect" as guiding principle in international relations starts to become the focus of discussion.

Non-governmental players, including the communications media, gain greater relevance in the supervision of State actions in dispute-related matters. More respect to international law is requested, and greater sensitivity is expected on the part of the States towards citizens who are more aware of their rights. The possibility of tracking conflicts in almost live mode creates the need

to strengthen some ethical behaviour by the parties to the conflict.

In Latin America, the adaptation of the armed forces to the new democratic context has often been slow and difficult. Legal frameworks guaranteeing the autonomy of the armed corps and corporate institutional cultures have blocked discussions and the permanent update of the educational curricula and objectives at military institutions. Social urgencies have often prevailed among civilians' concerns, postponing or limiting "military" matters to an exclusively military realm.

However, the military reform (and that of education in particular) also seems crucial due to a sociological reason. In many of our countries, military institutions have a strong social impact as a means for social mobility for the middle and low-class sectors of the population. If military education theoretically has an "equalizer" effect, then we should be more concerned.

Although it is not their main goal, the armed forces have secondary effects on innovation and technology, organizational development, professional training, and even relevant social impacts. They may surely be mechanisms for social innovation (by enabling social mobility) but they could also reproduce the existing social inequalities.

What direction should reform take? Undoubtedly, training for war constitutes the basic goal of any military institution. But in a world where war conflicts are less and less frequent, where the armed forces are increasingly participating in multinational instances, and where many countries are in fact dismissing their hypotheses of conflict with nearby neighbours, military education becomes more complex. Issues related to strategy, crisis management and interoperability, among others, gain more significance.

Moreover, living in societies undergoing significant social and cultural changes poses other types of challenges. In Education, the respect for individual rights, multi-

ethnic dialogue, the gender dimension, sexual diversity, tolerance, non-discrimination, religious pluralism, etc. are among some of the new challenges. Military training cannot be absent from the social transformations of our countries and from those transformations in which the equality of rights and the recognition of identities are the centerpiece of discussions.

If we want our military institutions to be a mirror of our society, military education should be equalizing in nature. Its institutional culture and values should be neutral to social class, gender, religion and ethnic origin. In the medium term, even the make-up of officers should not represent a single social class but rather the social mix that prevails in our nations.

This is achieved by implementing a continuous education system and introducing mainstream objectives in the curricula and daily military practice. Military training should take place in the classroom but should also apply to social behaviours, rules of coexistence, informal relationships, promotion rules, socialization mechanisms, among others. In this sense, it is crucial to have a substantial revision that goes beyond checking the educational curricula of the courses taught at military academies.

Why is it so hard to change? At the beginning of this paper, I stated that the hierarchical structure of military institutions appears as the optimum framework for reform. Due to their "closed" nature, the pyramid alteration of military institutions greatly facilitates innovation. However, I also pointed to the strong resistance to change. This aversion to introducing substantial innovations derives from sociological reasons, which are typical of complex bureaucratic institutions, and which transcend the armed forces, since other civil organizations are also faced with the same dilemma (ministries, diplomatic corps, universities, etc.).

This phenomenon is caused, among other things, by explicit rules which shape the organizations' actions. As the institution becomes more complex, it will become increasingly difficult to change such rules. These codes initially reduce transaction costs and uncertainties, and provide pre-established criteria. Additionally, players assimilate these codes, making them part of their routine. As time goes by, the bureaucratic institutional dynamics comes to life and changes in the environment do not favour institutional adaptation. The usual justification to preserve those codes, practices and routines is simply: "that's the way things are done".

Other events also contribute to maintaining the sta-

tus quo. The members of these institutions feel they are not understood by their entourage. They perceive that neither society nor the political system appreciates or understands the work they do. In the case of the military, the profession becomes so specialized that the view that "only the military can understand and address military issues" prevails. This conception is often shared by civilians, who think that military matters must be managed by the military. Despite the social impact that the armed forces may have on society, the definition of policies and reforms in the sector is decided by a group of experts -usually military people- failing to open up the debate to other players in society.

So far, I have argued that it is necessary to adapt military institutions to a changing national and global context. This means reviewing and adapting the training curricula, the internal procedures, the rules of internal coexistence and even the informal practices at military institutions. The direction that this change should take is the continuous military education (throughout the career), inside and outside the classroom, with mainstream objectives, which allow for adapting to the demands of an open society. Then, what conditions would be necessary for such a change?

First, such a reform will not be possible without the engagement of military institutions. The armed forces should perceive this reform not as a threat but as an opportunity for innovation. Second, the transforming effort should be implemented in stages, in a progressive and gradual manner so as to assess the impact in the short and long terms.

The creation of a comprehensive educational reform plan is crucial, but it should probably be implemented in stages. Third, this type of initiatives should be addressed not by military institutions but by the Ministries of Defence of each country. Ministries should develop a military education reform plan for military institutions, which is coherent and operational to the respective forces. Fourth, the reforming efforts in the sector of military education should also be consistent with the debate on educational reform of each nation.

In summary, major hurdles do exist in Latin America which prevent military education from being an agent for innovation. The main thrust for reform should come from political authorities through the Ministries of Defence. The direction that the reform should take calls for adapting the military institutions to a changing global and social context.